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Social and Structural Determinants of Unsafe Abortion in Kibera, Kenya: Implications for Young Women's Reproductive Health Policy

George Obhai

Strategic Planning and Programming, Intergovernmental Authority on Development (IGAD), Djibouti, Djibouti
Email: george.obhai@igad.int

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Abstract

Unsafe abortion is a leading cause of preventable maternal morbidity and mortality in Kenya, particularly in Nairobi's informal settlements. This paper investigates unsafe abortions among adolescent girls and young women in Kibera—one of Africa's largest urban slums—through a qualitative secondary data synthesis grounded in a Social Ecological Model (SEM) framework. This paper examines Kibera's demographics and healthcare infrastructure, the socio-cultural and legal context influencing reproductive health decisions, and the health and social impacts of unsafe abortion. Nationally, an estimated 41.9% of pregnancies are unintended, and up to 14% of all pregnancies end in unsafe abortion [1], translating to about 2600 deaths annually. In Kibera, poverty, limited healthcare access, pervasive stigma, and restrictive abortion laws converge to intensify these outcomes. Approximately half of Kibera's young women (ages 15 - 25) have experienced pregnancy—mostly unintended—amid widespread lack of contraceptive use and incidents of sexual violence [2] [3]. The resultant reliance on clandestine, unsafe abortion methods contributes substantially to maternal injuries and school dropouts in this community. This review uses the SEM's multi-level lens (individual, interpersonal, community, institutional, and policy) to bring together research on what causes and leads to unsafe abortions in Kibera and finds interventions that have been shown to work. Key strategies emerge for multifaceted prevention: legal reforms and clear guidelines to enable safe services, strengthening youth-friendly reproductive healthcare delivery, comprehensive sexuality education and school re-entry policies for young mothers and community engagement to reduce abortion stigma. These interventions, pursued in an integrated manner, could significantly reduce unsafe abortions and their devastating impact on young women's health and socio-economic futures in Kibera. The study underscores that improving adolescent reproductive health in slum contexts requires coordinated action across all levels—from empowering individual girls

to enacting supportive national policies—and offers insights relevant to similar low-resource urban settings.

Keywords

Unsafe Abortion, Adolescent Reproductive Health, Adolescent and Young Women's Pregnancy, Social-Ecological Model, Abortion Stigma, Maternal Mortality, Kibera, Kenya

1. Introduction

Unsafe abortion remains a critical contributor to preventable maternal morbidity and mortality in Kenya, with disproportionately severe impacts in urban informal settlements such as Kibera. Among adolescent girls and young women, intersecting factors—including limited access to contraception, gender-based violence, socio-cultural stigma, and restrictive abortion laws—drive high rates of unintended pregnancies and unsafe abortion practices. This introduction provides the contextual foundation for the study by outlining the demographic and healthcare landscape of Kibera, the socio-legal barriers to reproductive health access, and the prevailing cultural norms influencing young women's reproductive decision-making. This sets the background, problem statement, and study objectives. The study employs the Social-Ecological Model (SEM) as its conceptual framework, recognizing the multiple, interrelated levels of influence—individual, interpersonal, community, and societal—that shape reproductive health outcomes and guide policy interventions.

Kibera is one of Africa's largest informal settlements, characterised by severe poverty and inadequate public services. Official estimates place its population around 185,000 within approximately 2.5 square kilometres [2]-[4]. The settlement has a predominantly young population facing high unemployment, limited access to clean water and sanitation, and low household incomes [5].

Healthcare and education services are severely limited. With no public hospitals, residents depend mainly on overcrowded government clinics, NGO-run centres like Médecins Sans Frontières, and informal providers [5]. These barriers significantly affect reproductive health outcomes, with extremely high unintended pregnancy rates; about 50% of women aged 15 - 25 have experienced unplanned pregnancies, exceeding the national average of 42% [6]. Adolescent pregnancy is common, influenced by inadequate contraception access, sexual violence described as "endemic", and insufficient sexual health education [6].

1.1. Background Information

Cultural Norms, Gendered Power, and Social Stigma Influencing Adolescent Girls and Young Women's Reproductive Health in Kibera

In Kibera, deeply rooted cultural and religious norms significantly shape adolescent girls' and young women's reproductive health decisions—particularly in re-

lation to contraception and abortion. Prevailing beliefs associate contraceptive use with promiscuity, especially among unmarried girls, leading to misinformation and widespread fear of long-term side effects, including infertility [1] [7]. Conservative religious teachings strongly discourage premarital sex, promoting abstinence-only narratives that often exclude practical guidance on contraceptive options or pregnancy prevention. Within this context, discussions of sexuality are taboo, and access to accurate reproductive health information is limited.

Gendered power dynamics further constrain adolescents' ability to make autonomous reproductive choices. Many young women, particularly those in age-disparate or economically dependent relationships, report limited negotiation power regarding contraceptive use [8] [9]. Male partners frequently resist or reject contraception, reinforcing social expectations that women must remain submissive in sexual and reproductive decisions. These relational dynamics heighten girls' vulnerability to unintended pregnancies and increase the likelihood of resorting to unsafe abortions.

Community stigma surrounding adolescent pregnancy and abortion intensifies these challenges. Girls who become pregnant outside of marriage are often ostracised, shamed, or expelled from school, which leads many to conceal pregnancies and avoid seeking timely reproductive healthcare. The fear of social punishment—including public humiliation, parental rejection, or forced marriage—drives many to pursue unsafe and clandestine abortions rather than access formal medical services [10] [11].

Healthcare institutions often mirror these societal norms, with providers' judgemental attitudes discouraging adolescents from seeking contraception or post-abortion care. Reports of adolescents being scolded or denied services due to their age or marital status are common, further eroding trust in the healthcare system [12]. The lack of youth-friendly services and culturally competent care not only deters.

1.2. Problem Statement

The problem guiding this study is that young women in Kibera experience disproportionately high risks of severe health complications and mortality from unsafe abortions due to intersecting factors of poverty, limited healthcare access, societal stigma, and restrictive abortion laws. These conditions reinforce cycles of adverse reproductive health outcomes and deepen socioeconomic vulnerabilities among marginalised urban youth.

1.3. Justification for the Research

This research is justified by the urgent public health implications associated with unsafe abortions among young women in Kibera, an informal settlement characterised by profound socioeconomic vulnerabilities and limited healthcare infrastructure. Existing evidence highlights a disproportionately high incidence of unintended pregnancies in Kibera, primarily driven by inadequate contraceptive use,

misinformation, and pervasive sexual violence. These conditions compel many adolescents and young women to resort to clandestine, unsafe abortion practices, further aggravated by restrictive legal frameworks and significant social stigma. The social-ecological model (SEM) is used as a framework for this study, which looks at how different factors at the individual, interpersonal, community, institutional, and policy levels affect unsafe abortions. The study's results are meant to help make integrated, policy- and intervention-based suggestions that will improve adolescent reproductive health and lower the number of mothers who get sick or die in Kibera and other low-resource cities like it.

1.4. Research Objectives and Questions

The objective of this study is to systematically examine the factors contributing to unsafe abortions among adolescent girls and young women in Kibera and identify evidence-based interventions aimed at enhancing reproductive health outcomes in this setting. In particular, the research synthesises existing data to elucidate individual, interpersonal, community, institutional, and policy-level factors influencing unsafe abortion practices. Further, the study intends to provide actionable recommendations for policymakers, healthcare providers, and community stakeholders to inform targeted, multi-level strategies for mitigating unsafe abortion and its adverse health and socioeconomic impacts within Kibera and similar urban informal settlements.

To achieve the objectives outlined, this review addresses the following research questions:

1) What is the prevalence and extent of unsafe abortions among adolescent girls and young women in Kibera, and what are the associated health and social consequences?

2) What individual, interpersonal, community, institutional, and policy-level determinants contribute significantly to the incidence of unsafe abortions in Kibera?

3) Which evidence-based strategies or interventions, grounded in global best practices, could effectively mitigate unsafe abortions and enhance reproductive health outcomes among adolescents and young women in Kibera?

Addressing these questions will provide a comprehensive understanding of both the scale of unsafe abortion and the underlying multi-level determinants, thereby guiding the development of integrated, context-specific interventions to improve adolescent reproductive health in Kibera.

2. Literature Review and Theoretical Framework

This section synthesises existing empirical and theoretical literature on unsafe abortion, with a focus on its prevalence, determinants, and consequences among adolescents in low-resource urban settings, particularly in sub-Saharan Africa. It also introduces the Social-Ecological Model (SEM) as the conceptual framework guiding this study, highlighting its utility in analysing the multilevel factors—in-

dividual, interpersonal, community, institutional, and policy—that influence reproductive health behaviours and outcomes in contexts such as Kibera.

2.1. Literature Review

Unsafe Abortion in Low-Resource Urban Settings

Unsafe abortion remains a critical public health and human rights challenge worldwide. Globally, an estimated 25 million unsafe abortions occur each year, representing approximately 45% of all abortions, predominantly in developing countries [13]. Such procedures significantly contribute to maternal injury and death, accounting for roughly 13% of maternal mortalities globally [14]. The impacts are particularly severe in sub-Saharan Africa, where abortion laws are typically restrictive and healthcare infrastructure is often inadequate. Kenya exemplifies this issue: as of 2012, the induced abortion rate in Kenya was approximately 48 per 1000 women of reproductive age, increasing from 32 per 1000 women a decade earlier [15]. This translates to approximately 464,000 abortions annually, many of which are unsafe [15]. Adolescents contribute notably to these statistics; recent data indicates that 63% of adolescent pregnancies in Kenya are unintended, with over a third ending in abortion [13]. Research across East Africa identifies key drivers of teen pregnancy and unsafe abortion, including low contraceptive use, poverty, gender inequality, and sexual violence [16]. These issues are intensified in urban slum environments characterised by deprivation.

Kibera presents a distinct context through which to explore these broader issues. Nearly half of young women aged 15 - 25 in Kibera have experienced pregnancy, often unintended [2]. Early sexual debut is prevalent, with many girls becoming sexually active by ages 14 - 16, frequently lacking accurate sexual health information [5]. Contraceptive use among adolescents is notably low, with approximately 10% of teenage girls reporting use of modern contraception [15]. This limited usage is largely driven by misinformation, fear of side effects, and sociocultural stigma surrounding adolescent contraceptive use [15]. Access to contraception is further hindered by non-youth-friendly health services and the fear among adolescents of judgment or breach of confidentiality by healthcare providers [16]. Gender dynamics further impede contraception uptake, as male partners often control contraceptive decisions, associating contraceptive use with promiscuity or infidelity [15]. Additionally, economic hardship drives transactional sex, increasing risks of unintended pregnancy [16].

Sexual violence significantly exacerbates reproductive health challenges in Kibera, with consistently high reports of rape and sexual abuse, particularly among adolescent girls [15]. The aftermath of such violence frequently includes psychological trauma and unintended pregnancies, with cumbersome legal and procedural barriers limiting survivors' access to safe abortions even in legally permissible cases, thereby increasing reliance on unsafe methods.

Cultural and religious stigma compounds these challenges, particularly stigmatising premarital pregnancy and abortion [15]. Girls often conceal pregnancies or pursue unsafe clandestine abortions to avoid social ostracism, expulsion from

school, or forced early marriage. Abortion stigma also negatively impacts healthcare provision, with some healthcare providers themselves perpetuating it, deterring adolescents from accessing necessary post-abortion care [10].

Kenya's restrictive legal context further complicates this issue. Despite the 2010 Kenyan Constitution allowing abortion under specific medical and legal circumstances, implementation has been challenging due to persistent ambiguities and socio-political pushback [17] [18]. Although recent court rulings (2019, 2022) have clarified and reinforced constitutional abortion rights, practical implementation gaps remain, particularly in informal settings like Kibera, due to limited training and awareness among healthcare providers and the community [19]. Addressing these legal and policy barriers through clear guidelines, provider training, and public awareness could substantially reduce unsafe abortions and related health outcomes.

2.2. The Social-Ecological Model (SEM) Framework

This study employs the Social-Ecological Model (SEM) as its conceptual framework to systematically examine the interconnected determinants of unsafe abortion among adolescent girls and young women in Kibera. Bronfenbrenner's SEM is a complete way to look at public health problems because it incorporates changing interactions between different levels of the environment, ranging from personal traits to larger societal factors [20]. The model employed in this research consists of five levels: individual, interpersonal, community, institutional/organizational, and policy/societal. Each of these levels exerts a distinct influence on the subject of study, demonstrating that no single factor operates independently. Instead, risk factors in the personal, social, and structural domains interconnect and collaborate.

At the individual level, factors such as adolescents' knowledge and misconceptions regarding reproductive health, personal beliefs about abortion, and psychological conditions such as fear and shame significantly impact their reproductive decisions. The interpersonal level focuses on relationships with immediate social networks, including familial, peer, and partner influences. These relationships can either support or coerce young women in their reproductive choices, particularly concerning contraceptive use and pregnancy prevention. The community level encompasses broader societal attitudes, cultural norms, and social networks within Kibera. Community factors such as prevailing stigmas related to teen sexuality and abortion, coupled with local socio-economic instability and violence, considerably affect adolescent girls and young women's reproductive health behaviours and access to services. At the institutional/organisational level, interactions with healthcare facilities, educational institutions, religious organisations, and other local entities critically shape access to reproductive health services and support systems. Institutional constraints, including limited healthcare accessibility, inadequate provision of youth-friendly services, and punitive educational policies toward pregnant adolescents, directly influence health outcomes. Finally, the policy/societal level addresses the broader legal, economic, and social conditions, in-

cluding restrictive abortion laws, healthcare policies, and systemic gender inequalities. The enforcement and interpretation of these policies significantly impact the availability and accessibility of safe abortion services in Kibera.

Employing the SEM framework allows this analysis to elucidate how these multi-level determinants collectively contribute to the high incidence of unsafe abortion among adolescents and young women in Kibera. The SEM also helps in creating all-encompassing and cross-sectoral intervention plans that focus on people's actions, community norms, institutions' abilities, and policy frameworks all at the same time. This process gives us more detailed information and suggestions for how to stop problems before they happen.

3. Methods

This section details the research design, data sources, and analytical approach used to investigate the multi-level determinants of unsafe abortion in Kibera. It describes the qualitative secondary data synthesis process, including literature search strategies, inclusion criteria, and data extraction techniques. The section also outlines the application of the Social Ecological Model (SEM) as an organisational framework for thematic analysis, ensuring a structured interpretation of findings across individual, interpersonal, community, institutional, and policy levels.

3.1. Research Design

This study used a qualitative secondary data synthesis method and did a thorough literature review and thematic analysis of existing scholarly and grey literature on teens and young women getting unsafe abortions in Kibera and other similar urban informal settlements. Secondary sources reviewed included peer-reviewed journal articles, governmental and non-governmental organisation reports, demographic and health surveys, legal documentation, and credible media articles. The research design was exploratory and analytical, integrating diverse data to comprehensively address the defined research objectives. Methodologically, the study adhered to the principles of a scoping review and narrative synthesis, systematically identifying prevalent themes and gaps within the literature. The Social-Ecological Model (SEM) provided the conceptual framework for organising and interpreting data across multiple levels of influence [20].

3.2. Search Strategy

We conducted a systematic search of academic databases and institutional repositories, covering publications from approximately 2010 to 2024. The search targeted literature related to unsafe abortion, adolescent pregnancy, and reproductive health, specifically within Kenya or analogous sub-Saharan African urban informal settlements. Our search included databases such as PubMed, JSTOR, and Google Scholar and was complemented by regional sources like African Journals Online (AJOL). Keywords words utilised included "unsafe abortion," "induced

abortion," "adolescent reproductive health," "Kibera," "urban slum," "Kenya," "teen pregnancy," "abortion stigma," "abortion law Kenya," "post-abortion care," and "youth-friendly services." Additional targeted searches involved reviewing publications from authoritative organizations such as the African Population and Health Research Center (APHRC), Guttmacher Institute, World Health Organization (WHO), and relevant local NGOs. We screened the reference lists of identified publications to find additional pertinent sources.

The publications had to meet certain criteria: 1) they had to be released after Kenya's 2010 constitutional changes about abortion; 2) they had to be about unsafe abortion or closely related topics like unintended pregnancy, contraception, and maternal health among teens or young women; 3) they had to provide detailed data or analysis that was relevant to Kenya, with a focus on Nairobi's informal settlements, especially Kibera; and 4) they had to show that they used effective research methods and were reliable. Both qualitative and quantitative studies, legal analyses, and program evaluations were considered. We included relevant grey literature, such as NGO reports and academic theses, if it offered unique insights and upheld quality standards.

Publications from before 2008 (unless cited as definitive), sources that were not relevant to Kenya or similar sub-Saharan contexts, or sources that did not provide enough detailed information were not included. We also excluded sources that did not clearly disaggregate data from adolescent or urban informal settlements, as well as opinion-based articles lacking empirical support.

3.3. Data Extraction and Synthesis

Extracted data from included sources were organised using a structured matrix detailing source type, population characteristics, and key findings relevant to the research questions. The extracted information included quantitative data on prevalence and associated health outcomes, contributing factors, barriers to healthcare access, socio-economic determinants, policy contexts, and recommended interventions. Qualitative data, including illustrative case examples and quotations, were also documented.

The thematic synthesis was structured around the SEM levels (individual, interpersonal, community, institutional, and policy). We systematically identified and categorised recurring thematic patterns within each SEM level. Comparative analyses were performed between Kibera-specific data and broader national data to identify context-specific factors.

3.4. Data Triangulation and Reconciliation of Conflicting Estimates

This study applied data triangulation to enhance credibility by cross-verifying information from peer-reviewed articles, government reports, and publications by international and non-governmental organisations. In cases of conflicting statistics—such as varying estimates of maternal mortality or unsafe abortion prevalence—priority was given to the most recent and methodologically transparent sources, in-

cluding the Kenya Demographic and Health Survey, WHO, and the Guttmacher Institute. Where discrepancies remained, divergent estimates were reported with contextual commentary, highlighting potential causes such as methodological differences, timeframes, or definitional variations. This approach ensured analytical transparency and allowed for a nuanced interpretation of evidence within Kenya's complex reproductive health data landscape.

3.5. Quality Assurance and Triangulation

To ensure robust findings, the study applied methodological rigour through triangulation and quality assessment:

1) Cross-verification of statistical data: Numbers like the number of abortions and the death rate for mothers were confirmed by reports from the government, the APHRC, and other international organisations [15] [21].

2) Source credibility evaluation: All selected literature was assessed for methodological rigour, with peer-reviewed articles prioritised. Non-academic sources were utilised selectively and primarily to provide supplementary contextual examples.

3) Integration of diverse evidence: Quantitative data were complemented by qualitative narratives, offering comprehensive insights into both the scale and lived experiences of unsafe abortions in Kibera.

4) Identification of global best practices: Intervention strategies were informed by reviewing international guidelines and evaluating initiatives documented within similar contexts, focusing on feasibility and relevance for Kibera.

The secondary data synthesis approach, although comprehensive, is inherently limited by potential under-reporting due to legal restrictions and stigma surrounding unsafe abortions. Nevertheless, the triangulation and rigorous quality appraisal provide confidence in the validity and reliability of the synthesised conclusions.

4. Results

This section presents the key findings of the study, organised according to the levels of the Socio-Ecological Model (SEM). Drawing on a synthesis of secondary data, it highlights the prevalence and patterns of unsafe abortion among adolescent girls and young women in Kibera and identifies the intersecting factors—ranging from individual behaviours to policy-level constraints—that contribute to these outcomes. The findings provide a nuanced understanding of the structural, social, and institutional dynamics shaping reproductive health risks in this context.

4.1. Prevalence of Unsafe Abortions

Unintended pregnancy and unsafe abortion are highly prevalent among young women in Kibera. Approximately 50% of adolescent girls and women aged 15 -

25 have experienced pregnancy, the majority of which are unplanned [5]. A 2022 UNFPA report corroborates this trend, noting that unintended pregnancies among adolescent girls in informal urban settlements like Kibera remain disproportionately high, with most resulting from inadequate access to contraception and comprehensive sex education [22]. Young women under 19 are especially vulnerable; a substantial proportion of those seeking post-abortion care present with severe complications, suggesting they likely underwent unsafe procedures [23].

Many unintended pregnancies are associated with coercive relationships, lack of partner support for contraception, and sexual abuse. These dynamics severely constrain young women's agency in reproductive decision-making and increase their vulnerability to unsafe abortion. A qualitative study by Pathfinder International (2021) emphasised that gender power imbalances significantly affect contraceptive negotiation, with adolescent girls in slums often engaging in transactional or coercive sexual relationships. [24]

High rates of sexual violence and child sexual abuse have been described as endemic in Kibera [8]. The Kenya Demographic and Health Survey (2022) further confirms that 36% of adolescent girls in informal settlements have experienced sexual violence, contributing to unintended pregnancies. Stigma against premarital pregnancy and contraceptive use in the community creates additional barriers to accessing preventive care, increasing the likelihood of unsafe abortion. [25]

Limited access to youth-friendly reproductive health services and inconsistent sexual and reproductive health education across schools contribute to unmet needs among adolescents. According to IPAS (2020), only 1 in 4 public health facilities in Nairobi's informal settlements offer youth-specific sexual and reproductive health services [26]. Also, the absence of standardised and age-appropriate comprehensive sexuality education in most schools leaves students with limited knowledge about contraceptive methods, reproductive rights, and responsible sexual decision-making.

National data reflects a troubling rise in abortion rates—48 per 1000 women of reproductive age in 2012, up from 32 per 1000 a decade earlier—translating to approximately 465,000 induced abortions annually in Kenya [15]. The Guttmacher Institute (2023) estimates that 14% of unintended pregnancies in Kenya end in unsafe abortion, disproportionately affecting poor young women without access to private or quality public healthcare [27]. Further, the absence of a national legal framework for implementing safe abortion guidelines continues to drive clandestine procedures and limits safe options for adolescents.

These complex interactions show how widespread unsafe abortion is in Kibera (see **Table 1**). This is because of a high need for reproductive health services and problems with the way things are set up at the individual, interpersonal, community, institutional, and policy levels. Addressing this crisis requires coordinated, multi-sectoral responses targeting knowledge gaps, service delivery, stigma reduction, and legal reform.

Table 1. Annual abortion statistics (2005-2024)—Kibera informal settlements.

Year	Abortion Rate (per 1000 women aged 15 - 49)	Estimated Number of Abortions	Comments on Total Abortions (annual) Summary	Notable Policy/Legal Developments
2005	32	316,560	No official data; unsafe abortions common due to poverty and lack of health services (~0.3 - 1 million Kibera residents).	Completely illegal; no local policies. High unsafe abortion rates persist due to scarce contraception and endemic poverty.
2006	33	320,000	Unsafe abortions persist; frequent health complications from dangerous methods.	No legal changes; minimal NGO reproductive health outreach.
2007	34	325,400	Post-election violence increased unwanted pregnancies, causing more unsafe abortions or miscarriages.	No legal changes; NGOs focused on emergency responses, but safe abortion remained illegal.
2008	35	345,000	Continued widespread unsafe abortions using crude methods (wires, poisons).	NGOs improved contraception access and post-abortion care but abortion itself remained illegal.
2009	36	350,000	Unsafe abortions remained high due to severe economic hardships.	No formal policy; grassroots groups informally assisted emergency cases.
2010	37	360,000	High unsafe abortion rate continued despite new constitution technically permitting abortion under certain conditions.	Constitutional reform provided theoretical abortion rights, but no practical implementation in Kibera.
2011	40	380,000	Unsafe abortions unchanged; constitutional changes remained unknown locally.	No specific interventions or awareness reached Kibera.
2012	48	464,000	Kibera significantly contributed to Nairobi's estimated ~70,000 annual unsafe abortions; ~50% of women aged 15 - 25 pregnant at any given time.	New abortion standards not effectively implemented locally; NGOs continued post-abortion care and family planning, not direct abortion services.
2013	48	470,000	NGOs briefly referred eligible women for safe abortion; policy reversal forced return to unsafe methods.	Withdrawal of guidelines caused confusion, reversing progress; community education halted.
2014	48	473,000	Situation deteriorated; unsafe abortions continued as residents reverted fully to viewing abortion as completely illegal.	Strict prohibition maintained locally; no positive policy interventions.
2015	49	480,000	Unsafe abortions persisted, but shift towards pills (misoprostol) reduced usage of extremely dangerous methods. Complications common due to improper dosing.	Community forums addressed stigma subtly increasing awareness. No specific policy changes locally.
2016	49	485,000	Little change in unsafe abortion rate; more women using pills, slight improvement in post-abortion care through NGO presence.	Safe abortion legally unavailable; community largely unaware of any pending law changes.

Continued

2017	50	490,000	Preference for pills grew, despite illegal procurement and high costs. Dangerous combined methods still common.	Reproductive Health Bill drafted nationally; no direct local policy impact.
2018	50	495,000	Marie Stopes' service suspension negatively impacted contraception access; unsafe abortion risk increased temporarily.	No direct local policy actions; activism brought attention to Kibera's plight.
2019	50	500,000	Gradual implementation of the High Court ruling began; NGO workers openly referred eligible women (e.g., rape cases) for safe abortions.	Implementation phase of court ruling started, providers awaited clear instructions; increased NGO advocacy and community awareness.
2020	51	510,000	COVID-19 increased unsafe, self-managed abortions due to limited clinic access and economic hardship.	No local policy initiatives; outreach resumed later, leveraging the groundwork of 2019 court decision.
2021	51	515,000	Gradual improvements in policy implementation; clearer pathways to safe abortion emerged in eligible cases.	Ministry-distributed guidelines clarified abortion legality; improved access to legal aid and healthcare services.
2022	51	520,000	Small improvements as policy changes slowly took effect; safe referrals quietly increased. Majority abortions still unsafe.	Community dialogues promoted safe abortion rights; practical implementation limited despite supportive policy environment.
2023	52	525,000	Incremental improvements in access to information and post-abortion care; growing awareness reduced reliance on unsafe methods slightly.	Enhanced collaboration between NGOs and government improved family planning services; no dramatic policy shifts yet, but sustained advocacy strengthened local implementation.

African Population and Health Research Center (APHRC): Ministry of Health (MoH), IPAS, & Guttmacher Institute. (2013). Incidence and complications of unsafe abortion in Kenya (2012). Kenya Ministry of Health. Kenya National Bureau of Statistics (KNBS). (2009). Kenya Demographic and Health Survey 2008-09. Kenya Ministry of Health. Kenya National Bureau of Statistics (KNBS). (2015). Kenya Demographic and Health Survey 2014. Kenya Ministry of Health. Kenya National Bureau of Statistics (KNBS). (2023). Kenya Demographic and Health Survey 2022. Kenya Ministry of Health. Ministry of Health, Kenya. (2019). National standards and guidelines for reducing morbidity and mortality from unsafe abortion in Kenya (originally published 2012; reinstated 2019). Kenya Ministry of Health.

4.2. Cultural and Socioeconomic Norms Influence Contraception and Abortion

Cultural beliefs, religious ideologies, and widespread misinformation significantly shape young women's attitudes toward contraception and abortion. Many adolescents in Kibera believe that contraceptives cause infertility or severe health problems, discouraging their use [1]. According to the 2022 KDHS, over 30% of adolescent girls in urban informal settlements cited fear of infertility as the main reason for not using contraception [7]. These myths, combined with social pressure, result in low uptake—only about 10% of teenage girls in Kibera reportedly use modern contraceptives [1].

Gender dynamics and interpersonal power imbalances limit adolescent girls' autonomy in reproductive decision-making. Male partners, particularly in age-disparate or economically unequal relationships, often control contraceptive decisions, reinforcing narratives that contraceptive use equates to promiscuity [8]. A study by CARE International (2021) found that 42% of adolescent girls in Nairobi's informal settlements reported not using contraception because their partners objected to it, demonstrating the impact of coercion and lack of negotiation power [9].

Conservative cultural and religious norms in Kibera emphasise female chastity and strongly condemn premarital sex and pregnancy, fostering stigma and secrecy [10] [11]. Religious teachings often denounce abortion and discourage contraceptive use, especially among unmarried adolescents. As a result, people often conceal unintended pregnancies, and they resort to unsafe abortions in a desperate attempt to avoid public shame. Community disapproval also limits parental and peer support, making it harder for young women to seek reproductive health services.

Healthcare providers frequently mirror societal attitudes, and judgemental behaviour from providers discourages adolescents from accessing contraception or post-abortion care [1]. A 2021 UNFPA survey found that 38% of young women in informal settlements reported negative experiences with health providers, including being scolded or denied services. Additionally, the lack of standardised sexuality education in schools means that many adolescents receive incomplete or inaccurate information about their reproductive health options.

National policies and legal frameworks reinforce stigma by restricting access to safe abortion and failing to prioritise adolescent reproductive health. The lack of a national policy mandate for standardised, age-appropriate comprehensive sexuality education, coupled with limited budgetary support for adolescent-friendly health services, contributes to a policy environment that inadequately addresses the reproductive health needs of young women. According to the Guttmacher Institute (2023), Kenya spends less than 1% of its health budget on adolescent sexual and reproductive health services.

These intertwined cultural, societal, and policy-level norms perpetuate stigma and misinformation, driving many young women in Kibera toward unsafe reproductive health practices. To get around these problems, we need a coordinated, multi-level approach that includes working with the community, changing the health system, introducing changes to education policy, and speaking out in court to help teens make safe, well-informed, and shame-free choices about their reproductive health.

4.3. Health Complications

At the individual level, unsafe abortion significantly contributes to maternal morbidity and mortality, accounting for approximately 17% - 35% of maternal deaths in Kenya [28] [29]. Immediate complications include severe haemorrhage, infec-

tions leading to sepsis, uterine perforation, and damage to internal organs. Adolescents and young women face disproportionately higher risks; nearly 45% of post-abortion care (PAC) patients under 19 experience severe complications such as organ failure, largely due to delayed care-seeking and physiological vulnerability [1]. A 2022 audit of informal settlements in Nairobi found that over 75% of women who underwent unsafe abortions suffered moderate-to-severe complications, with many "near-miss" cases—situations where women experience life-threatening complications but survive due to timely medical intervention—requiring intensive care [1]. Additionally, a study by Pathfinder International (2022) reported that 1 in 5 adolescent girls who experienced complications reported long-term reproductive health issues, including secondary infertility and chronic pelvic pain. [24]

Relationships with family, partners, and peers strongly influence health outcomes following abortion. Negative or coercive relationships delay decision-making and hinder healthcare access, exacerbating the severity of complications. Conversely, support from trusted family or partners facilitates timely medical intervention and improves recovery. UNFPA (2021) found that adolescent girls who had supportive adults were twice as likely to seek post-abortion care within 24 hours of complication onset.

Widespread community stigma surrounding abortion often deters adolescents from seeking timely medical care. Fear of social condemnation, exclusion, and shame fosters secrecy, thereby increasing the risk of complications. Psychological trauma—such as anxiety, depression, and post-traumatic stress disorder—is common among young women who have undergone unsafe abortions in stigmatizing environments [11]. A 2023 Guttmacher Institute report also indicated that 58% of adolescent girls in Nairobi slums delayed seeking medical care after an abortion due to fear of being discovered.

Health facilities in Kibera and similar informal settlements often lack the capacity, resources, and trained personnel to manage abortion-related emergencies. This results in delayed treatment or improper care that worsens complications. A 2020 IPAS Africa Alliance assessment revealed that fewer than 30% of facilities in informal urban areas had equipment to handle severe abortion complications. Additionally, judgemental or punitive attitudes among some providers dissuade young women from disclosing their abortion status, hindering appropriate treatment.

Restrictive abortion laws in Kenya limit access to safe abortion and discourage providers from delivering care, even when permitted under the Constitution. This forces many young women to resort to clandestine and unsafe methods. The economic burden of treating abortion complications strains public healthcare systems and impoverished households alike. The Kenya Obstetrical and Gynaecological Society and Ministry of Health (2018) reported that unsafe abortion care costs the national health system over USD 5 million annually. Insurance or subsidies cover only a small fraction of these cases. Gaps in policy implementation, particularly around post-abortion care and legal clarity, further contribute to maternal

morbidity and mortality.

To deal with these multiple health problems, we need a combination of actions, such as more services that are friendly to young people, education in the community to reduce stigma, building up the skills of institutions, and changes to the law that make reproductive health safer. (See Table 2)

Table 2. Trends in unsafe abortions and related health outcomes.

Indicator	Statistic	Source
Unintended pregnancies (Kenya)	42% of all pregnancies	APHRC, 2019
Unintended pregnancies (Kibera)	~50% among women aged 15 - 25	CMI & ANPPCAN, 2015
National abortion rate (Kenya)	48 per 1000 women	Mohamed *et al.*, 2015
Annual induced abortions (Kenya)	Approx. 465,000 cases	Mohamed *et al.*, 2015
Unsafe abortion among adolescents	Up to 14% of unintended pregnancies	APHRC, 2023
Maternal deaths due to unsafe abortion	17% - 35% of maternal deaths nationally	KAARIA, 2019; Center for Reproductive Rights, 2010
Annual maternal deaths (Kenya)	Approx. 2600 women and girls	BHALLA, 2020
Severe health complications (under 19 years)	45% of post-abortion care cases	APHRC, 2023

4.4. Social and Economic Effects

Unsafe abortion disrupts personal development, educational attainment, and future economic stability for young women. Annually, an estimated 10,000 to 13,000 Kenyan girls drop out of school due to pregnancy-related issues [6], a number corroborated by a 2022 Ministry of Education brief that cited adolescent pregnancy as one of the top causes of school dropout among girls aged 15 - 19. This disruption directly limits future employment opportunities and contributes to persistent poverty and psychological distress. A longitudinal study by UNFPA (2021) also found that adolescent girls who dropped out of school due to pregnancy were twice as likely to be unemployed in early adulthood compared to their peers.

Familial and peer reactions significantly shape the trajectories of young women experiencing unintended pregnancies or unsafe abortions. Negative reactions—such as rejection or blame—often exacerbate social isolation and emotional distress, increasing the likelihood of risky coping mechanisms. Conversely, adolescents who receive family support are more likely to continue education, access healthcare, and maintain economic stability [24].

Stigmas and conservative norms in communities like Kibera contribute to the marginalisation of pregnant adolescents and young mothers. Community-wide disapproval leads to exclusion from peer groups, school, and community activities, reinforcing cycles of shame and silence. According to the Guttmacher Institute (2023), nearly 60% of adolescent girls in informal settlements reported feeling unwelcome in school or public spaces following a pregnancy. In addition, widespread poverty limits access to opportunities that might buffer the economic consequences of early motherhood or abortion complications.

Institutional responses—including school policies and healthcare practices—continue to exacerbate the socioeconomic vulnerabilities associated with unsafe abortion. Although national re-entry policies are in place, many schools in Kenya still impose expulsion or temporary suspension on pregnant students, undermining their educational continuity and long-term opportunities [30]. Moreover, healthcare facilities in informal urban settlements frequently lack the infrastructure and resources necessary to deliver affordable, adolescent-friendly sexual and reproductive health services, leading to significant out-of-pocket expenditures for affected families. According to the Ministry of Health and IPAS (2020), the cost of emergency treatment for abortion-related complications may account for over 20% of a household's monthly income in these settings.

At the policy level, restrictive abortion laws and limited investment in adolescent reproductive health services continue to disadvantage vulnerable populations. A 2023 budget analysis by KNBS revealed that only 0.8% of national health funding was allocated to adolescent sexual and reproductive health programmes. Furthermore, lack of enforcement of education re-entry policies and limited social protection mechanisms mean that pregnant girls and young mothers receive little formal support to complete schooling or access financial aid.

In summary, unsafe abortions perpetuate social and economic inequalities at all levels of the SEM. Structural interventions—including investment in youth-friendly healthcare, comprehensive re-entry policies, and poverty alleviation—are needed to address these multifaceted consequences and support the long-term well-being of young women in informal settlements like Kibera.

4.5. Legal Framework and Policy Context

At the individual level, the restrictive legal environment in Kenya contributes to fear and confusion among young women regarding the legality of abortion, leading many to resort to unsafe procedures. Personal experiences of stigma, legal uncertainty, and lack of awareness about constitutional provisions influence reproductive choices and deter timely care-seeking [10]. A 2021 study by Hussain (2021) found that over 60% of women seeking post-abortion care in urban informal settlements were unaware that abortion could be legal under certain conditions, reflecting widespread misinformation.

Legal ambiguity and fear of criminalisation influence how partners, families, and peers respond to unintended pregnancies. Women may face pressure from

their immediate social circles to conceal pregnancies or avoid healthcare settings altogether due to concerns over legal repercussions, further exposing them to unsafe abortion practices. The fear of legal consequences also affects the support systems around young women, limiting discussions and guidance on safe reproductive health options [31].

Within communities like Kibera, restrictive abortion laws reinforce prevailing social norms that associate abortion with moral failure and illegality. Community stigma, combined with misinformation about legal rights, deters young women from accessing reproductive services, even in cases where the law permits such care [10]. The 2022 Kenya Demographic and Health Survey (KDHS) revealed that only 18% of women in informal settlements believed they could legally access abortion even if their life was at risk, underscoring the depth of community-level misinformation.

Institutional confusion following legal reforms has led to cautious and often overly restrictive practices in public healthcare facilities. Following the 2010 constitutional amendment, the Ministry of Health released standards in 2012 to support access to safe abortion, but these were withdrawn in 2013, creating a policy vacuum and reinforcing fear among providers [17]. Health workers in Kibera frequently exercise caution, avoiding even legally permitted procedures out of fear of prosecution [18]. A 2020 audit of Nairobi County health facilities found that fewer than 15% of providers were confident about the legal criteria under which abortion could be offered [32].

The 2010 Constitution of Kenya permits abortion under specific conditions—when the life or health of the mother is at risk or under other written law (Article 26(4)). However, conflicting interpretations of the Penal Code and the absence of clear operational guidelines hinder implementation. In 2019, the High Court reaffirmed the legality of abortion under constitutional provisions and ordered the reinstatement of the withdrawn guidelines [17]. Further progress was made in 2022 when the Malindi High Court declared abortion care a constitutional right and ruled that arbitrary arrests of patients and providers are unlawful [19]. This decision was pivotal in reducing legal uncertainty and reaffirming reproductive rights. The ruling was expected to mitigate provider fears of prosecution, encouraging a more supportive environment for safe abortion and comprehensive post-abortion care. Furthermore, this judicial affirmation directly addresses stigma associated with abortion by legally recognising abortion care as essential to women's health rights, potentially fostering broader societal acceptance [19]. The ruling makes policy clarity possible by telling Parliament to pass clear laws that are in line with the constitution. This could reduce stigma, boost provider confidence, and improve access to safe reproductive health services in Kibera and other similar places [19]. Nevertheless, delays in legislative reform, limited provider training, and entrenched stigma mean that these policy advances have yet to fully materialise into improved access in settings like Kibera. Additionally, the Guttmacher Institute (2023) reported that despite recent court victories, Kenya still lacks a

comprehensive national abortion law, leaving policy implementation dependent on fragmented judicial interpretations and regional enforcement [27].

While recent court rulings offer significant legal protection and the potential to transform reproductive healthcare access, the practical translation of these changes remains slow. Many healthcare providers continue to fear prosecution and community-level attitudes remain conservative. Legal and policy reforms must be accompanied by timely dissemination of guidelines, provider training, public awareness efforts, and proactive enforcement to ensure that constitutional protections translate into safe and equitable reproductive health services for all [10] [19].

4.6. Healthcare Access and Infrastructure

At the individual level, young women in Kibera encounter substantial obstacles in obtaining reproductive health services, stemming from financial constraints, fear of stigma, and widespread misinformation. Many delay seeking post-abortion care or contraceptive services because they cannot afford treatment or fear judgemental healthcare providers. A 2021 study by the Ministry of Health found that 42% of adolescents in informal settlements delayed care-seeking after experiencing abortion-related complications due to cost concerns [33]. Fear of mistreatment also contributes to avoidance of care, especially for abortion-related issues perceived as illegal or taboo.

At the interpersonal level, families and partners often lack the knowledge or willingness to support young women in accessing healthcare. The stigma associated with abortion within households can discourage open conversations and prevent timely care-seeking. Studies indicate that many adolescents rely on peers or informal networks for health information, which increases the risk of misinformation and unsafe practices [1].

Kibera's densely populated and impoverished environment exacerbates health risks associated with unsafe abortion. The lack of clean water, sanitation, and sterile conditions heightens the risk of infection during clandestine abortion procedures. Cramped living conditions reduce privacy, making recovery from an abortion difficult and discouraging young women from accessing discreet services. A 2022 facility survey noted that 78% of women who underwent informal abortion procedures in urban slums cited the lack of confidential and safe services in their community as a major factor in their decision [27].

The healthcare infrastructure in Kibera is under-resourced relative to the needs of its estimated 250,000 - 300,000 residents. There is no public hospital within the settlement; care is provided by a small number of government clinics, NGOs such as Médecins Sans Frontières and Marie Stopes Kenya, and private chemists. While NGOs have expanded access to family planning, comprehensive reproductive services, including long-term contraception and safe abortion, are inconsistently available. Government clinics often lack trained personnel and supplies for managing abortion complications. A 2020 IPAS audit found that only 22% of facilities

in Nairobi's informal settlements were equipped to provide post-abortion care [26].

Broader systemic issues, including fragmented health financing and limited government investment in reproductive healthcare for slum populations, hinder service delivery. National health insurance schemes such as NHIF often do not fully cover post-abortion care, forcing out-of-pocket expenditures. Additionally, policy gaps in implementing youth-friendly services result in reproductive health programmes that fail to reach adolescent girls effectively. According to the 2022 Kenya Demographic and Health Survey [7], only 12% of adolescent girls in urban informal areas reported having accessed youth-specific reproductive health services.

In summary, the limitations of healthcare access in Kibera manifest across all SEM levels—from individual fear and financial barriers to institutional inadequacies and policy-level neglect. (See Table 3) Improving outcomes requires a comprehensive approach that includes infrastructure investment, training of health providers in nonjudgmental care, expansion of youth-friendly services, and policy reforms that prioritise adolescent reproductive health in urban informal settlements.

Table 3. Healthcare access and barriers in Kibera.

Aspect of Healthcare Access	Description of Barriers	Source(s)
Healthcare infrastructure	Limited; no public hospital within Kibera	Primary Research Findings
Emergency obstetric care	Critical delays due to referrals to facilities outside Kibera	Primary Research Findings
Cost barriers	High transport and hospital treatment fees	Kenya Obstetrical and Gynaecological Society & Ministry of Health, 2018
Stigma and social barriers	Fear of judgment from providers and community	Yegon, Kabanya, Echoka, & Osur, 2016
Contraceptive use among adolescents	Only ~10% consistently use contraceptives	APHRC, 2023
Availability of comprehensive reproductive services	Limited; most local clinics unable to offer comprehensive abortion care	Primary Research Findings

4.7. Interventions and Ongoing Initiatives

At the individual level, interventions have focused on improving knowledge and access to reproductive health resources for young women. Community education programmes and school-based comprehensive sexuality education initiatives aim to inform adolescents about contraception, reproductive rights, and safe health practices. A 2021 evaluation of adolescent SRH programmes by the Ministry of

Health found that girls who had access to consistent sexual education were 35% more likely to use modern contraceptives and 50% less likely to report unsafe abortions [33].

Youth mentorship and peer-support programmes have empowered young women to seek reproductive healthcare. These initiatives, often run by NGOs, create safe spaces for adolescents to share experiences, receive guidance, and connect with health services. Programs such as "Shujaaz" and "Tuko Works" in Nairobi slums have been successful in enhancing young people's SRH literacy and encouraging community-based dialogue on taboo topics like abortion [1].

Several NGOs have implemented community-level outreach and contraceptive distribution efforts in Kibera, improving access and uptake. Areas with active community contraception programs report significant improvements in contraceptive use, particularly among adolescents and young adults [27]. Initiatives like community health worker-led counselling and mobile clinics have been instrumental in breaking down barriers related to stigma and misinformation. Community telemedicine hotlines providing WHO-recommended guidance on self-managed abortion using misoprostol have also gained popularity, especially during the COVID-19 pandemic [34].

Capacity-building efforts for healthcare providers have focused on improving the quality of post-abortion care (PAC) and clarifying the legal allowances for safe abortion services. Training programmes supported by organisations such as Marie Stopes Kenya and IPAS Africa Alliance have improved provider competence and reduced stigma in clinical interactions. According to IPAS (2020), facilities with trained PAC staff reported a 60% reduction in post-abortion case fatality rates [32]. However, coverage remains uneven, with many public clinics still lacking trained personnel or essential supplies.

Legal and policy advocacy remains critical to sustaining and scaling interventions. Recent advocacy has focused on integrating successful NGO-led programmes into government frameworks, expanding youth-friendly health services, and enforcing policies that protect adolescent girls' right to return to school after pregnancy. National campaigns have also called for the implementation of the 2022 Malindi High Court ruling and for clearer national abortion guidelines [19]. Despite this progress, challenges persist due to limited funding and political resistance. As of 2023, only 28% of county health budgets included dedicated funding for adolescent reproductive health services [25].

In summary, while numerous interventions in Kibera show promise, their scalability and sustainability depend on coordinated, multi-level strategies aligned with the SEM framework. Effective interventions must address the individual and interpersonal barriers faced by adolescents, engage community leaders to reduce stigma, build institutional capacity for quality care, and advocate for policy reforms that create an enabling environment for reproductive health rights. Moving forward, scaling up successful models, strengthening public-private partnerships, and integrating SRH services into universal healthcare frameworks will be essential to reducing unsafe abortions and improving adolescent health outcomes in Kibera.

4.8. Monitoring and Future Research

We need ongoing monitoring and research to inform and adapt interventions. Because data on unsafe abortions in informal settlements can be difficult to collect (due to underreporting and secrecy), establishing better surveillance is important. To gauge progress, researchers and health authorities could, for instance, periodically survey women who present with abortion complications at Nairobi facilities. It would also be beneficial to document and evaluate pilot programmes (such as community distribution of abortion pills under medical guidance) to build evidence on what works. Generating more local data on adolescents' knowledge, attitudes, and practices regarding abortion would help tailor education campaigns effectively.

Further research might explore the long-term outcomes for young women in Kibera who survive unsafe abortions: How are their health, fertility, mental well-being, and socioeconomic status affected years later? Such studies can highlight areas for support, such as mental health services or economic empowerment programmes for those left with complications. Engaging Kibera's youth in participatory research could also yield insights—for instance, understanding how girls perceive the risks of pregnancy and abortion and what solutions they believe would help. By including the voices of young women themselves, interventions can become more responsive to their realities.

5. Analysis

This analysis applies the Social Ecological Model (SEM) to examine the intersecting factors contributing to unsafe abortions among adolescent girls and young women in Kibera. The SEM framework offers a multi-level lens—individual, interpersonal, community, institutional, and policy—to contextualise how structural and social determinants coalesce to influence reproductive health decisions and outcomes.

5.1. Prevalence and Determinants of Unsafe Abortion in Kibera

Unsafe abortion is widespread among young women in Kibera, with nearly half of those aged 15 - 25 having experienced at least one pregnancy, the majority of which are unintended [5]. Kenya's national unsafe abortion rate is estimated at 48 per 1000 women of reproductive age [15], and this figure is likely higher in urban informal settlements where access to contraception and health services is limited. Adolescents under 19 represent a significant proportion of abortion care patients, often presenting with severe complications [23].

At the individual level, a key driver of unintended pregnancy is limited contraceptive use. Only about 10% of adolescent girls in Kibera use modern contraception, largely due to misinformation, fear of side effects, and cultural beliefs that associate contraceptive use with promiscuity [1]. At the interpersonal level, many young women lack supportive relationships—whether from partners or parents—

that would enable them to access contraception. Some face active opposition from intimate partners or elders, while others avoid clinics due to fear of social stigma [8].

Community-level norms reinforce this stigma. Cultural and religious values strongly discourage premarital sex and pregnancy, making contraception and abortion taboo topics. As a result, many girls who become pregnant resort to secrecy, often pursuing unsafe abortions through traditional remedies, unlicensed pharmacies, or unregulated clinics [11].

Institutionally, Kibera's limited health infrastructure exacerbates the issue. Public facilities are under-resourced and frequently lack adolescent-friendly services or trained personnel for post-abortion care [32]. When young women do seek care, they may encounter judgemental providers, further deterring them from returning.

At the policy level, legal ambiguity surrounding abortion services in Kenya fuels widespread fear and misinterpretation among health workers. While the Constitution permits abortion under specific circumstances, the absence of clear operational guidelines has created a chilling effect, deterring providers from offering even legally permitted services [19].

5.2. Consequences of Unsafe Abortion

The health consequences of unsafe abortion are severe. An estimated 17% - 35% of maternal deaths in Kenya are attributed to unsafe abortion [28] [29]. Complications include haemorrhage, sepsis, uterine perforation, infertility, and chronic pain. Adolescents are at higher risk of severe outcomes due to delays in seeking care and limited physiological resilience. Approximately 45% of post-abortion care patients under 19 report severe complications such as organ failure [1].

The psychological toll is also substantial. Women report experiencing anxiety, depression, and post-traumatic stress, particularly when abortions are performed in secrecy or under traumatic conditions [11].

Unsafe abortion also leads to educational and social disruption. An estimated 10,000 to 13,000 Kenyan girls drop out of school annually due to pregnancy [6], with many never returning. Such behaviour limits their future employment opportunities and contributes to long-term poverty. Those who survive complications may face stigma, isolation, and diminished marriage prospects within their communities [27].

Economically, unsafe abortions place a significant burden on households and the healthcare system. The Ministry of Health (2018) estimates that treatment for post-abortion complications consumes a substantial portion of public health resources, while families often incur catastrophic expenses, including transportation, medication, and hospitalisation.

Inequality exacerbates these consequences. Young, poor, and unmarried women are disproportionately affected, while wealthier women can often access safer procedures privately. Thus, unsafe abortion both reflects and reinforces gender and

socioeconomic inequities [27].

In conclusion, unsafe abortion in Kibera results from a convergence of systemic barriers, misinformation, stigma, and legal ambiguity. It inflicts long-lasting harm across the health, educational, social, and economic domains. Addressing this public health crisis requires comprehensive, multi-sectoral interventions that respond to all levels of the SEM.

6. Discussion

The analysis of unsafe abortion among adolescent girls and young women in Kibera reveals a complex interplay of individual, social, institutional, and policy-level determinants. These findings have significant implications for public health practice, legal and policy reform, and the design of culturally responsive interventions. This discussion outlines key implications and presents evidence-based strategies to mitigate the burden of unsafe abortion in Kibera and similar low-resource urban contexts.

6.1. Policy and Legal Reform

Kenya's 2010 Constitution provides a framework for legal abortion under specific circumstances, including threats to a woman's health or in cases permitted by other laws [19]. Despite progressive court rulings in 2019 and 2022 affirming these rights, implementation remains inconsistent. National-level policy reform must include the reinstatement and dissemination of the 2012 Standards and Guidelines on Safe Abortion, accompanied by robust training for healthcare providers on the legal parameters and clinical protocols for safe abortion [1].

Healthcare professionals—including nurses, doctors, and clinical officers—should receive targeted training in evidence-based methods such as manual vacuum aspiration (MVA) and the administration of misoprostol and mifepristone, in accordance with WHO clinical guidelines. Making the laws clearer and improving the skills of healthcare providers would help them feel more confident and allow them to offer safe abortion care quickly, while still following the law. Concurrently, sensitisation and capacity-building initiatives aimed at law enforcement and judicial officers are essential to preventing unlawful arrests and safeguarding the legal and human rights of both patients and healthcare providers operating within the law [11].

Public education initiatives must address widespread misconceptions regarding the legality and morality of abortion. Community-based information campaigns can correct misinformation and encourage timely healthcare-seeking behaviours. Legal empowerment, when paired with social acceptance, can significantly reduce reliance on unsafe abortion methods.

6.2. Health System Strengthening

To meaningfully reduce unsafe abortions, the health system must be equipped to provide comprehensive reproductive health services. This includes expanding

youth-friendly services in existing health facilities, ensuring the availability of a full range of contraceptive options, and scaling up post-abortion care (PAC).

Adolescent-responsive services should prioritise confidentiality, provider empathy, and nonjudgmental care. Evidence from pilot interventions in Nairobi suggests that when adolescents perceive health services as safe and respectful, contraceptive uptake and early healthcare-seeking behaviours improve [32].

Moreover, consistent contraceptive availability is essential. Contraceptive stock-outs and limited method mix deter sustained use. The integration of community health workers in the distribution and education around contraceptives can bridge service gaps and extend coverage to hard-to-reach populations in Kibera [6].

PAC services, which are legally permissible and medically necessary, must be strengthened. Facilities in or near Kibera should be equipped with essential supplies (e.g., MVA kits, antibiotics) and personnel trained in PAC to manage abortion-related complications effectively. Investment in referral systems, including emergency transportation and cost subsidies, is also crucial to reduce delays and improve outcomes.

6.3. Education and Empowerment Interventions

Keeping girls in school and reintegrating those who drop out due to pregnancy are essential components of a long-term strategy. Research shows that continued education is strongly associated with reduced adolescent pregnancy and better health outcomes [10]. Policies supporting re-entry into school must be enforced locally, with school administrators held accountable.

Comprehensive Sexuality Education (CSE), tailored to Kenya's cultural context, should be integrated into school curricula and community programmes. CSE equips young people with accurate information and negotiation skills, enabling them to make informed decisions and reduce risky behaviour. CSE programmes should also include boys and young men to promote gender-equitable norms and shared responsibility in reproductive health [27].

Economic empowerment is another critical strategy. Programs that offer vocational training, micro-grants, and financial literacy to adolescent girls reduce dependence on transactional relationships and promote autonomy. The Adolescent Girls Initiative-Kenya (AGI-K), which combined cash transfers with life skills training in Kibera, demonstrated reductions in early marriage and increased school attendance [12].

6.4. Community Engagement and Norm Change

Reducing stigma and fostering supportive community norms are essential for the success of reproductive health interventions. Dialogues led by respected community leaders, religious figures, and youth advocates can facilitate open discussion and reduce taboos around adolescent sexuality and abortion.

Community-based support networks, such as peer support groups or mentor-

ship by older women, can provide psychosocial support to pregnant adolescents and post-abortion care seekers. These networks serve as platforms for disseminating health information, reducing isolation, and improving resilience.

Engaging men and boys in reproductive health education and norm change initiatives has shown promise in shifting attitudes and behaviours that contribute to unintended pregnancies [8]. Initiatives that use culturally relevant mediums such as sports, theatre, and radio can extend reach and enhance community buy-in.

6.5. Operational Challenges and Future Directions

Implementing the above interventions faces several barriers, including funding constraints, cultural resistance, and fragmented service delivery. Sustainable financing models, such as public-private partnerships and donor alignment with county health priorities, are needed to scale effective programmes.

Furthermore, multi-sectoral coordination is critical. Government, NGOs, healthcare providers, and community stakeholders should form local task forces to align activities, share resources, and monitor progress.

Future research should investigate the long-term health and social outcomes experienced by survivors of unsafe abortion, assess the effectiveness of interventions in real-world settings, and collect disaggregated, context-specific data on abortion incidence in Kibera. Applying community-based participatory research (CBPR) approaches—particularly those grounded in feminist methodologies—can foster equitable collaboration between researchers and communities. Involving youth as co-researchers not only enhances the cultural relevance and local ownership of findings but also helps to surface nuanced, gender-sensitive insights that are critical for designing responsive and sustainable reproductive health programmes.

7. Conclusions

Unsafe abortion in Kibera constitutes a significant yet avoidable reproductive health crisis, shaped by intersecting social, economic, institutional, and policy-level determinants. Guided by the social-ecological framework [20], this review demonstrates how barriers at multiple levels—from individual knowledge deficits and interpersonal dynamics to systemic inequities and restrictive policy environments—collectively undermine young women's access to safe and legal reproductive healthcare. Anchored in a rights-based approach and informed by intersectionality [35], this analysis underscores the need for integrated, context-sensitive interventions that recognize how gender, age, socioeconomic status, and place of residence converge to intensify reproductive health vulnerabilities among adolescent girls and young women in informal urban settlements.

At the individual level, misinformation, low reproductive health literacy, and constrained decision-making power heighten vulnerability. Interpersonal relationships often feature unequal power dynamics, coercion, and limited support for contraception or post-abortion care. Community-level stigma and conserva-

tive norms reinforce secrecy and shame, deterring care-seeking behaviour. Institutionally, under-resourced clinics, provider bias, and absent youth-friendly services restrict healthcare access. At the policy level, Kenya's restrictive legal environment and lack of operational clarity have led to gaps in service delivery, deterring both patients and providers from engaging in legal and safe abortion practices.

However, this status quo is not immutable. As emphasised in this analysis, integrated and multi-level interventions can significantly reduce unsafe abortion rates and their consequences. Promising steps include the full implementation of Kenya's constitutional provisions on reproductive health, accompanied by legal clarity and dissemination of national clinical guidelines. These reforms should be supported by comprehensive training of health personnel, ensuring that providers are both legally informed and technically prepared to offer safe abortion and post-abortion care services.

Enhancing the capacity and responsiveness of the health system is critical to meeting the reproductive health needs of adolescents and young women in informal settlements. Priority actions include expanding access to youth-friendly clinics, establishing consistent and equitable contraceptive supply chains, and strengthening referral networks to ensure timely access to comprehensive care. These system-level reforms—anchored in principles of equity, quality, and accountability—can help dismantle barriers to care and reduce the risks associated with unintended pregnancy and unsafe abortion. Equally important are educational reforms, such as implementing culturally sensitive comprehensive sexuality education and enforcing school re-entry policies to support adolescent mothers in continuing their education. Community engagement efforts must also be integrated to challenge stigma and foster supportive social norms, with specific attention to including men and boys in addressing the gendered dynamics of reproductive health.

A multisectoral and participatory approach, involving government, civil society, healthcare providers, educators, and community leaders is vital to driving sustainable change. While challenges such as funding, cultural resistance, and policy fragmentation remain, incremental gains in policy, service provision, and community attitudes can generate synergistic effects. Each intervention—legal, institutional, educational, or cultural—reinforces others, creating a virtuous cycle that empowers young women to make informed reproductive choices.

In the broader context, addressing unsafe abortion in Kibera aligns with Kenya's national and international commitments to reduce maternal mortality, promote gender equality, and uphold sexual and reproductive health rights. Kibera offers a representative case for other informal urban settlements across sub-Saharan Africa, where youth face similar vulnerabilities. As such, the strategies and lessons identified here can inform global best practices in addressing unsafe abortion in low-resource urban settings.

In conclusion, unsafe abortion among young women in Kibera is a complex but

preventable challenge. Through comprehensive policy reform, health systems strengthening, youth empowerment, and community mobilisation, stakeholders can collectively reduce unsafe abortions and improve reproductive health outcomes. These actions are not only urgent from a public health standpoint but are also a moral and legal imperative in advancing equity, rights, and dignity for Kenya's young women.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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