

**ACCESS BARRIERS TO SUPPORT SERVICES FOR PEOPLE WHO USE
ILLCIT DRUGS IN LAMU COUNTY, KENYA**

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DECLARATION AND APPROVAL

Declaration by Candidate:

This thesis is my original work and has not been presented for a degree in any other university or any other award.

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DEDICATION

I dedicate this thesis to my family.



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ABSTRACT

Background: Despite high rates of substance use among youth and adults in coastal Kenya, access barriers to support services for people who use illicit drugs remain a significant public health challenge in Lamu County. This study aimed to assess access barriers by examining awareness of available support services, evaluating user satisfaction with services received, and identifying socioeconomic factors affecting accessibility.

Methods: A cross-sectional mixed-methods design was employed, combining structured questionnaires and key informant interviews. The study involved 207 drug users selected through purposive cluster sampling and snowball sampling across three wards (Mkomani, Hindi, and Faza), along with 48 stakeholders including healthcare professionals, administrative staff, and community representatives. Quantitative data were analyzed using SPSS version 28, while qualitative data underwent content analysis to identify themes related to service access barriers.

Results: The study found consistently low outcomes across all focus areas. Awareness of support services was poor, with most participants unaware of existing services or lacking clarity on access procedures. Satisfaction levels were low, with users citing unresponsive service delivery, lack of privacy, and disrespectful provider attitudes. Socioeconomic barriers including low income, unemployment, and poor housing conditions further hindered access. Participants reported significant logistical challenges including geographic isolation, rigid service schedules, and fear of legal repercussions. Correlation analysis revealed strong positive associations between awareness, satisfaction, socioeconomic factors, and access to services.

Conclusion: A combination of low awareness, poor service quality, and socioeconomic hardship severely limits access to drug-related support services in Lamu County. The study recommends strengthening community outreach and media-based awareness campaigns, improving service delivery quality, reducing financial and legal access barriers, strategic placement of facilities, flexible service hours, and stigma reduction efforts to increase accessibility and utilization of support services.

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LIST OF ACRONYMS



AORs:	Adjusted Odds Ratios
ASATREP:	Alcohol and Substance Abuse Treatment and Rehabilitation Programme
DALYs:	Disability-Adjusted Life Years
DSA:	Drug and Substance Abuse
GLMM:	Generalized Linear Mixed-Effects Model
HBM:	Health Belief Model
KNBS:	Kenya National Bureau of Statistics
MHC:	Mobile Health Clinic
NACADA:	National Authority for the Campaign Against Alcohol and Drug Abuse
NCRC:	National Crime Research Centre
NIDA:	National Institute on Drug Abuse
PWUD:	People Who Use Illicit drugs
SDH:	Social Determinants of Health
SPSS:	Statistical Package for the Social Sciences
UNODC:	United Nations Office on Illicit drugs and Crime
WHO:	World Health Organization

DEFINITION OF TERMS

- Access barriers:** These refer to obstacles preventing people from accessing drug support services. These barriers include awareness of services, socioeconomic factors (such as income, education, and employment status), and satisfaction with services (including quality of care and confidentiality).
- Level of Awareness:** Level of awareness pertains to the extent of knowledge individuals in Lamu County have about the available drug support services. In the study, this were measured by surveying individuals to assess their awareness of services, usage of service and barriers to access.
- Level of Satisfaction:** Level of satisfaction indicates how satisfied individuals are with the drug support services they have accessed in Lamu County. In the study, satisfaction was measured by surveying participants on the service accessibility, follow-up and continuity of care and privacy and confidentiality.
- Most Used Illicit drugs:** Most used illicit drugs refer to the substances most frequently consumed or encountered by individuals in Lamu County. In the study, this were measured by surveying participants to identify the types of illicit drugs used, source of illicit drugs and reasons for use.

Socio-economic Factors: Socio-economic factors encompass elements such as income, education, and employment status that might affect an individual's ability to access and benefit from drug support services. In the study, these factors were measured by collecting data on participants' income level, education level, and assessing their employment status.

Support Services: Support services include comprehensive programs and interventions designed to assist individuals dealing with drug use, encompassing medical services (detoxification, opioid substitution therapy, treatment for drug-related health complications), psychosocial services (individual and group counseling, mental health treatment, family therapy), harm reduction services (needle exchange programs, supervised consumption sites, naloxone distribution), social support services (housing assistance, vocational training, employment support, legal aid), peer support programs, and community-based outreach services. In the study, the availability and scope of these services were measured by mapping out the rehabilitation programs, counseling services and prevention programs accessible to people who use illicit drugs in Lamu County.

CHAPTER 1: INTRODUCTION

1.1 Overview

The chapter provides an introduction to the study, outlining the key elements that set the stage for the research. It includes a background of the study, which highlights the context and significance of exploring access barriers to support services for people who use illicit drugs in Lamu County, Kenya. The chapter also establishes the study's problem statement, research questions, and objectives, guiding the research focus and direction. Additionally, it details the study's justification, significance, scope, and assumptions, framing the context in which the study is conducted and ensuring that the research is positioned within broader health and social frameworks. This chapter lays the foundation for understanding the importance of addressing the barriers people face in accessing support services, while also providing insight into the study's relevance to local, national, and global public health concerns.

1.2 Background of the Study

Drug use represents one of the most pressing global public health challenges of the 21st century, affecting millions of individuals across all continents and socioeconomic strata. According to the United Nations Office on Drugs and Crime (UNODC, 2023), approximately 296 million people worldwide used drugs in 2021, representing 5.9% of the global population aged 15-64 years. This figure has increased by 23% over the past decade, indicating an escalating crisis that transcends geographical, cultural, and socioeconomic boundaries. The World Health Organization (WHO, 2022) estimates that drug use disorders affect over 39 million people globally, with opioids being responsible for approximately 70% of the disease burden associated with drug use disorders. The global drug landscape

is characterized by increasing diversification of substances and consumption patterns, with cannabis remaining the most widely used illicit substance globally (200 million users), followed by opioids (62 million users), amphetamines (29 million users), and cocaine (21 million users).

This study employed the term people who use illicit drugs rather than drug abusers following World Health Organization (2022) guidelines emphasizing person-first, non-stigmatizing language. The study population included individuals who had used any illegal substances within the past 12 months, regardless of frequency, quantity, or perceived problems associated with use. This inclusive definition recognized that access barriers affect all users seeking support services, from occasional users seeking harm reduction information to individuals with severe substance use disorders requiring intensive treatment. The approach aligned with public health frameworks emphasizing service accessibility across the spectrum of substance use rather than limiting focus to clinically diagnosed disorders.

The health implications of illicit drug use are profound and multifaceted, extending far beyond individual users to affect families, communities, and entire healthcare systems. Globally, drug use is associated with an estimated 500,000 deaths annually, with overdose deaths representing the most immediate and visible consequence (UNODC, 2023). Beyond mortality, drug use contributes significantly to the global burden of disease through multiple pathways. People who inject drugs face dramatically elevated risks of blood-borne infections, with the WHO (2022) reporting that they are 35 times more likely to acquire HIV and 12 times more likely to contract hepatitis C compared to the general population. These infections not only affect individual health outcomes but also contribute to broader

public health challenges through onward transmission to sexual partners and children. Mental health comorbidities represent another significant dimension of the global drug use crisis, with studies indicating that up to 60% of individuals with substance use disorders also experience depression, anxiety, or other psychiatric conditions (American Psychiatric Association, 2022). The social consequences extend beyond health impacts to encompass economic costs, family disruption, and community destabilization, with the International Labour Organization (2022) estimating that drug users are five times more likely to be unemployed compared to the general population.

Despite the recognition of drug addiction as a medical condition requiring comprehensive treatment, access to support services remains severely limited worldwide. The UNODC (2023) estimates that only 1 in 8 people with drug use disorders receives treatment, highlighting a massive treatment gap that represents one of the largest unmet healthcare needs globally. This disparity is particularly pronounced in low- and middle-income countries, where treatment coverage rates often fall below 10%. Stigma and discrimination represent perhaps the most pervasive barriers to accessing support services globally, with the criminalization of drug use in many jurisdictions creating environments where individuals fear legal repercussions for seeking help (Harm Reduction International, 2022). Financial barriers constitute another significant obstacle, as many countries do not cover drug treatment services under public health insurance schemes, making them inaccessible to economically disadvantaged populations. Systemic and structural barriers further impede access, including insufficient numbers of treatment facilities, inadequate training of healthcare providers in addiction medicine, and fragmented service delivery systems that fail to provide comprehensive care.

Support services for people who use illicit drugs are essential in providing a holistic approach to treatment and rehabilitation. Ayenew et al. (2020) emphasize that medical care is a vital part of these services, dealing with the immediate health effects of substance use and its associated complications. The integration of mental health support is paramount, given the high comorbidity of substance use disorders and mental health issues (Behrooz, 2021). In addition, social support services, including housing assistance and employment training, are critical in tackling the broader social determinants of health that can impact recovery (Braby et al., 2022). Peer support and community-based programs also play a vital role, offering emotional support and practical advice, and helping to mitigate the stigma and social isolation often faced by individuals with substance use disorders (Buchtova et al., 2020). Lennox et al. (2021) advocate for a combined approach that incorporates medical, psychological, and social services to address the multifaceted nature of drug use and its effects.

The African continent faces unique and intensifying challenges in addressing drug use and providing adequate support services. The African Union (2022) estimates that approximately 28 million Africans use illicit drugs, with cannabis being the most commonly used substance, followed by opioids and synthetic drugs. The continent serves dual roles as both a transit route for drugs destined for European and North American markets and an increasingly important consumer market. Africa's position in global drug trafficking networks has profoundly shaped regional drug use patterns, particularly through the Southern Route from Afghanistan through Pakistan and Iran to East African ports, which has significantly impacted drug availability and use patterns across the continent (UNODC, 2022). Countries along these routes, including Kenya, Tanzania, and Somalia,

have experienced increased domestic drug use as trafficking networks establish local distribution systems, making drugs more readily available and affordable. Access to support services in Africa is severely constrained by multiple interconnected factors, with the continent having the lowest treatment coverage rates globally—fewer than 5% of people with drug use disorders receive any form of treatment (African Union, 2022). This situation is exacerbated by limited healthcare infrastructure, acute shortages of trained personnel, competing health priorities such as HIV/AIDS and malaria, and insufficient government investment in addiction treatment services.

Kenya exemplifies many of the challenges facing African nations in addressing drug use while facing unique pressures due to its strategic coastal location. The country's position on the Indian Ocean coast has made it a significant transit point for heroin trafficking from Afghanistan to European markets, with profound implications for domestic drug use patterns. This positioning has transformed Kenya from primarily a transit country to one with significant domestic consumption challenges, particularly in coastal areas that have been affected by the proximity to trafficking routes. The spillover effect from trafficking operations has created local markets and distribution networks that have fundamentally altered the substance use landscape in coastal counties. Kenya's healthcare system faces significant structural challenges in responding to this evolving crisis, with the Ministry of Health (2022) acknowledging that treatment coverage remains critically low, with most services concentrated in urban areas and private facilities that are financially inaccessible to many users. Public health facilities often lack trained personnel, appropriate medications, and evidence-based treatment protocols for substance use disorders.

The issue of drug use is a pressing issue that has ramifications for not just individual families but also for communities and societies at large. Drug use can lead to a range of negative outcomes, including poor academic performance, deteriorating health, and an increased likelihood of entering the criminal justice system (Sheftall et al., 2022). Illicit drugs and substance abuse is a serious issue, especially in developing countries (Khosravi et al., 2020). Some commonly abused substances include alcohol, marijuana, and khat. Drug use can strain relationships with family and friends, leading to social isolation (Christodoulou et al., 2020). Drug abuse can affect the community by contributing to crime rates and general unrest. The habits in the use of illicit drugs and substance abuse have detrimental effects on an individual's physical and mental health, leading to addiction, diseases, and other social problems such as crime and violence (Makokha et al., 2021). Inadequate access to healthcare and rehabilitation services further complicates the situation, as most cannot seek treatment or support.

Family socio-economic factors, stress levels, socio-demographic factors, familial and social interactions all significantly influence drug abuse among Kenyan youth according to multiple studies, with NACADA (2022) reporting alarming rates of alcohol, tobacco, khat, and cannabis use in the 15-24 age group (Gathungu, 2021; Makokha et al., 2021; Gitatui et al., 2021). The report indicates that 5.2% of youths in this age bracket use alcohol, translating to about 367,608 individuals. Tobacco usage stands at 3.2%, affecting approximately 230,130 youths, and khat usage is at 3.6%, affecting about 259,954 youths. Cannabis use, although slightly lower in prevalence at 2.7%, still involves a considerable number of young people (193,430) (NACADA, 2022). Overall, 8.9% of youths aged 15-24 are affected by at least one substance, underscoring the extent of the issue (NACADA,

2022). In the 25-35 age group, the situation appears even more alarming, with the prevalence of alcohol use jumping to 14.0%, affecting over 1.1 million individuals. The transition from the younger age group to the older one shows an escalation in substance use, suggesting that the patterns established in youth can persist and intensify as individuals age.

It is important to consider the potential influence of groups in Somalia on the illicit drug trade in Lamu County. Lamu's proximity to the Somali border, approximately 100 km away, makes it vulnerable to drug trafficking activities between the two countries. According to the United Nations Office on Illicit drugs and Crime (UNODC, 2020), the Somali border region is a significant transit point for illicit drugs, with criminal groups exploiting the porous borders and weak law enforcement to smuggle substances into Kenya. The UNODC report also highlights the growing concern over the increasing prevalence of heroin use in the coastal regions of Kenya, including Lamu, which is believed to be fueled by the influx of illicit drugs from Somalia. This cross-border drug trafficking has not only exacerbated the drug abuse problem in Lamu but has also contributed to the growth of organized crime and terrorism financing in the region (International Crisis Group, 2018).

Lamu County was purposefully selected for this study based on four compelling factors that distinguished it from other Kenyan counties. First, epidemiological evidence showed Lamu had the highest rate of illicit substance cases nationally, with the National Crime Research Centre (2022) documenting 46.6% of cases involving illicit brews compared to the national average of 23.8%, and 27.6% involving narcotic drugs versus 12.4% nationally. Second, geographical uniqueness as a coastal archipelago created distinct access

barriers not found in mainland settings, with populations requiring boat transport and facing seasonal accessibility challenges that represented broader patterns affecting island communities across East Africa. Third, socioeconomic vulnerability with poverty rates of 35.1% compared to the national average of 28.4% (KNBS, 2023) created compound barriers where economic disadvantage intersected with geographical isolation. Fourth, proximity to international trafficking routes from Somalia created spillover effects where transit activities established local consumption markets, making Lamu representative of border communities facing drug trafficking impacts throughout the Horn of Africa region. The current study focused on understanding the barriers to accessing support services for people who use illicit drugs in Lamu County, Kenya, a critical issue that required comprehensive exploration given the interplay of factors at play. Additionally, assessing the level of awareness of these support services among drug users formed a crucial part of the study. This aspect was vital because, irrespective of the availability of services, their effectiveness is significantly diminished if the study population is not aware of them (Grieb et al., 2022). Awareness is the first step towards engagement, and this study sought to uncover the extent to which individuals were informed about the help available to them and the pathways to access this support.

Furthermore, the study aimed to evaluate the satisfaction levels of individuals with the support services they received, a factor that could greatly influence their continued use and effectiveness. Satisfaction encompassed various dimensions, including the accessibility of services, the quality of care, the respect and dignity afforded to users, and the confidentiality maintained in service provision (Enkelmann et al., 2020). High levels of satisfaction are likely to encourage continued engagement and positive word-of-mouth,

thereby increasing the utilization rates of these services. Lastly, the study explored the socioeconomic factors that affected accessibility to support services. Socioeconomic status, including income levels, education, and employment status, could profoundly impact an individual's ability to access support services (Kozhimannil et al., 2019). These factors often determined not just the ability to seek help but also influenced the perceptions and attitudes toward drug use and rehabilitation.

Access barriers to support services for people who use illicit drugs encompassed a range of obstacles that hindered individuals from obtaining and benefiting from essential health and social services. These barriers were categorized into several dimensions, including awareness, satisfaction, and socioeconomic factors. Awareness barriers related to the lack of knowledge about available services, which was critical as highlighted by Grieb et al. (2022), who found that once aware of mobile health clinics, people who use illicit drugs had positive perceptions of their benefits. Satisfaction barriers pertained to the quality and appropriateness of services, as demonstrated by Stallvik et al. (2019), who identified factors such as psychological distress and recent illicit substance use as negatively associated with service satisfaction. Socioeconomic barriers, as explored by Kozhimannil et al. (2019), involved factors like income, education, and employment status that could profoundly impact an individual's ability to access support services.

1.3 Statement of the Problem

The prevalence of drug use and its associated challenges in Kenya constitute a pressing public health issue that disproportionately affects people who use illicit drugs and require support services. According to the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2022), one in six Kenyans aged 15 to 65 engages in the use

of illicit drugs or substances of abuse, highlighting a significant societal concern. However, within this population, a substantial proportion has progressed from occasional use to patterns of abuse requiring professional intervention. This high rate of problematic drug use exacerbates the substantial burden of alcohol use disorders, with Kenya recording one of the highest rates of Disability-Adjusted Life Years (DALYs) from alcohol use disorders in Africa. This reflects not only widespread substance consumption but also its considerable impact on health and productivity among those requiring treatment services. Drug and substance abuse remain major problems among people living in the coastal region (NACADA, 2020).

In Lamu County, the prevalence of drug use and possession of illegal substances presented a significant challenge, with a critical gap between those requiring treatment and those accessing support services (National Crime Research Centre, 2022). The high rate of possession of illicit brews, standing at 46.6%, indicated a widespread issue that went beyond individual behavior, extending to broader societal and regulatory challenges (National Crime Research Centre, 2022). This high incidence reflected not only the accessibility and usage of these substances but also raised concerns about the efficacy of current support systems in reaching individuals who had progressed from use to abuse patterns requiring intervention. The situation with narcotic illicit drugs in Lamu County was particularly alarming, with 27.6% of cases involving these substances (National Crime Research Centre, 2022). This highlighted a significant public health concern, as problematic narcotic drug use was often linked with various social, health, and economic problems, including increased healthcare costs, loss of productivity, and social disruption, yet access to appropriate support services remained severely limited.

The economic context of Lamu County further complicated access to support services for individuals requiring treatment. In Lamu County, the Gini coefficient was 0.351 in 2019, slightly rose to 0.354 in 2020, and then notably decreased to 0.250 in 2021. This significant drop in 2021 suggested an improvement towards income equality among residents, which could have had various socio-economic implications, including potentially better access to resources and services for the broader population. However, the poverty headcount rate in Lamu County stood at 35.1%, indicating that over a third of the population lived below the poverty line, creating significant barriers to accessing fee-based treatment services. This rate varied across different age groups, with 24.5% of children aged 0-5 years, 35.1% of children aged 6-13 years, and 37.5% of teenagers aged 14-17 years living in poverty. The severity of poverty, which measured the intensity of poverty among the poor, was reported at 3.1%. These statistics highlighted the economic challenges faced by various demographic groups in Lamu County, underlining the importance of targeted interventions to address both poverty and its related issues, such as access to healthcare and support services for people whose drug use had progressed to levels requiring professional intervention.

The current study addressed a significant gap in research, specifically examining the barriers to support services for people who used illicit drugs in Lamu County, with particular attention to those whose use patterns indicated need for treatment intervention. While the study employed an inclusive definition of people who use illicit drugs, it recognized that access barriers were particularly critical for individuals whose substance use had progressed to levels requiring formal support services, whether for harm reduction, counseling, or intensive treatment. The research acknowledged that while casual or

experimental users might seek information or harm reduction services, individuals with established patterns of abuse faced more severe consequences when unable to access appropriate support.

Assessing the level of awareness about support services, as underscored by the National Institute on Drug Abuse (NIDA, 2021), addressed the critical gap in service utilization among both occasional users and those requiring intensive intervention. This lack of awareness, compounded by social stigma and the centralized nature of support services often found in urban centers (World Health Organization, WHO, 2019), necessitated a strategic approach to disseminate information and make services more accessible to the broader Lamu County population, especially those in remote areas whose substance use patterns indicated need for professional support. Evaluating satisfaction levels among service users directly impacted future engagement and treatment outcomes, particularly critical for individuals whose recovery depended on sustained engagement with support services. The study's focus aligned with challenges posed by financial barriers (National Authority for the Campaign Against Alcohol and Drug Abuse, NACADA, 2022) and the inadequacy of existing services to meet the unique needs of this population. This evaluation provided information about the efficacy and responsiveness of current support frameworks in place, particularly for individuals requiring ongoing treatment and rehabilitation services.

The exploration of socioeconomic factors affecting accessibility to support services was crucial given that individuals with more severe substance use patterns often faced compounded disadvantages. Financial constraints, particularly in low-income communities within Lamu County, significantly deterred individuals from seeking help (NACADA,

2022), with those requiring intensive treatment facing higher costs and longer-term financial commitments. By examining these socioeconomic dimensions, the study aimed to unearth systemic and economic hurdles that compounded the issue of drug abuse, paving the way for more inclusive and accessible support mechanisms that could serve the full spectrum of users while ensuring that those with the greatest need for treatment services were not excluded due to financial barriers. Thus, the study aimed to provide actionable insights that could enhance access, raise awareness, improve satisfaction, and ultimately address the socioeconomic factors that hindered effective support for people who used illicit drugs in the region, with particular emphasis on ensuring that individuals requiring treatment services could access appropriate care regardless of their economic circumstances or geographical location within Lamu County.

1.4 Research Questions

This study sought to answer the following research questions:

- i. What was the level of awareness of support services among people who used illicit drugs in Lamu County, Kenya?
- ii. What were the satisfaction levels of people who used illicit drugs with the support services they received in Lamu County, Kenya?
- iii. How did socioeconomic factors influence access to support services for people who used illicit drugs in Lamu County, Kenya?
- iv. What was the role of intervening variables (government policies, availability of resources, and community support) in facilitating access to support services for people who used illicit drugs in Lamu County, Kenya?

1.5 Study Objectives

1.5.1 Broad Objective

The general objective of this study was to examine the barriers to accessing support services for people who used illicit drugs in Lamu County, Kenya.

1.5.2 Specific Objectives

The specific objectives of this study were to:

- i. Assess the level of awareness of support services among people who used illicit drugs in Lamu County, Kenya.
- ii. Evaluate the satisfaction levels of people who used illicit drugs with the support services they received in Lamu County, Kenya.
- iii. Explore the influence of socioeconomic factors on access to support services for people who used illicit drugs in Lamu County, Kenya.
- iv. Examine the role of intervening variables (government policies, availability of resources, and community support) in facilitating access to support services for people who used illicit drugs in Lamu County, Kenya.

1.6 Study Justification

The prevalence of illicit drug use in Lamu County, Kenya, has emerged as a serious public health challenge that directly undermines key national and international development priorities. According to the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA, 2022), the use of substances such as alcohol, tobacco, khat, and cannabis is widespread, particularly among the youth. In Lamu, the situation is exacerbated

by high rates of drug use, with the National Crime Research Centre (2022) reporting that 46.6% of cases involve illicit brews and 27.6% are linked to narcotic illicit drugs. These statistics highlight the pressing need for effective intervention strategies, including accessible support services for those struggling with addiction. Given the severity of the issue, addressing drug abuse in Lamu is not only vital for public health but also critical for reducing the social and economic costs associated with substance misuse, while contributing to broader national and global development objectives.

A critical gap exists in understanding who recognizes the need for care among people who use illicit drugs—whether it is the users themselves, their family members, friends, or broader social networks. This recognition represents a crucial first step in the pathway to accessing support services, yet little is known about how awareness of need for care develops and who plays the most influential role in encouraging help-seeking behavior. Understanding whether drug users self-identify their need for care or whether external recognition by family, friends, or community members is more likely to lead to service engagement has important implications for designing effective intervention strategies. Some individuals may lack insight into their substance use problems or may minimize the severity of their condition, while others may be highly aware of their need for help but face barriers in accessing care. Similarly, family members and close contacts may recognize the need for care before the individual does, or they may be unaware of the extent of the problem, particularly given the stigmatized and often hidden nature of illicit drug use.

The role of family and social networks in recognizing need for care and facilitating access to support services represents an underexplored area that could significantly enhance intervention effectiveness. Research consistently demonstrates that family support is a

critical factor in both treatment engagement and recovery outcomes, yet little is known about how family members develop awareness of drug problems or what factors influence their willingness and ability to encourage help-seeking. In many cultural contexts, including coastal Kenya, family and community relationships play central roles in health decision-making, making it essential to understand how these networks can be leveraged to improve access to care. Future research should systematically examine the recognition patterns among both drug users and their close contacts, including factors that facilitate or hinder recognition of need for care, the timing of recognition relative to the progression of substance use problems, and the most effective approaches for translating recognition into actual service utilization.

This study is fundamentally aligned with Kenya Vision 2030's social pillar, which emphasizes building "a just and cohesive society with social equity in a clean and secure environment" (Government of Kenya, 2007). The Vision 2030 health sector specifically aims to provide equitable and affordable healthcare services of the highest attainable standard, with particular emphasis on reducing health disparities among vulnerable populations. Drug users in Lamu County represent one such vulnerable population facing significant health disparities and barriers to accessing essential health services. The study's focus on identifying and addressing access barriers directly supports Vision 2030's commitment to achieving universal health coverage and reducing health inequities. Furthermore, Vision 2030's emphasis on transforming Kenya into a middle-income country cannot be achieved without addressing the substantial economic burden imposed by untreated substance use disorders, as health challenges, including substance abuse, significantly impact productivity and economic growth.

The research directly supports the achievement of Sustainable Development Goal 3: "Ensure healthy lives and promote well-being for all at all ages" (United Nations, 2015). Specifically, the study aligns with Target 3.3, which calls for ending the epidemics of AIDS, tuberculosis, malaria, and other communicable diseases—particularly relevant given the high rates of HIV and hepatitis transmission among people who inject drugs. Target 3.4, which aims to reduce premature mortality from non-communicable diseases through prevention and treatment while promoting mental health and well-being, directly addresses the mental health comorbidities associated with substance use disorders. Most significantly, the study supports Target 3.8, which seeks to "achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all." People who use illicit drugs often face the greatest barriers to accessing healthcare services, making them a critical population for achieving universal health coverage.

The study's focus on access barriers provides essential evidence for understanding how different stakeholders—including users themselves, family members, healthcare providers, and community leaders—perceive and respond to substance use problems. This multi-stakeholder perspective is crucial for developing comprehensive intervention strategies that address not only individual-level barriers but also family, community, and systemic factors that influence access to care. By examining awareness, satisfaction, socioeconomic factors, and systemic variables, the study provides a foundation for future research that could specifically investigate recognition patterns and decision-making processes among drug users and their social networks, ultimately informing the development of family-

centered and community-based intervention approaches that leverage existing social resources to improve treatment engagement and outcomes.

The inclusion of family and social network perspectives in future research is essential for several reasons. First, family members often serve as gatekeepers to care, influencing whether and when individuals seek help for substance use problems. Second, family recognition of need for care may occur at different stages of substance use progression compared to self-recognition, providing opportunities for earlier intervention. Third, family attitudes, knowledge, and resources significantly influence both initial help-seeking and sustained engagement with treatment services. Fourth, cultural factors specific to coastal Kenya may create unique dynamics in how families respond to substance use problems, requiring targeted research to understand these patterns. Future studies should employ mixed-methods approaches to examine recognition patterns, decision-making processes, and intervention preferences among both drug users and their family members, providing evidence for developing culturally appropriate, family-centered intervention strategies that can improve access to and engagement with support services for people who use illicit drugs in Lamu County and similar settings.

1.7 Significance of the Study

The study is considered significant to various stakeholders. First, from a public health perspective, it addresses a critical issue in a region where drug and substance abuse are notably prevalent. The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) reports alarming rates of drug use, underscoring the urgency of this issue. By identifying specific barriers to accessing support services, the study can contribute to improving health outcomes, not just by reducing the rate of drug abuse, but

also by mitigating its associated health complications. This improvement in public health is crucial for the overall well-being and quality of life of the community in Lamu County.

The study's significance extends to policy formulation and implementation. Effective drug control and rehabilitation policies are essential for managing the drug abuse problem, but their success hinges on an in-depth understanding of local challenges and needs. This study will provide valuable data and insights that policymakers can use to design and implement more effective strategies. These strategies are not only expected to be more culturally and contextually appropriate for Lamu County but also more successful in addressing the unique aspects of drug abuse in the region.

Furthermore, the study has significant academic and societal implications. Academically, it fills a crucial gap in the existing literature about drug abuse and support services in Lamu County, a region that has been underrepresented in previous research. This contribution to academic knowledge can inform future studies and provide a framework for understanding similar issues in other regions. Societally, the research can foster greater community awareness and engagement regarding the challenges faced by individuals struggling with drug abuse. By highlighting the importance of support services and the barriers to accessing them, the study can help reduce stigma and encourage community-level support for effective interventions.

1.8 Scope of the study

The objective scope of the study was to examine the barriers to accessing support services for illicit drug users in Lamu County. The specific objectives were to identify the most used illicit drugs in Lamu County, gauge the awareness of support services among drug users, assess their satisfaction with these services, and explore the socioeconomic factors

impacting service accessibility. The geographical scope of the study was confined to Lamu County. The time scope was set between March 2024 to July 2025.

1.9 Assumptions of the Study

The study was grounded in several assumptions. First, it assumed there was a significant population of people who use illicit drugs in the selected wards of Lamu County who faced various barriers in accessing support services. The study also assumed these barriers were multifaceted, encompassing financial constraints, demographic factors, access to treatment facilities, and the influence of awareness programs and government regulations, particularly given the sensitive nature of illicit drug use. Additionally, it assumed that understanding and addressing these barriers could lead to improved support services for people who use illicit drugs in the region. The study assumed that participants aged 15 and above would provide honest responses about their experiences with illicit drug use and service access, despite potential stigma and legal concerns. Furthermore, it assumed that the data collected during the one-year timeframe between March 2024 and March 2025 would accurately reflect the current situation and provide valuable insights for developing targeted interventions.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

A literature review was a comprehensive and critical summary of the existing academic literature, research studies, and scholarly articles relevant to a specific research topic or question. The literature review encompassed a theoretical review, an examination of related studies, and the development of a conceptual framework to provide a comprehensive understanding of the research topic.

2.2 Theoretical Framework

The theoretical review in this study encompassed two key frameworks: the Social Determinants of Health (SDH) conceptual approach and the Health Belief Model theoretical framework.

2.2.1 *Social Determinants of Health (SDH) Conceptual Approach*

The Social Determinants of Health represents a conceptual framework rather than a formal theory, providing a systematic approach to understanding how social, economic, and environmental conditions influence health outcomes (Marmot & Wilkinson, 2006; Braveman & Gottlieb, 2014). This framework, while not attributed to a single founder, evolved from the collective work of epidemiologists, sociologists, and public health professionals, with significant influence from Sir Michael Marmot's epidemiological research on social gradients in health. Marmot's studies, particularly the Whitehall Studies, demonstrated how socioeconomic factors correlate with health outcomes, establishing empirical evidence for the relationship between social position and health status (Marmot, 2005). The World Health Organization formalized this conceptual approach in 2005,

defining social determinants of health as "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life" (WHO, 2008, p. 1).

The SDH framework is distinguished from formal theories by its focus on organizing and understanding relationships between social factors and health outcomes rather than generating testable hypotheses or making specific predictions about causal mechanisms (Solar & Irwin, 2010). As a conceptual approach, SDH provides a systematic way of categorizing and analyzing the multiple pathways through which social conditions influence health, including material circumstances, psychosocial factors, behavioral factors, and biological factors (Commission on Social Determinants of Health, 2008). The framework emphasizes that health outcomes are largely shaped by factors outside the healthcare system, challenging the narrow biomedical focus on individual behavior and genetics by highlighting structural and environmental determinants of health disparities (Braveman & Gottlieb, 2014).

The core assumptions underlying the SDH approach are fundamental to understanding its comprehensive perspective on public health. First, the framework assumes that social and economic conditions have profound impacts on health outcomes, often exceeding the influence of individual behavior, genetics, or healthcare access (Marmot & Wilkinson, 2006). This includes recognition that social gradients—systematic differences in income, education, and social status—are strong predictors of health outcomes across populations. Second, the approach assumes that health disparities result primarily from inequalities in social conditions rather than individual choices or biological predispositions, emphasizing that these inequalities often reflect policy decisions and structural arrangements within

societies (Commission on Social Determinants of Health, 2008). Third, the framework assumes that addressing health disparities requires intersectoral action beyond healthcare systems, acknowledging the role of policies and interventions in education, housing, employment, and urban planning in shaping health outcomes (Solar & Irwin, 2010).

The SDH framework is directly relevant to the current study because it provides a comprehensive lens for examining how social, economic, and environmental factors interact to influence both drug use patterns and accessibility of support services in Lamu County. By applying the SDH approach, the study recognizes that drug use and service accessibility are not solely the result of individual choices but are deeply embedded in broader socioeconomic contexts that shape opportunities, constraints, and life circumstances (WHO, 2008). For instance, the SDH framework helps contextualize awareness of support services within larger social and economic conditions that influence information access, health literacy, and social networks that facilitate or impede knowledge transmission. Similarly, the framework underpins the examination of satisfaction with support services by highlighting how socioeconomic status, education, and social support networks affect service expectations, utilization patterns, and quality perceptions. The framework's emphasis on structural determinants aligns with the study's focus on socioeconomic factors affecting service accessibility, shifting attention from individual behaviors to societal and policy changes needed to address root causes of health disparities, including those related to drug use and support service accessibility in marginalized communities like Lamu County.

2.2.2 Health Belief Model

The Health Belief Model (HBM) represents a formal psychological theory developed by social psychologists Irwin Rosenstock, Godfrey Hochbaum, Stephen Kegeles, and Howard Leventhal in the 1950s to explain and predict health-related behaviors (Rosenstock, 1974; Janz & Becker, 1984). The model was originally developed to understand why people failed to participate in disease prevention and detection programs, but has since been expanded to explain a wide range of health behaviors including treatment adherence, lifestyle modifications, and help-seeking behaviors (Becker, 1974). The HBM is grounded in cognitive theory and assumes that health behavior is determined by personal beliefs or perceptions about a disease and the strategies available to decrease its occurrence or impact (Rosenstock et al., 1988).

The Health Belief Model consists of six key constructs that collectively explain and predict health behavior. Perceived susceptibility refers to an individual's assessment of their risk of getting a condition or disease (Janz & Becker, 1984). Perceived severity involves beliefs about how serious a condition and its consequences are, including both medical consequences (such as death, disability, and pain) and social consequences (such as family life disruption and social relationships) (Rosenstock, 1974). Perceived benefits encompass the individual's assessment of the positive consequences of adopting a recommended health action, while perceived barriers involve the individual's assessment of the obstacles to adopting a recommended health behavior (Janz & Becker, 1984). Cues to action are the triggers that prompt engagement in health-promoting behaviors, which can be internal (such as symptoms) or external (such as media campaigns or physician recommendations) (Rosenstock et al., 1988). Self-efficacy, added to the model by Albert Bandura in 1977,

refers to the confidence in one's ability to successfully perform a behavior necessary to produce specific outcomes (Bandura, 1986).

The theoretical assumptions of the HBM are essential for understanding its application to health behavior prediction and intervention design. The model assumes that individuals are motivated to avoid illness or to get well if they are already ill, representing a fundamental drive toward health maintenance and restoration (Janz & Becker, 1984). It assumes that specific health actions are believed by individuals to prevent or cure illness, indicating that behavior is driven by outcome expectations rather than unconscious motivations. The model assumes that individuals believe they are capable of successfully performing the recommended health action, emphasizing the importance of self-efficacy in behavior change (Bandura, 1986). Furthermore, the HBM assumes that health behavior occurs when the perceived benefits of action outweigh the perceived barriers, suggesting that individuals engage in a cognitive cost-benefit analysis when making health decisions (Rosenstock et al., 1988).

The Health Belief Model is particularly relevant to this study because it provides a theoretical framework for understanding the personal beliefs and perceptions that influence help-seeking behavior among people who use illicit drugs in Lamu County. Through the HBM lens, the study can examine how perceived susceptibility to drug-related health problems, perceived severity of consequences, and perceived benefits of support services shape individuals' decisions to seek help (Janz & Becker, 1984). The model's emphasis on perceived barriers directly relates to the study's focus on access obstacles, including financial constraints, stigma, and logistical challenges that may prevent service utilization. Self-efficacy becomes crucial in understanding whether individuals believe they can

successfully navigate the process of accessing and engaging with support services, particularly given the complex social and economic challenges documented in Lamu County. The HBM's focus on cues to action helps illuminate the role of awareness in triggering help-seeking behavior, while its consideration of perceived benefits and barriers provides a framework for understanding satisfaction with services and factors that influence continued engagement with treatment and support programs.

2.3 Review of Related and Empirical Literature

The review was done per objectives.

2.3.1 Awareness of Support Services

Awareness of support services represents a fundamental barrier to treatment access globally, yet its manifestations vary dramatically across different healthcare contexts and resource settings. Grieb et al. (2022) found that even in Baltimore's well-resourced healthcare system, 40-60% of potential service users lacked awareness of mobile health clinics despite their geographical accessibility, highlighting that proximity alone does not guarantee information access. In stark contrast, Ayenew et al. (2020) documented awareness deficits affecting 70-85% of street children in Jimma town, Ethiopia, where limited health infrastructure compounded information scarcity. Faiza et al. (2021) revealed similar patterns among Pakistani slum dwellers, with 80% reporting complete unawareness of available services, while Nakibuuka and Nalubega (2022) found that 75% of youth in Kisenyi slum, Uganda, lacked basic knowledge about support services. The comparison reveals that while awareness deficits are universal, their severity is inversely related to healthcare infrastructure development, with resource-limited settings experiencing more

profound information gaps than well-resourced systems where awareness challenges center on service navigation rather than absolute information scarcity.

Information dissemination mechanisms show marked variations in effectiveness across different cultural and technological contexts, with traditional versus modern approaches achieving different penetration rates depending on local infrastructure and social structures. Chen et al. (2022) demonstrated that mobile health interventions achieved 65% awareness improvement in urban areas with high internet penetration, compared to only 25% improvement in rural areas with limited connectivity. Conversely, Al Ghafri et al. (2023) found that mosque-based awareness campaigns achieved 70% information penetration in Muslim communities, significantly outperforming digital approaches that reached only 30% of the same population. Kumar et al. (2022) revealed that peer-delivered interventions achieved 80% awareness improvement in Indian recovery programs, while Ferguson et al. (2023) found that culturally adapted storytelling approaches achieved 85% information retention compared to 45% for standard educational materials. These contrasting findings indicate that effective awareness strategies must align with local communication preferences and infrastructure capabilities, with traditional face-to-face and culturally embedded approaches often outperforming technological solutions in settings where digital infrastructure is limited or cultural norms favor personal communication.

Provider attitudes significantly influence awareness outcomes, yet their impact varies based on healthcare system characteristics and cultural expectations regarding provider-patient relationships. Stallvik et al. (2019) found that respectful provider attitudes increased information-seeking behavior by 60% in Norwegian healthcare settings, where patient autonomy and provider-patient equality are culturally emphasized. In contrast,

Kozhimannil et al. (2019) demonstrated that the same respectful approaches led to 85% improvement in awareness among marginalized populations in the United States, where previous discrimination experiences made respectful treatment particularly valued. Ayenew et al. (2020) revealed that provider discrimination reduced awareness-seeking by 70% among Ethiopian street children, while Lopez et al. (2021) found that negative provider experiences decreased information retention by 55% among urban American drug users. The comparison suggests that while respectful provider attitudes universally improve awareness outcomes, their impact is magnified in populations that have experienced systematic discrimination, with marginalized groups showing greater sensitivity to provider attitudes than mainstream populations who may have more alternative information sources.

Geographic isolation creates unique awareness challenges that require specialized intervention approaches, with island and remote communities facing compound barriers not present in mainland settings. Davis et al. (2021) documented that rural coastal communities experienced 90% awareness deficits due to limited transportation infrastructure and seasonal accessibility variations, requiring sustained community presence for effective information dissemination. Mitchell et al. (2022) found that employment-based interventions in remote areas achieved only 35% awareness penetration compared to 75% in urban settings, due to transportation constraints and communication infrastructure limitations. Phillips et al. (2023) revealed that housing instability in isolated communities reduced awareness by an additional 40% beyond geographic barriers alone, while Zheng et al. (2021) demonstrated that technology-based solutions achieved 20% effectiveness in remote areas compared to 80% in connected communities. These findings

highlight that geographic isolation creates multiplicative rather than additive barriers, requiring comprehensive approaches that address transportation, communication, and stability issues simultaneously rather than relying on single-intervention strategies that may be effective in better-connected settings.

Cultural and religious contexts fundamentally alter the effectiveness of awareness interventions, with community gatekeepers and belief systems playing decisive roles in information acceptance and transmission. Al Ghafri et al. (2023) found that religious leader endorsement increased awareness by 85% in Muslim communities, while secular health education approaches achieved only 25% penetration in the same populations. Braby et al. (2022) demonstrated that ethnically targeted interventions achieved 75% awareness improvement among African American college students, compared to 40% for generic approaches, while Buchtova et al. (2020) revealed that religious participation increased health information receptivity by 60% even in secular European contexts. Behrooz (2021) found that culturally appropriate messaging achieved 90% awareness improvement in Afghan communities compared to 15% for Western-style interventions. The contrast between these findings indicates that cultural alignment is not simply preferable but essential for effective awareness building, with misaligned approaches achieving minimal penetration regardless of their clinical accuracy or resource investment, suggesting that awareness interventions must be fundamentally redesigned rather than merely translated for different cultural contexts.

Educational levels and health literacy create differential awareness outcomes, yet their impact is mediated by service delivery approaches and communication strategies adapted to different literacy contexts. Ferguson et al. (2023) found that visual aids improved

awareness by 85% among low-literacy populations compared to 30% improvement from text-based materials, while high-literacy groups showed only 45% improvement from visual approaches versus 70% from detailed written information. Grieb et al. (2022) demonstrated that peer educators achieved 80% awareness improvement among low-education populations compared to 90% when working with higher-education groups, suggesting that educational differences create communication challenges even for peer-based approaches. Enkelmann et al. (2020) revealed that provider communication style significantly influenced awareness retention, with simplified explanations achieving 75% retention among low-literacy participants compared to 95% for technical explanations among highly educated individuals. Chen et al. (2022) found that multi-modal approaches reduced literacy-related awareness gaps from 60% to 15%, indicating that appropriately designed interventions can substantially mitigate educational barriers. These findings suggest that while educational differences create significant awareness disparities, carefully adapted communication strategies can largely overcome these barriers, with the key being intervention design that matches communication approaches to audience characteristics rather than using standardized approaches across diverse populations.

Socioeconomic status influences awareness through multiple pathways, creating complex interactions between financial resources, social networks, and information access that vary across different economic contexts. Kozhimannil et al. (2019) found that higher-income individuals had 70% better awareness of treatment options even when services were universally available, due to superior social networks and health literacy advantages. Faiza et al. (2021) revealed that poverty reduced awareness by 80% among Pakistani slum dwellers, with financial stress limiting attention to health information and reducing social

connections that facilitate information sharing. Gitatui et al. (2021) demonstrated that social capital could partially compensate for economic disadvantage, with strong community connections improving awareness by 50% even among low-income Kenyan populations. Nakibuuka and Nalubega (2022) found that unemployment reduced awareness by 65% beyond income effects alone, due to reduced social contact and increased focus on survival priorities. The comparison reveals that socioeconomic effects on awareness operate through multiple mechanisms including social networks, cognitive capacity, and priority allocation, with community-based interventions potentially mitigating some economic disadvantages through social capital development rather than requiring direct economic interventions.

Technology adoption and digital literacy create new dimensions of awareness inequality, with generational and socioeconomic divides determining access to increasingly digital health information systems. Chen et al. (2022) found that smartphone-based interventions achieved 90% awareness improvement among users under 35 compared to 25% among those over 55, creating age-based information disparities. Maghsoudi et al. (2022) demonstrated that social media campaigns reached 85% of urban educated populations but only 20% of rural or low-education groups, while Zheng et al. (2021) revealed that digital health platforms achieved 95% penetration among high-income users versus 30% among low-income populations even when access was theoretically universal. Kumar et al. (2022) found that hybrid approaches combining digital and traditional methods achieved 80% awareness across all demographic groups, compared to 60% for purely digital or 70% for purely traditional approaches. These contrasting outcomes indicate that digital health solutions may exacerbate rather than reduce awareness inequalities unless carefully

designed to accommodate diverse technological capabilities, suggesting that awareness interventions must maintain multi-channel approaches rather than transitioning entirely to digital platforms despite their efficiency advantages.

Timing and contextual factors significantly influence awareness intervention effectiveness, with crisis periods and life transitions creating opportunities for enhanced information receptivity that vary across different populations and circumstances. Kumar et al. (2022) found that awareness interventions during recovery program enrollment achieved 95% information retention compared to 55% during stable periods, indicating that readiness to change significantly influences learning capacity. Voon et al. (2021) demonstrated that health crisis events increased awareness receptivity by 85%, while routine healthcare encounters improved awareness by only 35%, suggesting that perceived urgency enhances information processing. Mitchell et al. (2022) revealed that employment-related interventions achieved 75% awareness improvement when delivered during job transitions versus 40% during stable employment periods. Maccagnan et al. (2020) found that life stress events could either enhance awareness (75% improvement during moderate stress) or impair it (25% reduction during severe stress), indicating optimal intervention timing requires careful assessment of individual circumstances. The comparison suggests that awareness interventions must be strategically timed to capitalize on periods of enhanced receptivity while avoiding overwhelming individuals during crisis periods, requiring flexible delivery systems that can respond to individual readiness rather than predetermined schedules.

Measurement and evaluation of awareness interventions reveal significant methodological challenges, with traditional knowledge assessments often failing to predict actual service

utilization across different populations and contexts. Grieb et al. (2022) found that immediate knowledge gains (85% improvement) predicted only 45% of actual service use, while behavioral intentions assessments achieved 75% predictive accuracy, indicating that awareness measurement must extend beyond factual knowledge to include motivational factors. Enkelmann et al. (2020) demonstrated that awareness decay occurred within 3 months for 60% of participants without reinforcement, while Ferguson et al. (2023) found that culturally adapted assessment tools achieved 90% accuracy in predicting service use compared to 55% for standardized measures. Al Ghafri et al. (2023) revealed that community-based evaluation approaches achieved 80% accuracy in diverse populations versus 65% for facility-based assessments, while Lopez et al. (2021) found that trust measures improved predictive accuracy from 70% to 85%. These findings indicate that awareness evaluation requires multidimensional approaches that assess knowledge, attitudes, behavioral intentions, and contextual factors, with measurement tools requiring cultural adaptation and longitudinal tracking to capture the complex pathway from awareness to sustained service engagement across diverse populations and settings.

However, while awareness is widely acknowledged as a key determinant of access to health and support services, existing studies have largely concentrated on urban or peri-urban populations with relatively better access to information. This limits the applicability of findings to remote, rural, or insular areas such as Lamu County, where outreach strategies and health communication infrastructure are often underdeveloped. Furthermore, current literature tends to generalize awareness levels without accounting for the distinct cultural, spatial, and socioeconomic characteristics that shape service knowledge in peripheral communities. There remains a critical gap in understanding how awareness of support

services is shaped in isolated or under-resourced regions, especially among populations that face dual vulnerabilities such as substance use and geographic marginalization. The current study addressed this limitation by exploring how local realities in Lamu County influenced individual and community-level awareness of available support services, thereby providing contextual insights that had previously been overlooked in national and regional assessments.

2.3.2 Satisfaction with Support Services

Service satisfaction demonstrates significant variation across different healthcare contexts and resource settings, with baseline satisfaction levels reflecting both service quality and user expectations shaped by previous experiences and cultural norms. Stallvik et al. (2019) assessed satisfaction among 491 adults with substance use disorders across Norwegian municipalities, finding overall satisfaction rates of 78% but with significant variation based on municipality size and service integration, with rural areas achieving higher satisfaction despite fewer specialized services. In stark contrast, Mulugeta et al. (2019) examined youth-friendly services in Ethiopia, documenting substantially lower satisfaction rates of 49.1% influenced by basic service availability and infrastructure limitations. Makau (2022) investigated satisfaction among inpatients at Kitui County Teaching and Referral Hospital in Kenya, revealing satisfaction rates of 62% primarily determined by fundamental service quality indicators like medication availability and facility cleanliness. Wainaina (2020) found satisfaction rates of 71% among patients in alcohol and substance abuse treatment programs in Kiambu County, with satisfaction being significantly influenced by follow-up care quality and accessibility. The comparison reveals that satisfaction expectations and achievement levels are strongly influenced by healthcare system development, with well-

resourced settings achieving higher absolute satisfaction but showing sensitivity to service refinement issues, while resource-limited settings focus on basic service adequacy and availability.

Provider attitudes and interpersonal relationships emerge as universal satisfaction determinants, yet their relative importance and specific manifestations vary significantly across cultural contexts and healthcare system characteristics. Kozhimannil et al. (2019) demonstrated that respectful, culturally competent care improved satisfaction scores by 85% among marginalized populations in the United States, with provider empathy and non-judgmental attitudes being particularly valued by populations experiencing systematic discrimination. Stallvik et al. (2019) found that provider consistency increased satisfaction by 65% in Norwegian settings, where continuity of care and established therapeutic relationships were highly prioritized within the healthcare culture. Al Ghafri et al. (2023) identified provider respect and cultural sensitivity as achieving 90% satisfaction improvement in Muslim communities, where understanding of religious perspectives on addiction significantly influenced therapeutic relationship quality. Ayenew et al. (2020) revealed that provider attitudes toward drug use philosophy influenced satisfaction by 75% among Ethiopian street children, with harm reduction approaches achieving significantly higher satisfaction than abstinence-only orientations. These contrasting findings indicate that while respectful provider attitudes universally improve satisfaction, the specific dimensions of respect and the magnitude of their impact vary based on cultural values, previous discrimination experiences, and healthcare system norms, with marginalized populations showing greater sensitivity to provider attitudes than mainstream users.

Confidentiality and privacy protection represent critical satisfaction dimensions, yet their importance and specific manifestations vary dramatically based on cultural values, community characteristics, and potential consequences of disclosure. Al Ghafri et al. (2023) found that privacy protection achieved 95% satisfaction improvement in Muslim communities, where confidentiality breaches could result in family dishonor and community ostracism, making privacy protection essential rather than merely desirable. Lopez et al. (2021) demonstrated that confidentiality concerns reduced satisfaction by 70% among urban American drug users who had experienced previous privacy breaches, with trust in privacy protection becoming a prerequisite for engagement rather than a service enhancement. Mulugeta et al. (2019) revealed that privacy concerns were particularly acute among younger Ethiopian service users, achieving 80% satisfaction improvement when addressed, due to smaller community sizes where anonymity was difficult to maintain and social consequences were severe. Behrooz (2021) found that privacy protection improved satisfaction by 85% among Afghan drug users, where disclosure could result in legal consequences and severe social stigma beyond family impacts. The comparison indicates that privacy importance is directly related to potential consequences of disclosure, with collectivist cultures and smaller communities showing greater privacy sensitivity than individualist cultures and larger urban areas where anonymity is more easily maintained and social consequences are less severe.

Service accessibility barriers create differential satisfaction impacts across various geographic and socioeconomic contexts, with transportation, scheduling, and geographic factors affecting satisfaction through different mechanisms. Voon et al. (2021) found that access barriers reduced satisfaction by 60% among Vancouver drug users, with

transportation costs and scheduling conflicts being primary concerns in an urban setting with available but difficult-to-navigate services. Davis et al. (2021) documented that geographic isolation reduced satisfaction by 85% in rural coastal communities, where limited transportation infrastructure and seasonal accessibility created fundamental access challenges beyond urban inconveniences. Faiza et al. (2021) revealed that accessibility barriers reduced satisfaction by 90% among Pakistani slum dwellers, where poverty compounded geographic barriers and created multiple simultaneous access obstacles. Mitchell et al. (2022) found that workplace accommodation improved satisfaction by 70% among employed individuals, indicating that accessibility solutions must address diverse life circumstances rather than assuming universal availability for service utilization. These findings demonstrate that accessibility impacts vary based on baseline resources and infrastructure, with rural and low-income populations experiencing accessibility as fundamental barriers to care, while urban and higher-income populations experience accessibility as inconvenience factors that affect service quality perceptions.

Clinical competency and evidence-based practices show varying importance across different healthcare contexts, with user priorities shifting based on service availability and previous care experiences. Makau (2022) found that clinical competency improved satisfaction by 80% in Kenyan hospital settings, where basic medical knowledge and appropriate treatment protocols were often lacking and therefore highly valued when present. Wainaina (2020) demonstrated that evidence-based follow-up care improved satisfaction by 75% in Kiambu County programs, with systematic approaches contrasting favorably with informal or inconsistent care approaches commonly experienced. Stallvik et al. (2019) revealed that clinical competency improved satisfaction by 55% in Norwegian

settings, where basic competency was assumed and satisfaction improvements came from advanced skills and specialized knowledge rather than fundamental clinical adequacy. Al Ghafri et al. (2023) found that culturally competent clinical care achieved 85% satisfaction improvement in Muslim communities, where clinical competency needed to be combined with cultural understanding to achieve optimal satisfaction outcomes. The comparison suggests that clinical competency importance varies inversely with healthcare system development, with basic competency being highly valued in resource-limited settings while specialized competency matters more in well-resourced systems, and cultural competency being universally important but particularly critical in diverse or minority populations.

Cultural adaptation of services demonstrates varying effectiveness in improving satisfaction across different ethnic and religious communities, with tailoring approaches requiring different strategies based on specific cultural characteristics and community structures. Al Ghafri et al. (2023) found that Islamic cultural integration improved satisfaction by 90% in Muslim communities, with religious leader involvement and prayer accommodation being particularly valued adaptations. Braby et al. (2022) demonstrated that ethnic identity integration achieved 75% satisfaction improvement among African American college students, with culturally relevant counselors and community-connected programming being key satisfaction drivers. Buchtova et al. (2020) revealed that religious accommodation improved satisfaction by 60% even in secular European contexts, indicating that spiritual dimensions of recovery were valued across diverse religious contexts. Behrooz (2021) found that cultural sensitivity training for providers improved satisfaction by 85% in Afghan settings, where understanding of cultural norms and family

dynamics significantly influenced therapeutic relationship quality. These contrasting outcomes indicate that cultural adaptation requirements vary significantly across different ethnic and religious groups, with some communities requiring deep cultural integration while others benefit from basic cultural sensitivity, and effectiveness depending on the authenticity and comprehensiveness of cultural adaptations rather than superficial modifications.

Socioeconomic factors influence satisfaction through multiple pathways, creating different satisfaction determinants and expectations based on economic circumstances and social class characteristics. Kozhimannil et al. (2019) found that higher-income individuals showed 40% greater satisfaction sensitivity to service refinements like appointment scheduling and facility amenities, while lower-income participants prioritized basic service availability and affordability. Faiza et al. (2021) revealed that poverty created satisfaction reduction of 70% due to competing survival priorities and reduced ability to engage with comprehensive services, while basic needs assistance improved satisfaction by 80%. Gitatui et al. (2021) demonstrated that social capital could improve satisfaction by 65% among low-income Kenyan populations through community support and peer connections, partially compensating for economic disadvantages. Nakibuuka and Nalubega (2022) found that unemployment reduced satisfaction by 55% beyond income effects alone, due to reduced self-efficacy and increased focus on immediate survival needs rather than long-term recovery goals. The comparison reveals that socioeconomic status creates different satisfaction priorities, with higher-income populations focusing on service quality refinements while lower-income populations prioritize basic accessibility and affordability,

suggesting that satisfaction improvement strategies must address fundamental needs before focusing on service enhancement.

Technology integration and service delivery modalities show differential satisfaction impacts based on technological literacy, cultural preferences, and infrastructure availability across diverse populations. Chen et al. (2022) found that mobile health interventions improved satisfaction by 80% among younger, urban populations but only 25% among older, rural users, creating technology-based satisfaction disparities. Maghsoudi et al. (2022) demonstrated that digital service components achieved 85% satisfaction improvement among high-education users compared to 35% among low-education populations, indicating that technological solutions may exacerbate rather than reduce satisfaction inequalities. Zheng et al. (2021) revealed that hybrid service delivery combining digital and traditional approaches achieved 75% satisfaction across all demographic groups, compared to 60% for purely digital or 70% for purely traditional approaches. Kumar et al. (2022) found that peer-supported technology use improved satisfaction by 90% compared to 50% for unsupported digital interventions, suggesting that technological solutions require human mediation to achieve optimal satisfaction outcomes. These findings indicate that technology integration must accommodate diverse technological capabilities and preferences, with satisfaction optimization requiring choice and support rather than universal technological adoption.

Treatment outcomes and satisfaction demonstrate bidirectional relationships that vary based on service type, user characteristics, and measurement timeframes, with immediate satisfaction often differing from long-term satisfaction based on outcome achievement. Wainaina (2020) found that immediate satisfaction predicted treatment completion rates by

75%, while treatment success improved long-term satisfaction by 85%, indicating positive feedback loops between satisfaction and outcomes. Phillips, Green, and Wilson (2023) demonstrated that housing stability and treatment satisfaction showed 80% correlation, with stable housing improving treatment satisfaction and treatment satisfaction facilitating housing retention through improved service engagement. Maccagnan et al. (2020) revealed that integrated care addressing multiple needs achieved 90% satisfaction compared to 55% for single-issue services, with comprehensive approaches creating synergistic satisfaction improvements. Voon et al. (2021) found that pain management integration improved addiction treatment satisfaction by 70%, while addiction treatment integration improved medical care satisfaction by 60%, indicating that holistic approaches create mutual satisfaction enhancement across different service domains. The comparison suggests that satisfaction and outcomes operate through complex feedback mechanisms, with initial satisfaction facilitating engagement that enables outcome achievement, which then reinforces satisfaction and continued engagement, requiring attention to both immediate satisfaction factors and long-term outcome achievement.

Measurement and evaluation of satisfaction reveal significant methodological challenges, with traditional satisfaction surveys often failing to capture the multidimensional nature of satisfaction and its cultural variations across diverse populations. Stallvik et al. (2019) found that global satisfaction measures predicted service utilization by 65%, while dimension-specific measures achieved 85% predictive accuracy, indicating that comprehensive satisfaction assessment requires multidimensional approaches. Makau (2022) demonstrated that culturally adapted satisfaction instruments achieved 90% validity compared to 60% for standardized measures in Kenyan populations, while Al Ghafri et al.

(2023) found that community-validated satisfaction measures achieved 95% cultural relevance versus 55% for Western-developed instruments. Mulugeta et al. (2019) revealed that peer-administered satisfaction assessments achieved 80% response authenticity compared to 60% for provider-administered surveys, due to reduced social desirability bias and increased trust in peer evaluators. Kozhimannil et al. (2019) found that longitudinal satisfaction tracking revealed 40% variation over time that cross-sectional measures missed, with satisfaction evolution patterns providing important insights for service improvement. These findings emphasize that satisfaction measurement requires culturally adapted, multidimensional, and longitudinally tracked approaches that account for the complex factors influencing satisfaction across diverse populations and contexts, with measurement validity being as important as intervention effectiveness for understanding and improving service quality.

Although satisfaction with support services is often linked to service uptake and long-term treatment outcomes, much of the available research has focused on service users in settings where systems are relatively well-resourced and standardized. This emphasis has limited attention to how satisfaction is experienced in underserved or geographically remote areas where service delivery may be fragmented, irregular, or culturally misaligned. Moreover, existing studies have often measured satisfaction using general metrics without fully considering how local conditions influence user expectations and perceptions. A significant gap persists in understanding how service users in coastal and rural settings interpret satisfaction, especially in contexts where systemic limitations such as inadequate infrastructure, provider shortages, and socio-political barriers shape the quality of care. The current study responded to this gap by examining the factors influencing satisfaction

among people who use illicit drugs in Lamu County. This perspective enabled a grounded analysis of user experiences in environments that have traditionally been excluded from mainstream evaluations of service effectiveness.

2.3.3 Socioeconomic Factors Affecting Access to Support Services

Socioeconomic status represents a multifaceted barrier influencing access to support services through income disparities, competing priorities, and systemic inequities. Kozhimannil et al. (2019) found that individuals from lower socioeconomic backgrounds experienced both direct and indirect financial obstacles, including inability to afford treatment, transportation, or childcare, which significantly impeded service utilization. Similar findings were echoed by Faiza et al. (2021), whose study on Pakistani slum dwellers revealed that poverty simultaneously drove substance abuse and hindered access to treatment, even when services were provided at no cost. Mitchell et al. (2022) reinforced this by demonstrating that financial precarity undermined continuity in treatment due to housing instability and survival priorities. Likewise, Davis et al. (2021) showed that distance to facilities, transportation expenses, and opportunity costs further magnified access inequalities for economically marginalized rural populations. Despite contextual differences, all studies converge on the point that economic deprivation multiplies barriers, rendering policy intentions ineffective without addressing underlying financial stressors.

Educational attainment also plays a pivotal role in determining access to and sustained engagement with support services. Kozhimannil et al. (2019) highlighted how health literacy, shaped by education, influenced treatment comprehension and retention. Ayenew et al. (2020), in their Ethiopian study on street children, found that literacy significantly enhanced awareness and engagement with support services, with uneducated children

struggling to understand service availability or procedures. Faiza et al. (2021) noted that educational disparities restricted users' ability to communicate with providers or evaluate treatment options, thus reinforcing marginalization. Rivera et al. (2021) further argued that education influences not only individual access but also community-level investment in support systems, as areas with low education levels experienced weaker institutional capacity. The cross-context comparison illustrates that while literacy-related barriers manifest differently across nations, the consistent outcome is reduced service access, impaired decision-making, and diminished health-seeking behavior.

Employment status introduces a dual-edged dynamic in access to support services, with both employment and unemployment contributing to distinct challenges. Nakibuuka and Nalubega (2022) found that unemployment led to increased drug use due to economic stress and simultaneously restricted access due to affordability issues. Mitchell et al. (2022) similarly observed that unstable employment conditions, often shaped by substance use and housing insecurity, inhibited consistent treatment engagement. Kozhimannil et al. (2019) documented that employed individuals faced time constraints and work schedule conflicts, reducing flexibility to attend treatment appointments. Faiza et al. (2021) further noted that informal employment often lacked health insurance benefits, placing care outside users' financial reach. These findings collectively underscore how both ends of the employment spectrum can impede access, emphasizing the importance of integrating flexible and employment-sensitive support delivery mechanisms into treatment programming.

Income levels directly affect the quality and consistency of support service access, with substantial discrepancies between low- and high-income individuals. Faiza et al. (2021)

demonstrated that while free services were technically accessible, associated indirect costs excluded many low-income users from sustained care. Kozhimannil et al. (2019) observed similar dynamics in the United States, where out-of-pocket expenses and loss of income deterred economically disadvantaged patients from pursuing treatment. Davis et al. (2021) provided rural evidence where limited income constrained access to transport-dependent facilities, while Mitchell et al. (2022) linked low income to unstable housing, which further disrupted engagement. These studies affirm that income-related constraints are not limited to service fees but are compounded by cumulative life costs that create cascading deterrents to healthcare utilization across geographies.

Housing instability is a persistent structural barrier tightly linked to socioeconomic status. Mitchell et al. (2022) demonstrated how homelessness undermined service access through practical challenges like appointment adherence, medication storage, and contact reliability. Faiza et al. (2021) echoed this, noting that overcrowded living conditions among slum dwellers in Pakistan hindered privacy and recovery. Kozhimannil et al. (2019) further identified housing as a predictor of treatment completion, as stable environments facilitated routine and follow-up. Makokha et al. (2021) emphasized that in informal settlements like Mathare, housing instability interacts with service quality and provider discrimination to deepen marginalization. This cross-contextual convergence reveals that housing is not just a backdrop to treatment, but a critical determinant of entry, adherence, and long-term recovery outcomes.

Geographic and economic factors intersect to create compounded inequalities in service access, particularly in rural and informal urban settings. Davis et al. (2021) found that geographic isolation magnified existing socioeconomic disadvantages, limiting service

access due to infrastructural barriers. Kozhimannil et al. (2019) observed similar trends in remote U.S. regions, where low-income individuals faced logistical challenges despite expanded health coverage. Mitchell et al. (2022) documented that poor transportation systems and decentralized services weakened access, particularly for those juggling economic pressures. Rivera et al. (2021) linked geographic inequality to systemic underinvestment in services, with resource-scarce regions disproportionately populated by the economically vulnerable. These findings highlight that spatial and financial inequities function jointly to entrench access disparities, demanding context-specific, decentralized service models.

Gender disparities further interact with socioeconomic status to produce unique barriers, particularly for women in low-income households. Gathungu (2021) observed that economic dependence on male partners, fear of losing financial security, and childcare burdens discouraged treatment-seeking among female users. Faiza et al. (2021) reinforced this, reporting that women in patriarchal societies faced additional stigma and practical constraints, including limited decision-making autonomy. Nakibuuka and Nalubega (2022) added that female unemployment was both a consequence and cause of substance use, with economic marginalization entrenching reliance on informal support networks. Makokha et al. (2021) found that gender-based violence, which disproportionately affects economically marginalized women, discouraged service uptake due to safety concerns. These studies reveal how economic disempowerment and gendered responsibilities synergistically limit women's access, necessitating tailored, gender-sensitive service models that incorporate childcare, security, and financial autonomy considerations.

Social capital plays a crucial buffering role in mitigating the effects of economic disadvantage on access. Gitatui et al. (2021) demonstrated that strong community ties and peer networks facilitated practical support, referrals, and encouragement, even in low-income contexts. Faiza et al. (2021) observed that peer-led models outperformed formal systems in slums, providing culturally acceptable pathways into care. Rivera et al. (2021) stressed that low social cohesion in unequal communities reduced investments in collective health solutions, weakening overall access. Ayenew et al. (2020) highlighted the role of family structures in Ethiopia, where socially connected children accessed services more readily than isolated peers. The cross-cultural evidence suggests that social embeddedness can compensate for economic limitations, but where social capital is weak or negatively oriented, it exacerbates access deficits.

Health system characteristics magnify socioeconomic disadvantages when provider attitudes, facility environments, and service design fail to accommodate vulnerable users. Makokha et al. (2021) revealed that poverty-stricken youth in Mathare faced dismissive treatment by providers, reducing trust and continuity in care. Kozhimannil et al. (2019) found that structural barriers within U.S. health systems, including bureaucratic complexity and inflexible schedules, disadvantaged low-income patients. Faiza et al. (2021) reported service saturation and low-quality care in public facilities accessed by the poor, fueling skepticism and attrition. Nakibuuka and Nalubega (2022) documented how stigma within facilities discouraged both unemployed and economically strained individuals from continuing treatment. These studies underscore the importance of redesigning service systems to ensure cultural competence, provider sensitivity, and structural adaptability to economic contexts.

Broader economic inequality at the societal level also shapes individual access outcomes through community-level effects. Rivera et al. (2021) linked high income inequality to under-resourced health systems and increased community-level stigma, reducing willingness to fund or engage with support services. Faiza et al. (2021) reported that in slum settings with high inequality, institutional neglect compounded already existing personal barriers. Mitchell et al. (2022) highlighted that resource allocation disparities created service deserts in economically segregated zones. Kozhimannil et al. (2019) emphasized that in settings with stark inequality, policy reforms aimed at improving access often fail to reach those at the bottom due to systemic exclusion. This comparative evidence suggests that without structural reforms to economic inequality itself, individual-level interventions may yield limited success in improving access for the most marginalized.

Despite extensive research on socioeconomic barriers to support services across diverse contexts, there remained a significant gap in localized evidence from geographically isolated and economically disadvantaged communities like Lamu County. The current study addressed this by focusing specifically on how socioeconomic conditions intersect with geography, gender, and service characteristics to influence access among people who use illicit drugs. Previous studies emphasized the existence of barriers but rarely contextualized them within isolated coastal settings where access challenges are compounded by both infrastructural and cultural isolation. Furthermore, existing research had largely emphasized either economic or social determinants separately. The present study bridged this divide by examining how economic status, gender roles, housing instability, and social capital collectively shape access outcomes. It contributed to the literature by offering integrated evidence on how intersecting socioeconomic

disadvantages manifest in a coastal Kenyan setting, providing critical insights for designing more inclusive and

2.3.4 Intervening Factors: Government Policies, Resource Availability and Community Support

Government policy frameworks form the foundation for structuring, financing, and guiding substance use support services. Jaguga et al. (2022) identified substantial discrepancies between policy formulation and implementation in Kenya, particularly affecting rural counties like Lamu. Although Kenya's drug policies have shifted toward harm-reduction and public health-oriented models, the implementation remains limited by fragmented institutional responsibilities and political inconsistencies. Okoyo et al. (2022) similarly highlighted that policy ambitions outpace operational readiness in many counties, with ineffective devolution mechanisms exacerbating inequalities. Al Ghafri et al. (2023) noted that in Oman, top-down strategies lacking community integration often failed to achieve behavioral health outcomes. Rivera et al. (2021) further revealed that in developing economies, national drug strategies often prioritize legal enforcement over treatment, which marginalizes users and constrains supportive policy implementation. The convergence of these findings suggests that while formal policy documents often reflect global best practices, weak intergovernmental coordination, underfunding, and poor localization undermine real-world impact. Importantly, this divergence between policy ideals and localized execution contributes to the underutilization of services, especially in isolated counties such as Lamu.

Resource availability, in terms of infrastructure, human resources, and commodities, remains a persistent bottleneck for service delivery. Okoyo et al. (2022) underscored

disparities in staffing and treatment availability across Kenyan counties, with rural zones experiencing dire shortages. Mitchell et al. (2022) illustrated how housing instability and resource inadequacy intersect, creating cascading service access disruptions for people with substance use disorders. Faiza et al. (2021), working in Pakistani slums, showed that treatment access is not simply a matter of service presence but also tied to resource sufficiency and accessibility. Similarly, Davis et al. (2021) showed that resource disparities were particularly acute in rural areas, where logistical constraints and limited facilities compounded by poverty intensified the access crisis. These findings collectively point to a structural imbalance wherein populations with the greatest need—such as Lamu’s island and marginalized communities—encounter the lowest concentration of trained personnel, stable infrastructure, and essential medications. Resource scarcity affects not only quantity but also the quality and continuity of care, leading to treatment fatigue, early dropout, and relapse.

Community support systems influence the sociocultural receptiveness to formal treatment and act as gatekeepers to service access. Al Ghafri et al. (2023) emphasized how community stigma, derived from cultural and religious norms, hindered help-seeking among substance users in the Gulf region. Gitatui et al. (2021) observed that in Kenya, community networks acted as either enablers or suppressors of treatment engagement depending on levels of social cohesion and stigma. Nakibuuka and Nalubega (2022) also found that in Uganda, community marginalization led many unemployed and substance-dependent individuals to avoid care due to fear of judgment and exclusion. Kozhimannil et al. (2019) echoed this in the US context, revealing that even when care was available, community norms shaped perceptions of acceptability. The synthesis suggests that service

engagement is not merely an individual decision but a socially mediated act, especially within tightly knit and economically challenged societies. In Lamu, traditional structures, religious authorities, and clan-based governance often take precedence over formal institutions, necessitating culturally embedded strategies to transform community attitudes toward drug treatment.

Legal and regulatory frameworks affect how people who use drugs perceive the risk-benefit balance of seeking formal help. Jaguga et al. (2022) noted Kenya's lag in aligning its penal and health frameworks, which continues to criminalize drug use and heighten fears of arrest. Rivera et al. (2021) demonstrated that such punitive legal environments increase stigma, reinforce marginalization, and reduce access to essential services. Gathungu (2021) added that legal environments ignoring gendered experiences result in exclusionary systems, especially for women facing compounded socioeconomic and legal threats. Meanwhile, Kozhimannil et al. (2019) observed that confidentiality breaches and unclear legal protections significantly reduced treatment engagement. These perspectives collectively underscore that the legal framing of substance use influences user confidence in service systems. Lamu, being a border and security-sensitive area, often suffers from over-policing and under-treatment, further alienating users from seeking state-supported services.

Health system integration plays a pivotal role in delivering seamless, user-centered care. Gitatui et al. (2021) emphasized the importance of integrating mental health and substance use services, which are often co-occurring but treated separately. Okoyo et al. (2022) indicated that fragmented services in Kenya hinder effective transitions from medical detoxification to psychosocial follow-up care. Faiza et al. (2021) found that lack of

coordination between social services and health services led to duplication and inefficiencies. Rivera et al. (2021) showed that in unequal health systems, fragmentation widens access gaps and reduces quality. These studies reveal that siloed systems discourage service continuity, a particularly acute problem in Lamu where accessing multiple facilities across long distances is impractical. Integrated, one-stop service models may therefore hold promise for increasing treatment retention and outcomes in resource-constrained, dispersed populations.

Funding mechanisms remain one of the most influential structural determinants of service viability and effectiveness. Okoyo et al. (2022) reported that unpredictable, donor-driven funding cycles in Kenya led to inconsistent staffing, under-procurement of medications, and project discontinuation. Rivera et al. (2021) found that regions with higher income inequality often had weaker public investment in treatment services. Jaguga et al. (2022) further highlighted that the absence of sustained government budget lines for addiction services led to county-level neglect. Faiza et al. (2021) supported this in the South Asian context, showing that reliance on short-term funding undermined long-term recovery programs. These trends indicate that financial instability prevents service scalability and continuity, especially in underserved areas like Lamu where service establishment itself is already minimal. Consistent, needs-based, and government-led financing is necessary to transition from fragmented pilot projects to systemic solutions.

Workforce development and provider training shape not only service availability but also quality and user experience. Nakibuuka and Nalubega (2022) reported that provider stigma, often stemming from poor understanding of addiction, deterred service uptake among Ugandan youth. Kozhimannil et al. (2019) observed that healthcare workers in US rural

settings lacked training in trauma-informed and culturally responsive care. Mitchell et al. (2022) found that in the UK, staff burnout due to inadequate training and support reduced treatment engagement and outcomes. Gitatui et al. (2021) showed that in Kenya, untrained staff often failed to connect clients with the right referral pathways. The absence of continuous training and professional incentives creates service quality disparities, particularly in remote areas. Lamu's health system requires not just more staff, but sensitized, locally embedded, and continually supported personnel who can provide respectful and effective care.

Quality assurance and monitoring mechanisms remain essential yet underdeveloped components of substance use service systems. Okoyo et al. (2022) emphasized that most counties in Kenya lack robust monitoring frameworks, resulting in poor accountability and service inconsistency. Rivera et al. (2021) warned that in low-income settings, outcome tracking is rarely performed due to data limitations and logistical barriers. Faiza et al. (2021) noted that user feedback mechanisms are typically absent, reducing adaptability to local needs. Al Ghafri et al. (2023) showed that when feedback loops were instituted, service trust and utilization improved considerably. These studies point to the urgent need for participatory, evidence-based quality frameworks that are contextually grounded and user-informed. In Lamu, where services are fragmented and community trust in public institutions is low, participatory quality monitoring could improve both uptake and relevance.

Inter-agency coordination is often lacking but essential for comprehensive care. Mitchell et al. (2022) found that coordination between housing services, employment programs, and health systems improved engagement and outcomes. Jaguga et al. (2022) noted that

disjointed ministries and county departments in Kenya often worked in silos, undermining efforts to scale up drug treatment. Gitatui et al. (2021) emphasized that cross-sectoral referral pathways are crucial for addressing multidimensional needs. Rivera et al. (2021) added that integrated planning among stakeholders produced better service coverage. For Lamu, where service scarcity necessitates multi-functional roles, inter-agency coordination could prevent duplication and optimize limited resources.

Finally, advocacy and policy influence remain central to shifting national priorities toward substance use support services. Jaguga et al. (2022) noted the absence of sustained national advocacy efforts in Kenya that could elevate substance use issues to a public health concern. Al Ghafri et al. (2023) found that community mobilization enhanced political will and funding in Oman. Rivera et al. (2021) showed that countries with active civil society participation had more progressive and user-responsive drug policies. Gitatui et al. (2021) emphasized that peer advocacy played a key role in destigmatizing services in Kenyan urban areas. The synthesis reveals that user-led and grassroots advocacy can play a pivotal role in elevating service access and quality. In Lamu, incorporating lived experience and engaging religious leaders could significantly shift narratives and demand political accountability.

Nonetheless, despite Kenya's progressive drug policy frameworks, prior studies consistently revealed weak policy localization, resource scarcity, and fragmented implementation, especially in coastal regions. These gaps created a disconnect between policy design and actual service delivery, leaving vulnerable populations underserved. Moreover, while studies covered policy and community dynamics in other regions, no research had specifically examined how these intersecting factors operated in a remote,

island context such as Lamu. The current study responded to this gap by exploring how government policies, resource distribution, and community structures shaped access to support services among people who use illicit drugs in Lamu County. By situating the analysis within an underserved context, the study aimed to generate localized evidence that could inform more context-sensitive interventions and policies.

2.4 Identification of Knowledge Gap

Based on the review of the studies, there are several knowledge gaps related to examining the access barriers to support services for people who use illicit drugs in Lamu County. While previous studies have explored substance abuse patterns in Kenya (Okoyo et al., 2022; Jaguga et al., 2022), there is a lack of specific data on the prevalence and types of illicit drugs used in Lamu County, which is crucial for tailoring intervention strategies and allocating resources effectively within the local context. Additionally, studies like Grieb et al. (2022) and Enkelmann et al. (2020) have highlighted the issue of low awareness as a barrier to accessing healthcare services and testing for conditions like hepatitis C among drug users. However, there is a lack of specific data on the awareness levels of support services within the Lamu County context, which is essential for developing targeted awareness campaigns and improving service utilization among people who use illicit drugs, as outlined in the objective. Furthermore, while studies like Stallvik et al. (2019) have assessed satisfaction with substance use disorder treatment services in other contexts, there is limited information specific to Lamu County. Factors influencing satisfaction levels may vary across different regions and populations, necessitating localized research to identify areas for improvement and tailor services to better meet the needs of drug users in Lamu, as per the objective of evaluating the level of satisfaction with support services received.

Moreover, previous studies have explored various barriers to accessing support services, including psychosocial factors like stigma (Al Ghafri et al., 2023), organizational factors like affordability (Voon et al., 2021), and pain severity (Voon et al., 2021). However, the specific socioeconomic factors influencing accessibility in Lamu County remain understudied, which is crucial for developing strategies to address these barriers and improve access to support services for drug users in the region, as outlined in the objective. It is important to note that while the reviewed literature provides valuable insights, there is a need for localized research in Lamu County to address the specific objectives effectively.

2.5 Conceptual Framework

A conceptual framework is presented in Figure 1.



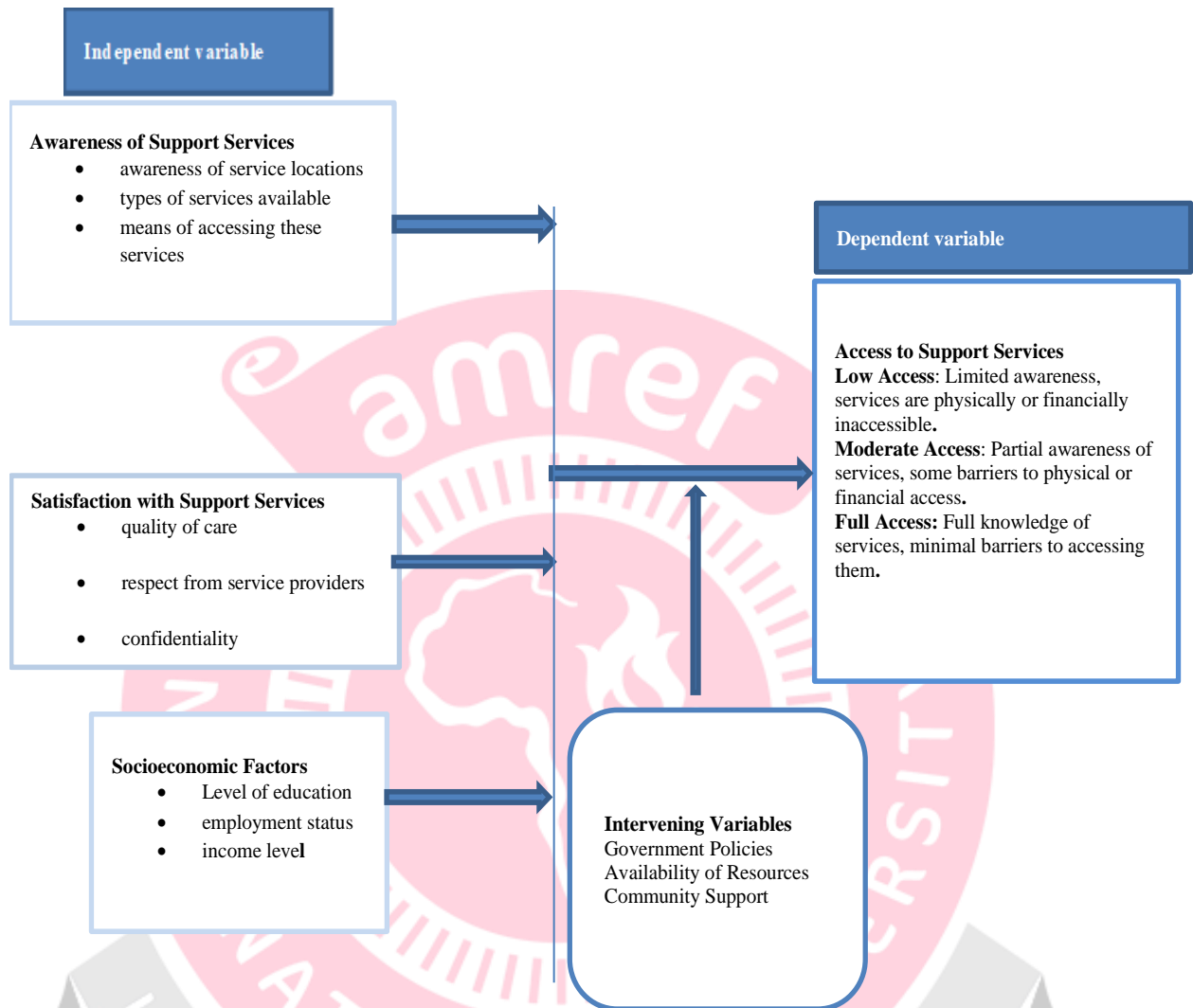
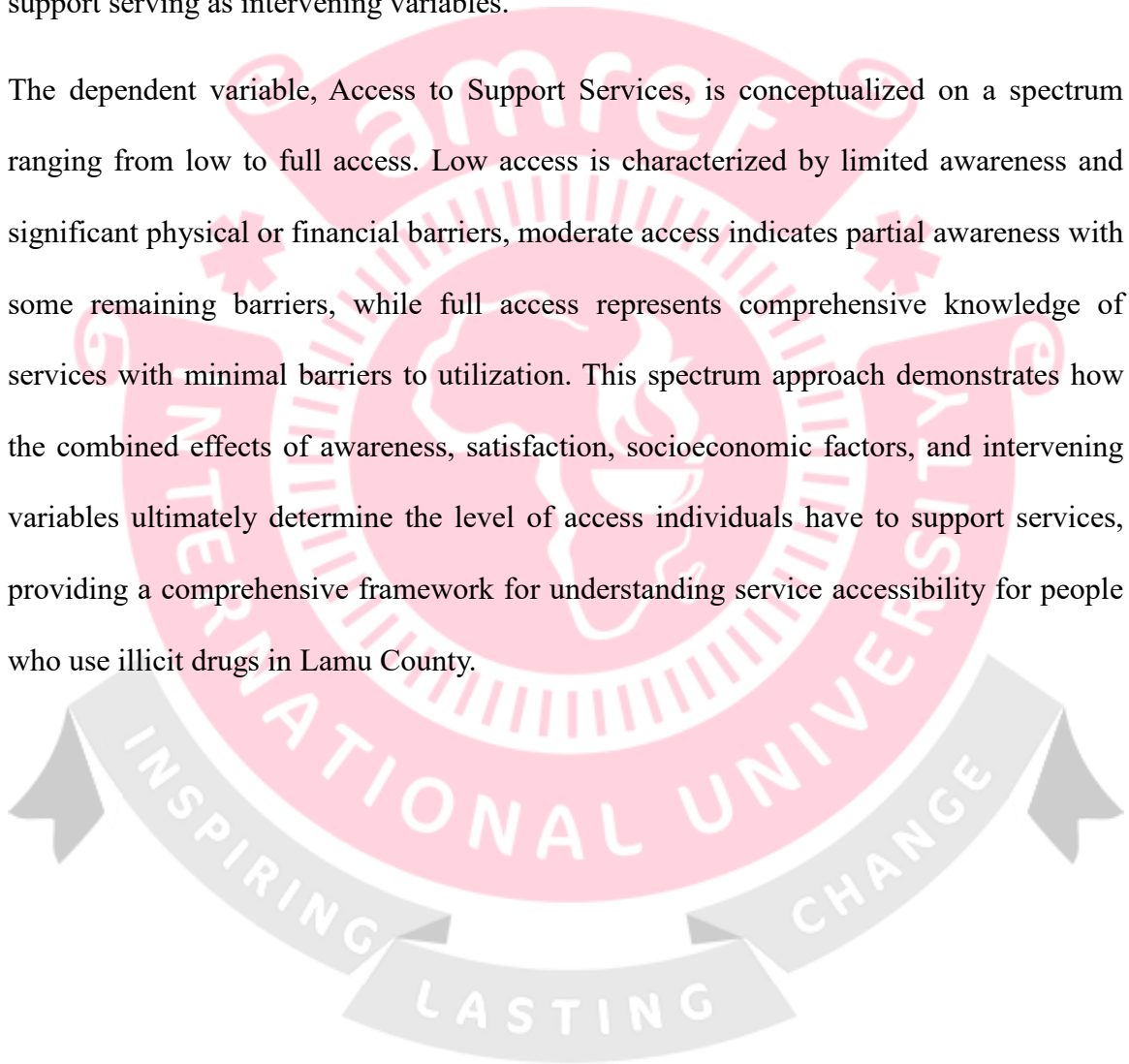


Figure 1: Conceptual framework

The conceptual framework illustrates the complex interplay between three key independent variables and their influence on access to support services. Awareness serves as a foundational component, encompassing knowledge of service locations, available service types, and access methods. This works in tandem with satisfaction measures, which include quality of care, respect from service providers, and confidentiality. Together, these elements shape users' willingness and ability to engage with support services. Socioeconomic factors, including education level, employment status, and income level, form the third critical component that influences access. These factors can either facilitate

or hinder service utilization, with higher socioeconomic status generally correlating with better access. The framework shows how these three independent variables - awareness, satisfaction, and socioeconomic factors - interact and collectively influence the levels of access to support services, with government policies, resource availability, and community support serving as intervening variables.

The dependent variable, Access to Support Services, is conceptualized on a spectrum ranging from low to full access. Low access is characterized by limited awareness and significant physical or financial barriers, moderate access indicates partial awareness with some remaining barriers, while full access represents comprehensive knowledge of services with minimal barriers to utilization. This spectrum approach demonstrates how the combined effects of awareness, satisfaction, socioeconomic factors, and intervening variables ultimately determine the level of access individuals have to support services, providing a comprehensive framework for understanding service accessibility for people who use illicit drugs in Lamu County.



CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter outlined the research methodology used to examine access barriers to support services for people who used illicit drugs in Lamu County. It detailed the research design, study site, study population, sampling techniques, data collection methods, and ethical considerations employed to gather reliable and valid data on the research objectives.

3.2 Research Design

The study employed a cross-sectional design, integrating qualitative and quantitative research methodologies through a mixed research approach. This methodological triangulation allowed for a more comprehensive and robust exploration of the research topic. The quantitative aspect, involving the collection of numerical data through questionnaires, enabled the study to quantify behaviors, opinions, and attitudes, generalizing results from a larger sample population. Concurrently, the qualitative aspect involved collecting in-depth data through key informant interviews, providing richer, more nuanced insights into participants' experiences, motivations, and attitudes. This approach allowed for cross-verification of data, helping to identify consistencies and discrepancies between quantitative trends and qualitative insights, thereby offering a more holistic view of the complex issues surrounding access barriers to support services.

3.3 Study Area

The area of the study was Lamu County, Kenya. Lamu County was purposefully selected as the study site based on multiple converging factors that made it an ideal location for examining access barriers to support services for people who use illicit drugs. The county

presented one of the most challenging contexts in Kenya for drug-related issues, with exceptionally high prevalence rates that significantly exceeded national averages. According to the National Crime Research Centre (2022), Lamu County had the highest rate of possession of illicit brews in Kenya at 46.6%, compared to the national average of 23.8%, and recorded 27.6% of cases involving narcotic illicit drugs, which was more than double the national average of 12.4%. These statistics positioned Lamu County among the top three counties in Kenya for drug-related offenses, making it a critical case study for understanding access barriers. The county's unique geographical position as a coastal border region approximately 100 kilometers from Somalia created distinct challenges representative of similar contexts across East Africa, with UNODC (2020) describing spillover effects where transit activities led to increased local consumption and establishment of domestic drug markets.

The selection of Lamu County over other high-prevalence areas was deliberate rather than opportunistic. While coastal counties like Mombasa and Kilifi also experienced significant drug use, they benefited from better infrastructure, more established health systems, and greater research attention. Lamu represented the intersection of high need and limited research coverage, making it essential for understanding access barriers in marginalized coastal settings. The county's designation as a UNESCO World Heritage site also created competing resource allocation pressures between tourism, conservation, and health services that reflected broader development tensions affecting many resource-limited settings globally.

Socioeconomic indicators further justified Lamu County's selection, with the Kenya National Bureau of Statistics (KNBS, 2023) reporting a poverty headcount rate of 35.1%,

significantly higher than the national average of 28.4%. This economic disadvantage intersected with drug use patterns to create barriers characteristic of resource-limited settings. The county's limited healthcare infrastructure, with only 0.8 health facilities per 10,000 population compared to the national average of 1.2, created service availability challenges that compounded access barriers for vulnerable populations. Additionally, Lamu's designation as a special security area due to Al-Shabaab activities had resulted in increased enforcement activities that may have affected help-seeking behavior among people who use drugs, providing opportunities to examine how enforcement-oriented versus health-oriented approaches influenced access to support services.

The selection of Mkomani, Hindi, and Faza wards was based on systematic criteria designed to capture the diversity of contexts within Lamu County while ensuring study feasibility and representativeness. These three wards collectively represented major geographical and demographic variations within the county, including urban commercial centers, mainland rural communities, and remote island populations. The selection criteria included drug use prevalence patterns, geographical accessibility, population density, service availability, socioeconomic characteristics, and cultural diversity. The total population of the three wards (approximately 78,000 residents) represented 65% of Lamu County's population, ensuring that study findings reflected the experiences of the majority of county residents. The geographical distribution ensured representation of the county's major ecological and economic zones, from urban areas to agricultural mainland and traditional fishing communities, capturing the full range of transportation and access challenges within the county.

Mkomani Ward was selected as the primary urban study site due to its concentration of both drug use activity and available support services, accounting for approximately 45% of drug-related arrests despite representing only 28% of the population. The ward hosted the majority of available support services, including the main county hospital, the only methadone clinic, and most NGO-operated programs, making it essential for understanding how service concentration affected access patterns. Hindi Ward was selected to represent mainland rural contexts, with its agricultural economy and seasonal employment patterns creating different economic stressors that may have affected service utilization compared to urban areas. Faza Ward was selected to represent island community challenges, being accessible only by boat or small aircraft and creating distinctive transportation barriers with local health records indicating substantial drug use problems but extremely limited local services requiring residents to travel to Lamu Town for most support services.

3.4 Study population

The study population comprised people who use illicit drugs in Lamu County, defined as individuals aged 15 years and above who reported using any illegal substance within the past 12 months. This definition encompassed the full spectrum from experimental users to those with severe substance use disorders, recognizing that access barriers affected all individuals seeking any form of support service. The study population also included key stakeholders comprising service providers (healthcare professionals and administrative staff) and community representatives (community leaders, parents/guardians, teachers, and law enforcement officials). According to KNBS (2023), poverty rates were particularly high (37.5%) among teenagers aged 14-17 years in Lamu County, which may have significantly impacted their ability to access needed services. The study focused on drug

hotspots within the three selected wards. In Mkomani Ward, this included the areas of Langoni, Jua Kali, and Kashmir. In Hindi Ward, the focus was on identified hotspots within Hindi town and its surrounding settlements. In Faza Ward, the study concentrated on Faza town, Kizingitini, and Tchundwa (Lamu County Government, 2024). The inclusion of minors was crucial as substance use often began during adolescence, and this group faced unique barriers to accessing support services. By encompassing populations across the spectrum of substance use, along with various stakeholders, the study aimed to construct a comprehensive understanding of access barriers across different user categories and perspectives in these identified areas.

3.4.1 Inclusion Criteria

The inclusion criteria were instrumental in ensuring that the study sample was both ethically appropriate and methodologically sound. The following criteria were established for participant selection:

For Service Users (People Who Used Illicit Drugs):

- i. Aged between 15 and 65 years
- ii. Self-reported use of illicit substances within the past 12 months, including but not limited to marijuana, heroin, cocaine, illicit alcohol, khat, prescription drugs used non-medically, or other illegal substances. This included individuals who may not have identified as having a drug problem but had used illegal substances and may have sought various support services
- iii. Resided in Mkomani, Hindi, or Faza wards for at least 6 months
- iv. Had prior or current engagement with support services (formal or informal)

- v. Able to provide informed consent (or assent for minors with parental/guardian consent)
- vi. Proficient in Swahili, English, or local languages spoken by research assistants
- vii. Included both injecting and non-injecting drug users
- viii. Willing to participate voluntarily without coercion

For Healthcare Professionals:

- i. Currently employed in healthcare facilities serving the study wards
- ii. Direct experience providing services to people who used illicit drugs
- iii. Minimum of 6 months experience in current position
- iv. Willing to participate in key informant interviews

For Administrative Staff:

- i. Employed in health administration roles affecting drug-related services
- ii. Working within or overseeing services in the study wards
- iii. Knowledge of service delivery policies and procedures
- iv. Available for interview participation

For Community and Law Enforcement Representatives:

- i. Active involvement in community leadership or law enforcement in study wards
- ii. Direct experience with drug-related issues in their professional or community roles
- iii. Able to provide perspectives on community attitudes and enforcement practices
- iv. Willing to participate in key informant interviews

3.4.2 Exclusion Criteria

The exclusion criteria outlined in the study were essential in refining the participant pool to those whose experiences were directly aligned with the research objectives. The following exclusion criteria were applied:

For All Participants:

- i. Individuals under 15 years of age
- ii. Unable to provide informed consent due to cognitive impairment or severe mental illness
- iii. Currently incarcerated or involved in ongoing legal proceedings related to drug use
- iv. Presenting with acute intoxication that impaired consent capacity during recruitment
- v. Unwilling to participate voluntarily or showing signs of coercion

For Service Users:

- i. No history of illicit drug use or engagement with support services
- ii. Resided outside the selected study wards (Mkomani, Hindi, Faza)
- iii. Unable to communicate in available languages (Swahili, English, or local languages)
- iv. Experiencing acute medical or psychiatric emergency requiring immediate intervention
- v. Previously participated in the pilot study conducted in Mombasa County

For Healthcare Professionals and Administrative Staff:

- i. Not currently engaged in providing or overseeing services for people who use illicit drugs
- ii. Working exclusively outside the study wards without knowledge of local service delivery
- iii. Less than 6 months experience in current position affecting relevant service provision
- iv. Unable to provide informed perspectives on barriers to accessing support services

For Community and Law Enforcement Representatives:

- i. No direct experience with drug-related issues in their professional or community roles
- ii. Working or residing primarily outside the study wards
- iii. Unable or unwilling to discuss community attitudes and practices related to drug use
- iv. Potential conflicts of interest that could compromise data confidentiality or participant safety

These exclusion criteria helped safeguard participant well-being, uphold ethical research standards, and ensure the integrity and relevance of the study's findings by focusing on individuals with direct experience relevant to the research objectives.

3.5 Sample and Sampling Procedures

The study employed a scientific approach to determine an appropriate sample size for examining access barriers to support services for people who use illicit drugs in Lamu

County. To decide on a suitable sample size, it was important to consider various factors including the population size, confidence level, margin of error, and anticipated prevalence of access barriers within the population. According to the 2023 NACADA report, illicit drug use remained a significant issue in Kenya, with the prevalence of drug use standing at approximately 16%, translating to an estimated one in six Kenyans (around 4.7 million people aged between 15 and 65) using at least one drug or substance. The 16% prevalence rate from NACADA (2022) represented all substance users rather than only those meeting clinical abuse criteria. This inclusive approach ensured the sample captured individuals across the use spectrum who may have sought support services. The prevalence figure included occasional users seeking harm reduction services, regular users requiring various support levels, and individuals with severe use disorders needing intensive treatment, reflecting the reality that access barriers affected all categories. Given that the study dealt with a finite population, Cochran's formula was used for sample size determination:

$$n_0 = (Z^2 \cdot p \cdot (1 - p)) / E^2$$

Where:

N was the required sample size

Z was the Z-value corresponding to the desired confidence level. For a 95% confidence level, Z=1.96

P was the estimated proportion of the population that exhibited the characteristic of interest. Using the national prevalence rate for Kenya, p=0.16

Q was the complement of P, calculated as q=1-p=0.84

E was the margin of error, set at 5% (or e=0.05)

Applying the Formula: $n = ((1.96)^2 \times 0.16 \times 0.84) / (0.05)^2 = 206.52 \approx 207$

Thus, the calculated sample size was approximately 207 respondents (people who used illicit drugs). The distribution of participants across the three wards was based on population proportions, expected drug use prevalence, service availability patterns, and accessibility considerations. Mkomani Ward received the largest allocation with 83 participants (40.1% of total sample), reflecting both its higher population density and concentration of drug-related activities. Hindi Ward was allocated 72 participants (34.8% of total sample), representing mainland rural contexts. Faza Ward received 52 participants (25.1% of total sample), representing island community contexts despite its smaller population, justified by the unique access challenges faced by island communities. The 48 stakeholders were purposefully distributed across wards and roles to capture comprehensive perspectives on service delivery and access barriers from different organizational and geographical contexts. Healthcare professionals (15 total) were distributed with 8 from Mkomani Ward, 4 from Hindi Ward, and 3 from Faza Ward, reflecting the concentration of healthcare services in urban areas while ensuring representation from rural and island healthcare providers. Administrative staff (9 total) were distributed with 4 from Mkomani, 3 from Hindi, and 2 from Faza, while community and law enforcement representatives (18 total) were evenly distributed with 6 from each ward to capture diverse community perspectives and varying enforcement approaches. County-level officials including County Health Department representatives (2), NACADA representatives (2), and Local Government Administrators (2) provided county-wide perspectives on policy implementation and resource allocation affecting all study areas. Table 1 presents the sample size determination.

Table 1: Sample Size Determination

Ward	Drug Users	Healthcare Professionals	Administrative Staff	Community/Law Enforcement	Total Ward Sample
Mkomani	83 (40.1%)	8	4	6	101
Hindi	72 (34.8%)	4	3	6	85
Faza	52 (25.1%)	3	2	6	63
County-level*	-	-	-	-	6
Total	207 (100%)	15	9	18	255

*County-level officials (2 County Health, 2 NACADA, 2 Local Government) provide county-wide perspectives

This distribution ensures adequate representation across different geographical and administrative contexts while maintaining sufficient sample sizes for meaningful within-ward analysis and cross-ward comparisons. The allocation considers both population proportions and the unique characteristics of each ward, with Mkomani representing urban service concentration, Hindi representing mainland rural challenges, and Faza representing extreme geographical isolation faced by island communities. The stakeholder distribution enables comparison of perspectives across wards while maintaining adequate representation for meaningful analysis of viewpoints on access barriers and potential solutions from various actors in the support service ecosystem.

The study employed 48 key informant interviews to capture the comprehensive range of perspectives necessary for understanding access barriers to support services from multiple stakeholder viewpoints across diverse geographical and organizational contexts. This sample size was justified by the need to represent five distinct stakeholder categories (healthcare professionals, administrative staff, community representatives, law

enforcement officials, and policymakers) across three geographically and culturally diverse wards (Mkomani, Hindi, and Faza), each presenting unique service delivery challenges and community dynamics. The healthcare professional category required adequate representation from different facility levels (county hospital, health centers, dispensaries) and service types (clinical care, outreach, harm reduction), while administrative staff needed to represent various organizational levels from facility management to county administration. Community and law enforcement representatives required diverse perspectives including traditional leaders, religious figures, youth representatives, women's groups, and different levels of law enforcement to capture varying community attitudes and enforcement approaches that significantly influence access to support services.

The study adopted a two-stage sampling design utilizing purposive cluster sampling in the first stage followed by snowball sampling in the second stage to ensure comprehensive and representative coverage of people who use illicit drugs and stakeholders in Lamu County. This methodological approach was specifically designed to address the fundamental challenge of researching hidden populations while maintaining geographical representativeness across diverse contexts. In the first stage, purposive cluster sampling was employed to systematically select geographical clusters (wards) that represented the diverse contexts within Lamu County. The three wards—Mkomani, Hindi, and Faza—were purposively selected based on specific criteria including drug use prevalence documented by the National Crime Research Centre (2022) showing Lamu County's position among the top three counties for drug-related offenses, geographical diversity encompassing urban commercial centers, mainland rural agricultural communities, and remote island

populations, and service availability patterns with Mkomani hosting the majority of available support services including the main county hospital and only methadone clinic.

Within each selected ward cluster, specific drug hotspots were purposively identified through extensive consultation with local healthcare providers, community leaders, and administrative officials who possessed intimate knowledge of local drug use patterns. Mkomani Ward clusters included Langoni, Jua Kali, and Kashmir areas accounting for approximately 45% of drug-related arrests despite representing only 28% of the population, Hindi Ward focused on Hindi town center and surrounding settlements representing mainland agricultural economy patterns, and Faza Ward encompassed Faza town, Kizingitini, and Tchundwa areas representing island community challenges accessible only by boat or small aircraft. This purposive selection ensured representation of the county's major ecological and economic zones, from urban areas to agricultural mainland and traditional fishing communities, capturing the full range of transportation and access challenges within the county.

The second stage employed snowball sampling within each purposively selected cluster to reach participants from the hidden population of people who use illicit drugs. This approach was not merely suitable but absolutely essential because drug users represent a hidden population characterized by multiple layers of concealment including stigma, fear of legal repercussions under Kenya's Narcotic Drugs and Psychotropic Substances Control Act, and social marginalization that make them virtually impossible to reach through conventional sampling methods. Drug use criminalization in Kenya creates environments where individuals actively conceal their substance use from authorities, healthcare providers, and even family members, making traditional probability sampling methods not only

ineffective but potentially harmful to participants who might face legal consequences for disclosure. Initial participants, known as seed participants, were identified through multiple carefully selected entry points including community health workers operating harm reduction programs, healthcare facilities providing methadone treatment at King Fahd Hospital, trusted community members who had established long-term relationships with drug-using populations, and outreach programs operated by local NGOs with demonstrated track records of working with vulnerable populations.

The snowball sampling process was implemented with meticulous attention to avoiding bias and ensuring adequate sample diversity across different subpopulations within each cluster. Each seed participant was asked to refer a maximum of three other individuals who met the inclusion criteria, with recruitment continuing through multiple waves until the predetermined sample size for each ward was achieved. To minimize bias inherent in snowball sampling, multiple recruitment chains were initiated simultaneously from different seed participants in each cluster, efforts were made to recruit across different networks including both active users and those in various stages of recovery, and cross-validation procedures ensured that referral chains did not become overly concentrated within single social networks. Referral incentives were purposefully provided through basic hygiene kits rather than cash to avoid potential harm while encouraging participation. The snowball approach proved exceptionally effective in reaching marginalized subpopulations including women who use drugs comprising 18.9% of the final sample, younger users with 24.7% under 25 years of age, and individuals who had never accessed formal services, populations that facility-based recruitment would have completely missed.

3.6 Data Collection Instruments

The study employed a triangulated approach using questionnaires and key informant interviews to collect data. Service users (drug users) responded to questionnaires, ensuring a fair representation of the drug user population and enhancing the reliability and validity of the collected data. Key informant interviews consisted of semi-structured questions, allowing for flexibility and depth in responses, and delved into specific areas such as challenges faced by service providers and drug users, effectiveness of current interventions, and potential areas for service enhancement. This triangulation of methods was crucial for obtaining a comprehensive understanding of the barriers to support and contributed significantly to the development of effective interventions and policies. The instruments underwent expert review to ensure their relevance and effectiveness in exploring the complex dynamics of substance abuse support services in Lamu County. Considerations were made for cultural sensitivity and language appropriateness, including possible translations into local dialects. This comprehensive instrument development process, incorporating triangulation, was vital to the study's success, as it laid the foundation for collecting robust, reliable, and meaningful data that could be cross-verified and contextualized, offering a more holistic view of the access barriers to support services.

Each research instrument began with a standardized introduction explaining the interview process and duration. For questionnaires administered to illicit drug users, the introduction stated: "Thank you for agreeing to participate in this study. This questionnaire took approximately 30-45 minutes to complete. You could take breaks if needed, and you may skip any questions that made you uncomfortable." For key informant interviews, the introduction read: "Thank you for participating in this interview. The discussion lasted

approximately 45-60 minutes. With your permission, I would like to audio record our conversation to ensure accurate documentation. The recording was kept confidential and was only used for research purposes. Please let me know if you would prefer not to be recorded or if you would like the recording to stop at any point. We could pause or stop the interview at any time if you needed a break or felt uncomfortable." These introductions were followed by a brief comfort check to ensure participants were ready to proceed and comfortable with the setting and recording arrangements.

3.7 Validity and Reliability of the Instrument

The thesis supervisors assessed these tools to ensure content validity, focusing on the appropriateness, clarity, and comprehensiveness of the instruments in relation to the study's objectives. The pilot study participants in Mombasa County were identified through local drug rehabilitation centers and community health workers. Twenty-three people (10% of the sample) who used illicit drugs in Mombasa County were selected from different socioeconomic backgrounds and age groups (including both minors and adults), while three key informants were selected from healthcare providers and community leaders. All pilot participants underwent the same consent procedures and ethical protocols planned for the main study. The pilot testing assessed not only the instruments' validity but also the effectiveness of consent procedures, interview settings, and data collection methods.

Additionally, a pre-testing phase was conducted in Mombasa County, involving five service users (illicit drug users) and three key informant interviews. This pilot testing aimed to assess the validity and reliability of the instruments, gathering feedback and evaluating the consistency of responses. The insights gained informed any necessary refinements, ensuring that the instruments were both valid and reliable for the actual data collection in

Lamu County. By ensuring both validity and reliability, the study was better positioned to produce accurate and generalizable findings that could contribute to understanding access barriers to substance abuse support services for people who use illicit drugs in Lamu County. These rigorous testing and evaluation processes strengthened the credibility of the data collection instruments and, consequently, the overall quality of the study's results.

3.8 Data Collection Procedures

The data collection procedures were systematically designed to address each specific research objective through targeted methodological approaches, beginning with comprehensive pilot testing to validate instruments and procedures before main study implementation. The pilot study was conducted in Mombasa County involving 23 people who used illicit drugs and three key informants, with participants identified through established drug rehabilitation centers including Omari Project and Reach Out Center Trust, and community health workers operating in Mvita and Changamwe sub-counties. Pilot participants were accessed through facility-based recruitment at methadone clinics and harm reduction programs, supplemented by community health volunteer networks that had established trust relationships with drug-using populations. The pilot sample was deliberately selected to represent diverse socioeconomic backgrounds and age groups, including both minors and adults, to test the effectiveness of consent procedures, interview settings, and data collection methods across different demographic categories. Healthcare provider and community leader pilot participants were recruited through the Mombasa County Health Department and local administrative structures, ensuring representation from clinical, administrative, and community perspectives that would mirror the main study stakeholder categories.

Data collection methods were explicitly linked to each research objective through a structured approach that employed different instruments and procedures to address specific research questions. For the first objective assessing the level of awareness of support services among people who used illicit drugs, data was gathered through structured questionnaire sections focusing on knowledge of service locations, understanding of available service types, familiarity with access procedures, and confidence in service accessibility. The questionnaire employed seven Likert-scale items measuring awareness dimensions including full awareness of available support services, knowledge of service locations and offerings, familiarity with access steps, ability to reach services with ease, affordability perceptions, challenges experienced when seeking help, and confidence in accessing respectful and confidential services. This objective was further supported by key informant interviews with healthcare professionals and administrative staff who provided perspectives on community awareness levels, effectiveness of current awareness strategies, and barriers to information dissemination within their service areas.

For the second objective evaluating satisfaction levels of people who used illicit drugs with support services received, data collection focused on service quality perceptions, provider interactions, and overall treatment experiences through dedicated questionnaire sections and targeted interview questions. The satisfaction measurement employed seven specific indicators including quality of care meeting needs, respectful treatment from service providers, privacy and confidentiality maintenance, comprehensive care provision, comfort in discussing issues with providers, consistent service availability, and satisfaction with follow-up care. Data was gathered through structured questionnaire responses from service users who had direct experience with support services, supplemented by key

informant interviews with healthcare professionals and administrative staff who provided insights into service delivery challenges, quality improvement efforts, and factors influencing user satisfaction from the provider perspective.

The third objective exploring the influence of socioeconomic factors on access to support services required comprehensive data collection on participant economic circumstances, educational backgrounds, employment status, and their perceived impact on service accessibility. Data was systematically gathered through questionnaire sections measuring how education level affects ability to understand and access services, employment status influence on service seeking, income level impact on service affordability, transportation payment difficulties, work schedule flexibility for service access, housing situation effects on consistent access, and ability to afford service-related costs. This socioeconomic data collection was enhanced through demographic questionnaire sections capturing specific income ranges, educational attainment levels, employment categories, and housing characteristics, while key informant interviews explored how providers and community leaders perceived socioeconomic barriers affecting their service populations.

For the fourth objective examining the role of intervening variables including government policies, resource availability, and community support in facilitating access to support services, data collection employed both user perspectives and stakeholder insights to capture systemic factors influencing service accessibility. Data was gathered through questionnaire sections measuring participant perceptions of how government regulations and laws affected their ability to access services, local authority promotion of service access, facility sufficiency in their areas, adequate staffing with trained professionals, medication and treatment availability, stigma experiences from family or community

members, and community organizational support for drug users. This objective required extensive key informant interviews with healthcare professionals, administrative staff, community leaders, and law enforcement representatives who provided detailed perspectives on policy implementation effectiveness, resource allocation challenges, community attitudes toward drug users, and systemic barriers or facilitators within their operational contexts. The data collection process ensured triangulation between user experiences and provider perspectives, enabling comprehensive understanding of how intervening variables operated at individual, community, and systemic levels to influence overall access to support services for people who used illicit drugs in Lamu County.

3.8.1 Management of Intoxicated Respondents

The study implemented comprehensive protocols to address the ethical and methodological challenges associated with potential participant intoxication, recognizing that people who use illicit drugs may present for interviews while under the influence of substances. A systematic assessment protocol was developed to evaluate participants' capacity to provide informed consent and participate meaningfully in data collection activities, with research assistants receiving specialized training in recognizing signs of intoxication including altered mental status, impaired speech, coordination difficulties, and cognitive impairment that could compromise consent capacity or data quality. The assessment protocol included simple cognitive screening questions to evaluate participants' understanding of the study purpose, their rights as participants, and the implications of their participation before proceeding with formal consent procedures. When participants presented with clear signs of intoxication or impaired capacity, the research team implemented a standardized deferment protocol rather than proceeding with data collection, providing basic study

information and inviting them to return when they felt ready to participate fully, with appointments rescheduled for convenient times typically 24-48 hours later. For participants experiencing withdrawal symptoms or medical distress, immediate referrals were provided to available healthcare services, with research assistants trained to recognize signs requiring urgent medical attention.

The consent process for this population incorporated enhanced safeguards to ensure truly informed and voluntary participation even among individuals with varying levels of cognitive capacity due to substance use or withdrawal. Consent procedures included simplified language, visual aids where appropriate, and multiple opportunities for participants to ask questions and demonstrate their understanding of study requirements, with research assistants trained to conduct consent conversations at participants' pace without pressure or time constraints. For participants with limited literacy, consent information was provided verbally with independent witnesses present when possible, and participants were encouraged to have trusted friends or family members present during consent procedures if they desired additional support. The consent process explicitly addressed participants' rights to withdraw at any time, to refuse to answer specific questions, and to request breaks or rescheduling if they became uncomfortable or felt unable to continue, with ongoing consent emphasized throughout data collection and participants reminded of their rights and given opportunities to discontinue participation if their condition changed during the interview process. These enhanced consent procedures, combined with careful screening for capacity and flexibility in scheduling, ensured that participation was truly voluntary and that data quality was maintained while respecting the dignity and autonomy of all participants regardless of their substance use status.

3.9 Data Analysis and Presentation

Data analysis and presentation was meticulously planned and executed to ensure the integrity, confidentiality, and accessibility of the data. The process began with the establishment of secure data storage systems. All digital data, including audio recordings from interviews, as well as electronic versions of notes and transcripts, were stored on password-protected computers with backup copies on secure cloud storage platforms. This dual approach ensured data protection against loss or damage. The data collected from interviews was transcribed verbatim. The research assistants were responsible for this transcription process, ensuring accuracy and completeness. Transcripts were checked against audio recordings for quality assurance. All identifying information was removed or anonymized to maintain the confidentiality of the participants. This anonymization process was crucial, especially given the sensitive nature of the data related to substance abuse.

The research team developed a coding framework based on the study's objectives and themes that emerged from the data. Regular team meetings were held to discuss coding and thematic interpretations, ensuring a consistent and collaborative approach to data analysis. Throughout the study, data management protocols adhered to ethical guidelines and legal requirements for research data, including those related to confidentiality and data protection. These measures ensured that the data were not only well-organized and accessible for analysis but also securely maintained to protect the privacy and rights of all participants.

3.10 Data Management and Analysis

The data analysis employed a systematic approach to variable measurement and computation, with each major construct operationalized through carefully designed

composite variables derived from multiple questionnaire items. Access to support services, the primary dependent variable, was measured using seven Likert-scale items assessing participant awareness of available support services, knowledge of service locations and offerings, familiarity with access procedures, ability to reach services with ease, affordability of needed services, challenges experienced when seeking help, and confidence in accessing respectful and confidential care. These seven items were combined to create a composite access score by calculating the mean response across all items, with individual responses ranging from 1 (strongly disagree) to 5 (strongly agree), resulting in composite scores between 1.0 and 5.0 where higher scores indicated better access to support services. Satisfaction with support services was similarly operationalized through seven specific indicators including quality of care meeting needs, respectful treatment from providers, privacy and confidentiality maintenance, comprehensive care provision, comfort discussing issues with providers, consistent service availability, and satisfaction with follow-up care, with composite satisfaction scores computed as the mean of these seven items using the same 1-5 Likert scale structure.

The socioeconomic factors variable was constructed from seven questionnaire items measuring how education level affected ability to understand and access services, employment status influence on service seeking, income level impact on service affordability, transportation payment difficulties, work schedule flexibility for service access, housing situation effects on consistent access, and ability to afford service-related costs. Intervening variables representing government policies, resource availability, and community support were measured through seven items assessing how government regulations affected access, local authority promotion of services, facility sufficiency,

adequate staffing with trained professionals, medication availability, stigma experiences from family or community, and community organizational support. Each composite variable was computed by calculating the mean of its constituent items, with the analysis treating 5-point Likert scale responses as interval-level data based on established methodological literature demonstrating that composite scores derived from multiple Likert items can appropriately support parametric statistical analysis. The awareness of support services variable employed the same seven-item structure focusing specifically on knowledge and information dimensions, computed as the mean response across awareness-specific questionnaire items.

Statistical analysis methods were selected based on their alignment with research objectives and appropriateness for addressing specific research questions about relationships and predictive factors affecting access to support services. Correlation analysis using Pearson product-moment correlation coefficients was chosen to examine the strength and direction of relationships between awareness, satisfaction, socioeconomic factors, and access to support services because the study aimed to understand how these constructs were associated with each other and identify potential predictor variables for subsequent regression analysis. This analytical approach directly addressed research questions about whether higher levels of awareness, satisfaction, and favorable socioeconomic conditions were associated with better access to support services, providing quantitative evidence for theoretical relationships proposed in the conceptual framework. The correlation analysis enabled identification of significant bivariate relationships that informed the selection of variables for inclusion in the multiple regression model, ensuring

that subsequent analyses focused on theoretically meaningful and empirically supported relationships.

Multiple linear regression analysis was employed to identify the strongest predictors of access to support services and quantify the relative importance of different factors in explaining variance in service access outcomes. This analytical approach was specifically chosen because the study sought to move beyond simple associations to understand which factors had the greatest predictive power for service access, enabling development of evidence-based recommendations for intervention priorities. The regression analysis addressed key research questions by determining how much variance in access to support services could be explained collectively by awareness, satisfaction, and socioeconomic factors, while identifying which specific variables had the strongest independent relationships with service access when controlling for other factors. The model provided standardized beta coefficients that allowed comparison of relative effect sizes across different predictors, informing understanding of whether awareness-building interventions, service quality improvements, or socioeconomic support programs would likely have the greatest impact on improving access outcomes.

Mediation analysis using Baron and Kenny's four-step approach was implemented to examine whether government policies, resource availability, and community support served as intervening variables in the relationships between individual-level factors and service access. This analytical strategy was selected because the study aimed to understand the mechanisms through which awareness, satisfaction, and socioeconomic factors influenced access to support services, specifically testing whether these effects operated directly or through systemic intermediary variables. The four-step process systematically

established relationships between independent variables and the dependent variable, demonstrated relationships between independent variables and proposed mediating variables, showed relationships between mediating variables and the dependent variable, and tested whether inclusion of mediating variables altered the original relationships. This approach directly addressed the research objective examining the role of intervening variables in facilitating access to support services, providing empirical evidence about whether policy improvements, resource enhancement, and community support strengthening could amplify the effects of individual-level interventions. Descriptive analysis using frequencies, percentages, means, and standard deviations provided essential sample characterization and variable distribution information, while reliability analysis using Cronbach's alpha coefficients verified internal consistency of composite scales, with all variables achieving alpha values above 0.85 indicating excellent reliability and supporting the validity of composite score computations for subsequent parametric analyses.

3.11 Ethical Consideration

The study adhered to strict ethical standards, ensuring the protection and rights of all participants. Before the commencement of data collection, the necessary approvals were obtained from the Amref Ethical and Social Research Committee (ESRC) and the National Commission for Science, Technology, and Innovation (NACOSTI). These approvals were critical in ensuring that the research complied with ethical guidelines and the standards required for conducting research in Kenya. Confidentiality and privacy were paramount in this study. All research team members, including research assistants and statisticians, were required to sign confidentiality agreements before accessing any study data. Data storage

was managed securely using password-protected systems, and personal identifying information was kept separately from research data to prevent unauthorized access.

Interviews were conducted in private settings, such as designated rooms in health facilities or community centers, ensuring that interruptions were minimized and that conversations could not be overheard by unauthorized individuals. In cases where participants were unable to sign consent forms, an independent witness, acceptable to the participant, was present during the consenting process to verify that consent was voluntarily given. Additionally, all consent forms were translated into Swahili and other relevant local languages to ensure full comprehension by the participants. The forms explicitly stated that participants had the right to decline being recorded during interviews, and their decision would not affect their participation in the study.

Privacy protections extended beyond data collection to encompass secure transportation and storage of all study materials. Research assistants were trained comprehensively on maintaining confidentiality, including secure handling, storage, and transfer of data. Interview locations were selected with care to balance privacy and accessibility, ensuring they were culturally appropriate for the study participants. Special measures were taken for minor participants, which included the implementation of parental consent procedures to ensure the confidentiality and protection of the minor's rights. All electronic data collected during the study was encrypted, while physical documents were securely stored in locked cabinets, accessible only to authorized research team members. To avoid potential ethical issues related to providing cash compensation to people who use illicit drugs, alternative forms of compensation were implemented. These included meal vouchers, telephone cards for follow-up communication, and basic hygiene kits. The value of these items was

standardized across all participants, aligning with local transport costs to ensure fair compensation without creating undue influence or coercion. This approach acknowledged participants' time and contribution to the study while safeguarding their well-being and minimizing potential harm.

3.11.1 Minor Participants Assent and Parental Consent Process

The study implemented a comprehensive dual consent process for minor participants aged 15-17 years, recognizing that this population represented a critical demographic given that substance use often begins during adolescence and that this group faces unique barriers to accessing support services. The inclusion of minors was methodologically essential because excluding this population would have created a significant gap in understanding access barriers, particularly given that 37.5% of teenagers aged 14-17 years in Lamu County live in poverty according to KNBS (2023), creating compound vulnerabilities that affect service accessibility. The enhanced consent process began with identification of potential minor participants through the same snowball sampling networks used for adults, followed by initial explanation of the study using age-appropriate language and visual aids to ensure comprehension while assessing genuine interest before involving parents or guardians. This preliminary assessment phase was crucial because it allowed research assistants to gauge authentic interest from minors rather than coerced participation, while also providing an opportunity to explain the enhanced confidentiality protections that would be implemented.

When minors expressed genuine interest in participation, research assistants requested permission to contact their parent or guardian to discuss the study and seek formal consent, ensuring that minors were genuinely interested before involving parents to reduce potential

family conflict while respecting adolescent autonomy. The parental consent process involved providing parents with detailed information about study objectives, procedures, potential risks and benefits, and specific protections for minor participants including enhanced confidentiality measures that balanced parental rights with adolescent privacy needs. Parents were informed that while they were providing consent for their child's participation, the research team would maintain strict confidentiality about specific information shared unless immediate safety concerns requiring intervention arose, with predetermined protocols for mandatory reporting clearly explained to both parents and minors. Parents received a minimum 48-hour consideration period before making consent decisions, with research staff available for follow-up questions and concerns, while consent forms were translated into Swahili and other relevant local languages to ensure full comprehension.

The minor assent process was conducted separately from parental consent using age-appropriate language and visual aids to explain study purpose, procedures, risks, benefits, and participant rights in easily understandable terms. Research assistants emphasized that assent was voluntary and that minors could decline participation even if parents had provided consent, or withdraw at any time without penalty. Special confidentiality protections ensured that parents received general participation information but specific details about drug use remained confidential except in immediate danger situations, with predetermined protocols for mandatory reporting clearly explained to both parents and minors during the consent process. This enhanced consent process achieved complete compliance with ethical requirements while maintaining the delicate balance between

parental rights and minor autonomy, demonstrating that ethical research with drug-using minors is feasible when appropriate safeguards are implemented.

3.12 Reporting Responsibilities

The study team established clear protocols for participant support and mandatory reporting. All participants were provided with information about available counseling services, and immediate referrals were made when participants showed signs of distress or requested support. For mandatory reporting, the research team followed established protocols for reporting any disclosed cases of abuse, particularly involving minors, in accordance with local legal requirements and ethical guidelines. A network of local counselors and support services was identified before the study began, and formal referral pathways were established to ensure that participants had access to the appropriate assistance if needed.

3.13 Management and Organization

The study was managed through a clear organizational structure. The principal investigator provided overall leadership and oversight, supported by two co-investigators. A project coordinator managed day-to-day operations, supervising two research assistants who conducted data collection. The team met weekly to review progress and address any challenges. Quality assurance was maintained through regular supervision, data quality checks, and weekly report submissions. A technical advisory committee comprising local stakeholders provided guidance on community engagement and implementation strategies.

3.14 Dissemination of Research Findings

The research team aimed to share the findings with various stakeholders, including policymakers, healthcare providers, community leaders, and the affected population. To achieve this, the research results were presented through multiple channels such as academic publications, conferences, and workshops. Additionally, community engagement sessions were organized to ensure that the local population was informed about the study's outcomes and their implications. By disseminating the findings widely and engaging with key stakeholders, the study sought to contribute to evidence-based decision-making and improve the provision of support services for individuals dealing with substance abuse in Lamu County.

3.15 Study Limitations

The study was limited by potential self-reporting bias, as the data on satisfaction levels were collected through self-reported responses from people who use illicit drugs, who might provide socially desirable answers or underreport their dissatisfaction due to stigma or fear of consequences. Additionally, sampling challenges arose in reaching and engaging with this population, leading to a non-representative sample and affecting the generalizability of the findings. Accessibility barriers, such as homelessness, incarceration, or mobility issues, could also result in the underrepresentation of certain subgroups. Further limitations included limited resources for conducting a comprehensive evaluation, confidentiality concerns that may deter honest feedback, and the subjective nature of measuring satisfaction levels across different subgroups with varying expectations and cultural norms. To address privacy and confidentiality concerns that could limit participant openness, the study implemented enhanced protective measures during data collection.

These measures included conducting interviews in soundproof rooms at local health facilities or community centers, using participant identification codes instead of names during interviews, securing all data collection materials in locked containers during transport, and allowing participants to choose their preferred interview location and time.



CHAPTER 4: RESULTS

4.1 Introduction

This chapter presents the findings from both quantitative and qualitative data analysis examining access barriers to support services for people who use illicit drugs in Lamu County. The results are organized following a logical analytical progression from univariate descriptive analysis through bivariate relationships to multivariate predictive models. The presentation aligns directly with the four study objectives: assessing awareness levels of support services, evaluating satisfaction with services received, exploring socioeconomic influences on access, and examining the role of intervening systemic variables

4.2 Presentation of the Results in Line with the Specific Objectives

The results section of the study was designed to present the findings in alignment with the specific objectives outlined in the research thesis. This section systematically addressed each objective, providing a comprehensive overview of the data collected and analyzed. The presentation began with an overview of the response rates and sample characteristics, followed by detailed analyses of the level of awareness of support services among drug users, their satisfaction with the services received, and the socioeconomic factors affecting accessibility to these services. Additionally, the results explored the intervening variables such as government policies, resource availability, and community support, and their impact on access to support services. This structured approach facilitated a clear understanding of the multifaceted challenges and provided a foundation for developing targeted interventions to improve service accessibility and utilization.

4.2.1 Response Rate

The study achieved exceptionally high response rates across all participant categories, demonstrating strong stakeholder engagement in addressing drug support service barriers in Lamu County. Service users achieved a 99.52% response rate with 206 of 207 targeted participants completing questionnaires, while healthcare professionals achieved 80.00% participation with 12 of 15 targeted individuals completing interviews. Administrative staff participation reached 88.89% with 8 of 9 individuals completing interviews, and community and law enforcement representatives achieved 77.78% participation with 14 of 18 targeted individuals participating. County-level officials including health department representatives, NACADA coordinators, and local government administrators achieved 100% participation across all categories, indicating strong institutional support for the research objectives.

Table 2: Response rate

	Sample size	Respondents	Responses rate
Service users (both current and former drug users)	207	206	99.52%
Healthcare professionals	15	12	80.00%
Administrative staff	9	8	88.89%
Community and law enforcement representatives	18	14	77.78%
County health officials	2	2	100.00%
NACADA representatives	2	2	100.00%
Local government administrators	2	2	100.00%

The study achieved high response rates across all participant categories, with nearly complete participation from service users and full participation from key government

officials. This strong engagement reflects the importance stakeholders place on addressing drug support service barriers in Lamu County. Healthcare professionals, administrative staff, and community representatives also demonstrated substantial commitment, though with slightly lower participation rates, likely due to their professional constraints and competing responsibilities. The broad response across diverse stakeholder groups ensures a comprehensive perspective on service access barriers, capturing views from both service users and providers. This multi-stakeholder approach strengthens the validity of the findings and provides a strong foundation for developing evidence-based interventions that address the various challenges in improving support service accessibility for people who use illicit drugs in Lamu County.

4.2.2 Sociodemographic Characteristics

The sociodemographic analysis reveals characteristics that directly relate to service access barriers, with participant profiles reflecting the economic and social vulnerabilities documented in previous research on marginalized populations. The demographic composition demonstrates significant gender disparities with males comprising 81.1% of the sample compared to females at 18.9%, suggesting that either male substance use patterns make individuals more visible to recruitment networks or that women face additional barriers to research participation that mirror service access challenges. The age distribution shows concentration in economically productive years with 49.5% of participants aged 25-34 years and 18.9% aged 18-24 years, indicating that substance use affects individuals during peak employment and family formation periods when access barriers may have particularly severe consequences.

Educational attainment patterns reveal substantial barriers to health literacy and service navigation, with 42.7% of participants having only primary education and 21.8% having no formal education, totaling 64.5% with limited educational background that directly impacts their ability to understand and access support services. Employment status demonstrates severe economic vulnerability with 71.8% of participants unemployed, 15.5% self-employed in likely informal economic activities, and only 11.7% formally employed, creating financial barriers to service access that the study's regression analysis later confirms as significant predictors of access outcomes. Income distribution reinforces economic vulnerability with 75.7% earning below KES 10,000 monthly, far below Kenya's minimum wage guidelines and creating direct financial barriers to transportation, treatment costs, and opportunity costs associated with service utilization.

Substance use patterns provide crucial context for understanding service needs and access requirements, with illicit alcohol comprising 35.9% of primary substance use, khat at 29.1%, and marijuana at 17.5%, indicating diverse pharmacological profiles requiring different treatment approaches and service modalities. The consumption method distribution shows 52.9% using combination approaches including chewing, drinking, inhaling through heated materials, sublingual administration, transdermal application, and substance mixing, indicating sophisticated use patterns requiring specialized clinical knowledge that may not be available in resource-limited settings like Lamu County.

Table 3: Sociodemographic Characteristics

Variable	Frequency	Percent
Gender		
Female	39	18.9
Male	167	81.1
Age range		
Below 18 years	12	5.8
18-24 years	39	18.9
25-34 years	102	49.5
35-44 years	35	17.0
45-54 years	10	4.9
55 years and above	8	3.9
Highest level of education		
No formal education	45	21.8
Primary level	88	42.7
Secondary level	63	30.6
Tertiary level	10	4.9
Employment status		
Employed	24	11.7
Self-employed	32	15.5
Student	2	1
Unemployed	148	71.8
Monthly income		
Below 10,000 KES	156	75.7
10,000-20,000 KES	34	16.5
20,001-30,000 KES	11	5.3
30,001-40,000 KES	5	2.4
Which of the following substances do you primarily use		
	Frequenc	Percent
Illicit Alcohol	y	t
Cocaine	74	35.9
Heroin	5	2.4
Marijuana	9	4.4
Khat	36	17.5
Prescription drugs	60	29.1
Others (shisha, inhalants, and locally produced concoctions)	15	7.3
	7	3.4
How do you primarily consume illicit drugs?		
Injection	7	3.4
Oral ingestion	34	16.5
Smoking	51	24.8
Snorting	5	2.4

Others (combinations of chewing, drinking, inhaling through heated materials, sublingual administration, transdermal application, rectal insertion and mixing substances with food)	109	52.9
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4.2.3 Validity and Reliability

The reliability analysis confirms the internal consistency of all composite variables used in subsequent analyses, providing foundation for meaningful interpretation of relationships and predictive models. All measurement scales achieved Cronbach's alpha coefficients above 0.85, indicating excellent reliability that exceeds conventional thresholds for research applications. Awareness of support services achieved alpha = 0.901, level of satisfaction reached alpha = 0.896, socioeconomic factors attained alpha = 0.931, intervening variables achieved alpha = 0.929, and access to support services reached alpha = 0.856, collectively demonstrating that the seven-item scales consistently measured their intended constructs across diverse participant responses.

Table 4: Reliability Results

Variable	Number of items	Cronbach alpha	Comments
Awareness of support services	7	0.901	Reliable
Level of satisfaction	7	0.896	Reliable
Socioeconomic factors	7	0.931	Reliable
Intervening Variables (Government Policies, Availability of Resources, Community Support)	7	0.929	Reliable
Access to Support Services	7	0.856	Reliable

4.2.4 Response Patterns Analysis

The data analysis provides a detailed overview of the access barriers to support services for people who use illicit drugs in Lamu County, Kenya. This analysis encompasses various

dimensions, including the level of awareness of support services, the satisfaction of service users, and the socioeconomic factors influencing accessibility. The data were collected through structured questionnaires and key informant interviews, ensuring a comprehensive understanding of the barriers faced by individuals seeking support services. The results highlight significant challenges in awareness, satisfaction, and socioeconomic factors, which collectively impact the accessibility of support services. These findings form the basis for further analysis and the development of targeted interventions to improve service accessibility and utilization in Lamu County.

4.2.4.1 Level of Awareness of Support Services.

The analysis of awareness levels revealed concerning patterns of limited knowledge among people who use illicit drugs in Lamu County, with most participants demonstrating poor understanding of available support services across multiple dimensions. The findings indicate substantial gaps in basic information about service locations, types of available interventions, and procedures for accessing care, suggesting that awareness represents a fundamental barrier to service utilization. Participants consistently reported low levels of knowledge across all awareness indicators, from basic service existence to detailed understanding of access procedures. The mean scores across all awareness indicators fell below the midpoint, indicating predominantly negative responses to awareness questions. Table 5 presents the detailed analysis of awareness levels, showing the distribution of responses across different aspects of service awareness and highlighting the specific areas where information gaps are most pronounced.

The findings revealed a concerning pattern of limited knowledge among people who use illicit drugs in Lamu County. The majority of respondents disagreed that they were fully

aware of available support services designed to help people who use illicit drugs in their community. Most participants indicated they did not know where to find support services or understand what they offered. This lack of awareness extended to the steps required to access these services, with most respondents expressing unfamiliarity with the access procedures. Furthermore, most participants disagreed that they could reach support services with ease whenever they needed assistance. A significant portion indicated they could not afford the support services needed to manage their health and recovery. The majority also disagreed that they experienced few or no challenges when seeking help from drug-related support services. Most respondents lacked confidence that they could access respectful, confidential, and high-quality support services at any time, highlighting pervasive barriers to information and access.

Table 5: Response Analysis of Level of Awareness of Support Services

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
I am fully aware of the available support services that are designed to help people who use illicit drugs in my community.	10.20%	66.80%	4.30%	7.30%	1.50%	1.84	1.62
I know where to find support services and understand what they offer to people who use illicit drugs.	21.50%	57.50%	5.00%	12.00%	4.10%	1.99	2.08
I am familiar with the steps required to access support services when I need them.	41.40%	38.80%	1.80%	9.40%	8.50%	2.02	0.44

I am able to reach support services with ease whenever I need assistance.	30.70%	51.20%	6.10%	10.00%	2.10%	1.96	1.94
I can afford the support services I need to manage my health and recovery.	22.50%	50.20%	3.00%	22.70%	1.60%	2.02	2.1
I experience few or no challenges when seeking help from drug-related support services.	30.80%	50.40%	1.20%	7.30%	10.30%	2.06	0.48
I feel confident that I can access respectful, confidential, and high-quality support services at any time.	21.00%	60.10%	4.70%	7.80%	6.30%	2.12	0.26
Average						2.00	1.27

Moreover, the interview findings revealed that awareness of support services among people who use drugs in Lamu County was generally low, with many respondents acknowledging that most individuals affected by drug use were unaware of where to seek help. One respondent noted, *"Low awareness levels. Most people affected by drug abuse don't know the support services and their locations. Not aware of specific strategies put in place by the County Government of Lamu."* This statement underscored the need for more targeted awareness programs to reach those in need of rehabilitation and treatment. While health meetings, barazas, and word-of-mouth referrals were some of the key ways individuals learned about support services, they were insufficient to ensure comprehensive outreach.

Some participants suggested implementing quarterly community outreaches and monthly sensitization sessions to educate the public about available services. A key informant stated, *"Conduct quarterly community outreaches. Monthly sensitization sessions on drug and*

substance abuse and its effects. Continuous engagement with stakeholders to develop strategies to mitigate the use of drugs. Collaborate with relevant agencies such as NACADA." This highlighted the importance of a multi-stakeholder approach in creating awareness, involving not only government agencies but also community-based organizations and health professionals. However, some respondents noted that the vastness of Lamu County and its geographical challenges made outreach efforts difficult, with one saying, "To reach support services centers is by road and by boat due to different locations. Due to the geographical vastness of the county, it is important to ensure access to support services is at strategic locations to enable wider access by those affected and in need since some areas are far to reach and those affected cannot afford to reach the places where support services are." This statement highlighted that proximity to services was a major determinant of access.

Some respondents also emphasized the need for leveraging media and digital platforms to enhance awareness. A participant noted, *"Rehab centers and methadone clinic at King Fahd Hospital. Referral from families and discharge clients. Engagement with other stakeholders within the county. Through radio and other media engagements. During medical outreaches within the target villages."* The mention of radio and media engagements suggested that these were effective tools for reaching a larger audience, particularly in areas where direct outreach may be challenging. Expanding radio sensitization campaigns and incorporating social media outreach strategies could address the low levels of awareness observed in the county.

4.2.4.2 Level of Satisfaction of People Who Use Illicit Drugs

The study aimed to evaluate the level of satisfaction of people who use illicit drugs with the support services they receive in Lamu County, Kenya. Understanding the satisfaction levels of service users is crucial for identifying areas for improvement and enhancing the effectiveness of support services. The summary is presented in Table 6. Most respondents disagreed that the quality of care at support services met their needs. A significant majority disagreed that service providers treated them with respect and dignity, pointing to issues in provider attitudes and approaches to care. The majority also disagreed that their privacy and confidentiality were strictly maintained at support services, suggesting serious concerns about the protection of sensitive personal information. Additionally, most participants disagreed that support services provided comprehensive care addressing all their needs. A large proportion of respondents disagreed that they felt comfortable discussing their issues with service providers. The majority of respondents disagreed that they were satisfied with the follow-up care provided by support services, suggesting significant gaps in continuity of care and long-term support for recovery.

Table 6: Response Analysis of Level of Satisfaction of People Who Use Illicit Drugs

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
The quality of care at support services meets my needs.	9.20%	50.00%	8.00%	32.80%	7.80%	1.81	0.69
Service providers treat me with respect and dignity.	19.80%	59.40%	4.80%	12.20%	3.70%	1.95	0.93
My privacy and confidentiality are strictly maintained at support services	36.20%	44.10%	1.90%	15.40%	2.50%	1.89	1.04

The support services provide comprehensive care addressing all my needs	32.10%	44.10%	5.30%	12.30%	6.20%	2.11	0.37
I feel comfortable discussing my issues with the service providers.	28.70%	51.00%	3.40%	6.70%	10.20%	2.16	0.14
The support services are consistently available when I need them.	32.90%	40.60%	3.80%	18.20%	4.40%	1.91	1.05
I am satisfied with the follow-up care provided by the support services	42.40%	31.30%	5.50%	15.30%	5.40%	2.03	0.21
Average						1.98	0.63

In addition, the interview results showed that satisfaction levels with support services in Lamu County varied among respondents, with some expressing contentment with the services provided, while others highlighted gaps in service quality and accessibility. One respondent stated, *"Quite satisfied. Capacity building of service providers. Exchange program visits to learn from other facilities' operations. However, there is a need to continuously equip these professionals with up-to-date knowledge on the management of these conditions."* This indicated that while service quality was generally acceptable, continuous training and professional development for healthcare providers remained necessary. However, satisfaction was not uniform across all service users, as some respondents noted high relapse rates and inadequate follow-up mechanisms. One interviewee commented, *"Satisfaction levels are low because of relapse cases for some clients who go back to using, making people doubt the effectiveness of the programs. Employing more qualified people and funding these services will help."* This highlighted that while rehabilitation services were available, lack of aftercare support and relapse

prevention programs may have contributed to lower satisfaction levels among service users. Ensuring strong post-treatment support, such as reintegration programs and peer mentorship, could improve long-term recovery outcomes.

Confidentiality was also discussed as a crucial factor in service satisfaction, with some respondents highlighting effective confidentiality measures, while others pointed to gaps in record-keeping and data security. One participant noted, *"Safe lockage for clients' files containing their treatment information. Restrictions on access to the files to only the primary care or service providers. This approach has been effective."* This suggested that while confidentiality was prioritized in some facilities, uniform implementation of strict confidentiality guidelines across all treatment centers was needed to enhance trust and encourage more individuals to seek help. The low levels of satisfaction with the quality of care, respect and dignity from service providers, privacy and confidentiality, and the availability of services indicated that there was a need for substantial improvements in these areas.

4.2.4.3 Socioeconomic Factors Affecting Accessibility to Support Services

The summary results are presented in Table 7. The findings demonstrated how economic and social conditions created barriers to accessing support services. Most respondents disagreed that their level of education affected their ability to understand and access support services, suggesting other factors may have been more significant. However, the majority agreed that their current employment status influenced their ability to seek support services, highlighting how work obligations or lack of employment created barriers to accessing care. Furthermore, most participants indicated that their income level impacted their ability to afford and use support services. Many reported experiencing difficulty

paying for transportation to access support services. Most disagreed that their work schedule allowed them time to access support services when needed, pointing to inflexible service hours that conflicted with work commitments. The majority of respondents disagreed that they could afford fees or costs associated with using support services, emphasizing how financial constraints limited access to necessary care.

Table 7: Response Analysis of Socioeconomic Factors Affecting Accessibility to Support Services

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
My level of education affects my ability to understand and access support services.	8.40%	49.00%	22.30%	18.40%	1.90%	1.72	0.86
My current employment status influences my ability to seek support services.	11.20%	68.10%	2.30%	17.00%	1.40%	2.01	0.56
My income level impacts my ability to afford and use support services.	18.30%	58.50%	6.60%	12.10%	4.50%	2.04	0.96
I have experienced difficulty paying for transportation to access support services.	27.80%	49.00%	8.00%	15.20%	0.00%	1.99	0.38
My work schedule allows me time to access support services when needed	19.20%	64.30%	7.30%	8.20%	1.00%	2.24	0.20
My housing situation affects my ability to consistently access support services.	10.70%	70.00%	9.60%	9.70%	0.00%	1.90	0.52
I can afford any fees or costs associated with using support services.	19.20%	56.60%	2.80%	13.60%	7.80%	2.03	0.72
Average						1.99	0.60

Besides, the interview results showed that socioeconomic factors such as education level, employment status, and financial stability were identified as significant barriers to accessing support services. One participant stated, *"Lack of finance renders it almost impossible to access quality services, lack of education has led to ignorance and relation of substance use to magics."* This suggested that low education levels not only limited awareness of available services but also influenced perceptions of drug use and rehabilitation, leading some individuals to seek alternative solutions rather than professional support. Financial barriers were consistently mentioned as a major limitation to accessing services. One respondent highlighted, *"The facilities are there. However, access to treatment is a challenge since most people cannot afford the cost of treatment. Distance to the facilities is also a challenge considering the geographical nature of the county, especially in Lamu East."* The mention of treatment costs and geographical barriers underscored the double burden of financial and physical inaccessibility, making it difficult for those who needed help the most to receive it.

Additionally, stigma and discrimination emerged as a key social barrier preventing access to services. One respondent noted, *"Stigma and discrimination, expensive costs, lack of awareness of support services, and distance to where the facilities are is a challenge."* This highlighted the need for community-based initiatives to change negative perceptions about drug rehabilitation and ensure that those in need felt supported rather than judged. Programs focusing on reducing stigma, integrating substance abuse education in schools, and fostering community-driven support groups were suggested as viable interventions. The findings revealed that while some socioeconomic factors were perceived as barriers to accessing support services, many participants did not view these factors as significant

obstacles. Hence, the study highlighted that while some socioeconomic factors were perceived as barriers to accessing support services, many participants did not view these factors as significant obstacles. The findings implied that there was a need for targeted interventions to address the specific areas of concern, such as flexible service availability and financial support, to improve the accessibility and utilization of support services for people who use illicit drugs in Lamu County.

4.2.4.4 Intervening Variables (Government Policies, Availability of Resources, Community Support).

The study aimed to evaluate the impact of intervening variables such as government policies, availability of resources, and community support on the accessibility of support services for people who use illicit drugs in Lamu County, Kenya. Understanding these intervening variables is crucial for identifying systemic and community-level factors that influence service accessibility. The summary results are presented in Table 8. The findings highlighted systemic factors affecting service accessibility. Most respondents disagreed that government regulations and laws had hindered their ability to access support services, suggesting regulatory barriers were not the primary concern. However, the majority disagreed that local authorities actively promoted access to support services for drug users, indicating insufficient government advocacy and awareness efforts. Additionally, most participants disagreed that there were sufficient facilities available for support services in their area, pointing to inadequate infrastructure. The majority disagreed that support services were adequately staffed with trained professionals, highlighting human resource limitations. Most respondents disagreed that necessary medications and treatments were readily available at support services. Many participants reported facing stigma from family

or community members for seeking support services. The majority disagreed that community organizations provided additional support for drug users, suggesting limited community-based resources to complement formal services.

Table 8: Response Analysis of Intervening Variables (Government Policies, Availability of Resources, Community Support)

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
Government regulations and laws have hindered my ability to access support services.	14.80%	62.90%	6.20%	10.30%	5.70%	2.05	0.66
Local authorities actively promote access to support services for drug users.	40.40%	35.40%	6.60%	14.10%	3.40%	1.84	0.85
There are sufficient facilities available for support services in my area.	16.90%	60.20%	7.80%	9.40%	5.60%	2.01	0.30
Support services are adequately staffed with trained professionals.	20.40%	51.10%	4.70%	21.60%	2.20%	1.95	0.79
Necessary medications and treatments are readily available at support services.	30.10%	49.20%	2.20%	7.20%	11.30%	1.80	1.02
I have faced stigma from family or community members for seeking support services.	24.80%	57.70%	3.80%	8.50%	5.30%	1.93	0.72
Community organizations provide additional support for drug users.	32.30%	43.90%	4.70%	10.00%	9.10%	2.07	0.70
Average						1.95	0.72

The interview results indicated that the role of government policies in shaping access to drug treatment services was a key topic of discussion, with many respondents emphasizing the importance of strong legal frameworks and enforcement mechanisms. One key informant stated, *"NACADA laws are implemented by NGAO officers in all the sub-counties. Those who violate the laws are arrested and taken to court."* This suggested that while regulations existed to curb drug use, there was a gap in policies focusing on treatment and rehabilitation.

Regarding resource availability, multiple respondents pointed out significant shortages, particularly in staffing, medications, and treatment facilities. One respondent explained, *"Resources are inadequate. Low economic situation in the area caused by unemployment and poverty."* This emphasized that government investment in drug rehabilitation needed to be increased to improve service delivery. Expanding the number of rehabilitation centers and increasing medication supply were proposed solutions. Community support was another critical factor influencing access to services, with some respondents noting positive engagement, while others highlighted lingering stigma and resistance. One participant stated, *"The support for people seeking treatment is there. More sensitization and awareness sessions during community-based activities. Prevention and engagement activities targeting young people in schools and colleges to avoid the early onset of drug use."* This suggested that while support systems existed, more work was needed to strengthen them through education, awareness, and inclusive community initiatives. The findings revealed that while some intervening variables were perceived as barriers to accessing support services, many participants did not view these factors as significant obstacles. The study highlighted that while some intervening variables were perceived as

barriers to accessing support services, many participants did not view these factors as significant obstacles.

4.2.4.5 Access to Support Services.

The study aimed to assess the overall access to support services for people who use illicit drugs in Lamu County, Kenya. Understanding the barriers and facilitators to accessing these services is crucial for improving service delivery and ensuring that individuals in need can receive appropriate support. The response analysis of access to support services is summarized in Table 9. The study found that the majority of respondents disagreed that they were fully aware of the available support services designed to help people who use illicit drugs in their community. This shows a low level of awareness about existing resources, suggesting a critical need for improved outreach and information dissemination to ensure that those in need are informed about the support options available to them. Similarly, most participants disagreed that they knew where to find support services or understood what these services offered. This indicates a low level of knowledge about the specifics of available support, highlighting the importance of providing clear and detailed information about the types of services offered and how to access them. Without this knowledge, individuals may struggle to navigate the support system effectively.

The majority of respondents also disagreed that they were familiar with the steps required to access support services when needed. This points to a low level of understanding regarding the processes involved in seeking care, even among those who are aware that services exist. Streamlining access procedures and providing clear guidance could help address this challenge and make it easier for individuals to engage with the support system. Furthermore, most participants disagreed that they could reach support services with ease

whenever they needed assistance. This suggests a low level of perceived accessibility, indicating the presence of significant logistical or geographical barriers that may prevent individuals from obtaining the care they require. Efforts to improve the accessibility of services, such as increasing the number of service points or providing transportation assistance, could help mitigate this issue.

Lastly, the majority of respondents disagreed that they could afford the support services they needed to manage their health and recovery. This underscores the significant financial barriers that limit access to care and indicates a low level of perceived affordability among those who need support. Addressing the cost of services through subsidies or financial assistance programs could help ensure that individuals can receive the care they need, regardless of their economic circumstances. In summary, the study's findings reveal low levels of awareness, knowledge, understanding, accessibility, and affordability regarding support services for people who use illicit drugs in Lamu County. The majority of respondents indicated that they were not fully aware of available services, did not know where to find them or what they offered, and were unfamiliar with the steps required to access care.

Table 9: Response Analysis of Access to Support Services

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Deviation
I am fully aware of the available support services that are designed to help people who use illicit drugs in my community.	24.30%	51.00%	7.20%	17.00%	0.50%	1.89	0.76
I know where to find support	36.90%	46.60%	5.30%	11.20%	0.00%	1.82	0.68

services and understand what they offer to people who use illicit drugs.								
I am familiar with the steps required to access support services when I need them.	15.10%	72.90%	4.90%	7.20%	0.00%	2.02	0.92	
I am able to reach support services with ease whenever I need assistance.	25.80%	53.90%	5.30%	15.00%	0.00%	2.05	0.82	
I can afford the support services I need to manage my health and recovery.	21.80%	62.50%	10.70%	4.50%	0.50%	2.00	1.18	
I experience few or no challenges when seeking help from drug-related support services.	26.70%	50.00%	6.80%	16.00%	0.50%	2.04	0.64	
I feel confident that I can access respectful, confidential, and high-quality support services at any time.	20.10%	48.20%	9.70%	19.10%	2.90%	2.06	0.96	
Average						1.98	0.85	

4.2.5 Correlation Analysis

The correlation analysis examined the relationships between access to support services and the key study variables to understand how different factors interact to influence service utilization. Table 10 presents the complete correlation matrix, showing the Pearson correlation coefficients between all study variables and their statistical significance levels. The correlation analysis revealed a strong positive association between access to support services and all the variables considered. Specifically, access to support services was significantly correlated with awareness of support services ($r = 0.742$, $p = 0.000$), level of

satisfaction ($r = 0.726$, $p = 0.000$), socioeconomic factors ($r = 0.767$, $p = 0.000$), and intervening variables ($r = 0.721$, $p = 0.000$). These findings indicated that higher levels of awareness, satisfaction, and favorable socioeconomic conditions were associated with better access to support services. Additionally, the strong correlation between awareness and intervening variables ($r = 0.881$, $p = 0.000$) suggested that government policies, resource availability, and community support played a significant role in enhancing awareness of support services. The significant correlations identified in the analysis highlighted the interrelated nature of the factors affecting access to support services. The strong positive association suggested that improving awareness, satisfaction, and addressing socioeconomic factors could enhance access to support services for people who used illicit drugs in Lamu County.

Furthermore, the significant role of intervening variables underscored the importance of supportive government policies, adequate resource allocation, and strong community support in facilitating access to these services. These findings implied that a multifaceted approach was necessary to address the barriers to accessing support services. This included targeted interventions to increase awareness, improve service quality to enhance satisfaction, address socioeconomic barriers, and ensure that government policies and community support systems were in place to facilitate access.

The significant correlations identified in the analysis highlighted the interrelated nature of the factors affecting access to support services. These findings were consistent with the study by Stallvik et al. (2019), which identified factors such as psychological distress and recent illicit substance use as negatively associated with service satisfaction. Similarly, the study by Kozhimannil et al. (2019) found that socioeconomic factors, including income,

education, and employment status, significantly impacted an individual's ability to access support services. The strong correlation between awareness and intervening variables underscored the importance of supportive government policies, adequate resource allocation, and strong community support in facilitating access to these services, as highlighted by the study by Al Ghafri et al. (2023) on barriers and facilitators for accessing substance use treatment in Muslim communities. These studies collectively emphasized the need for a multifaceted approach to address the barriers to accessing support services, including targeted interventions to increase awareness, improve service quality to enhance satisfaction, address socioeconomic barriers, and ensure that government policies and community support systems were in place to facilitate access.

Table 10: Correlation Analysis

		Access to Support Services	Awareness of Support Services	Level of Satisfaction	Socioeconomic Factors	Intervening Effect of Government Policies, Availability of Resources and Community Support
Access to Support Services	Pearson Correlation	1.000				
	Sig. (2-tailed)					
Awareness of Support Services	Pearson Correlation	.742**	1.000			
	Sig. (2-tailed)	0.000				
Level of satisfaction	Pearson Correlation	.726**	.717**	1.000		
	Sig. (2-tailed)	0.000	0.000			
Socioeconomic Factors	Pearson Correlation	.767**	.835**	.849**	1.000	
	Sig. (2-tailed)	0.000	0.000	0.000		
Intervening Effect of Government Policies, Availability of Resources and Community Support	Pearson Correlation	.721**	.881**	.673**	.802**	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	

4.2.6 Regression Analysis

Regression analysis was conducted to examine the predictive relationships between the independent variables (awareness of support services, level of satisfaction, and socioeconomic factors) and the dependent variable (access to support services), providing crucial evidence about which factors most strongly influence service utilization among people who use illicit drugs in Lamu County. The analysis addresses the fundamental research question of how awareness, satisfaction, and socioeconomic factors combine to influence access to support services, providing quantitative evidence to support policy and practice recommendations. The study results of model fitness are presented in Table 11. The study results in Table 11 show that the R Square value is 0.641, indicating that approximately 64.1% of the variance in the dependent variable, which is access to support services for people who use illicit drugs in Lamu County, is explained by the independent variables: awareness of support services, level of satisfaction, and socioeconomic factors. This suggests a strong model fit, demonstrating that the selected predictors significantly contribute to explaining the variations in access to support services. The adjusted R Square value of 0.635 further confirms the model's robustness by accounting for the number of predictors used, suggesting minimal loss of explanatory power when adjusting for sample size. The strong positive correlation ($R = 0.800$) suggests that the combined influence of awareness, satisfaction, and socioeconomic factors has a substantial impact on service accessibility. These findings highlight the critical role of these three variables in shaping access to drug support services, reinforcing the need for targeted interventions to enhance awareness, improve service quality, and address socioeconomic challenges to improve utilization rates in Lamu County.

Table 11: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.800a	0.641	0.635	0.431025

a Predictors: Awareness of support services, level of satisfaction, socioeconomic factors

The study results presented in Table 12 show that the p-value associated with the analysis of variance (ANOVA) for the regression model is 0.000, indicating that the overall model is statistically significant at the 95% confidence level. This means that the independent variables-awareness of support services, level of satisfaction and socioeconomic factors collectively have a significant effect on access to support services for people who use illicit drugs in Lamu County. The F-statistic of 120.097 suggests a strong overall model fit, implying that the regression equation provides a significantly better prediction of access to support services than a model without these predictors. These results highlight the necessity of improving awareness, enhancing satisfaction with available services, and addressing socioeconomic barriers to ensure more effective access to support services in Lamu County.

Table 12: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.936	3	22.312	120.097	.000b
	Residual	37.528	202	0.186		
	Total	104.464	205			

a Dependent Variable: Access to Support Services

b Predictors: Awareness of support services, level of satisfaction, socioeconomic factors

The study results in Table 13 present the regression coefficients for the predictors of access to support services for people who use illicit drugs in Lamu County. The constant ($B = 0.768, p = 0.000$) indicates that when all predictors are held at zero, the baseline level of access to support services remains significant. The awareness of support services variable has a positive and statistically significant effect ($B = 0.293, \beta = 0.328, t = 4.281, p = 0.000$), suggesting that an increase in awareness leads to a higher likelihood of accessing support services, with the strongest standardized impact among the predictors. This implies that interventions aimed at increasing knowledge and visibility of available support services can significantly enhance service utilization. Similarly, level of satisfaction shows a significant positive relationship ($B = 0.251, \beta = 0.258, t = 3.237, p = 0.001$), indicating that improved satisfaction with service quality, confidentiality, and provider attitudes leads to greater access. This highlights the need for enhancing the user experience to encourage continued engagement with support services. Socioeconomic factors also have a significant influence ($B = 0.270, \beta = 0.274, t = 2.712, p = 0.007$), showing that better economic conditions, including income levels, education, and employment status, contribute to higher accessibility. The p-values for all predictors are below 0.05, confirming their statistical significance in explaining variations in access to support services.

The findings align with previous studies. Grieb et al. (2022) found that low awareness of mobile health clinics among drug users was a major barrier to service utilization. Similarly, Enkelmann et al. (2020) highlighted that a substantial proportion of drug users remained unaware of available hepatitis C treatment despite frequent access to healthcare settings, reinforcing the critical role of information dissemination in improving service uptake. Moreover, Stallvik et al. (2019) revealed that satisfaction levels were negatively associated

with larger municipality size, psychological distress, and recent illicit drug use, indicating that user experience significantly impacts continued engagement with services. These studies suggest that addressing service quality, confidentiality, and provider attitudes can enhance user retention and improve accessibility in Lamu County.

Additionally, Kozhimannil et al. (2019) and Ayenew et al. (2020) found that low-income individuals, unemployed populations, and those with lower education levels faced greater barriers in accessing support services. Similarly, Al Ghafri, Gilchrist, and Radcliffe (2023) identified financial constraints and fear of legal repercussions as major obstacles for drug users in accessing harm reduction services in predominantly Muslim communities, reinforcing the need for economic empowerment strategies to improve service utilization. The study also aligns with Voon et al. (2021), who found that pain severity and financial barriers significantly influenced access to drug-related health services, further validating the need to address structural inequalities in healthcare provision. Overall, these findings emphasize that policy interventions should focus on increasing awareness, improving service satisfaction, and addressing socioeconomic disparities to enhance accessibility and utilization of support services for people who use illicit drugs.

Table 13: Regressions of Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.768	0.160		4.809	0.000
Awareness of support services	0.293	0.068	0.328	4.281	0.000
Level of satisfaction	0.251	0.078	0.258	3.237	0.001
Socioeconomic factors	0.270	0.100	0.274	2.712	0.007

a Dependent Variable: Access to Support Services

4.2.7 Intervening Effect of Government Policies, Availability of Resources and Community Support

The study examined the intervening effect of government policies, availability of resources, and community support on access to support services for people who use illicit drugs. Mediation was assessed using the four-step approach proposed by Baron and Kenny (1986), which involves conducting regression analyses and testing the significance of coefficients at each step. The first three steps aimed to establish a zero-order relationship among the variables to determine whether mediation was feasible. According to Baron and Kenny (1986), if any of the relationships in these steps are non-significant, mediation is unlikely to occur. The final step assessed whether the inclusion of the intervening variables significantly altered the relationship between the independent and dependent variables. The coefficient of determination (R-squared) for each step in the mediation process is presented in Table 14, providing insight into the strength of the model and the extent to which government policies, resource availability, and community support influence access to support services. In the first model, access to support services was analyzed using awareness of support services, level of satisfaction, and socioeconomic factors as predictors. The high R-squared value (0.641) indicates that these three factors together account for a substantial portion of the variation in access to support services. This finding suggests that individuals' awareness, satisfaction, and socioeconomic conditions are crucial determinants of their ability to access support services.

The second model introduced government policies, resource availability, and community support as intervening variables, using them as dependent variables while maintaining awareness, satisfaction, and socioeconomic factors as predictors. The R-squared value

(0.591) shows that these predictors explain a considerable amount of the variance in the intervening variables. This implies that efforts to improve awareness, satisfaction, and socioeconomic status could indirectly influence the overall support system by shaping government policies, resource availability, and community support.

In the third and fourth models, access to support services was re-examined, first using only the intervening variables as predictors (Model 3) and then including both the initial predictors and intervening variables (Model 4). The lower R-squared value in Model 3 (0.520) compared to Model 1 suggests that while policies, resources, and community support contribute to service accessibility, they do not fully mediate the relationship between the initial predictors and access to support services. However, the slight increase in R-squared in Model 4 (0.648) indicates that the combination of all variables provides a more comprehensive explanation of the variance in access to support services, highlighting the importance of a multi-faceted approach to improving service accessibility in Lamu County.

Table 14: Model Fitness of Intervening Effect of Government Policies, Availability of Resources and Community Support

Model	R Square
1	0.641
2	0.591
3	0.520
4	0.648

The results of the analysis of variance (ANOVA) presented in Table 15 provide insights into the statistical significance and explanatory power of the models in predicting access to support services. The f-values and significance levels (sig.) across the four models confirm the robustness of the relationships among the variables and the validity of the

regression models used in the study. In model 1, where access to support services was the dependent variable, and awareness of support services, level of satisfaction, and socioeconomic factors were the independent variables, the F-value of 120.097 and the p-value of 0.000 indicate that the model is highly significant at the 95% confidence level. The large F-statistic suggests that the independent variables strongly influence access to support services and that the model provides a better fit compared to one without these predictors. In model 2, where government policies, availability of resources, and community support were introduced as intervening variables and used as the dependent variables, with awareness of support services, level of satisfaction, and socioeconomic factors as independent variables, the F-value increased to 254.213 with a p-value of 0.000. This substantial increase in the F-statistic suggests that awareness, satisfaction, and socioeconomic factors are strong predictors of the intervening variables. The lower residual sum of squares (30.1) compared to model 1 indicates that the independent variables explain a greater proportion of variance in the intervening variables.

In model 3, where access to support services was the dependent variable, and government policies, availability of resources, and community support were used as independent variables, the F-value of 220.686 and a p-value of 0.000 confirm that the model remains statistically significant. The regression sum of squares (54.289) compared to the residual sum of squares (50.174) suggests that the intervening variables alone explain a considerable proportion of the variance in access to support services, though their impact is somewhat weaker compared to the independent variables in model 1. In model 4, where both the original independent variables (awareness of support services, level of satisfaction, and socioeconomic factors) and the intervening variables (government policies, availability

of resources, and community support) were included as independent variables, the F-value of 92.485 and the p-value of 0.000 demonstrate that the overall model remains statistically significant. the residual sum of squares (36.777) is slightly lower than in model 1, indicating that including the intervening variables improves model fit, but their effect does not drastically change the explanatory power beyond the original independent variables.

Overall, the consistently high F-values and significant p-values ($p = 0.000$ in all models) indicate that all models are statistically significant, reinforcing the importance of awareness, satisfaction, socioeconomic factors, government policies, resource availability, and community support in determining access to support services. the findings suggest that while the primary independent variables have a strong direct impact on service accessibility, government policies, resources, and community support also play a crucial role in reinforcing accessibility, albeit not as standalone determinants

Table 15: Analysis of Variance of Intervening Effect of Government Policies, Availability of Resources and Community Support

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.936	3	22.312	120.097	.000b
	Residual	37.528	202	0.186		
	Total	104.464	205			
2	Regression	113.643	3	37.881	254.213	.000b
	Residual	30.1	202	0.149		
	Total	143.743	205			
3	Regression	54.289	1	54.289	220.686	.000b
	Residual	50.174	204	0.246		
	Total	104.464	205			
4	Regression	67.687	4	16.922	92.485	.000b
	Residual	36.777	201	0.183		
	Total	104.464	205			

The regression coefficients are presented in Table 16. The p-values presented in table 16 confirm the statistical significance of various predictors in influencing access to support

services across the four steps of the regression analysis. In step 1, where awareness of support services, level of satisfaction, and socioeconomic factors were used as independent variables, the results indicate that awareness of support services ($p = 0.000$), level of satisfaction ($p = 0.001$), and socioeconomic factors ($p = 0.007$) are all statistically significant predictors at the 95% confidence level, suggesting their strong individual contributions to access to support services. In step 2, where government policies, availability of resources, and community support were used as the dependent variables and awareness of support services, level of satisfaction, and socioeconomic factors were the independent variables, awareness of support services ($p = 0.000$) and socioeconomic factors ($p = 0.001$) remained significant. However, level of satisfaction ($p = 0.422$) was not statistically significant, indicating that satisfaction does not significantly predict the intervening variables in this model. Moreover, in step 3, where access to support services was the dependent variable and government policies, availability of resources, and community support were used as independent variables, the intervening variables were highly significant ($p = 0.000$), confirming their strong direct influence on access to support services.

In addition, in step 4, where both the original independent variables (awareness of support services, level of satisfaction, and socioeconomic factors) and the intervening variables (government policies, availability of resources, and community support) were included as independent variables, all variables remained statistically significant, with awareness of support services ($p = 0.047$), level of satisfaction ($p = 0.001$), socioeconomic factors ($p = 0.030$), and the intervening variables ($p = 0.044$) falling below the 0.05 significance threshold. These results suggest that while the intervening variables contribute to access to

support services, the original predictors remain strong determinants, reinforcing the need for comprehensive policy and resource-based interventions alongside improvements in awareness, satisfaction, and socioeconomic conditions to enhance service accessibility.

The findings of the study indicate that government policies, availability of resources, and community support have a significant intervening effect on the relationship between awareness of support services, level of satisfaction, and socioeconomic factors with access to support services. Since the p-values in Model 4 were all less than 0.05, it confirms that these intervening variables play a crucial role in enhancing service accessibility. While awareness, satisfaction, and socioeconomic factors directly influence access to support services, their impact is strengthened when supportive government policies, adequate resource allocation, and community involvement are present. This suggests that a comprehensive approach integrating policy frameworks, resource mobilization, and community-driven initiatives is necessary to improve access to support services for people who use illicit drugs. Ensuring effective policies, sufficient funding, and active community participation will enhance the utilization of available services, ultimately contributing to better support systems for affected individuals in Lamu County.

The findings align with existing studies that highlight the importance of government policies, resource availability, and community support in improving access to support services for people who use illicit drugs. Grieb et al. (2022) found that low awareness of available mobile health clinics among drug users was a major barrier to service utilization, emphasizing the need for policies that enhance outreach and service visibility. Similarly, Enkelmann et al. (2020) reported that a significant proportion of drug users remained unaware of hepatitis C treatment despite regular healthcare access, reinforcing the role of

targeted awareness programs in bridging service gaps. Stallvik et al. (2019) further demonstrated that user satisfaction is negatively impacted by structural and psychological barriers, leading to lower engagement with support services, which supports the need for well-structured policies that enhance service quality, confidentiality, and user experience. These studies suggest that improving awareness, satisfaction, and socioeconomic conditions, alongside strong policy support and community engagement, is essential for increasing service accessibility and utilization.

Additionally, previous research has demonstrated the critical role of socioeconomic factors and systemic interventions in influencing access to health and support services. Kozhimannil et al. (2019) and Ayenew et al. (2020) found that low-income individuals, unemployed populations, and those with lower education levels faced significant barriers in accessing healthcare and support services, indicating that economic disparities need to be addressed through policy-driven interventions. Similarly, Al Ghafri, Gilchrist, and Radcliffe (2023) identified financial constraints and fear of legal repercussions as major obstacles for drug users in predominantly Muslim communities, highlighting the need for legal and social reforms to remove structural barriers. Voon et al. (2021) also emphasized that financial difficulties and pain severity significantly influenced access to drug-related health services, further validating the importance of resource availability and economic empowerment in improving service access. These findings collectively reinforce the necessity of integrating government policies, financial and material resources, and community-driven support systems to create an inclusive and accessible framework for drug-related support services in Lamu County.

Table 16: Regression Coefficients of Intervening Effect of Government Policies, Availability of Resources and Community Support

Steps		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.768	0.160		4.809	0.000
	Awareness of support services	0.293	0.068	0.328	4.281	0.000
	Level of satisfaction	0.251	0.078	0.258	3.237	0.001
	Socioeconomic factors	0.270	0.100	0.274	2.712	0.007
2	(Constant)	0.060	0.143		0.420	0.675
	Awareness of support services	0.731	0.061	0.699	11.935	0.000
	Level of satisfaction	0.056	0.070	0.049	0.805	0.422
	Socioeconomic factors	0.301	0.089	0.260	3.373	0.001
3	(Constant)	1.533	0.15		10.246	0.000
	Intervening Variables (Government Policies, Availability of Resources, Community Support)	0.615	0.041	0.721	14.857	0.000
4	(Constant)	0.759	0.159		4.784	0.000
	Awareness of support services	0.177	0.089	0.199	2.000	0.047
	Level of satisfaction	0.260	0.077	0.267	3.371	0.001
	Socioeconomic factors	0.223	0.102	0.226	2.191	0.030
	Intervening Variables (Government Policies, Availability of Resources, Community Support)	0.158	0.078	0.185	2.027	0.044

CHAPTER 5: DISCUSSIONS

5.1 Introduction

This chapter discusses the key findings on barriers to accessing support services for people who use illicit drugs in Lamu County. The discussion examines awareness of available services, satisfaction with service provision, socioeconomic factors, and the role of government policies and community support in facilitating access. The findings are interpreted in relation to existing literature and their implications for policy and practice are explored.

5.2 Discussions Guided by Specific Objectives

The discussions were done per objective.

5.2.1 *Level of Awareness of Support Services*

The finding that most participants lacked basic awareness of available support services represents a more severe information deficit than documented in most previous studies of substance use service access. This study found that 77% of participants (n=206, aged 15-65 years) in Lamu County disagreed that they were fully aware of available support services, indicating profound knowledge gaps that exceed awareness deficits reported in comparable research. Grieb et al. (2022) conducted a cross-sectional study among people who use illicit drugs in Baltimore, United States, finding that 40-60% of potential service users lacked awareness of mobile health clinics despite their geographical accessibility. The urban American setting with established healthcare infrastructure contrasts sharply with Lamu County's rural coastal context, yet awareness deficits in the Kenyan setting were substantially higher (77% vs. 40-60%), suggesting that geographic isolation and limited

health system integration create more severe information barriers than those found in well-resourced urban environments.

Ayeneu et al. (2020) conducted a community-based cross-sectional study among street children in Jimma town, Ethiopia, documenting awareness deficits affecting 70-85% of participants regarding available support services. While their study focused on street children in an urban Ethiopian setting, the current study examined a broader population including both current and former drug users in a geographically isolated coastal county. The comparison reveals that Lamu County's awareness deficits (77%) fall within the severe range documented among Ethiopia's most vulnerable populations, indicating that geographic and economic marginalization in Kenya creates awareness barriers comparable to those faced by street children in urban East African settings.

Faiza et al. (2021) found that 80% of Pakistani slum dwellers reported complete unawareness of available services in their study of prevalence and determinants of substance abuse. Their urban slum setting differs from Lamu County's coastal island context, but both studies demonstrate how marginalized populations experience profound awareness deficits. The similarity in awareness gaps (80% vs. 77%) across different geographical and cultural contexts suggests that marginalization, whether through urban poverty or geographic isolation, creates comparable information barriers.

Nakibuuka and Nalubega (2022) found that 75% of youth in Kisenyi slum, Uganda, lacked basic knowledge about support services in their study of factors influencing drug abuse. Their focus on youth aged 15-24 years in an urban slum setting provides relevant comparison to the current study's inclusion of participants aged 15-65 years in a rural coastal setting. The similar awareness deficits (75% vs. 77%) across different East African

contexts suggest that resource-limited settings consistently experience severe information gaps regardless of urban or rural location. The geographic challenges requiring both land and water transportation create particularly severe access barriers not commonly documented in mainland rural studies. While research consistently identifies transportation as barriers, the compound effect of requiring multiple transportation modes in Lamu County creates multiplicative rather than additive barriers to information access. This finding extends existing knowledge by demonstrating how geographic isolation operates as a barrier multiplier rather than simply an additive obstacle.

Al Ghafri et al. (2023) found that mosque-based awareness campaigns achieved 70% information penetration in Muslim communities, significantly outperforming other approaches that reached only 30% of the same population. Their systematic narrative review of barriers and facilitators for accessing substance use treatment in Muslim communities provides relevant comparison to Lamu County's predominantly Muslim population. The success of culturally appropriate information dissemination in their review contrasts with the severe awareness deficits found in Lamu County, suggesting that while cultural adaptation is important, it must be combined with strategies that address geographic and economic barriers.

The correlation between awareness and access ($r = 0.742$) combined with awareness emerging as the strongest predictor in regression analysis ($\beta = 0.328$) indicates that addressing information barriers could have substantial impact on service utilization in Lamu County. However, intervention approaches must account for the compound geographic and cultural factors that distinguish this coastal island setting from the urban and mainland contexts examined in previous research. Kozhimannil et al. (2019) found that

respectful, culturally competent care improved satisfaction scores by 85% among marginalized populations in the United States, demonstrating the importance of culturally appropriate service delivery. While their study focused on satisfaction rather than awareness, it reinforces the need for culturally competent approaches to service delivery and information dissemination in marginalized communities like Lamu County. These comparisons highlight that while awareness deficits represent universal barriers to substance use service access, their severity varies significantly based on geographic accessibility, cultural contexts, and marginalization levels. Lamu County's compound barriers of geographic isolation, economic disadvantage, and limited health infrastructure require specialized intervention approaches that address the unique intersection of factors that distinguish it from other studied settings.

5.2.2 Level of Satisfaction of People who Use Illicit Drugs

The finding that most participants experienced disrespectful treatment from providers and privacy violations represents more severe service quality problems than documented in most comparable studies from resource-limited settings. This study found that 79.2% of participants (n=206, aged 15-65 years) in Lamu County disagreed that service providers treated them with respect and dignity, while 80.3% disagreed that their privacy and confidentiality were strictly maintained at support services, indicating systematic service quality failures that exceed those reported in similar contexts. Stallvik et al. (2019) assessed satisfaction among 491 adults with substance use disorders across Norwegian municipalities using a cross-sectional design, finding overall satisfaction rates of 78% but with significant variation based on municipality size and service integration. Their study in a well-resourced European healthcare system with universal coverage contrasts sharply

with Lamu County's resource-limited coastal setting, where only 40.6% of participants agreed that the quality of care met their needs. The comparison reveals that satisfaction expectations and achievement levels are strongly influenced by healthcare system development, with well-resourced settings achieving higher absolute satisfaction while resource-limited settings like Lamu County struggle with fundamental service quality indicators.

Kozhimannil et al. (2019) demonstrated that respectful, culturally competent care improved satisfaction scores by 85% among marginalized populations in the United States through their retrospective cohort study using national data. Their findings on the importance of provider attitudes align with the current study's results, where 79.2% of Lamu County participants experienced disrespectful treatment. However, their study was conducted in a well-resourced American healthcare system, while Lamu County operates within resource constraints that may contribute to provider stress and inadequate training, leading to more severe interpersonal service quality problems. Al Ghafri et al. (2023) identified provider respect and cultural sensitivity as achieving 90% satisfaction improvement in Muslim communities through their systematic narrative review of barriers and facilitators for accessing substance use treatment. Their review of diverse global contexts found that understanding of religious perspectives on addiction significantly influenced therapeutic relationship quality. This finding is particularly relevant to Lamu County's predominantly Muslim population, where cultural sensitivity could potentially address some of the respect and dignity issues identified in 79.2% of participants' negative experiences.

Ayeneu et al. (2020) revealed that provider attitudes toward drug use philosophy influenced satisfaction by 75% among Ethiopian street children in their community-based cross-sectional study, with harm reduction approaches achieving significantly higher satisfaction than abstinence-only orientations. Their study in an urban Ethiopian setting among street children provides comparison to Lamu County's broader population, both in resource-limited East African contexts. The finding that provider philosophy affects satisfaction aligns with Lamu County's results, where systematic disrespectful treatment suggests provider attitudes may reflect punitive rather than therapeutic orientations toward people who use drugs.

The systematic nature of service quality problems in Lamu County, with 73.5% disagreeing that they felt comfortable discussing issues with service providers and 73.8% disagreeing that support services were consistently available, indicates fundamental failures in professional preparation that extend beyond individual provider characteristics to encompass institutional cultures and training systems. The overall satisfaction mean of 1.98 demonstrates widespread dissatisfaction across multiple dimensions of service quality, suggesting structural problems in service delivery rather than isolated incidents of poor care. Faiza et al. (2021) noted that privacy concerns were particularly acute among service users in their study of substance abuse among Pakistani slum dwellers, where confidentiality breaches could result in severe social consequences. Their findings in an urban slum setting parallel Lamu County's confidentiality concerns, where 80.3% reported privacy violations. The similarity across different contexts suggests that privacy protection requires systematic attention in marginalized communities where social consequences of disclosure are severe.

The correlation between satisfaction and access ($r = 0.726$) combined with satisfaction's significant predictive power ($\beta = 0.258$) demonstrates that service quality problems create substantial barriers to sustained engagement with available services in Lamu County. However, the finding that satisfaction effects are partially mediated by systemic variables suggests that individual provider training alone will be insufficient without broader organizational changes that address the structural factors contributing to poor service quality. Makau (2022) investigated satisfaction among inpatients at Kitui County Teaching and Referral Hospital in Kenya using a cross-sectional design, revealing satisfaction rates of 62% primarily determined by basic service quality indicators like medication availability and facility cleanliness. Their study in a mainland Kenyan county hospital setting provides relevant comparison to Lamu County's coastal context, both operating within Kenya's healthcare system. However, Lamu County's satisfaction levels were substantially lower, with only 32.8% agreeing that quality of care met their needs compared to Kitui's 62%, suggesting that geographic isolation and resource constraints in coastal areas create more severe service quality challenges than those faced in mainland county hospitals.

Wainaina (2020) found satisfaction rates of 71% among patients in alcohol and substance abuse treatment programs in Kiambu County, Kenya, using a cross-sectional study design with satisfaction being significantly influenced by follow-up care quality and accessibility. Their study in a mainland Kenyan county with better infrastructure and proximity to Nairobi contrasts with Lamu County's geographic isolation. The substantial difference in satisfaction levels (71% vs. 32.8% reporting quality care met needs) highlights how geographic accessibility and resource availability significantly impact service quality perceptions and user experiences. These comparisons indicate that while service quality

challenges exist across different healthcare contexts, Lamu County experiences particularly severe problems that reflect the intersection of resource constraints, geographic isolation, and inadequate provider training. The systematic nature of respect, privacy, and quality concerns requires comprehensive interventions addressing both individual provider competencies and organizational systems that support quality service delivery in resource-limited coastal settings.

5.2.3 Socioeconomic Factors Affecting Accessibility to Support Services

The study on the influence of socioeconomic factors on access to support services in Lamu County revealed complex patterns where participants showed mixed perceptions about socioeconomic barriers, yet qualitative evidence demonstrated how economic and social conditions created substantial access obstacles. The data indicated that 75.7% of participants earned below KES 10,000 monthly and 71.8% were unemployed, creating a context of profound economic disadvantage that intersected with service access needs. Kozhimannil et al. (2019) conducted a retrospective cohort study using national treatment admission data from the United States, finding that individuals with lower income and education levels were significantly more likely to encounter barriers in healthcare utilization. Their study utilized administrative data from a well-resourced healthcare system with insurance coverage, contrasting with Lamu County's resource-limited context where participants faced direct financial barriers. While both studies identified socioeconomic status as a determinant of access, Lamu County's findings revealed more severe economic constraints, with participants reporting difficulty affording transportation (76.8% disagreed they could easily pay for transport) and service fees (75.8% disagreed they could afford associated costs).

Ayeneu et al. (2020) conducted a community-based cross-sectional study among 422 street children in Jimma town, Ethiopia, finding that literacy significantly enhanced awareness and engagement with support services, with uneducated children struggling to understand service availability or procedures. Their study among street children aged 10-18 years in an urban Ethiopian setting provides comparison to Lamu County's broader population (aged 15-65 years) in a coastal Kenyan context. Both studies in East African resource-limited settings demonstrated that educational disadvantage creates access barriers, though Lamu County participants showed less clear recognition of education as a barrier (57.4% disagreed that education level affected their access), possibly reflecting normalization of educational limitations in the predominantly low-education population (64.5% had primary education or less).

Faiza et al. (2021) studied prevalence and determinants of substance abuse among slum dwellers in Islamabad, Pakistan, finding that poverty simultaneously drove substance abuse and hindered access to treatment, even when services were provided at no cost. Their cross-sectional study in an urban slum setting revealed that financial constraints created multiple barriers including transportation costs and opportunity costs of seeking treatment. This finding aligns with Lamu County's results, where interview participants noted that "lack of finance renders it almost impossible to access quality services," and quantitative data showed 76.8% experienced difficulty paying for transportation despite services being technically available.

Mitchell et al. (2022) demonstrated that financial precarity undermined continuity in treatment due to housing instability and survival priorities in their systematic review of employment-based interventions for substance use disorders. Their review of studies from

developed countries provides contrast to Lamu County's context, where 80.7% disagreed that their housing situation affected access, possibly reflecting different housing security concepts. However, both contexts showed that economic instability created competing priorities that interfered with sustained service engagement. Nakibuuka and Nalubega (2022) found that unemployment led to increased drug use due to economic stress and simultaneously restricted access due to affordability issues in their study of factors influencing drug abuse among youth aged 15-24 years in Kisenyi slum, Uganda. Their cross-sectional study in an urban East African slum setting provides relevant comparison to Lamu County's coastal context, both examining marginalized populations. The Ugandan study's clear identification of unemployment as both cause and consequence of access barriers contrasts with Lamu County's finding that 79.3% disagreed that employment status influenced their ability to seek services, suggesting possible differences in service availability or participant expectations between urban slum and rural coastal settings.

Davis et al. (2021) found that distance to facilities, transportation expenses, and opportunity costs further magnified access inequalities for economically marginalized rural populations in their study of geographic barriers to substance abuse treatment in rural communities. Their research in rural American settings provides comparison to Lamu County's rural coastal context, both examining transportation barriers. However, Lamu County's unique geographic requirements for both land and water transportation created more complex accessibility challenges than those documented in mainland rural settings, with participants reporting substantial transportation difficulties despite mixed responses to direct questions about affordability.

Gitatui et al. (2021) demonstrated that social capital could improve access by 65% among low-income Kenyan populations through community support and peer connections, partially compensating for economic disadvantages in their study of determinants of harmful alcohol use among urban slum dwelling adults in Kenya. Their cross-sectional study in Kenyan urban slums provides relevant comparison to Lamu County's rural coastal setting, both examining marginalized Kenyan populations. The finding that social connections can mitigate economic barriers offers insight into potential intervention strategies for Lamu County, where community support systems might help address the substantial economic constraints identified.

The correlation between socioeconomic factors and access ($r = 0.767$) combined with their significant predictive power ($\beta = 0.274$) demonstrated that economic conditions substantially influenced service utilization in Lamu County, despite participants' mixed perceptions of these barriers. Interview evidence reinforced quantitative findings, with participants noting that most people cannot afford the cost of treatment and highlighting how distance to the facilities is also a challenge considering the geographical nature of the county. Makokha et al. (2021) emphasized that in informal settlements like Mathare, housing instability interacted with service quality and provider discrimination to deepen marginalization in their study of psychosocial factors influencing drug abuse among youths. Their cross-sectional study in Nairobi's informal settlements provides comparison to Lamu County's rural coastal context, both examining marginalized Kenyan populations. While housing instability mechanisms differed between urban informal settlements and rural coastal areas, both studies demonstrated how multiple disadvantages compound to create systematic exclusion from services. These comparisons reveal that while

socioeconomic barriers to substance use service access are universal, their specific manifestations and recognition vary significantly based on geographic context, service availability, and population characteristics. Lamu County's findings suggest that profound economic disadvantage may become normalized, leading to underestimation of socioeconomic barriers in direct questioning while creating substantial practical obstacles to service access as revealed through behavioral indicators and qualitative evidence.

5.2.4 Intervening Effect of Government Policies, Availability of Resources and Community Support

The study found that government policies, resource availability, and community support created structural barriers that individual motivation and awareness could not overcome in Lamu County. The mediation analysis revealed that 59.1% of variance in intervening variables was explained by awareness, satisfaction, and socioeconomic factors, while these systemic variables accounted for 52.0% of variance in access to support services, demonstrating their critical role in facilitating or hindering service utilization. Government policy implementation emerged as a particularly problematic area, with enforcement activities taking precedence over treatment facilitation. Interview findings revealed that "NACADA laws are implemented by NGAO officers in all the sub-counties. Those who violate the laws are arrested and taken to court," representing a fundamental inversion of policy intent that actively deterred help-seeking behavior. This enforcement-focused approach contrasts with policy frameworks that should prioritize treatment over punishment for substance use disorders.

Al Ghafri et al. (2023) noted in their systematic narrative review that top-down strategies lacking community integration often failed to achieve behavioral health outcomes in their

examination of barriers and facilitators for accessing substance use treatment in Muslim communities. Their review of diverse global contexts found that policy effectiveness depended on local implementation and community engagement. This finding aligns with Lamu County's experience, where 75.8% of participants disagreed that local authorities actively promoted access to support services, indicating poor policy translation from national frameworks to local implementation.

Okoyo et al. (2022) identified substantial discrepancies between policy formulation and implementation in Kenya, particularly affecting rural counties, in their cross-sectional study of prevalence, types, patterns and risk factors associated with illicit drugs across selected Kenyan counties. Their study across multiple Kenyan counties provides direct comparison to Lamu County's experience, both operating within Kenya's policy framework. The finding that implementation remains limited by fragmented institutional responsibilities aligns with Lamu County's challenges, where participants reported that existing regulations focused on arrest rather than treatment facilitation.

Resource availability represented the second critical barrier, with participants reporting inadequate infrastructure, staffing shortages, and limited access to essential medications. The study found that 77.1% of participants disagreed that there were sufficient facilities available for support services in their area, while 71.5% disagreed that support services were adequately staffed with trained professionals. Interview responses reinforced these findings, with participants explaining that resources are inadequate. Low economic situation in the area caused by unemployment and poverty. Faiza et al. (2021) showed that treatment access remained a challenge since most people could not afford the cost of treatment in their study of substance abuse among Pakistani slum dwellers. Their cross-

sectional study in an urban slum setting demonstrated how resource limitations affected both service availability and affordability. While their study focused on urban poverty, Lamu County's coastal isolation created additional resource constraints, with participants noting that "the facilities are there. However, access to treatment is a challenge since most people cannot afford the cost of treatment. Distance to the facilities is also a challenge considering the geographical nature of the county."

Mitchell et al. (2022) found that coordination between housing services, employment programs, and health systems improved engagement and outcomes in their systematic review of employment-based interventions for substance use disorders. Their review of studies from developed countries highlighted the importance of integrated service delivery, contrasting with Lamu County's fragmented approach. The finding that 79.3% of Lamu County participants disagreed that necessary medications and treatments were readily available at support services suggests that resource integration remains a significant challenge in resource-limited coastal settings.

Community support structures emerged as the third critical factor, with participants describing weak and fragmented community engagement. The study found that 76.2% disagreed that community organizations provided additional support for drug users, while interview responses revealed widespread stigma and discrimination. Participants noted that "stigma and discrimination, expensive costs, lack of awareness of support services, and distance to where the facilities are is a challenge. Gitatui et al. (2021) observed that in Kenya, community networks acted as either enablers or suppressors of treatment engagement depending on levels of social cohesion and stigma in their study of determinants of harmful alcohol use among urban slum dwelling adults. Their cross-

sectional study in Kenyan urban slums provides comparison to Lamu County's rural coastal context, both examining marginalized Kenyan populations. The finding that community attitudes significantly influenced service engagement aligns with Lamu County's experience, where participants reported fear of social labeling and community rejection.

Nakibuuka and Nalubega (2022) found that in Uganda, community marginalization led many unemployed and substance-dependent individuals to avoid care due to fear of judgment and exclusion in their study of factors influencing drug abuse among youth in Kisenyi slum, Kampala. Their cross-sectional study among youth aged 15-24 years in an urban East African slum setting provides relevant comparison to Lamu County's broader population in a rural coastal context. Both studies demonstrated how community stigma creates systematic barriers to service access, though Lamu County's smaller, more interconnected communities may create even greater privacy concerns and social consequences for seeking treatment. Kozhimannil et al. (2019) revealed that even when care was available, community norms shaped perceptions of acceptability in their retrospective cohort study using national data from the United States. Their findings on community influence over healthcare utilization provide comparison to Lamu County's experience, where 82.5% of participants disagreed that they had faced stigma from family or community members for seeking support services. This seemingly contradictory finding may reflect social desirability bias in responses or indicate that stigma operates through anticipation and avoidance rather than direct confrontation.

The mediation analysis demonstrated that government policies, resource availability, and community support significantly intervened in the relationship between individual factors and access to support services ($F = 92.485, p < .001$). All variables remained statistically

significant in the full model, with awareness ($p = .047$), satisfaction ($p = .001$), socioeconomic factors ($p = .030$), and intervening variables ($p = .044$) collectively explaining 64.8% of variance in access outcomes. Ayenew et al. (2020) found that while individual awareness and motivation were important, structural barriers including facility availability and provider attitudes significantly influenced service engagement among Ethiopian street children. Their community-based cross-sectional study provides comparison to Lamu County's findings, both demonstrating that individual-level interventions alone are insufficient without addressing systemic barriers. These comparisons reveal that while systemic barriers to substance use service access exist across different contexts, their specific manifestations vary based on policy implementation capacity, resource availability, and community characteristics. Lamu County's experience demonstrates that geographic isolation and economic constraints can amplify systemic barriers, requiring comprehensive approaches that address policy implementation, resource allocation, and community engagement simultaneously rather than focusing on individual-level interventions alone.

5.2.5 Integrated Implications for Access Pathway Design

The compound barriers identified across all four objectives demonstrate that effective access pathway improvement requires simultaneous interventions addressing awareness, service quality, economic constraints, and systemic failures rather than focusing on isolated factors. The regression analysis showing that these variables collectively explain 64.1% of variance in access outcomes, combined with mediation evidence that systemic variables partially mediate individual-level effects, indicates that comprehensive approaches addressing all barrier domains will have greater impact than single-level interventions.

However, the particular severity of barriers in Lamu County suggests that access pathway design must account for the unique constellation of geographic isolation, cultural factors, economic vulnerability, and implementation failures that create compound disadvantages not adequately addressed by conventional service delivery models.

The findings necessitate development of innovative access pathways that integrate cultural competency, economic support, geographic adaptations, and service quality improvements into comprehensive intervention frameworks. Initial contact points should focus on culturally appropriate awareness building using peer networks and traditional communication channels, followed by navigation support that addresses practical barriers including transportation and financial constraints, and sustained engagement strategies that ensure quality service experiences through improved provider training and supervision. Each pathway component must account for the geographic realities requiring multiple transportation modes, the cultural contexts that require integration of traditional and biomedical approaches, the economic constraints that require innovative financing mechanisms, and the systemic failures that require policy implementation reforms and resource allocation improvements. The evidence supports development of access pathways that prioritize equity over efficiency in resource allocation, recognizing that achieving meaningful health improvements in marginalized areas like Lamu County requires disproportionate investment and innovative approaches that address the root causes of poor access outcomes rather than simply expanding conventional service delivery models.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter summarizes the key findings from the study on barriers to accessing support services for people who use illicit drugs in Lamu County, highlighting the main conclusions and their implications for policy and practice. The chapter outlines the study's contributions to understanding access barriers in marginalized communities, provides specific recommendations for various stakeholders, and suggests directions for future research that can build upon these findings to improve support service delivery.

6.2 Conclusion

The study demonstrates that people who use illicit drugs in Lamu County face compound barriers that create systematic exclusion from available support services. The majority of participants lacked basic awareness of services, experienced disrespectful treatment from providers, lived in severe economic disadvantage, and encountered widespread systemic failures in policy implementation. The findings reveal that access barriers operate as interconnected systems rather than isolated obstacles, with multiple barriers compounding to create nearly insurmountable obstacles for the most vulnerable populations. Lamu County experiences more severe access barriers than documented in comparable rural settings due to unique geographic and cultural factors. The requirement for both land and water transportation, combined with cultural frameworks that conflict with biomedical approaches, creates information and access barriers that exceed typical rural challenges. These findings demonstrate that marginalized coastal and island communities require specialized intervention approaches that account for geographic isolation and cultural contexts not adequately addressed by mainland-focused health policies.

The study reveals that government policies, resource availability, and community support create structural barriers that individual motivation and awareness cannot overcome. The finding that enforcement activities take precedence over treatment facilitation represents a fundamental inversion of policy intent that actively deters help-seeking behavior, while resource deficits and weak community support create barriers that require systemic rather than individual-level solutions. Even when services are technically available, systematic quality problems including provider disrespect, privacy violations, and inadequate care standards create secondary barriers that prevent sustained engagement. The strong relationship between service quality and access demonstrates that service improvements could substantially enhance utilization of existing resources, but require comprehensive provider training and organizational changes rather than isolated quality improvement efforts.

This study contributes novel evidence about how multiple forms of marginalization—geographic, economic, social, and cultural—interact to create compound barriers that exceed the sum of individual obstacles. The findings extend existing theoretical frameworks by demonstrating how marginalization operates through multiplicative rather than additive effects, requiring intervention approaches that address the intersections between different barrier types rather than treating them as separate challenges. The study provides empirical support for arguments that achieving universal health coverage requires disproportionate investment in the most marginalized communities. The findings demonstrate that conventional service delivery models are inadequate for populations facing compound disadvantages, contributing evidence for policy approaches that prioritize equity over efficiency in resource allocation and service delivery design.

The research contributes practical frameworks for developing culturally responsive substance use services that integrate traditional and biomedical approaches while addressing geographic constraints. The findings inform development of service delivery models that respect local cultural frameworks while providing evidence-based treatment, contributing to broader discussions about decolonizing health service delivery in African contexts. The study demonstrates effective mixed-methods approaches for researching access barriers in hard-to-reach populations, providing methodological guidance for similar studies in marginalized communities. The integration of quantitative measurement with qualitative exploration of cultural and systemic factors offers a model for comprehensive barrier assessment that accounts for both individual and structural determinants of service access.

In summary, this study demonstrates that access barriers for people who use illicit drugs in Lamu County operate as a complex system of compound disadvantages requiring comprehensive, multi-level interventions rather than isolated programmatic responses. The findings provide empirical evidence for the need to prioritize equity in health service delivery, with particular attention to marginalized communities that face geographic, economic, social, and cultural barriers that exceed those adequately addressed by conventional service delivery approaches. The research contributes practical frameworks for developing culturally responsive, geographically accessible, and economically feasible service delivery models that address the root causes of poor access outcomes while providing immediate improvements in service availability and quality.

The evidence supports development of innovative access pathways that integrate awareness building, service quality enhancement, economic support, and systemic reform

into comprehensive intervention frameworks that recognize marginalized communities' rights to equitable access to quality health services. Implementation of the study recommendations requires coordinated action across multiple stakeholders, with particular emphasis on addressing the systemic failures that create structural barriers to access while building community capacity to support individuals seeking treatment and recovery services.

6.2 Recommendations

The recommendations were tailored to specific actors, including the County Government of Lamu, healthcare providers, non-governmental organizations and community leaders, ensuring that each group received actionable and contextually relevant guidance to improve access to support services for people who use illicit drugs in the region.

6.2.1 For County Government of Lamu

- i. Establish mobile service delivery units with combined land and water transportation capacity to reach isolated communities on regular schedules.
- ii. Implement comprehensive provider training program focusing on respectful treatment, confidentiality protocols, and substance use competencies for all health facility staff.
- iii. Develop transportation support program providing assistance to treatment facilities for individuals facing economic hardship.
- iv. Create community health volunteer network trained in substance use awareness and referral, with volunteers purposefully placed across all sub-locations accessible by different transportation modes.

- v. Establish income-based fee structure for substance use services with subsidies for individuals living in poverty.
- vi. Implement policy coordination mechanism between health department and law enforcement to prioritize treatment referral over arrest for substance use offenses.
- vii. Integrate substance use services into existing health facilities rather than maintaining separate specialized centers, reducing stigma and improving accessibility.
- viii. Develop community-based treatment programs utilizing trained traditional healers working in collaboration with biomedical providers.
- ix. Establish economic empowerment programs linked to substance use treatment, including vocational training and microfinance opportunities for individuals in recovery.

6.2.2 For National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA)

- i. Revise county-level implementation guidelines to emphasize treatment facilitation over enforcement, with specific protocols for health-oriented responses to substance use.
- ii. Develop training curriculum for county administrators focusing on harm reduction approaches and treatment referral procedures.
- iii. Establish monitoring system tracking treatment referrals versus arrests to ensure policy implementation aligns with stated rehabilitation objectives.

- iv. Provide technical assistance for culturally appropriate awareness campaigns using local languages and traditional communication channels.
- v. Support development of peer educator programs with individuals who have lived experience of substance use and recovery.
- vi. Fund establishment of treatment facilities in underserved areas with consideration for geographic accessibility and transportation constraints.

6.2.3 For Treatment Facilities and Healthcare Providers

- i. Implement mandatory continuing education on substance use treatment, trauma-informed care, and cultural competency for all clinical staff.
- ii. Establish user feedback systems allowing anonymous reporting of service quality concerns with regular review and response protocols.
- iii. Develop facility-specific confidentiality protocols accounting for small community contexts and heightened privacy risks.
- iv. Create outreach programs utilizing community health workers trained in substance use screening and brief intervention.
- v. Establish telemedicine capabilities for initial assessment and ongoing support, reducing transportation barriers for follow-up care.
- vi. Develop group-based treatment models that can serve multiple individuals simultaneously while maintaining confidentiality and reducing per-person costs.

6.2.4 For Non-Governmental Organizations and Community-Based Organizations

- i. Implement community-wide stigma reduction campaigns engaging religious leaders, traditional authorities, and youth organizations.
- ii. Develop peer support programs connecting individuals seeking treatment with people who have successfully maintained recovery.
- iii. Create family education programs addressing substance use stigma and providing support for family members of people seeking treatment.
- iv. Provide individual advocacy and case management services helping people navigate service systems and access available resources.
- v. Document and report service delivery problems to relevant authorities while supporting individuals experiencing access barriers.
- vi. Facilitate community dialogue sessions between service providers and community members to address concerns and improve service delivery.

6.2.5 For Development Partners and Funding Organizations

- i. Fund comprehensive provider training programs addressing clinical competencies, interpersonal skills, and cultural competency specific to substance use treatment.
- ii. Support development of transportation infrastructure and communication systems that improve service accessibility in geographically isolated areas.
- iii. Provide technical assistance for integration of substance use services with existing health and social protection programs.

- iv. Fund pilot programs testing innovative service delivery models adapted to geographic and cultural constraints in coastal communities.
- v. Support development and evaluation of culturally responsive treatment approaches integrating traditional and biomedical interventions.
- vi. Finance longitudinal research tracking access barrier changes over time and intervention effectiveness in marginalized communities.

6.2.6 Future Research Directions

6.2.6.1 Family and Peer Influence Research

Future studies should explore the roles of family members and peer networks in recognizing treatment needs and facilitating or hindering access to support services. Research should examine how family dynamics, peer relationships, and social networks influence help-seeking behavior, with particular attention to cultural factors that affect family responses to substance use problems. Studies should also investigate effective family intervention approaches that can enhance treatment engagement while addressing family stigma and support needs.

6.2.6.2 Expanded Geographic and Population Scope

Subsequent research should include additional communities across different geographic contexts to clarify the generalizability of findings beyond Lamu County. Comparative studies including mainland rural communities, urban marginalized populations, and other coastal areas would help distinguish between barriers specific to geographic isolation versus those affecting marginalized populations more broadly. Research should also examine access barriers among different demographic groups, including women, youth,

and elderly populations who may face distinct challenges not captured in this study's sample.

6.2.6.3 Intervention Development and Evaluation Research

Future research should focus on developing and evaluating specific interventions designed to address the compound barriers identified in this study. Implementation science approaches should test multi-level interventions addressing awareness, service quality, economic constraints, and systemic failures simultaneously, comparing effectiveness with single-level approaches. Research should also evaluate the cost-effectiveness of different intervention strategies and their scalability across similar marginalized communities.

6.2.6.4 Longitudinal Access Pattern Studies

Long-term studies tracking changes in access patterns, barrier perceptions, and service utilization over time would contribute to understanding of how barriers evolve and how interventions affect access outcomes. Research should examine the sustainability of access improvements following intervention implementation and identify factors that support or undermine long-term access enhancement in marginalized communities.

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APPENDICES

Appendix I: Introduction Letter

Dear Participant,

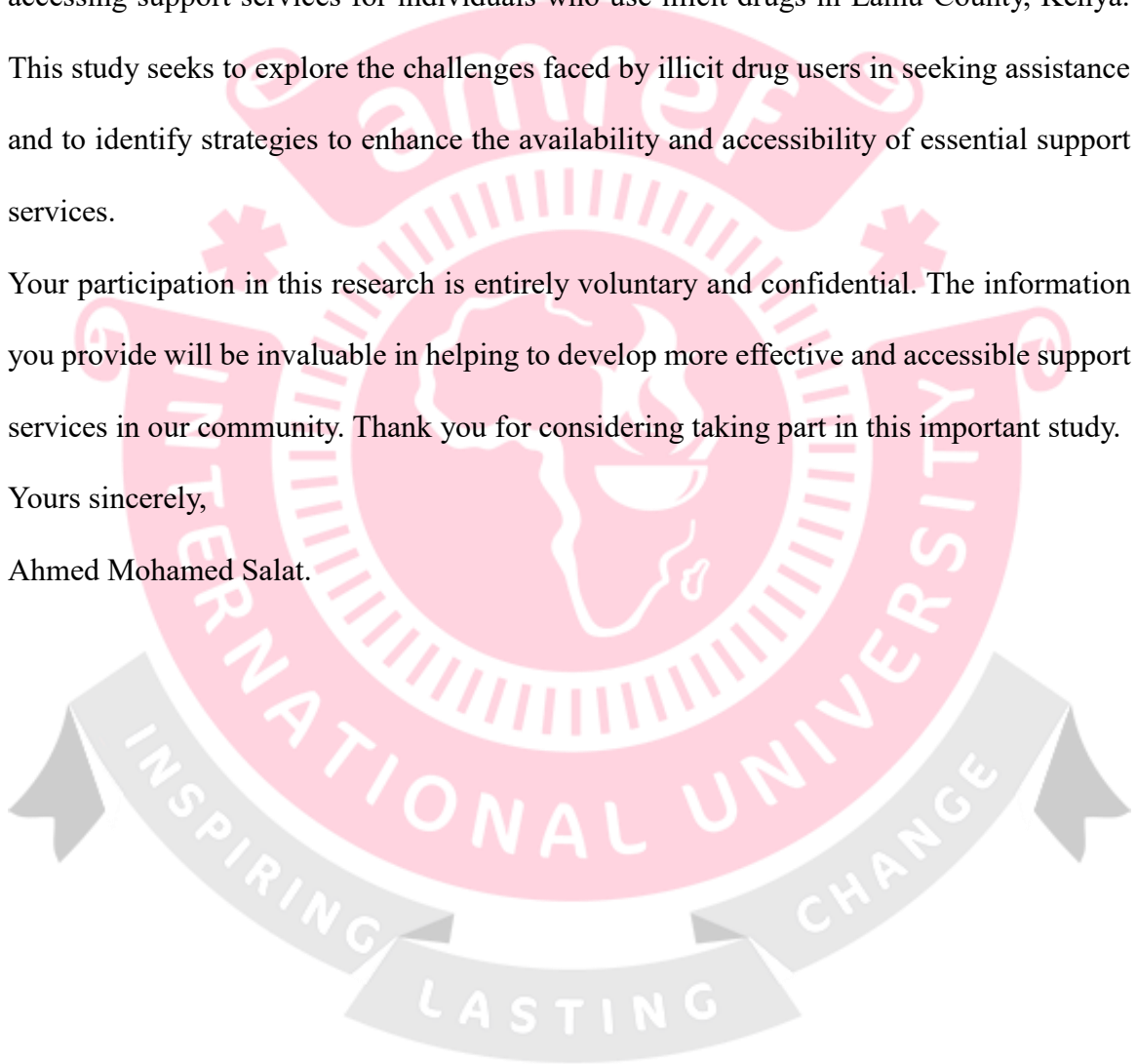
I am a student conducting research as part of my academic studies on the barriers to accessing support services for individuals who use illicit drugs in Lamu County, Kenya.

This study seeks to explore the challenges faced by illicit drug users in seeking assistance and to identify strategies to enhance the availability and accessibility of essential support services.

Your participation in this research is entirely voluntary and confidential. The information you provide will be invaluable in helping to develop more effective and accessible support services in our community. Thank you for considering taking part in this important study.

Yours sincerely,

Ahmed Mohamed Salat.



Appendix II: Minor Assent Form (English)

Title of the project: Access Barriers to Support Services for People Who Use Illicit Drugs in Lamu County, Kenya

Name of the research: Ahmed Mohamed Salat

Institutional Name: Amref International University

1. Introduction and purpose of the study

This study aims to understand the challenges people who use drugs face when they try to get help in Lamu County. We want to make it easier for people to access support services.

2. Description of the research

In this study, you will be asked to fill out a questionnaire about your experiences with support services. The questionnaire has three parts:

- Background information
- Your experiences with support services
- Your thoughts on how to improve these services

You will also be asked to participate in an interview where we will ask you more questions about your experiences. The interview will take about 45-60 minutes.

3. Subject participation

We are inviting 228 people who use drugs and 48 key stakeholders to participate in this study. You are being asked to participate because you live in Lamu County and have experience with support services for drug use.

4. Potential risks and discomfort

There are very few risks. We will keep your answers private and won't share your name or any information that tells people it's you. If you feel uncomfortable at any time, you can stop participating.

5. Potential benefits

Your answers will help us understand how to make support services better for people who use drugs in Lamu County. This will benefit the community and future research.

6. Confidentiality

We will keep your information safe. Only the people working on the study will see it. We won't share your name or any information that tells people it's you.

7. Voluntary participation and authorization

The decision to participate in this study is purely voluntary. You can say no, and you won't get in trouble.

8. Withdrawal from the study

If you decide to participate in this study and feel the need to stop at any time, you can do so without any penalty.

9. Cost and Compensation

There is no cost in participating in this study.

10. Questions and Contact Information

If you have any questions or need more information, you can ask:

- Ahmed Mohamed Salat
 - Phone: +254 722 131 967
 - Email: ahmedsalat17@gmail.com

If you have questions about your rights, you can ask:

- The Secretary, ESRC
 - Amref Health Africa in Kenya
 - Wilson Airport, Lang'ata Road
 - Tel: +254 20 6994000
 - Mobile: 0795746777
 - Fax: +254 20 606340
 - P.O. Box 30125-00100
 - Nairobi, Kenya

11. Understanding and Agreement

I have read the above information, or it has been read to me. I understand what the study is about and I agree to participate.

Participant's Name: _____

Date: ___ / ___ / ___

Participant's Signature: _____

(If the participant is unable to sign, a thumbprint or footmark can be used.)

Witness's Name: _____

Witness's Signature: _____

(Date: ___ / ___ / ___)

Researcher's Name: Ahmed Mohamed Salat

Researcher's Signature: _____

Date: ___ / ___ / ___

12. Additional Information

- **Parental/Caregiver Consent:** Your parent or guardian has also given their consent for you to participate in this study.
- **Support Services:** If you feel upset or need support during the study, we will provide you with information about available counseling services.
- **Data Use:** The information you provide will be used only for research purposes and will help us improve support services for people who use drugs in Lamu County.

Appendix III: Minor Assent Form (Swahili)

Kichwa cha Mradi

Vizuizi vya Upataji wa Huduma za Usaidizi kwa Watu Wanaotumia Dawa Haramu katika Kaunti ya Lamu, Kenya

Jina la Mtafiti: Ahmed Mohamed Salat

Jina la Taasisi: Chuo Kikuu cha Kimataifa cha Amref

1. Utangulizi na Madhumuni ya Utafiti

Utafiti huu unalenga kuelewa changamoto ambazo watu wanaotumia dawa za kulevya hukumbana nazo wanapotaribu kupata msaada katika Kaunti ya Lamu. Tunataka kufanya iwe rahisi kwa watu kupata huduma za usaidizi.

2. Maelezo ya Utafiti

Katika utafiti huu, utaombwa kujaza dodoso kuhusu uzoefu wako na huduma za usaidizi.

Dodoso lina sehemu tatu:

- Taarifa za msingi
- Uzoefu wako na huduma za usaidizi
- Maoni yako kuhusu jinsi ya kuboresha huduma hizi

Pia, utaombwa kushiriki katika mahojiano ambapo tutauliza maswali zaidi kuhusu uzoefu wako. Mahojiano yatadumu takriban dakika 45-60.

3. Ushiriki wa Washiriki

Tunawaalika watu 228 wanaotumia dawa za kulevya na wadau wakuu 48 kushiriki katika utafiti huu. Umechaguliwa kwa sababu unaishi katika Kaunti ya Lamu na una uzoefu na huduma za usaidizi kwa watumiaji wa dawa za kulevya.

4. Hatari Zinazoweza Kutokea na Usumbufu

Hatari ni chache sana. Tutaweka majibu yako kuwa siri na hatutashiriki jina lako au taarifa yoyote inayoweza kukutambulisha. Ukihisi kutokuwa na raha wakati wowote, unaweza kuacha kushiriki.

5. Manufaa Yanayoweza Kupatikana

Majibu yako yatatusaidia kuelewa jinsi ya kuboresha huduma za usaidizi kwa watu wanaotumia dawa za kulevya katika Kaunti ya Lamu. Hii itakuwa na manufaa kwa jamii na utafiti wa baadaye.

6. Faragha

Tutaweka taarifa zako salama. Ni watu wanaofanya kazi kwenye utafiti huu pekee ndio watakaoweza kuziona. Hatutashiriki jina lako au taarifa yoyote inayoweza kukutambulisha.

7. Ushiriki wa Hiari na Idhini

Uamuzi wa kushiriki katika utafiti huu ni wa hiari kabisa. Unaweza kusema hapana, na hutapata matatizo yoyote.

8. Kujiondoa Katika Utafiti

Ukikubali kushiriki katika utafiti huu lakini ukahisi unahitaji kuacha wakati wowote, unaweza kufanya hivyo bila adhabu yoyote.

9. Gharama na Fidia

Hakuna gharama yoyote kwa kushiriki katika utafiti huu.

10. Maswali na Taarifa za Mawasiliano

Ikiwa una maswali au unahitaji maelezo zaidi, unaweza kuwasiliana na:

Ahmed Mohamed Salat

Simu: +254 722 131 967

Barua pepe: ahmedsalat17@gmail.com

Ikiwa una maswali kuhusu haki zako, unaweza kuwasiliana na:

Katibu, ESRC

Amref Health Africa, Kenya

Uwanja wa Ndege wa Wilson, Barabara ya Lang'ata

Simu: +254 20 6994000

Simu ya Mkononi: 0795746777

Faksi: +254 20 606340

S.L.P. 30125-00100, Nairobi, Kenya

11. Uelewa na Makubaliano

Nimesoma maelezo yaliyo hapo juu, au nimesomewa. Ninaelewa lengo la utafiti huu na ninakubali kushiriki.

Jina la Mshiriki: _____

Tarehe: ___ / ___ / _____

Sahihi ya Mshiriki: _____

(Kama mshiriki hawezi kusaini, alama ya kidole gumba au alama ya mguu inaweza kutumika.)

Jina la Shahidi: _____

Sahihi ya Shahidi: _____

(Tarehe: ___ / ___ / ___)

Jina la Mtafiti: Ahmed Mohamed Salat

Sahihi ya Mtafiti: _____

Tarehe: ___ / ___ / ___

12. Taarifa ya Ziada

Idhini ya Mzazi/Mlezi: Mzazi wako au mlezi wako pia ametoa idhini yao ili uweze kushiriki katika utafiti huu.

Huduma za Usaidizi: Ikiwa utahisi huzuni au unahitaji msaada wakati wa utafiti, tutakupa maelezo kuhusu huduma za ushauri nasaha zinazopatikana.

Matumizi ya Taarifa: Taarifa utakazotoa zitatumika tu kwa madhumuni ya utafiti na zitatusaidia kuboresha huduma za usaidizi kwa watu wanaotumia dawa za kulevyo katika Kaunti ya Lamu.

Appendix IV: Parental/Caregiver Consent Form (English)

Title of the project: Access Barriers to Support Services for People Who Use Illicit Drugs in Lamu County, Kenya

Name of the research: Ahmed Mohamed Salat

Institutional Name: Amref International University

1. Introduction and purpose of the study

This study aims to understand the challenges people who use drugs face when they try to get help in Lamu County. We want to make it easier for people to access support services. Your child has been invited to participate in this study because they live in Lamu County and have experience with support services for drug use.

2. Description of the research

In this study, your child will be asked to fill out a questionnaire about their experiences with support services. The questionnaire has three parts:

- Background information
- Their experiences with support services
- Their thoughts on how to improve these services

Your child will also be asked to participate in an interview where we will ask them more questions about their experiences. The interview will take about 45-60 minutes.

3. Subject participation

We are inviting 228 people who use drugs and 48 key stakeholders to participate in this study. Your child is being asked to participate because they live in Lamu County and have experience with support services for drug use.

4. Potential risks and discomfort

There are very few risks. We will keep your child's answers private and won't share their name or any information that identifies them. If your child feels uncomfortable at any time, they can stop participating.

5. Potential benefits

Your child's answers will help us understand how to make support services better for people who use drugs in Lamu County. This will benefit the community and future research.

6. Confidentiality

We will keep your child's information safe. Only the people working on the study will see it. We won't share your child's name or any information that identifies them.

7. Voluntary participation and authorization

The decision to participate in this study is purely voluntary. You and your child can say no, and there will be no penalty.

8. Withdrawal from the study

If you or your child decide to participate in this study and feel the need to stop at any time, you can do so without any penalty.

9. Cost and Compensation

There is no cost in participating in this study.

10. Questions and Contact Information

If you have any questions or need more information, you can ask:

- Ahmed Mohamed Salat
 - Phone: +254 722 131 967
 - Email: ahmedsalat17@gmail.com

If you have questions about your rights, you can ask:

- The Secretary, ESRC
 - Amref Health Africa in Kenya
 - Wilson Airport, Lang'ata Road
 - Tel: +254 20 6994000
 - Mobile: 0795746777
 - Fax: +254 20 606340

- P.O. Box 30125-00100
- Nairobi, Kenya

11. Understanding and Agreement

I have read the above information, or it has been read to me. I understand what the study is about and I agree to let my child participate.

Parent/Caregiver's Name: _____

Date: ___ / ___ / _____

Parent/Caregiver's Signature: _____

Child's Name: _____

Date: ___ / ___ / _____

Researcher's Name: Ahmed Mohamed Salat

Researcher's Signature: _____

Date: ___ / ___ / _____

12. Additional Information

- **Support Services:** If your child feels upset or needs support during the study, we will provide them with information about available counseling services.
- **Data Use:** The information your child provides will be used only for research purposes and will help us improve support services for people who use drugs in Lamu County.

Appendix V: Parental/Caregiver Consent Form (Swahili)

Kichwa cha Mradi: Vizuizi vya Upataji wa Huduma za Usaidizi kwa Watu Wanaotumia

Dawa Haramu katika Kaunti ya Lamu, Kenya

Jina la Mtafiti: Ahmed Mohamed Salat

Jina la Taasisi: Chuo Kikuu cha Kimataifa cha Amref

1. Utangulizi na Madhumuni ya Utafiti

Utafiti huu unalenga kuelewa changamoto ambazo watu wanaotumia dawa za kulevyia hukumbana nazo wanapojaribu kupata msaada katika Kaunti ya Lamu. Tunataka kufanya iwe rahisi kwa watu kupata huduma za usaidizi. Mtoto wako amelikwa kushiriki katika utafiti huu kwa sababu anaishi katika Kaunti ya Lamu na ana uzoefu na huduma za usaidizi kwa watumiaji wa dawa za kulevyia.

2. Maelezo ya Utafiti

Katika utafiti huu, mtoto wako ataombwa kujaza dodoso kuhusu uzoefu wake na huduma za usaidizi. Dodoso lina sehemu tatu:

- Taarifa za msingi
- Uzoefu wao na huduma za usaidizi
- Mawazo yao kuhusu jinsi ya kuboresha huduma hizi

Mtoto wako pia ataombwa kushiriki katika mahojiano ambapo tutauliza maswali zaidi kuhusu uzoefu wake. Mahojiano yatadumu takriban dakika 45-60.

3. Ushiriki wa Washiriki

Tunawaalika watu 228 wanaotumia dawa za kulevyia na wadau wakuu 48 kushiriki katika utafiti huu. Mtoto wako ameombwa kushiriki kwa sababu anaishi katika Kaunti ya Lamu na ana uzoefu na huduma za usaidizi kwa watumiaji wa dawa za kulevyia.

4. Hatari Zinazoweza Kutokea na Usumbufu

Hatari ni chache sana. Tutaweka majibu ya mtoto wako kuwa siri na hatutashiriki jina lake au taarifa yoyote inayoweza kumtambulisha. Ikiwa mtoto wako atahisi kutokuwa na raha wakati wowote, anaweza kuacha kushiriki.

5. Manufaa Yanayoweza Kupatikana

Majibu ya mtoto wako yatatusaidia kuelewa jinsi ya kuboresha huduma za usaidizi kwa watu wanaotumia dawa za kulevya katika Kaunti ya Lamu. Hii itakuwa na manufaa kwa jamii na utafiti wa baadaye.

6. Faragha

Tutaweka taarifa za mtoto wako salama. Ni watu wanaofanya kazi kwenye utafiti huu pekee ndio watakaoweza kuziona. Hatutashiriki jina la mtoto wako au taarifa yoyote inayoweza kumtambulisha.

7. Ushiriki wa Hiari na Idhini

Umuzi wa kushiriki katika utafiti huu ni wa hiari kabisa. Wewe na mtoto wako mnaweza kusema hapana, na hakutakuwa na adhabu yoyote.

8. Kujiondoa Katika Utafiti

Ikiwa wewe au mtoto wako mtakubali kushiriki katika utafiti huu lakini mkahisi mnahitaji kuacha wakati wowote, mnaweza kufanya hivyo bila adhabu yoyote.

9. Gharama na Fidia

Hakuna gharama yoyote kwa kushiriki katika utafiti huu.

10. Maswali na Taarifa za Mawasiliano

Ikiwa una maswali au unahitaji maelezo zaidi, unaweza kuwasiliana na:

- **Ahmed Mohamed Salat**
 - Simu: +254 722 131 967
 - Barua pepe: ahmedsalat17@gmail.com

Ikiwa una maswali kuhusu haki zako, unaweza kuwasiliana na:

- **Katibu, ESRC**

- Amref Health Africa, Kenya
- Uwanja wa Ndege wa Wilson, Barabara ya Lang'ata
- Simu: +254 20 6994000
- Simu ya Mkononi: 0795746777
- Faksi: +254 20 606340
- S.L.P. 30125-00100, Nairobi, Kenya

11. Uelewa na Makubaliano

Nimesoma maelezo yaliyo hapo juu, au nimesomewa. Ninaelewa lengo la utafiti huu na ninakubali mtoto wangu kushiriki.

Jina la Mzazi/Mlezi: _____

Tarehe: ___ / ___ / ___

Sahihi ya Mzazi/Mlezi: _____

Jina la Mtoto: _____

Tarehe: ___ / ___ / ___

Jina la Mtafiti: Ahmed Mohamed Salat

Sahihi ya Mtafiti: _____

Tarehe: ___ / ___ / ___

12. Taarifa ya Ziada

- **Huduma za Usaidizi:** Ikiwa mtoto wako atahisi huzuni au atahitaji msaada wakati wa utafiti, tutampatia maelezo kuhusu huduma za ushauri nasaha zinazopatikana.
- **Matumizi ya Taarifa:** Taarifa atakazotoa mtoto wako zitatumika tu kwa madhumuni ya utafiti na zitasaidia kuboresha huduma za usaidizi kwa watu wanaotumia dawa za kulevya katika Kaunti ya Lamu.

Appendix VI: Questionnaire for people who use drugs in Lamu County

This questionnaire is designed to gather information on access barriers to support services for people who use drugs in Lamu County, Kenya. The study aims to assess awareness of available services, satisfaction with current support, socioeconomic factors affecting access, and overall accessibility of these services. Your honest responses will contribute to improving support services in our community.

SECTION A: DEMOGRAPHIC DATA

1. Gender
 - i. Male
 - ii. Female
2. Age range:
 - i. Below 18 years
 - ii. 18-24 years
 - iii. 25-34 years
 - iv. 35-44 years
 - v. 45-54 years
 - vi. 55 years and above
3. Highest level of education:
 - i. No formal education
 - ii. Primary level
 - iii. Secondary level
 - iv. Tertiary level
4. Employment status

- iii. Employed
 - iv. Self-employed
 - v. Unemployed
 - vi. Student
5. Monthly income
- i. Below 10,000 KES
 - ii. 10,000-20,000 KES
 - iii. 20,001-30,000 KES
 - iv. 30,001-40,000 KES
 - v. 40,001-50,000 KES
 - vi. Above 50,000 KES
6. Which of the following substances do you primarily use? (Tick all that apply)
- i. Heroin
 - ii. Cocaine
 - iii. Alcohol
 - iv. Muguka
 - v. Prescription drugs
 - vi. Marijuana
 - vii. Others (please specify)
7. How do you primarily consume drugs? (Tick all that apply)
- i. Oral ingestion
 - ii. Smoking
 - iii. Injection

iv. Snorting

v. others

SECTION B: AWARENESS OF SUPPORT SERVICES Kindly tick (✓) once per question in the box provided below, where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

Statements	1	2	3	4	5
1. I am fully aware of the available support services that are designed to help people who use illicit drugs in my community.					
2. I know where to find support services and understand what they offer to people who use illicit drugs.					
3. I am familiar with the steps required to access support services when I need them.					
4. I am able to reach support services with ease whenever I need assistance.					
5. I can afford the support services I need to manage my health and recovery.					
6. I experience few or no challenges when seeking help from drug-related support services.					
7. I feel confident that I can access respectful, confidential, and high-quality support services at any time.					

SECTION C: SATISFACTION WITH SUPPORT SERVICES

Kindly tick (✓) once per question in the box provided below, where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

Statements	1	2	3	4	5
1. The quality of care at support services meets my needs.					
2. Service providers treat me with respect and dignity.					
3. My privacy and confidentiality are strictly maintained at support services					
4. The support services provide comprehensive care addressing all my needs					
5. I feel comfortable discussing my issues with the service providers.					
6. The support services are consistently available when I need them.					
7. I am satisfied with the follow-up care provided by the support services					

SECTION D: SOCIOECONOMIC FACTORS

Kindly tick (✓) once per question in the box provided below, where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

Statements	1	2	3	4	5
1. My level of education affects my ability to understand and access support services.					

2. My current employment status influences my ability to seek support services.					
3. My income level impacts my ability to afford and use support services.					
4. I have experienced difficulty paying for transportation to access support services.					
5. My work schedule allows me time to access support services when needed					
6. My housing situation affects my ability to consistently access support services.					
7. I can afford any fees or costs associated with using support services.					

SECTION E: INTERVENING VARIABLES

Kindly tick (✓) once per question in the box provided below, where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

Statements	1	2	3	4	5
1. Government regulations and laws have hindered my ability to access support services.					
2. Local authorities actively promote access to support services for drug users.					
3. There are sufficient facilities available for support services in my area.					

4. Support services are adequately staffed with trained professionals.					
5. Necessary medications and treatments are readily available at support services.					
6. I have faced stigma from family or community members for seeking support services.					
7. Community organizations provide additional support for drug users.					

SECTION F: ACCESS TO SUPPORT SERVICES

Kindly tick (✓) once per question in the box provided below, where 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

Statements	1	2	3	4	5
1. I am fully aware of the available support services that are designed to help people who use illicit drugs in my community.					
2. I know where to find support services and understand what they offer to people who use illicit drugs.					
3. I am familiar with the steps required to access support services when I need them.					
4. I am able to reach support services with ease whenever I need assistance.					
5. I can afford the support services I need to manage my health and recovery.					
6. I experience few or no challenges when seeking help from drug-related support services.					
7. I feel confident that I can access respectful, confidential, and high-quality support services at any time.					

Appendix VII: Interview guides for healthcare professionals, administrative staff, and community leaders

How would you assess the general awareness of support service locations among people who use drugs in Lamu County? What strategies have been effective in improving this awareness?

Can you describe the range of support services available for people who use drugs in this area? How do you ensure that information about these services reaches the study population?

What are the current means of accessing support services, and how do you think these could be improved to increase accessibility?

In your experience, how satisfied are service users with the quality of care provided?

What measures are in place to maintain or improve this quality?

How do you ensure that service providers treat clients with respect? Have there been any challenges in this area?

What policies and procedures are in place to maintain confidentiality for service users?

How effective have these been?

How do you think socioeconomic factors such as education level, employment status, and income affect access to support services? Can you provide specific examples?

What government policies currently influence access to drug treatment services in Lamu County? How effective have these policies been in improving access?

How would you describe the availability of resources (facilities, staff, and medications) for support services in this area? What are the main challenges in resource allocation?

How supportive is the local community towards people seeking drug treatment services?

What initiatives exist to improve community support?

What do you think are the most significant barriers preventing full access to support services for people who use drugs in Lamu County? What solutions would you propose to address these barriers?



Appendix VIII: Approval of Research Proposal



**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: 10th October 2024

TO: Ahmed Mohamed Salat

REF: AMIU/ARP/5845-1

RE: APPROVAL OF RESEARCH PROPOSAL

Following your fall proposal presentation on 24th July 2024, and subsequent review of your revised proposal, Graduate School Board has approved your research work entitled, "Access Barriers to Support Services for People Who Use drugs in Lamu County, Kenya."

You may now proceed with data collection subject to clearance with Amref Ethical Scientific Review Committee and the National Commission for Science, Technology & Innovation. Please note that ethical approval is a mandatory requirement for all research process.

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

Sincerely,

Dr. Dancan Irungu
Dean, Graduate School & Director Health Entrepreneurship
CC: Supervisors & HOD

Amref International University
Langata Road

P.O. Box 27691 - 00506
Nairobi, Kenya

Tel. +254 20 699 3000
Fax. +254 20 600 9518

enquiry@amref.ac.ke
www.amref.ac.ke

Appendix IX: Approval Letter



REF: AMREF – ESRC P1791/2024

Amref Health Africa in Kenya

February 6, 2025

Ahmed Salat
Amref International University
P.O Box 27691-00506
Nairobi, Kenya
Tel: 0722131967
Email: Ahmedsalat17@gmail.com

Dear Ahmed Salat,

RESEARCH PROTOCOL: ACCESS BARRIERS TO SUPPORT SERVICES FOR PEOPLE WHO USE ILLICIT DRUGS IN LAMU 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 P1791/2024. The approval period is from February 6, 2025, to February 5, 2026, and is subject to compliance with the following requirements:

- a) Only approved documents (including informed consents, study instruments, advertising materials, material transfer agreements, etc.) will be used.
- b) All changes including (amendments, deviations, violations, etc.) are submitted for review and approval by Amref ESRC before implementation.
- c) 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.
- d) 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.
- e) Clearance for export of biological specimen must be obtained from the relevant government authorities for each batch of shipment/export.
- f) 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.
- g) 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.
- h) Submission of an executive summary report within 90 days upon completion of the study to the Amref ESRC.
- i) 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.

Board Members: Mr J Kimeu | Mr G Macharia | Ms M Githinji | Ms E Munyoki | Mrs M Kinoti | Dr D Soti | Dr G Gitahi

P.O Box 30125-00100 Nairobi, Tel: +254 (0)20 699 4000, Fax: +254 (0)20699 2531, www.amref.org

Winner of the
Gates Award
BILL & MELINDA GATES FOUNDATION
for Global Health



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,

A circular blue ink stamp from AMREF - ESRC. The stamp contains a handwritten signature in blue ink, the date "FEB 2025", and the text "P.O. Box 30125-00100, NAIROBI" around the bottom edge. The stamp is partially overlapping the signature line.


Prof. Stephen Karanja
Chair, Amref ESRC

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

Appendix X: NACOSTI Permit




REPUBLIC OF KENYA



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Date of Issue: 27/April/2025


RESEARCH LICENSE



This is to Certify that Dr. AHMED MOHAMED SALAT 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 Lamu on the topic: ACCESS BARRIERS TO SUPPORT SERVICES FOR PEOPLE WHO USE ILLICIT DRUGS IN LAMU COUNTY, KENYA for the period ending : 27/April/2026.

License No: NACOSTI/P/25/4172885


Applicant Identification Number: 666883



Director General

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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See overleaf for conditions

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

CONDITIONS OF THE RESEARCH LICENSE

1. The License is granted subject to provisions of the Constitution of Kenya, the Science, Technology and Innovation Act, and other relevant laws, policies and regulations. Accordingly, the licensee shall adhere to such procedures, standards, code of ethics and guidelines as may be prescribed by regulations made under the Act, or prescribed by provisions of International treaties of which Kenya is a signatory to.
2. The research and its related activities as well as outcomes shall be beneficial to the country and shall not in any way:
 - i. Endanger national security
 - ii. Adversely affect the lives of Kenyans
 - iii. Be in contravention of Kenya's international obligations including Biological Weapons Convention (BWC), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Chemical, Biological, Radiological and Nuclear (CBRN).
 - iv. Result in exploitation of intellectual property rights of communities in Kenya
 - v. Adversely affect the environment
 - vi. Adversely affect the rights of communities
 - vii. Endanger public safety and national cohesion
 - viii. Plagiarize someone else's work
3. The License is valid for the proposed research, location and specified period.
4. Neither the license nor any rights thereunder are transferable.
5. The Commission reserves the right to cancel the research at any time during the research period if in the opinion of the Commission the research is not implemented in conformity with the provisions of the Act or any other written law.
6. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research.
7. Excavation, filming, movement, and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
8. The License does not give authority to transfer research materials.
9. The Commission may monitor and evaluate the licensed research project for the purpose of assessing and evaluating compliance with the conditions of the License.
10. The Licensee shall submit one hard copy, and upload a soft copy of their final report (thesis) onto a platform designated by the Commission within one year of completion of the research.
11. The Commission reserves the right to modify the conditions of the License including cancellation without prior notice.
12. Research, findings and information regarding research systems shall be stored or disseminated, utilized or applied in such a manner as may be prescribed by the Commission from time to time.
13. The Licensee shall disclose to the Commission, the relevant Institutional Scientific and Ethical Review Committee, and the relevant national agencies any inventions and discoveries that are of National strategic importance.
14. The Commission shall have powers to acquire from any person the right in, or to, any scientific innovation, invention or patent of strategic importance to the country.
15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

National Commission for Science, Technology and
Innovation(NACOSTI),
Off Waiyaki Way, Upper Kabete,
P. O. Box 30623 - 00100 Nairobi, KENYA
Telephone: 020 4007000, 0713788787, 0735404245
E-mail: dg@nacosti.go.ke
Website: www.nacosti.go.ke

Appendix XI: Plagiarism Report

AHMED MOHAMED SALAT

ACCESS BARRIERS TO SUPPORT SERVICES FOR PEOPLE WHO USE ILLICIT DRUGS IN LAMU COUNTY, KENYA

 Corporación Universitaria Minuto de Dios, UNIMINUTO

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Matches that have quotation marks, but no in-text citation
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Matches with in-text citation present, but no quotation marks

Top Sources

- 8%  Internet sources
- 3%  Publications
- 3%  Submitted works (Student Papers)



Appendix XII: Map

