HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

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SHS/MPH/5624-3/2022

A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILLMENT FOR THE DEGREE OF MASTER OF PUBLIC HEALTH, DEPARTMENT OF COMMUNITY HEALTH, SCHOOL OF PUBLIC HEALTH OF THE AMREF INTERNATIONAL UNIVERSITY

JULY 2025

DECLARATION AND APPROVAL

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This thesis is my original work and has not been submitted to any other university for the same or a different certification.

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DEDICATION

This thesis is dedicated to my children Bernice Nakhabi, Beata Khalayi and Manuella Busime and my husband Eng. Calistus Wasike for their continued support throughout this work.

ACKNOWLEDGEMENT

I acknowledge my supervisors: Professor Joachim Osur and Dr Faith Muhonja for their invaluable support, guidance and input into this work.

I also acknowledge the Department of Health Services and Sanitation of Trans-Nzoia County, Subcounty Medical officers of Health, facility officers in charge of Primary Healthcare facilities and Community Health Promoters.

Finally, I acknowledge my classmates at Amref International University with whom we have walked this journey.

ABSTRACT

Background: Globally, millions of women experience complications following abortion, requiring post-abortion care (PAC) (Magnus, 2019). The situation is worsened by inadequate PAC services. In Kenya, the provision of quality PAC services is supported by several policy documents, including The Constitution of Kenya (2010), the Kenya Health Policy, the Primary Healthcare Strategy, the Health Product and Technologies Supply Chain Strategy, and the Ministry of Health's 2019 PAC Guidelines.

Objectives: The study aimed to investigate health system factors affecting the provision of PAC by Primary Health Care (PHC) facilities in Trans-Nzoia County, Kenya. Specifically, it sought to identify service delivery factors, human resource factors, and essential supply-related challenges influencing PAC service provision.

Methods: A cross-sectional mixed methods study design was used. Data collection tools included structured questionnaires and key informant interviews. Quantitative data were analyzed using SPSS version 23, while qualitative data were transcribed and analyzed using NVIVO. Results: Out of 160 sampled PHC facilities, the response rate was 81.25%. Key findings showed significant associations ($p<0.05$) between PAC provision and cost of services, patient waiting time, treatment protocols, facility operating hours, and availability of trained staff and supplies. Only 50 providers were fully trained in PAC, while 71 had partial, on-the-job training. Awareness of the 2019 MOH PAC Guidelines was low at 40% among facility managers. Gaps also existed in distribution of functional Manual Vacuum Aspiration (MVA) kits and PAC-specific budgets.

Conclusion: All null hypotheses were rejected. Health system service delivery, human resource capacity, and essential supplies significantly influence PAC provision in Trans-Nzoia County. The study recommends targeted interventions to address these gaps, including further research disaggregated by PHC level and outcome-based client evaluations to enhance PAC service delivery.

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LIST OF ACRONYMS

AMIU:	Amref International University
CHMT:	County Health Management Team
CHPs:	Community Health Promoters
CHU:	Community Health Unit
COVID-19:	Coronavirus Disease 2019
EMMS:	Essential Medicines and Medical Supplies
HFA:	Health for All
HPTs:	Health Products and Technologies
ICPD:	International Conference on Population and Development
IREC:	Institutional Research and Ethics Committee
IUCD:	Intra Uterine Contraceptive Device
KCH:	Kitale County Hospital
KHIS:	Kenya Health Information System
KII:	Key Informant Interviews
Km:	Kilo-meter
MFL:	Master Facility List
MMR:	Maternal Mortality Rate
MOH:	Ministry of Health
NACOSTI:	National Commission for Science, Technology and Innovation

NGO:	Non-governmental Organization
NHIF:	National Hospital Insurance Fund
OJT:	On-job Training
PAC:	Post Abortion Care
PCN:	Primary Care Network
PCNC:	Primary Care Network Coordinator
PHC:	Primary Health Care
SCMOH:	Sub-county Medical Officer of Health
SCHMT:	Sub-county Health Management Team
SDG:	Sustainable Development Goal
SSA:	Sub - Saharan Africa
STIs:	Sexually Transmitted Infections
UHC:	Universal Health Coverage
UNICEF:	United Nations Children's Fund
VCAT:	Value Clarification and Attitude Transformation
WHO:	World Health Organization

DEFINITION OF TERMS

Abortion: Terminating a pregnancy before the fetus attains maturity to survive on its own outside the mother's body. It can occur naturally or can be induced.

Primary Health Care: Relevant basic healthcare services that meet the standard scientific standards, is acceptable by the people and uses the recommended technology.

Post-Abortion Care: Provision of medical, social and psychological support to a woman after an abortion.

CHAPTER 1: INTRODUCTION

1.1 Overview

The following chapter is an introduction of the background of the study, statement of the problem objectives, hyphothesis and justification of the study focusing on the burden of post-abortion complications, health system service delivery factors, human resource factors and health system essential supplies factors.

1.2 Background of Study

Women require post-abortion-care services after termination of pregnancy, which could occur naturally without human interference or could be induced (Dickens, 2019). Abortion is the loss of a pregnancy where the products of conception are expelled before the fetus attains maturity to survive on its own (Ngalame et al., 2020). Post-Abortion-Care (PAC) is the provision of medical, social, psychological, spiritual care and support to a woman after an abortion, (Ministry of Health, 2019). It comprises of management of complications that arise after an abortion, counselling services, provision of contraceptives and linkage to other relevant departments. Around 210 million women get pregnant annually in low- and middle-income countries (LMICs) and close to 50 million pregnancies end in abortion (Magnus et al., 2019).

Consequently, around 8 million women who suffer post-abortion complications don't receive quality PAC services (Murira et al., 2022), causing deaths of almost 900,000 women (Küng et al., 2025). Estimates between 2015 and 2019 show that the Sub-Saharan region experiences almost 8 million abortions annually (Kruk et al., 2018), the

majority of which are unsafe and form 62% abortion related deaths globally (Ngalame et al., 2020). According to the World Health Organization (WHO), unsafe abortion is the termination of a pregnancy by people who lack required technical skills in an environment that is contaminated or unsafe, or both (Govule et al., 2022). Maternal deaths due to unsafe abortion stand at 30 women per 100,000 complications in developed countries, 141 women per 100,000 complications in Africa and 520 women per 100,000 complications in Sub- Saharan Africa (SSA) (Bankole et al., 2018). The postabortion complications experienced in SSA are pelvic infections, bleeding, physical injury, retained products of conception and retained foreign bodies (Pasquier et al., 2023).

The East African region has experienced an increase in abortion rates since the year 1990, with an estimated 2·7 million abortions yearly, the majority of which are unsafe and result in post-abortion complications (Kassa et al., 2024). An estimated seven women per every one hundred unsafe abortions experience serious complications that can be fatal (Qureshi et al., 2020) and one woman dies per every two hundred unsafe abortions (World Health Organization, 2019). Kenya experiences close to 500,000 abortions annually and around 60% of gynecological emergency hospital admissions are due to post-abortion complications (Koko et al., 2025). According to the Kenya Health Information System (KHIS) data, 1803 women sought PAC services in Trans Nzoia County in the year 2022 alone.

Post-abortion care (PAC) is a cost-effective public health strategy that minimizes deaths and disability due to post-abortion complications (Fathalla, 2020; Perera et al., 2021, Ministry of Health, 2019, World Health Organization, 2022). However, the African region has not attained non-discriminatory and continued access to efficient health

systems and there exist geographical variations, especially in rural areas where post-abortion care is still a challenge (Aantjes et al., 2018,; Oudraogo & Juma, 2020; Oyekola et al., 2020). In Sub-Saharan Africa, women mostly seek PAC services in primary health care facilities and public hospitals (Bankole et al., 2018). However, most primary healthcare facilities both in SSA and the East African region are unable to provide PAC services (Owolabi et al., 2019). This could be due to challenges at the health facility level (Izugbara et al., 2020; Sully et al., 2018). Kenya faces the same challenges resulting in multiple referrals and delays in care hence worsening post-abortion complications leading to maternal deaths (Murira et al., 2022; Mutua et al., 2018).

In Kenya, Primary Healthcare (PHC) facilities consist of health centres and dispensaries i.e. level two and level three healthcare facilities. PHC is the immediate level of a healthcare system where an individual makes the initial interaction with the healthcare system and acts as a link to higher levels of care (Astana Declaration, 2018). The PHC concept aims at ensuring that every individual accesses essential health service wherever they are as per the Alma Atta Declaration of 1978. From the Kenya Health Information System (KHIS) data, 1803 women sought PAC services in Trans Nzoia County in the year 2022 alone. They utilized both government and nongovernmental health facilities. However, most patients sought PAC services from the Kitale County Hospital (KCH) despite coming from peripheries where there are both government and nongovernmental PHC facilities.

1.3 Statement of the Problem

The Kenya Health Policy (2014–2030) and the Kenya Primary Healthcare Strategic Framework of 2019 emphasize on the delivery of quality essential health services to all, including post-abortion care provision at the primary healthcare facility level. Globally, Sustainable Development Goal 3 targets to reduce maternal mortality to less than 70 per 100,000 live births by the year 2030. Kenya's maternal mortality rate is still high at 355, with Trans-Nzoia County at 287 per 100,000 live births. Despite having 192 PHC facilities, only 14% of PAC clients accessed care at this level in the year 2022 in Trans Nzoia County, while nearly half of the PAC clients served at the to Kitale County Hospital for basic PAC services were referred by PHC facilities or self-referred from the peripheries. This indicates significant health system gaps in PHC facilities, including service delivery challenges, limited provider capacity, shortage of essential medicines and medical supplies, poor coordination of referral services, and low community trust in health services at PHC facilities. These health system challenges contribute to delays in care, overburdening of referral hospitals, and increased risk of preventable complications and maternal deaths. Addressing these barriers is mandatory to achieve national and global maternal health goals and ensure equitable access to quality PAC services (Perera et al., 2021; WHO, 2022).

1.4 Objectives

1.4.1 Broad Objective

To investigate health system factors affecting the provision of post-abortion care by primary healthcare facilities in Trans-Nzoia County, Kenya.

1.4.2 Specific Objectives

1. To determine health system service delivery factors affecting the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.
2. To describe human resource factors affecting the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.
3. To identify health system essential supplies factors affecting the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.

1.5 Research Hypotheses

1. Health system service delivery factors do not affect the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.
2. Human resource factors do not affect the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.
3. Health system essential supplies factors do not affect the provision of post-abortion care services by primary healthcare facilities within Trans-Nzoia County, Kenya.

1.6 Justification of Study

The Constitution of Kenya 2010 gives every Kenyan a right to the highest attainable standard of health including reproductive health. Therefore, women in need of PAC services in Trans Nzoia County should access these services in the nearest dispensary or

health Centre without necessarily having to be referred to the Kitale County Hospital except for acute and complicated PAC cases (Juma, 2022; Mutua, 2018; World Health Organization, 2018). However, this is not the case since women in need of basic PAC services are referred from the peripheries to the county hospital causing delays in obtaining PAC services hence worsening of complications which might lead to disability or death of women.

Health service delivery is a devolved function in Kenya therefore there exists variations in health service delivery from county to county and within the same county (Tsofa et al., 2017). This is because devolution has empowered county government leadership to autonomously manage health services which has resulted in variations in health facility operations, management of human resources for health and availability of HPTs (Tsofa et al., 2017). This study sought to identify facility operation factors, human resource factors and health products and technologies factors leading to the referral of women to the KCH for basic PAC services. This will guide the County Department of Health Services and Sanitation in developing home-made solutions to mitigate unnecessary referrals, delays in obtaining PAC services and crowding at the KCH for basic PAC services hence reducing maternal disability and deaths.

The study findings will build on the body of knowledge on reproductive health services including the provision of PAC services and contribute to the realization of Universal Health Coverage (UHC) (Moore et al., 2021). UHC is whereby all people can readily access and utilize essential healthcare services of standard quality and obtain essential medicines and vaccines without incurring catastrophic costs (Masefield et al., 2020).

1.7 Significance of Study

The purpose of this study is to examine the health system factors influencing the provision of post-abortion care services at primary healthcare facilities in Trans-Nzoia County. The findings will identify critical insights for the County Department of Health Services and Sanitation, to enable development of targeted policies aimed at closing identified gaps and enhancing quality and provision of timely PAC services by PHC facilities.

This shall reduce unnecessary referrals to Kitale County Hospital hence minimize delays in care, alleviate congestion at referral facilities, and reduce the financial burden on women as they seek PAC services. This will eventually reduce maternal disability and deaths in the county, in line with the global target of reducing maternal mortality to less than 70 deaths per 100,000 live births by the year 2030.

The findings will also inform public health policy, guide the development of appropriate training programs for healthcare providers and support infrastructural improvements to provide quality PAC services. Women and other vulnerable populations shall receive timely and patient cantered care.

This will guide on allocation of healthcare resources for sexual and reproductive health programs in the county. Health sector stakeholders will be guided on key areas for investment and strategic support. The baseline data generated will serve as a benchmark for measuring the impact of future interventions.

Importantly, this research aligns with the Master of Public Health specialization in School Health and Safety since it addresses the intersection of reproductive health, adolescent health and well-being and access to essential healthcare services. In 2022, adolescents of school-going age accounted for 30% of women seeking PAC in Trans-Nzoia County according to data in the Kenya Health Information System. This is attributable to the high prevalence of teenage pregnancies in Trans Nzoia County which is a serious public health concern within school and college populations. This group is at an increased risk of unsafe abortions and associated complications that could lead to disability, school dropout, poor academic performance, or death. These outcomes compromise both health and educational attainment of both school and college populations. Therefore, the study will inform the design of youth-friendly, school-linked reproductive health services that promote safer school environments and improved health outcomes for learners.

1.8 Limitations and Delimitations of the Study

1.8.1 Limitations

Since the study was conducted in primary healthcare facilities on working days during working hours, there was some slight disruption in service delivery.

1.8.2 Delimitation

To mitigate this, the facilities to be visited were informed at least 2 weeks in advance to make prior arrangements to have additional staff to continue offering services on the material day.

1.9 Assumptions

In this study, it was assumed that the health facilities respondents will cooperate and provide unbiased responses given the sensitive nature of the research study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The following chapter is a review of the literature focusing on the burden of post-abortion complications, health facility operation factors, human resource factors, health products and technologies factors. It also highlights the gaps that the study sought to fill and lays ground to link to the methodology of the study in the next chapter.

For every 100,000 abortions worldwide, around 50 women die due to post-abortion complications which can be prevented through the provision of timely PAC (World Health organization, 2022). Unsafe abortion is a major cause of almost seven million post-abortion complications which result in around 900,000 maternal deaths worldwide (World Health Organization, 2018). The most common post-abortion complications are incomplete abortion, bleeding, pelvic infection and genital trauma (World Health Organization, 2021). Documented data on maternal deaths per 100, 000 complications is 30 women in developed countries, 141 women in Africa and over 520 women in SSA (Okonji et al., 2023). In the SSA, abortions could be spontaneous, self-induced or induced by other persons like herbalists and boyfriends (Baguiya et al., 2022).

A Conference was held in Egypt in the year 1994 which was attended by 179 countries including SSA states, where countries in attendance committed to provide PAC services back home (Izugbara et al., 2020). However, 30 years later, health-care facilities in many countries are still struggling to provide PAC (Owolabi et al., 2019). Post-abortion care is a fair and realistic strategy that minimizes harm due to unsafe abortion by timely managing post-abortion complications (Adde et al., 2024). For instance, Yemen has a

dysfunctional healthcare system due to a prolonged political crisis that has affected the supply of medical commodities, human resources for health and healthcare financing, (UN Office for Coordination of Humanitarian Affairs, 2018). Contraceptives and PAC services are only offered in sixteen public health facilities (33%) in the entire country. The country's ministry of health supplies health products and technologies, conducts support supervisions and has a monitoring and evaluation system to ensure continued PAC service delivery. These strategies are similar to those applied by some SSA countries to improve PAC service delivery (Ghana Health Service, 2019; Izugbara et al., 2020).

2.2 Review of Related Literature

2.2.1 Health System Service Delivery Factors

In any organization, service delivery are day-to-day activities, processes, and workflows that the organization engages in to serve customers. These daily operations determine the ability of an institution to meet the needs of its clients. In a health facility, service delivery entails the range of services provided by the facility as per the service charter and is dependent on availability of resources and supporting infrastructure. Post-abortion care clients require a range of services from a health facility which need to be well coordinated to ensure timely, safe, effective, efficient, accessible, patient-centred, non-discriminatory and equitable health services (The Kenya Quality Model for Health, 2014). The services include the management of complications that arise following an abortion, provision of a method of contraception, counselling services, other relevant

health services like sexually transmitted disease (STIs) testing and treatment and linkage to other departments.

Health facility working hours or days directly affect patient waiting time. The cost of PAC services determines affordability and access to services. Proper and relevant documentation of services provided and reporting to relevant authorities is necessary to improve PAC services quality. The availability of a dedicated reproductive health room ensures uninterrupted PAC service provision and accords patients convenience and privacy. PAC service providers are also able to integrate PAC services like management of complications, provision of counselling services and provision of contraception if they have adequate working space.

The East African region experiences an estimated 27 million abortions yearly, the majority of which are unsafe and contribute to maternal deaths and disability (Kassa et al., 2024). Tanzania has embarked on expanding access to post-abortion care and contraceptive services in primary healthcare facilities as one of the strategies to reduce deaths due to unsafe abortion (Temu et al., 2025). In Kenya, health service delivery was decentralized from the national government to county governments with the advent of devolution. County governments are therefore in charge of health services delivery hence oversee health facility operations, health management information systems and infrastructure for health. These are critical factors that determine the ability of PHC facilities to offer PAC services (Stockton et al., 2021).

2.2.1.1 Patient Waiting Time.

Long patient waiting times contribute to the worsening of post-abortion complications (Kemei et al., 2021). PAC patients are sometimes forced to wait overnight to be seen by a PAC provider in Kenya, even during severe complications. This challenge is also evident in Burkina Faso where women seeking PAC services are intentionally delayed subjecting them to pain and suffering (Baynes et al., 2021). In some PHC facilities, PAC services are not offered on holidays, weekends or at night resulting in long patient waiting times and unnecessary referrals to higher-level facilities (Murira et al., 2022). The Kenya Health Sector Referral Strategy 2014-2018 is cognizant of lower-level facilities referring patients to higher level facilities for basic services that could easily be obtained at dispensary or health-center level. In ideal settings, only complicated cases requiring comprehensive PAC services like abdominal surgery should be referred to higher-level facilities.

In Trans Nzoia County, most of the PAC patients referred to the Kitale County Hospital for PAC services only needed basic PAC services which should have been provided at the nearby PHC facility. Trans Nzoia County is a vast county with five sub-counties namely: Kiminini, Cherangany, Saboti, Kwanza and Endebess (Kenya National Bureau of Statistics, 2019). PAC patients referred to KCH have to travel long distances from each sub-county to get to KCH (Naanyu et al., 2020). This leads to extra costs and delays in obtaining PAC services, contributes to non-compliance by referred clients, increases the workload at KCH and eventually worsens complications which may lead to disability and death of women.

2.2.1.2 Cost of the PAC services.

Cost is a payment charged for a good or service received. The high charge attached to PAC services is a potential hindrance to PAC service provision (Izugbara et al., 2020; Oudraogo et al., 2020). PAC services should be affordable to individuals and families and cost should not be a hindrance (World Health Organization & The World Bank, 2017). Zimbabwe, one of the Sub-Saharan African countries expanded PAC services to PHC facilities where PAC services are free of cost in public facilities (Riley et al., 2020). In Kenya, other healthcare services are not free of cost, but services are subsidized in public health facilities while patients pay the total cost of services in private facilities. Payment by patients can either be out of pocket or by social health insurance schemes. The Kenyan law is not clear on whether PAC services have to be paid for out of pocket or are covered by the national social health insurance scheme. As a result, PAC patients are sometimes charged high informal fees by PAC providers both in public and private PHC facilities. Those who can't afford the cost are denied the service or shy away from such facilities and seek services from facilities where the cost is affordable, which further worsens post abortion complications (Santalahti, 2020).

In Kenyan public PHC facilities, PAC services are expected to be free of cost following the government directive of the year 2013 where all user fees in PHC facilities were removed, (Kenya Primary Healthcare Strategic Framework, 2019). In Trans Nzoia County, PAC services are charged in main hospitals under social health insurance or out-of-pocket payment. Public PHC facilities are supposed to receive essential medical supplies, equipment, human resources and physical infrastructure from the county department of health services and sanitation's budget. In ideal settings where PHC

facilities are adequately supported, they should be capable of offering quality PAC services free of cost and not refer patients to KCH for basic PAC services.

In private PHC facilities, PAC services are charged. The cost is determined by the individual facility since these facilities buy all the essential health products and technologies, hire and pay for human resources and put up necessary infrastructure by themselves. Minimal support is received from the county or national government. Patients' ability to pay for PAC services therefore determines their health facility of choice since cost is one of the key barriers to PAC service provision.

2.2.1.3 Health Information System.

Health information system ensures health data generation, interpretation, sharing and utilization for informed decision-making. There needs to be proper documentation on PAC services at the facility level. This entails data on PAC service delivery captured in the daily activity register and a monthly summary of PAC services provision. This data should be submitted to relevant authorities for informed decision-making on PAC services and necessary resource allocation. It also helps the health facility, and the Department of Health Services and Sanitation estimate the burden of post-abortion complications and design mitigation measures.

Enlisting PAC services in the health facility service charter raises awareness among communities and individuals on the availability of PAC services in PHC facilities (Persson et al., 2021). This can be a facilitator for service utilization (Atif et al., 2019). Once aware, patients may prefer nearby health facilities to distant ones (Kabir et al., 2022). Otherwise, patients sometimes believe that PHC facilities only handle common

illnesses and are not well equipped or lack trained personnel to handle PAC complications.

2.2.1.4 Physical Infrastructure for PAC Services.

For healthcare providers to offer quality and seamless PAC services, they require adequate supporting physical infrastructure (The Kenya Quality Model for Health, 2014). This entails a dedicated and well-equipped reproductive health room for PAC services. Health facilities should have the appropriate physical infrastructure to guarantee patient privacy, confidentiality, dignity and achieve the required standards of infection prevention and control. This will ensure clients easily access PAC services wherever they are.

In Brazil, PHC facilities don't offer PAC services due to the lack of a dedicated reproductive health room in some health facilities (Diniz et al., 2023). In Ghana, The Health Service Department has a strategic plan adopted in 2003 to guide health service delivery and PAC services are captured as one of the essential health services in all health facilities (Sumankuuro et al., 2023). This has led to the construction of supporting infrastructure where most PHC facilities have a dedicated reproductive health room for PAC services, (UNICEF, 2019).

The COVID-19 Pandemic of 2019 – 2022 was a global challenge that forced for reorganization of operations in many hospitals globally. In China, main health facilities stopped offering PAC services and prioritized the pandemic over reproductive health services (Wang & Yang, 2021). Women in need of PAC services were redirected to PHC facilities. This necessitated PHC facilities to have dedicated and functional reproductive

health rooms to accord PAC clients dignity and privacy. On the contrary, in Guatemala, PHC facilities have inadequate reproductive health rooms leading to sub-optimal performance of public healthcare systems (Fort et al., 2021).

A study on PAC services in Meru County, Kenya, highlighted gaps in health facility physical infrastructure as a barrier to PAC service provision (Murira et al., 2022). Most healthcare facilities lack a dedicated reproductive health room for PAC services (Raza et al., 2025). In some facilities, the delivery room doubling up as the PAC room is challenging, especially when the healthcare provider has to serve two clients simultaneously. This compromises patient privacy, confidentiality, dignity and sometimes leads to psychological trauma which can affect the PAC client or the other patients in the maternity wing (Netshinombelo et al., 2022). Due to inadequate admission facilities, patients share beds at times. PAC patients with severe complications warranting admission are either referred to other facilities or discharged prematurely after the evacuation procedure without proper monitoring, (Netshinombeloet al., 2022).

2.2.2 Human Resource Factors

2.2.2.1 Availability of a Sufficient Number of Healthcare Providers with Relevant Training.

Healthcare facilities need to provide quality PAC services to any woman presenting with abortion related complications without delay or judgement, (World Health Organization, 2018). Human resource challenges hinder PHC facilities from providing quality PAC services. These challenges comprise of the number of healthcare providers available at a facility, their knowledge and skills on PAC service provision, awareness of PAC

guidelines, attitude and provider interpersonal relations. Healthcare facilities need to have adequate staffing levels commensurate with the total patient workload at the facility to ensure efficiency. Healthcare staff need relevant knowledge and skills to be able to deliver effective services including PAC services. Facilities should therefore have trained and dedicated PAC providers to provide timely PAC services and reduce patient waiting times and provider burnout.

In Brazil and Bangladesh, PHC facilities are incapable of offering PAC services due to a lack of trained PAC providers (Persson et al., 2021; Diniz et al., 2023). Healthcare workers need some on-job training on PAC services regarding management of incomplete abortion and hemorrhage, counselling services and administration of post-abortion contraception. In Yemen and Zimbabwe, healthcare providers are trained on PAC service provision by use of MVA kits to ensure quality PAC service provision (UN Office for coordination of Humanitarian Affairs, 2018; Busobozi & Kakande, 2024).

A ten-country study (Bangladesh, Haiti, Kenya, Malawi, Namibia, Nepal, Rwanda, Senegal, Tanzania, and Uganda) highlighted sub-optimal PAC service provision in Sub-Saharan Africa (Owolabi et al., 2019). Women in SSA seek PAC services in health centers, dispensaries, public health facilities and private facilities (Bankole et al., 2018). PAC providers comprise nurses, clinical officers, midwives and doctors. However, most PHC facilities in SSA still grapple with staff shortages which affect PAC service provision (Samnani et al., 2017).

Kenya has embraced primary healthcare as a strategy to provide healthcare equitably to its citizens, (Kenya Primary Healthcare Strategy, 2019 – 2024). However, access to

healthcare services is suboptimal with only half of Kenya's population being able to access health facilities within a distance of less than 5 kilometers (km). This has been attributed to low staffing levels and inequitable distribution of human resources with suboptimal training (Kenya Primary Healthcare Strategy, 2019 – 2024, Aantjes et al., 2018). Some facilities have providers who have not been trained on PAC service provision and hence lack the capacity to offer PAC services. Inadequate knowledge and skills on PAC by some healthcare workers contribute to substandard PAC services leading to some patients undergoing repeat evacuation procedures due to incomplete evacuation (Kemei et al., 2021, Muiruri et al., 2022).

2.2.2.2 Awareness of Post-Abortion Care Guidelines by Healthcare Providers

Some PAC providers in African countries are not familiar with national laws regarding the legality of PAC hence they sometimes deny patients PAC services out of fear and ignorance (Kemei et al., 2021). In Senegal, some PAC patients are usually arrested and prosecuted for having sought PAC services since it is presumed that they induced abortion, which is illegal in Senegal (Ouedraogo et al., 2020; Rochford, 2021). Healthcare providers offering PAC are also harassed by law enforcement officers hence some fear offering PAC services (Rochford, 2021). This forces some healthcare providers to misclassify patient-related induced abortion cases in hospital records or omit them to protect PAC service providers and PAC patients from arrests and prosecution (Ouedraogo et al., 2020).

Uganda has a National Policy on Reproductive Health Services which permits provision of PAC services (Stillman et al., 2023). Kenya has post- abortion care guidelines of 2019 but whose dissemination was not properly done hence some healthcare providers, the

public and some law enforcers are ignorant of the legality of PAC (Mutua et al., 2018). This leads to harassment and discrimination of PAC patients and PAC providers by the public and government agencies and results in delays in seeking or providing care to PAC patients.

2.2.2.3 PAC Provider Interpersonal Relations.

Provider interpersonal relations directly affect PAC service provision. They include stigmatization of PAC patients/ providers and provider communication skills (Rochford, 2021). Stigma is when clients seeking PAC services are harshly judged, disgraced and perceived as evil people. PAC clients and PAC providers are sometimes perceived as murderers, prostitutes or evil people. Interpersonal communication comprises both verbal and non-verbal communication, the language used, the tone and the choice of words while communicating with another person. These factors determine both the willingness of the healthcare provider to offer PAC services and the satisfaction of the PAC patient regarding the quality of care received.

Provider's attitude on abortion in general determines his/her willingness to offer PAC and is closely linked to stigma. Attitude is shaped by policy, family, religion, culture, media, personal experience or education. Some PAC patients complain of poor-quality PAC services due to provider harassment (Rochford, 2021). Stigmatized patients shy away from PAC services in nearby health facilities and seek services in distant ones where they are less known (Tripathi, 2020).

The United States of America (USA) had legalized abortion since the 1970s to 2020 hence the incidence of post-abortion complications was low over that period leading to

scanty data on post-abortion care (Tripathi, 2020). However, in the year 2022, the United States Supreme Court declared abortion illegal in the Dobbs versus Jackson Women's Health Organization case (Davis, 2022). Most states set limits within which a woman can access both abortion and post-abortion care services whereas other states totally banned abortion and post-abortion care services. Healthcare providers are highly likely to face criminal charges for providing abortion services or post abortion care, even in deserving cases like miscarriages. In areas with stringent blanket laws on abortion and post - abortion care, pregnant women faced with complications like miscarriage may suffer serious disability or even death.

Women who procure abortions in the USA, Latin America and Brazil are stigmatized by healthcare providers hence shy away from seeking PAC services when faced with life threatening complications (Rafferty & Longbons, 2020; Castro & Savage, 2019). In SSA, poor attitude towards PAC clients by healthcare providers is common (Izugbara et al., 2020). In Kenya, young women seeking PAC services are also stigmatized by healthcare providers (Mutua et al., 2018). The stigmatization leads to psychological trauma which negatively impacts one's self-esteem (Brown et al., 2022). This contributes to young and unmarried women or public figures seeking PAC services from distant health facilities (Brown et al., 2022; Oni et al., 2023)). Health care workers offering PAC are also stigmatized by coworkers, community members or law enforcers hence they are sometimes reluctant to offer PAC service (Bright et al., 2024).

2.2.3 Health System Essential Supplies Factors

These are essential medicines, medical supplies and medical equipment which meet most of the top healthcare needs of the target population (Health Products and Technologies (HPT) Supply Chain Strategy, 2020- 2025). There are six pillars of a healthcare system of which essential medicines and medical supplies (EMMS) is one of them (WHO, 2007). Access to EMMS of assured quality, safety, efficacy and which are affordable is critical for a health system to function well (Owolabi et al., 2019). The Kenya HPT supply chain strategy 2020-2025 seeks to meet the EMMS requirements to enable healthcare providers to provide the highest possible health standards to every Kenyan.

Post-abortion care services entail the management of post-abortion complications, postabortion family planning, pain management, treatment of infections and provision of intravenous fluids and haematinics to replenish lost blood (Kemei et al., 2021). All these services require HPTs. Manual vacuum aspiration kits and misoprostol are used to expel/ remove retained products of conception. Contraceptives are given to prevent future unintended pregnancies which are a major cause of repeat abortions. Analgesics are pain management medications which are given to a woman to alleviate pain. Pain is experienced during the evacuation procedure or can be a sign of injury to the uterus, infection or retained products of conception. Analgesics can be taken orally or injected. Examples include ibubrofen, mefenamic acid, lignocaine and diazepam. For dispensaries and health centres, (Level two and level three), post-abortion infections are treated with antibiotics like metronidazole, amoxicillin or doxycycline.

For women who experience severe bleeding, oxytocin, ergometrine or misoprostol are used to arrest the bleeding before transfusion. For mild to moderate blood loss, women

are given intravenous fluids like normal saline then oral haematinics which are iron and folic acid supplements. Erratic supply of EMMS is a major challenge in PHC facilities in Brazil, Bangladesh, Yemen and most of the East African states (Owolabi et al., 2019; Persson et al., 2021; Diniz et al., 2021; UN Office for coordination of Humanitarian Affairs, 2018). Most PHC facilities lack essential medicines, medical supplies and basic PAC equipment like MVA kits, sterilization services, disinfectants and blood transfusion services (Raza et al., 2025; Izugbara et al., 2020). PAC service provision requires functional equipment that is well maintained and sterilized for safety and to improve patient experience (Obure et al., 2024).

In Burkina Faso, women undergo evacuation procedures without being given pain medications (Cleeve et al., 2019). Women in SSA are also sometimes forced to endure a lot of pain during evacuation procedures due to a lack of pain management medicines, which contravenes WHO recommendations (World Health Organization, 2012; Netshinombelo et al., 2022). Recurrent shortages of EMMS is a key demotivator for health service delivery in the East African region (Muthuri et al., 2020). Government owned health facilities in Tanzania are optimally stocked with EMMS and this has proved to be a key motivator for Tanzanian citizens to seek care from public healthcare facilities (Kuwawenaruwa et al., 2020) .

Health is a devolved function in Kenya and EMMS in public health facilities are procured by each county government. Health facilities are supposed to order the required EMMS through a pull system and the county governments are supposed to procure the same regularly to guard against stock-outs. County governments including Trans Nzoia County therefore determine the EMMS budget and frequency of procurement for public health

facilities. Consequently, there exists disparities in EMMS availability between counties and even within the same county (Tsofa et al., 2017). Private and FBO PHC facilities on the other hand procure HPTs on their own based on need and availability of funds. Inequities in EMMS budget allocation and infrequent supplies often result in stock-outs of EMMS which in-turn negatively impact the quality of PAC services (Stockton et al., 2021).

2.3 Theoretical Framework

The Donabedian Model of evaluating quality of medical care was used (Donabedian, 2005). The model assesses 3 determinants of quality of care which are structure, processes and outcome. In healthcare, the outcome is the intended result of a medical intervention which in this case is provision or no provision of PAC services. The outcome is basically a reflection of quality of care. PAC services entail management of postabortion complications, (retained products of conception, injury to the reproductive system, bleeding, anaemia or infections) and provision of contraceptives, counselling services and linkage to other departments. Therefore, quality PAC services should address all these key areas and lead to full recovery or survival.

Processes are basically health system service delivery factors. Concerning PAC services, service delivery dimensions are facility operating hours/days, cost of PAC, patient waiting time, enlisting of PAC in the health facility's service charter and documentation and reporting on PAC service provision. Structure is the third determinant which are the inputs that support health service delivery. These entail the adequacy of health facility

physical infrastructure, human resource factors and health system essential supplies (Adde et al., 2025).

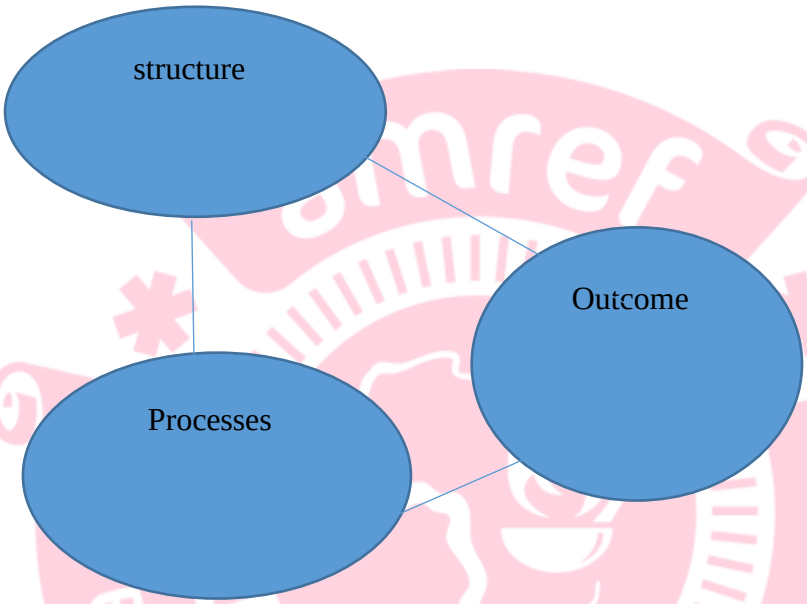

Figure 1: The Donabedian Model (Donabedian, 2005)

2.4 Conceptual Framework

The conceptual framework is a pictorial presentation of the independent variables, the dependent variable and how they are interlinked. It illustrates how health system service delivery factors, human resource factors and health system essential supplies factors influence PAC service provision in PHC facilities within Trans Nzoia County.

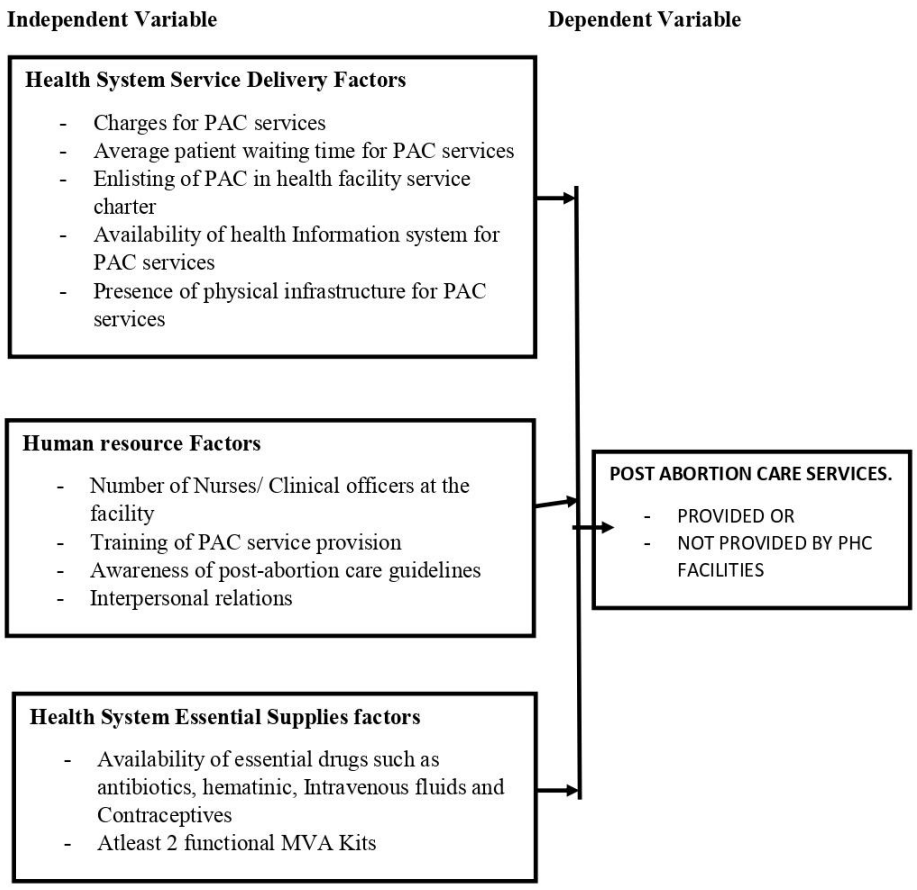

Figure 2:Conceptual framework

2.4.1 Dependent Variable

The dependent variable of the study was the provision of post-abortion care services by primary healthcare facilities.

2.4.2 Independent Variables

The independent variables of the study were health system service delivery factors, human resource factors and health system essential supplies factors.

2.5 Gaps in Existing Literature

Devolution in Kenya commenced in the year 2013 with the creation of 47 county governments (Constitution of Kenya, 2010). Within the health sector, county governments are now responsible for healthcare services where they oversee key functions like health service delivery, human resource for health and the procurement of Essential Medicines and Medical Supplies. Devolution should therefore lead to access to high-quality health services in all health facilities including PHC facilities by streamlining service provision and mitigating undue delays in processes (Tsofa et al., 2017). However, devolution has empowered counties to autonomously manage health services where there is a high likelihood of variation of healthcare services both inter-county and intra-county.

Studies on PAC services have been done globally and in Kenya. The general observation has been the need to extend PAC services provision to PHC facilities to improve accessibility (Mutua et al., 2018). None of these studies has however focused on health system factors influencing provision of post-abortion care services by primary healthcare providers in Trans Nzoia County, where 47.4% of PAC patients served at the Kitale County Hospital (KCH) are referrals from PHC facilities according to the 2022 PAC service register data at the KCH. A previous study on post- abortion stigma recommended further research into PAC services to ensure quality and accessible PAC services (Moore et al., 2021).

CHAPTER 3: METHODOLOGY

3.1 Introduction

A research design outlines the methods and procedures for data collection and analysis (Zikmund et al., 2000). It is a blueprint of the steps and actions needed to actualize the research study.

3.2 Research Design

The study was a cross-sectional study that adopted mixed methods design for data collection, quantitative being use of structured questionnaire and qualitative being key informant interviews using key informant interview guides. The mixed methods study design gives in-depth information about the research topic.

3.3 Study Area

The study was done in Trans Nzoia County. The County consists of five Sub counties including: Kiminini, Cherangany, Kwanza, Endebes and Saboti, (Kenya National Bureau of Statistics, 2019). Trans Nzoia County is one of the North-rift counties bordered by Uganda, West Pokot County, Uasin Gishu County, Elgeyo Marakwet County and Bungoma County. It covers an estimated area of 2,479.2 km^2. It has a population of close to one million residents according to the 2019 Census Report, with 49% males and 51 % female. The average household size is 4.4 with a population density of close to 400 people per km^2 (Kenya National Bureau of Statistics, 2019). Trans Nzoia County boasts of a 23 Km modern Airstrip, good network of tarmac and murram roads. The main town is Kitale which is the county headquarters while other large market centers include

Kiminini, Kachibora, Saboti and Endebess. Agriculture is the main economic activity in Trans Nzoia County due to existence of fertile soils and adequate amount of rainfall. Maize is the main cash crop, (Trans Nzoia County Integrated Development Plan). Tourist attractions include Mt. Elgon National Park, Saiwa swamp and the Kitale Museum.

The residents of Trans Nzoia County are a blend of majority of the Kenyan tribes with Luhya and Kalenjin being the majority. Others are the Agikuyu, Abagusii, the River - lake Nilotes and plain Nilotes. PAC patients coming from the peripheries to seek basic PAC services at the Kitale County Hospital have to cover long distances and incur extra non-health related costs. The mean distance from health facilities in each sub-county to Kitale County Hospital as estimated from google-maps is Kwanza sub-county 14.9 kilometres (kms), Kiminini sub-county 16.1kms, Saboti sub-county 16.2 kms, Cherangany sub-county 18.2 kms and Endebess sub-county, 29.9 kms, (Rono, 2019) as shown in Figure 2 (Appendix 8)

3.4 Study Population

This is the sum of all the elements about which the researcher intends to conduct research in and draw conclusions from (Kothari, 2004). The study targeted a total of 192 PHC facilities in Trans Nzoia County. The public PHC facilities were 86 in number (21 health centers and 65 dispensaries), the non-governmental organization (NGO) facilities 2, Faith Based Organizations (FBO) 13 and private practice facilities were 91.

Key informants for this study comprised of the Sub-County Medical Officers of Health

(SCMOH) and Community Health Promoters (CHPs). The SCMOH were only five in number since the county has only five subcounties. They supervise health services at sub-county level therefore are a rich source of information concerning health services in their areas of jurisdiction. CHPs on the other hand serve as a link between communities and health facilities hence are better placed to give valuable information on the status at both community and health facility level. In this study, CHPs employed under the primary healthcare program within Trans Nzoia County who had undergone formal training and been attached to a health facility and a Community Health Unit (CHU) for atleast one year were interviewed. The names of CHPs who met the said criteria were obtained from the office of the community strategy coordinator at subcounty level and in each subcounty, the key informants were interviewed until saturation was attained.

3.4.1 Target Population

The study targeted all the 192 PHC facilities within Trans Nzoia County. These consisted of 86 public PHC facilities, 2 nongovernmental organization facilities, 13 Faith-Based Organizations and 91 private practice facilities.

3.4.2 Inclusion Criteria

All PHC facilities within Trans Nzoia County

3.4.3 Exclusion Criteria

Primary Healthcare facilities within Trans Nzoia County whose facility officer in-charge did not consent to participate in the study.

3.5 Sampling

3.5.1 Sampling Technique

Stratified sampling was used to divide the target population into 4 strata i.e. government dispensaries, government health centers, non-governmental dispensaries and nongovernmental health centers. Data at the Department of Health Services and Sanitation showed that Trans Nzoia County has a total of 192 PHC facilities i.e. sampling frame is 192.

A sample was calculated from the sampling frame of 192 and the number of facilities per stratum was proportional to the population of that stratum. Simple random sampling was then applied where every PHC facility of the target stratum stood a chance to participate in the study. The researcher then visited PHC facilities in the county and administered the questionnaire to the facility officers in charge.

Table 1: Table of Number of Respondents per Stratum

STRATA	Government dispensaries (65)	Government health centres (21)	Nongovernmental Dispensaries (85)	Nongovernment health Centres (21)
NUMBER	(65/192) x 160 = **54**	(21/192) x 160 = **18**	(85/192) x 160 =**70**	(21/192) x160 =**18**
PHC facilities Per sub-county	10.8	3.6	14	3.6

Purposive sampling was used to select key informants who consisted of the 5 sub-county Medical Officers of Health and Community Health Promoters in each sub-county until saturation level was attained. The researcher visited each sub-county through existing health management structures at that level and accessed the key informants and interviewed them.

3.5.2 Sample Size Calculation

The sample size was calculated using the Cochran 1963 formula.

$$n = \frac{Z^2 p(1-p)}{d^2}$$

Where:

n the desired sample size

z: Statistic for a level of confidence. For a level of confidence of 95% which is conventional, Z value is 1.96

p: Expected prevalence/proportion; P is considered 0.5

q: 1-p

d: the level of statistical significance set (5%)

n: $= \frac{(1.96)^2(0.5)\ (0.5)}{(0.05)^2}$

= 384 PHC facilities

A correction factor will be applied since the target population is less than 10,000.

n' = n/ {1+(n-1)/N}

where:

n' is the adjusted sample size

n: is the original sample size calculated without considering the population size.

N is the population size

Therefore, n' = 384 / {1 + (384-1)/192}

n' = 384/ {1 +1.995}

n' = 384/2.995

n' = 128 (corrected sample size).

Adjusting for dropout

N = n / (1-(z/100)).

Where N is the adjusted sample size, n = n' = 128 and z (the dropout rate) = 20%.

N = 128 / (1-0.2)

N= 128 /0.8 =160 PHC facilities.

Using the above formulae, a sample size of 160 PHC facilities was arrived at. This was divided proportionately to get number of PHC facilities per stratum.

3.6.1 Instruments and Procedures

A questionnaire comprises of written questions used to collect data from respondents about their opinions or experiences (Bougie & Sekaran, 2019). For this study, the questionnaire was administered by the researcher in person. The questionnaire was used to collect quantitative data on health system service delivery factors, human resource factors and health system essential supplies factors. It was administered to 130 PHC facilities and consisted of structured questions. Written consent was sought from the facility officers in charge during the study. The KII were conducted using KII guides with open ended questions. A checklist was used to collect data through observation whose main aim was to verify physical facilities, equipment and other health products and technologies. The checklist was applied to public, private and faith-based facilities. Through the sub-county health management structures, the researcher visited the key informants in each subcounty and interviewed them. A written consent was sought from each key informant during the study. Key informant notes were taken during the interviews until saturation was attained.

3.6.2 Pilot Study

A pilot test is a study carried out on a small number of test respondents to evaluate how suitable the data collection instruments are before the actual study is done (Tseng & Sim, 2021). It assesses how reliable and valid the data collection instrument is before the actual data collection. In line with this, a pilot study was conducted to analyze the study instruments for their appropriateness in West Pokot County so as not to interfere with the study sample.

A pilot study should use a study sample which is around 10% of the actual study sample (Tseng & Sim, 2021). For quantitative data, the study sample for the pilot study comprised of 10 PHC facilities in West Pokot County. The questionnaire was administered to this sample to gauge its suitability in capturing the intended information. Key informant interviews were also conducted in West Pokot County using the KII guide administered to 5 SCMOHs and 5 CHPs.

3.6.3 Reliability

Reliability refers to the consistency that an instrument demonstrates when used repeatedly (Mugenda & Mugenda, 2003). Reliability is affected by unintended errors that the researcher failed to effectively address, like inaccurate coding, ambiguous instructions or questionnaire, interviewer's /interviewee's fatigue or interviewer's bias. The instruments were first tested during the pilot study. Reliability of the instruments was assessed by administering the instruments twice to the respondents to check whether the respondents gave similar responses in both cases. A reliability coefficient was calculated and found to be 0.82 which is acceptable (Taber, 2017).

3.6.4 Validity

Validity is the capacity of the instrument to measure the intended parameter. It ensures that the data collected by the study instruments reflects the variables of the study. This ensures that conclusions arising from such data are authentic, appropriate and useful (Malmqvist et al., 2019). A pilot study was carried out on a smaller number of PHC facilities for planning purposes. The aim was to test the questionnaire to see if it captured what it was intended to test or if there was any ambiguity. This ensured the validity of the

study instruments. It helped identify weaknesses which were addressed to increase the quality of research results by fine-tuning instruments and language (Pearson et al., 2020).

3.6.5 Data Collection, Entry, Cleaning, Analysis and Presentation

Health system factors affecting provision of post-abortion care by primary healthcare facilities in Trans Nzoia County were observed and described as they were with no manipulation of variables. Quantitative data collection involved the use of a questionnaire to assess health system factors affecting PAC service provision by PHC facilities in Trans Nzoia County. The questionnaire was administered to the facility officers in charge of PHC facilities across the county. The questionnaire comprised of structured questions aimed at giving structured responses. Qualitative data collection was done through Key Informant Interviews (KIIs) using the KII guides. The KIIs targeted Community Health Promoters (CHPs) and Sub-County Medical Officers of Health (MoH) otherwise referred to as Primary Care Network Coordinators (PCNCs) under Primary Healthcare in Kenya. The KIIs sought to find information on health system service delivery, human resource factors and health system essential supplies factors and how they affected PAC service provision by primary healthcare facilities within Trans Nzoia County.

Data collection was done by the researcher assisted by two research assistants who were obtained from the Research Unit at Trans Nzoia County Department of Health Services and Sanitation. The research assistants were one male and one female, from two ethnic groups residing in Trans Nzoia County, had attained tertiary level of education, proficient in both English and Swahili and one local language, familiar with PHC facilities within

Trans Nzoia County including their geographical location, presentable and of medium socio-economic status. The research assistants were trained on written informed consent from study participants, freedom of participants to withdraw from the study at any time without victimization, respect for persons, beneficence and non-maleficence, confidentiality, privacy, justice, how to ask question and guide respondents on how to fill questionnaire and interpretation or translation of questions to respondents who needed assistance. Research assistants and all other individuals who had access to study data like statisticians signed a Data Confidentiality Agreement.

Once data was collected, quantitative data was cross-checked and verified to ensure there were no errors, it's complete and consistent. Data was then coded, entered and analyzed using the International Business Machines – IBM Statistical Package for Social Sciences version 23 (SPSS 23). Data analysis comprised of both descriptive statistics, bivariate and multivariate analysis. Descriptive methods of data analysis included calculation of mean, median, standard deviation and frequencies. Data was transformed into tables and charts for ease of visibility (Cooper & Schindler, 2000). Bivariate analyses were used to determine whether a statistical association exists between the provision of PAC services and the various variables, the extent of association if any, and whether one variable may be predicted from another.

The p-value was calculated to help decide whether to reject or fail to reject the null hypotheses. The P value is a measure of the likelihood that the observed difference between groups is occurring by chance. When the p-value is less than 0.05, the null hypothesis is rejected; when the p-value is greater than 0.05, one fails to reject the null hypothesis. Multiple regression analysis was used to identify which factors independently

affect PAC service provision by PHC facilities. Odds ratios greater than 1 indicate that the event is more likely to occur as the independent variable increases. Odds ratios less than 1 indicate that the event is less likely to occur as the independent variable increases. Qualitative data was analyzed using NVIVO software. The KIIs were recorded and key informant notes taken. These were transcribed then coded, analyzed and themes created. The findings were represented in a written report. The identified themes were then used to explain the findings of quantitative data. Quantitative data was collected using a questionnaire administered face-to-face to PHC facilities. Observational approach was used to collect data using a check list to help identify factors related to health products and technologies that impact on PAC services in PHC facilities within Trans Nzoia County.

3.6.6 Community Engagement Plan

At Trans Nzoia County, ethical clearance was sought from the Research Unit at the Department of Health Services and Sanitation. The research unit issued official clearance and an introductory letter to the researcher, which was also communicated to the office of the Director Health Services and Sanitation. The office of the director then cascaded the communication to Sub- County Medical Officers of Health in each of the five subcounties who then notified health facilities and key informants under their jurisdiction of the study.

The principal investigator then contacted the health facility officers in-charge two weeks in advance through their official WhatsApp platform, to inform them of the intended study and proposed schedule. On commencement of the study, the principal investigator

and research assistants positively identified themselves and provided ethical clearance certificates and the introductory letter from the department of health services and sanitation as proof. These were done to ensure full cooperation and facilitate access to facility amenities, records, respondents and key informants.

The findings of the study were disseminated at county and sub-county level at the conclusion of the study. Dissemination targeted the County Health Management Team (CHMT), Sub- County Health Management Teams (SCHMTs), health facility officers incharge and Community Health Promoters. Since each of the above groups held monthly meetings, dissemination of findings rode on this and existing support within the county.

3.6.7 Management and Organization of the Study

Data collection for the study took place over an eight-week period across 160 PHC facilities in Trans Nzoia County. Data was collected once at PHC facilities and from key informants. The principal investigator's role was to ensure the required ethical approvals were obtained, the two research assistants were well trained, county, sub-county health management teams and PHC facilities were notified about the study. The principal investigator also developed a schedule for the study and ensured data collection was done over an eight-week period and research assistants upheld ethics during data collection. Any unanticipated challenges that arose during the study were addressed by the principal investigator.

Research assistants' roles were to assist the principal investigator inform participants about the study, ensure consent forms are signed, administer questionnaire to respondents

and key informant interview guides to key informants. They also guided on how to fill the questionnaire, took key informant interview notes, responded to any questions or concerns raised by the study participants and collected questionnaires after data collection.

3.7 Ethical Considerations

Ethical approval was sought from the Ethics and Scientific Review Committee of AMREF (**protocol approval number: ESRC P1700/2024)** and permission to conduct the study from the Department of Health Services and Sanitation Research Committee of the County Government of Trans Nzoia. A license for conducting the research was obtained from the National Commission for Science, Technology and Innovation (NACOSTI), license number: **NACOSTI/P/24/40301.**

The researcher requested an introductory letter from Amref International University (AMIU) which was attached to the questionnaire and KII guide explaining the purpose of the study. The researcher personally administered the questionnaires to the healthcare workers face to face, carried out the facility assessment in the PHC facilities and conducted key informant interviews with the help of two trained research assistants.

Before participating in the study, all relevant information pertaining to the study was explained to the participants in a clear manner and easy language to understand. Any questions and concerns raised by participants were addressed and participation in the study was voluntary. Those who consented to the study did so in writing by signing a consent form. Participants were free to withdraw from the study at any stage before data

collection without victimization. For those who withdrew, their data was also withdrawn from the study.

Confidentiality was observed where data was treated with utmost privacy. Privacy of participants was maintained during interviews, which were conducted in a secure and private environment, preventing unauthorized individuals from overhearing the discussions. Once collected, both qualitative and quantitative data and consent forms were stored in a secure cabinet which was always locked with a padlock and only accessed by relevant people working on data analysis. During data analysis, names, initials and other personal identifiers of participants were not used. Instead, codes were used to identify all participants.

Participants were not subjected to any harm, whether physical, emotional or financial. There was no compensation for participants in this study. Participants were informed to report any unintended harm during the study to the researcher verbally or in writing whatsoever was convenient, as soon as possible. Necessary action was to be taken to address any emerging harm. Potential bias for this study was interviewer bias and social desirability bias. During qualitative data collection, the beliefs and opinions of the interviewer could influence the interpretation of the key informants' responses. Also, the key informants could give socially desirable responses to portray some form of ideality.

Study participants who withdrew from the study at any point before data collection was completed indicated in the consent forms whether the already collected data was to be retained and analyzed or not or if it was to be destroyed by burning or any other

appropriate method. Once data analysis was concluded, withdrawal of participant's data was not feasible.

Raw research data was stored under key and lock to last for a period of three years after the conclusion of the study. The data comprised of filled consent forms, filled questionnaire, key informant interview notes and audio recordings. At the expiry of the three years, audio tapes shall be destroyed by removing and shredding the magnetic tape while consent forms, filled questionnaires and interview notes shall be destroyed by burning.

After the study, the respondents were sensitized on the importance of quality PAC services in preventing maternal deaths and disability during dissemination of study findings. The findings of the study were also disseminated to stakeholders at the Department of Health Services and Sanitation of Trans Nzoia County, for informed decision making on PAC services in the county.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents data analysis, presentation, and interpretation of the data on the study. The study investigated Health System Factors Affecting Provision of Post-abortion Care by Primary Health Care Facilities in Trans Nzoia County, Kenya. This chapter gives an in-depth description of the results as per the data analysis of the study. Results are given as frequencies, percentages, means and standard deviations as applicable.

4.1.1 Data Collection and Response Rate

Data collection was conducted for 40 days between 23rd October 2024 and 19th December 2024. One hundred and sixty primary healthcare facilities were sampled across the five sub-counties and facility officers in charge of 130 PHC facilities responded to the PAC questionnaire, achieving 81.25% response rate. Some seventeen selected facilities were closed for the entire study period since nurses in Trans Nzoia County were on strike beginning of October 2024 to December 2024 and facility managers of these facilities, who were also nurses, closed these facilities. Another thirteen PHC facility managers declined to participate in the study. For qualitative data, 5 SCMOH and 18 CHPs were interviewed.

4.1.2 Facility by Sub-County

The study was conducted in PHC facilities in all the five sub-counties in Trans Nzoia County, Kenya. The sub-counties are: Kiminini, Cherangany, Kwanza, Endebess and Saboti as shown in Figure 3 below. Out of the 130 PHC facilities that responded,

Kiminini and Cherangany sub-counties had 28 (21.8%) PHC facilities each, Kwanza subcounty 30 (23.1%) facilities, Endebess sub-county 13 facilities (10%) and Saboti subcounty 31(23.8%) facilities.

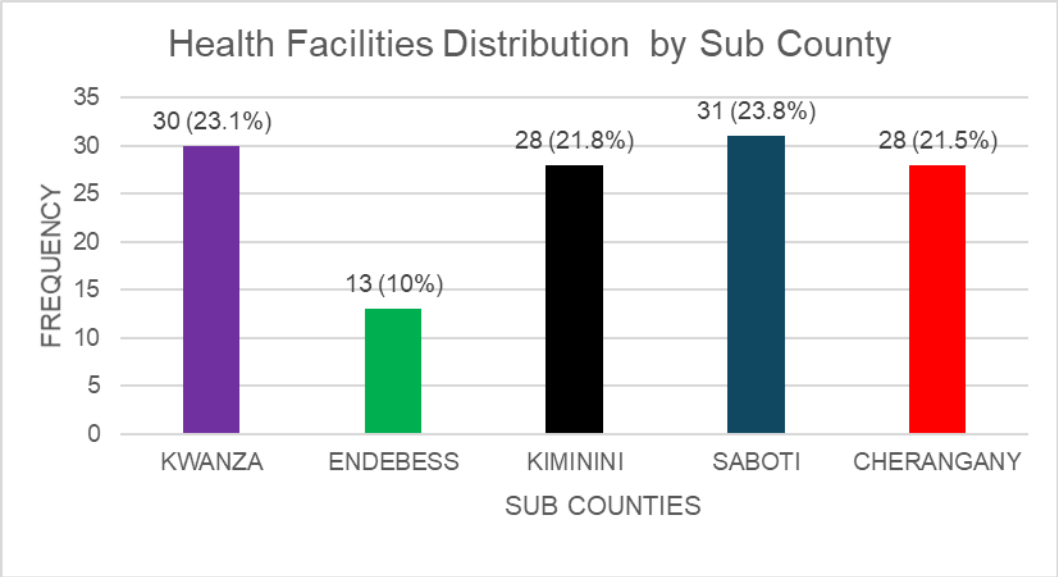

Figure 3: Facility by Sub County Distribution

4.1.3 Facility Ownership and Management

Majority of the responses came from public PHC facilities (Government of Kenya-GoK, owned) which were 64 in number (49.2%) and are currently managed by the County Government of Trans Nzoia under the devolved health system. This was followed by 51 private sector facilities (39.2%) and 15 (11.5%) Faith Based Organizations facilities as shown in Figure 4 below.

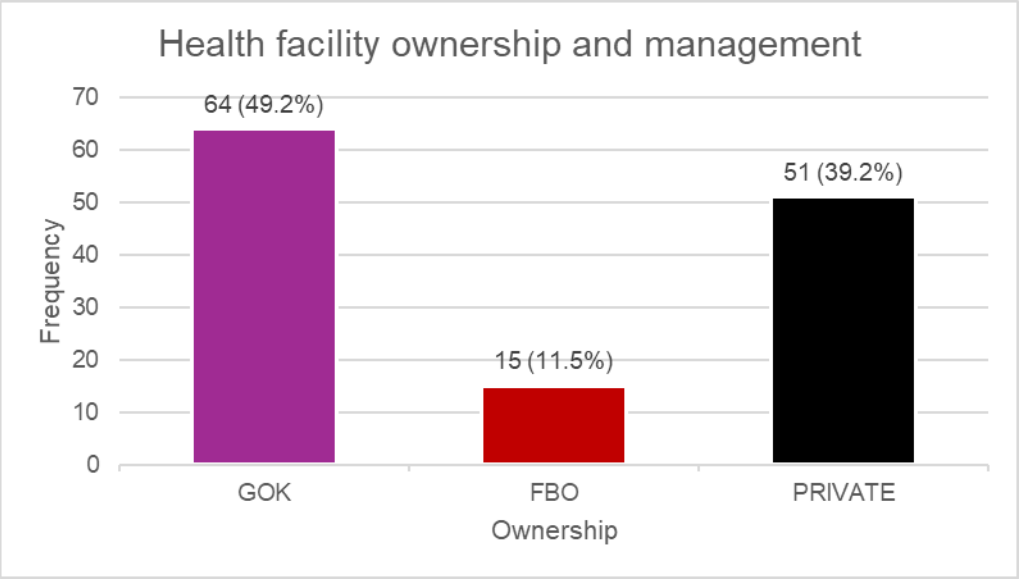

Figure 4: Facility Ownership and Management

4.1.4 Facility Distribution in the Sub-Counties

Distribution of responses per sub-county was as shown in Table 2 below, with Endebess Sub- County having 85% of the responses from GoK facilities.

Table 2:Facility Ownership Distribution

	KWANZA	ENDEBESS	KIMININI	SABOTI	CHERANGANY	TOTAL
GOK	15 (50%)	11(85%)	10(36%)	13(42%)	15(54%)	64
FBO	4(13%)	1(7.5%)	4(14%)	3(10%)	3(11%)	15
PRIVATE	11(37%)	1(7.5%)	14(50%)	15(48%)	10(36%)	51
TOTAL	30(100%)	13(100%)	28(100%)	31(100%)	28 (100%)	130

4.1.5 Interviewees

The interviewees in each study facility were the facility officers in charge 116 (89.2%) and a few facility nurse managers 14 (10.8%) as shown in Figure 5 below.

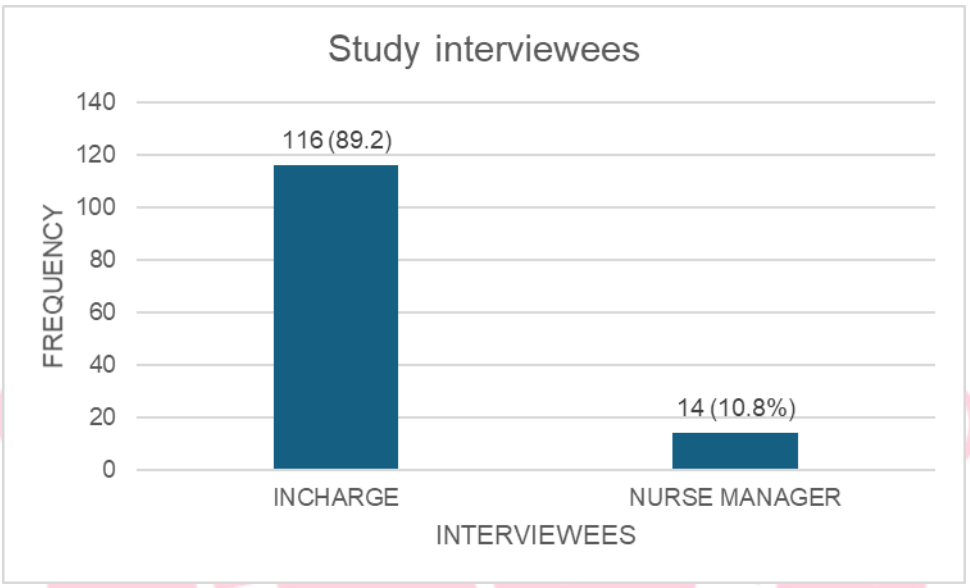

Figure 5: Study Interviewees

4.1.6 Sex of Respondents per Sub-County

The study found out that the male responders were 60 (46.2%) while 70 (53.8%) were female. Saboti sub county had the highest responders 31 (23.9%) followed by Kwanza Sub County 30 (23.1%), Kiminini and Cherangany 28 (21.5%) each and Endebess sub county had the least as shown in Table 3 below.

Table 3: Sex of Respondents

	SUB COUNTIES					TOTAL
	KWANZA	ENDEBESS	KIMININI	SABOTI	CHERANGANY	
MALE	17	6	13	14	10	60 (46.2%)
FEMALE	13	7	15	17	18	70 (53.8%)
TOTAL	30 (23.1%)	13 (10.0%)	28 (21.5%)	31 (23.9%)	28 (21.5%)	130 (100%)

4.2: Health System Service Delivery Factors

4.2.1 Health Facility Operation Hours and Days

Majority of PHC facilities 72 (55.4%) were operational five days a week, Monday to Friday between 8:00 am to 5:00pm. This was followed by 25 (19.2%) facilities operating six days a week, Monday to Saturday between 8:00 am to 5:00pm. Only 13 (10%) facilities were operating 24 hours a day. Another 13 (10%) of facilities were offering day only services seven days a week, 4 (3.1%) facilities morning only service and 3(2.3%) facilities evening only services as shown in Figure 6 below.

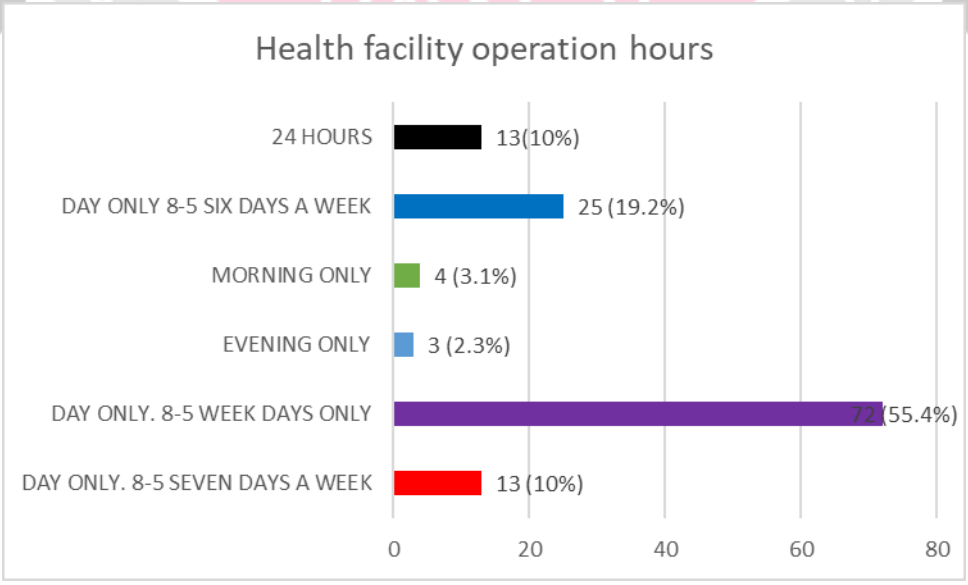

Figure 6: Health Facility Operation Hours

In-depth interviews with Community Health Promoters (CHPs) highlighted lack of 24hour services in PHC facilities as a barrier to PAC services provision since all public dispensaries and some health centres were only operational five days a week, and only during the day i.e., 8 am to 5 pm. Women seeking PAC services in these facilities either during weekends or nights were referred by security personnel at the primary facility to other facilities that operate 24 hours within the locality.

"R: They operate up to five in the evening… at night we refer PAC clients directly to Endebess. So, if it could operate for 24 hours then it could provide services – those whom we currently refer to Endebess could all be served there for 24 hours." (CHP, Cheptantan, Endebess).

The lack of 24-hour services in PHC facilities was perceived as an inconvenience that contributed to delays in receiving care and posed additional financial burden to PAC patients and resulted in self-referrals of patients to a facility offering PAC services.

"R: Yes, it does affect because when a woman for example comes from the community with a three-month pregnancy and they have a miscarriage at night; they will find the hospital closed. So, they will decide to go to Moi's bridge whereby she would use most of her money on fare. But if the services were offered here in Moiben at the Nzoia health facility, it would help her. So, I think it affects the PAC services they receive. (CHP, Nzoia, Cherangany)

The limited hours of operation were linked to staffing challenges – available staff are too few to be distributed across weekday/weekend and day/night shifts.

R: …the nurses are few. Okay, they are two during the day and they don't operate at night. Most of the time women face challenges at night so when you take them to the facility at night they are referred (CHP, Bidii, Kwanza)

4.2.2 How PAC Services are Offered in PHC Facilities

Despite Trans Nzoia County having 192 PHC facilities distributed across the sub counties, 40% (52) of the facilities that participated in the study were not offering PAC services. In most facilities, PAC was offered as outpatient services i.e. 61 (46.9%) facilities, both inpatient and outpatient in 11 (8.6%) facilities and inpatient only in one facility (0.8%). Out of 15 FBO facilities, 5(3.8%) facilities didn't have PAC services in their service charter since PAC services are contrary to their religious values as shown in Figure 7 below.

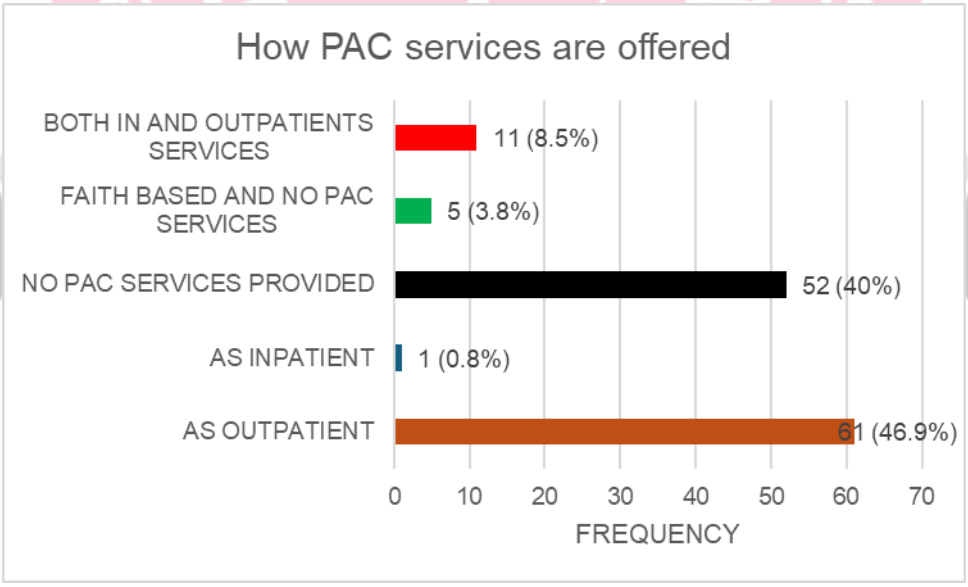

Figure 7: How PAC Services are Offered at the Facilities

4.2.3 Payment of PAC Services

Forty-eight (36.9%) PHC facilities offering PAC were charging for the services while 36 (27.7%) PHC facilities were not charging for PAC services. Some 7 (5.4%) facilities sometimes charged for PAC services depending on availability of PAC essential medicines and medical supplies at the PHC facility or not. Payment of PAC services was not applicable in 39 (30%) of the facilities as shown in Figure 8 below.

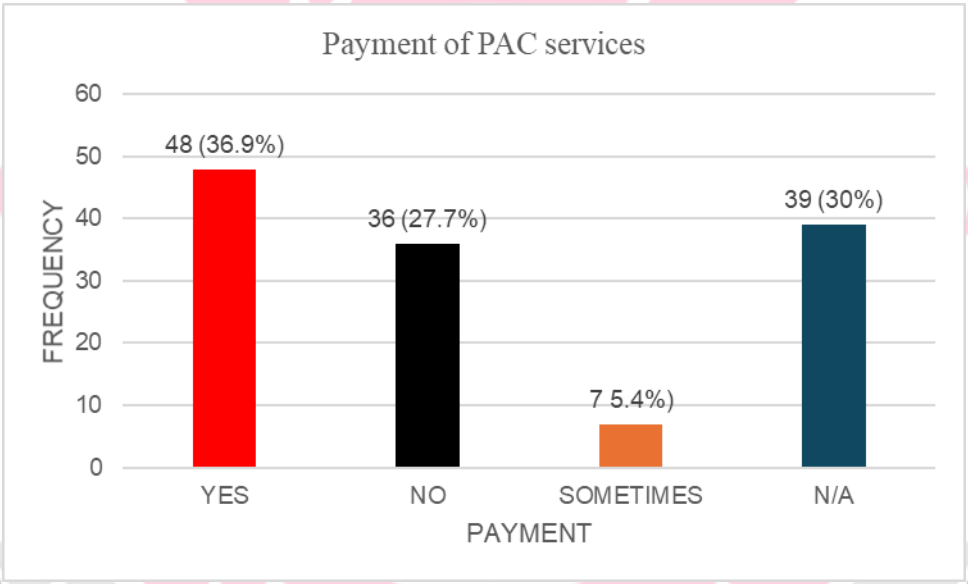

Figure 8: Payment of PAC Services

Fifty-three (40.7%) PHC facilities indicated applicable charges for PAC services that ranged from Kenya shilling (Ksh) 1,000 to Ksh. 10,000, with a mean of Ksh. 4,500 ± 2,455 and mode of Ksh. 5,000. Seventeen facilities charged less than Ksh. 2,000, five facilities charged between Ksh. 2,001 and Ksh. 4,000, twenty-two facilities charged between Ksh. 4,001 to 6,000 and five facilities charged Ksh. 6,001 to Ksh. 8,000. Only four facilities charged between Ksh.8,001 to Ksh.10,000 as shown in Figure 9 below.

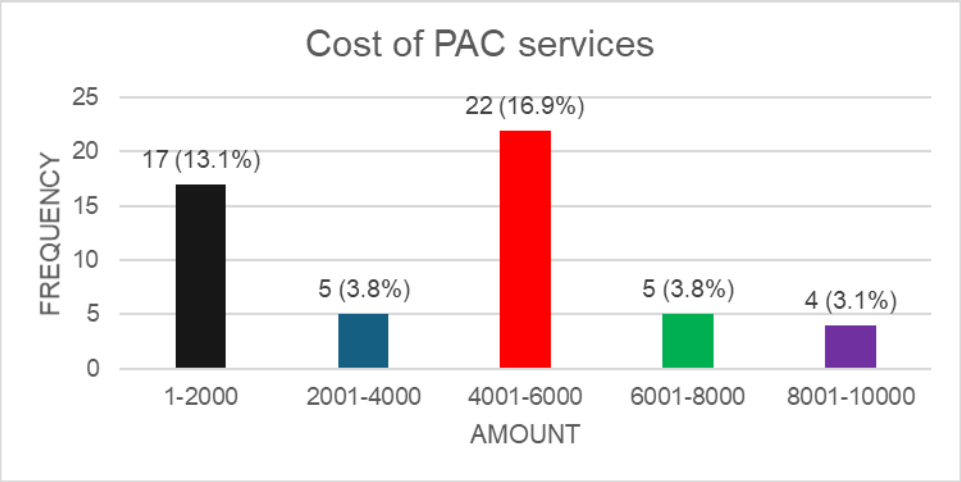

Figure 9: Cost of PAC Services

Thirty (56.6%) out of the 53 charging facilities were public PHC facilities of which 13 facilities (24.5%) charged between Ksh. 1 and 2,000, two (3.8%) facilities charged Ksh 2001 to Ksh 4000, ten facilities (18.9%) charged Ksh. 4001 to Ksh.6000, three facilities (5.7%) charged Ksh 6001 to Ksh 8000 and two facilities (3.8%) charged Ksh 8001 to Ksh 10,000.

For private owned facilities, 19 (35.8%) charged clients between Ksh. 4001 to Ksh. 6000. Only 4 (7.5%) faith-based facilities charged for PAC services. Cost was statistically significant at p<0.05, df, 24, and p- value of <0.001* as shown in Table 4 below.

Table 4: Health Facility Type and their Cost

	FACILITY OWNERSHIP			Total	Df	P-value
Amount	GOK	FBO	PRIVATE		24	p = <0.001*
1-2000	13 (24.5%)	1 (1.9%)	3 (5.7%)	17 (32.1%)		
2001-4000	2 (3.8%)	0 (0%)	3 (5.7%)	5 (9.4%)		
4001-6000	10 (18.9%)	2 (3.8%)	10 (18.9%)	22 (41.5%)		
6001-8000	3 (5.7%)	1 (1.9%)	1 (1.9%)	5 (9.4%)		
8001-10000	2 (3.8%)	0 (0.0%)	2 (3.8%)	4 (7.5%)		
Total	30 (56.6%)	4 (7.5%)	19 (35.8%)	53 (100%)		

Significant at p<0.05

Both the Subcounty Medical Officers of Health and Community Health Promoters interviewed reported that the cost of post-abortion care services varied depending on the type of facility ownership i.e., public, faith-based or private. In most public and faith based primary health care facilities, it was reported that reproductive health services including PAC services were not supposed to be charged i.e., no out of pocket-payments.

"R: Mostly the women who come to the clinic or for reproductive health issues, they are not supposed to be charged. The services are free of charge in some facilities." (CHP, Goseta, Kwanza)

PAC services were previously covered by 'Linda mama' under National Hospital Insurance Fund, but with the transition to Social Health Authority (SHA), there have been challenges with facilities transitioning and understanding the scope of services covered by SHA. By the time of the study, most residents in Trans Nzoia County had not been registered under SHA and most PHC health facilities had not also received SHA gadgets meant for patient registration and billing when patients seek services in health facilities. Therefore, most patients were paying out of pocket for PAC services which was limiting access.

"R: Previously when we sensitized women about Linda mama they weren't charging because the cover was taking care of that…as of now there is a challenge because of SHIF which people are enrolling to. But I believe that when everything is streamlined, they will also sort that issue." (CHP_Cheptantan Endebess)

Despite the expectation that these services should be free of charge in public facilities, PAC patients are sometimes asked to purchase drugs and other commodities due to

stockouts in most of these primary healthcare facilities hence payment for the same in some facilities.

"R: About the charges, when the supplies are available at the hospital the patients incur no charges. They are just served and then they leave unless they are given a prescription of drugs to purchase. But if not and they really need the services, they cover the costs – they purchase the medical supplies and medicines needed for the PAC services and then they are served." (CHP2, Cherangany).

One informant reported that some of the few providers trained on PAC services sometimes charge unofficial payments.

"R: Yeah, they are doing some underground illegal charges…the service is supposed to be free but now because they are the only ones who are doing that, in fact, they've owned those rooms as if they are their things… and then maybe you hear clients complaining that they were charged which is not an official payment." (SCMOH, Kiminini)

Some informants reported that PAC services are offered at a fee in private facilities. The perceived average cost of these services varied and was reported to be mostly dependent on the type of services sought.

"R: For private, because of the service charge, definitely they have to charge…averagely it will cost around 1,000-2,500…But it also depends on the service they are coming – if it's just treatment it depends on the drug they've been given. Mostly antibiotics they'll charge like not more than 1,000 if it's just treatment. But for any other services like retained products of conception, it will go up to 2,500 approximately." (SCMOH_Saboti)

4.2.4 Patient Waiting Time

Patient waiting time (the time taken by PAC clients from arrival at the health facility to the time they first received PAC services or were referred to another facility) was assessed and in 82 (63.1%) facilities, PAC clients took between one hour and two hours to be served, followed by 40 (30.8%) facilities where they took less than one hour and 1(0.8%) facility where they took more than three hours as shown in Figure 10 below.

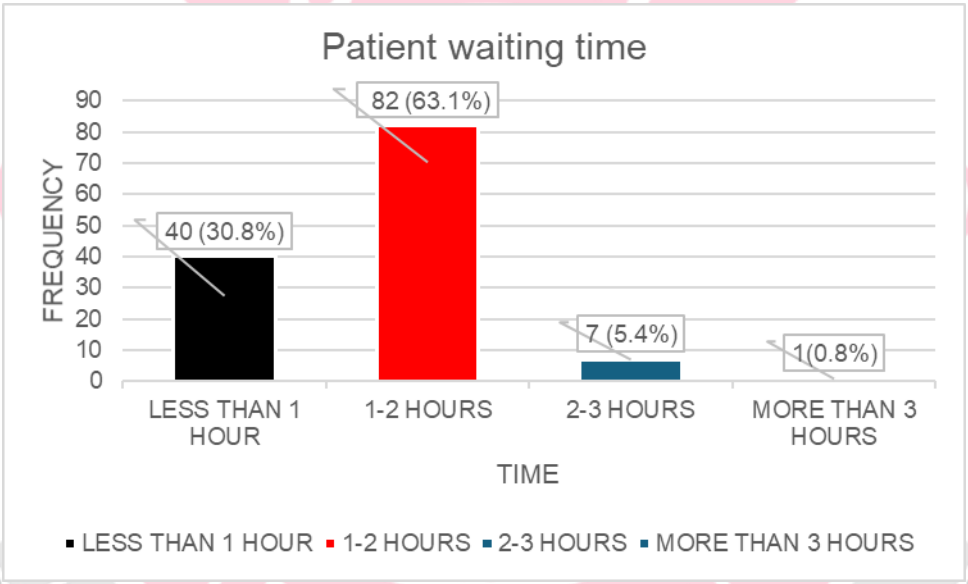

Figure 10: Patients Waiting Time

4.2.5 Facility Based Waiting Time

According to the study, in 51(39.2%) private health facilities PAC clients were attended to or referred in less than two hours from arrival while in 15 (11.5%) FBO facilities, clients were attended to in less than three hours. In public facilities, 6 (4.6%) facilities served or referred PAC clients in less than 1 hour, 51 (39.2%) facilities took between one to two hours, 6 (4.6%) facilities took between 2 to 3 hours and 1 (0.8%) facility took

more than 3 three hours and was statistically significant at p<0.05, df, 24, and p- value of <0.001 as shown in Table 5 below.

Table 5: Waiting Time for PAC Services

	FACILITY_OWNERSHIP			Total	Df	P-value
Time	GOK	FBO	PRIVATE		24	<0.001*
LESS THAN 1 HOUR	6 (15%)	9 (22.5%)	25 (62.5%)	40 (100%)		
1-2 HOURS	51 (62.2%)	5 (6.1%)	26 (31.7%)	82 100%)		
2-3 HOURS	6 (85.7%)	1 (14.3%)	0(0.0%)	7 (100%)		
MORE THAN 3 HOURS	1 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)		
Total	64 (49.2%)	15 (11.5%)	51 (39.2%)	130 (100%)		

Significant at p<0.05

4.2.6 Reasons for the Patient Waiting Time

Various reasons for the waiting time in PHC facilities were identified. The ability to pay for PAC services by the client was a major reason in 82 (63.1%) PHC facilities. Normal protocols came in second place in 40 (30.8%) facilities, availability of PAC provider affected 7 (5.4%) facilities while availability of supplies was the least with only 1 (0.8%) facility as shown in Figure 11 below.

This is because once PAC patients paid for PAC services, the provider could easily purchase the needed essential medicines and medical supplies and offer PAC services to the client.

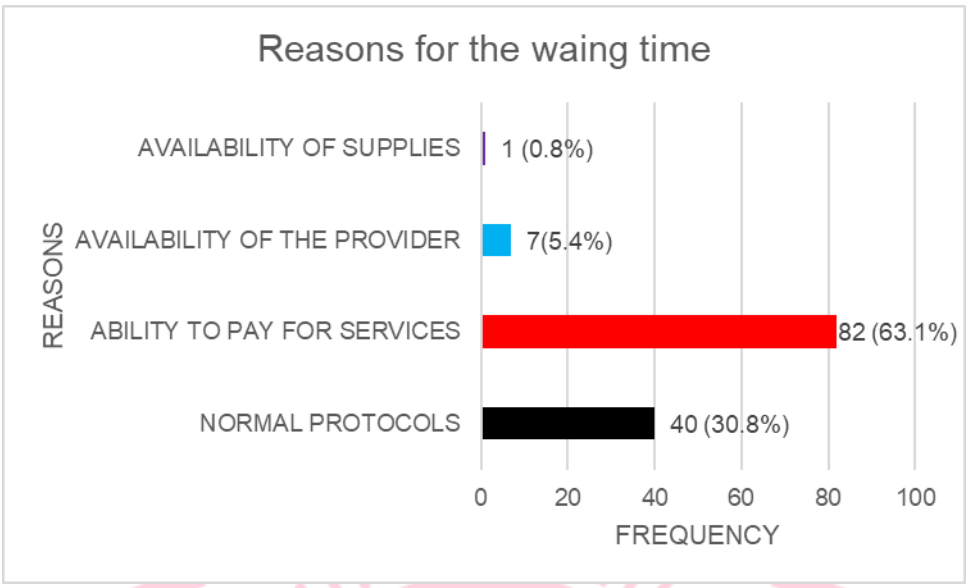

Figure 11: Reasons for the Waiting Time

4.2.7 Reasons for Prolonged Patient Waiting Time by Facility Ownership

Study findings indicate that prolonged patient waiting time in the private sector facilities was mainly due to the ability to pay for the services in 26 (51%) facilities, closely followed by normal health protocols in 25(49%) facilities. In public facilities, the ability to pay for the PAC services was also a major concern in 51 (80%) facilities, followed by normal health facility protocols and availability of the service providers 6 (9.4%) each. The least was availability of supplies in 1 (1.6%) public facility. This is because once PAC patients paid for PAC services, the PAC provider easily purchased the needed essential medicines and medical supplies and offered PAC services to the client. In faith-based facilities, normal protocols were raised in 9 (6.9%) facilities, ability to pay for the services in 5(3.8%) facilities and PAC service provider availability in only 1 (0.8%) facility was statistically significant at $p<0.05$, df, 6, and p- value of < 0.001* as shown in Table 6 below.

Table 6: Reasons for Prolonged Waiting Time

	REASONS				Total
	NORMAL PROTOCOLS	ABILITY TO PAY FOR SERVICES	PROVIDER AVAILABILITY	AVAILABILITY OF SUPPLIES	
GOK	6 (4.6%)	51(39.2%)	6 (4.6%)	1 (0.8%)	64 (49.2%)
FBO	9 (6.9%)	5 (3.8%)	1 (0.8%)	0 (0.0%)	15 (11.5%)
PRIVATE	25 (19.2%)	26 (20%)	0 (0.0%)	0 (0.0%)	51 (39.2%)
TOTAL	40 (30.8%)	82 (63.1%)	7 (5.4%)	1 (0.8%)	130 (100%)

4.2.8 Location where MVA is Carried Out in the PHC Facility

Only 39 (30%) PHC facilities carried out the MVA procedure in a dedicated MVA room followed by 26 (20%) facilities in the outpatient department and 5 (3.8%) facilities used the gynecology ward as shown in Figure 12 below.

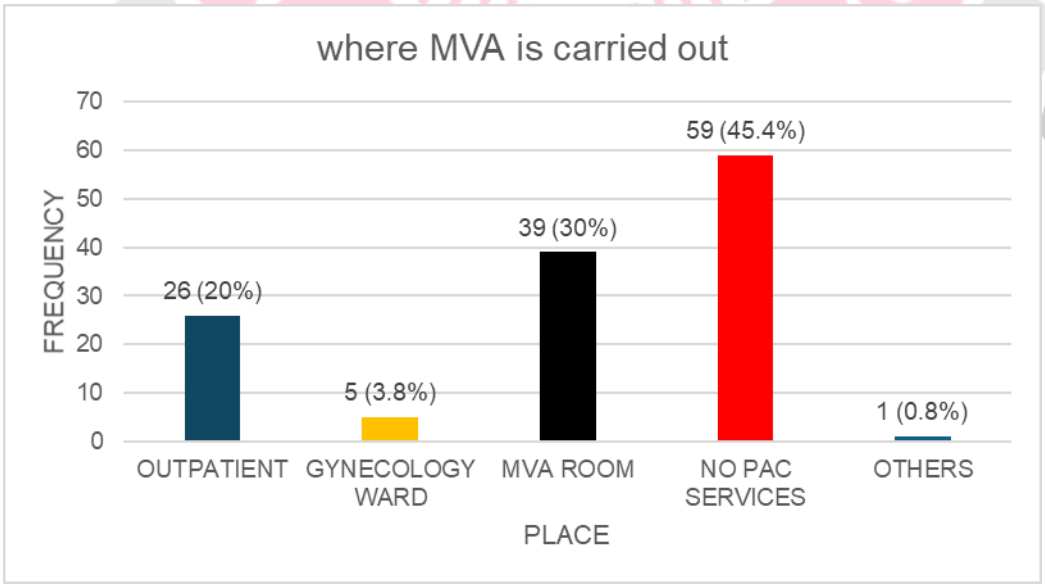

Figure 12: Where MVA Procedures are done

4.2.9 Location where MVA is Carried out in the Facility, by Facility Ownership

MVA procedures in the public facilities were performed mostly from the outpatient department in 23 (36 %) facilities, dedicated MVA room in 12 (18.8.2%) facilities while 27 (42.1%) facilities had no MVA services but offered other PAC services. In 26 (51%) private owned health facilities, MVA was performed at dedicated MVA room, 1 (2%) facility in the gynecology ward and 20 (39.1%) facilities were not offering MVA services. Twelve (80%) Faith based facilities were not offering MVA services. Where MVA service was carried out were statistically significant at p<0.05, df, 8, and p- value of< 0.001* as shown in Table 7 below.

Table 7: Where MVA is carried out

	FACILITY OWNERSHIP			Total	df	P-value
Place					8	<0.001*
	GOK		FBO	PRIVATE		
OUTPATIENT	23 (17.7%)	0 (0.0%)	3 2.3%)	26 (20%)		
GYNECOLOGY WARD	2 (1.5%)	2 (1.5%)	1 (0.8%)	5 (3.8%)		
MVA ROOM	12 (9.2%)	1 (0.8%)	26 (20%)	39 (30%)		
NO MVA SERVICES	27 (20.8%)	12 (9.2%)	20 (9.2%)	59 45.4%)		
OTHERS	0 (0%)	0 (0%)	1 (0.8%)	1 (0.8%)		
Total	64 (49.2%)	15 (11.5%)	51 (39.2%)	130(100%)		

Significant at p<0.05

Due to the lack of designated MVA rooms, MVA procedures are carried out in non-designated available rooms in some facilities, which didn't accord PAC clients the needed

privacy. Some of the shared spaces are the labour ward, outpatient consultation rooms and outpatient minor theatre.

"R: So, we have two facilities that have specific rooms for MVA but the rest they share with maternities – labour ward services… Many a time these facilities are not packed with patients so you will find one client at a time, unlike the high-level hospitals. For them, it's at least one client at a time. And they usually have also a first aid room for the labour ward so when the patient is labouring in another room then they give PAC services in the maternity where they have all the equipment, the non-pharms and everything for PAC." (SCMOH, Kiminini)

R: Most of our GOK facilities are sharing labour wards or even outpatient, minor theatres. So, the only facility among the facilities I've mentioned that has a PAC room is Saboti – it's just one. (SCMOH, Saboti)

4.3 Human Resource Factors Affecting the Provision of Post-abortion Care Services

4.3.1 Healthcare Workers Distribution in Facilities

Study findings indicate that 121 (93.1%) PHC facilities did not have a medical officer, two health facilities had two medical officers each and seven facilities had one medical officer each. Those with a medical officer were 7 private facilities and 2 FBO facilities.

A total of 64 (100%) public PHC facilities didn't have a medical officer. The distribution of medical officers was not statistically significant at df 4, and p-value 0.147. A total of 64 (49.2%) PHC facilities didn't have a registered clinical officer, one clinical officer was found in 16 (34.8%) public facilities, 4 (8.7%) in FBOs and 26 (56.5%) in private

facilities. Two clinical officers were found in 5 (35.7%) public (GOK) facilities, 4 (28.6%) in FBOs and 5 (35.7%) in the private sector. Three clinical officers were majorly in the private facilities 3(60.0%), GOK 1 (20.0%) and 1 (20.0%) in the FBO. Four clinical officers were available in only one GOK facility. The distribution of clinical officers was not statistically significant, df 8, and p-value 0.19.

Ten private facilities did not have a nurse at all, 13 (50.0%) public, 12 (46.2%) private facilities and 1 (3.8%) FBO had only one nurse. Two nurses were in 32(62.7%) public facilities, 13 (25.5%) private facilities and 6 (11.8%) FBOs facilities. Majority of the facilities with three nurses were 7 (41.2%) public, 7 (41.2%) private facilities and 3 (17.6%) FBO facilities. Only one private facility had eleven nurses. The distribution of nurses in the facilities was statistically significant at $p<0.05$, df 20, and p value 0.03 as shown in Table 8 below.

Table 8: Health Workers Distribution in the Facilities

		FACILITY_OWNERSHIP			Total	Df	p value
		GOK	FBO	PRIVATE			
DOCTORS	0	62 (51.2%)	15 (12.4%)	44 (36.4%)	121 (100%)	4	0.147
	1	0 (0.00)	2 (28.6%)	5 (71.4%)	7 (100%)		
	2	0 (0.0%)	0 (0.0%)	2 (100%)	2 (100%)		
CLINICAL OFFICERS	0	41 (64.1%)	6 (9.4%)	17 (26.6%)	64 (100%)	8	0.19
	1	16 (34.8%)	4 (8.7%)	26 (56.5%)	46 (100%)		
	2	5 (35.7%)	4 (28.6%)	5 (35.7%)	14 (100%)		
	3	1 (20.0%)	1 (20.0%)	3 (60.0%)	5 (100%)		
	4	1 (100%)	0 (0.0%)	0 (0.0%)	1 (100%)		
NURSES	0	0 (0.0%)	0 (0.0%)	10 (100%)	10 (100%)	20	0.03*
	1	13 (50.0%)	1 (3.8%)	12 (46.2%)	26 (100%)		
	2	32 (62.7%)	6 (11.8%)	13 (25.5%)	51 (100%)		
	3	7 (41.2%)	3 (17.6%)	7 (41.2%)	17 (100%)		
	4	3 (37.5%)	3 (37.5%)	2 (25.0%)	8 (100%)		
	5	4 (66.7%)	1 (16.7%)	1 (16.7%)	6 (100%)		
	6	0 (0.0%)	0 (0.0%)	2 (100%)	2 (100%)		
	7	4 (80.0%)	0 (0.0%)	1 (20.0%)	5 (100%)		
	9	1 (50.0%)	1 (50.0%)	0 (0.0%)	2 (100%)		
	10	0 (0.0%)	0 (0.0%)	2 (100%)	2 (100%)		
	11	0 (0.0%)	0 (0.0%)	1 (100%)	1 (100%)		
Total		64 (49.2%)	15 (11.5%)	51 (39.2%)	130 (100%)		

Significant at $p<0.05$

4.3.2 Distribution of PAC Providers by Facility Type

A total of 121 PAC providers were present across the 130 PHC facilities comprising of both trained and certified providers, on job trained and college trained providers. Fifty-three (40.8%) PHC facilities had zero PAC providers of which 25 (39.1%) were public facilities, 20 (39.2%) private facilities and 8 (53.3%) were faith-based facilities. Only one PAC provider was found in 41 PHC facilities of which 24 were public facilities, 13 private facilities and 4 FBO facilities. Twenty-eight PHC facilities had two PAC providers comprising of 13 public facilities and 13 private facilities and two FBO facilities. Three PAC providers were found in eight facilities, of which five were private facilities. The distribution of PAC providers by facility type was not statistically significant at $p<0.05$, df, 4, and p- value of 0.540 as shown in Table 9 below.

Table 9: PAC Services Providers in the Facilities

	NUMBER OF PAC PROVIDERS				Total	Df	P-value
	0	ONE	TWO	THREE		0	0.54
GOK	25 (39.1%)	24 (37.5%)	13 (20.3%)	2 (3.1%)	64 (100%)		
FBO	8 (53.3%)	4 26.7%)	2 (13.3%)	1 (6.3%)	15 (100%)		
PRIVATE	20 (39.2%)	13 (25.5%)	13 (25.5%)	5 (9.8%)	51 (100%)		
Total	53 (40.8%)	41 (31.5%)	28 (21.5%)	8 (6.2%)	130 (100%)		

Significant at $p<0.05$

Across the sub-counties, key informants also highlighted human resources for health shortages within public PHC facilities as a major challenge to PAC service provision. Most public PHC facilities had very few staff to offer quality PAC services.

R: It is quite a challenge; there is a shortage, especially in dispensaries. We just have – if its nurses we have two nurses. Maybe health center but it's not all the departments. Even at the hub level, it's a struggle. (SCMOH, Kwanza)

R: Okay, first of all, staffing, we have a big shortage in staffing. Most of these facilities especially health centres, some have a clinical officer as the head of the facility while others do not. Then you'll find out that most of these health centers have three or four nurses, so covering the entire shift including night and weekends is challenging. Remember we have several delivery points – service delivery points and this number is not adequate. Then when you come to the dispensary level, you'll find two or one nurse manning the entire place. So, a shortage in these facilities is a challenge. (SCMOH, Cherangany)

Similarly, the private facilities were perceived to be also facing staff shortages, which is further worsened by frequent staff turnover.

R: …But for private, yes, they are having a shortage because we always have the privilege of also visiting the private facilities, they have a shortage – even if they don't have a shortage, they have a high staff turnover - huge staff turnover. (SCMOH_Saboti)

Healthcare providers' strike/industrial action including the nurses', clinical officers' and doctors' strikes were perceived to worsen staff shortage and hinder the provision of postabortion care services. Due to the strikes, women were forced to seek these services in private facilities where they were charged. Therefore, those who could not afford to pay due to financial constraints, potentially ended up receiving inappropriate care, leading to poor outcomes.

R: It does – it affects adversely because now we are not able to offer these services given that most of our facilities, as I said, are manned by nurses like – recently actually we just ended this week – nurses just ended the – almost six weeks industrial action. So, it affects the services because now people are not – those who need it are not able to get the service – now, they are forced to travel to either county referral facility or to other private facilities in town. (SCMOH_Endebess)

R: So, the whole of this year we've just been from the strike on key cadres. So, it actually affects PAC services. Remember these clients are coming they need urgent emergency services, so most of the time the clients end up being mismanaged, they can go even to the quacks and even some can get infections. But it actually affects us negatively. (SCMOH_Saboti)

4.3.3 Facilities with Service Providers Officially Trained and Certified to Offer PAC Services

Only 50 PHC facilities had PAC providers who were officially trained and certified to offer PAC services as follows: 24 (48%) public facilities, 22 (44%) private facilities and only 4 (8%) FBO facilities. Thirty-six facilities didn't have officially trained and certified PAC providers and these included 21 (58.3%) public facilities, 10 (27.7%) private facilities and 5(13.9%) FBO facilities. Providers that were officially trained and certified were found not to be statistically significant at $p<0.05$, with df, 4, and p- value of 0.478 as shown in Table 10 below.

Table 10: Facilities with Officially Trained and Certified PAC Providers

	PAC trained and certified			Total	df	P-value
	YES	NO	N/A		4	0.478
GOK	24 (37.5%)	21 (32.8%)	19 (29.7%)	64 (100%)		
FBO	4 (26.7%)	5 (33.3%)	6 (40%)	15 (100%)		
PRIVATE	22 (43.1%)	10 (19.6%)	19 (37.3%)	51 (100%)		
Total	50 (38.5%)	36 (27.7%)	44 (33.8%)	130 (100%)		

Significant at $p<0.05$

4.3.4 Mode of Training for all PAC Providers

In 11.5% of the assessed facilities, PAC providers were directly trained by a partner/ Non-Governmental Organization supporting health services in Trans Nzoia County. The training entailed one-week of classroom sessions and one-week practical work in health facilities, after which trained staff obtained certification. PAC providers of 28.5% of the PHC facilities only had college training on PAC while majority of PAC providers in 72 (55%) facilities were trained through on job training.

Trained and certified PAC providers consisted of staff from 15 partner-trained facilities and 35 on-job trained facilities which were partner-facilitated. The facilitated-on job training was done by qualified mentors in each subcounty, who identified and trained mentee staff on-job, over a period of 3 months. Thereafter, qualified mentees were certified as PAC providers. Thirty-seven other facilities which were not partner facilitated implemented some informal mentorship programs which were unstructured and mostly depended on the availability of the mentor and mentee, where the mentee staff were only

trained on specific PAC services and not the entire PAC package. The mode of training was not statistically significant at p<0.05, df, 6, and p- value of 0.18 as shown in Table 11 below.

Table 11: Mode ofTtraining for PAC Providers

	Training				Total	df	P-value
	PARTNER / NGO	COLLEGE TRAINING	N/A	OTHERS		6	0.18
GOK	13(20.3%)	12 (18.7%)	4 (6.2%)	35 (54.7%)	64 (100%)		
FBO	0 (0.0%)	4 (26.7%)	1 (6.7%)	10 (66.7%)	15 (100%)		
PRIVATE	2 (3.9%)	21 (41.2%)	1 (2.0%)	27 (52.9%)	51 (100%)		
Total	15 (15.5%)	37 (28.5%)	6 (4.6%)	72 (55%)	130 (100%)		

Significant at p<0.05

Relatedly, study respondents and key informants reported that a few of the healthcare providers have undergone formal training and certification in post-abortion care services. This training, however, was facilitated by a partner supporting health services in the county and upon the exit of this partner-funded program, there have been no efforts to formally train the other providers. This potentially leads to delays in the provision of post-abortion care services when the trained provider is not available, is engaged or has exited services by natural attrition. Majority of PAC providers acquired their skills through on-the job training which was perceived as not being exhaustive by some staff due to time and staff constraints in facilities.

"R: For the health facilities that are offering PAC services you will find that there is usually one staff who is trained on PAC, but the rest are just on-job. So, many times when they are overwhelmed with work, the PAC services will wait specifically for that one who was trained and then brings a lot of delays and maybe patients will even go elsewhere to seek for services when that officer is not around." (SCMOH, Kiminini)

The situation was similar across the sub-counties as pointed out by the subcounty leadership from other sub-counties.

"R: In the GoK facilities we had a partner called IPAS who trained some of the staff on post abortal care. And even during EMOC, we have staff who are trained on post abortal care. So, among the facilities I've listed; that is the GOK, I can authoritatively say at least we have a staff… once IPAS left, the training stopped." (SCMOH, Saboti)

4.3.5 Awareness of 2019 MOH PAC Guidelines

The Ministry of Health (MOH) Post Abortion Care Guidelines of 2019 is a tool that equips healthcare workers with relevant knowledge and skills to offer timely and quality PAC services to prevent disability and death of women due to abortion related complications. The aim of the guideline is capacity build healthcare workers and build a supportive healthcare system by strengthening healthcare management, referral systems, human resource for health, infrastructure for health, health products and technologies and training.

However, approximately 40% of officers in charge of PHC facilities were unaware of the Ministry of Health Post-Abortion Care guidelines of 2019. The majority were from

public facilities, followed by private facilities and least were from faith-based facilities as shown in Figure 13 below.

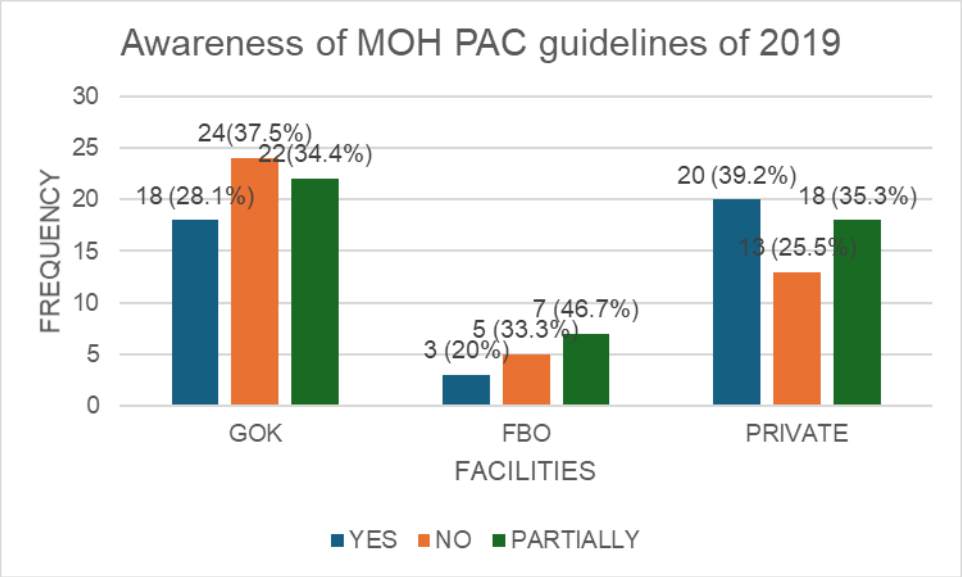

Figure 13: Awareness of MOH PAC guidelines of 2019

In-depth interviews revealed that some healthcare providers were aware of 2019 postabortion guidelines which were partially disseminated, and this was negatively impacting on the quality of PAC services offered.

"R: I believe the guidelines were disseminated, though not well done. Now, whether they are being put to use, that's a different story; but because now for you to use you have to have the work to do to apply the guidelines. But the guidelines were disseminated sometime back." (SCMOH, Endebess)

There were mixed perceptions of the attitude of healthcare providers towards women seeking post-abortion services from key informants. Some reported that a few healthcare providers had a negative attitude towards women seeking PAC services, as they were

perceived to have done something wrong while other providers were perceived to have a positive attitude.

"R: Yes, they do see them like they did something bad because I first heard them tell the girl that she would have to go and finish everything wherever she started it. That's what she was told – just go back home to where you started the abortion." (CHP_Kitum Endebess)

In some facilities, when the officer who is trained on post-abortion care services is not on duty, other staff on duty refer women seeking PAC or ask them to wait for the PAC provider.

"R: Most of them have poor attitude and you will find out that if this person that was trained is not on duty, they will tell the client to wait for that particular person or go to the next level of service delivery…yes, so their attitude is poor on PAC services. They usually refer to them as "wale watu wa MVA hawako, rudi tena" (SCMOH, Cherangany)

However, some participants reported that healthcare providers' attitudes towards these women are positive and that they treat them in a friendly and respectful manner without being judgmental.

"R: Their attitude is positive and friendly. We don't always punish people because we know that there are challenges out here. Though some do come maybe after they induce an abortion, it doesn't all come out. But still, they are always just served." (CHP_Nzoia Cherangany)

"R: They treat them respectfully. They do welcome them well and ask what they are suffering from. After they are told they treat them well." (CHP, Suwerwa)

Some key informants reported that there had been improvements in how care providers viewed and treated women seeking post-abortion care.

"R: Yeah, we have since seen a lot of improvements because at least all the service providers have received some training on value clarification because initially you would find a very religious service provider, and they couldn't imagine dealing with a PAC client. But at least they have since undergone some training and now they receive the patients well." (CHP, Mitume Saboti)

The positive attitude towards women seeking post-abortion care services was linked to a training that was aimed at transforming the attitude of care providers.

"R: Okay, for those trained, they have a positive attitude. Even those who were not trained, some have positive, some have negative. But we are trying to change that; there is a training I think most of our staff underwent that is called VCAT, values clarification, attitude transformation; so, mostly in the GOK facilities I don't think there is somebody – because they are not offering abortal services, they are just offering post abortal services. Because I think once – I've been in the administration for this long; when it is abortal services some people are Christians they say they cannot offer abortal services. But remember this is post abortal; a client can come after an abortion. So the service providers have changed their attitude." (SCMOH_Saboti)

4.3.6 Counseling Services Provision to PAC Clients

In more than half of both public and private facilities, counselling services were being offered to PAC clients unlike faith-based facilities where 86.7% of the facilities were not offering counselling services to PAC clients as shown in Figure 14 below.

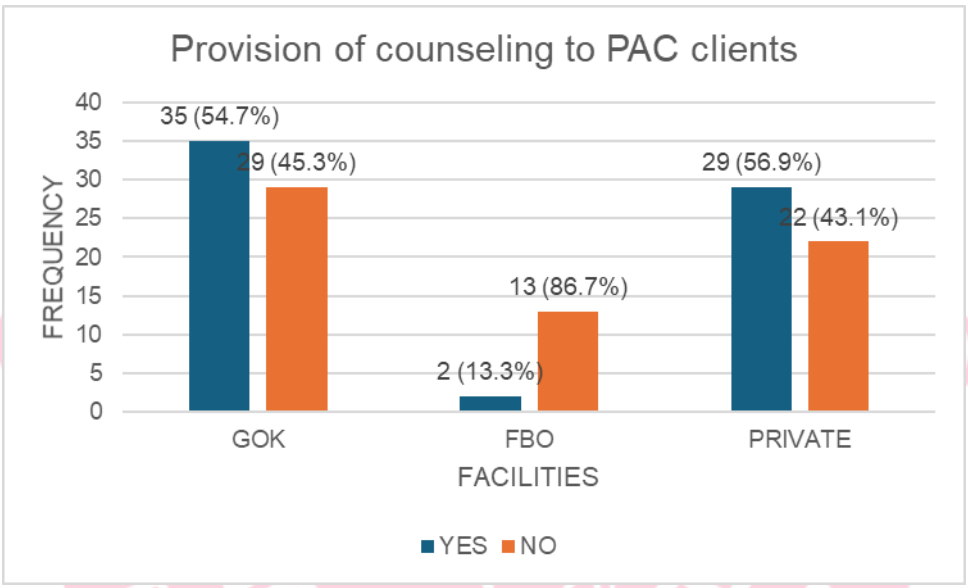

Figure 14: Provision of counselling to PAC clients

4.3.7 Location where PAC Counseling Services are offered from

In facilities where counselling services were being offered to PAC clients, the location where counselling was offered was highly dependent on the physical infrastructure and space that a facility had. Public facilities offered bedside counselling mostly in 32.8% of the facilities. Fourteen (27.5%) of the private PHC facilities offered counselling at the MVA room while 10 (19.6%) other private facilities had a side rooms for counselling PAC clients. Only 3 (4.7%) of public facilities had a side room for counselling services. The study found out that location where counselling services were offered was

statistically significant at p<0.05, df, 8, and p- value of < 0.001 as shown in Table 12 below.

Table 12: Location where Counselling Services were offered

WHERE COUNSELLING IS DONE						Total	df	P-value
	BED SIDE	SIDE ROOM	MVA /THEATRE	N/A	OTHERS		8	<0.001*
GOK	21 (32.8%)	3 (4.7%)	11 (17.2%)	22 (34.4%)	7 (10.9%)	64 (100%)		
FBO	0 (0%)	1 (6.7%)	0 (0%)	12 (80%)	2 (13.3%)	15 (100%)		
PRIVATE	2 (3.9%)	10 19.6%)	14 (27.5%)	19 (37.3%)	6 (11.8%)	51 (100%)		
Total	23 (17.7%)	14 (10.8%)	25 (19.2%)	53 (40.8%)	15 (11.5%)	130 (100%)		

Significant at p < 0.05

4.4 Health System Essential Medical Supplies Factors

4.4.1 Distribution of Functional of MVA Kits by Facility ownership

Research findings indicate that half of the facilities assessed lacked basic equipment like MVA kits i.e. 63 (48.5%) facilities. Out of these, 29 (46%) were public facilities, 21 (33.3%) were private facilities and 13 (20.6%) were faith-based facilities. Most public PHC facilities have zero to one functional MVA kits while two to three functional MVA kits were mostly found in private facilities. Thirteen out of fifteen (86.7%) faith-based facilities had no functional MVA kits. The distribution of functional MVA kits was statistically significant at p<0.05, df, 6, and p- value of < 0.001* as shown in Table 13 below.

Table 13: Distribution of Functional MVA kits

	FUNCTIONAL_MVA_KITS				Total	df	P-value
	NONE	ONE	TWO	THREE		6	<0.001
GOK	29 (45.3%)	19 29.7%)	14 (21.9%)	2 (21.9%)	64 (100%)		
FBO	13 (86.7%)	0 (0%)	1 (6.7%)	1 (6.7%)	15 (100%)		
PRIVATE	21 (41.2%)	1 (2%)	23 (45.1%)	6 (11.8%)	51 (100%)		
Total	63 (48.5%)	20 (15.4%)	38 29.2%)	9 (6.9%)	130 (100%)		

Significant at p<0.05

In most facilities, the source of MVA kits was facility own sources while fifty percent of public facilities received their MVA kits from a Non-governmental Organization. Other minor sources were the Trans Nzoia County Government- Department of Health Services and Sanitation, Ministry of Health, donations and medical camps. The sources of MVA kits was statistically significant at p<0.05, df, 8, and p- value of <0.001* as shown in Table 14 below.

Table 14: Source of MVA Kits

	SOURCE					Total	df	P-value
	OWN SOURCES	MOH	CGHD	NGO	OTHERS		8	<0.001*
GOK	2 (3.1%)	1 (1.6%)	3 (4.7%)	32 (50%)	26 (40.6%)	64 (100%)		
FBO	3 (20%)	0(0%)	0(0%)	0(0%)	12 (80%)	15 (100%)		
PRIVATE	32 (62.7%)	0(0%)	0(0%)	3 5.9%)	16 (31.4%)	51 (100%)		
Total	37 (28.5%)	1 (0.8%)	3 (2.3%)	35 (26.9%)	54 (41.5%)	130 (100%)		

Significant at p<0.05

In terms of types of equipment/instruments for post-abortion care management and treatment, some key informants reported having necessary instruments/kits such as MVA kits. The usefulness of these instruments was, however, perceived to be dependent on the availability of trained staff.

R: And in terms of instruments, the MVA kits, we have tried to equip these facilities with these kits. And it also comes with a challenge because not all healthcare workers are skilled enough to perform that MVA. (SCMOH, Kwanza)

On the contrary, some other facilities were not having the required types of equipment to offer post-abortion care services.

"R: We don't have the types of equipment used for the services like syringes and such in some facilities – the healthcare providers don't have the types of equipment used for post-abortion care services." (CHP, Kwanza)

4.4.2 Provision of Family Planning Methods to Clients Before Leaving the Facility

Immediate post-abortion family planning is one of the key recommendations of the 2019 post-abortion care guidelines since it has proven to be a reliable intervention in preventing recurrence of unintended pregnancy. In compliance to the above recommendation, 69 (53.1%) PHC facilities offered post abortion family planning to PAC clients before leaving the facility. These comprise of 31 private facilities, 34 public facilities and four faith-based facilities. The provision of family planning before leaving the health facility was not statistically significant at $p<0.05$, df, 2, and p- value of 0.67 as shown in Table 15 below.

Table 15: Provision of Family Planning before Leaving the Facility

	CLIENT RECEIVE FAMILY PLANING		Total	df	P-value
	YES	NO		2	0.67
GOK	34 (53.1)	30 (46.9%)	64 (100%)		
FBO	4 (26.7%)	11 (73.3%)	15 (100%)		
PRIVATE	31 (60.8%)	20 (39.2%)	51 (100%)		
Total	69 53.1%)	61 (46.9%)	130 (100%)		

Significant at p<0.05

There were six groups of family planning methods in the facilities i.e barrier methods, oral contraceptives, injections, implants, intra uterine contraceptive devices (IUCD) and surgical methods. Methods available in facilities ranged from zero to six, with a mode and a median of three. However, 22 (16.9%) facilities did not have any family planning methods. Nine (6.9%) facilities had one method, 12 (9.2%) facilities two methods, 36 (27.7%) facilities had three methods, 18 (13.8%) facilities had four and 32 (24.6%) facilities had five as shown in Table 16 below.

Table 16: Methods Available in the Facility

	FP METHOD AVAILABLE							Total
	0	1	2	3	4	5	6	
GOK	3 (4.7%)	6 (9.4%)	9 (14.1%)	19 (29.7%)	11 (17.2%)	16 (25%)	0 (%)	64 (100%)
FBO	8 (53.3%)	2 (13.3%)	0 (0%)	3 (20%)	0 (0%)	2 (13.3%)	0 (0%)	15 (100%)
PRIVATE	11 (21.6%)	1 (2%)	3 (5.9%)	14 27.5%)	7 (13.7%)	14 (27.5%)	1 (2%)	51 (100%)
TOTAL	22 (16.9%)	9(6.9%)	12 (9.2%)	36 (27.7%)	18 (13.8%)	32 (24.6%)	1 (0.8%)	130 (100%)

The most commonly available family planning methods were oral contraceptives and injectables in 102 (78.5%) facilities, followed by barrier methods in 90 (69.2%) facilities, implants in 52(40%) facilities, intrauterine contraceptive devices in 36 (27.7%) facilities and surgical method in 1 (0.8%) facility as shown in Figure 15 below.

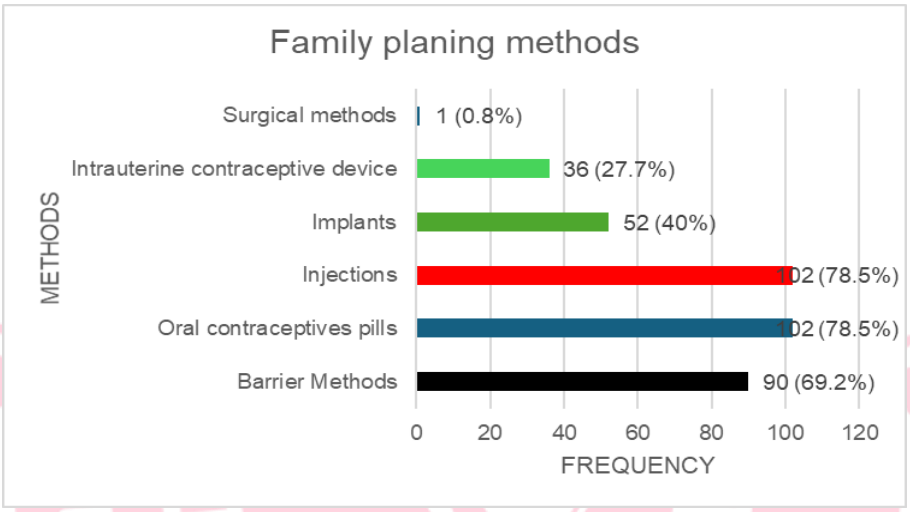

Figure 15: Family Planning Methods

4.4.3 Availability of Essential Medicines

Our assessment revealed that most facilities lack essential medicines and medical supplies to deliver PAC services. Availability of EMMS was assessed based on facility ownership. These EMMS included antibiotics, haematinics, analgesics, intravenous fluids and uterotonics. Findings indicate that faith-based facilities were generally well stocked with essential medicines apart from misoprostol, followed by private facilities and the least stocked were public PHC facilities as shown in Table 17 below.

Table 17:Availability of Essential Medicine

EMMS	FACILITIES			TOTAL
	GOK	FBO	PRIVATE	
AMOXICILLIN	10 (15.6%)	14 (93.3%)	48 (94.1%)	72 (55.4%)
METRONODAZOLE	10 (15.6%)	14 (93.3%)	44 (86.3%)	68 (52.3%)
DOXYCYCLINE	3 (4.7%)	13 (86.7%)	43 (84.3%)	59 (45.4%)
HAEMATINICS	4 (6.3%)	13 (86.7%)	43 (84.3%)	60 (46.2%)
GENTAMYCIN	9 (14.1%)	14 (93.3%)	43 (84.3%)	66 (50.8%)
NORMAL SALINE	31 (48.4%)	14 (93.3%)	46 (90.2%)	91 (70%)
MISOPROSTOL	5 (7.8%)	6 (40%)	34 (66.7%)	45 (34.6%)
ORAL PAIN KILLER	5 (7.8%)	15 (100%)	45 (88.2%)	65 (50%)
INJECTABLE PAIN KILLERS	4 (6.3%)	14 (93.3%)	43 (84.3%)	61 (46.9)
TOTAL	64 (49.2%)	15 (11.5%)	51 (39.2%)	130 (100%)

Across the sub-counties, key informants reported an overall shortage of EMMS including essential medicines for post-abortion care management, characterized by frequent stockouts. As a result, sometimes women seeking PAC services have to buy prescribed medicines from other facilities or private chemists.

"R: No, that's a very big challenge. There are inadequate drugs and so after they are attended to they are always asked to go and buy drugs. So, that's a challenge." (CHP, Cheptantan Endebess)

R: The main challenge in our facility is the lack of drugs. So, most women even those who want to deliver – let alone PAC services – women mostly do deliver at night and there are no healthcare providers. So, whenever they go there to seek PAC services, they have to be referred. So, the main challenge at Bidii health facility is the lack of drugs. (CHP, Bidii Kwanza)

R: They will conduct a manual vacuum aspiration and then they will prescribe drugs for them so that they can go and buy the drugs from the pharmacy outside the health facility. (CHP3_Suwerwa)

They further reported that the medicine shortages were worsened by the erratic supply of both pharmaceuticals and non-pharmaceuticals by supplier through the county government procurement channels.

"R: Currently we have a shortage of these common commodities and also the erratic supply from our suppliers including KEMSA, which has really affected us. As of now, in most of the facilities, we have analgesics only. Even antibiotics are not available". (SCMOH, Cherangany)

EMMS shortages have been persistent in public facilities within the last 12 months where essential medicines and other supplies have been supplied once and were inadequate.

"R: There have been shortages of drugs when they run out of stock and then it takes a long time for the restocking to be done. So, the availability of drugs is a challenge." (CHP, Motosiet)

Apart from essential medicines, non-pharmaceuticals such as gloves were often inadequate and supplied erratically.

"R: Non-pharms at those facilities that had received some funds, some of them have but when I look at the five, I could say maybe one or two that have, the rest I think because of the strike they might – whatever they had before they went on strike which was very little though, it might be there. But now that they are back to work, I don't think it will last for a month or two." (SCMOH, Endebess)

The Subcounty Medical Officers of Health mentioned funding challenges as a key contributor to HPTs stockouts in facilities.

R: Maybe inadequate budgets. Mostly it's inadequate budgets. So, even if they get the money the county procures but very little; not enough for all the facilities because remember now when the county procures, they are not just procuring for facilities in Endebess alone, they are procuring for the whole county – yeah, inadequate budget is the one contributing to very minimal HPTs. (SCMOH, Endebess)

Secondly, centralization of the ordering of supplies was perceived to disadvantage lower-level facilities.

"*R: In my view, I think centralization of ordering these items or commodities is the big challenge. You will find out that most of these lower-tier facilities they make their order and they run them with the hubs at the sub-county level and in return the hubs will forward it to the county level and the county will do the order. The supplier will supply those commodities to the county level and the county will cascade it downwards to the sub-county level and these lower-tier facilities will be forced to pick their commodities from the sub-county level. In such a manner, you will find out that if you ordered for 100 boxes of antibiotics, you will end up getting either 20 or 30. And that one has really contributed massively to this erratic supply and shortage."* (SCMOH, Cherangany)

Unavailability of postabortion care EMMS was perceived to contribute to delays in care-seeking, leading to poor health outcomes among PAC patients.

"R:..someone who doesn't have money or is poor and has such a challenge at home and when they come to the health facility they are told to buy this and that and they cannot

*afford. So, the first thing they will do is that they will not be at ease coming to the health facility because they will know that even when they come here they will still need to buy the supplies. So, it affects their access to the service in a big way. And that's why I told you, unless they have an emergency case, that's when they will rush here. But for those who think that the problem can just go away while they are at home, most of the time they don't come to the health facility."(*CHP_Kaplamai)

4.4.4 Facilities with Budget Specific for Post Abortion Care

Ninety-four (72.3%) PHC facilities did not have a budget specifically for PAC services with 63 (67%) being public facilities. Only 36 (27.7%) facilities had a budget specific for PAC services and 31 (86.1%) of them were private facilities while 4(11%) were faith based facilities. These facilities were equally well stocked with HPTs since they could plan and procure on time to avoid stock-outs. Only 1 (1.6%) public PHC facility had a budget specific for treating PAC complications. Facilities with budget specific for PAC services was statistically significant at p<0.05, df, 2 and p- value of < 0.001* as shown in Table 18 below.

Table 18: Facilities with budget specific for PAC services

	BUDGET		Total	df	P-value
	YES	NO		2	<0.001
GOK	1 (1.6%)	63 (95.4%)	64 (100%)		
FBO	4 (26.7%)	11 (73.3%)	15 (100%)		
PRIVATE	31 (60.8%)	20 39.2%)	51 (100%)		
Total	36 (27.7%)	94 (72.3%)	130 (100%)		

Significant at p<0.05

The subcounty leadership pointed out inadequate budget allocation to facilities as the major cause of shortage of HPTs especially in public facilities.

"R: Resources – we don't have resources. But if we are given enough resources, because definitely, we have had quantification of maybe for one year and we can say for this budget kwanza sub-county hospital or kwanza PCN or kwanza hub, we can sustain ourselves with this kind of budget. If we are given this amount for HPTs it will sustain us for one year or three months. But without enough resources, definitely we prioritize."

(SCMOH, Kwanza)

4.4.5 Number of Clients Referred to other Facilities for PAC Services

Study findings show that only two facilities had zero referral of PAC clients to other facilities for PAC services. For all the facilities that referred PAC clients, referrals ranged from one to eleven PAC patients with a mode and a median of three as shown in Figure 16 below.

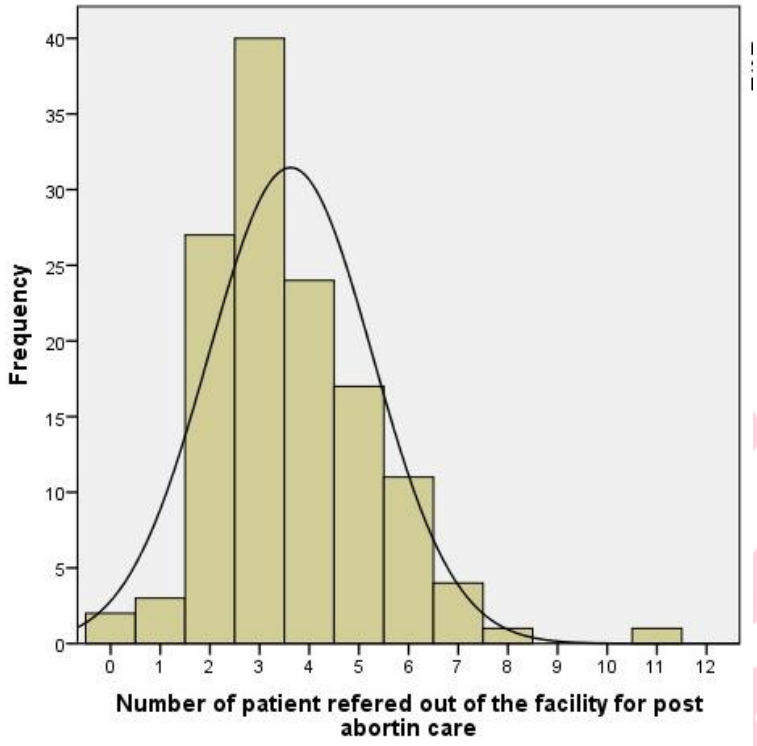

Figure 16: Number of Patients Referred out of the Facility for Post Abortion Care

From the assessed facilities, a total of 471 PAC clients were referred out of the primary PHC facility to seek PAC services elsewhere in the year 2024, in Trans Nzoia County. Sixty-two (48%) public facilities had the highest referral out of PAC clients totalling to 264 patients. Only two public facilities did not refer PAC clients out. Referral out for public facilities ranged from 2-11 clients, with the highest being 21 facilities (52.5%) referring three clients each. Fifty-one (39.2%) private facilities referred out a total of 155 PAC clients with a facility referral range of 0 - 7 PAC clients. Fifteen (11.5%) FBO facilities referred out 52 PAC clients in total as shown in Table 19 below.

Table 19: Patients Referred out of PHC Facilities

Patient numbers	FACILITY_OWNERSHIP			Total Facilities
	GOK	FBO	PRIVATE	
0	0	0	0	2
1	0	0	3	3
2	14	4	36	27
3	63	21	36	40
4	60	12	24	24
5	45	15	25	17
6	42	0	24	11
7	21	0	7	4
8	8	0	0	1
11	11	0	0	1
TOTAL PATIENTS	264	52	155	130 (100%) 471 REFERRALS

The Kitale County Hospital (KCH) received referrals from 103 (79.2%) facilities out of 130 facilities assessed. For facilities that referred to KCH, private facilities were 45 (43.7%), followed by 44 (42.7%) public facilities and 14 (13%) faith- based facilities. Other facilities that received referred PAC clients were Cherangany Sub County Hospital receiving referrals from 6 facilities, Kwanza Sub County Hospital and Endebess Sub County Hospital receiving from 5 facilities each, Matunda Sub County Hospital receiving from three facilities, Kapsara Sub County Hospital, Kapkoi Health Centre and a facility that was open and available received from two facilities each while Maili Saba and Kaplamai health centres received from one facility each as shown in Table 20 below.

Table 20: Referring Facilities and Facilities Referred to

TO WHICH FACILITY

	FACILITY_OWNERSHIP			Total
FACILITY	GOK	FBO	PRIVATE	
KITALE COUNTY REDERRAL HOSPITAL	44 (42.7%)	14 (13.%)	45 (43.7)	103 (100%)
KAPSARA SUB COUNTY HOSPITAL	2 (100%)	0 (0%)	0 (0%)	2 (%)
CHERANGANY SUB COUNTY HOSPITAL	4 (66.7%)	1 (16.7%)	1 (16.7%)	6 (100%)
KAPLAMAI HEALTH CENTRE	1 (100%)	0 (0%)	0 (0%)	1 (100%)
KWANZA SUB COUNTY HOSPITAL	3 (60%)	0 (0%)	2 (40%)	5 (100%)
KAPKOI HEALTH CENTRE	2 (100%)	0 (0%)	0 (0%)	2 (100%)
ENDEBESS SUB COUNTY HOSPITAL	5 (100%)	0 (0%)	0 (0%)	5 (100%)
OPEN AND AVALAILABLE FACILITY	0 (0%)	0 (0%)	2 (100%)	2 (100%)
MAILISABA	1 (100%)	0 (0%)	0 (0%)	1 (100%)
MATUNDA SUB COUNTY HOSPITAL	2 (66.7%)	0 (0%)	1 (33.3)	3 (100%)
	64 (49.2%)	15 (11.5%)	51 (39.2)	130 (100%)

Qualitative findings highlighted the unavailability of essential medicines, nonpharmaceutical supplies and PAC equipment as key contributors to referral of PAC patients. Where facilities lacked the necessary EMMS and the PAC patients could not afford, women were referred directly to the subcounty hospital or to the Kitale County Hospital.

"R: First, the women will not get the healthcare they need because they will not get the drugs available. And that will make them be referred to Endebess and that means they would have to use some money as fare which some of them will not afford. (CHP3_Endebess)

There was also an unstructured referral of clients where lower-level facilities referred patients directly to the county referral facility based on EMMS availability at the Kitale County Hospital, unlike the situation in lower-level facilities. At night, PAC clients were informally referred by security personnel manning some PHC facilities to nearby facilities offering PAC services and operating for 24 hours. Patient data was just captured in the security services registry indicating PAC patient referrals and the data was handed to the facility management the following day.

"R: lack of HPTs – lack of drugs. Even gloves – sometimes you may miss gloves.

So, if a client comes and you want a glove and it is not there, what do you do? You refer the client to the next level. But the client – if the client can afford to buy those products then you don't need to refer." (SCMOH, Saboti)

Two levels of referrals were reported. First on was from the community to the primary care facilities, with community health promoters emerging as a strong link between the two. Secondly were referrals from PHC facilities to higher level facilities with the primary reasons for referrals being facility operating hours, where women sought care at night or during weekends ; lack of commodities; and healthcare providers' strikes.

"R: Sometimes as I said, it's at night and they cannot be served at Kitum…Also the lack of supplies. So the healthcare providers will feel that instead of keeping them there when they will not help them in any way, they will decide to just refer them to Endebess." (CHP, Kitum Endebess)

The main challenge hindering timely referrals was lack of ambulatory services in most of the facilities, therefore requiring clients/patients to pay for the means of transport and where they can't afford, they may not seek care, leading to poor outcomes.

"R: Yeah, they don't have ambulances. When you are lucky enough you can call the sub-county hospital and get it. But on many occasions that ambulance does not have fuel or maybe it is engaged in other referrals so most of the clients will usually suffer so much…we've had clients not reaching even the facilities that they've been referred to because of transport issues and even sometimes we recorded a lot of morbidities because of incomplete treatments. Yeah, and mortalities – community mortalities because some of them when you send them to other hospitals they prefer to go back home and then you record a mortality from the community." (SCMOH, Kiminini)

4.4.6 Facilities with PAC Specific Budget and Referral Status

The study found out that facilities that had a budget specific for PAC services were 36 (27.7%) in total and out of these, 34 (94.4%) facilities were referring clients to other health facilities for PAC services, the same way 94 (100%) facilities without a budget specific for PAC services were referring. Having a budget and referral was not statistically significant at $p<0.05$, OR=0.944, df, 1, 95% CI=0.873-1.022, and p-value 0.21 as shown in Table 21 below.

Table 21: Facility with PAC specific budget and referral status

		REFERRALS		Total	df	OR	95% CI	p-value
		YES	NO		1			0.21
BUDGET FOR PAC	YES	34 (94.4%)	2 (5.6%)	36 (100%)		0.944	0.873-1.022	
	NO	94 (100%)	0 (0.0%)	94 (100%)				
Total		128 (98.5%)	2 (1.5%)	130 (100%)				

Significant at p<0.05

4.4.7 Facilities where Clients Pay for PAC Services and Referral Status

The study found out that the 46 (95.8%) facilities in which PAC clients were being charged for PAC services, clients were still being referred to other health facilities for PAC, the same way as 7 (100%) facilities that were sometimes charging clients. All the thirty-six facilities that were not charging for PAC services were also referring PAC clients. Therefore, paying for PAC services and referral to other health facilities was not statistically significant at p<0.05, df, 3, and p-value 0.325 as shown in Table 22 below.

Table 22: Clients paying for PAC services and referral status

		REFERRALS		Total	df	p-value
		YES	NO		3	0.325
CLIENTS PAY	YES	46 (95.8%)	2 (4.2%)	48 (100%)		
	NO	36 (100%)	0 (0.0%)	36 (100%)		
	SOMETIME	7 (100%)	0 (0.0%)	7 (100%)		
	N/A	39 (100%)	0 (0.0%)	39 (100%)		
Total		128 (98.5%)	2 (1.5%)	130 (100%)		

4.4.8 Health Information System for PAC services

The key informants reported that post-abortion care services are recorded in daily activity registers that are available in both public and private facilities. These reports are compiled monthly and submitted to the health records information officer at the sub-county hospital, who compiles and uploads the data to KHIS.

"R: Well, for public facilities we have registers and at the end of every month they fill these registers which the same is cascaded to the hubs whereby it is uploaded by the health records and information officer into KHIS". (SCMOH, Cherangany)

"R: Yeah, they do monthly reporting especially on –say on commodities like me and the community PAC, they do monthly reporting. They also do the monthly reporting of workload, and the services offered. Yes, they do – there is a common reporting because at the end of every month they bring the report to a central place where now it is compiled by the HRIO and the program leads like if it is the commodity, that's the pharmacist who will take charge if its matters RH the DPHN will take charge." (SCMOH, Endebess)

However, one key informant highlighted there being gaps in reporting, as sometimes the few cases reported do not match the consumption of supplies & commodities reported.

"R: The reporting is insufficient because sometimes you may go into the register, and you realize that they have recorded a few but when you see the commodities and the other things that they are using are many meaning many clients are going without being recorded." (SCMOH, Kiminini)

4.4.9 Physical Infrastructure for PAC services

Physical infrastructure for health like operating theatres and blood transfusion services were also few in the sub-counties. Three of the five sub-county medical officers of health reported that they had at least one operational theatre in private and Faith-based health centres within their primary care network. Similarly, only two reported the existence of blood transfusion services within their subcounty in primary healthcare facilities, both of which are private, and faith based. Apparently, public primary healthcare facilities neither have a functional operating theatre nor offer blood transfusion services.

"R: Recently we had construction finished at the hub level – a theatre so we are waiting for it to be launched. So, in the whole sub-county or the PCN, there's only one theatre under construction and that is at the subcounty hospital level and not yet operational. Also, the private, the FBOs in Kwanza Subcounty, they don't have a theatre." (SCMOH_Kwanza)

"R…But we do not have an operating theatre neither do we have blood transfusion services in the entire subcounty." (SCMOH, Cherangany)

4.4.10 Perceptions of Community Awareness of Post-Abortion Care Services

Generally, the key informants reported that the community was aware of post-abortion care services being provided at primary healthcare facilities. The community health promoters linked this awareness to their roles and efforts in educating the community.

"R: Yes, they know because as CHPs we do educate them in the community. So, they know and we have also been sensitizing them on the pregnancy danger signs.

So, whenever they see the danger signs they need to rush to the health facility."

(CHP, Cheptantan Endebess)

However, some reported that due to the media campaigns on abortion being illegal in Kenya, and possible legal actions, there is fear of seeking post-abortion care services among some community members. This potentially leads to delays in care seeking care and some community members seeking post-abortion care from traditional healers and herbalists.

"R: But when it comes to an issue related to abortion, they have that fear that people will feel that they had an abortion and especially if she is an unmarried girl or a young woman. Most of the time before they come for that care they do take a long time because of the belief that they will be seen to have had an abortion. Also, the fear of the law; you know, some of them will feel that they would be arrested if they are found to have had an abortion since when they come here then there will be proof that they indeed had an abortion. So, before they come here from the community, it always takes a lot of time."

(CHP, Kaplamai)

4.4.11 Health Facility Operation Factors and Referrals Status

The survey findings (Table 23) below indicates the relationship between the referral of PAC clients and subcounties of origin, df, 4, and p = 0.270, facility ownership df, 2, and p = 0.270. However, the findings further showed that treatment of PAC clients df, 4, and p = <0.001 and facility operating hours df, 5, and p = 0.003 were statistically significant.

Table 23: Health Facility Operation Factors and Referral Status

Association between health facility operation factors and referrals Status

Variable	Referrals		Total	df	p-value
	Yes	No			
Sub County				4	p = 0.270
Kwanza	30	0	30		
Endebess	12	1	13		
Kiminini	28	0	28		
Saboti	30	1	31		
Cherangany	28	0	28		
Facility ownership				2	p =0.207
GOK	64	0	64		
FBO	15	0	15		
PRIVATE	49	2	51		
Treatment of clients				4	p =0.000*
Outpatient service	61	0	61		
Inpatient service	1	0	1		
No PAC service	52	0	52		
FBO no PAC service	5	0	5		
Both inpatient and outpatient service	9	2	11		
Patient waiting time				4	p =0.206
Less than one hour	38	2	40		
One to two hours	82	0	82		
Two to three hours	7	0	7		
More than three hours	1	0	1		
Payment of PAC services				3	p =0.325
Yes	46	2	48		
No	36	0	36		
Sometimes	7	0	7		
N/A	39	0	39		
Facility operating Hours				5	p =0.003*
Day only (8-5) seven days a week	13	0	13		
Day only (8-5) week days only	72	0	72		
Evening only	3	0	3		
Day only (8-5) six days a weel	25	0	25		
24 hours	11	2	13		

Significant at p<0.5

4.4.12 Availability of PAC Services and Referrals

The survey findings (Table 24) below show the range of postabortion services offered in facilities. Evacuation following incomplete abortion, df, 1, OR, 0.971, 95% CI 0.933-1.011, and p = 0.187, post abortion counselling services df, 1, OR, 0.971, 95% CI 0.933-1.011, and p = 0.187, availability of post abortion contraceptives df, 1, OR, 0.972, 95% CI 0.935-1.011, and p = 0.201, management of post abortion infections df, 1, OR, 0.971, 95% CI 0.933-1.011, and p = 0.210 and linkage to other relevant departments df, 1, OR, 0.967, 95% CI 0.924-1.013, and p = 0.132. Staff awareness of 2019 PAC guidelines df, 2, and p = 0.110, provider trained and certified to offer PAC services df, 1, and p = 0.197 and facilities that had budget specific for PAC complication treatment df, 1, OR, 0.940, 95% CI 0. 873-1.022, and p = 0.210 were all found to be statistically insignificant.

Table 24: Association Between Availability of PAC Services and Referrals

Association between availability of PAC services and referrals	Referrals		Total	df	OR	95% CI	P-value
	Yes	No	Total				
Evacuation following incomplete abortion				1			p = 0.187
Yes	68	2	70		0.971	0.933-1.011	
No	60	0	60				
Post abortion counselling service				1			p = 0.187
Yes	68	2	70		0.971	0.933-1.011	
No	60	0	60				
Post abortion contraceptives				1			p = 0.201
Yes	70	2	72		0.972	0.935-1.011	
No	60	0	60				
Management of post abortion infections				1			p = 0.208
Yes	71	2	73		0.973	0.936-1.011	
No	57	0	57				
Management of mild anemia following abortion				1			p = 0.210
Yes	70	2	72		0.971	0.933-1.011	
No	58	0	58				
Linkage to other relevant department				1			p = 0.132
Yes	59	2	61		0.967	0.924-1.013	
No	68	0	68				
Awareness of 2019 PAC guidelines				2			p = 0.110
Yes	39	2	41				
No	42	0	42				
Partially	47	0	47				
Providers trainned and certified				1			p =

to offer PAC							0.197
Yes	48	2	50				
No	36	0	36				
N/A	44	0	44				
Budget specific for PAC complication treatment				1			p = 0.210
Yes	32	2	36		0.94	0.873-1.022	
No	94	0	94				

CHAPTER 5: DISCUSSIONS

5.1 Introduction

Globally, post-abortion care (PAC) is known to be a cost-effective public health intervention that saves women following post-abortion complications (Perera et al., 2021; World Health Organization, 2022). Women in Sub-Saharan Africa mostly seek PAC services in primary health care facilities (Bankole et al., 2018). The Kenya Health Sector Strategic Plan 2023 -2027 acknowledges PHC as the back-borne of the healthcare system whose mandate is to meet the essential health service needs of Kenyans including PAC services. PHC facilities should therefore provide quality PAC services to any woman in need of the same (World Health Organization, 2016).

5.2 Health System Service Delivery Factors

Health facility operating hours, treatment of PAC clients, cost of PAC services and patient waiting time and location where counselling services were offered at were significant findings. The main reason for prolonged waiting time being the ability to pay for PAC services. However, paying for PAC services and referral to other health facilities was not statistically significant.

Facility operating hours influence access to PAC services, and they are dependent on number of healthcare providers at a health facility. The major reason for limited facility working hours in the assessed facilities was staff shortage of clinical officers and nurses. This shows the interdependence between health system service delivery and human resource for health. For a health system to perform optimally, it needs adequate number of technical staff commensurate to the health facility workload and facility working hours (Murira et al., 2022). These findings are consistent with a study done in Meru County,

Kenya, on post-abortion care (Murira et al., 2022) and another multi-country study in low-and-middle income countries on Health Systems' Preparedness to provide PAC (Juma et al., 2022), where 90% of PHC facilities in Kenya lacked 24 -hour PAC services and the nearest PHC facility lacked the capacity to offer PAC services. On the contrary, in Ethiopia and Uganda, atleast 95 % and 78% of public facilities respectively provide post-abortion throughout (Stillman et al., 2023). In Burkina Faso and Nigeria more than half of PHC facilities in these countries offer 24-hour services seven days a week hence improved access to PAC services (Juma et al., 2022). These countries have achieved optimal PAC service provision due to adequate staffing levels at dispensaries and health centres level.

In India, access to PAC services is sub-optimal more so in rural areas since 64% of health facilities do not provide PAC services daily for the entire week (Pradhan et al., 2021). During the Covid-19 pandemic, countries like China acknowledged the emergency nature and importance of PAC services hence had to prioritize continuity of PAC services by ensuring round the clock PAC services in PHC facilities (Wang & Yang, 2021).

Cost of PAC services was identified as a key factor influencing PAC service provision by PHC facilities. Fifty-three (40.7%) PHC facilities consisting of public, private and faith based facilities were charging for PAC services with the cost ranging from Ksh.1,000 to Ksh. 10,000. In all charging facilities, PAC clients were required to pay out of pocket, prior to accessing the services irrespective of whether the patient had an active social health insurance or not. The amount of money charged for PAC services was highly dependent on facility ownership, availability of essential supplies in the facility or not

and PAC provider discretion. Some public and private facilities charged up-to Ksh.10,000 while facilities with HPTs stockouts charged above Ksh.4,000.

There was no standardized cost of PAC for PHC facilities that were charging. The charges were formal service fees while in others it was some informal service fee, money to buy essential medicines and medical supplies for the health facilities to offer PAC services. In other facilities, the money was meant to fuel the ambulance to refer the patient to the nearest facility offering PAC services. Patients who could not raise the required funds were either sent back home to try and raise the required charges or referred to another facility if they could afford their own transport costs. Eventually, this delayed access to PAC services leading to worsening complications hence poor outcomes. Referred patients also incurred other indirect costs like transport charges to the referral facility, raising the overall cost of PAC. Sometimes, PAC patients are asked to fuel the ambulance to be transferred to the referral facility. Those who can't afford are forced to use private means like motorbikes and bicycles, their ability to pay for transport and their medical condition notwithstanding. This further impedes timeliness and quality of PAC services (Muga et al., 2024).

Charging for PAC makes the services unaffordable with variations in pricing across different categories of PHC facilities. Vulnerable groups like adolescents and women of lower socio-economic status most times can't afford PAC services. Recurrent stockouts of essential medicines, medical supplies and equipment coupled with lack of reliable ambulance services provide a loophole for illegal or exaggerated charges. Overcharged PAC clients also lack structured official channels through which they can launch anonymous complaints.

In Trans Nzoia County, PAC services are charged in level 4 hospitals under social health insurance or out-of-pocket payment. However, public PHC facilities are not supposed to charge for PAC services following the government directive of the year 2013 where all user fees in PHC facilities were removed. Public PHC facilities are supposed to have all their essential medicines and medical supplies human resource and infrastructure requirements met by the County Department of Health Services and Sanitation. On the contrary, private PHC facilities charge for PAC services. The cost is determined by the individual facility since these facilities must cover essential supplies costs, human resource and infrastructural costs on their own. Patients' ability to pay for PAC services indirectly determines the facility where the client obtains PAC services.

Up to June 2024, PAC services in Kenya were covered by 'Linda Mama' package under the National Hospital Insurance Fund. At the time of this study, Kenya was transitioning to Social Health Authority (SHA). There were challenges with facilities transitioning and understanding the scope of services covered by SHA. Moreover, most residents in Trans Nzoia County had not been registered under SHA and most PHC health facilities had not also received SHA gadgets meant for patient registration and billing patients when they seek health services in health facilities. Therefore, most patients were paying out of pocket for PAC services which was limiting access.

Transition from the National Hospital Insurance Fund to Social Health Authority (SHA) introduces 3 funds: the Primary Healthcare Fund (PHF), Social Health Insurance Fund (SHIF) and Emergency, Chronic and Critical Illness Fund (ECCIF). Post-abortion care is classified under the ECCIF since it's an emergency hence any woman enrolled under SHA should access quality PAC services in PHC facilities without incurring direct costs.

For patients to utilize ECCIF, one must register with SHA and ensure they pay their monthly subscription so that their cover is up to date. Healthcare providers in PHC facilities are required to offer PAC services and then claim for reimbursement from the fund. Healthcare services are not free of cost in Kenya since they are subsidized by the government in public facilities but not in private facilities (Murira et al., 2022). The Constitution of Kenya 2010 guarantees every Kenyan the right to life saving care like PAC notwithstanding the patient's ability to pay. However, some facilities assessed deny PAC patients certain services due to their inability to meet the cost. On other occasions, patients are discharged from facilities without receiving critical treatment procedures due to non-payment of required funds.

The findings are consistent with studies in Sub-Saharan Africa which have shown that prohibitive PAC costs are a major hinderance to accessing PAC services (Izugbara et al., 2020). This leads to delays in obtaining care and worsening of post-abortion complications which may lead to disability or death of women (Baynes et al., 2021). In some countries like Zimbabwe, PAC services in public PHC facilities are free of cost to improve access (Sully et al., 2018). Others like Uganda, Rwanda and Senegal have demonstrated that countries can provide affordable PAC services by having the respective governments subsidize PAC services (Lince-Deroche et al., 2020).

The Dobbs versus Jackson Women's Health Organization ruling in the United States of America of June 24th, 2022, changed the dynamics of post-abortion care in the USA. Women in the USA pay for post-abortion care using health insurance or out of pocket and those who can't afford have challenges accessing PAC services (Jones, 2024). Moreover,

in some 34 states, health insurance i.e. Medicaid doesn't cover PAC services, and the only option is for PAC clients to pay out of pocket, which hinders access to PAC services.

From the study, only 30% of the PHC facilities had a designated MVA service room. The other facilities providing PAC services were using the outpatient consultation rooms, gynecology ward or maternity ward. The Kenya PAC guidelines of 2019 recommended that each facility offering PAC services should have a dedicated PAC service room where all PAC services should be provided, including MVA procedures, counselling and contraception services. This enables provision of patient centred and quality PAC services especially when the PAC service room provides both visual and audio privacy. The findings are consistent with studies in Kenya, Tanzania, and Nigeria (Murira et al., 2022; Hakansson et al., 2018; Stephens et al., 2019).

In facilities without a dedicated room for PAC, patients may have to wait a bit longer for other rooms like the labor wards or outpatient consultation rooms to be vacated before receiving care. In emergencies like haemorrhage, such delays can lead to life-threatening complications or even maternal death. PAC services also entail sensitive procedures and counseling. Lack of a dedicated service room compromises patient dignity, privacy, and confidentiality (Kemei et al., 2021). This alone may discourage women, mostly adolescents and unmarried women from seeking PAC services from a facility, hence worsening of complications or self referrals to distant facilities which have a PAC service room (Mutua et al., 2018).

From the 130 facilities assessed, public PHC facilities (Government of Kenya-GoK, owned) were 64 (49.2%), which are currently managed by the County Government of

Trans Nzoia under the devolved health system. Private facilities were 51 (39.2%) and Faith Based Organizations facilities were 15 (11.5%). Only 13 (10%) facilities were operating 24 hours daily of which 6 (46%) were private facilities and 2(15%) were faith-based facilities. The findings show that both private and faith-based facilities are key stakeholders that play a complementary role in PAC service delivery hence need to create strong linkages between public, private and FBO PHC facilities. The government needs to identify strategies to strengthen the private sector and faith-based facilities through capacity building and resource allocation to ensure continued provision and affordability of PAC services.

5.3 Human Resource Factors

Number of nurses in PHC facilities was significant. The Kenya Health Sector Strategic Plan 2023 -2027 recommends that optimum staffing levels for a health centre is 12 clinical officers and 35 nurses while a dispensary should have 2 general clinical officers and 8 nurses. The recommended staff numbers per level of facility are to ensure that facilities have adequate staff to offer a range of services 24 hours for seven days per week without interruption. Adequate staffing levels guarantee patient safety by protecting staff against burnout which may compromise quality of care given to patients and the health of healthcare providers.

From the study, all the 130 PHC facilities assessed didn't meet the recommended staffing levels. PAC clients sought services from the closed facilities at night, during weekends or public holidays and were informally referred by security personnel to the nearest

functional facility. Such referrals were only noted in the security services registry and reported to PHC facility management the following day.

Number and distribution of PAC providers was inadequate with 40.8% of the PHC facilities having zero PAC providers. The total number of PAC providers in the assessed facilities was 121 distributed across 5 sub-counties of which only 50 PAC providers were officially trained and certified to offer PAC services. For the remaining 71 PAC providers, they only underwent partial on the job- training, which they admitted was insufficient in equipping them fully with requisite knowledge and skills. Some had sufficient skills in only one or two components of PAC services hence compromised the quality of care and safety of PAC clients and the range of services offered to PAC clients, (Mutua, 2018). In the absence of trained and certified PAC providers, PAC clients were referred to other facilities for basic PAC services. This contributed to unnecessary referrals, delays in obtaining care and additional costs to PAC clients.

Studies on PAC services in Kenya and Tanzania highlighted few and unequal distribution of healthcare providers and trained PAC providers across health facilities in Tanzania as a major drawback in decentralization of PAC services to lower-level facilities (Kemei et al., 2021; Stephens et al., 2019). Ghana also faces challenges concerning equitable distributing of trained healthcare providers in health facilities (Adde et al., 2020). In India, lack of trained PAC providers in atleast 60% of health facilities especially public facilities, is the main reason for lack of PAC services in health facilities (Pradhan et al., 2021). Studies in England have shown that well trained PAC providers are better equipped to improve the general PAC patient experience by providing quality PAC

services that are patient centred, respectful, empathetic and meet the recommended standards (Whitehouse et al., 2021).

Forty percent of officers in charge of PHC facilities were unaware of the Ministry of Health post abortion care guidelines of 2019. This was due to partial dissemination of the guidelines and failure to update newly employed staff within the Department of Health Services and Sanitation in Trans Nzoia County. The PAC guidelines of 2019 are key in equipping service providers with knowledge and skills on the scope of PAC services, patient centered care, infrastructural, human resource and essential supplies requirements and monitoring and evaluation of PAC services. Facility management that is well sensitized on the 2019 post abortion care guidelines ensures adequate resource allocation and continuity of PAC services. PAC providers who have been adequately trained and certified are fully aware of the legal framework governing PAC services. Having undergone Value Clarification and Attitude Transformation (VCAT), they are capable of offering quality PAC services, navigate myths, misconceptions and threats that may hinder PAC service provision.

Healthcare workers' strikes were a major issue leading to disruptions in PAC service provision in PHC facilities. In the year 2024 alone, Trans Nzoia County had three healthcare workers' strikes in a row; doctors, clinical officers and nurses strikes, each lasting more than two months. During industrial strikes, PAC clients seek services from private facilities, are referred by facilities or self-refer to the nearest facility offering PAC services. This leads to delays in obtaining PAC services, worsening of complications, increased costs of care and unstructured referrals to other facilities. Due to delay, some patients complicate further and suffer disability or even death.

5.4 Health System Essential Supplies Factors

Essential supplies factors that were significant were distribution of functional MVA kits and availability of budget specific for treating PAC clients in facilities. However, having a budget specific for PAC and referral was not statistically significant. Others were recurrent stockouts of essential medicines especially in public facilities followed by private facilities. Faith based facilities were adequately stocked except on MVA kits, contraceptives and misoprostol.

Previous studies have shown that immediate post-abortion contraception reduces the risk of repeat abortion among PAC clients, (Stephens et al., 2019). From the study in Trans Nzoia County, atleast 69 (53.1%) PHC facilities provided post abortion contraception to PAC clients before leaving the facilities. However, facilities owned or managed by faith based organizations restricted access to contraceptive services hence patients were referred to other facilities for post-abortion contraceptive. Such referrals are known to be highly ineffective due to low, incomplete or inconsistent follow-up and introduce additional costs and delays in obtaining care.

Public facilities are supplied with EMMS centrally procured at the Trans Nzoia County Department of Health Services and Sanitation and distributed to facilities. However, public facilities reported having only received EMMS from central stores once in the year 2024 and in small quantities. Facilities were only supplied EMMS that were available, and they didn't have the option of picking what and how much they needed i.e. push system unlike the recommended pull system. Private and faith-based facilities were more in-charge of their EMMS ordering and procurement processes and some facilities

reported having specific budgets for regular EMMS procurement, where they allocated specific budgets to EMMS on monthly or quarterly basis. Facilities with specific EMMS budgets were equally well stocked.

EMMS stockout in facilities has been identified as one of the causes of poor-quality PAC services, high cost of PAC services and a major cause of PAC patient referrals, (Muga, 2024). PAC patients sometimes endure a lot of pain during the evacuation procedure due to lack of analgesics while some develop sepsis due to lack of antibiotics. Lack of disinfectants, antiseptics and protective gear like gloves pose a risk to both the PAC provider and the patient since there's a risk of contamination and infection with hospital acquired infections. PAC patients are sometimes asked to pay some fee for facilities to procure necessary EMMS. This leads to delays, unnecessary referrals ad introduces some illegal or inflated charges. These findings agree with a study on patient access to medicines in healthcare facilities in Kenya, which recommended prioritization and increasing EMMS budgetary allocation by county governments to enable facilities purchase adequate essential medicines on a regular basis (Toroitich et al., 2022).

Devolution of health services in Kenya allowed county governments to manage procurement of EMMS by determining budgetary allocation for EMMS and procurement of EMMS for public facilities within their jurisdiction (Tsofa et al., 2017). The process of EMMS procurement under devolution starts with the health facility officer in charge forecasting and quantifying needed EMMS and submitting the order to the County Pharmacist. The County Pharmacist is the technical officer tasked with providing technical assistance to facility officers in charge and advising management on facility and county EMMS requirements. The County Pharmacist then verifies and modifies the

orders from facilities on need basis and submits the final order to the procurement section of the department of health services and sanitation. The procurement department at the County level then does the tendering process for the required EMMS. The time taken from ordering by the health facility to receiving some or all the ordered items is dependent on how long the procurement process takes which in turn is dependent on availability of funds, prioritization at county level and sometimes political goodwill from the county leadership.

These findings are similar to other studies which also identified erratic supply of EMMS as a major challenge in PHC facilities in Kenya, East Africa, Africa, Bangladesh, Yemen and Brazil (Muga et al., 2024; Owolabi et al., 2019; Izugbara et al., 2020; Persson et al., 2021; Diniz et al., 2016; UN Office for coordination of Humanitarian; Toroitich et al., 2022). This compromises on quality and timeliness of PAC services and contributes to unnecessary referral of PAC patients hence overburdening the referral facility. For instance, Women in Burkina Faso and Sub-saharan Africa have sometimes had to endure pain during evacuation procedures due to lack of pain medication (Netshinombelo et al., 2022). Recurrent shortage of EMMS also demotivates the health workforce in the East African region and erodes public trust in PHC facilities and quality of care (Muthuri et al., 2020). Women may resort to unsafe alternatives like herbalists or quacks, worsening health outcomes and overburdening emergency services.

Some countries like Tanzanian have ringfenced the EMMS budget and optimally stocked their public health facilities with EMMS (Kuwawenaruwa et al., 2020). This has motivated both healthcare providers and the citizenry leading to improved quality of healthcare services, that are affordable and accessible in PHC facilities.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

Post abortion care services is a life saving intervention for women who suffer post abortion complications. PHC facilities should be adequately supported and equipped to offer the complete range of PAC services To achieve this, governments need to onboard all the stakeholders in the healthcare space including private and faith based PHC facilities.

6.2.1 Summary of Findings

Study findings show gaps in the availability and distribution of PAC offering facilities, human resource for health, services delivery and essential medical supplies in relation to basic PAC services provision, which are similar to studies in other countries like Zimbabwe (Riley et al., 2020), Ghana (Adde et al., 2025), Kenya, Burkina Fasso and Nigeria (Juma et al., 2022). Quantitative findings are strongly supported by qualitative findings from Subcounty Medical Officers of Health and Community Health promoters who also highlighted gaps in health system service delivery, human resource and health system essential supplies.

6.2.2 Health System Service Delivery Factors

The study has demonstrated that health facility operating hours indeed influence PAC service provision in Trans Nzoia County, Kenya. The findings have shown that 90% of

the PHC facilities have restricted working hours, cost is barrier to PAC service access with varied charges for PAC services across facilities.

The private and FBO facilities are key stakeholders in provision of healthcare in Trans Nzoia County, including PAC services. There's need for Trans Nzoia County government to create strong linkages between public, private and FBO PHC facilities. This could be achieved through capacity building and resource allocation.

6.2.3 Human Resource Factors

The study found that all PHC facilities assessed didn't meet the recommended staffing levels for health centres and dispensaries. Majority of staff in health-centres and dispensaries were clinical officers and nurses. However, there was an acute shortage of these two cadres hence undermining ability of PHC facilities to offer round the clock quality PAC services.

Number and distribution of PAC providers was inadequate with around 60 % of the facility officers in charge of PHC facilities being unaware of the Ministry of Health post abortion care guidelines of 2019. Healthcare workers' strikes were also rampant, leading to disruptions in PAC service provision in PHC facilities.

6.2.4 Health System Essential Supplies Factors

Fourty eight percent of the PHC facilities assessed lacked essential PAC equipments with atleast 50% PHC facilities being stocked out on most essential medicines and medical supplies.

Most private and FBO facilities had budgetary allocation for PAC services unlike public PHC facilities which lacked a PAC budget and a reliable referral services. EMMS stockouts and lack or reliable ambulance services in PHC facilities contributed to referral of PAC patients, out of pocket charges and delays in obtaining care.

6.2.5 Conclusion on Null Hypotheses

The study rejects the null hypotheses and concludes that health system service delivery factors, human resource factors and health system essential supplies factors do influence PAC service provision in Trans Nzoia County, Kenya. Consequently, the study recommends interventional study to address PAC implementation bottlenecks.

6.3 Recommendations

6.3.1 Health Facility Operation Factors

The study has demonstrated that health facility operating hours in PHC facilities are a barrier to PAC service provision. The county government should therefore ensure PHC facilities have the resources needed to offer 24-hour services. This should be extended to all PHC facilities eligible for providing PAC services, but which are currently not providing.

The department of Health services and Sanitation can make PAC services affordable by developing and enforcing a uniform pricing policy for PAC services in all public, private and faith based primary healthcare facilities to eliminate disparities and informal charges. The pricing policy should have provisions for free or subsidized services for vulnerable groups. Adequate budget should be allocated to procure essential medicines, medical

supplies, and equipment for PHC facilities providing PAC to prevent stockouts and reduce the need for patients to purchase supplies out-of-pocket. Trans Nzoia County should equip PHC facilities with functional and fuel-supported ambulances dedicated to maternal emergencies, including PAC. Informal charges can be addressed through regular audits and monitoring systems and encouraging anonymous patient feedback mechanisms. The County should also come up with strategies to ensure that households enrol with Social Health Authority (SHA) which will cover up-to PAC services when need arises to minimize out of pocket spending when seeking PAC services.

The County Government of trans Nzoia should embrace Public Private Partnership with private and FBO facilities since they are key stakeholders in provision of healthcare in Trans Nzoia County, including PAC services.

6.3.2 Human Resource Factors

The study found that all PHC facilities assessed didn't meet the recommended staffing levels for health centres and dispensaries. The County Department of Health Services to employ adequate number of health-care providers to cover all public PHC facilities. For private and FBO facilities, the Department of Health Services and Sanitation should offer an advisory and supervisory role to ensure they meet the minimum staffing requirements.

The Department of Health Services and Sanitation should come up with a structured training program to train and certify PAC providers in PHC facilities across the county. The providers should be equitably distributed across sub-counties and facilities. The training should involve newly employed staff and should entail dissemination of the 2019 post abortion care guidelines developed by the Ministry of health.

Training institutions to integrate an on-the-job training program on PAC services in the routine college training to adequately equip learners with hands on experience on PAC service provision.

The County Government should embrace timely and alternative conflict resolution mechanisms with different healthcare workers' unions to avert industrial actions in the healthcare space, which were shown to hinder access to healthcare services including PAC services.

Partners supporting health services in Trans-Nzoia County and interested in reproductive health services to come up with relevant programs to capacity build healthcare providers on PAC services.

6.3.3 Health System Essential Supplies Factors

This study findings emphasize on the need for focussed and rigorous investment in PAC services to expand coverage and improve quality of these life-saving services. Trans-Nzoia County should therefore allocate adequate budget for regular procurement of adequate stocks of EMMS for health facilities within the county, preferably on a quarterly basis. Health facilities should be allowed to 'pull' the required EMMS unlike the 'push' system currently being used.

Trans-Nzoia County should also strengthen supply chain management systems, establish emergency buffer stock and offer regular training and support supervision on essential supplies forecasting, quantification and reporting.

Partners supporting health services in Trans-Nzoia County and interested in PAC services to allocate part of their budget to the procurement PAC Health Products and Technologies for Trans Nzoia County.

6.3.4 Suggested Further Research

The study recommends an interventional study to address PAC implementation bottlenecks in Trans Nzoia County, Kenya, use of client interviews to enhance outcome-based evaluations and further research disaggregated by PHC levels to identify specific service gaps.

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APPENDICES

APPENDIX 1: APPROVALS AND AUTHORIZATIONS LICENCES

A: NACOSTI LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **124823**

Date of Issue: **02/October/2024**

RESEARCH LICENSE

This is to Certify that Ms.. VYNTINE NANJALA MUKHWANA of Amref International University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Transnzoia on the topic: FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA for the period ending : 02/October/2025.

License No: **NACOSTI/P/24/40301**

124823

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE,TECHNOLOGY &
INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

B: ESRC CLEARANCE

Vyntine Mukhwana

Amref International University

P.O. Box 27691 – 00506

Nairobi, Kenya

September 11th 2024

Tel: +254726853116

Email: vyntinekate@gmail.com

Dear Vyntine Mukhwana,

RESEARCH PROTOCOL: FACTORS AFFECTING THE PROVISION OF POST-
ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

Thank you for submitting your protocol to the Amref Ethics and Scientific Review Committee (ESRC).

This is to inform you that the ESRC has reviewed and approved your protocol. Your application approval number is ESRC P1700/2024. The approval period is from September 11, 2024, to September 10, 2025, and is subject to compliance with the following requirements:

Only approved documents (including informed consents, study instruments, advertising materials, material transfer agreements, etc.) will be used.

All changes including (amendments, deviations, violations, etc.) are submitted for review and approval by Amref ESRC before implementation.

Death and life-threatening problems and serious adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the Amref ESRC within 72 hours of notification.

Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to Amref ESRC within 72 hours.

Clearance for export of biological specimen must be obtained from the relevant government authorities for each batch of shipment/export.

Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.

In case of late renewal, the Amref ESRC shall not be held responsible for any serious adverse events (SAEs) that may occur as a result of research activities that were carried out after the expiry of approval.

Submission of an executive summary report within 90 days upon completion of the study to the Amref ESRC.

All government regulations for prevention and control of the spread of COVID-19 including social distancing, provision of personal protective equipment for participants and research assistants should be adhered to during data collection. All research assistants should be monitored for COVID 19 symptoms and referred for testing in case they present with symptoms.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Please do not hesitate to contact the ESRC Secretariat (esrc.kenya@amref.org) for any clarification or query.

Yours sincerely,

AMREF - ESRC
11 SEP 2024
P.O. Box 30125 - 00100, NAIROBI

Prof. Mohamed Karama
Chair, Amref ESRC

CC: Samuel Muhula, Senior Manager, Learning and Impact, Amref Health Africa.

C: AMREF INTERNATIONAL UNIVERSITY CLEARANCE

AMREF INTERNATIONAL UNIVERSITY

GRADUATE SCHOOL

Email: amiu.deangraduatestudies@amref.ac.ke P.O Box 27691-00506

Nairobi, Kenya

Tel. 0206993236 Website: https://amref.ac.ke/

FROM: Dean, Graduate School, **DATE**: 27th May 2024

TO: Vyntine Nanjala Mukhwana, **REF: AMIU/ARP/MPH/5624-3/2022**

RE: APPROVAL OF RESEARCH PROPOSAL

Following your full proposal presentation on 7th February 2024, and subsequent review of your revised proposal,
Graduate School Board has approved your research proposal entitled, **"Factors Affecting Provision of Post-Abortion Care by Primary Healthcare Facilities in Trans-Nzoia County, Kenya."**

You may now proceed with your data collection, subject to clearance with Amref Ethical Scientific Review Committee, and the National Commission for Science, Technology & Innovation.

You are required to update Graduate School of your progress after every three months by submitting progress reports using the forms attached.

Thank you.

Yours sincerely,

Dr. Dancan Irungu

Dean, Graduate School & Lead Enterprise Development

D: Clearance From Trans Nzoia County Research Unit

REPUBLIC OF KENYA
COUNTY GOVERNMENT OF TRANS NZOIA

TEL: 054 – 30301
054 – 30302

Email:
researchunit@transnzoia.go.ke

From the Research and
Development unit
P.O. BOX 4211 – 30200
KITALE

DEPARTMENT OF HEALTH SERVICES

Our Ref: CGTN/HS/RD/02 VOL 1/ 2023 ***Date:****Monday, October 7, 2024*

Vyntine Nanjala Mukhwana
Amref International University
P.O Box 27691-00506
Nairobi, Kenya

RE: RESEARCH AUTHORIZATION

Following your request for approval to conduct research on the topic **"Factors affecting the provision of post-abortion care by primary healthcare facilities in Trans Nzoia County, Kenya"**, I am pleased to inform you that permission is hereby granted. This is after having reviewed your research protocol, letter of ethical approval from IREC and licensing from National Commission for Science, Technology and Innovation research license (NACOSTI).

We authorize you to proceed with the research at the specified site for the period ending 2nd October 2025.

Please ensure that the research is conducted in accordance with the protocol presented to us. Any changes will require fresh authorization.

You are also required to get clearance from relevant authorities in the hospital before commencing the data collection exercise.

You are required to submit a summary of your findings to the County Health Research and Development Unit within 90 days upon completion of the study.

Thank you,

HEALTH RESEARCH UNIT
07 OCT 2024
TRANS NZOIA COUNTY.
P. O. Box 4211 - 30200, KITALE

for Dr Hillary Rono
Chairperson Health Research and Development Unit

APPENDIX 2: SIMILARITY INDEX REPORT

Nanjala mukhwana

HEALTH FACILITY FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIE...

Submissions

MPH August 2022

Amref International University (AMIU)

Document Details

Submission ID

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Submission Date

Apr 15, 2025, 6:07 PM GMT+3

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APPENDIX 3: CONSENT FORM FOR HEALTH FACILITY OFFICER IN CHARGE

Ethics & Scientific Review Committee

Informed Consent Form for Health Facility officers in charge

[This ICF should only be used for those who have attained the age of majority, 18 years]

Study Title	**HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA**
Investigator(s)	HEALTH RESEARCH AND DEVELOPMENT UNIT COUNTY GOVERNMENT OF TRANS NZOIA
Study Sponsor(s)	HEALTH RESEARCH AND DEVELOPMENT UNIT
Collaborators	

This Informed Consent Form has two parts:

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

Part I: Information Sheet

The study is on 'HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

The purpose of this study is to determine factors affecting the provision of Post-Abortion Care (PAC) services by Primary Healthcare Facilities (PHC) facilities in TransNzoia County. The findings of this study will inform the County Department of Health Services and Sanitation to develop relevant policies for Trans Nzoia County to mitigate identified gaps and attain optimal performance in PAC service provision in PHC facilities. Women will therefore access timely PAC and there will be no crowding at the KCH/ WKTRH for PAC services. This will be a significant step towards preventing maternal deaths and disability hence a significant contribution for Trans

Nzoia County in achieving the global target of reducing the maternal mortality ratio to below 70 /100,000 live births.

You are therefore requested to participation in the study. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled

Who can participate?

All the 192 PHC facilities within Trans Nzoia County whose facility officer in-charge will voluntarily consent in writing to participate in the study. Participation will be voluntary and no coercion will be used.

What is involved in this project?

This is a cross –sectional study which shall adopt mixed methods for data collection. Quantitative method shall use structured questionnaire while qualitative will be key informant interviews using structured interview guides with open-ended questions for qualitative data. A checklist will be used to collect qualitative data by observation. Factors affecting the provision of post-abortion care by primary health care facilities within Trans Nzoia County shall be observed and described as they are with no manipulation of variables. Quantitative data collection shall involve the use of a questionnaire to assess health facility factors affecting PAC service provision in PHC facilities. The questionnaire shall be administered to the facility officer in charge of a PHC facility across the county. The questionnaire shall comprise structured questions aimed at giving structured responses.
The attached questionnaire will take about thirty minutes to complete. The research results will be used for academic purposes only and will be treated with utmost confidentiality. Only summary results will be made public. No one, except the institution will have access to these records. Should you require the summary, kindly indicate so at the end of the questionnaire. Your cooperation will be appreciated.

How long will the project last?
This study takes place over 8 weeks.
What are the risks?

Since the study shall be conducted in primary healthcare facilities on working days during working hours, there might be disruption in service delivery. However, health facilities shall be contacted two weeks in advance to plan for reliever staff during data collection.

Another risk is loss of confidentiality of data. However, appropriate measures shall be taken by the research team to ensure confidentiality and security of date.

What are the benefits?

After the study, the respondents shall be sensitized on the importance of quality PAC services in preventing maternal deaths and disability, during dissemination of study findings. The findings of the study shall be disseminated to stakeholders at the Department of Health Services and Sanitation of Trans Nzoia County, for informed decision making on PAC services in the county.

How will we protect your information and maintain confidentiality?

Confidentiality shall be observed where data shall be treated with utmost privacy. Only relevant people working on data analysis shall access to the data. Codes shall be used to identity participants.

What will happen with the results

The results shall be disseminated to the County Health Department Executive, County Health Management Team, Sub-county Health Management Teams and the Primary Healthcare Facilities in-charges Forum.

Can I refuse to participate or withdraw from the study?

Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled. Study participants who may withdraw from the study at any point before data collection is completed shall indicate in the consent forms whether the already collected data shall be retained and analyzed or not or if it should be destroyed by burning or any other appropriate method. Once data analysis is concluded, withdrawal of participant's data will not be feasible.

Compensation

There is no compensation for study participants.

Who can I contact?

If you have any questions, you can ask anyone from our team now or later. If you have questions later, you may contact [HEALTH RESEARCH AND DEVELOPMENT UNIT (Vyntine) on 0726853116]

Do you consent to participate in the study?

a) Yes
b) No

Name or initials of your name: **Signature:**

Name of your facility:

APPENDIX 4: CONSENT FORM FOR MEDICAL OFFICER OF HEALTH

Ethics & Scientific Review Committee

Informed Consent Form for Sub-County Medical Officer of Health - SCMoH
[This ICF should only be used for those who have attained the age of majority, 18 years]

Study Title	**HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA**
Investigator(s)	PRINCIPAL INVESTIGATOR 1. VYNTINE N. MUKHWANA -0726853116 CO-INVESTIGATORS 1. PROF JOACHIM OSUR -0733753458 2. DR. FAITH MUHONJA – 072372370
Study Sponsor(s)	VYNTINE MUKHWANA
Collaborators	

This Informed Consent Form has two parts:

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

The study is on 'HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA '

This is a research study by a Master of Public Health

Student at Amref International University

The purpose of this study is to determine factors affecting the provision of PAC services by PHC facilities in Trans-Nzoia County. The findings of this study will

inform the County Department of Health Services and Sanitation to develop relevant policies for Trans Nzoia County to mitigate identified gaps and attain optimal performance in PAC service provision in PHC facilities. Women will therefore access timely PAC and there will be no crowding at the KCH for PAC services. This will be a significant step towards preventing maternal deaths and disability hence a significant contribution for Trans Nzoia County in achieving the global target of reducing the maternal mortality ratio to below 70 /100,000 live births.

You are therefore requested to participation in the study. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled

Who can participate?

All the five Sub-County Medical Officers of Health (SCMOHs) within the five Primary Care Networks (PCNs) otherwise known as sub-counties of Trans Nzoia County, who will voluntarily consent in writing to participate in the study. Participation will be voluntary and no coercion will be used.

What is involved in this project?

This is a cross –sectional study which shall adopt mixed methods for data collection. Quantitative method shall use structured questionnaire while qualitative will be key informant interviews using structured interview guides with open-ended questions for qualitative data. A checklist will be used to collect qualitative data by observation. Factors affecting the provision of post-abortion care by primary health care facilities within Trans Nzoia County shall be observed and described as they are with no manipulation of variables. Qualitative data collection shall be through Key Informant Interviews (KIIs) using the KII guides. This KII targets the five Medical Officers of Health (MoHs) in each sub-county.

The attached KII guide will take about forty five minutes to complete. This interview is to be recorded therefore indicate whether you consent to audio recording or ☐ not. Yes

No ☐

The research results will be used for academic purposes only and will be treated with utmost confidentiality. Only summary results will be made public. No one,

except the institution will have access to these records. Should you require the summary, kindly indicate so at the end of the consent form. Your cooperation will be appreciated.

How long will the project last?

This study takes place over 8 weeks.

What are the risks?

Since the study shall be conducted in primary healthcare facilities on working days during working hours, there might be disruption in service delivery. However, health facilities shall be contacted two weeks in advance to plan for reliever staff during data collection.

Another risk is loss of confidentiality of data. However, appropriate measures shall be taken by the research team to ensure confidentiality and security of date.

What are the benefits?

After the study, the respondents shall be sensitized on the importance of quality PAC services in preventing maternal deaths and disability, during dissemination of study findings. The findings of the study shall be disseminated to stakeholders at the Department of Health Services and Sanitation of Trans Nzoia County, for informed decision making on PAC services in the county.

How will we protect your information and maintain confidentiality?

Confidentiality shall be observed where data shall be treated with utmost privacy. Only relevant people working on data analysis shall access to the data. Codes shall be used to identity participants.

What will happen with the results

The results shall be disseminated to the County Health Department Executive, County Health Management Team, Sub-county Health Managements Teams and the Primary Healthcare Facilities in-charges Forum.

Can I refuse to participate or withdraw from the study?

Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled. Study participants who may withdraw from the study at any point before data collection is completed shall indicate in the consent forms whether the already collected data shall be retained and analyzed or not or if it should be destroyed by burning or any other appropriate method. Once data analysis is concluded, withdrawal of participant's data will not be feasible.

Compensation

There is no compensation for study participants.

Who can I contact?

If you have any questions, you can ask anyone from our team now or later. If you have questions later, you may contact [Vyntine N. Mukhwana, 0726853116, vyntinekate@gmail.com]. If you have questions about your rights as a study subject, you may contact:

The Research Officer

Amref Health Africa in Kenya

Wilson Airport, Lang'ata Road

Office Tel: +254 20 6994000

Mobile No: 0795746777

Fax: +254 20 606340

P.O Box 30125-00100

Nairobi, Kenya

Do you have any questions at this time?

Part II: Certificate of Consent

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to participate in this study.

Print name of Subject	[at least forename and surname]
Signature of Subject	
DD/MM/YYYY	

If visually impaired, physically impaired, mentally impaired or illiterate

I have witnessed the accurate reading of the Consent Form to the potential study subject, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print Name of Subject	[at least forename and surname]
Thumb/Foot print of Subject	
Signature of Witness	[A literate witness must sign and should be selected by the study subject and MUST have no connection to the research team.
DD/MM/YYYY	

Statement by the researcher/person taking consent

I confirm that the study subject was given an opportunity to ask questions about the study, and all the questions asked by the study subject have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the study subject.

Print Name of researcher/person taking the consent	[at least forename and surname]
Signature of researcher/person taking the consent	
DD/MM/YYYY	

APPENDIX 5: CONSENT FORM FOR COMMUNITY HEALTH PROMOTER

Ethics & Scientific Review Committee

Informed Consent Form for Community Health Promoters (CHPs)

[This ICF should only be used for those who have attained the age of majority, 18 years]

Study Title	**HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA**
Investigator(s)	PRINCIPAL INVESTIGATOR 2. VYNTINE N. MUKHWANA -0726853116 CO-INVESTIGATORS 3. PROF JOACHIM OSUR -0733753458 4. DR. FAITH MUHONJA - 072372370
Study Sponsor(s)	VYNTINE MUKHWANA
Collaborators	

This Informed Consent Form has two parts:

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

The study is on 'HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA'.

This is a research study by a Master of Public Health Student at Amref International University

The purpose of this study is to determine factors affecting the provision of PAC services by PHC facilities in Trans-Nzoia County. The findings of this study will inform the County Department of Health Services and Sanitation to develop relevant policies for Trans Nzoia County to mitigate identified gaps and attain optimal performance in PAC service provision in PHC facilities. Women will therefore access timely PAC and there will be no crowding at the KCH for PAC services. This will be a significant step towards preventing maternal deaths and disability hence a significant contribution for Trans Nzoia County in achieving the global target of reducing the maternal mortality ratio to below 70 /100,000 live births.

You are therefore requested to participation in the study. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled

Who can participate?

Community Health Promoters (CHPs) within the five Primary Care Networks (PCNs) of Trans Nzoia County who will voluntarily consent in writing to participate in the study. Participation will be voluntary and no coercion will be used.

What is involved in this project?

This is a cross –sectional study which shall adopt mixed methods for data collection. Quantitative method shall use structured questionnaire while qualitative will be key informant interviews using structured interview guides with open-ended questions for qualitative data. A checklist will be used to collect qualitative data by observation. Factors affecting the provision of post-abortion care by primary health care facilities within Trans Nzoia County shall be observed and described as they are with no manipulation of variables. Qualitative data collection shall be through Key Informant Interviews (KIIs) using the KII guides. This KII targets CHPs attached to primary healthcare facilities in each sub-county.
The attached KII guide will take about forty-five minutes to complete. This interview is to be recorded therefore indicate whether you consent to audio recording or not. Yes
No ☐

☐

The research results will be used for academic purposes only and will be treated with utmost confidentiality. Only summary results will be made public. No one, except the institution will have access to these records. Should you require the summary, kindly indicate so at the end of the consent form. Your cooperation will be appreciated.

How long will the project last?
This study takes place over 8 weeks.

What are the risks?

Since the study shall be conducted in primary healthcare facilities on working days during working hours, there might be disruption in service delivery. However, health facilities shall be contacted two weeks in advance to plan for reliever staff during data collection.

Another risk is loss of confidentiality of data. However, appropriate measures shall be taken by the research team to ensure confidentiality and security of date.

What are the benefits?

After the study, the respondents shall be sensitized on the importance of quality PAC services in preventing maternal deaths and disability, during dissemination of study findings. The findings of the study shall be disseminated to stakeholders at the Department of Health Services and Sanitation of Trans Nzoia County, for informed decision making on PAC services in the county.

How will we protect your information and maintain confidentiality?

Confidentiality shall be observed where data shall be treated with utmost privacy. Only relevant people working on data analysis shall access to the data. Codes shall be used to identity participants.

What will happen with the results

The results shall be disseminated to the County Health Department Executive, County Health Management Team, Sub-county Health Management Teams and the Primary Healthcare Facilities in-charges Forum.

Can I refuse to participate or withdraw from the study?

Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled, and the subject may discontinue participation at any time without penalty or loss of benefits, to which the subject is otherwise entitled. Study participants who may withdraw from the study at any point before data collection is completed shall indicate in the consent forms whether the already collected data shall be retained and analyzed or not or if it should be destroyed by burning or any other appropriate method. Once data analysis is concluded, withdrawal of participant's data will not be feasible.

Compensation

There is no compensation for study participants.

Who can I contact?

If you have any questions, you can ask anyone from our team now or later. If you have questions later, you may contact [Vyntine N. Mukhwana, 0726853116, vyntinekate@gmail.com]. If you have questions about your rights as a study subject, you may contact:

The Research Officer

Amref Health Africa in Kenya

Wilson Airport, Lang'ata Road

Office Tel: +254 20 6994000

Mobile No: 0795746777

Fax: +254 20 606340

P.O Box 30125-00100

Nairobi, Kenya

Do you have any questions at this time?

Part II: Certificate of Consent

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to participate in this study.

Print name of Subject	[at least forename and surname]
Signature of Subject	
DD/MM/YYYY	

If visually impaired, physically impaired, mentally impaired or illiterate

I have witnessed the accurate reading of the Consent Form to the potential study subject, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print Name of Subject	[at least forename and surname]
Thumb/Foot print of Subject	
Signature of Witness	[A literate witness must sign and should be selected by the study subject and MUST have no connection to the research team.
DD/MM/YYYY	

Statement by the researcher/person taking consent

I confirm that the study subject was given an opportunity to ask questions about the study, and all the questions asked by the study subject have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the study subject.

Print Name of researcher/person taking the consent	[at least forename and surname]
Signature of researcher/person taking the consent	
DD/MM/YYYY	

APPENDIX 6: RESEARCH TOOLS

6.1: STUDY QUESTIONNAIRE

HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

Date: _____ **MFL**

Code:_____ **Facility Name:** _____

Sub-county: _____ **Facility Type:** _____

— Informant: Position/Title: _____

A. HEALTH SYSTEM SERVICE DELIVERY FACTORS

(Tick as appropriate)

1. How are PAC clients treated?

□As Outpatient □As Inpatient □Both outpatient and inpatient

□Facility does not offer PAC services

2. Which PAC services are offered at this facility?

a) Evacuation following incomplete abortion ☐ yes ☐ No

b) Post abortion counselling services ☐ Yes ☐ No

c) Post abortion contraceptive ☐ Yes ☐ No

d) Management of post abortion infections ☐ Yes ☐ No

e) Management of mild anaemia following abortion ☐ Yes ☐ No

f) Linkage to other relevant departments like gender, internal security, children's department, Ministry of Education etc ☐ Yes ☐ No

3. About how long do PAC patients take from arrival in the facility to the time they are attended to? (Verify with the patient logbook for entry time and PAC servicev register for service delivery time)

Less than 1 hour□

1. 1 – 2 hours □

2. 2 – 3 hours □

3. > 3 hours□

4.What determines how long the PAC client will take in the facility?

□Normal protocols □Ability to pay for services by the client

□Availability of provider □Availability of supplies

□Ability of client to pay for transport charges to nearby facility offering PAC services.

□Others, specify …….....

5.What are the health facility operating hours?

□Day only 8am -5pm seven days a week □Day only 8am -5pm week-days only

□Evenings only □Morning only □ Day only 8am -5pm six days a week

□Other, Specify_____

6. Do PAC clients pay for the services?

□Yes □No □Sometimes

7. If yes, how much? _____(If NO, proceed to question 8).

8. Where in the hospital is MVA procedure carried out?

□Outpatient Department □Gynecology ward □Theatre □MVA room

□Others, specify _____

B. HUMAN RESOURCE FACTORS

9. What is the total number of doctors, nurses and clinical officers in the facility?

i. Nurses _____

ii. Clinical officers_____

iii. Doctors_____

10. What is the total number of PAC providers in the facility:

□One □Two □Three □More than three, specify _____

11. What's the professional background of the PAC provider (s):

□ Nurse(s) □Clinical officer(s) □Doctor (s)

□Others, specify _____

12. Is/ are the provider(s) trained and certified as competent to offer PAC Services?

□Yes □No □N/A

13. If yes, who did the training? (If no, proceed to question 14).

□Partner/ NGO supporting health services □MOH □College training □Others, specify _____

14. If NO, how was the skill acquired?

□On job training □Others, specify _____

_

15. Are you aware of the Ministry of Health Post-Abortion Care Guidelines of 2019?

□Yes □No □Partially

16. Is counseling offered to PAC clients?

□Yes □No

17. If yes, where is the counseling done? (If NO, proceed to question 18).

□Bed side □Side room □MVA room □Others, specify ——————

C. HEALTH SYSTEM ESSENTIAL SUPPLIES FACTORS

18.Do you have equipment for evacuation (Manual Vacuum Aspiration – MVA kits)? □Yes □No

If yes, how did you get your equipment for evacuation? **(If No, proceed to question 20)**.

□ Own resources □Ministry of Health (MOH) Headquartes.

□County Government Health Department.

□Non-Governmental Organization (NGO) specify_____

□ Others, specify _____

19. How do you get your regular supplies for post-abortion care services? □Own resources □Ministry of Health (MOH) Headquarters □County Government Health Department.

□NGO, specify_____ □Others, specify _____

20. Do you have a budget specific to treating post-abortion complications?

□Yes □No

21. Does the facility have any of the following essential medicines at the time of the visit?

1. Amoxicillin □Yes □No

2. Metronidazole □Yes □No

3. Doxycycline □Yes □No

4. Haematinic □Yes □No

5. Gentamicin □Yes □No

6. Normal saline □Yes □No

7. Misoprostol □Yes □No

8. Oral painkillers □Yes □No

If yes, specify……

9. Injectable painkillers □Yes □No

If yes, specify……..

22. How many functional MVA kits does the facility have?

□None □One □Two □Three

□More than three, Specify_____

23. Do the PAC clients receive a family planning method before leaving the facility?

□Yes □No

25.Which modern family planning methods are available in the health facility (tick as appropriate)?

□Barrier methods □Oral contraceptives pills □Injections

□Implants □IUCD □ Surgical method □ None **REFERRAL FOR PAC SERVICES**

26. How many patients were **referred out** by this facility for PAC services in the past 12 months?

27. To which health facility / facilities were the patients in question 25 above referred to?

6.2: KEY INFORMANT INTERVIEW GUIDE FOR SUB-COUNTY MEDICAL OFFICERS OF HEALTH

Please tick as appropriate

Section A: Demographics

1. a) Name of Sub- County (Tick one).

   □Kiminini □Cherangany □Saboti □Kwanza □Endebess

2. Gender

   □ Male □Female □Others_____ □Not willing to disclose
3. Highest attained level of education level

   □ Diploma □Higher diploma □Degree □Masters □ PhD
4. Number of **years** serving in the current position

   □1 to 5□6 to 10□Above 10□Other, Specify……

B: HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

B1: HEALTH SYSTEM SERVICE DELIVERY FACTORS

1. What proportion of PHC facilities in your primary care network provides PAC services?
2. Comment on cost of PAC services if any, across different categories of PHC facilities in your PCN (Public, Private, FBO and NGO facilities)?
3. What is the reporting system for PHC facilities on PAC services in your PCN?
4. What is the infrastructure of facilities offering PAC services in your PCN? **Probe on operating theatre, blood transfusion services, designated PAC service room**

B2: HUMAN RESOURCE FACTORS

1. Comment on state of human resource for health in PHC facilities. **Probe on staffing numbers, training, awareness of 2019 PAC guidelines, attitude towards PAC services, industrial strikes involving nurses and clinical officers**

B3: HEALTH SYSTEM ESSENTIAL SUPPLIES FACTORS

1. What is the current status of PAC HPTs in PHC facilities within your PCN?.

   (Antibiotics, analgesics, uterotonics, hematinics, blood products, misoprostol, mifepristone, Manual vacuum aspiration kits, disinfectants, personal protective equipment etc.). **Probe more on factors contributing to current HPT status to include challenges**
2. What is the process of acquiring PAC HPTs for the following categories of facilities in your PCN?

a) Public/government facilities.

b) Nongovernment/ private facilities.

3. How does the current HPTs status influence PAC services provision in your PCN?
4. What recommendations would you give to improve state of PAC HPTs in the PHC facilities?

6.3: KEY INFORMANT INTERVIEW GUIDE FOR COMMUNITY HEALTH PROMOTERS

Please tick as appropriate **Section A: Demographics**

1. Name of PCN (Tick one).

□Kiminini □Cherangany □Saboti □Kwanza □Endebess

2. Administrative Ward…….

3. Health facility attached to……..

4. Gender

□ Male □Female □Others_____ □Not willing to disclose

5. Highest level of formal education attained

□ None □ Class 8 □Form 4 □Certificate □Diploma □ Degree

6. Number of **years** serving in the current position

□1 to 5□6 to 10□Above 10□Other, Specify…….

SECTION B: HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

B1: HEALTH SYSTEM SERVICE DELIVERY FACTORS

5. Does the facility you are attached to provide PAC services? Probe on charges, attitude of staff

6. What is the level of awareness among community members on PAC services provided in the health facility?

7. Other than the primary care facilities, are there other sites in the community where PAC services are offered?

B2: HUMAN RESOURCE FACTORS

Comment on the attitude of HCWs towards women seeking PAC services?

2. Have there been cases of women being arrested by the police in your community for seeking PAC services? Explain.

3. Have there been cases of women being denied PAC services in PHC facilities around you? What were some of the reasons given?

B3: HEALTH SYSTEM ESSENTIAL SUPPLIES FACTORS

1. Comment on the availability of drugs for women post abortion.
2. In your view, what do you think are factors contributing to the current status of drugs in PHC facilities?
3. How does the current drugs situation influence PAC services provision by PHC facilities?
4. If you ever refer women seeking PAC services, which facility (facilities) do you mostly refer them to? Why?
5. What would you recommend to improve PAC services in the primary health facilities?

NO.	NAME OF HPT	DESCRIPTION	AVAILABILITY	
			YES	NO
1	**CONTRACEPTIVES**	Depot provera		
		Combined oral contraceptives		
		Intrauterine contraceptive device		
		Implant		
		Condom		
2	**Analgesics**	Ibuprofen		
		Mefenamic acid		
		Lignocaine		
		Paracetamol		
		Diazepam		
3	**Intravenous fluids**	Normal Saline		
		Ringers lactate		
4	**Haematinics**	Iron and folic acid tablets		
		Iron tablets		
5	**Antibiotics**	Metronidazole		
		Amoxicillin		
		Azithromycin		
		Ceftriaxone		
6	**Medical equipment**	Manual Vacuum Aspiration kit		
7	**Medical supplies**	Gloves		
		Syringes		
		Needles		
		Intrvenous fluid giving sets		
8	**Disinfectants**	Sodium hypochlorite		
		Endozyme		
9	**Blood and blood products**	Blood		

		Fresh frozen plasma		
10	**Sterilization services**	Functional autoclave		
11	**Uterotonics**	Oxytocin injection		
		Ergometrine injection		
		Carbetocin Injection		
		Misoprostol tabs		

6.4: OBSERVATION CHECKLIST FOR HEALTH SYSTEM ESSENTIAL SUPPLIES FACTORS

HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

NAME OF FACILITY…….

DATE OF VISIT…….

Availability of Select Health Products and Technologies on the day of visit

APPENDIX 7: CODING FRAME FOR HEALTH SYSTEM FACTORS AFFECTING THE PROVISION OF POST-ABORTION CARE BY PRIMARY HEALTHCARE FACILITIES IN TRANS-NZOIA COUNTY, KENYA

Themes	Sub-themes
1. Number of health facilities offering post-abortion care services	

2. Health facility operation factors	- Cost of post-abortion care services
	- Health information /reporting system
	- Infrastructure
	  o Functioning theaters
	  o Designated PAC service rooms/MVA rooms
	  o Referral system
	  o Blood transfusion services
	- Enlisting PAC services on health facility service charters.
	- Health facility operating hours.
	- Recommendations

3. Human resource factors	- Availability of adequate health care providers
	- Healthcare providers' training on PAC services/awareness on post-abortion care guidelines
	- Effect of the strike on PAC services
	- Perceived healthcare providers' attitudes towards women seeking PAC services
	  o Denial of services
	  o Police arrests
	- Recommendations
	  o Sensitization/training of HCWs
	  o Increasing the number of personnel
	  o Focal person for PAC services

4. Health products and technology factors	- Availability of essential PAC medicines
	- Availability of supplies & equipment
	- Challenges
	  o Funding
	  o Centralized ordering & supply system
	- Recommendations

	○ Collaboration with partners ○ Decentralization of ordering & supply
5. Perceived community awareness of PAC services at facilities	- Other forms of PAC services e.g., herbal

APPENDIX 8: FIGURE 2: GEOGRAPHICAL PRESENTATION OF TRANS NZOIA COUNTY IN KENYA, THE 5 SUBCOUNTIES AND THEIR PROXIMITY TO THE KITALE COUNTY HOSPITAL, (KENYA NATIONAL BUREAU OF STATISTICS, 2019).