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CENTER FOR POPULATION STUDIES

DEMOGRAPHIC AND SOCIO-ECONOMIC DETERMINANTS OF ANTENATAL CARE SERVICE UTILIZATION IN BURAYU TOWN, OROMIA, ETHIOPIA

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DECLARATION

By signing this document, I certify that the thesis, "Demographic and Socio-economic Determinants of Antenatal Care Service Utilization in Burayu Town, Oromia, Ethiopia," is entirely original with no previous submissions made for the purpose of receiving any academic degree or credential. I further declare that no chapter of this thesis has been entirely or partially taken from any prior work. I have done or that has been done by others rights of the participant to remain anonymous and to withdraw from the study without consequence.

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Approval Sheet

This is to certify that the thesis prepared by Mr. Dinka Geleta Busa entitled "Demographic and Socio-economic Determinants of Antenatal care Service Utilization in Burayu town, Oromia, Ethiopia", and submitted in partial fulfillments of the requirements for the degree of masters of science in population studies (Reproductive Health) complies with the regulations of the university and meets the accepted standards with respect to the originality and quality.

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Chief Department or Graduate Program Coordinator

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DEDICATION

To My Life's Love, Telile Getaneh

And

The Greatest Gift From God To Me Is Debi Dinka.

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ACRONYMS AND ABREVIATION

AOR	Adjusted Odds Ratio
ANC	Antenatal Care
CIA	Central Intelligence Agency
CI	Confidence Interval
CSA	Central Statistical Agency
EDHS	Ethiopian Demographic and Health Survey
ICPD	International Conference Population and Development
ICF	International Coaching Federation
MDG	Millennium Development Goal
MMR	Maternal Mortality Rate
SPSS	Statistical Package for Social Science
UNFPA	United Nation Population Fund Agency
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nation Children's Fund
UN	United Nation
WHO	World Health Organization

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ABSTRACT

Although the utilization of antenatal care services has increased in Ethiopia, the majority of mothers still do not use the minimum of four visits and the six basic ANC services that the World Health Organization (WHO) recommends. As a result, the study's goal was to look into the demographic and socio-economic factors that influence how often antenatal care services are used in Burayu, Oromia, Ethiopia. About 422 mothers who had children within the previous five years were the subject of a cross-sectional study. SPSS version 23 was used to enter the data. The factors influencing the outcome variables were identified using binary logistic regression, multivariate logistic regression models. Accordingly, 61.8% of the 422 mothers who participated in the study attended four or more ANC visits. Women who started their antenatal care visits earlier, women's occupation, household income, healthcare providers who saw the women during those visits, and family support all had higher odds of receiving at least 4+ visits compared to the reference categories in a multivariate logistic regression analysis of the factors determining the frequency of ANC visits. Their respective odds ratios were women who were early starters of ANC visit (AOR =16.031; 95%CI: 3.088-83.228), working women's (AOR = 2.548, 95% CI: 1.445–4.494), household income (AOR = 1.901; 95% CI: 1.011–3.575), professionals who saw women during antenatal care visits (AOR=9.063; 95%CI: 1.118-73.788), family support (AOR=2.846; 95%CI: .989-8.186). In Burayu town, there have been moderate and severely low levels of compliance with the minimum suggested ANC visit (4+ visits). To raise women' knowledge of the value of antenatal care and to enhance the scope and substance of ANC services in Burayu, health promotion activities are essential.

Keywords: Antenatal Carey, Utilization, Burayu, Oromia, Ethiopia

CHAPTER ONE

1. INTRODUCTION

1.1 Background Information

The World Health Organization's 2016 antenatal care (ANC) recommendations for a pleasant pregnancy experience place a priority on person-centered healthcare, the wellbeing of women and families, and favorable perinatal and maternal outcomes (WHO, 2018).Antenatal care is a series of scheduled examinations and observations for women from conception to delivery. It also includes the care of a pregnant woman's unborn child throughout the course of the pregnancy. As a result, regular visits to a doctor or midwife for abdominal checks are required(Ehlers, 2000).To detect disease or potential problems, blood and urine tests are performed, as well as blood pressure and fatal growth monitoring. All pregnant women should have a minimum of four antenatal check-ups at regular intervals, according to the WHO (at the fourth, sixth, eighth and nine months of pregnancy) within the first 12 weeks of pregnancy, the first of these occurred(Ouma & Otieno Asweto, 2017) However WHO now advises a minimum of eight visits to improve neonatal outcomes and give a more positive and women-centered experience for clients, according to a recently released paper(WHO, 2018).Women should receive services and a general health check-up during these appointments. Only 52 % of pregnant women in underdeveloped nations, where maternal mortality is fourteen times greater than in high-income countries, obtained the recommended number of antenatal care visits in 2014 (United Nations, 2015). In 2016, around 80% of pregnant women in Sub-Saharan Africa attended at least one antenatal care appointment, and 52% of pregnant women had the recommended number of four antenatal care sessions(Protection et al., 2016). Only three out of five women (62%) attended at least four ANC visits, according to the 2018 Global Report. Only 52% of women in areas with high maternal mortality, such as SSA, had at least four ANC visits(UNICEF, 2019).

In Ethiopia, maternal mortality remains one of the country's most serious public health issues. Lack of basic maternal healthcare, difficult geographical terrain, poorly developed transportation and communication systems, poverty, illiteracy, women's low social status, political conflict, and a shortage of health care professionals, as well as underutilization of currently available services, are all major obstacles to improving maternal health in Ethiopia. Improving health facilities, mother's nutrition, and women's status in society, such as freedom of movement, education for female children,

and incorporating Traditional Birth Attendants into local health services, can all help to enhance mothers' health. Maternal mortality is one of the most important indicators of the state of reproductive health care service delivery and utilization, but it can also be a reflection of women's social position. Maternal mortality, which is currently on the international health agenda as a source of worry, remains one of the most critical public health issues. Using data from the nationally representative 2016 EDHS, the goal of this study was to evaluate variables related to the use of at least 4 ANC services in Ethiopia. This study comprised 7,167 moms who gave birth within the five years prior to the 2016 EDHS and whose complete information was available in the survey. 2,598 (36.2%) of the women have used at least four ANC services in Ethiopia. According to the current study's findings, women with medium and wealthy household wealth indices were more likely than women with poor household wealth indices to use at least four ANC services. Women with household wealth indices of moderate to high levels were more likely to be able to pay for care-seeking expenses including travel, prescription drugs, and any related expenses (Basha, 2019)

Maternal mortality and morbidity are a major barrier to human growth around the world. Almost all maternal deaths occur in nations with a low or middle income. Various authors have demonstrated that antenatal care improves mother health, lowering maternal and newborn morbidity and death (Mathe, 2017a) Antenatal care visits should be scheduled monthly for the first seven months, fortnightly in the eighth month, and then weekly until the baby is born (Magadi et al., 2000). The first visit is usually scheduled for the third month of pregnancy. Women would have roughly twelve to thirteen antenatal appointments during a pregnancy if this was the starting point(WHO, 2018). During antenatal care, a variety of variables are checked, including blood pressure and the baby's heartbeat. Women in many developing countries, on the other hand, do not visit antenatal clinics on a regular basis.

As evidenced by several national and international conferences addressing antenatal care issues, national governments and the international community are interested in tackling the challenges of poor antenatal attendance (WHO & UNICEF, 2003). Botswana's government joined the rest of the globe in signing the Plan of Action in accordance with the ICPD's guidelines (international conference on population and development). The Action Plan signified a dramatic paradigm change away from a demographic-driven focus on family planning and toward a health-driven focus on sexual and reproductive health (.(Madhavi et al., 2013) Women are empowered to consider their abilities to control their health issues, rights, and needs through the reproductive health program, which has been at the forefront of many such meetings and conferences, including the UN Decade for Women

(1976-1985), the World Women Conference in Beijing in 2005, and beyond (WHO & UNICEF, 2003).

The use rate is still low due to a number of reasons that need to be investigated, such as socio-demographic factors and social support knowledge. They come to the conclusion that removing such barriers is critical to increasing women's engagement in optimal antenatal care. Ethiopia is one of the countries in Sub-Saharan Africa with one of the worst maternal death rates (MMR). MMR is 420 per 100,000 live births, according to the Ethiopian demographic health survey (EDHS) 2016 report. In 2011, according to an Ethiopian demographic health survey report, 34 % of women received antenatal care, ranging from urban (76%) to rural (26%) women. The age of the mother and her husband's attitude toward antenatal care usage had a substantial impact on antenatal care service use. Through problem detection and treatment, promotion of health seeking behavior, and preparation of pregnant women for birth, optimal antenatal care use is a critical intervention to prevent these deaths. The primary goal of this research is to determine the most important socioeconomic and demographic variables of optimal antenatal care service use in Burayu, Oromia, Ethiopia. As a result, this research will have ramifications for women of reproductive age (15-49) and this information is crucial for policymakers and program administrators to detect gaps in antenatal care utilization and devise measures to boost service utilization.

1.2 Statement of the problem

Women are the ones who are most accountable for the family's well-being. Because women's health has an intergenerational influence, and hence plays a vital role in shaping the health of future generations. The usage of antenatal care services is ineffective. This is because difficulties during birth and pregnancy-related deaths have been reported in some impoverished nations. According to 2016 WHO guideline, eight ANC visits are suggested to decrease pregnancy-related problems and maternal death; however Ethiopia only has four visits (WHO, 2018).

According to the 2016 Ethiopian Demography and Health Survey (EDHS), 62 % used antenatal care services, with only 20% received their initial antenatal care in the first trimester. Only 32% of pregnant women received four antenatal care visits (Ethiopia, 2016).Every year, 303,000 mothers die from complications during pregnancy and childbirth around the world, with 99 % of these deaths

occurring in Sub-Saharan Africa and Southern Asia GW(Basha, 2019) and (Mary Ross-Davie JL, Brigante L, Living Stone C, et al., 2020).

In Sub-Saharan Africa, particularly Ethiopia, maternal mortality during pregnancy or within 42 week of termination of pregnancy is still high (Ayalew & Nigatu, 2018). According to the Botswana Family Health Study IV, 26.7 percent of women had received antenatal care in the five years before to the survey. Women from Addis Ababa were the most likely to use antenatal care, with 85 percent, followed by women from metropolitan areas (63.4%) and rural areas (21.6%) (UNFPA, 2004). Maternal age, education, and parity, for example, have all been studied as factors of health-care utilization on numerous occasions(Mathe, 2017b) (Ekeroma, 1999 and UNFPA, 2004).

According to previous research conducted in Ethiopia, 36.78 percent of women received at least four ANC visits during their last pregnancy (66.93 percent urban, 28.41 percent rural). Addis Ababa (89.33 percent) had the largest number of antenatal care visits, followed by Dire Dawa (65.15 percent) and the Tigray Region (55.83 percent)(Tegegne et al., 2019). The maternal mortality rate in Ethiopia, on the other hand, was predicted to be 420 deaths per 100,000 live births, according to the 2016 EDHS. The majority of these deaths happen unexpectedly during or shortly after childbirth [(Ethiopia, 2016)].

Despite the country's objective of reducing maternal mortality to 199 maternal deaths per 100,000 live births by 2020 based on recommendations made with the goal of the reproductive health program, the rate remains high ((Ethiopia, 2016)). This gap must be investigated in order to assure an increase in maternal health care use among mothers by finding independent variables impacting antenatal care utilization, resulting in a decrease in child mortality and an improvement in maternal care. The majorities of prior studies on antenatal care service usage determinants were community-based and focused on general women of reproductive age. Until today, little was known about the demographic and socio-economic factors that influence optimal antenatal care service use. Understanding the factors that determine the use of optimal antenatal care services is therefore crucial for countries like Ethiopia that have a public health policy aimed at lowering maternal mortality. There has been no study conducted so far to assess the factors that influence antenatal care service utilization and the cause of mother do not fully attended antenatal care visit according to World Health Organization recommendation in this particular Burayu Town in the Oromia. Therefore the results

of this investigation may fill in the knowledge gaps and weak supporting data found in other scientific works. The outcome of this study may also be used to develop strategies for giving maternal healthcare top priority.As a result, this research will aid in determining the most relevant demographic and socioeconomic drivers of optimal antenatal care service use. The goal of this study is to determine the demographic and socio-economic factors that influence the use of optimal antenatal care services in Burayu Town, Oromia, Ethiopia.

1.3 Research Questions

- What are the statuses of antenatal care services in Burayu Town?
- What are the demographic determinants of antenatal care services in Burayu Town?
- What are the socio-economic determinants of antenatal care services in Burayu Town?

1.4 Objectives of the Study

General objectives

The study's main objective was to discover the most important demographic and socio-economic factors that influence the use of maternal antenatal care services in Burayu Town, Oromia, Ethiopia.

Specific objectives

- To assess the status of antenatal care services in Burayu Town.
- Identify the demographic determinants of antenatal care service in Burayu Town.
- Examine the socio-economic determinants of antenatal care services in Burayu Town.

1.5 Significance of the study

The goals of the International Conference on Population and Development (ICPD 10), the World Health Organization (WHO), and the United Nations Children's Funds (UNICEF), Conference on Women, and Sustainable Development Goal indicator, which focuses on improving maternal health care, are all aligned with the findings of this study. The goal of this study was to determine the levels and trends of antenatal care service use, as well as the demographic and socio-economic characteristics that influence mother antenatal care service use. The purpose of the study was to identify the variables that prevent women from seeking antenatal care so that solutions can be devised. The study provides a comprehensive body of knowledge that can be used to develop suitable policies and allows responsible authorities to develop programs that promote the use of antenatal care services. The findings of this study will be served as a reference for health care providers and others who are concerned to intervene appropriately, as well as for conducting further research. The findings of this

study are important for health care providers because it will serve as a baseline for filling gaps in current antenatal care practices.

1.6 Scope and Limitation of the Research

In relation with the objectives of the study, the scopes of study are: The study relies on data from women aged 15 to 49 who had at least one child in the previous five years. The study was be conducted at Burayu Town, Public Health Facility. Questionnaire prepared and interview was conducted with the pregnant women who attending ANC in the health facility.

The following are some of the study's limitations:

- Its goal is to investigate the socioeconomic and demographic factors that influence the usage of antenatal care services.
- Is study's cross-sectional design omits consideration of the cause-and-effect relationship. As a result, the results must be interpreted carefully.

1.7 Definition of Terms

Utilization

It refers to antenatal services provided to pregnant women for the purpose of monitoring and examining their fetus, such as checking blood pressure, weight, fetal condition, and deworming.

ANC Services

It refers to the examination and monitoring of pregnant women from conception to delivery.

1.8 Organization of the Paper

There are five units in this essay. Background information, a problem statement, the study's purpose, its significance, its scope, and its limits are all included in the first unit. The second section covers pertinent theories, concepts, and prior research that are crucial to the topic. The third item covers the methodologies used, including data collection tools, sample strategies, data processing procedures, and the validity and reliability of the data. Data presentation, discussion, interpretation, and a summary of the main conclusions are all included in the fourth unit. The final section includes summaries of the primary conclusions, findings, and recommendations.

CHAPTER TWO

2. LITERATURE REVIEW

The goal of this section is to demonstrate what other researchers have done and published about the use of antenatal care. One of the major things that enable women to be aware of about their rights and health condition in order to seek appropriate health treatments is health literacy. A study conducted in various parts of the world revealed that a mother's level of understanding about ANC is critical. Gives a skilled doctor's probable estimate of the number of ANC encounters. The frequency of ANC visits by trained doctors was significantly influenced by a number of variables, including administrative divisions, the husband's education, religion, wealth index, and work status. Women in Barisal, Khulna, and Rajshahi divisions among seven administrative divisions had, respectively, 0.61 times (95 % confidence interval: 0.38–0.98; P = 0.042), 0.31 times (95 % confidence interval: 0.18–0.53; P 0.001), and 0.36 times (95 %CI: 0.21-0.61; P 0.001) lower odds of being contacted for ANC services by qualified doctors than women in Sylhet division. Additionally, women with more educated husbands were 1.88 times (95 % CI: 1.10-3.21; P = 0.020) more likely to receive ANC services from trained medical professionals than those with less educated husbands (Chanda et al., 2020)

Scholars like (Letamo & Rakgoasi Daniel, 2003)used secondary data from the Botswana Family Health Survey from 1996 in their analysis. The study looked at the factors that lead to women in Botswana not using maternal health services. Age, parity, education, marital status, socioeconomic level, and location of residence were all employed as independent variables in the study. This study differs from (Letamo & Rakgoasi Daniel, 2003) study, which focused on the factors that impact non-use of antenatal care service**s.** More than half of the ladies had no idea what would happen if they didn't get antenatal care. The literature on ANC, ANC utilization and factors related to ANC utilization was reviewed.

2.1 Conceptual of Literature Review

2.1.1 Definition of ANC

Asymptomatic pregnant women were first screened with ANC in the early 1900s with the intention of identifying and preventing both maternal and neonatal adverse outcomes (Dodd et al., 2014). According to the WHO, ANC (sometimes known as prenatal care) refers to services provided to expectant women by medical professionals (WHO, 2018). ANC entails keeping a record of medical

history, assessing each person's needs, and providing counseling on pregnancy and delivery. Additionally, it involves screening tests, instruction on self-care during pregnancy, identification of problems harmful to the health of the unborn child, first-line management, and referral as needed (WHO, 2018).

2.1.1.1 Significance of ANC

The goal of ANC is to help women regard pregnancy and childbirth as happy experiences by preventing, identifying, and treating illnesses that could endanger the health of the fetus, newborn, and/or the mother. It has been demonstrated that ANC plays a significant influence in enhancing pregnancy outcomes (Konlan et al., 2020)

2.1.2 The utilization of ANC

Having monthly prenatal checkups beginning in the second trimester was one way to define and measure it (Ibnouf et al., 2007). A different study also took into account using ANC as a way to contact a medical expert to monitor pregnancy (Beeckman et al., 2013). The paradigm of ANC in Western Europe, North America, and many other nations includes 12–16 visits by the pregnant woman to medical facilities as well as provider visits to the patient's home(Banta, 2003).

2.2 Theoretical frameworks for viewing factors related to ANC utilization

Following a review of the literature, several theoretical frameworks for analyzing variables related to the use of health services emerged, including the Precede-Proceed Model (Martin & Nahar, 2017), Economic Choice Model (McFadden, 2001), and Behavioral Model of Health Services Use (Andersen, R; Newman, 1973). The next sections will discuss each model's application.

(*Figure 1. The PRECEDE - PROCEED (Modified from Green and Kreuter, 1999)*, 1999) created the Precede - Proceed Model to assist health educators in assessing all aspects involved in the planning of large-scale health programs. The model aims to explain how environments and behaviors affect health, as well as to design and assess the interventions required to change both behaviors and the surroundings that affect them and their effects (*Green and Kreuter, 1999*). The Precede-Proceed Model was given that name since it was used in conjunction with implementation and evaluation. Four planning phases, one implementation phase, and three evaluation phases make up the Precede-Proceed planning paradigm (*Green and Kreuter, 1999*). Including the key three elements, educational and ecological diagnostics was the name of this model's third phase i.e., predisposing factors, reinforcing factors, and enabling factors which were popular to use in identifying the factors related

to health behavior. Knowledge, attitudes, beliefs, individual preferences, current skills, and self-efficacy with regard to the intended behavior change are predisposing factors. Factors that reward or reinforce the desired behavior change are referred to as reinforcing factors. Examples include social support, financial incentives, and shifting social standards. Skills or physical conditions, such as the availability and accessibility of resources or services, can operate as enabling variables to help people modify their behavior (*Green and Kreuter, 1999*).

This model was used as a conceptual framework in earlier studies to identify factors related to ANC services with three components, namely predisposing factors such as socioeconomic status, knowledge, attitude toward health care services, and reproductive health history; enabling factors such as distance, convenience of transportation, travel cost, medical fee, duration of waiting time, and satisfaction with service; and reinforcing factors such as source of information and support (Agus & Horiuchi, 2012). This model's fundamental assumption is that the client's level of engagement directly correlates to the degree to which health education is dependent on their voluntary cooperation and participation in a process that allows them to choose their own behavioral habits. As a result, this model views adequate health education as an intervention for a target population's properly diagnosed condition (*Green and Kreuter, 1999*).

The Economic Choice Model, created by McFadden, was another model that served as a theoretical framework for examining issues connected to the consumption of health services. This approach made the assumption that all decisions entailed choice to some extent. People made decisions between various options; commuters selected between alternate routes and modes of transportation, while consumers made decisions between competing products based on factors like price, quality, and quantity. Human decision-making is undergirded by rationality, and this process has a useful structure. Depending on the behavioral setting, a certain functional form may be chosen as a contender to model that behavior(McFadden, 2001).

2.2.1 Demographic Related Factors for ANC

Sharma (2004) asserts that empowered women can stand up for their rights and make informed health decisions. When rape resulted in pregnancy. The psychological aspects of what occurred will cause the pregnant ladies to be unable to accept what occurred. It would lead to denial of reality, as well as non-attendance at antenatal care appointments (Ehlers, 2000).

Attendance at antenatal care services was highly linked to age, education, income, and family type.(Pandey et al., 2013) Mother's age, mother's level of education, mother's place of residence

(rural and urban), mother's religious affiliation, and mother's marital status were identified to be factors influencing women's use of antenatal care services (T. Phani Madhavi, Steve Varghese Mathew, 2013).

In the economic, political, health, and social spheres, education aids men and women in asserting their rights and realizing their potential. Education boosts women's autonomy and decision-making power in the home, as well as their confidence and ability to make health-related decisions (Ononokpono, 2015) and (Gupta & Talukdar, 2017)

Antenatal care services may not be suitable for teenagers, and health professionals' attitudes toward them may be negative. In Lesotho, the majority of antenatal care service providers provided services regardless of the age of the antenatal mother, which is likewise the case in Botswana (Kasabiiti, 2004). Providing antenatal care to all women of various ages may be beneficial to health care providers, but it may be detrimental to the expectant adolescent mother who may find herself in the hospital. According to the Factors Affecting the Utilization of a Minimum of Four Antenatal Care Services in Ethiopia study's findings, women with medium and wealthy household wealth indices were more likely than women with poor household wealth indices to use at least four ANC services. Women with household wealth indexes of medium and high were more likely to be able to cover care-seeking expenses like travel, medicine, and any other related charges studies (Basha, 2019).

2.2.1.1 Birth Order

With respect to birth order, several researches reveal a considerable negative correlation between birth order and the usage of maternal health care services. One study in Turkey (Modin, 2002)indicated that women who delivered their first child were found to be considerably more likely to use prenatal care and skilled support during the birth than women in the upper rank. Another study conducted in metropolitan regions of the Philippines found that as the number of children aged 0 to 6 years old rose, fewer people were selecting either public or private modern health care facilities over traditional care (Gadsden et al., 2016).

. There are perhaps, three probable causes for this. First of all, women who were expecting their first child were more cautious about their pregnancies and sought qualified professional aid. Second, when the number of children born each year rises, mothers may start to question the value of contemporary healthcare and start to rely more on their lifelong experiences and acquired wisdom. Thirdly, a higher birth order predicts a larger family, which would reduce the time and financial

resources available to seek out formal medical care. The use of MHC services by women is based on the number of living children. The mobility of women is more constrained the more children they have at home. This is particularly troublesome when clinics discourage women from bringing young children because they must be left unattended in the waiting room throughout the inspection. Predicted prenatal care ratings were lower among women who had more living children at the time of their pregnancies than among other groups (Babalola & Fatusi, 2009). As a result, women who have more children alive are less likely to need MHC services. Higher parity women or mothers with more live children are typically those who have tiny birth intervals so as birth interval also have associated effect on use of MHC services.

2.2.2 Socio-Economic Status related Factors

The most important factors influencing whether mothers received the WHO-recommended ANC item were mothers' educational status, their pregnancy's acute illness, their distance from a health care facility, and their planned pregnancy (Deressa & Regassa, 2021). In 2020,Biaye et al.(Biaye et al., 2020) Every woman must do an ANC1 during the first trimester of pregnancy in order to meet our definition of completion, which is the achievement of four ANCs in accordance with criteria (qualitatively and on time). We were unable to establish a statistical association between ANC precocity and ANC completion in our study as a result of this. Use of antenatal care services is strongly correlated with the expectant woman's religious affiliation. Compared to women with average monthly family earnings over 1000 birr, those with monthly family incomes below 401 birr were less likely to attend both ANC and DC(Studies, 2020).

Particularly, compared to other religious groups, pregnant Christians were more likely to use antenatal care services. This may be explained by the tendency of Badimo and other groups (Ousman et al., 2019)) to live in tight communities, which restricts mothers' freedom to associate with other social groups. Overall, the study's findings show that socioenvironmental, socioeconomic, and demographic factors all have an effect on how frequently pregnant women use antenatal care facilities. Overall, education has a negative impact on fertility since educated mothers typically have fewer children, which results in a low population rise and a beneficial impact on the utilization of antenatal care(Kim, 2016) found that social support influences attitudes and behaviors, including happiness with pregnancy and parenthood. Pregnant adolescents with high stress and low social support networks have higher neonatal and obstetric issues than those with high stress and high social support networks (Kim, 2016); and(Address et al., 2002).

Early attendance at antenatal care clinics will aid in the detection of such stress and depression, leading in effective management of the problems diagnosed. Financial constraints have been identified as a key barrier to antenatal care attendance by several writers (Wilunda et al., 2017). While poor wealth may be a role, ethnicity may not be. Because 99.7% of the population is Basotho, other ethnic groups like as Europeans, Asians, Xhosas, and Zulus make up barely 0.3 % of the population. Services for antenatal care are available to everybody, regardless of ethnicity (Trinh, 2012). Some key variables reported to impede antenatal care attendance are the perceived high cost of antenatal care services in some countries and poor antenatal care service delivery.(Mathe, 2017b) made a similar observation in Nigeria (2006). However, in Nigeria, marital status had no effect on antenatal care attendance.

(Tekelab et al., 2019) was conducted a systematic review and meta analysis. This review included a total of fifteen observational studies. The prevalence as a whole In Ethiopia, 63.77 %(95%CI 53.84–75.54) of antenatal care services were used. The pooled odds ratio revealed a significant positive association between antenatal care use and urban residence (OR = 1.92, 95 %CI = 1.35–2.72), women's education (OR = 1.90, 95 %CI = 1.52–2.37), husband's education (OR = 1.49, 95%CI = 1.32–1.69), and planned pregnancy (OR = 2.08, 95 %CI = 1.45–2.98). According to narrative synthesis, exposure to the media, family income, and service accessibility were all highly linked to antenatal care utilization.

2.2.3 Antenatal Care Service Providers' related Factors

According to a study conducted by (Mathe, 2020), several women cited excessive waiting times at service providers' offices as a factor influencing their delay in or lack of antenatal clinic attendance. Inconvenient service hours and, on occasion, poor treatment by service providers (Kasabiiti, 2004). Pregnant teenagers, who can be impatient, may not be tolerant of this. Some nurses' judgmental attitudes toward pregnant women may have a negative impact on pregnant women's efforts to attend antenatal care services (Mathe, 2017b).

Antenatal care services should be affordable, functional, and accessible, as well as women-friendly and supervised by strict confidentiality (Mathe, 2017b) suggested that the environment in which women get services should be appealing to them, most likely by eliminating the "clinical" atmosphere frequently associated with hospital-based treatment .

2.2.4 Distance Related Factors

Another stumbling block may be the pregnant mother's distance from antenatal care provider. According to WHO, a distance of five to ten kilometers to the nearest health-care facility is preferable, as indicated by (Odwory et al., 2017). According to certain studies, the distance between antenatal care providers is related to the perceived effectiveness of the service delivery system. If the distance is reduced, the perceived effectiveness of the service delivery system improves (Kebede et al., 2021). Accessibility and availability are important issues when it comes to antenatal care use. Compared to moms who live in rural areas, most urban mothers were more likely to receive ANC. The absence of medical facilities in rural areas is one factor that could support the argument(Terefe & Gelaw, 2019).

Women may be put off by the time and money required to go to distant healthcare facilities. According to(Méndez, 2014), distance to healthcare facilities is important even in prosperous countries; women who live further away from antenatal clinics are less likely to use these services. According to(Khairkar, 2015)and (Dodd et al., 2014) distance was highly associated with antenatal care attendance. Increased distance or travel time to the nearest healthcare facilities was connected to fewer prenatal visits and lower utilization of antenatal care services (Matsumura & Gubhaju, 2001).

2.2.5 Access to Information

Women who are exposed to the media, particularly television and radio, are more likely to seek antenatal care. Mothers who were exposed to high amounts of radiation were more likely to seek antenatal care(Ousman et al., 2019) found that watching weekly health-related television shows significantly enhanced the likelihood of women seeking antenatal care.(Fatema & Lariscy, 2020) studies on the relationship between maternal healthcare use and media exposure in South Asia. In South Asia, a developing region characterized by inadequate maternal healthcare and high rates of maternal mortality, this study examines the relationship between mass media and maternal healthcare services during all three crucial stages of pregnancy. According to our findings, in all four South Asian nations, the use of maternal healthcare is positively correlated with the use of mass media.

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South Asian nations, the use of maternal healthcare is positively correlated with the use of mass media(Fatema & Lariscy, 2020).

2.2.6 Access and Availability of Antenatal Care Services by Residence

In their study found that access to the availability of health care services is likely to be greater in metropolitan regions. It was discovered that women in urban regions use more antenatal care than women in rural areas, which was related to the accessibility and availability of health care in metropolitan areas. However, in some nations, a different situation was discovered, for example, 45 % of women in Karnataka urban regions were less likely than those in rural areas to obtain antenatal care. In Andhra Pradesh, there was no substantial variation in the use of antenatal care between rural and urban areas (Mezmur et al., 2017).

2.2.7 Religion of the Mother

Because conditions varied and the techniques used to analyze them changed, it's unclear if religion and ethnicity play a significant impact in antenatal care utilization. Because of a lack of privacy. Muslim women are less likely to use reproductive and sexual health services including antenatal care, according to studies Mishra et al, 2008) For example, exposing one's legs and arms is a taboo for Islamic and other women(Al-Mujtaba et al., 2016). Despite their cultural beliefs, they use a lot of antenatal care (Chimatiro et al., 2018). Various women in some cultures do not seek antenatal care because they believe that contemporary healthcare is exclusively for curative purposes (Magadi et al, 2000). The utilization of antenatal care by mothers has been influenced by cultural ideas and myths about pregnancy. It would be useful to look into how concerns in Muslim and other cultures and beliefs can function as roadblocks.

2.3 Conceptual Frame work

The dependent variable is antenatal care service utilization, while the independent variables include socioeconomic and demographic parameters. Age, time, marital status, educational status, place of residence, husband educational status, ethnicity, religion marital status and wealth index are the socioeconomic and demographic variables that have to be considered due to their possible association with antenatal care service utilization.

Women's background variables such as age, time, marital status, educational status, place of residence, husband educational status, religion, ethnicity, and wealth index, among others, are important in determining whether or not to use optimal antenatal care services directly or indirectly, according

to the diagram. According to Anderson and Newman's model of health service utilization, access to and use of a particular health service is a function of three main characteristics which includes predisposing factors, enabling factors and need factors (R. Andersen & Newman, 2005).

Predisposing factors: These take into account the individual's socio-demographic and sociocultural features prior to their medical condition (pregnancy), which will allow them to use a health service (ANC) more frequently than others. Include biological imperatives such as age and sex, social factors such as education, occupation, ethnicity, and social links (e.g., family status), and mental factors such as health beliefs (e.g., attitudes, values, and knowledge related to health and health services).

Enabling factors: According to Anderson and Newman (1973), the enabling variables are the logistical aspects of health care consumption, which take into account the individual's occupational situation, financial level, availability of health services, long waiting times, distance, and so on.

Need factors: The most immediate source of health-care utilization is functional and health-related issues that necessitate the use of health-care services. This considers how people perceive their own general health and functional state, as well as how they experience symptoms of disease, discomfort, and health concerns, as well as whether or not they believe their problems are of sufficient relevance and magnitude to seek professional care (Andersen & Davidson, 2007.)

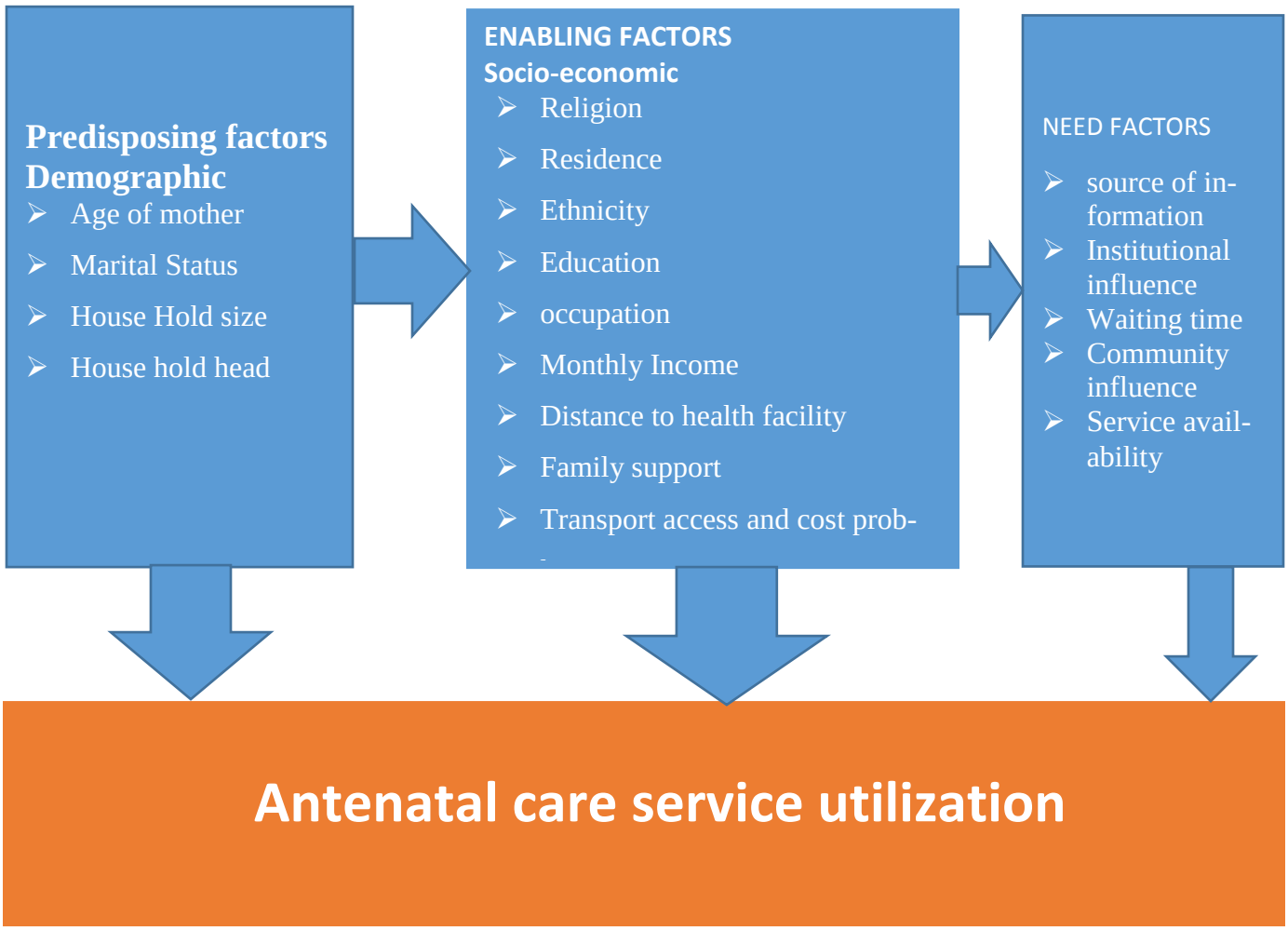

Figure 1: Conceptual framework of factors associated with ANC utilization

Source: Adopted from Andersen and Newman (1973)

CHAPTER THREE

3. METHODOLOGY

3.1 Study area description and period

It's a cross-sectional study done at a Burayu City health facility. Geographically, Borayu is a town located 12km away from the capital city, Addis Ababa. Administratively, it is a part of Oromia State that bordering with the similar Oromia towns in the four corners. Sebeta town in the south, Welemera district in the west, Sululta town in the north and 12 kilometers west of Addis Ababa(Bekele, 2014). Guje, Anne Dima, Burayu, and Hachalu governmental Health Center are among the town's six kebele (the smallest administrative unit in Ethiopia) . The population is predicted to be 250,700 people, with men accounting for 49 percent and women for 51 percent. At an elevation of 2400 meters above sea level, the area is located at 9°3'N and 38°30'E. (2019 Burayu town profile) Participants were chosen from the Burayu and Anne Dima health care center the study will run from February to June 2022. Population Size Burayu town had a population of 4,138 in 1984, 10,027 in 1994, 63,873 in 2007, and 100,200 in2010, according to the 2007 census (estimated). Burayu's town government reported that the town's population increased to over 150,000 in 2014, indicating that the town is fast expanding. This, the town's rapid population increase, has influenced the town's population by producing uncertainty or inflation, inhabitants' fundamental requirements, and a scarcity of fresh food and other agricultural commodities.

Socio-Economic Aspects Burayu town, in pursuit of work and a living, followed the trade route and became a key hub for trade and small-scale industry. The town is a major distribution center for products produced locally by a variety of companies, and it is densely populated with tourists, with numerous hotels, restaurants, pubs, and cafes (Burayu Town Communication office, [BTCO], 2019.

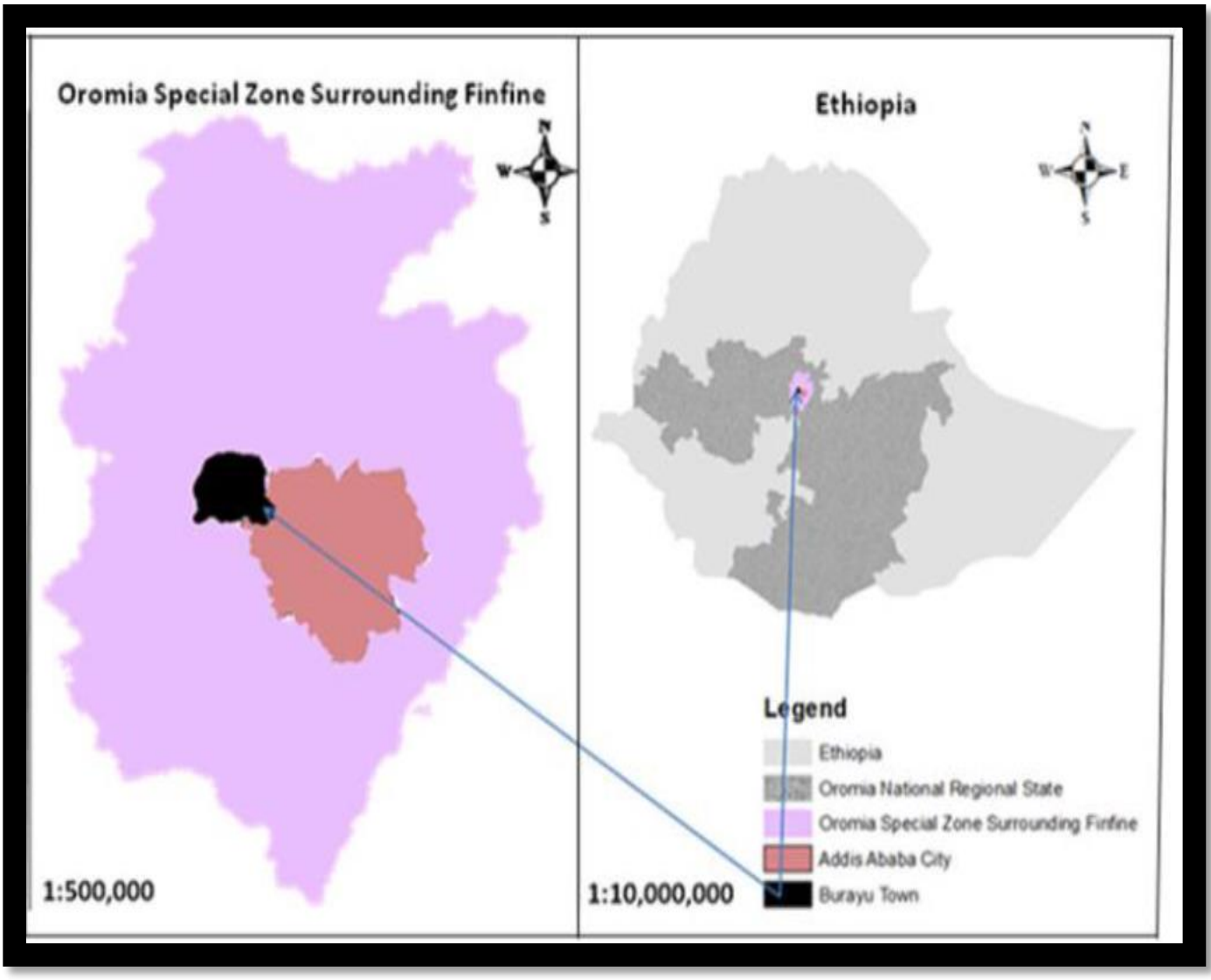

Figure 2: Geographic Location of Burayu Town in Ethiopia, 2021.

Source; *Causes and Remedy of Squatting in Burayu Town, Ethiopia*

3.2 Study design and approach

A cross-sectional study was carried out at a specific health center in Burayu City to look into the factors that influence the frequency and quality of ANC among moms who gave birth in the previous five years.

Cross-sectional studies give a ‘snapshot' of an outcome and its related factors at a specific point in time (Levin, 2006). Because the goal of this study was identified factors linked to ANC service utilization, a cross-sectional study design was used, as it allows data on individual characteristics were collected at the time of the study, as well as information on the outcome and the relationship between individual characteristics and the outcome of interest. To attain the aims and answer the study questions, a quantitative approach was used. A semi-structured questionnaire that include the respondents' demographic profile, knowledge of ANC services, and level of ANC utilization.

3.3 Source Population and Study population

Source Population

The source population for the study was all the pregnant women attending antenatal care in the selected health facility.

Study population

Study population was the representative number of women who were reproductive aged between 15-49 years, who had delivered their babies within five years and present at the selected maternal antenatal care service provision health facility or selected antenatal clinic during data collection.

3.4 Inclusion and exclusion criteria

Inclusion criteria

In order to avoid bias and acquire reliable data, the following criteria used to impose a limit on who was eligible to participate in the study. The study was involved mothers between the ages of 15 and 49 who have given birth at least once in the previous five years. These individuals are thought to have previously been pregnant and have gone through the antenatal care stage of maternal health services, and hence were the best people asked questions about pregnancy and antenatal care.

3.3.2 Exclusion criteria

Mothers over the age of 15 who refuse to give their consent, and women in the designated age group who have never given birth but were present at the Public Health Facility unit.

3.4 Sample size determination and sampling procedure

Sample size

The researcher used the single population proportion formula to calculate the required sample size by considering a 95% confidence interval, 5% level of significance, and the prevalence (P) taken from prevalence of antenatal care service utilization of pregnant women attending antenatal care in public hospitals during the COVID-19 pandemic period which is 50% was used (Tadesse, 2020) to calculate total sample size. . The sample size for this study was calculated using the Cochran's (1977) formula: The sample size was determined by using the following formula as shown below:-

The sample size (n) = [z^2.p (1-p)]/d^2

Contingency for non-response rate 10%

n = 〖1.96〗^2.0.5(1-0.5)/〖.05〗^2

n =384

Therefore; n = 384 x non-response rate 10% +384 =422

Since the required total sample size for the study will be 422

Where

Z=critical value which is equal to 1.96 in two tailed test

P=prevalence 50%

d=absolute sampling error 5%

Sampling Techniques

Two governmental health centers (Burayu Health Center and Anne Dima Health Center) would choose to be included in the study based on antenatal care attendant flow from the four governmental health centers in Burayu town (Burayu Health Center, Anne Dima Health Center, Guje Health Center, and Hachalu Health Center). The research's sample technique necessitated meticulous sampling processes in order to extend generalizations to other individuals, groups, times, or places. To begin, two health care centers were purposefully chosen among a total of four. Finally, using a systematic sampling technique, research respondents who met the inclusion criteria were recruited into the study. Prior to the survey, 5% of the total sample size (i.e. 21 houses) was utilized as a pretest.

3.5 Description of study variables

In this study two types of variables are incorporated. These are dependent variable and independent variables that are supposed to predictors of the dependent variables.

3.5.1 Dependent variable

Antenatal care; - To promote mother and infant health, the WHO advises a minimum of four ANC visits(WHO, 2018). As a result, people who visited their ANC more than four times were recognized as users of ANC services. The study's outcome variables are antenatal care service usage, which is dichotomized as: 1=yes (if a woman has at least 4 ANC visits) and 0=no (if a woman has less than 4 ANC visits).

3.5.2 Independent variables

The socioeconomic and demographic factors of the mother are included as predictor variables in the study.

Demographic variables; including Age of mother, Marital Status, House Hold size, House hold head ,Birth place of the mother, parity and birth order.

Socio economic variables: including Wealth of the household, Occupation, Monthly Income, Distance to health facility, Family support, Transport access and cost problem.

Need based factors including; - Source of information, Media exposure, waiting time, Community, Service availability, heard about the services.

Measurement those variables were measured by questionnaire and interview.

3.7 Data Collection Techniques and Procedure

Table 1**:** Data Collection tools and Techniques

Tools	**Techniques**	**Respondent**
Structured questionnaire	Face to face interview	Women aged between 15-49 years, who had delivered their babies within five years at Burayu health center.

Data were collected by trained data collectors whose mother tongue is Afan Oromo .The questionnaire will be written in English, and then translated into Afan Oromo (the local language). The researcher used some of the questions from DHS and other internationally used tools to establish the instrument's validity. Data collectors and supervisor were three female health extension workers and one BSC degree in nurse/midwive specialists, respectively.

To ensure the collection of valid data, the lead investigator was provided training for data collectors and supervisor were trained for two days on the study's objectives, the questionnaire's content, ethical considerations, and data gathering procedures. Data was collected after the participants were instructed on the study's purpose and written informed consent was obtained. Data was reviewed for completeness and consistency after each day of data collection by meeting with the data collectors and supervisors.

A pre-test was conducted on 5% of the sample size of non-selected antenatal clinic during the training session. The questionnaires were adjusted as needed based on the results of the pre-test.

3.8 Method of data analysis

When the questionnaire's data collection process was complete, the questionnaires are edited and coded. Then the data was entered and processed by using SPSS version 23, logistic regression model was used to identify factors associated with the utilization of antenatal care services among reproductive age women during their last pregnancy in Burayu, Oromia, Ethiopia. Descriptive statistics was used to summarize the data and the result was presented using frequencies, tables, and percentages. Bivariate analysis is a technique used to examine the relationship between two variables. In practical terms, this is really useful. Bivariate analysis is one of the most common types of analysis used in statistics because we're often interested in understanding the relationship between two variables. By using scatterplots, correlation coefficients, and simple linear regression, we can visualize and quantify the relationship between two variables. Bivariate analysis can be helpful in testing simple hypotheses of association. Bivariate analysis can help determine to what extent it becomes easier to know and predict a value for one variable (possibly a dependent variable) if we know the value of the other variable (possibly the independent variable.

It is useful to determine whether there is a correlation between the variables and, if so, how strong the association is.Bivariate logistic regression was carried out between the selected independent factors and the outcome variables (antenatal care service utilization). At bivariate level, odds ratio was used to assess the association of maternal health services and independent variables. Statistical significance was sat at p-value of less than 0.2. Variables that shows a statistically significance ($p < 0.2$) at bivariate analysis level were further considered for fitting the binary logistic regression model. Multiple logistic regression analysis was used to show factors determine the outcome variable. To determine the factor most statistically significance with antenatal service utilization, AOR with 95% CI level was determined using logistics regression analysis.

3.9 Validity and reliability of study

- A pre-test was conducted on 5% of the sample size and necessary changes were maintained validity and dependability.
- Supervisory consultation was provided.
- The researcher conducted the field work himself.

3.10 Ethical Approval

Before beginning data collection, the Addis Ababa University, College of Development Studies, Center for Population Studies Ethics Review Board provided ethical clearance or approval. During the data collection procedure, data collectors told each study participant about the research project's goal and expected advantages; all women clients who agreed to participate in the study were included, with the exception of those who did not meet the inclusion criteria. The information was kept private, and study participants were informed that they could opt out of the data gathering at any moment.

3.11 Dissemination

The results of this study will be presented and submitted to the Center for Addis Ababa University's Development Studies (CoDs), the Center for Population Studies, the Oromia Health Bureau, and the Burayu Administrative and Health Office. The study's findings will also be disseminated and presented at workshops and seminars held locally and internationally. In the hopes of being published, the manuscript will be submitted to peer-reviewed journals.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1. RESULTS

4.1.1. Characteristics of study participants

Four hundred and twenty two (422) women were included in the study with a 100% response rate. Table 2 shows the demographic characteristics of the respondents and the frequency of ANC visits. It indicated that the majority of mothers fall in the age group of 25-34 (69.9%), married 417(98.8%), Protestant 222(52.6%), urban residence 324(76.8%), women having higher education 106(25.1%) primary grade educated 166(39.3%),secondary80(19%),Husband level of higher education153(36.3%),women ethnicity Oromo 341(80.8%) and women wants to get previous pregnancy387 (91.7%).

Table 2: General Demographic and ANC characteristics of women in Burayu town health centers, Oromia 2022, (n=422).

Demographic Characteristics		**N**	**(%)**
Age of the mother	15-24	93	22.0
	25-34	295	69.9
	35+	34	8.1
Marital Status of mother	Currently Married	417	98.8
	Currently not married	2	.5
Respondent want to get pregnancy	Yes	387	91.7
	No	35	8.3
Parity	1	381	90.3
	2-3	34	8.1
	>=4	7	1.7
Timing of antenatal care visit	Early (on-time)	136	32.2
	Late	263	62.3
Any child women given birth living with her	Yes	401	95.0
	No	21	5.0

4.1.2 General Socio-Economic and ANC characteristic of respondents

Table 3: -Socio-economic characteristic of women in Burayu health center, Oromia, 2022

Background Characteristics		**N**	**%**
Religious of women	Protestant	222	52.6
	Orthodox	119	28.2
	Islam	81	19.2
Ethnicity	Oromo	341	80.8
	Other	81	19.2
Mother Place of Residence	Urban	324	76.8
	Rural	98	23.2
Household Income	Low	111	26.3
	Moderate	179	42.4
	High	132	31.3
Occupation of Women	Employed	158	37.4
	Un employed	264	62.6
Mother Level of Education	No education	70	16.6
	Primary	166	39.3
	Secondary	80	19.0
	Higher	106	25.1
Husband Education level	No education	26	6.2
	Primary	140	33.2
	Secondary	103	24.4
	Higher	153	36.3
Family care	No problem	394	93.4
	Problem	28	6.6
Distance to get facility	<30 minutes	229	54.3
	>=30 minutes	193	45.7

4.1.3 Supposed need based related characteristics of respondents

Functional and health-related problems that call for the usage of medical services are the immediate cause of healthcare utilization. 332 of the 422 mothers (78.7%) who responded to the survey had heard of antenatal care programs. Only 239 (or 56.6 percent) of the mothers who took part in the study were aware of a potentially dangerous health issue that was related to pregnancy or another health concern, only 37 (8.8 percent) had a health issue during a current or previous pregnancy, and only 112 (26.5 percent) had regular access to radio and television.

Table 4: Supposed need based characteristic of women in Burayu, Oromia, Ethiopia 2022 (n=422)

Need factors Variable		N	%
Ever heard about ante-natal care	Yes	332	78.7
	No	90	21.3
Access to media: radio and TV	Not at all	70	16.6
	Almost everyday	112	26.5
	At least once forty night	240	56.9
Who told you about an-tenatal care	Health Extension Worker	177	41.9
	Health care provider	79	18.7
	Community health agent	33	7.8
	Other	43	10.2
Knowledge about dan-gerous health problems related to pregnancy	Yes	239	56.6
	No	183	43.4
Pregnancy Problem Ever Encountered	Yes	37	8.8
	No	385	91.2

4.1.4 Antenatal care for women last pregnancy in Burayu town

A large percentage of women in the Burayu town attended antenatal care during their most recent pregnancy, according to data on antenatal care attendance. In terms of the frequency difference, only 5.5 % of the respondents did not attend ANC during their most recent pregnancy prior to the study, compared to an average of 94.5% of the respondents who did.

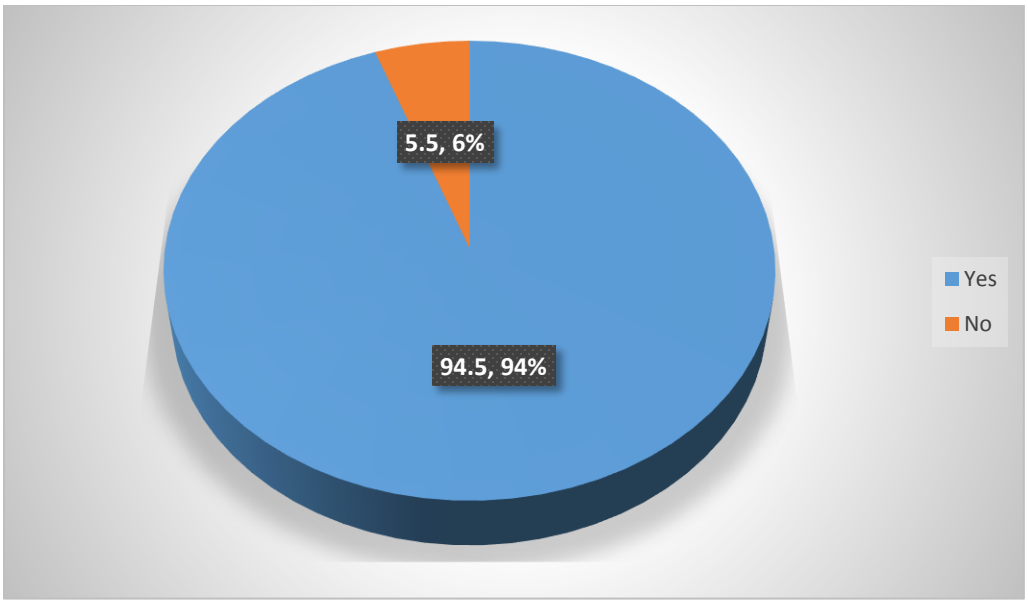

Figure 2: Antenatal care attendance at least once among post-partum mothers in the Burayu Town.

4.1.5 Level of antenatal care service utilization

Out of 422 women, 399 (94.54%) of respondents had attended ANC service at least one times during the last pregnancy. About more than half (59.0%) of women made their first antenatal care visit in the second trimester 32.2% made during their first trimester, and the rest (3.3 %) of women attended in the third trimesters of pregnancy.

Table 5: Information related to Antenatal care service utilization of women in Burayu, Oromia 2022

Characteristics	Indicators	N	%
ANC Visit during previous pregnancy	Yes	399	94.5
	No	23	5.5
Months of pregnancy when received antenatal care for previous pregnancy	First trimester	136	32.2
	Second trimester	249	59.0
	Third trimester	14	3.3
Number of ANC visits for previous pregnancy	2	26	6.2
	3	112	26.5
	>=4	261	61.8
Have you ever had birth before this pregnancy?	Yes	399	94.5
	No	23	23
Place of ANC service for previous pregnancy	Health center	371	87.9
	Government hospital	13	3.1
	Private hospital/clinic	15	3.6
Did respondent plan current pregnancy	Yes	358	84.8
	No	64	15.2
Respondent want to get previous pregnancy	Yes	387	91.7
	No	35	8.3

4.1.6 Reason of Mothers for Antenatal Service Utilization

Reason of mothers for not fully attendance of antenatal care visit out of 161 not fully attend antenatal care follow up more than 38 % of women reported that being lack of awareness was the major reason. The other reason was lack of information about the service (32%), workload (15%) and financial case (15%).

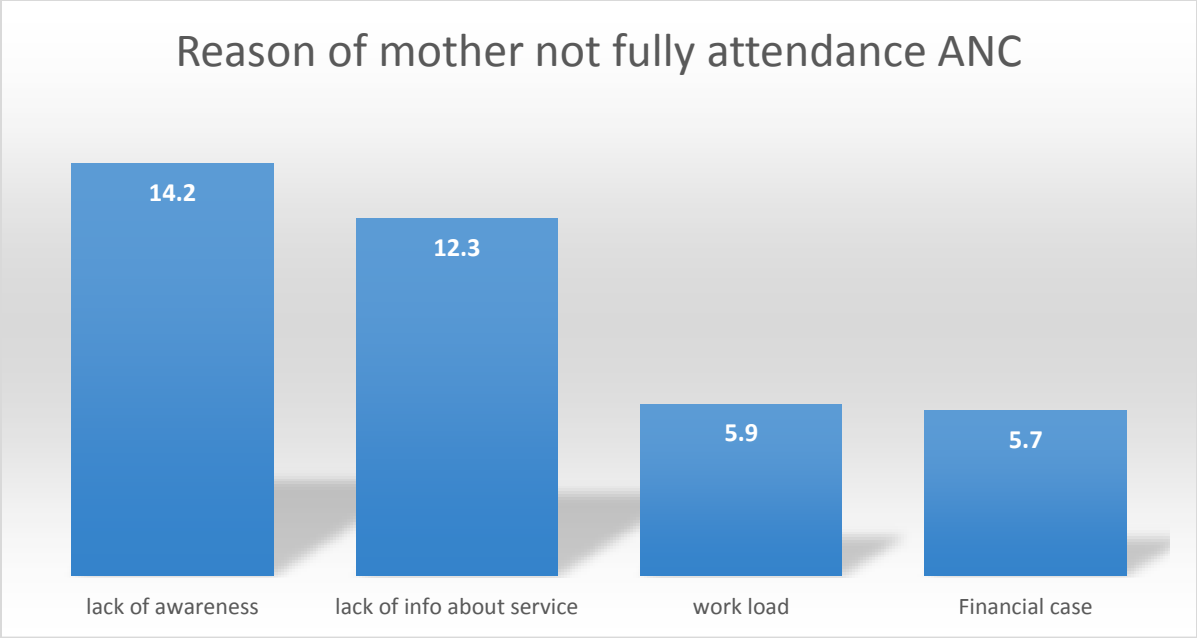

Figure 3: Reason of mothers for not fully attendance of antenatal care visit in Burayu, Oromia, 2022.

4.1.7 Description Frequency and contents of Antenatal care visits

Table 6 shows the description frequency and contents of ANC visits reported by the study participants. Out of 422 women 261(61.8%) were four and above four times antenatal care visited and less than four visit 162(38.4) including never ANC visited for previous pregnancy. About 93.4% of mothers received blood measurements, 93.4% received weight measurements, 91.9% received blood tests, 88.4% received urine tests and only 78.0% received ultrasound and 59.0 got counseling.

Table 6: Percentage distribution of respondents by Antenatal care visits, 2022, (n=422).

Back ground variables		N	%
ANC Visit previous pregnancy	<4	138	32.7
	>=4	261	61.8
ANC Visit during previous pregnancy at least one visit	Yes	399	94.5
	No	23	5.5
Weight measurement in the previous pregnancy	Yes	394	93.4
	No	5	1.2
Blood pressure measurement in the previous pregnancy	Yes	394	93.4
	No	5	1.2
Urine sample test in the previous pregnancy	Yes	373	88.4
	No	26	6.2
Blood sample test in the previous pregnancy	Yes	388	91.9
	No	11	2.6
Ultrasound in the previous pregnancy	Yes	329	78.0
	No	70	16.6
Counselling in the previous pregnancy	Yes	249	59.0
	No	150	35.5

4.1.8 Logistic regression analysis

4.1.8.1 Bivariate logistic regression model

Table seven presents a summary result of the bivariate logistic regression (unadjusted) for the association between each potential predictor and proportion of at least four ANC visits as recommended by WHO.

Demographic variables

A significant correlation between mother skilled antenatal care attendance and the demographic determinants are:- Months of pregnancy first Antenatal care visit, Women education level, any child mother given birth living with her, women want to get pregnant, mother residence, women age, women age during marriage, and house hold size were shown significance at 95% confidence interval. Mothers who begin their first Antenatal care visit the first trimester are more likely to have at least four or more Visits, according to the starting month of the first visits. Compared to educated women, women without a high school diploma or less had a lower likelihood of having at least four antenatal care visits. Women who wanted to become pregnant were more likely to visit the antenatal care at least four times or more. She was more likely to have at least four or more antenatal care visits if the child she gave birth to live with her. Women who gave birth to children who are currently

living with them had a higher likelihood of having at least four or more antenatal care visits, as did women who were older when they got married.

Socioeconomic variables

Among the socioeconomic variables husband education level, mother occupation, distance from health center, Household income, Professional women did see, where did respondent received antenatal care did ,whom visited her during previous pregnancy and religion were showed a significant association with frequency of mother ANC attendance at 95%. Regarding this husband education level were more likely to have at least four or more ANC visits. Women who were their residence home not distance from facility were more likely to have at least four or more ANC visits. Women who had Family support were more likely to have at least four or more ANC visits than who had lack of family support. Women whose low household income less magnitude to have at least four or more ANC visits. Women who did see Doctor were likely to have at least four or more ANC visits than other professional. Women who did receive antenatal care service from Health center were less likely to have at least four or more ANC visits.

Supposed need-based factors

Mother status, the frequency with which women watch or listen to radio, health concerns or awareness of harmful or health-related pregnancy, and information about antenatal care services all indicated a strong correlation with mother skilled ANC attendance. In this case, women who watched or listened to the radio had a higher likelihood of having four or more ANC visits. Women are more likely to have at least four or more ANC visits if they had ever heard about ANC. Women who were aware of risky pregnancy situations or other health issues were more likely to schedule four or more ANC checks. Women who did not watch or listen to the radio had a lower likelihood of having four or more ANC visits.

Table 7: - Results of Bivariate logistic regression analysis (unadjusted) for antenatal care visits (<4 vs. +4 visits), Oromia, Burayu town Health centers, 2022, (n=422).

Table 7 1: Results of Bivariate logistic regression analysis (unadjusted) of Demographic characteristics of women with ante natal care visits (<4 vs≥4) visits).

Characteristics	**P-value**	**OR**	**95%CI**	
Household size				
1-3	.052	2.443	.992	6.016
4-6	.052	2.425	.993	5.925
7+		1		
Women Education Level				
No education	.000	.129	.065	.258
Primary	.000	.289	.163	.514
Secondary	.116	.576	.290	1.145
Higher		1		
Women age during marriage	.001	.497	.333	.741
10-20 Year		1		
Above 20 Year				
Parity				
1		1.221	.269	5.532
2-3	.796	1.071	.207	5.553
>=4	.935	1		
Months of pregnancy first ANC visit				
First trimester	.000	24.222	5.115	114.707
Second trimester	.005	8.940	1.959	40.804
Third trimester		1		

Table 7. 2: Results of Bivariate logistic regression analysis (unadjusted) of Socio-economic characteristics of women with antenatal care visits (<4 vs≥4) visits visits).

Characteristics	**P-value**	**OR**	**95%CI**	
Household head sex				
Male	.635	1.612	.225	11.561
Female		1		
Women Religious				
Protestant	.017	1.879	1.118	3.160
Orthodox	.741	1.100	.624	1.939
Other		1	.	
Women Occupation				
Working	.001	1.999	1.310	3.049
Not working		1		
Household income				
Low	.006	.476	.281	.807
Moderate	.066	.638	.395	1.030
High		1		
Ethnicity				
Oromo	.135	1.453	.891	2.371
Other		1		
Lack of Family support				
No problem	.001	4.437	1.905	10.332
Problem		1		
Distance from facility				
<30 minutes	.000	2.248	1.507	3.354
>=30minutes		1		
Health personnel providing the service				
Doctor	.015	12.126	1.613	91.132
Nurse/midwifery		1		

. * Indicate the variables those have significantly associated with dependent variables (P value < 0.2).

Table 7. 3: Results of Bivariate logistic regression analysis (unadjusted) of Supposed need-based factors Characteristics of women with antenatal care visits (<4 vs≥4) visits visits).

Characteristics	P-value	OR	95%CI	
Access to media: radio and TV				
Almost everyday	.000	4.129	2.192	7.780
At least once forty night	.000	3.405	1.952	5.940
Not at all		1		
Information source				
Health Extension Worker	.995	.997	.424	2.348
Health care provider	.162	.524	.212	1.295
Community health agent	.146	.457	.159	1.313
Other		1		
Health concern				
Yes	.000	2.340	1.567	3.496
No		1		

4.1.8.2. **Multivariate logistics regression model**

The binary logistic regression was performed, and the multiple logistic regressions were applied to the variables with p-values less than 0.2. The results of the bivariate analysis show the explanatory variables' unadjusted influence on the frequency of at least Antenatal care visits. We used a multivariate regression model to determine the significant adjusted or net influence of an explanatory variable on the frequency of at least Antenatal care visits. The odds ratio was used to calculate the net effect of one explanatory variable after correcting for the effects of all other explanatory variables. Therefore, in multivariate logistic regression analysis, women's occupation, household income, professionals who saw women during antenatal care visits, and a lack of support from family were found to be significant predictors of the frequency of the antenatal care (Table 8).

Mothers who began their first Antenatal care visit before three months had a 16.031 times higher chance of receiving acceptable Antenatal care (four or more) than their peers (AOR: 16.031, 95 %CI: 3.088–83.228). This might be because women who visited earlier had more time to attend.

Working women had 2.548 times increased chances of receiving four or more Antenatal care visit than mothers who were not employed (AOR: 2.548, 95 % CI: 1.445-4.494). In comparison to women who were seen by other professionals, women who had seen a doctor at their Antenatal care visits had a 9.063 times higher likelihood of receiving four or more Antenatal care visit(AOR:.9.063, 95 % CI: (1.118,73.488). When compared to mothers with low family income, mothers with a moderate income had (AOR: 1.901, 95% CI: 1.011, 3.575). When compared to moms who lacked family care

or support, women with these factors were 2.846 times more likely to attend antenatal care visits (AOR: 2.846, 95 % CI: (.989,8.186).

Table 8: Multiple logistics regression of independent variables and antenatal care service utilization of mothers in Burayu Town in Oromia, Ethiopia.

Characteristics	P-value	OR	95% CI	
			Lower	Upper
Intercept	.012	.048	.005	.517
Mother Education Level				
No Education	.137	.484	.186	1.258
Primary	.270	.645	.296	1.406
Secondary	.983	.991	.441	2.228
Higher		1		
Women Age during Married				
10-20 years	.345	.792	.489	1.284
Above 20 years		1		
Months of pregnancy first ANC visit				
First trimester	.001	16.031	3.088	83.228
Second trimester	.016	7.088	1.434	35.026
Third trimester		1		
Household size				
1-3	.404	.574	.156	2.114
3-6	.448	.607	.167	2.206
7+		1		
Women occupation				
Working	.001	2.548	1.445	4.494
Not working		1		
House hold Income based on hh size				
Low	.309	1.452	.708	2.977
Moderate	.046	1.901	1.011	3.575
High		1		
Lack of family support				
No problem	.052	2.846	.989	8.186
Problem		1		
Distance from facility				
>30minutes	.431	1.229	.736	2.050
<=30minutes		1		
Women whom did to see				
Doctor	.039	9.063	1.118	73.488
Nurse/midwifery		1		
Access to media: TV/Radio				
Almost everyday	.074	2.028	934	4.405
At least once forty night	.191	1.583	.795	3.152
Not at all		1		
Health concern				
Yes	.328	1.286	.777	2.130
No		1		

4.1.9 Factors creating problems in cases of mothers ANC attendance

Study participants asked a follow-up question on the type of problem creating challenge in mother attendance for antenatal care service utilization or start in on the first trimester. The study revealed that out of 422 respondents 193(45.7%) of mothers reported that their ANC attendance problem was distance to get facility, 184(43.6) transport cost respondent to get facility, 187(44.3) cost incurred for ANC, 64(15.2) lack of time for ANC, 28(6.6) Lack of family care.

Table 9: factors creating problem in mother attendance.

Reported challenges	**No.**	**%**
Lack of family care		
No problem	394	93.4
Problem	28	6.6
Lack of time for ANC		
No problem	358	84.8
Problem	64	15.2
Cost problem for ANC		
No problem	235	55.7
Problem	187	44.3
Transport cost respondent to get facility		
No problem	238	56.4
Problem	184	43.6
Distance to get facility		
<30 minutes	229	54.3
30 and above minutes	193	45.7

4.2 DISCUSSION

This institution-based cross-sectional study aimed to assess the socioeconomic and demographic factors that influence antenatal care for women who have given birth during the previous five years in Burayu, Oromia. A typical pregnant woman should go through four checkups during her pregnancy, per the World Health Organization's standards (Ouma & Otieno Asweto, 2017). The results showed that 261 women (61.8%) used antenatal care overall, but 161 (38.2%) did not obtain the minimum of four antenatal care visits as advised. The data are shown in Table 6.

The primary explanation for the disparity in results across these studies could be attributed to the respondents' differing socio-demographic and socio-economic features, sample size considerations, the different study times, and cultural and awareness variations. The current study revealed antenatal care service utilization as being significantly influenced by a woman's occupation, household income, and health personnel providing the service during antenatal care visit, and lack of family support.

Finding the key socioeconomic and demographic factors that significantly affect the use of antenatal care services was one of the goals of this study. Women's occupation, household income, professionals who saw women during antenatal care visits, and a lack of family support were shown to be strongly linked with the use of antenatal care services in Burayu town. These factors were among the determinants of antenatal care utilization revealed in this study. The time of the first antenatal care visit or initial appointment was found as a risk factor or determinant of the frequency of the ANC, according to this study's findings. Early visitors or mothers who began antenatal care visits before twelve week were more likely than late visitors to attend a minimum of four antenatal care visits. The cause is that those who arrived earlier had more time to attend. This is consistent with research from other sources as (Biaye et al., 2020).The findings showed a substantial positive correlation between women's occupation, which is defined as being employed, and the frequency of antenatal care visits. According to the study's findings, working women were more likely than not working mothers to use antenatal care services. The findings of this study indicated that women’s who were employed were more likely to use Antenatal care services than mothers who were not. Compared to women who received Antenatal care services from another health professional, moms who used a doctor's Antenatal care services were more likely to get the contents or quality of ANC(Chanda et al., 2020).

Household income was discovered to be a risk factor or determinant of the frequency of the antenatal care, according to this study. Compared to other households with low income, mothers were more likely to attend at least four antenatal care visits if their family income was intermediate. The rationale is that having money helps with key tasks that are necessary for antenatal care visits. According to the current study's findings, women with medium and wealthy household wealth indices were more likely than women with poor household wealth indices to use at least four ANC services. Women with household wealth indexes of medium and high were more likely to be able to cover care-seeking expenses like travel, medicine, and any other related charges. The result was reliable with studies (Basha, 2019). Similar to this, moms who received antenatal care or assistance from their families during their pregnancies were substantially more likely to attend than mothers who did not. The results of this study may also show that women with family support were more likely than women without assistance to attend four or more Antenatal care appointments. This concurs with research from other places, including as O'Callaghan et al. (1999) found that social support influences attitudes and behaviors, including happiness with pregnancy and parenthood.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

This study showed that although antenatal care services were generally underutilized, they were used relatively more frequently by mothers in Burayu town who had children under the age of five. The majority of women experienced at least one antenatal care visit from contemporary health care providers during their most recent pregnancy, but more than of those did so after the first trimester. And a significant number of women had fewer than four visits during their most recent pregnancies, which is contrary to the minimum level of care that the WHO recommends regarding expectant mothers receive. (Bejar, 1981)

This study demonstrates that socioeconomic and demographic characteristics were the most significant influences on the use of antenatal care services. This does not, however, diminish the importance of service-related factors in particular. The demographic and socioeconomic characteristics linked to this study's findings included mother's occupation, household income, family assistance or helper, and the health services provider, among others.

Priority should be given to mothers who use professional antenatal care services since they are a significant predictor of later usage of expert delivery and antenatal care. Due to this, factors influencing maternal antenatal care use, such as occupation status, household income, family support, and health service provider abilities, must receive special consideration. It is advised that health extension workers make a greater effort to educate mothers about their own health, paying particular attention to housewives and those who are not employed. The mother's employment position is one of the main factors influencing the use of ANC. As family support, household income, and healthcare provider expertise rise, service utilization rises steadily. Women who are classified according to those various criteria use services in diverse ways.

The likelihood of receiving four or more ANC visits was most strongly correlated with the mother's job status, her access to healthcare providers, and her household's income. Numerous services are provided under ANC since it is essential to guarantee both the mother's health and the proper development of the newborn. Health practitioners should focus more on raising mothers' knowledge of the value and necessity of ANC services while also making it convenient for patients to get them.\

organizations should focus on encouraging all mothers to begin antenatal care (ANC) visits early in their pregnancies because a sufficient number of ANC visits and ANC content may help with the early detection and prompt management of risk for unfavorable pregnancy outcomes. The study's findings show that Burayu is still extremely distant from having all recommended content and ANC service standards provided.

5.2 RECOMMENDATIONS

Women and their partners with un-employed status, women with low household income and mothers who have not family support should receive priority means the fact or condition of being regarded or treated as more important than others from government, non-government and concerned organization in order to receive appropriate care and its items/contents service promotions, given the significant percentage of women who receive low-frequency ANC services as a result of a variety of factors. According to the study's findings, there was a very low level of frequency of ANC visiting and ANC content delivery in the study area. Women's health behavior can be greatly improved by promoting women's education. Future studies could also target pregnant women who do not receive any antenatal treatment and encourage them to begin postpartum care. As a result, policymakers and stakeholders value the contributions of the local health workforce.

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ANNEX I

Questionnaire form for Facility based survey on Demographic and Socio-economic Determinants of ANC Service Utilization in Burayu Town.

Consent

Hello. My name is _____. I am student of Addis Ababa University College of Development Studies Center for Population Studies. I am conducting a study about Demographic and Socio-economic Determinants of ANC Service Utilization in Burayu Town. The data we collect will be used for research purpose only and we use the results for the government to plan antenatal care services. You were selected for the study and participation in this study is voluntarily. I would like to ask you some questions about you and your household. The questions usually take about 40 to 50 minutes. All of the answers you give will be confidential and will not be shared with anyone other than research purpose. You don't have to be in the survey, but we hope you will agree to answer the questions since your views are important. If I ask you any question you don't want to answer, just let me know and I will go on to the next question or you can stop the interview at any time.

May I continue the interview now? 1) Yes 2) No

Date of Interview_____

Interviewer Name_____

I. Demographic and Socio – economic characteristics of respondent

1. How old are you now? _____

2. Residence? A. Urban B. Rural C. Semi-urban

3. Sex of the household head? A. Male B. Female

4. House Hold size? _____

5. How old were you when you get married? _____

6. How old were you when you gave the last birth? (Compare and correct with date of birth)___

7. What is your religion? A. Protestant B. Orthodox C. Muslim D. Waqefata E. Other

8. What is your current marital status?

A. Married B. Single / Never married C. Divorced

D. Separated E. Widowed F. Other (specify) _____

9. What is your main Occupation?

A. Employed B. Merchant C. Farmer D. Daily laborer E. Un-employed

F. Other (specify) _____

10. How much money earn within a month? _____

11. Total House hold income within a month? _____

12. Have you ever attended formal school?

A. Yes B) No

13. What is the highest level of school you attended?

A. Primary B) Secondary C) Technical/Vocational D. College or University E. Higher than college/University

14. What is the highest level of school your husband attended?(if you have husband)

A. Primary B) Secondary C) Technical/Vocational D. College or University E. Higher than college/University F. No attended

15. What is your ethnic group?

A. Oromo B) Amhara C) Tigray D) Gurage E) Other

16. How often do you listen to the radio/Tele vision (TV)?

A. Almost Every day B. At least once a fortnight C) Less than once a week

D) Not at all

II. Now I would like to ask you about all the births you have had during your life and ANC service related question.

17. Have you ever given birth? A. Yes B. No

18. Do you have any sons or daughters to whom you have given birth who are now living with you?

A. Yes B. No

19. How many weeks or months pregnant are you?

Weeks _____

Months _____

20. When you got pregnant with recent child (Name child), did you want to get pregnant at that time?

A) Yes B) No

21. Did you see anyone for antenatal care for your last pregnancy?

A) Yes B) No

22. Whom did you see?

A. Doctor B. Nurse/Midwife C. Traditional birth Attendance D. Other specify

23. Where did you receive antenatal care for this pregnancy?

A. Health center B. Government hospital C. Private hospital/clinic D. NGO hospital/clinic

E. Home

24. How many weeks or months pregnant were you when you first received antenatal care for this pregnancy?

A) Weeks [……] B) Months [……] B) don't know

25. How many times did you receive antenatal care during last pregnancy?

A) Number of times […..] B) Don't know

26. Reason of NOT or not fully attend ANC visit?

A. Lack of awareness B. Lack of information about the service C. Work load D. Waiting time is too long at ANC service E. Mistreatment of service provider F. Other specify

27. As part of your antenatal care during last pregnancy, did healthcare provider do any of the following: you can answer multiple answer!

□ Weight measurement? A. Yes B. No

□ Measure your blood pressure? A. Yes B. No

□ Take a urine sample? A. Yes B. No

□ Take a blood sample? A. Yes B. No

□ Ultrasound? A. Yes B. No

□ Counseling? A. Yes B. No

28. During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus after birth?

A) Yes B) No C) Don't know

29. During pregnancy, were you given or did you buy any iron tablets or iron syrup?

A) Yes B) No C) Don't know

30. Where did you get the iron tablets or syrup?

A. Health center B. Government hospital C. Private hospital/clinic/pharmacy D. NGO hospital/clinic/pharmacy

III. Data on personal/psychosocial health service factors

31. Did you plan your current pregnancy?

A. Yes B. No

32. What was your feeling when you discover your pregnancy?

A. Happy B. Ambivalent C. Unhappy

IV. How do you see the following factors, creating problem in your attendance?

33. Your family care responsibility?

A. No problem B. Moderate problem C. Major problem

34. Lack of time for ANC?

A. No problem B. Moderate problem C. Major problem

35. Cost incurred for ANC?

A. No problem B. Moderate problem C. Major problem

36. Your expenses to reach the health facility (transport cost)?

A. No problem B. Moderate problem C. Major Problem

37. Distance of health service from your residence?

A. No problem B. Moderate problem C. Major Problem

V. Respondent's knowledge, illness experienced and perceived susceptibility to pregnancy related health problems

38. Do you know dangerous health problems related to pregnancy?

A. Yes. If yes mention some of them _____ B. No.

39. Have you experienced a health problem during the current or past pregnancy?

A. Yes B. No

VI. Questions on respondents view on quality of antenatal care service.

40. What is (was) your feeling about the quality of antenatal care given?

A. Very Good B. Good C. Poor

41. Do (did) health workers respectful?

A. Yes B. No

42. Do you have confidence on the service provided at ANC clinic?

A. Yes B. No

43. The time you spent in waiting, to get the ANC at health facility

A. It is short B. It is fair C. It is long

44. The time a health worker spent with you?

A. Satisfactory B. Somewhat satisfaction C. Not satisfactory

45. What do you think about the curative services you get at ANC clinic?

A. Satisfactory B. Somewhat satisfaction C. Not satisfactory

THANK YOU FOR YOUR PARTICIPATION!

ANNEX II

Afgaaffii dhaabbata fayyaarratti hundaa'ee,Qorannoo Dhiibbaa haallii jiruuf jireenyi fi Dinagdeen hawwaasa magaalaa buraayyuu tajaajila hordoffii ulfaa fayyadamuu irratti qabu.

Waliigaltee

Akkam jirtu.Maqaankoo_____jedhama.Yeroo ammaa Universiitii Addis Ababaa Muummee giddu gala qorannoo Misoomaatti barataa qorannoo uummataa fi walhormaata fayyaa ti.Amma Dhhiibbaa Akkaataan jiruufi jireenyi fi Dinagdee hawaasummaa itti fayyadama hordoffi ulfaa magaalaa buraayyuu irratti qabu irratti qorannoo geggeessaa jira.Odeeffannoon nuyi guurruu kun kaayyoo qorannoo kana qofaaf oola akkasumas bu'aa qorannoo kanaatti mootummaan karoora hordoffii ulfaaf akka fayyadamuuf gargaara.qorannoo kanarratti hirmaachuun fedhiikeerratti hunda'a.Amma waa'ee keef maatiikee gaaffii xiqqoo sigaafachuun barbaada.waliigalatti gaaffii kana xumuruuf daqiiqaa 40 hanga 50 fudhachuu danda,a.Gaaaffii kanaaf deebii isin laattan iccitii-dhaan eegama.qorannoo kana keessatti dirqama hinqabdu garuu qorannoo kanatti akka hirmaattuu abdii qabna ilaalchikee barbaachisaadha.gaffii deebisuuf sitti hintollee natti himtee irra taruu dan-deenya.akkasumas yeroo barbaadduutti dhaaabuudhaaf mirga guutuu qabda.

Amma afgaaffii keenya itti fufuu dandeenyaa?

1) Eeyyee 2) Lakkii

Guyyaa Afgaaffii ____/____/_____

Maqaa Afgaafataa _____

I. Hawaasummaa fi Haala Dinagdee Gaafatama.

1. Yeroo ammaa umuriinkee meeqa? _____

2. Bakka jireenya kee? A. Magaalaa B. Baadiyyaa C. walakkaan magaalaa

3. Saala bulchaa maatii keessanii?

A. Dhiira B. Dhalaa

4. Bayyina maatii kee? _____

5. Yeroo herumte umuriinkee meeqa? ___

6. Yeroo da'umsa darbee kana deesse umriin kee meeqa ture? Umrii dhalootashee waliin madaali? _____

7. Amantaan kee maalii?

A. Peenxee B. Ortodoksii C. Islaama D. Waaqeffataa E. Others

8. Haalli gaa'ela kee yeroo amma akkami?

A. Heerumtu B. gonkumaa hineerumne C. Kan hiikte D. Adda bahuu E. kanirraa du'e

F. kanbiraa

9. Hojiin kee inni caalatti itti jiraattan maali?

A. Ramadameen B. Daldalaa C. Qotee bula D. Humnaan bulaa E. Hoji-dhabaa

F. Kanbiraa_____

10. Jihaan galiin kee qarshii meeqa? _____

11. Galiin maatii keetii gidduu galaan jihaan meeqa? _____

12. Mana barumsaa iddlee hordoftee beektaa?

A. Eeyyee B. Lakkii

13. Sadarkaa barnootaa olaanaa isin xumurtattan meeqa?

A. Sadarkaa 1ffaa B. Sadarkaa 2ffaa C. Teekinikaa/Ogummaa D. Kolleejji/Universiitii E. Kolleejjii/Universiiti ol

14. Sadarkaan barnoota Abbaan warraakee meeqa? (yoo abbaa manaa qabaatte)

A. Sadarkaa 1ffaa B. Sadarkaa 2ffaa C. Teekinikaa/Ogummaa D. Kolleejji/Universiitii

E. Kolleejjii/Universiiti ol F. Hinbaranne

15. Sabummaan kee maalii?

A. Oromoo B. Amaaraa C. Tigraayii D. Guraagee E. Others

16. Raadiyoo/Televiztion yoom dhaggeeffatta?

A. Yeroo hundaa B. Galgala C. Torbanitti yeroo tokko D. yoomiyyuu hind haggeeffadhu.

II. Ammammoo umrii kee keessatti waa'ee da'umsaa kee isin gaafadha.

17. Kana dura deessee beektaa?

A. Eeyyee B. Lakkii

18. Ijoollee dhiira/durbaa ofii deessee amma sii wajjiin jiraachaa jirtu/jiru qabda amma?

A. Eeyyee B. Lakkii

19. Amma Ulfa jiha/torban meeqaati?

A. Torban_____

B. Jiha _____

20. Yeroo Daa'ima kee ammaa kana ulfoofte ulfaahuudhaaf fedhii qabda turtee?

A. Eeyyee B. Lakkii

21. Yeroo ulfaa Daa'ima darbee sana hordoffii ulfaa gootee?

A. Eeyyee B. Lakkii

22. Eenyyudha hordoffii ulfaa kan siif godhe?

A. Docteeri B. Narsii/deessiftu C.Deessistu aadaa D. Kan biroo ibsi

23. Yeroo ulfaa sana hordoffii ulfaa eessatti taasifte?

A. Buufata fayyaa B. Hospitaala mootummaa C. Hospitaala/Kilinika dhuunfaa D. Hospitaala/Kilinika NGO E. Manasheetti

24. Yeroo jalqabaa hordoffi ulfaa jalqabdee ulfa jiha meeqaa ture?

A. Torban_____ B.jiha_____C. Hinbeekuu

25. Yeroo ulfa da'ima(maqaa da,ima) hordoffii ulfaa yeroo meeqa goote?

A. Number of time[___] D. Hinbeekuu

26. Sababni ati tajaajila hordoffi ulfaa gonkuma/guutummaatti isaa hin hordofneef maaliif?

A. Waanan beekuu hinqabu B. Odeeeffannoo hinqabu C. Dhiibbaa hojiitiin D. Dabareen isaa waan baayyatuuf E. Kunuunsi gahaan ogeessaan hinkennamu F.Kanbiraa ibsi

27. Tajaajiloota yeroo hordoffii ulfaa keessaa kanneen armaan gadii kun yeroo ulfaa darbetti siif godhameera?

- Ulfaatina safaruu A. Eeyyee B. Lakkii
- Dhiibbaa dhiigaa safaruu ? A. Eeyyee B. Lakkii
- Fiincaan fuuchuun? A. Eeyyee B. Lakkii
- Dhiiga fuuchuu ? A. Eeyyee B. Lakkii
- Altrasawundii ilaalamuu? A. Eeyyee B. Lakkii
- Tajaajila Gorsaa ? A. Eeyyee B. Lakkii

28. Yeroo ulfaa keetii kana talaaalii lilmoo hirreerraatti daa'imarraa tetanus (mangaga qulfii) ittisuuf fudhattanii?

A. Eeyyee B. Lakkii C.Hinbeekuu

29. Yeroo ulfa keetii qoricha iron /shuroppi ironi fudhattanii?

A. Eeyyee B. Lakkii C. Hinbekuu

30. Qoricha iron/shurooppi ironi kana eessa argattee?

A. Buufata fayyaa B. Hospitaala mootummaa C. Hospitaala/Kilinika/pharmacy dhuunfaa D. Hospitaala/Kilinika/pharmacy NGO

III. Odeeffannoo ilaalcha dhuunfaa/saayikolojii dhiibbaa tajaajila fayyaa irratti hundahuun isin Gaafachuu yaala.

31. Ulfiikee ammaa kun karoora kee ture? A. Eeyyee B. Lakki

32. Yeroo ulfakee kana ilaaltu maaltu sitti dhaga'ama?

A. Gammachuu B. giddugaleessa C. hingammaduu

IV. Wantoota armaan gadii akkamitti ilaalta? Hordoffii daa'umsaakee irratti dhiibbaa qabu?

33. Kunuunsa karaa maatii siif tahu?

A. Rakkoo hinqabu B. ammatokko rakko qaba C.rakkoo guddaa qaba

34. Hordoffi ulfaa gochuuf yeroo dhabuun?

A. Rakkoo hinqabu B. ammatokko rakko qaba C.rakkoo guddaa qaba

35. Rakkoo Baasii hordoffii ulfaaf ooluu?

A. Rakkoo hinqabu B. ammatokko rakko qaba C.rakkoo guddaa qaba

36. Baasii geejjibaa mana keetii amma dhaabbata fayyaatti?

A. Rakkoo hinqabu B. ammatokko rakko qaba C.rakkoo guddaa qaba

37. Fageenya mana keetii fi dhaabbata fayyaa gidduu jiru?

A. Rakkoo hinqabu B. ammatokko rakko qaba C.rakkoo guddaa qaba

V. Beekumsa gaafatamaan dhukkubaa fi wantoota yeroo ulfaa dhukkubaaf saaxiluu danda'an irratti qabu.

38. Balaawwan rakkoo fayyaa yeroo ulfaa fiduu danda'an ni beektaa?

A. Eeyyee. (maalfa'I ibsi _____) B.Lakkii

39. Rakkoon fayyaa yeroo ulfaa kana ykn duraan si mudatee beekaa?

A. Eeyye B. Lakki

VI. Ilaalcha gaafatamaan qulqullina tajaajila hordoffii ulfaa irratti qabdu

40. Maaltu sitti dhaga'ama waa'ee tajaajila hordoffii ulfaakeef siif kennamaa tureerratti?

A. Baayyee Gaaridha B. Gaaridha C. badaadha

41. Ogeessonni faayyaa sii kabajuu ture? A. Eeyyee B.Lakkii

42. Tajaajila buufata hordoffii ulfaa kanarraa argachaa turtee irratti hin amantaa turte?

A. Eeyyee B. Lakkii

43. Buufata hordoffii ulfaa kanatti dabaree tajaajila argachuuf eeggattan akkami?

A. Gabaabaadha B. Giddugaleessa C. Dheeraadha

44. Turtiin ogeessi fayyaa si waliin qabu akkami ture?

A. Quubsaadha B. Giddu-galeessa C. Quubsaa miti

45. Waa'ee tajaajila fayyaa buufata fayyaa hordoffii ulfaa kanarraa argatte akkamin ibsita?

A. Quubsaa B. Giddu-galeessa C. Quubsaa miti

HIRMAANNAA KEESSANIIF GALATOOMAA!