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Effects of Covid19 on Utilization of Family Planning Services in Teso North Sub County Hospital Busia County

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DECLARATION

This thesis is my original work prepared with no other than indicated sources and has not been presented for any award in any institution.

Signature: ……..
Date: 05/01/2025
Name: Benson Wafula Khisa

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I would like to show gratitude to the God Almighty who gave me good health that enabled me carry out the study.

I'm also grateful to all health care workers in Teso North sub county hospital who supported me to come up with this report, notably doctor Evans Sumbeiywo the medical officer of health Teso north Sub County.

Lastly, I appreciate myself for working tirelessly to ensure that the report is ready and on time despite the many assignments and activities which kept on interfering.

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DEDICATION

I dedicate this study to my beloved family members for the immense encouragement and endless support during the entire process.

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LIST OF ABBREVIATIONS

AMPATH–Academic Model Providing Access to Healthcare
CPR-Contraceptive Prevalence Rate
DHIS–District Health Information System
DMPA–Depot Medroxy Progesterone Acetate
BOs–Faith Based Organizations
FGD-Focus Group Discussion
FP–Family Planning
FPAK-Family Planning Association of Kenya
G.O.K– Government of kenya
HIV-Human Immunodeficiency Virus
ICPD–International Conference on Population and Development
ISREC–Institution Science and Research Ethics Committee
IUCD–Intra Uterine Contraceptive Device
IUD–Intra Uterine Device
KDHS-Kenya Demographic and Health Survey
KNBS-Kenya National Bureau of Statistics
LAM-Lactation Amenorrhea
LMICs–Lowe rand Middle Income Countries
MDG-Millennium Development Goals
MOH512–Family planning register
MOH711–Integrated Reproductive health reporting tool
MOH717–Facility work load reporting tool
MOH747–Service delivery contraceptives consumption and request report
MMR–Maternal Mortality Rate
MOH–Ministry of Health
NACOSTI–National Commission for science and technology innovation
NCPD-National Council for Population and Development
NGOs-Non-Governmental Organizations
SDGs–Sustainable Development Goals
SPSS-Statistical Package for Social Sciences
TB–Tuberculosis
TFR-Total Fertility Rate
UN–United Nations
UNFPA–United Nations Family Population Fund
WHO–World Health Organization
OPERATIONAL DEFINITIONS OF TERMS
Accessibility to contraceptives. The availability of family planning services to individuals who require them.
Acute COVID19 period refers to the period from March2020 to December2021 during which Kenya experienced waves of COVID19 infections and the time curfews and lockdowns were in place.
Contraception are medications or devices used with the intentions of reducing the probability of getting a child or for purpose of births pacing.
Contraceptive prevalence rate (CPR). Refer to the percentage of women in union or married between the reproductive ages of 15 to 49 years who are using any form of contraceptives.
Contraceptive user. Refers to continuous use of modern contraceptive methods by a couple in the past six months.
COVID19. Aviral disease that was first reported in Wuhan China in 2019 and was declared a pandemic.
Family Planning. The ability of couples and individuals to achieve their desired number of children through timing and spacing of children through house of traditional and modern planning methods.
Infant mortality. Is the deaths of children who is born under the age of one year?
Natural Family Planning. It is the observation of signs and symptoms of infertile and fertile menstrual cycle through interpretation of natural occurrence that guides one to abstain from sexual intercourse If pregnancy if not ready for a pregnancy during the fertile period.
Pandemic. It is an epidemic which occurs worldwide.
Reproductive age Refers to the age (commonly15to49years) during which a woman is of bearing children.
Pre-COVID19 period this is a period 18 months from September2018 to March2020.
Total fertility rate (TFR). The number of children in average that a woman would have assuming her current age specific birth rate remains the same through her years of childbearing (considered ages 15to49).
Unmet needs it is where women are currently not using any contraceptive methods but wish to limit space or delay their next pregnancy by two or more years.

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ABSTRACT

The Kenyan government put in place policies to increase uptake of family planning services with an aim of reducing the fertility rate (TFR). It was aimed at improving the gross domestic product, reduce poverty and at the same time reduce maternal mortality and morbidity. Despite this, TFR in Kenya has remained high at 3.9 with some counties recording a TFR of more than 3.9. Teso north Sub County hospital despite having a Contraceptive Prevalence Rate (CPR) of 39% still have a TFR of 4.7%. Since their receptions of COVID-19 pandemic, measures put by the government to curtail the viral spread, have been drastic enough to an extent that they may have influenced contraceptive uptake. This study therefore sought to find out how COVID-19 affected the uptake of family planning in Teso north Sub county hospital. The main objective of the study was to determine the effects of COVID 19 on uptake of family planning services in Teso north sub county hospital. Specific objectives were to determine Family Planning attendance during acute COVID19 and assess the utilization of family planning commodities (by method) before and during the acute COVID19 period in Teso north Sub County hospital. It was retrospective study design carried out from September 2019 to February 2020 and compared with data from March 2020 to October 2021.Measures of central tendency and dispersion were used and data analyzed using SPSS with a P value <0.05 taken to be statistical significant. The study found out that there was a drop in the number of clients seeking family planning services both women and male during covid 19. The pandemic affected utilization of family planning commodities in Teso Sub county hospital. Recommendations to service providers and policy makers were that all service providers should make active use of cellular phones and other electronic technologies for creating awareness and use of family planning services and there should be round-the-clock family planning counseling available at all service outlets in order to avoid unplanned pregnancies. National/County Government should provide patient-focused telehealth counseling for a range of contraceptive methods in a way that is respectful of individual patient needs and preferences, implement support supervision systems for monitoring service delivery, especially involving senior staff in reviewing commodity stocks and encouraging provider health through in-person or web-based engagement, campaign for policy change allowing dispensing larger packs of short-acting contraceptives to reduce facility visitation frequency and develop and disseminate clear, concise messages across various media outlets such as television scrolls, talk shows, radio, social media, and public service announcements to generate awareness and educate the public. Lastly there is need to strengthen emergency preparedness and response, utilize community structures for contraceptive delivery.

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CHAPTER ONE
INTRODUCTION

- 0verview

This chapter provides an overview of the research and is structured into several sections like the background of the study, problem statement, research objectives, and research questions.

- *Background to the Study*

COVID-19 was initially reported in China in December 2019, and within three months, it had spread rapidly across the globe because of its high transmission rate. The pandemic hit extremely hard some of the world's most economically advanced countries and represented a huge threat to low- and middle-income countries (WHO, 2020).

The African continent was among the last to be hit by the virus. Nonetheless, the region had particular challenges presented by its weak health infrastructure and high population of immune compromised citizens, a situation exacerbated by the high incidence of HIV, tuberculosis, malaria, anemia, malnutrition, and unfavorable socioeconomic conditions. By the time COVID-19 was declared a pandemic worldwide, most African nations were already experiencing severe strain, including that which exacerbated the prevailing economic crisis within the region (Lone & Ahmad, 2020).

On 13th March 2020, Kenya reported its first case of COVID-19. Upon receipt of this information, the government swiftly instituted a raft of non-pharmaceutical interventions that were meant to reduce the transmission of the virus. These interventions involved the closure of borders and the prohibition of international travel (except for cargo), in-school suspension of face-to-face learning, ban on social gatherings, imposition of a curfew between dusk and dawn, closure of places of worship, bars, and restaurants, and the imposition of physical distance of not less than 1.5 meters in public areas (*Barasa et al., 2021*).

Although these interventions successfully suppressed the spread of COVID-19, they also had numerous unintended health, social, and economic effects (*Barasa et al., 2021b*). Of particular concern was their indirect effect on the healthcare system—more specifically, the availability, accessibility, and use of routine (non-COVID-19) health care. The findings of the study indicated that, beginning in March 2020, the utilization of crucial health services, notably sexual and reproductive health ones, had drastically decreased, and even in the later months, utilization rates continued to drop (Barasa et al., 2021a).

- *COVID19 and Family Planning*

The World Health Organization (WHO) declared COVID-19 as a pandemic on March 11, 2020. After such a declaration, several nations, including Kenya, implemented a series of measures aimed toward reducing the spread of the virus (Riley, Sully, Ahmed, & Biddlecom, 2020). Though the steps were considered necessary, they had a massive impact on several sectors, with the sexual and reproductive health sector being uniquely affected; this is the sector responsible for providing sexual, quality, affordable, and appropriate family planning services (Dasgupta, Kantorová, & Ueffing, 2020). With continuous evidence being compiled, preliminary findings show a reduction of sexual and reproductive health service utilization. This reduction can be attributed to several factors, including the disruption of the supply chain for family planning supplies, diversion of staff and resources toward COVID-19 response activities, closure of some healthcare facilities, movement restrictions, as well as declining numbers of patients attending facilities for care, mostly as a result of exposure fears and lockdown orders (Dasgupta et al., 2020).

One of the main goals of Sustainable Development Goals number three is attainment of universal access to sexual and reproductive health care, including family planning (McFarlane et al., 2020). Past studies have shown a substantial unmet family planning need in many developing countries. It is estimated that there are about 225 million women who do not have access to modern contraceptive methods. Both unintended and unwanted pregnancies have been linked with high maternal morbidity and mortality. The situation has further worsened as a consequence of the COVID-19 pandemic, causing the economic strain for many households. The economic strain could force couples into abortion, as well as into abstaining from childbearing altogether (Bayefsky et al., 2020). However, the abortion process often involves contact with healthcare workers, hence increasing exposure for both healthcare workers as well as patients. In cases of unsafe abortion, the risks of complications, including fatality, are extremely high (Pfitzer et al., 2020).

The COVID-19 pandemic had a direct impact on access to family planning services across the world, mostly impacting women who live in low- and middle-income countries (LMICs). The pandemic is estimated to have produced an increase of 10% of unmet family planning needs, negatively affecting some 60 million women of childbearing age in 2020 (Riley, Sully, Ahmed, & Biddlecom, 2020).

The UN Population Fund (UNFPA) estimated that in developing countries, there were about 47 million women who had issues accessing or using contraceptive services during the pandemic. This lower access is expected to lead to an additional seven million unintended pregnancies (Khowaja & Shalwani, 2021).

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Within the African context, COVID-19 presented a major threat to the normal delivery of sexual and reproductive health (SRH) services, hence undermining many health programs. For instance, in Ethiopia, movement restrictions forced several women to give birth at home. In addition, the contraceptive supply chain faced major disruptions that led to delayed deliveries and stock shortages. Health facilities cut down their operations, SRH clinics were closed, and a high percentage of clients avoided seeking care for fear of the virus (Feyissa, Tolu, & Ezeh, 2020).

After its first COVID-19 case was identified on March 12, 2020, the Kenyan government implemented strong mitigation measures. Subsequently, there have been a reported decline in access for family planning service, evidenced by the reduction of new visits from 47% down to 43%. Injectable contraception remained the most used method (Shikuku et al., 2020; Mbae, 2020). The UNFPA highlights that several interruptions, such as delays in the manufacture of contraceptive methods, restricted distribution chains for contraceptive methods, weakened healthcare facility capacity, and women being unable to access healthcare facilities because of lockdowns, have drastically amplified the unmet need for family planning services (Dasgupta et al., 2020). These challenges have contributed significantly to an increase in unintended pregnancies, which have lasting impacts for women, households, and healthcare systems.

➢ *The Statement of the Problem*

Every year, more than half a million women of childbearing age lose their lives as a result of pregnancy, childbirth, and pregnancy-related health issues (Piane, 2019). An alarming 99% of such deaths are from developing, low-income countries, with around 60% being from the sub-Saharan Africa region (Piane, 2019). Family planning has widely been recognized as a key intervention measure for enhancing maternal as well as child health (Piane, 2019). Many governments across the world have made concerted efforts to meet the unmet needs for family planning through enhancing the availability of the service for their population (Asif & Pervaiz, 2019).

The COVID-19 pandemic had a deep impact on healthcare systems globally, affecting many health services, including essential ones for maternal health. In responding to the pandemic, governments reallocated healthcare resources to combat the outbreak of COVID-19, often at the expense of routine but essential health services (Vora, Saiyed, & Natesan, 2020).

Worldwide, reproductive health service such as contraception and abortion services either were closed or not available with approximately about 47 million women in 114 low- and middle-income countries, inclusive Kenya were not able to use contraceptive which could result in about 7 million unplanned pregnancies (Vora et al, 2021). Shortage of contraception was attributed to lock down and actions placed to curb the pandemic which resulted in a decreased in production of contraceptives (Kimani, Maina, Shumba, &Shaibu, 2020).

In Kenya the number of COVID 19 cases continued to increase. This forced the government to impose lockdowns on people, new regulations which included reducing number of visits to healthcare facilities were released by the ministry of health, due to the fear of getting the disease, clients feared visiting the facilities which impacted on the uptake of service (Shikuku *et al.*, 2020).

In Teso North Sub County, the COVID-19 prevalence had been reported as high during the pandemic, affecting several healthcare facilities within the sub county negatively. Before the pandemic, the adoption of family planning strategies had registered significant improvements in the sub county, with a 56% contraceptive prevalence (MOH-CGB, 2020). There is, however, a lack of empirical research evaluating the widespread impacts of the pandemic on healthcare service delivery within Teso north Sub County Hospital. An urgent need for conducting this study is thus occasioned by the need to assess the effects of the pandemic on healthcare service delivery, focusing on family planning within Teso North Sub County Hospital.

➢ *Main objective*

The main objectives of the study is to determine the effects of COVID 19 on uptake of family planning services in Teso north sub county hospital.

➢ *Specific Objectives*

- To determine Family Planning attendance during acute COVID19 period in Teso north sub county Hospital
- To assess the utilization of family planning commodities (by method) before and during the acute COVID19 period in Teso north sub county Hospital

➢ *Research Questions*

- How was the Family Planning attendance during acute COVID19 period in Teso north Sub County?
- How was the utilization of family planning commodities (by method) before and during the acute COVID19 period in Teso north Sub County?

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➢ *Significance of the Study*

This study aims to assess the utilization of family planning services during the COVID-19 pandemic and identify the determinants that impacted service delivery. The ultimate goal is to inform the development of policies that will ensure the long-term use of contraceptives, even in the face of public health emergencies.

The implications of this research will guide policymakers in deciding how to safeguard the reproductive health sector during pandemics. Such policies can include pandemic preparedness in the training of healthcare workers through schools so that their public health system can withstand future disasters.

Specifically, the study will generate valuable information on how the COVID-19 pandemic affected the provision and accessibility of family planning services in Teso North sub county hospital. The acquired knowledge will inform the formulation of innovative measures for mitigating the effects of pandemics on sexual and reproductive health care services in the region.

➢ *Scope of the Study*

One of the greatest flaws of this study is the lack of adequate amounts of published empirical information on service disruptions in Teso North, which restricts the basis for comparison or sound recommendations. To overcome this, I have added data from another pandemic to compare with.

In addition, the study will not compare potential differences among the different data collection instruments. However, to enhance data validity, I will use all three sources; source documents, reporting instruments, and DHIS data for triangulation.

➢ *Conceptual Framework.*

A conceptual framework, as Connelly (2014) debated, focuses more specifically on certain ideas but is less organized than formal theories, often without strong linkages between concepts. Nevertheless, it provides the research with a clear focus. The conceptual framework in this study sets three general categories of independent variables: attendance factors, commodity-related factors, and supply-side factors. The three categories influence the dependent variable and the research outcome eventually.

➢ *Independent Variable. Dependent Variable*

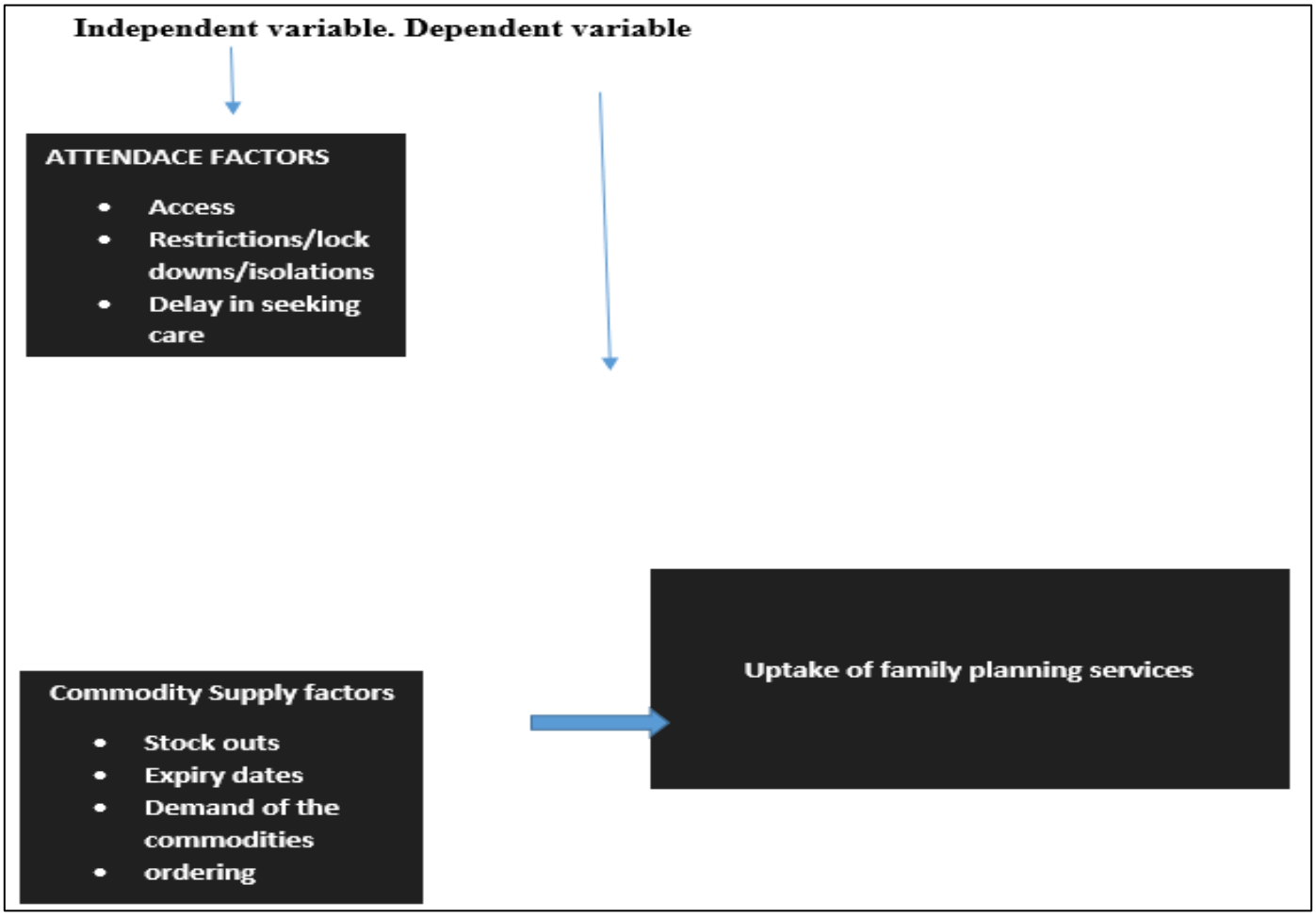

Fig 1 Independent Variable. Dependent Variable

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- *Operationalization of Variables*

The level of contraceptive use, as the dependent variable, is indirectly influenced by the independent variable under the conceptual framework. Lockdowns that disrupted the movement of goods to service delivery points, as well as restrictions on the number of individuals visiting health facilities, significantly limited access to contraceptive services. These disruptions brought about an increase in unfulfilled family planning requirements, thus leading to an increase in unplanned pregnancies, abortion instances, teen pregnancy, and perinatal mortality.

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CHAPTER TWO
LITERATURE REVIEW

- *Overview*

The chapter begins by outlining the data search techniques employed throughout the process of data review. The chapter then presents a review of empirical data, which is logically organized based on the specific study objectives. The chapter ends by highlighting the key terms and keywords employed during data collection to guide and focus the search and analysis processes.

- *Search Strategy*

A thorough search of electronic databases, such as Google Scholar, ClinicalKey, and the Cochrane Library, was carried out. Before starting the systematic review, key search terms were defined, as presented above. The search parameters were confined to English-language publications, with only those articles published from December 2020 onwards being included. A manual search was also performed to collect pertinent physical sources. Boolean operators were utilized to refine the search strategy, with the conjunction "AND" being utilized to merge main concepts—such as "Family Planning AND COVID-19."

- *Inclusion & Exclusion Criteria and Data Extraction*

There was a systematic search for articles on COVID-19 and family planning. The search was limited to Google Scholar to ensure ease of referencing and in-text citation through EndNote. Articles used were only from December 2019 and later, as that is when COVID-19 was initially reported in Wuhan, China. However, for the purposes of this review, December 2020 was set as the cut-off date for inclusion to capture literature after the initial outbreak and to focus on novel effects on family planning.

Articles published prior to December 2020 or from databases other than Google Scholar were excluded. The retrieval process was systematic, beginning with global data, followed by regional studies, African data, and finally narrowing down to specific studies for Kenya. Each article was screened for relevance and acceptability for inclusion in the literature review based on whether it addressed the intersection of COVID-19 and family planning.

- *COVID-19 Pandemic*

UNFPA reports show that the COVID-19 pandemic interrupted the use of contraceptives among nearly 12 million women and resulted in approximately 1.4 million unintended pregnancies in 115 developing countries in 2020 (Organization, 2021). Fulfilling the unmet family planning needs is one of three UNFPA transformative targets for the attainment of the Sustainable Development Goals (SDGs). However, COVID-19 has jeopardized the gains toward these universal aspirations.

Nearly two years into the pandemic, emerging evidence suggests that the disruptions to family planning services were more severe than originally estimated, particularly during April and May of 2020. The resilience of some health systems was overestimated, and ongoing disruptions remain a concern. Poor data and heterogeneous impacts across countries underscore the need for continued monitoring and analysis. The devastating social and economic impacts of the pandemic have reignited the imperative to act for girls and women (Candeias et al., 2021).

Adelekan et al. (2020) reported a 10% decline in the use of both short- and long-acting reversible contraceptives in the developing world, largely due to lack of access. Their estimate indicated that this could lead to 49 million additional women with unmet needs for modern contraception and 15 million unwanted pregnancies annually.

Containment measures such as physical distancing, isolation, and movement restrictions directly affected the utilization of reproductive health services, putting women at greater risk of unwanted pregnancy. Lockdowns hindered individuals from reaching contraceptive supplies and services, resulting in increased maternal mortality, unsafe abortions, and other complications (Asratie, 2021).

The World Health Organization (WHO) surveyed 103 countries and found that two-thirds of them experienced family planning and contraceptive service disruptions. Such delays in seeking, receiving, and accessing care are expected to increase the morbidity and mortality burden due to unintended pregnancies (Biswas, Poddar, Saravagi, & Nilakantan, 2021).

Projections indicate that the interruptions in family planning services can extend for over a year, affecting 51 million women of reproductive age who may not be in a position to utilize modern contraceptives. This could result in 15 million unintended pregnancies. An approximate 10% annual decrease in access to family planning and pregnancy care can also significantly increase child, newborn, as well as maternal morbidity and mortality.

The pandemic also affected women's reproductive intentions. In the US, one out of three women changed their reproductive plans—either delaying pregnancy or intending to have fewer children. The same trends were observed in Burkina Faso, Kenya, and the Democratic Republic of Congo, where 9% to 14% of women reported that COVID-19 had influenced their pregnancy intentions (Mickler et al., 2021).

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- *Utilization of Family Planning Commodities (By Method) Before and During the COVID19 Period.*

Family planning encompasses a number of methods aimed at enabling men and women, and couples, to decide freely and responsibly the number and spacing of children. They include the natural methods and the barrier methods, particularly the condom used by men for centuries. In the late 1960s, other alternatives such as intrauterine contraceptive devices (IUCDs) and oral contraceptive pills became available, bringing a revolutionary shift in global use of family planning. Global support for family planning followed. Other procedures like the vaginal ring, emergency contraception, and implants were introduced a few years later to complete the diverse range of contraceptive needs of clients from permanent sterilization to spacing.

The use and uptake of specific family planning practices continue to shift based on varied factors like clients' requirements, duration of child spacing, fertility trends, socio-cultural forces, and women of reproductive age's age (Omar & AbdiKadir, 2018).

In 1994, it was delegates' meeting in Cairo, Egypt, where 179 nations were present. The objective was to chart a new path toward guaranteeing access to reproductive health services globally. The delegates committed to ensuring men and women access a number of contraceptive options. They identified the importance of empowering individuals to make knowledgeable decisions based on age, state of health, and personal needs (Kabiru & Caroline, 2019).

This vision aligns with the Sustainable Development Goals (SDGs), Goal 3.7, where universal reproductive health care access is targeted by the year 2030. This includes ensuring education and information on family planning and aligning the policies of countries to better support reproductive health. Uptake rates and the variety of contraceptive methods used (Li et al., 2020) are metrics for tracking this goal.

The application of contraceptive measures varies from nation to nation, based on availability, healthcare infrastructure, policy, technological advancement, and user acceptability—like side effects and efficacy. Various governments at both the national and subnational levels have contributed decisively to the legitimation and promotion of reproductive health services. Lastly, the range of choices available to people mainly depends upon regional availability and accessibility.

According to a report done by the United Nations in 2019, female sterilization was the most commonly used contraception method worldwide, representing 23.7% among women. Other highly used methods were male condoms, IUCDs, and the pill. 45.2% users had access to long-acting or permanent methods like implants and IUCDs, and 46.1% users enjoyed the benefit of short-acting like male condoms, oral contraceptives, and injectable. Natural methods were used by as low as 8.7% (UN, 2019). In developing countries such as sub-Saharan Africa and Kenya, short-term methods such as oral pills and injectable are most prevalent.

A collaborative January 2021 study by the United Nations Population Fund (UNFPA) and Avenir Health in 115 developing countries estimated the impact of COVID-19 on family planning. In May 2020, there was a drastic decline in the use of contraceptives. But most countries were able to restore access to essential health care, including family planning. It was estimated that 12 million women might have been denied access to such services due to the pandemic and faced an estimated 1.4 million unintended pregnancies due to disruption of services for a period of 3.6 months on average (Ferreira et al., 2020).

Lockdowns, movement restrictions, and social distancing also contributed to the decline in the utilization of contraceptives because women were fearful of visiting health centers. Global supply and manufacturing chains were also disrupted, further limiting availability of family planning commodities. These disruptions were a result of movement restrictions in the countries of origin and destination.

UNFPA went ahead to buy and provide contraceptives and other reproductive health commodities in spite of these disruptions. Strategies included addressing early-year orders, re-deploying inventory, increasing country-level flexibility, increasing monitoring, and procuring emergency reproductive health supplies and protection equipment for frontline health workers. The majority of countries still face significant difficulties delivering core family planning commodities. UNFPA persists in collaborating with governments and partners to prioritize the reproductive health of women and girls throughout and in the aftermath of the pandemic.

- *Operationalization of Variables*

The level of contraceptive use, as the dependent variable, is indirectly influenced by the independent variable under the conceptual framework. Lockdowns that disrupted the movement of goods to service delivery points, as well as restrictions on the number of individuals visiting health facilities, significantly limited access to contraceptive services. These disruptions brought about an increase in unfulfilled family planning requirements, thus leading to an increase in unplanned pregnancies, abortion instances, teen pregnancy, and perinatal mortality.

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CHAPTER THREE
RESEARCH METHODOLOGY

➢ *Overview*

This chapter outlines the research design and the type of variables used in the study. It also marks the study site and population, highlights the sample size and sampling methods, and describes the research tools used. The chapter also touches on pilot testing, data collection techniques, reliability and validity processes, ethical considerations, and finally, the data analysis and presentation methods used.

➢ *Study Design*

Research design is a general plan of action since it is a bridge between research questions and actually putting them into practice or conducting the research (Durrheim, 2006). It is processes by which a researcher achieves the desired solutions, for instance, acquiring appropriate data in the area of research and adequate processing of the same through analysis.

This study employed a quantitative research design, which involved a retrospective medical record review over two distinct 18-month time periods: one prior to the COVID-19 pandemic and one during the pandemic. Quantitative research designs attempt to make statistically significant inferences about a population by analyzing a representative sample (Lowhorn, 2007).

➢ *Study Area*

Data collection was done at Teso North Sub-County Hospital, the main health facility for the residents of Teso North Sub-County. This sub-county is one of the four in the western part of the country and lies between latitudes 0°00' and 0°45' north, and longitude 34°25' east, covering a surface area of approximately 1,695 square kilometers. There are seven sub-counties in this county, namely Nambale, Matayos, Butula, Samia, Bunyala, Teso North, and Teso South.

According to the 2014 Kenya Demographic and Health Survey (KDHS), the county's total fertility rate was 4.7, higher than the country's average of 3.9. The contraceptive prevalence rate stood at 56% in the county, slightly less than the 58% national rate before the COVID-19 pandemic.

➢ *Study Population*

A study population is the population about which a researcher wishes to draw conclusions about the results of a study (Mugenda & Mugenda, 2003). According to statistics from the DHIS (2021), Teso North Sub- County had an estimated total population of 949,104 people, of whom 230,672 were women of reproductive age. Teso North Sub- County Hospital has a catchment population of 36,765 people. In this catchment, 16,467 were women of reproductive age who constituted the study population.

➢ *Sampling*

- *Sample Size*

The study included 16,467 reproductive age women who had previously attended family planning services in Teso North Sub-County Hospital. The population for the study was those women who came to the family planning clinic during and prior to the COVID-19 period, as operationally defined in terms provided above. According to the DHIS data, there were 4,683 client records for this period.

- *Exclusion Criteria*

The study excluded records that had incomplete documentation.

- *Inclusion Criteria*

Every woman and men who were attended to family planning service in Teso sub county hospital were included. These included even those who received FP services in CCC, PNC and in labor ward.

- *Sampling Technique*

Determining a Sample size was the process and method of picking several observations to comprise them in a sample. A sample size should be properly secured to enable generalized and valid conclusion. I conducted census of all entries in the family planning registers.

➢ *Research Instruments*

I used a data checklist the collect the require data. The study employed primary data sources and compare with secondary data to exhaust readily available information. The primary data sources were the family planning registers (MOH512) and stock control cards which was compared with reporting tools (MOH711and717).

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➢ *Ethical Consideration*

Consent was sought from the directors department of health and sanitation Busia County, the medical officer of health Teso north Sub County and the medical superintendent, Teso North Sub-County Hospital. The collection of data did not commence before all approvals were obtained. The researcher completely adhered to the requirements of the research approval granted, being completely confidential and private for all the records.

➢ *Confidentiality*

The researcher ensured that all hardcopy documents containing data were stored under lock and key. For data stored electronically, access was password-protected. According to government regulations, I will destroy the hardcopies securely and delete the digital data from the computer irretrievably after five years.

➢ *Pilot Testing.*

Prior to conducting the study, the researcher conducted a pilot test at Butula Sub county Hospital to evaluate the data extraction tool. Data was extracted for two months before the COVID-19 pandemic and two months during the acute phase, which were then compared. The pilot test was also helpful in providing valuable information on the time it took to respond and identifying the necessity of reformulating the data tool so that it was in line with the records available. Therefore, the researcher re-drafted the questionnaire, where the researcher replaced 'marital status' with 'sex' and added natural methods of family planning. In summary, the pilot test was crucial in determining the questionnaire for the entire study.

➢ *Data Collection*

- *Data Collection Techniques and Tools*

The researchers made use of a data extraction tool specifically designed to determine the necessary data for the study purposes. The tool was used in combination with service delivery-level data collection instruments, such as the family planning registers and bin cards, which track contraceptive use by method. Information was collected between September 2018 and March 2020, and their results were compared with information collected between April 2020 and August 2021, once the government relaxed curfews and lockdowns.

- *Data Management*

All the authorities concerned with the study were approached formally, and necessary permission was obtained. The researchers cross-checked the completed checklists to establish authenticity in terms of accuracy, comprehensiveness, and the absence of any gap or error. Subsequently, the researcher gave numerical codes to the response for each question on the checklist. The coded data were then entered into the computer for the analysis with SPSS Data Analysis Package, Version 26.

- *Data Analysis and Presentation*

Data analysis involved inferential and descriptive statistics. Within descriptive statistics, measures of central tendency (mean, mode, and median), measures of dispersion (range, standard deviation, and variance), and distribution (percentages and frequencies) were calculated. The researcher also examined relationships between variables via correlation analysis.

For inferential statistics, the researcher analyzed the variable relationships. The Chi-square test and the Student's t-test were utilized to compare means. P-value < 0.05 was considered to ascertain statistical significance.

The key findings from the analysis were presented and illustrated in the form of tables, figures, and graphs for quick and easy understanding.

➢ *Dissemination Plans*

The researcher will share the findings by making copies of the report available to the facilities where the research was conducted, Teso North Sub-county Hospital and the department of Health and sanitation Busia county government. The findings will also be disseminated through peer-reviewed journals and presented at associated conferences.

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CHAPTER FOUR
RESULTS

➢ *Overview*

This section gives findings of the study based on records' evidence as gathered during review. Evidence was gathered over a period of five days from 20th to 25th October 2024. Census of accessible records was conducted in order to acquire wide coverage.

➢ *Family Planning Attendance*

- *Attendance by Age*

The researchers analyzed data on the ages of clients who attended the family planning clinic from September 2018 to February 2020 and compared it with attendance by age from March 2020 to August 2021. The results are presented in Table 1 below.

Generally, there was a notable decline in the number of clients accessing family planning services across all four age groups. Clients aged 25 years and above remained the predominant users of family planning services both before and during the pandemic.

A particularly significant decrease was observed in the 15–19 age group, where the average monthly attendance dropped from 17 (60.7%) before the pandemic to 11 (39.3%) during the pandemic period, as illustrated in Table 1.

Table 1Showing FP Attendance by Age

Age in years	Pre-COVID period monthly average (Sept2018–Feb2020)	During COVID period monthly average (Mar2020–Aug2021)	Total
0-14	1(50%)	1(50%)	2(100%)
15-19	17(60.7%)	11(39.3%)	28(100%)
20-24	58(53.7%)	50(46.3%)	108(100%)
25+	131(54.1%)	111(45.9%)	242(100%)

ANOVA test was used to determine whether age and FP attendance. ANOVA was the most appropriate techniques in there were more than two age categories and FP was numerically measured as shown in table 2 below;

Table 2 Showing Tests of Between-Subjects Effects (ANOVA)

Measure: FP					
Transformed Variable: Average					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	1206485	1	1206485	9.036	0.005
Error	4940381	37	133523.8		

The FP attendance was significantly different between different age categories, $F(1,37) = 9.04, P<0.05$ (Table4.2). The study rejects the null hypothesis which states that FP attendance is the same across age groups since the p value of the ANOVA test was less than the significance alpha value of 0.05.

- *Family Planning Attendance by Gender*

The study sought to compare family planning attendance by gender. There was a drop in the number of female clients seeking FP services from an average of 209 (56.8) in the pre-COVID period to an average of 159 (43.2%) during the pandemic. There was no change in men seeking family planning service during both periods as shown in table 3 below.

Table 3 Comparing FP Attendance by Gender in the Pre and During COVID Periods

Sex	Pre COVID period (Sept2018–Feb2020) (Monthly average)	During COVID (Mar2020–Aug2021) (Monthly average)	Total	Deviation (%)
Male	0	0	0	0
Female	209(56.8%)	159(43.2%)	368(100%)	50(13.6%)

Two-sample independent test was used to determine if the difference in the FP attendance was significant between male and female respondents and between pre and during COVID pandemic. This was the most appropriate techniques in the independent variable gender and COVID-19 period had only two groups and the dependent variable FP was numeric as shown in table 4 below;

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Table 4 Showing Two Sample Independent T-Test Results Between FP and Gender

Levine's Test for Equality of Variances			t-test for Equality of Means		
	F	Sig.	t	Df	Sig.(2-tailed)
Equal variances assumed	21.54	0.00	-3.085	72	0.003
Equal variances not assumed			-3.085	36.067	0.004

The FP attendance in the pre and during COVID periods was significantly different between male and female respondents, t (72) =21.54, p<0.05. The study rejects the null hypothesis, which states that FP attendance was the same between male, and female since the p value of the test was less than the significance alpha value of 0.05. FP attendance was significantly higher among females compared to male as shown in table 5 below;

Table 5 Showing Two Sample Independent Test Results Between Pre and During COVID FP Attendance.

Levine's Test for Equality of Variances			t-test for Equality of Means		
	F	Sig.	t	Df	Sig.(2-tailed)
Equal variances assumed	18.34	0.00	-3.085	72	0.03
Equal variances not assumed			-3.085	36.067	0.04

The FP attendance was significantly lower between male and females during the COVID period compared to the pre COVID period, t (72) =18.34, p=0.03. The study rejects the null hypothesis, which states that FP attendance was the same between pre and during COVID periods in the p value of the t-test was less than the significance alpha value of 0.05.

- *Family Planning Attendance by Visit (New and Re-Visit)*

The figure below shows the attendance by visit and the total number of clients who sought family planning services in the pre-COVID period and during the acute COVID-19 period. For new visits there was an almost 10% drop from 97 (55.3%) before COVID period to 66 (44.7%) during COVID period. The revisits % drop from 115 (55.3%) before COVID to 93 (44.7%) during COVID as shown in figure 2 below.

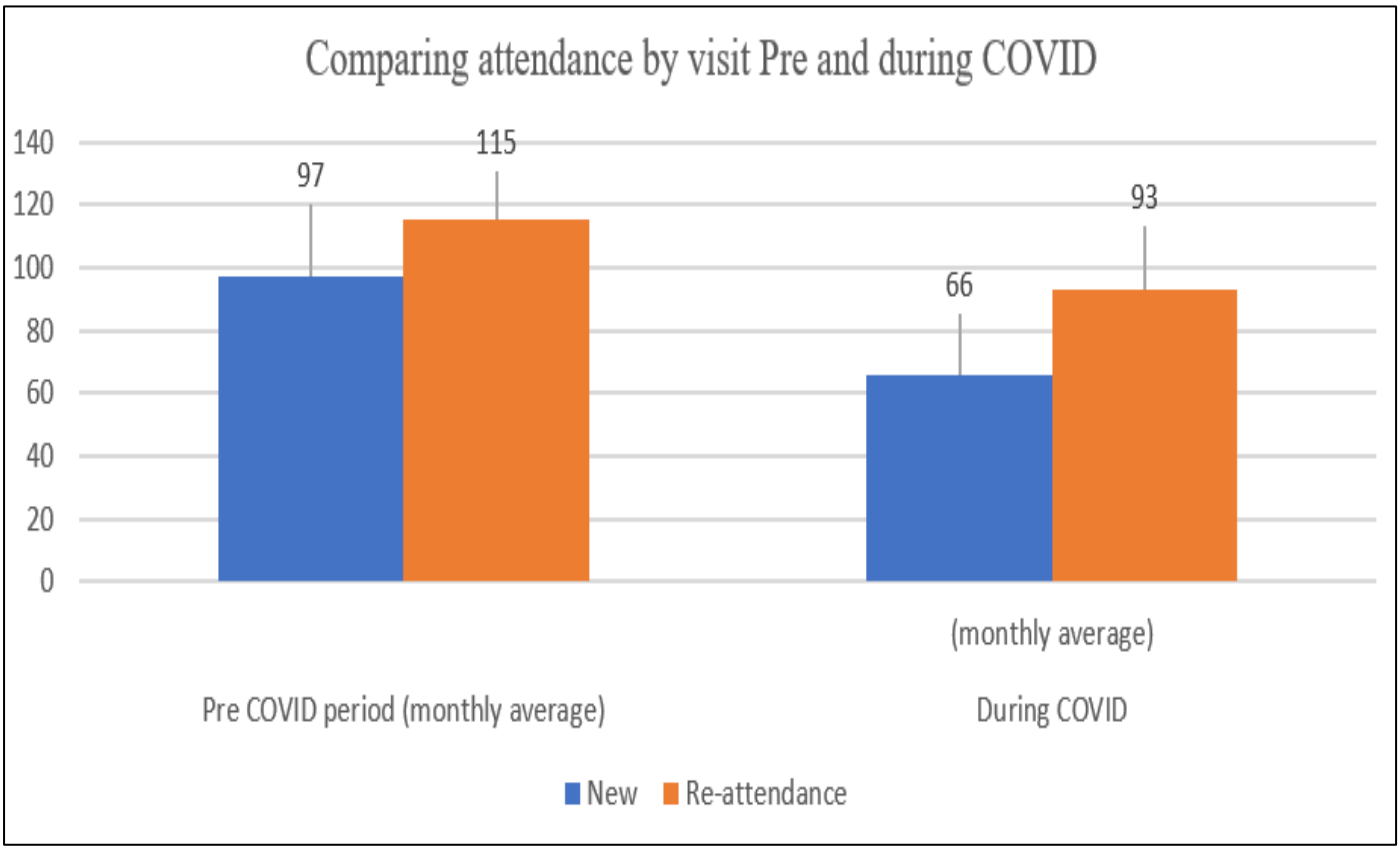

Fig 2 Comparing Attendance by Visit

- *Family Planning Attendance by Visit Total Attendance (New and Re-Visit)*

The total monthly average number of clients seeking FP services dropped from 209 (56.8%) in the pre-COVID-19 period to an average of 159 (43.2%) during the acuteCOVID19 period to average of 159 (43.2%) during the acute COVID 19 period as shown in the table 6 below.

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Table 6 Comparing Total Attendance by Visit

Attendance by visit	Pre COVID period (monthly average)	During COVID (Monthly average)	Total	Deviation N (%)
New	97(55.3%)	66(44.7%)	163(100%)	-31(10.6)
Re-attendance	115(55.3%)	93(44.7%)	208(100%)	-22(10.6)
Total attendance	209(56.8%)	159(43.2%)	368(100%)	-50(13.6%)

➢ *Contraceptive Utilization by Method*

The researcher sought to understand the effect of COVID-19 on the consumption of the different FP methods by comparing the average monthly consumption of each method before and during the acute period. Generally, there was reduction in consumption of most of family planning methods in the COVID-19 period. Male condoms dispensed reduced from 52.3% to 47.7%, uptake of injectable contraceptive reduced from 56.8% to 43.1% whereas the use of implants similarly dropped from 56.9% down to 43.1%. The uptake of permanent and natural methods remained low just as before as shown in table 7 below.

Table 7 Sowing Method Use Pre and During COVID

Method type	**Specific method**	**Pre-COVID (monthly average, number dispensed)**	**During COVID (monthly average, number dispensed)**	**Total**	**Deviation n (%)**
Condoms	Male	302(52.3%)	276(47.7%)	578(100%)	-26
	Female	5(83.3%)	1(16.7%)	6(100%)	-4
Pills	COCs	40(40%)	60(60%)	100(100%)	+20
	POPs	3(18.7%)	13(81.3%)	16(100%)	+10
	Ecs	0	0	0	0
Injectable	Injectable contraceptive	67(56.8%)	51(43.1%)	118(100%)	-16
Implants	Implants	70(56.9%)	53(43.1%)	123(100%)	-17
IUCD	IUCDs	6(54.5%)	5(44.5%)	11(100%)	-1
Permanent	BTL	0(0%)	1(100%)	1(100%)	
	Vasectomy	0	0	0	0
Natural	Natural FP methods	0(0%)	0	0	0

After conducting descriptive analysis on the relationship between different contraceptive methods, we used Two-way ANOVA test to determine if the difference in the use of different contraceptive methods pre-COVID and during-COVID was significant. ANOVA test was the most appropriate techniques in there were more than 2 contraceptive methods to be compared. The table 8 below shows the ANOVA results of the contraceptive methods.

Table 8 Showing Anova Results of the Method Use Pre and During Covid Periods.

Measure: Method					
Transformed Variable: Average					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Method	339000.1	7	339000.1	8.961	0.005
Period	334000.1	2	167000	6.32	0.007
Error	1399697	37	37829.64		

The *method used pre and during COVID periods* was significantly different among the people, $F(7, 37) = 8.96$, $p<0.05$. The study rejects the null hypothesis, which states that the number of people using different methods is the same since the p value of the test was less than the significance alpha value of 0.05.

The *FP attendance pre and during COVID periods* was significantly different among the people who participated in the study, $F(2, 37) = 6.32$, $p<0.05$. The study rejects the null hypothesis, which states that the number of people using contraceptives before and during COVID was the same since the p value of the test was less than the significance alpha value of 0.05.

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CHAPTER FIVE
DISCUSSION

➢ *Overview*

This chapter presents findings of the study, which sought to determine the effects of COVID-19 on the uptake of family planning services in Teso north Sub-county Hospital. The study sought to compare the attendance 18 mpnths before COVID-19 period and 18 months during acute COVID-19 period. It also sought to compare the utilization of the various family planning commodities by method and compare the stock supply 18 months to the pandemic and 18 months during the acute COVID19 pandemic period. The chapter presents both descriptive and inferential statistics used in data analysis. Study findings are presented followed by interpretations and discussions objectively.

➢ *Family Planning Attendance*

- *FP Attendance by Age*

In each of the four age categories, there was a noticeable decrease in the number of clients using family planning services. There was a significant drop from 54.2% to (45.9%) during the pandemic period which was consistent with results of Adelekan *et al*.,2020 in their study report which indicated 10% drop in consumption of short and long-acting reversible family planning commodities specifically in developing countries due to limited access and uptake. Two-thirds of the 103 countries surveyed by the World Health Organization (WHO) reported interruptions in contraception and family planning services. There was an increase in the burden of death and morbidity related to unfavorable pregnancy outcomes due to covid 19 epidemic that let to delays in getting, accessing, and seeking care (Biswas, Poddar, Saravagi, & Nilakantan, 2021).The disruptions experienced in health services during the COVID-19 pandemic adversely affected the accessibility and sustainability of FP services (Moges *et al*., 2020; Bekele *et al*., 2020; Vora *et al.*, 2020). In their studies in the literature, the main reasons for the disruption of FP services were determined as follows: quarantine, social isolation, thinking that there is a high risk of COVID-19 transmission in health institutions, lack of contraceptive materials in health institutions due to the closure of the factories producing contraceptive materials, inability to get an appointment from health institutions providing FP services due to some changes in the roles and responsibilities of health professionals

- *FP Attendance by Gender*

Female clients using FP services decreased from 56% during the pre-COVID to 43.2% during the pandemic. The results are consistent with report from Ministry of Health & Family Welfare, Government of India 2020 which noted that the number of clients accessing family planning services reduced drastically during covid 19 pandemic. The report attributed the reduction to covid 19 containment measures. Throughout both periods, there was no change in the number of men seeking family planning services at the hospital with 0% representation. These findings are in line with the findings of Kabiru& Caroline, 2019, who stated that men are always reluctant to seek family planning services

- *Family Planning Attendance by Visit (New and Re-Visit)*

The percentage of clients who sought FP services in the pre and the acute phase for both new attendance and revisits decreased. During acute COVID-19 period, the total average monthly number of clients attending FP services decreased from 209 (56.8%) in the pre-COVID-19 period to an average of 159 (43.2%). These results agrees with a study conducted by the United Nations Development Fund (UNFPA) and Avenair Health whose study findings indicated that there was a drops in the uptake of family planning services by May2020. The drop was attributed to lock down measures put in place by the government to control the infection. Ferreira *et al*., 2020 study had similar findings. The report indicated that the containment measures such as lockdown strategies, movement restrictions, and social seclusion had a negative impact on the adoption of various family planning services. According to reports, women feared going to health facilities for services because they believed their safety would be in danger.

➢ *Contraceptive Utilization by Method*

- *Condoms Use*

Male condom use decreased from 52.3% to 47.7% over the COVID 19 era. In addition, during the COVID-19 epidemic, there was a noticeable decrease in female condom usage, from 83.3% to16.7%. According to French *et al*., 2020 study, the reduction is attributed to restricted access due to covid 19 containment measures. Report by WHO, 2020, also indicated drop in the utilization of family planning commodities during the covid 19 pandemic. The reduction could also be linked to covid 19 containment measures which affected manufacturing, supply and consumption of family planning commodities. The UNFPA report of 2020 acknowledged marked reduction in the utilization of family planning commodities due covid 19 lockdown that affected manufacturing, supply and consumption of Fp supplies. These findings are similar and consistent with study results of Shikuku *et al., 2020* which indicated decline in utilization of family planning commodities

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- *Pills Use*

There was a remarkable increase in the uptake of combined oral pills as a method of family planning with a monthly average of 40 clients (40%) during the pre-COVID-19 period and an average of 60 clients (60%) monthly during the acute COVID-19 period .This is contrary to studies done by Bekele et al., 2020; Vora et al., 2020 whose study findings indicated decrease in utilization of family planning services. The increase in the use could be attributed to availability of the pills in the hospital and the use of community health promoters in the distribution of this commodity. However, there was no uptake of emergency contraceptive pills which could be attributed to non-availability of the commodity in the facility.

- *Injectable Use*

Comparing the pre-pandemic period to the acute COVID-19 phase, there was a lower uptake of injectable contraceptives (56.8%) during the pre-pandemic period and (43.2%) during pandemic. The study findings are consistent with findings of Mbae, 2020 which showed significant decline in the use of injectable contraceptive. The decline could be attributed to measures that were employed to curtail the spread of covid 19 virus. Bekele *et al.,* 2020; Vora *et al.,* 2020 had similar findings which showed significant decrease in the utilization of injectable family planning contraceptives during the covid 19 pandemic.

- *Implants Use*

During the acute period, the uptake of implants similarly decreased from 70(56.9%) monthly insertions to 53(43.1%) insertions. Similar results were also observed by Omar and Abdi Kadhir, 2020.The study findings showed marked decrease in the use of implants .This could be attributed to lock down measures put in place by the government to prevent spread of covid 19 infection. In a study conducted to evaluate FP services during the COVID-19 pandemic in India, UNFPA 2020 report, showed decrease in the utilization of family planning services.

- *Iucds*

Utilization of IUCD reduced from 54.5% during pre covid period to 44.5% during covid pandemic period. The decline could be associated with covid 19 containment measures. The results are in line with study findings of Riley *et al.,* 2020. In their study covering all European countries, it was reported that 307 clinics and public health centers were closed due to the pandemic, and there was an 80% decrease in the rate of women using IUCD as a method of family planning. A study done by Akseer *et al., 2020* showed that there was little access to routine healthcare services due to lockdown and suspended transportation which affected healthcare utilization by their citizens.

- *Permanent Methods*

Both prior to the pandemic and during the acute COVID-19 period, there were no client-done vasectomy procedures, indicating that the uptake of surgical family planning options remained low. Similarly, to this, no female sterilizations occurred throughout the acute COVID-19 era and only one was performed prior to the pandemic. According to a study by the UN in 2019, 23.7% of women using birth control in France didn't favor female sterilization which was not in agreement with the study.

- *Natural Methods*

The uptake of the method remained low during both the pre-pandemic and the cute COVID-19 periods. The results are consistent with study findings by the UN in 2019 which indicated that only 8.7% of women of reproductive age rely on natural family planning methods .The low uptake is attributed to the fact that natural family planning methods do not protect mothers against STIs /HIV or chlamydia and their low effectiveness.

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CHAPTER SIX
CONCLUSION AND RECOMMENDATION

In summary, the pandemic affected some of the determinants of the use of family planning services in Teso North Sub- County Hospital. There was a marked decline in the attendance at clinic and method use. However, the use of both natural and permanent family planning methods remained unchanged to a large extent.

➢ *Recommendations*

- *Service Providers and Policy Makers*

✓ All service providers should make active use of cellular phones and other electronic technologies for creating awareness and use of family planning services.
✓ There should be round-the-clock family planning counseling available at all service outlets in order to avoid unplanned pregnancies

- *National/County Government*

Provide patient-focused telehealth counseling for a range of contraceptive methods in a way that is respectful of individual patient needs and preferences.

✓ Implement support supervision systems for monitoring service delivery, especially involving senior staff in reviewing commodity stocks and encouraging provider health through in-person or web-based engagement.
✓ Campaign for policy change allowing dispensing larger packs of short-acting contraceptives to reduce facility visitation frequency.
✓ Develop and disseminate clear, concise messages across various media outlets such as television scrolls, talk shows, radio (including community radio), social media, and public service announcements, to generate awareness and educate the public.
✓ There is a need to strengthen emergency preparedness and response, utilize community structures for contraceptive delivery

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APPENDICES

➢ *Appendix A.*

- *Data Extraction Checklist*

Table 9 Effects of COVID 19 Up Take on Family Planning in Teso North Sub County Hospital.

Name Of The department																	
										Dateof data collection							
			Year under review														
			J	F	M	A	M	J	J	A	S	O	N	D	Total		
AGE (yrs)	10-14																
	15-19																
	20-24																
	25+																
Sex	Male																
	Female																
	Others																
FP Attendance	New																
	Re-attendance																
	TOTAL																
Contraceptive use by method	Condoms dispensed	Male															
		Female															
	Oral contraceptives	COCs															
		POPs															
		E cs															
	Depo Provera injections																
	Implants insertion																
	IUCD insertion																
	Sterilization	BTL															
	Natural methods																
Stocks upply	Received during the period																
	Condoms	Male															
		Female															
	Pills	COCs															
		POPs															
		Ecs															
	Depo Provera																
	Implants																
	IUCDs																
	Cycle beads																

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- *Data Extraction Summary Sheet*

Table 10 Data Extraction Summary Sheet

Department Name:							**Date:**	
VARIABLE.	VALUE		Pre-COVID-19period		AcuteCOVID-19period		REMARKS	
			July2018toFeb2020		March2020toAug2021			
Age(yrs)	10-14							
	15-19							
	20-24							
	25+							
Marital status.	Single.							
	Married.							
FP attendance	New							
	Re-attendance							
	TOTAL							
Contraceptive use by method.	Condoms dispensed	Male						
		Female						
	Oral Contraceptives Dispensed	COCs						
		POPs						
		A. Cs						
	Depo-Provera.							
	Implants insertions							
	I.U.D insertions							
	Sterilization	BTL						
Stock supply			Received	Ordered	Received	Ordered		
	Condoms	Male						
		Female						
	Oral contraceptives	POPs						
		COCs						
		ECs						
	Depo-Provera.							
	Implants							
	I.U. D							

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➢ Appendix B

Table 11 Work Plan

Task to be performed	**Months**											**Signature**
	Jan	Feb	Mar	Apr	May	Jun	July	August	Sept	October	Nov	J. B
Topic presentation and approval												J. B
Proposal writing												J. B
Preparation of questionnaires', Budget, work plan												J. B
Protesting of tool												J. B
Research proposal presentation												J. B
Data collection												J. B
Data analysis and interpretation												J. B
Submission of final document												J. B

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- *Appendix. C Budget*

Table 12 Appendix. C Budget

ITEMS	**COSTKSH**
Food's cap	500
Book and pen	600
Airtime	600
Typesetting	1500
Transport	1500
Data extraction sheets	500
Binding and contingency funds	2500
Consumables	1600
File Book	400
Total.	9,700ksh

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➢ *Appendix D.*

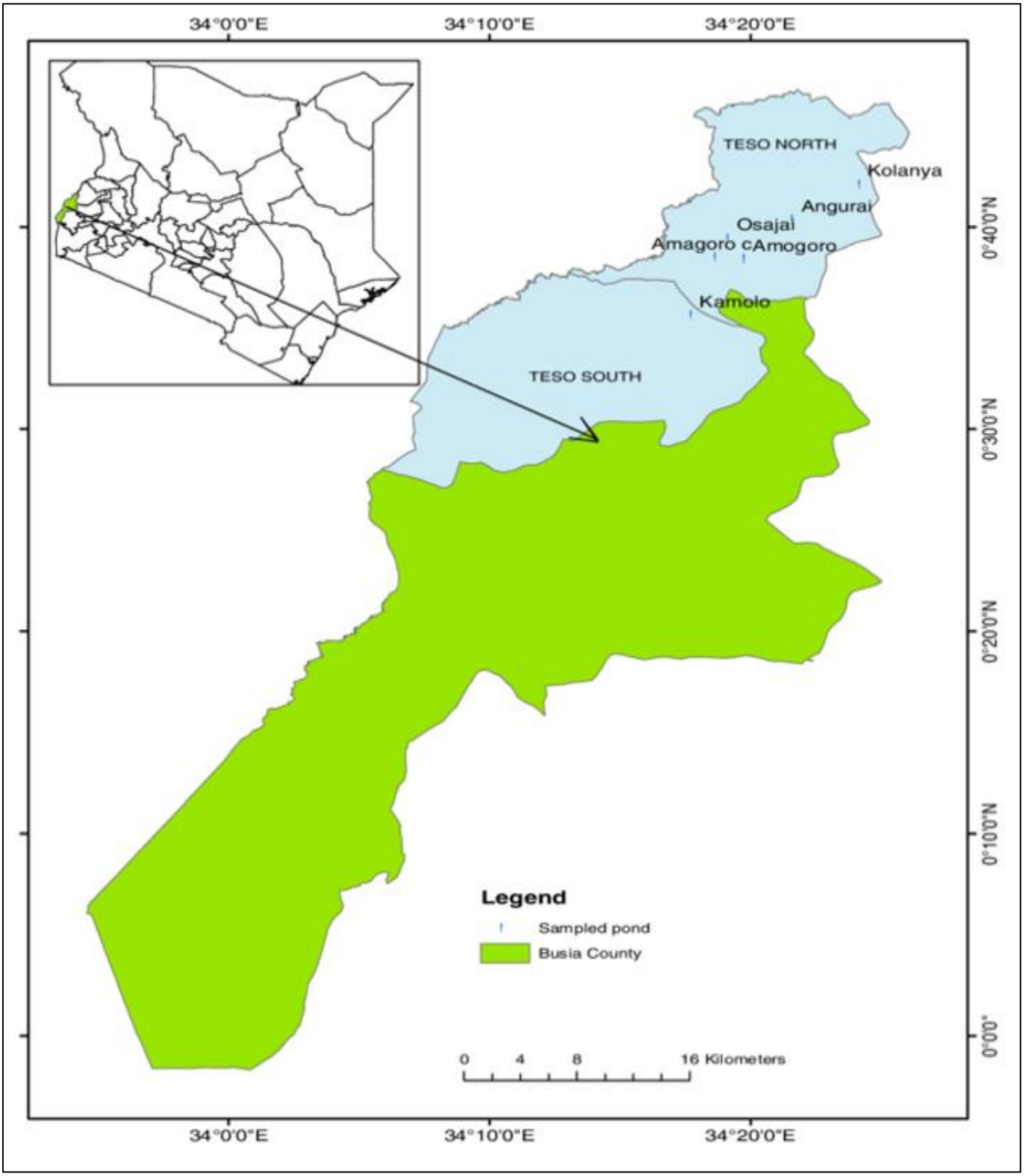

Fig 3 Map of Teso North Sub-County hospital.