Reaching the Furthest Behind, First: Reproductive Health during Compounded Crises in Kenya's Refugee Settlements

By

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Abstract

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Crises are on an upward continuum, and their impacts are far-reaching and interdependent. The forthcoming years will bring numerous examples of compounded crises. While existing scholarships have largely focused on polycrisis or protracted crises, this study differentiates *context-bound compounded crises* through community-based and human rights informed approaches, enabling a more granular understanding of how crises are experienced and operationalized at the local level. Compounded crises can be defined as localized contexts in which two or more hazards, shocks, or stressors, occur concurrently and interact over time to create reoccurring stressors to intensify vulnerability among women and girls, erode their coping capacity, and progressively undermine social and health systems. This study first introduces a compounded crises framework. It advances a novel analytical perspective on compounded crises by examining how interacting and context-specific crises generate recurring stressors and shape pathways that influence reproductive health outcomes for women and girls in humanitarian settings, particularly Kakuma and Kalobeyei refugee camps in Kenya. Specifically, the analysis demonstrates how compounded crises constrain access to health services for historically marginalized populations at individual and interpersonal levels, amplify social and structural vulnerabilities at the community level, and disrupt service delivery through progressively overburdened health systems.

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Abbreviations	**Full Forms**
AAAQ	Availability, Accessibility, Acceptability, and Quality
AI	Artificial Intelligence
AIC	African Inland Church Mission
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
ANC	Antenatal Care
CBPR	Community-Based Participatory Research
CC	Compounded Crises
CBO	Community-based Organizations
CDC	Center for Disease Control and Prevention
CHVs	Community Health Volunteers
CHWs	Community Health Workers
COVID-19	Corona Virus Disease, 2019
CPHS	Committee for Protection of Human Subjects
DRC	Democratic Republic of Congo
EmONC	Emergency Obstetric and Newborn Care
FAO	United Nations Food and Agriculture Organization
FGDs	Focused Group Discussions
FP	Family Planning
GBV	Gender-Based Violence
HIV	Human Immunodeficiency Virus
HRBA	Human Rights Based Approach

IAWG	Inter-Agency Working Group
ICESCR	International Covenant on Economic, Social, and Cultural Rights
ICPD	International Conference on Population and Development
IDPs	Internally Displaced People
IHL	International Humanitarian Law
IPV	Intimate Partner Violence
IRB	Institutional Review Board
IRC	International Rescue Committee
IVR	Interactive Voice Recording
KRCS	Kenya Red Cross Society
LGBTQI+	Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, and Intersex +
MCH	Maternal and Child Health
MH	Maternal Health
MISP	Minimum Initial Services Package
MMR	Maternal Mortality Ratio
OECD	Organization for Economic Co-operation and Development
NACOSTI	National Commission for Science, Technology, and Innovation, Kenya
OHCHR	Office of the High Commissioner of Human Rights
RH	Reproductive Health
RLOs	Refugee-led Organizations
RMNCAH	Reproductive, Maternal, Newborn, Child, Adolescent Health
SBCC	Social and Behavior Change Communication
SDG/s	Sustainable Development Goal/s
SGBV	Sexual and Gender-Based Violence
SMPs	Safe Motherhood Promoters
SRH	Sexual and Reproductive Health

SRHR	Sexual and Reproductive Health and Rights
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted Infections
TB	Tuberculosis
UDHR	Universal Declaration of Human Rights
UN	United Nations
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNSG	United Nations Secretary General
WASH	Water Supply, Sanitation, and Hygiene Promotion
WHO	World Health Organization
WRA	Women of Reproductive Age

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Chapter 1.
Introduction

Reproductive health was first defined and recognized as a human right during the 1994 International Conference on Population and Development (ICPD) (United Nations, 1994). According to ICPD's Programme of Action, reproductive health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes" (United Nations, 1994). This could include accessing services like maternal and child health (MCH), menstrual health, abortion, family planning (FP) among many others. However, responsiveness to women's reproductive health during crises was lacking until the 1994 novel report on 'Refugee Women and Reproductive Healthcare: Reassessing Priorities,' by Women's Refugee Commission highlighted the reproductive health needs of refugee women (Wulf., 1994). Seminal international conferences, such as the 1995 Beijing Conference, also recognized that women displaced by conflict have the same right to reproductive health as all other women do (Barot, 2017). The organizing and efforts of the women's reproductive health movement led to the formation of Inter Agency Working Group (IAWG) on Reproductive Health in Crisis in 1996 (Casey, 2015). Keeping the human rights principles central, IAWG drafted the 1999 Minimum Initial Services Package (MISP) Guidelines, which catalog minimum reproductive health interventions that should be initiated during an event of crisis (Casey, 2015). These guidelines were later revised in 2010 and then in 2020 (IAWG, 2020).

Subsequently, the Red Cross, the Red Crescent Movement, and other humanitarian non-governmental organizations created the 1997 Sphere Project (commonly known as Sphere) (Sphere, 2018). The Sphere handbook, grounded in humanitarian and human rights principles, is a guide for all planners and implementers in humanitarian settings. The handbook focuses on four technical areas: Water Supply, Sanitation, and Hygiene Promotion (WASH), Food and Security, Shelter and Settlement, and Health (Sphere, 2018). Within the area of health, the handbook expands on the minimum standards that must be implemented in times of crisis (Sphere, 2018). The guidelines include sexual and reproductive health (SRH), focusing on reproductive, maternal, and newborn healthcare service delivery, health workforce for sexual violence and clinical

management of rape, and essential medical devices for Human Immunodeficiency Virus (HIV) (Sphere, 2018). These guidelines were revised in 2018 (Sphere, 2018).

Even though substantial measures have been taken for the issuance of reproductive health in humanitarian settings, implementation has lagged (Barot, 2017). Some of these challenges include cultural and ideological barriers, data challenges, financial and resource constraints, and systemic and sectoral challenges among others (Barot, 2017). Hence, health service delivery during the event of one crisis has been fragmented and there are no existing provisions for populations facing compounded crises. These guidelines are often not context-bound and lack empirical evidence in their guidance (Chadhuri, 2019).

When crises converge and overlap in humanitarian settings, their consequences are rarely distributed equally. Women and girls face disproportionate impacts, which reflects in escalated sexual violence, growing reproductive health (RH) needs, and declining maternal health (MH) indicators. All this, while the systems that are meant to address those needs are collapsing or struggling to function. A pregnant woman fleeing conflict may arrive at a camp with no functioning maternity ward or no place to manage safe and dignified menstrual hygiene. These are not isolated failures. They are among the most consistent and consequential outcomes of what this study terms compounded crises (CC) — **as localized contexts in which two or more hazards, shocks, or stressors, occur concurrently and interact over time to create reoccurring stressors to intensify vulnerability among women and girls, erode their coping capacity, and progressively undermine social and health systems.** Related concepts like polycrisis and protracted crisis have helped capture the growing scale of global emergencies, but they tend to operate from a macro level. The compounded crises framework brings the focus down to the on-ground realities, to the local dynamics where a drought compounds a conflict, where a pandemic strips resources from maternal health, and where the populations who need care the most are the least likely to receive it. It is at this level that the international community's promise to sustainable development goals (SDGs), to reach the furthest behind first, needs to be fulfilled.

Crises are on an upward continuum, and their impacts are far-reaching and interdependent. The forthcoming years will bring numerous examples of compounded crises. This study first introduces a compounded crises framework. It advances a novel analytical perspective on compounded crises by examining how interacting and context-specific crises generate recurring stressors and shape pathways that influence reproductive health outcomes for women and girls in humanitarian

settings, particularly Kakuma and Kalobeyei refugee camps in Kenya. While existing scholarships have largely focused on polycrisis or protracted crises, this study differentiates *context-bound compounded crises* through community-based and human rights informed approaches, enabling a more granular understanding of how crises are experienced and operationalized at the local level. Specifically, the analysis demonstrates how compounded crises constrain access to health services for historically marginalized populations at individual and interpersonal levels, amplify social and structural vulnerabilities at the community level, and disrupt service delivery through progressively overburdened health systems.

1.1 Background

The number of forcibly displaced people grows around the world each year. When the United Nations Refugee Agency (UNHCR) began reporting annual numbers of forcibly displaced individuals in 1951, they totaled 2,116,011. At the end of 2020, the number grew to 89,281,133, an increase of over 4,000% (UNHCR, 2025). Between 2015 and 2024 alone, the number doubled, growing by 22 million refugees (UNHCR, 2025). These numbers are likely underestimates. As of mid-2025, there were 117.3 million forcibly displaced people worldwide due to conflicts, violence, human rights violations, persecution or events disturbing public order (UNHCR, 2025).

The United Nations (UN) Secretary General (UNSG), António Guterres, in June 2025 warned the world about the state of conflicts (UN Secretary General, 2025). He stated that nine of the ten countries then in conflict had the lowest Human Development Indicators (UN Secretary General, 2025). For example, 40% of the 700 million people living in extreme poverty who live in conflict-affected settings (UN Secretary General, 2025). The situation is worsening as conflicts and their causes are proliferating. In 2022, the UNSG had said that the world is facing the highest number of violent conflicts since 1945 (end of World War II) (Press, 2022).

The United Nations Office of the High Commissioner for Human Rights (OHCHR) defines a humanitarian crisis as “an event or a series of events representing a critical threat to the health, safety, security, and or well-being of a community or other large groups of people” (girls, 2021). Humanitarian crisis range broadly among various scenarios, from armed conflicts to political instability to natural disasters and even pandemics (girls, 2021). Hence, a crisis is “understood to be times of great difficulty and danger or threatening situations, requiring urgent action” (girls, 2021). One constant in these scenarios is that people are forcibly displaced. A humanitarian crisis

is defined by a sudden event. But such an approach overlooks the fact that women and girls have suffered physical and mental abuses as they have fled their homes and sought refuge.

1.1.1 Crisis and Health Systems

Crises often pose a great threat to the general public health due to collapsed or damaged health systems, lack of medications and supplies, and an absence of trained medical staff (Goniewicz, 2025; WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division, 2023; Agata, 2025). The right to health is enshrined in several international human rights mechanisms and is protected under international humanitarian law (IHL). Under IHL, all parties to a conflict must fulfil the obligations applicable to them with respect to health and care workers. However, both international law and human rights law are often challenged in these settings. For example, in 2024, 480 healthcare workers were killed during armed conflict in Gaza, which was almost double the number killed in 2023 (GAVI, 2024). Attacks on health facilities and health workers have been reported over the last three decades during crises and have increased in frequency when compared to earlier conflicts. Previous studies have reported, health facilities attacked during conflicts in Yemen (2015-2018) were 93, Syria (2011-2018) 315, Iraq (2003-2011) 12, Chechnya (1999-2000) fewer than 24, Kosovo (1998-1999) were fewer than 100, and Bosnia and Herzegovina (1992-1995) were 21 (Briody, 2018; Haar, 2024; Wypych-Ślusarska, 2025). In 2024, the World Health Organization (WHO) confirmed almost 700 attacks against healthcare facilities and staff in just Ukraine and Gaza (GAVI, 2024). Additionally, WHO's global pulse survey on continuity of essential care services during the Coronavirus 2019 (COVID 19) pandemic reported disruptions in providing essential health services in 90% of the countries in the world (WHO, 2022). These disruptions were reported across health areas, including reproductive, maternal, newborn, child and adolescent health (RMNCAH) nutrition, mental health, HIV, tuberculosis (TB), and malaria, among others (WHO, 2022).

Studies suggest that women refugees and internally displaced persons (IDPs) face unique barriers to reproductive health access, including collapse of health systems, statelessness, a lack of prioritization of SRH services by humanitarian agencies, quality and availability of SRH services, and social and cultural stigma (WHO, 2022; Darebo, 2024; Sawadogo, 2023). Studies that reviewed data from previous humanitarian crises have shown that reduced access to reproductive health and mental health services have resulted in higher rates of unintended pregnancies, unsafe

abortions, pregnancy complications, miscarriage, and maternal and infant mortality, among other serious health outcomes (Ho, 2022; Rich, 2024). For example, during the 2014 Ebola outbreak in west Africa, SRH programming was given limited attention in the outbreak response, leading to sharp declines in service utilization, leading to excess maternal and neonatal deaths that exceeded the number of deaths from Ebola (Ho, 2022).

1.1.2 Women's Reproductive Health During Crises

In 2023, the global maternal mortality ratio (MMR) was 211/100,000 live births, with the highest concentration of maternal deaths in Sub Saharan Africa (SSA) (542/100,000 live births) and Central and South Asia (151/100,000 live births) (AlignMNH , 2021). Across SSA and Central and Southern Asia, access to adequate antenatal care (ANC) remains limited, with fewer than 60% of women receiving even half of the WHO-recommended eight visits (WHO, 2023).

'Gender inequalities manifest in systemic disadvantages for women throughout the life cycle, and gender-based violence (GBV) has been normalized by centuries of patriarchal, colonial, and racial discrimination' (girls, 2021). Gender inequalities and gender-based violence, when layered with a sudden event of difficulty, danger, or threat, exacerbate the threat or danger for women and girls (girls, 2021). They bear a disproportionate burden of violence during a crisis. For example, women and girls' reproductive health is particularly vulnerable, due to increased sexual and domestic violence, complications with maternal and newborn health, increased unsafe abortions, and anemia or compromised nutrition due to food insecurity (Adepoju, 2018). Countries with the poorest reproductive health indicators, particularly maternal and under five mortality, are currently being impacted by humanitarian crises (Align MNH, 2025; WHO, 2023; AlignMNH , 2021). In 2025, countries in fragile settings requiring UN humanitarian assistance, accounted for 58% of global maternal deaths, 39% of newborn deaths, and 41% of stillbirths (Align MNH, 2025). Other sources report that 61% of all maternal deaths occur in 35 countries affected by crises or emergencies (Belaid, 2020; WHO, UNICEF, UNFPA, 2023).

Women's reproductive health needs do not stop or diminish during crises. In fact, they only increase and vary throughout the reproductive life cycle (Barot, 2017). A rights-based approach to Sexual and Reproductive Health and Rights (SRHR) in crisis settings requires that women and girls have access to the full continuum of care: menstrual health management; a choice of family

planning methods; safe abortion and post-abortion care; quality prenatal, delivery, and postnatal services; and comprehensive prevention and response to sexual and gender-based violence (SGBV), including survivor-centered clinical care. These basic services should be provided not only in settings affected by one event of crisis but even more so in protracted crises, polycrisis and compounded crises- when two or more events of crisis co-exist. While existing literature have largely focused on polycrisis or protracted crises, our research study differentiates *context-bound compounded crises* through community-based and human rights informed approaches, enabling a more granular understanding of how crises are experienced and responded to at the local level.

1.2 Specific Aims and Research Questions

The overarching goal of this research is to examine how compounded crises affect the availability, accessibility, acceptability, and quality (AAAQ) of reproductive health services for refugee women and to advance a conceptual framework grounded in empirical evidence from Kakuma and Kalobeyei settlement camps in Kenya.

Kakuma Refugee Camp and the adjacent Kalobeyei Integrated Settlement are situated in northwestern Kenya bordering South Sudan, Uganda, and Ethiopia (see figure 3). Kakuma was established in 1992 and Kalobeyei in 2016 (United Nations Refugee Agency (UNHCR), 2024; UNHCR Kenya, 2026; UNHCR Kenya, 2026). Collectively they now host over 295,005 refugees from 20 plus nationalities, including South Sudan, Somalia, the Democratic Republic of Congo, Ethiopia, and other countries (United Nations Refugee Agency (UNHCR), 2024).

- **Specific Aim 1:** To conceptualize a Compounded Crises Framework that examines how multiple events of crises interact to shape reproductive health outcomes for women and girls in humanitarian settings.
    - **Research Question:** How have compounded crises influenced reproductive health outcomes for women and girls in humanitarian contexts?
- **Specific Aim 2:** Conduct a formative assessment to explore how refugee women and health workers perceive the impacts of compounded crises on reproductive health services at the individual, community, and health systems levels.

- **Research Question:** How do refugee women and health workers perceive and describe the impact(s) of compounded crises on reproductive health services across individual, community, and health system levels?

- **Specific Aim 3:** Conduct a formative assessment of health workers' perspectives concerning the barriers influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings.
  - **Research Question:** What barriers do health workers identify as influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings?

1.3 Theoretical Frameworks

This research draws from three theoretical frameworks.

1.3.1 Human Rights-Based Approach to Health (HRBA)

According to the Office of the High Commissioner of Human Rights and the World Health Organization, the human rights-based approach to health "aims to support better and more sustainable development outcomes by analyzing and addressing the inequalities and discriminatory practices (de jure and de facto). It provides a set of clear principles for setting and evaluating health policy and service delivery, targeting discriminatory practices and unjust power relations that are at the heart of inequitable health outcomes. In pursuing a rights-based approach, health policy, strategies and programs should be designed explicitly to improve the enjoyment of all people to the right to health, with a focus on the furthest behind first" (WHO and OHCHR, n.d.).

The key principles of this approach are:

- The human rights approach to health underscores *the right to health*. It recognizes health as a fundamental human right of every human being that should be enjoyed without discrimination on the basis of race, ethnicity, gender, age, religion, political associations, or any other factors (WHO and OHCHR, n.d.).

- The human rights- based approach to health grounds itself in the *human rights principles* laid out in international human rights law. The core principles of human rights included in this approach are:
- *Non-discrimination and health equity*: requires states to redress any discriminatory law, policy, or practice and create equitable laws and health policies. Non-discrimination and health equity are key measures to address social determinants of health and identify diverse needs (WHO and OHCHR, n.d.).
- *Accountability:* of the state and other key actors to respect and protect the human rights of the people they serve. Recognizes that health as a human right is based on a *legal obligation on state* to ensure timely, acceptable, and affordable healthcare (WHO and OHCHR, n.d.).
- *Participation:* recognizing that all concerned stakeholders have ownership and control over all phases of the process: development, assessment, analysis, planning, implementation, monitoring, and evaluation. *Participation goes beyond consultation,* and emphasizes the need to include marginalized communities in the process of recognizing their needs and expectations (WHO and OHCHR, n.d.).

Multiple human rights standards and principles define the right to health. In General Recommendation 14, the UN human rights committee on economic, social, and cultural rights, sets out the four components of availability, accessibility, acceptability, and quality that are crucial to the enjoyment of the right to health by all (WHO and OHCHR, n.d.).

- **Availability:** functioning public health and health care facilities, goods, services, and programs in sufficient quantity.
- **Accessibility:** non-discrimination, physical accessibility, economic accessibility (affordability), and information accessibility.
- **Acceptability:** respectful of medical ethics, culturally appropriate, and sensitive to age and gender.
- **Quality:** scientifically and medically appropriate.

The three specific aims use the human rights-based approach to health and its pillars as a theoretical principle and framework for is research. The third specific aim assesses health workers' perspectives on the barriers and facilitators influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings.

1.3.2 Socio-ecological Model

The socio-ecological model was first used as a conceptual model by Urie Bronfenbrenner in the 1970s and was later formalized as a theory in the 1980's (Kilanowski., 2017). The initial model placed the individual (microsystem) in the center and surrounded it by various systems and relationships of the immediate surroundings that influence it (Kilanowski., 2017). The second layer is the mesosystem that the individual has direct contact with, including family, work, school, or neighborhood (Kilanowski., 2017). The third layer is the exosystem, which does not directly impact the individual but enforces both positive and negative impacts on the individual, such as social networks or community context (Kilanowski., 2017). The fourth layer is the macrosystem, including the societal, religious, or cultural norms, values, or influences (Kilanowski., 2017). The final layer is the chronosystem, containing historical context, political influences, and other external elements that indirectly impact the individual (Kilanowski., 2017). The Center for Disease Control and Prevention (CDC) extended this model into the health sector and re-labeled these layers as individual, interpersonal, organization, community or societal, and policy (Kilanowski., 2017).

For this research, I use the layers as defined by the CDC. Chapter 2 concerns the compounded crises framework examining crises and their impacts across the socio-ecological levels. Chapter 3 and 4 focus on the individual (refugee and internally displaced women and girls of reproductive age) and the organizational level (health systems), while other layers are key in influencing the decisions involve access and service delivery.

1.3.3 Levesque Access to Care Conceptual Framework

The Levesque access to care conceptual framework was first described in 2013 (Cu, 2021). The framework uses a multidimensional view of healthcare delivery by health systems and the corresponding ability of individuals and populations to access healthcare (Cu, 2021). This conceptual model uses the reproductive healthcare seeking journey (Cu, 2021). For example, the framework uses the potential abilities of potential users while utilizing healthcare - healthcare needs, perception of needs/ desire for care, healthcare seeking, healthcare reaching, and healthcare utilization, and healthcare consequences (Levesque, 2013). The framework finds its strength in equally valuing health systems and patients' perspectives with regards to barriers to access (Cu, 2021). Levesque maps the reproductive health journey of the healthcare seeker, which is crucial

for the second specific aim that explores how refugee women and health workers perceive the impacts of compounded crises on reproductive health services.

1.4 Significance

As humanitarian contexts increasingly shift from short-term emergencies to prolonged and layered crises, existing models of service delivery and evaluation are insufficient for explaining persistent gaps in reproductive health outcomes for women and girls. This study addresses a critical gap in understanding the impacts on reproductive health in a localized compounded crises context.

The Compounded Crises Framework advances a novel analytical perspective by examining how interacting and context-specific crises generate recurring stressors and shape pathways that influence reproductive health outcomes for women and girls in humanitarian settings. While prior scholarship has largely focused on polycrisis or protracted crises, this study differentiates *context-bound compounded crises* through community-based and human rights informed approaches, enabling a more granular understanding of how crises are experienced and operationalized at the local level. Specifically, the analysis demonstrates how compounded crises constrain access to health services for historically marginalized populations at individual and interpersonal levels, amplify social and structural vulnerabilities at the community level, and disrupt service delivery through progressively overburdened health systems. The framework offers a foundation for future comparative studies, longitudinal research, and mixed-methods analyses examining reproductive health in various compounded crises settings.

The findings of this research are significant for policy, practice, and scholarship. By elucidating how compounded crises shape reproductive health services across AAAQ dimensions, the study will provide actionable insights for policymakers, humanitarian agencies, researchers, implementers, health systems, and other actors operating in humanitarian settings that are seeking to strengthen service delivery in complex environments. The framework and empirical evidence generated can inform program design, workforce support, and system-level decision-making in humanitarian settings. By using the compounded crises framework, key stakeholders not only apply an emergency lens to their service delivery, but they also invest in preparedness to ensure SRH services remain uninterrupted.

Additionally, this research contributes to methodological rigor in humanitarian health research by demonstrating how formative and qualitative approaches can be systematically applied to complex, multi-crisis settings using human rights and participatory approaches,

Finally, this study enhances the field's ability to understand and respond to reproductive health needs in settings where crises are not episodic but enduring—supporting more responsive, context-aware, and sustainable approaches to reproductive health service delivery for forcibly displaced populations, particularly women and girls.

1.5 Innovation

This study is innovative because:

- First, it advances humanitarian public health scholarship by developing a Compounded Crises Framework that moves beyond single-event or short-term emergency models. While prior research often studied crises in isolation or its interconnectedness at a global scale, this study conceptualizes crises as overlapping, interacting, and protracted, offering an on-the-ground representation of contemporary humanitarian contexts.
- Secondly, response models premised on short-term emergency cycles fail to address the chronic and gendered nature of the on-ground realities in compounded crises settings. This study advances a novel analytical perspective on compounded crises by examining how interacting and context-specific crises generate recurring stressors and shape pathways that influence reproductive health outcomes for women and girls in humanitarian settings.
- Thirdly, the study integrates the availability, accessibility, acceptability, and quality dimensions into an analytical approach for examining reproductive health systems. Rather than treating AAAQ as a normative checklist or outcome measure, this research tries to understand where and why reproductive health services break down across the continuum of care. The study applies a human rights lens that distinguishes health delivery as a humanitarian action but sees health as a fundamental human right for all that should be provided in a non-discriminatory fashion, even in humanitarian settings.
- Lastly, the study employs formative and phenomenological methods to capture lived experiences and frontline perspectives from both refugee women and health workers. By examining how compounded crises are perceived and navigated at the individual,

community, and health system levels, the research generates insights that capture the lived realities of communities impacted by compounded crises.

1.6 Conclusion

The next three chapters address three research questions, under each specific aim. The first chapter elaborates on a Compounded Crises Framework that examines how multiple events of crisis interact to shape reproductive health outcomes for women and girls in humanitarian settings. The following chapter uses qualitative findings from the formative assessment to explore how refugee women and health workers in the Kakuma refugee camps in Kenya perceive the impacts of compounded crises on reproductive health services at the individual, community, and health systems levels. The final chapter elaborates on the qualitative findings from formative assessment to assess Kakuma's health workers' perspectives related to the barriers influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings.

Chapter 2.
Understanding Sexual and Reproductive Health and Rights in Humanitarian Settings: A Compounded Crises Framework

Abstract

Humanitarian crises are increasingly prolonged and overlapping rather than discrete events. The combined effects of pandemics, economic crises, climate-related shocks, displacement, and armed conflicts have placed sustained pressure on public health systems, with sexual and reproductive health and rights disproportionately affected. Response models premised on short-term emergency cycles fail to address the chronic and gendered nature of these conditions. Reframing public health, particularly in a way that addresses the reproductive health needs of displaced populations, is essential for responding effectively to compounded crises as a persistent global reality.

In this study, compounded crises refer to localized contexts in which two or more hazards, shocks, or stressors, occur concurrently and interact over time to create reoccurring stressors that intensify vulnerability among women and girls, erode their coping capacity, and progressively undermine social and health systems. While prior research on independent crises is rich, less attention has been paid to the interactions of multiple crises at the local level and the importance of using an integrated approach to respond in such settings. It introduces a novel perspective by understanding the recurring stressors and pathways through which compounded crises influence reproductive health outcomes for women and girls in humanitarian contexts.

Our approach uses a human rights approach to understand how context bound compounded crises impact access to health services for historically marginalized populations, amplify social vulnerabilities, and impact service delivery by overburdened health systems. By reviewing the state of humanitarian response, we argue that the realities of humanitarian emergencies globally demand a fundamental shift in how public health preparedness and response are conceived, planned and implemented.

2.1 Introduction

The United Nations Office of the High Commissioner for Human Rights, defines a humanitarian crisis as “an event or a series of events representing a critical threat to the health, safety, security, and or well-being of a community or other large groups of people” (girls, 2021). Crises could range broadly among various scenarios, from armed conflicts to political instability to natural disasters and even pandemics (girls, 2021). Data from the last two decades have shown, ‘crises are on an upward continuum.’

According to the United Nations Food and Agriculture Organization (FAO) 2021 report, “natural disasters are occurring three times more often than 50 years ago” (FAO, 2021). Prio’s Trends in Armed Conflict 2020 report, “there were 54 active armed conflicts in the world and seven wars in 2019 alone” (Strand, 2021). The COVID- 19 pandemic infected more than 500 million people, killed more than 6.2 million people, (United Nations, 2022) and forcibly displaced 103 million people around the world (UNHCR, 2022). According to the sustainable development progress report, “the pandemic has severely disrupted essential health services, shortened life expectancy and exacerbated inequities in access to basic health services between countries and people, threatening to undo years of progress in some health areas” (United Nations Sustainable Development, 2015). Climate change is considered the single biggest threat facing humanity and its impacts are on an upward trajectory (WHO, 2021). 2010-19 was recorded as the warmest decade on record while the years 2015-19 were recorded as the five warmest years (UN Climate Action, 2022). High temperatures affected food production, leading to an additional 161 million people facing hunger in 2020 (811 million) as compared to those in 2019. Trends from the last decade reveal that *crises are inevitable* and their *impacts are interdependent in a globalized world*.

In humanitarian settings, attacks on medical and health facilities, personnel and infrastructure are also at an all-time high. In 2025 alone, the World Health Organization's Surveillance System for Attacks on Health Care, reported a total of 1,349 attacks on medical facilities, resulting in the deaths of 1,981 people and impacting health facilities, health personnel, supplies, transport, warehouses, and patients (WHO, 2025). In 2024, more than 1,100 health facilities were destroyed or damaged globally, which was more than double the number in 2023 (MSF, 2025).

Humanitarian crises are increasingly prolonged and overlapping rather than discrete events. The combined effects of pandemics, economic crises, climate-related shocks, displacement, and armed conflicts have placed sustained pressure on public health systems, with sexual and reproductive health and rights disproportionately affected.

When crises are layered and overlapping, it can increase the barriers for women to access health services and impact their health outcomes. For example, a study conducted in Democratic Republic of Congo (DRC) concluded that the emergence of the COVID-19 pandemic (an added event of crisis in humanitarian settings) further threatened the health system and caused increased incidences of gender-based violence and unintended pregnancies in countries with ongoing humanitarian crises (Ho, 2022). There is emerging evidence that COVID-19, has had negative impacts on the health of women and girls in Sub-Saharan Africa due to diversion of funding care, reduced services, negative socioeconomic impacts, and increased or new barriers to access (Ho, 2022). The study reviewed data from previous humanitarian crises that have shown reduced access to reproductive health and mental health services have resulted in higher rates of unintended pregnancies, unsafe abortions, pregnancy complications, miscarriage, and maternal and infant mortality, among other serious health outcomes (Ho, 2022).

Given that crises are on an upward trajectory and their impacts are far-reaching and interdependent, future years are likely to see numerous examples of polycrisis and compounded crises. Response models premised on short-term emergency cycles fail to address the chronic and gendered nature of these conditions. Reframing public health, particularly in a way that addresses the reproductive health needs of displaced populations, is essential for responding effectively to these crises as a persistent global reality. While research on independent crisis events is rich, less attention has been paid to the interactions of multiple crises and the importance of using an integrated approach to responding (Delannoy, 2025; Tooze, Chartbook 407: Polycrisis revisited: Are we beyond Neoliberal Order Breakdown Syndrome?, 2025).

The current study advances a novel analytical perspective on compounded crises by examining how interacting and context-specific crises generate recurring stressors and shape pathways that influence reproductive health outcomes for women and girls in humanitarian settings. While prior studies have largely focused on polycrisis or protracted crises, this study differentiates *context-bound compounded crises* through community-based and human rights informed approaches,

enabling a more granular understanding of how crises are experienced and responded to the local level. Specifically, the analysis demonstrates how compounded crises constrain access to health services for historically marginalized populations at the individual and interpersonal levels, amplify social and structural vulnerabilities at the community level, and disrupt service delivery through progressively overburdened health systems.

We argue that the evolving realities of humanitarian emergencies globally demand a fundamental rethinking of public health preparedness and response, one that moves beyond episodic and siloed models toward approaches capable of addressing cumulative and interacting crises. In response, this study offers a working conceptual framework and analytical lens to guide policymakers, humanitarian agencies, researchers, implementers, health systems, and other actors operating at the intersection of public health and humanitarian contexts.

2.2 Compounded Crises

Compounded crises refer to localized contexts in which two or more hazards, shocks, or stressors, occur concurrently and interact over time to create reoccurring stressors that intensify vulnerability among women and girls, erode their coping capacity, and progressively undermine social and health systems. These crises may emerge directly or indirectly from broader polycrisis dynamics but are experienced and manifested at the population and system level through complex, reinforcing interactions (see figure 1). Rather than operating as discrete or additive events, compounded crises generate recurring and cumulative stressors that amplify pre-existing structural vulnerabilities, disproportionately affect marginalized populations, and overwhelm the capacity of health systems to deliver sustained equitable care. In humanitarian settings, these dynamics are especially consequential for gendered and time-sensitive sectors such as sexual and reproductive health and rights, where service disruption, deprioritization, and declining quality of care produce long-term and intergenerational consequences.

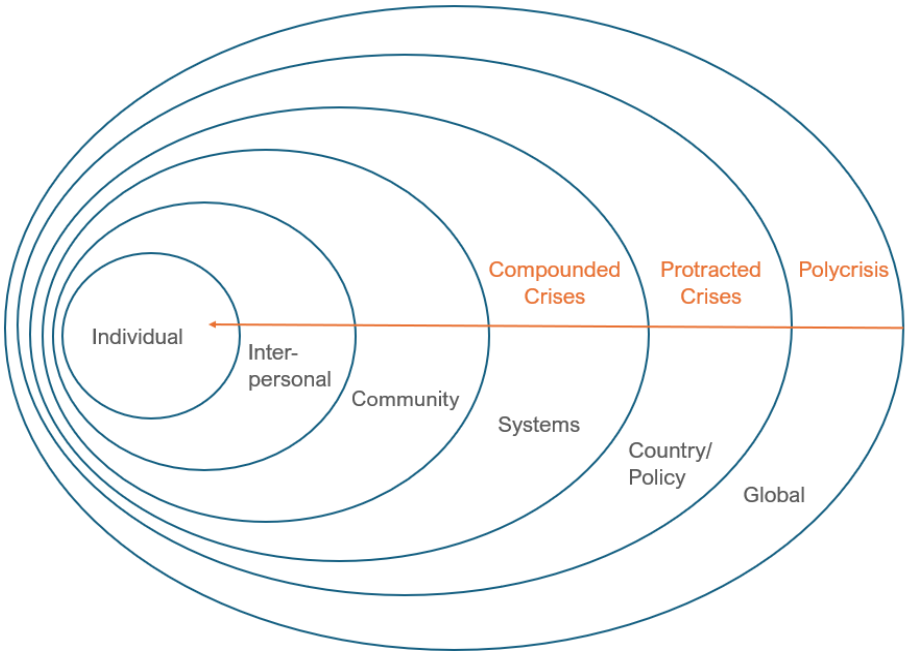

Figure 1: Crises and socio-ecological interactions

In 2007, Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP), a non-profit organization that helps increase support in humanitarian settings, defined 'compound crises' as multi-dimensional and inter-connected crises in a discussion paper (ALNAP, 2007). "At its simplest, the idea of a compound crisis is one where a second or even third crisis occurs – either simultaneously with a first crisis, or before the impact of the first crisis has been completely resolved. The vast majority of the literature and experiences of humanitarian crises are focused on the view of crises as single events and there is little in the literature of international aid which addresses compound crises directly" (ALNAP, 2007). The paper elaborated on the failures of the humanitarian sector to address these issues by misinterpreting the risks, failing to track the evolution of crises, assuming that crises are steady or linear, not factoring in the cultural context, and not considering multi-causal problems (ALNAP, 2007). After fifteen years since this discussion paper was published, there remains a dearth of literature on compounded crises in humanitarian settings. While the discussion paper addressed some key components of compounded crises, it fell short of incorporating the localized contexts, the complexities of managing multiple crises, and the impact on populations, particularly marginalized populations. It

also did not use examples to illustrate the concept of compounded crises and its application to the health of a population.

In the context of Lebanon, a compounded crises approach has been used, due to the series of crises the country is facing. Between 2019 and 2023, Lebanon faced political instability, the COVID-19 pandemic, the Beirut port explosion, and a nationwide economic emergency. Studies done in this context, while highlighting the multiplicity of crises and their impact in each context, do not define compounded crises or define the key components of what entails compounded crises (Raftery, 2023).

Compounded crises have previously also been used and defined in the education, humanitarian, environment, and city planning literature. In the education sector, a study published in 2021 reviewed the management of a 'compound crisis' by school leadership during COVID-19 (Reyes-Guerra, March 2021). Another paper published in 2022 reviewed compound urban crises and responses from urban governments (Westman, February 2022). However, the terminology, context, and applications have been varying. In the humanitarian and public health literature, the most common terminologies used are protracted crises and, more recently, after the COVID-19 pandemic, there is growing literature on polycrisis.

2.2.1 Polycrisis

Polycrisis was also defined in 1990s by philosopher, sociologist, and complexity theorist Edgar Morin along with Anne Brigitte Kern as the most "vital" challenge of the world is not a singular threat but a "complex intersolidarity of problems, antagonisms, crises, uncontrollable processes, and the general crisis of the planet" (Lawrence, 2023). Subsequently, sustainability scholar Mark Swilling (2013, 2020) used "polycrisis" to capture the complex interactions between crises in the global political economy that multiply those crises' overall impact (Lawrence, 2023). In the 2010s, European scholars and leaders adopted the term to label the simultaneous migration, financial, and Brexit crises afflicting Europe (Lawrence, 2023). More recently, the term polycrisis was popularized by historian Adam Tooze from Columbia University in 2020 to describe the coming together of multiple events of crisis (World Economic Forum, 2023; Tooze, Chartbook 407: Polycrisis revisited: Are we beyond Neoliberal Order Breakdown Syndrome?, 2025; Tooze, Chartbook, 2022). The World Economic Forum's annual meeting in Davos in 2023 found that the

risk of polycrisis is growing – 'where disparate crises interact such that the overall impact far exceeds the sum of each part' (World Economic Forum, 2023). The report from the meeting describes, "four potential futures centered around food, water and metals and mineral shortages, all of which could spark a humanitarian as well as an ecological crisis – from water wars and famines to continued overexploitation of ecological resources and a slowdown in climate mitigation and adaption" (World Economic Forum, 2023).

Polycrisis can be exemplified as the interaction between the COVID-19 pandemic, the war in Ukraine and the energy and climate crises. Its impacts are far reaching and global in scale, which goes beyond a local context. For example, the Russian invasion of Ukraine not only has led to destruction and displacement within Ukraine but also has affected the rest of the world. As the war continues, global markets and food supply chains are impacted (IRC, 2022; The Hunger Project, 2022). In 2021 (before the invasion), Ukrainian grains fed 400 million people around the globe, but as a result of the war, Ukraine can no longer ship grains through its primary shipping routes (IRC, 2022). Grain receiving countries in the Middle East and Africa were already experiencing hunger crises (The Hunger Project, 2022). According to the International Rescue Committee (IRC), due to the disruptions in food supply chains, over 14 million people in Somalia, Ethiopia, and Kenya are on the verge of starvation (IRC, 2022). Additionally, countries in the Middle East are facing spiraling prices to buy wheat and fuel (IRC, 2022).

Following its popularization at the World Economic Forum in 2023, the term polycrises has been the subject of growing scholarly and practitioner efforts to clarify its meaning and develop conceptual frameworks. While most of the scholars acknowledge that a polycrisis can occur at the local level, the literature mostly focuses on crises interacting at the *global* scale, with a spatial extent that affects the whole planet or all of humanity (Lawrence, 2023). A technical paper from the Cascade Institutes states, "global polycrisis (and global systemic risks) arise from the organization of human activities into complex *global* systems structured in ways that enable disruptions to spread quickly around the world" (Lawrence, 2023). A literature review conducted on the dynamics of polycrisis, understanding trends, spacial distribution, and co-occurrences of national shocks from 1970-2019 notes that while the shocks have increased, less attention has been given to an integrated approach to address these shocks (Delannoy, 2025). There is also a lack of empirical data on how components of the global system absorb, transmit, and link together the

shocks (Delannoy, 2025). For example, climate adaptation frameworks that are currently applied assume linear linkages between shocks and outcomes (Beauchamp, 2020).

2.2.2 Protracted Crises

A term interchangeably used with compounded crises is protracted crises. According to the 2022 Global Humanitarian Report, the number of countries experiencing protracted crises grew to 36 in 2021 (Relief Web, 2022). 74% of all people in need of humanitarian assistance were living in one of these 36 countries (Relief Web, 2022). In these settings, due to dysfunctional or semi-functional health systems, health services are often delayed or denied. For example, according to the 2022 Global Humanitarian Report, "those experiencing humanitarian crises have been left behind in efforts to recover from the COVID-19 pandemic. The average COVID-19 vaccination rate was 26% for countries experiencing protracted crises, compared to 64% for countries without a United Nations-coordinated humanitarian appeal" (Relief Web, 2022).

The United Nations Food and Agriculture Organization described, "protracted crises where a significant proportion of the population is acutely vulnerable to death, disease, and disruptions in livelihoods over a prolonged period of time" (FAO, 2026). In 2004, Macrae and Harmer described protracted crises as "those environments in which a significant proportion of the population is acutely vulnerable to death, disease, and disruption of their livelihood over a prolonged period of time" (Sadanand, 2017). However, there has been no formal consensus concerning the definition of protracted crises, which has led to a disjointed approach in humanitarian service delivery in these settings (Sadanand, 2017).

The key elements of protracted crises are the heightened risks of morbidity and mortality, breakdown of local institutions, weak governance, and the duration of the crisis itself (Humanitarian Coalition, 2024). The indicators used by FAO to identify countries experiencing protracted crises are longevity, type of aid and economic and food security status. For longevity, the country must have reported a crisis for at least eight years in the last ten years (Sadanand, 2017). For the type of aid received, at least 10% of official development aid must have been delivered in the form of humanitarian assistance (Sadanand, 2017). Finally, for the economic and food security status, the country must be listed in the low-income food-deficit countries. These

indicators not only overlook specific contexts but also overlook contexts experiencing severe layered crises for shorter time spans like 3-5 years.

Scholars working on protracted crises argue that 'short and acute crises are the exception, not the rule' and those countries that experience prolonged crises, will surpass the time span of a crisis by 10, 20 or even 30 years (Sadanand, 2017). However, in some settings, the impacts of emerging crises unfold far more rapidly than in prior emergencies because shocks are unusually severe, because multiple crises occur in close succession or simultaneously, or due to the broader impacts of polycrisis dynamics. For example, FAO never classified Ukraine as a country with protracted crises (FAO, 2010). However, since the Russian invasion of Ukraine, Ukraine has been struck by conflict leading to food insecurity. The World Food Programme estimated 5 million Ukrainians faced food insecurity after three years of war (World Food Programme, 2025).

Overall, polycrisis, protracted crises, and compounded crises describe distinct but interconnected states of instability. A *polycrisis* refers to a condition in which multiple global or systemic crises, such as climate change, geopolitical conflict, financial fragility, and pandemics, occur simultaneously and interact in ways that produce impacts greater than the sum of their parts, generating emergent, cross-sectoral risks (World Economic Forum, 2023; World Economic Forum, 2023; Tooze, Chartbook, 2022). In contrast, *protracted crises* describe situations in which humanitarian needs persist in a country over many years. These countries are marked by cyclical shocks but are characterized primarily by their duration and structural stagnation (FAO, 2026; Humanitarian Coalition, 2024).

2.3 Key Components of Compounded Crises

This section delineates the key components of compounded crises by answering essential analytical questions. *Compounded crises*, meanwhile, capture situations where multiple crises or stressors occur concurrently or sequentially within a specific local context and interact to intensify vulnerability and overwhelm response systems, particularly affecting sectors like SRHR. Compounded crises occur mostly at the individual, interpersonal, community, and systems level of the socio-ecological model (see Figure 1). Unlike protracted crises, compounded crises don't always have to be a situation in which a country experiencing crises for a prolonged period, it could also be a context or refugee settlement within a country that is not a protracted setting. While

polycrisis emphasizes global systemic interactions, compounded crises focus on the local, layered, and mutually reinforcing dynamics that directly shape humanitarian and health outcomes in a specific context.

2.3.1 Multiplicity of Crises: What exists?

First, this component of compounded crises establishes which crises are present (e.g., conflict, displacement, climate shocks, epidemics, economic crises), that define the exposure landscape. Their level of impact, occurrence (simultaneously or sequentially) and geographical concentration may vary in each context.

Second, compounded crises rarely manifest uniformly across populations or geographic regions. For example, an analysis reviewing 50 years (1970-2019) of data from 175 countries concluded that shocks tend to co-occur more frequently in Asia and Africa (Delannoy, 2025). Between 1970 and 2000, in Asia 75% of shocks co-occurred compared to only 25% in Organization for Economic Co-operation and Development (OECD) countries (Delannoy, 2025). Hence, multiplicity of crises is context-specific, with uneven impacts and disproportionately impacting historically marginalized populations such as refugees, and sectors like SRHR.

Third, multiplicity of crises challenges traditional classification of linear crises categories.

2.3.2 Interaction and Reinforcement: How crises interact?

First, the interactions of crises are often non-linear and unpredictable. Unlike frameworks that focus on the co-existence of crises, compounded crises emphasize interaction - how one crisis modifies, amplifies, or accelerates the impacts of another. Hence, two settings may experience similar crises but differ dramatically in population health outcomes, depending on how those crises interact locally with factors such as the social and cultural norms and practices, the availability of health services and infrastructure, and language. For example, access to abortion services during crises often varies based on legal guidelines, socio-cultural norms or religion. Ukrainian women who were fleeing war reported reduced access to reproductive health services in Eastern European countries. They were denied abortion access in Poland, even when the pregnancy was an outcome of rape, because abortion in Poland is prohibited under all circumstances (Center for Reproductive Rights, 2023; Shapiro, 2022; Strzyżyńska, 2022). A study conducted in South Sudan noted that

while initial reactions to induced abortion were negative, the number of abortions had increased due to the war. Abortion became less condemnatory as people's situations changed as the war progressed (Casey I. M., 2020).

Second, each conflict produces challenges that are shaped by its interaction with other crises, generating emergent effects that are absent when the conflict occurs in isolation and that remain poorly addressed by existing preparedness models. The same crisis, when occurs in another context, may create new challenges.

Third, interactions re-configure institutional responses by altering which services are maintained, suspended or given lower priority. For example, a study conducted in the humanitarian settings in DRC highlighted "during times of pandemics and epidemics, already disrupted health systems, prioritize all resources towards outbreak response. This limits access to non-outbreak-related health services, particularly SRH services which are often the first to get deprioritized. Hence, women and girls bear the burden of collateral damage to health systems due to the crisis" (Ho, 2022). This study also noted that

> "in humanitarian settings, where health systems struggle to deliver health services to populations already affected by violence, natural disaster, or political instability, the emergence of COVID-19 further threatens the delivery, quality, accessibility, and availability of vital care to those communities. In those settings, access, and use of sexual and reproductive health services among women and girls is limited, even when services are available" (Ho, 2022).

2.3.3 Cumulative and Recurring Stressors: What is the impact on populations over time?

Multiplicative, reinforcing, and non-linear compounded crises, shaped by context-specific dynamics, generate recurring stressors over time, including food insecurity, intensified gendered impacts, chronic poverty, and progressive weakening of health systems with increasingly disrupted service delivery.

First, the cumulative strains and stressors produced by these dynamics frequently exceed the absorptive capacity of single-sector responses, exposing the limits of siloed public health, humanitarian and development interventions. Each successive crisis compounds existing damage,

progressively reducing household resilience, community support mechanisms, and institutional capacity.

Second, rather than allowing recovery between shocks, cumulative and recurring stressors produce reinforcing loops that entrench instability and impede system recovery. This causes permanent crises rather than recovery-response cycles and amplifies pre-existing vulnerabilities (Logie H. K.-T., 2025; Ho, 2022; Casey I. M., 2020). Over time, recurring stressors became normalized and remain unaddressed.

2.3.4 Amplification of Pre-Existing Vulnerabilities: Who is affected and why?

First, a core characteristic of compounded crises is its tendency to amplify structural and social vulnerabilities that predate any single shock. Compounded crises not only create new vulnerabilities, but they also amplify pre-existing ones. Gender inequality, poverty, legal exclusion, discrimination, and weak governance structures intensify the impacts of interacting crises, shaping who bears the greatest burden. Women and girls of reproductive age are often disproportionately affected due to gendered roles, biological risks, and reliance on continuous health services. The OHCHR also recognizes the layered impact of crises on the forms of discrimination against women and girls and their increased exposure to risks of human rights violations (OHCHR, 2022). During compounded crises, women face higher levels of gender-based violence, including torture, sexual violence, forced marriage, transactional sex, and trafficking (OHCHR, 2022). Health care services often are disrupted, which leads to greater risks of morbidity and mortality (OHCHR, 2022). Similarly, when these events trigger local and individual crises among women and girls, it is also likely against the backdrop of countless pre-existing crises such as political, social, economic, environmental, and public health crises (girls, 2021).

Second, vulnerability amplification is also intersectional and layered. Adolescence, disability, displacement status, and marital status interact with crisis exposure to produce stratified reproductive health outcomes.

Third, amplification of crises shapes care-seeking behavior, not just accessibility, availability and quality of services. Compounded crises heighten fear, stigma, and opportunity costs, altering when, where, and whether women seek care, independent of service availability.

2.3.5 Progressive Systemic Erosion: What is the impact at the systems level over time?

Over time, compounded crises lead to systemic erosion—a gradual weakening of formal and informal coping mechanisms at individual, community, and institutional levels. Health systems, in particular, experience declining absorptive, adaptive, and transformative capacity.

First, health system erosion is gradual and often invisible. This erosion is not always abrupt; rather, it unfolds through repeated strain, funding cuts, de-prioritization of geography in the global health or humanitarian agenda, resource depletion, and workforce attrition. Health systems under compounded crises may continue operating while experiencing declining workforce competence, weakened supervision, and fragmented governance - forms of degradation not captured by service availability metrics (VanBenschoten, 2022; Singh A. R., 2023; Abubakar, 2018).

Second, systemic erosion undermines the ability to cope and adapt. Over time, systems lose the ability to adapt to new shocks. Evidence suggests that when health systems face repeated or chained shocks, they can become locked into coping-oriented "resilience traps", over-relying on adaptive strategies while lacking transformative capacity, dynamics that contribute to service stagnation and then limit system flexibility over time (Witter, 2023; Gilson, 2017). In parallel, innovation is often constrained by governance and organizational barriers in health care, leading to slow adoption of new approaches. Temporary humanitarian solutions become permanent substitutes for system strengthening, often leading to reproductive health service delivery into a cycle of short-term responses.

2.3.6 Gendered Dimensions and a Particular Vulnerability of SRHR: Why is SRHR uniquely affected?

While all other components describe the structural dynamics of compounded crises, gender constitutes a cross-cutting dimension that shapes how each of these dynamics is experienced. Compounded crises are not gender-neutral. They interact with deeply entrenched patriarchal norms, gendered divisions of roles and responsibilities in the family and community, and systemic discrimination that produce unequal outcomes. Gender, hence, is a structural determinant that shapes who is exposed, who can cope, who is prioritized in response, and who bears the longest-

lasting consequences. Unlike many other health domains, SRHR needs are continuous, cyclical, and time sensitive. For example, pregnancy does not pause during displacement. Menstruation does not stop during armed conflict. The risk of SGBV escalates rather than diminishes during instability (Barot, 2017). What makes sexual and reproductive health and rights so critical in these settings is that they are shaped simultaneously by biological realities, urgent clinical needs, deeply held social norms, and structural power imbalances.

2.4 Compounded Crises Framework

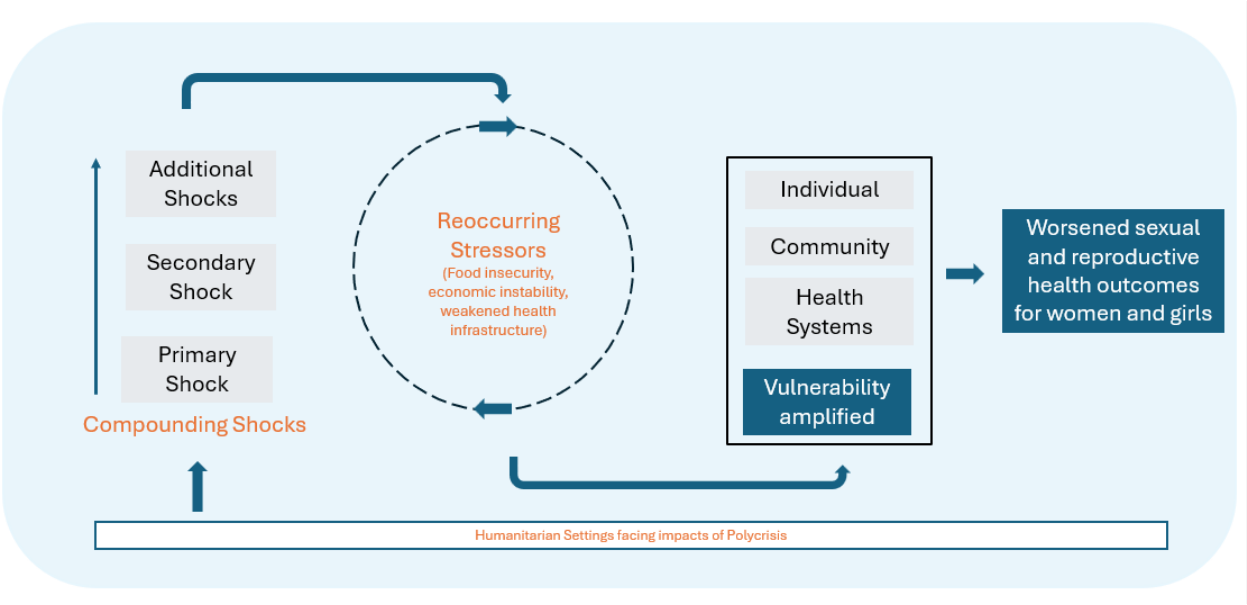

Figure 2: Compounded Crises Framework

By foregrounding multiplicity, interaction, accumulation, amplification, and structural erosion, and the gendered dimensions of SRHR, the compounded crises framework offers a more precise and context-sensitive lens for analyzing SRHR in contemporary humanitarian settings. Across many humanitarian settings, crises rarely arrive one at a time. Communities are often navigating conflict while recovering from a drought or living through displacement just as a disease outbreak begins. These realities make it clear that people's lives are shaped not by isolated shocks, but by the ways crises layer, collide, and reinforce one another. The Compounded Crises Framework grew out of this practical observation and the growing body of scholarship showing how overlapping hazards intensify vulnerability for populations and undermine health systems (United

Nations Office for the Coordination of Humanitarian Affairs, 2024; Logie H. K.-T., 2025; Ho, 2022; World Economic Forum, 2023).

At its core, the framework starts with the structural conditions that shape risk long before a crisis strikes: humanitarian settings, chronic poverty, political fragility, weak governance and few or no structural protections, and impacts of polycrisis in localized settings. Decades of research in humanitarian settings and public health show that these conditions determine who is most exposed, who can recover, and whose needs are routinely overlooked (Casey, 2015; IAWG, 2018; Nam S, 2025).

The left side of the framework depicts primary hazards, shocks, and crises - conflict, climate extremes, epidemics, economic crises - which often occur together or in rapid succession. These shocks rarely remain contained. Their prolonged, layered, and compounding impact creates co-occurring stressors, such as food insecurity, economic instability, or weakened health infrastructure, creating a level of strain that exceeds what any single sectoral response can absorb. The recurring stressors are often. Evidence from conflict-affected and refugee settings consistently shows that when these stressors accumulate, SRHR services are among the first to falter (Casey, 2015; Singh S. A., 2018; Ho, 2022).

The framework then traces how these shocks translate into vulnerability amplifiers, such as delayed health system response and supply chain breakdowns at the systems level, shifting community priorities and increased risk of GBV at the community level, and shifting the traditional health care seeking practices at the individual level. These are the pressures that make it particularly difficult for women and girls to access contraception, antenatal care, safe delivery, or protection services during crisis (Jayaweera, 2025; Logie H. K.-T., 2025). For example, studies from complex humanitarian and public health emergencies show that these dynamics are cascading and non-linear where once a system is weakened, the effects ripple outward in unpredictable ways (Tran, 2020; Physicians for Human Rights, 2026).

Finally, these interactions ultimately shape SRHR for women and girls, such as unsafe abortion, early marriage, and heightened exposure to violence. These outcomes are not accidental; they are the predictable result of layered crises interacting with structural inequities.

In essence, the Compounded Crises Framework is an attempt to bring together what researchers, communities, and frontline practitioners already know: crises are interconnected, their impacts are uneven, and SRHR cannot be safeguarded without understanding these relationships. The framework is a way of understanding what happens when multiple crises- conflict, displacement, climate shocks, pandemics, economic collapse- don't just coexist but interact in a specific local context. A situation where one crisis changes the nature of another. Each shock doesn't just add to the burden; it reshapes the landscape in which the next shock lands. By offering a structured way to analyze how shocks build on one another, the framework depicts points of systemic breakdown and deadlock, where recurring stressors create self-reinforcing cycles that stall progress and heighten vulnerability, while revealing opportunities for cross-sectoral response, community-centered action, and a rethinking of traditional response models. These approaches align with WHO's human-rights approach and Minimum Initial Service Package calling for care that remains accessible, acceptable, available, and equitable, even under the most difficult circumstances (WHO and OHCHR, n.d.; IAWG, 2020).

2.5 Theoretical Foundations of the Compounded Crises Framework: Right to Health and Community-Based Participatory Approaches

The Compounded Crises Framework is anchored in the right to health as a normative and analytic lens for examining how overlapping and protracted shocks reshape the conditions under which reproductive health services are delivered and accessed in humanitarian settings. A right-to-health perspective foregrounds the realization that sexual and reproductive health depends on the availability, accessibility, acceptability, and quality of health services over time. Compounded crises disrupt these conditions through interacting pressures on governance, financing, supply chains, workforce capacity, and accountability, resulting in service fragmentation and uneven access even in settings with long-standing humanitarian infrastructure. Framing compounded crises through the right to health therefore clarifies what is at stake when SRHR is deprioritized or destabilized not simply reduced coverage but systematic erosion of the foundational conditions required for safe, timely, and equitable reproductive health care for women and girls.

The framework is embedded in the human rights principle of reaching the furthest behind first. Realization of the right to health and other intersectional health-related human rights is key to

sustainable development and is anchored in the 2030 Agenda for Sustainable Development (WHO and OHCHR, n.d.). A central principle of the agenda is to "leave no one behind," with a pledge to reach the furthest behind first (United Nations Sustainable Development, 2015). To achieve SDG 3, which ensures healthy lives and promotes well-being for all at all ages, the new agenda aims "to achieve universal health coverage and access to quality health care where no one is left behind. The commitment is to accelerate the progress made to date in reducing newborn, child, and maternal mortality by ending all preventable deaths before 2030. The commitment is also to ensure universal access to sexual and reproductive health-care services, including for family planning, information, and education" (United Nations Sustainable Development, 2015). To achieve this pledge and SDG 3, there remains a need to identify and implement efforts which improve access to health services and leaves no one behind by reaching the most marginalized communities or the furthest behind first. Uplifting human rights and addressing the health needs of marginalized populations in times of compounded crises can be an effort at this very intersection.

Complementing this systems-oriented lens, the framework is equally grounded in community-based participatory work, which positions crisis-affected communities and frontline health workers as essential knowledge holders for understanding how compounded crises are experienced, navigated, and normalized in everyday life. Participatory approaches are particularly critical in humanitarian contexts in which routine data may be incomplete, politically constrained, or slow to capture rapid shifts in risk and service delivery. By centering lived experience of the community, community-based participatory research (CBPR) strengthens the framework's empirical validity and context sensitivity. Integrating CBPR ensures that the Compounded Crises Framework is not only a conceptual model of interacting shocks, but also a practical lens for identifying locally grounded barriers and feasible points of action across the SRHR continuum in real-world humanitarian settings. CBPR is also ethically essential: it redistributes decision-making power in contexts of heightened vulnerability, centers the expertise within the community, strengthens informed consent through continuous dialogue, and helps ensure the research questions, procedures, and outputs minimize harm and produce locally meaningful benefits. By treating communities as partners rather than subjects, CBPR improves both the scientific integrity and the ethical legitimacy of research conducted in compounded crises settings (Wallerstein, 2017).

2.6 Conclusion

In conclusion, crises are increasing. With the funding shocks, reduced staff on-the-ground, and the need for efficiency models, understanding contexts through the compounded crises lens is crucial.

Future research can conduct systematic literature reviews to understand how literature has highlighted examples of compounded crises globally and documented its impact at local levels. Additionally, future research could also focus on applying this framework to various humanitarian contexts globally and identify the differences in localized social, economic, and health impacts on populations, while grounding the work in human rights and participatory approaches.

The next chapter aims to share qualitative findings from the on-ground formative assessment conducted in refugee camps in Kakuma to explore how refugee women and health workers perceive the impacts of compounded crises on reproductive health services at individual, community, and health systems levels. It will add a new dimension to the existing framework by understanding the on-ground realities of compounded crises and its impact on populations and health systems.

Chapter 3.
Rethinking Refugee Reproductive Healthcare Through a Compounded Crises Framework

Abstract

Background: In recent years, the global landscape has shifted from isolated emergencies to contexts characterized by overlapping and interconnecting crises, such as Kakuma refugee camps in Kenya. Compounded crises generate recurring stressors that can intensify vulnerability for women and girls and destabilize sexual and reproductive health services. However, limited evidence describes how refugee women and health workers themselves perceive the cumulative and interacting impacts of compounded crises across individual, community, and health system levels.

Methods: In 2024, we conducted a formative qualitative study in Kakuma Refugee Camp and the Kalobeyei Integrated Settlement, Kenya. Data were collected through focus group discussions with health workers and in-depth interviews with refugee women of reproductive age (WRA) (18-49 years). The analysis used a framework approach, organizing findings across individual, community, and health-system levels and examining how recurring stressors interacted to shape SRH outcomes.

Results: Participants described compounded crises as cyclical and reinforcing rather than episodic. At the individual level, food insecurity, economic insecurity and other recurring stressors led to women engaging in transactional sex and as a result increasing risks of unintended pregnancy, teenage pregnancy, SGBV, STIs, and social exclusion. Other amplifiers include prolonged food insecurity, increased familial and social pressures and increased threats leading to delayed SRH care, increased SGBV, increased maternal health risks such as anemia, and malnourishment. Sustained psychosocial distress and trauma were prevalent and contributed to reduced care-seeking and reduced follow-through. At the community level, higher fertility rates and wider reproduction period resulted in unsafe abortion, lower uptake of family planning, and gendered impacts on women. Health was not seen as a priority which disrupted access to care and reduced interactions with health workers. At the health-system level, SRH services were perceived as centralized in specialty hospitals, with limited capacity at reception centers and primary facilities. Recurrent

stockouts of essential medical supplies and drugs, inequitable information flows, long waits, and episodes of being turned away reduced perceived quality of health services and trust in the system. Deprioritization of SRH services during periods of strain produced recovery lags, with fragmented and delayed service delivery even after services resumed.

Conclusions: In Kakuma and Kalobeyei, compounded crises are experienced as recurring stressors that interact across levels, amplifying vulnerability and undermining SRHR. Efforts placed in compounded crises settings should ensure all stakeholders provide a holistic and integrated response, particularly for SRH services. Our results highlight the importance and urgency of using a compounded crises framework through an on-ground example. Our findings also point to the need for developing and implementing policies and programs that recognize the complex interplay of multiple crises and the layered impact on affected populations.

3.1 Introduction

According to international human rights law, access to sexual and reproductive health and rights is recognized as central to dignity, bodily integrity, autonomy, and gender equality (OHCHR, 2026). It is included in various human rights instruments, including the International Covenant on Economic, Social and Cultural Rights (Art. 12) (OHCHR, 1966), the Convention of the Elimination of all forms of Discrimination Against Women (Art. 12) (OHCHR, 1979), the International Conference on Population and Development (United Nations, 1994), Beijing Platform for Action (United Nations, 1995), and the Sustainable Development Goals (Agenda 2030) (United Nations, 2015). These guidelines are further elaborated in the treaty bodies general comments (OHCHR, 2016; OHCHR, 1999; OHCHR, 2013). All the documents affirm that nations have obligations to respect, protect, and fulfill access to reproductive health services without discrimination. Unlike international humanitarian law, which applies only during armed conflicts, international human rights guidelines always apply to states, even during conflicts (Center for Reproductive Rights, 2021). Hence, they are crucial for ensuring continuity of rights during conflicts. Yet, despite these normative standards, inequities persist in access to comprehensive SRHR services, particularly in contexts affected by conflict, shocks, and displacement.

Compounded crises also have distinct gendered impacts (as described in the previous chapter). Compounded crises frequently intensify pre-existing gender inequalities by increasing exposure to sexual and gender-based violence, forced child marriage that pushes girls out of school and sometimes into trafficking (OHCHR, 2022). These pathways are directly linked to unintended pregnancy, unsafe abortion, and disrupted maternal care. Social and cultural norms can place a disproportionate burden on women by intensifying unpaid care and household responsibilities. These norms shape expectations around fertility and childbearing that may increase the number of pregnancies, and constrain women's autonomy and decision-making, particularly in relation to contraception and family planning. For example, a study conducted in South Sudan reported increased unintended pregnancies and induced abortions during the recent conflict in 2020 (Casey I. M., 2020). Due to the war, people's situations had changed leading to increased instability and poverty, increased transactional sex and rape, disruption of marital norms, and low contraceptive use (Casey I. M., 2020).

Conflict- and crisis-affected environments are also associated with heightened risks of violence against women and girls. The physical and mental health consequences of violence against women in crisis are well-established, and can deter care-seeking due to fear, stigma, or lack of confidential services (OHCHR, 2022). Humanitarian SRHR guidance emphasizes that prevention and clinical care for survivors of sexual violence are core components of an emergency SRH response (IAWG, 2020; Sphere, 2018). Yet, the availability, accessibility, and quality of such services are often constrained by the same systemic pressures that compounded crises generate (e.g., limited trained staff, weak referral pathways, stockouts).

In recent years, the global landscape has shifted from isolated emergencies to contexts characterized by overlapping and protracted crises (Halakhe, 2025; World Bank Group, 2025). Sub-Saharan Africa, in particular, has experienced intersecting crises that interact over time, amplifying vulnerability and weakening already fragile systems (OCHA, 2024). The Global Humanitarian Overview report 2025, states that Africa continues to bear a disproportionate burden of humanitarian disasters (OCHA, 2024). Of the 305.1 million people in need in Africa, the majority (85 million) are from southern and eastern Africa, followed by middle east and north Africa (59 million), and then from western and central Africa (57 million) (OCHA, 2024). Amid the global rise of intersecting and multiplying conflicts, forced displacement, increasing hostility towards refugees from the Global North, a shifting global health and humanitarian landscape, and aid cuts, humanitarian contexts, especially in Africa, continue to face additional barriers to function and provide essential services (Halakhe, 2025).

While humanitarian health frameworks such as the MISP by the IAWG on reproductive health in crises have strengthened early-phase emergency response, growing evidence suggests that protracted displacement and recurrent shocks strain reproductive health systems beyond what conventional emergency models were designed to manage (OCHA, 2024; Halakhe, 2025; Xie, 2024). Overall, substantial measures have been taken for the provision of reproductive health in humanitarian settings; however, implementation has lagged. Health service delivery during the event of one crisis has been fragmented and there are no existing provisions for women facing the new complexities of compounded crises. The existing standards on reproductive health delivery in humanitarian settings are often not context-bound and lack empirical evidence to support. Despite

increasing recognition of compounded crises, little empirical research exists on how women and healthcare providers view the effects of compounded crises on reproductive health.

Additionally, prior research has paid far less attention to how refugee women and health workers themselves perceive the cumulative and interacting impacts of compounded crises across individual, community, and health system levels. Understanding these lived experiences is essential to identifying where reproductive health systems are most strained, how women navigate barriers to care, and how providers adapt to recurrent stressors. Without such formative, context-specific evidence, programmatic responses risk remaining detached from the realities of the communities and insufficiently responsive to the changing landscape of humanitarian settings.

To help address this gap, we conducted a formative assessment in Kakuma and Kalobeyei, Kenya to explore how refugee WRA and health workers perceive the impacts of compounded crises on reproductive health services at individual, community, and health systems levels. By centering the perspectives of both service users and providers, this study aimed to generate on-the-ground insights into how compounded crises shape reproductive health needs, care-seeking, and service delivery in humanitarian settings, and informing more context-responsive and resilient SRHR programming.

3.2 Methods

3.2.1 Positionality Statement

To address my positionality in relation to this research process, I have described my perspective in the positionality statement (see Appendices, Section A).

3.2.2 Data Collection and Methods

A doctoral student (research lead) researcher and six refugee women from the community who carried out the data collection. Data collection was in collaboration with local partners in Kenya (AMREC Kenya), community-based organizations in Kakuma, and international organizations leading health service delivery in Kakuma and Kalobeyei. The research lead supported focus group discussions, data collection and led training and participatory workshops. Refugee women from the community led interviews, note-taking, translation, and transcription work. Kenya lifted its COVID-19 mask mandate on 11 March 2022. As a result, no restrictions on gatherings were in

place at the time of data collection (Logie H. K.-T., 2025). However, during our study that was conducted in-person, we used masks and hand sanitizers and maintained health protocols as guided by clinicians at the hospitals.

Study Sites

Kakuma Refugee Camp and the adjacent Kalobeyei Integrated Settlement are situated in northwestern Kenya bordering South Sudan, Uganda, and Ethiopia (see figure 3). Kakuma was established in 1992 and Kalobeyei in 2016 (UNHCR, 2024; UNHCR Kenya, 2026; UNHCR Kenya, 2026). Collectively, they now host over 295,0005 refugees of twenty countries, including South Sudan, Somalia, the Democratic Republic of Congo, Ethiopia, among other countries (UNHCR, 2024). The camps are jointly managed by the Government of Kenya, the United Nations High Commissioner for Refugees and other national and international organizations (UNHCR, 2024; Ministry of Interior and National Administration, Republic of Kenya, 2019). A network of humanitarian organizations provides reproductive health services, including family planning, antenatal and postnatal care, skilled delivery, and care for survivors of sexual violence.

For more than three decades, Kakuma camps have experienced cycles of new arrivals, funding fluctuations, disease outbreaks, climate shocks, and shifting policy environments. Literature shows Kakuma has been impacted by financial crises, climate crises, political instability and regular public health outbreaks, particularly in the last five years. (UNHCR, 2024; Logie H. K.-T., 2025; Luundo, 2025). This intersection of crises represents a salient example of a protracted humanitarian context that is shaped by compounded crises.

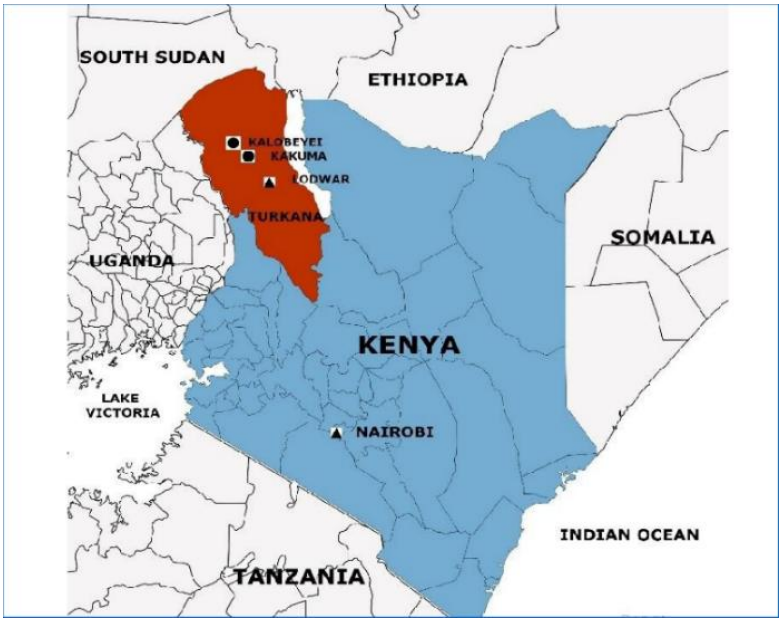

Figure 3: Map showing Kakuma Refugee Camp and the adjacent Kalobeyei Integrated Settlement

Study Design

Our research employed qualitative methods, including thirty in-depth interviews, four focused group discussions (FGDs), four health facility assessments and two participatory workshops to understand reproductive health utilization and service delivery during compounded crises. Using multiple qualitative methods represents an intra-paradigm approach that can generate a richer, more holistic understanding of social processes, interactions, and contextual dynamics (O'Reilly, 2020).

For the data collection, a team of six refugee women (three teams of two) was trained as study research assistants to act both as a facilitator and note taker. All interactions were audio recorded upon consent. Interviews were conducted in Arabic, Dinka, and Nuer and the interactions lasted forty-five minutes. Two-three research assistants conducted the interactions in Arabic, one in Nuer, and two in Dinka language. All teams were comprised of refugee women from the Kakuma and/or Kalobeyei camps. The interviews were conducted in safe spaces, identified by the interviewers and interviewees. Each focus group discussion was conducted in a private room within the health facility or in a space identified by the local team and partners to ensure privacy and confidentiality. The research lead facilitated the focus group discussions and a research assistant provided with note taking. FGDs were conducted in English and the interactions lasted 90-120 minutes.

Health facility assessments were conducted by the research lead to understand reproductive health service delivery and triangulate findings from the focus group discussion. Four health facilities were assessed to understand the variation in reproductive health service delivery, health facility functioning, the range of services provided, stocking of supplies, staffing and resources. The four health facilities included a reception center, a primary health facility, a specialty hospital and a public hospital. These assessments did not involve interaction with human subjects.

Study Participants and Inclusion Criteria

The target population selected for this study included health workers in Kakuma and Kalobeyei who were affiliated with a public or private health system and were actively in service, providing reproductive health service to refugee women. There were no constraints on healthcare provider recruitment related to age, gender, race, ethnicity, or language. FGDs were conducted with, (1) community health volunteers (CHVs), (2) safe motherhood promoters (SMPs), (3) private providers, and (4) public health clinicians.

The study also included South Sudanese refugee women of reproductive age (18-49 years). The eligibility criteria for study inclusion included: age, gender, South Sudanese women who have been forcibly displaced and who have accessed or have tried to access reproductive health services across the reproductive health journey during and post COVID-19, and was a resident at the camp since January 2019. In total, thirty interviews were conducted, twelve in Arabic languages, eight in Dinka and ten in Nuer.

Sampling and Recruitment

The geographical location for conducting the study was selected based on the definition of compounded crises and interest in the local community to collaborate on the research topic. Convenience purposive sampling was used to select camp sites for the study. The research assistants- refugee women from the community - were recruited by our local partners in Kenya.

<u>Focus Group Discussions</u>

Upon identification of camp sites, homogenous sampling was used by partner organizations to identify humanitarian agencies and other organizations working on delivering health services in the camps. Participants were also recruited through phone calls, messages, study flyers, and recruitment scripts. Recruitment was stopped upon reaching the sample size of six-eight participants per FGD. The overall study design employed a maximum variation approach to

include different demographic groups of health workers such as age, nationality, health service delivery experiences, and location (camps).

Interviews

Convenience sampling was used to select the villages in the camps for the study. Upon identification of the villages, village leaders were approached, and their verbal consent was sought for accessing the community. In the first stage, in each selected data collection site (for example, village 1, 2, and 3 in Kalobeyei), criterion purposive sampling was used to recruit refugee women from these villages who had met the inclusion criteria (stated above) using study flyers and recruitment scripts. The scripts and flyers were pasted on hospitals walls, circulated to the community by the healthcare workers and were forwarded via what's app by research assistants. In the second stage, participants were recruited directly through phone calls and messages. Contact details were obtained either through the calls we received from potential participants or from the research assistants who helped with recruitment from their communities. In the third stage, snowball sampling was used to meet the sampling size. This included word of mouth referrals or identification of potential participants who met the study criteria by refugee women who participated in the study. Overall, the study design used a maximum variation to include participants from diverse demographics like age, language, and location (camps).

Training

A three-day training was conducted with the enumerators to familiarize them with the study and pilot test the tools. The topics of the training included human subjects research, reproductive health, compounded crises, qualitative research, study overview, conducting interviews, conducting FGDs, note-taking, consent process, ethically conducting the study, team communication and troubleshooting. Mock practice and consent seeking sessions were also held. Arabic, Dinka, and Nuer interview guides were translated, checked for accuracy and contextualization. English FGD guides were tested for contextualization. Extra enumerators were trained for bench strength and emergencies. Training manuals were created and shared with all participants. Trained enumerators pilot tested the guides. All guides were revised based on feedback from the pilot testing.

Data Monitoring

Daily debriefs were held with the enumerators. In the morning debriefs, the teams went through the checklists, finalized their field movement plan, and received their audio recorders. In

the evening debriefs, the team reported on sample completion, note taking, troubleshooting, and returned the audio recorders. A review of completion, gaps, and quality of information was performed, and regular feedback for improvement was given during debriefs.

3.2.3 Approach

We used a community-based participatory approach that positioned community members as partners in the research and embedded shared decision-making across all stages of the study. The local partners were key in deciding whether the study should be conducted in Kakuma. The communities we worked with included local partners, refugees and staff at community-based organizations who helped shape the research questions and priorities, training materials, informed the study design and tools, and guided recruitment and data collection strategies to ensure cultural and contextual relevance. Refugee women conducted all interviews and helped with translation, data transcription, and data cleaning. We engaged community members in iterative interpretation of findings through two stakeholder workshops, checking emerging themes for accuracy and meaning and in determining how results would be communicated and used locally. This approach strengthened the study's validity, accountability, and practical relevance by ensuring the research remained responsive to community-defined needs and realities (Wallerstein, 2017).

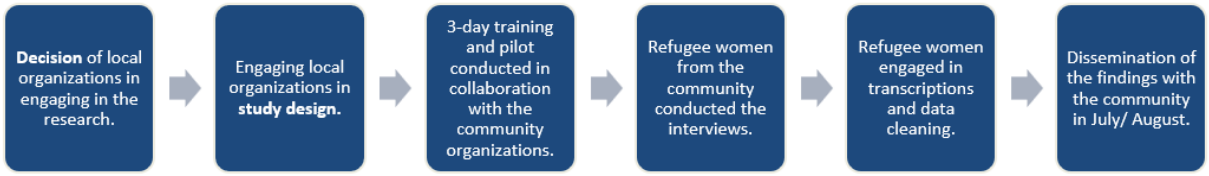

Figure 4: Steps of Community Engagement

3.2.4 Analysis

We conducted data analysis on MaxQDA version 24 and Microsoft Excel 16.80. During fieldwork, research lead and research assistants recorded and tracked analytical insights. We stored transcriptions and audio recordings on a University of California, Berkeley cloud system. We analyzed the qualitative data using the Framework Method described by Health Policy and Sociology Professor Nicola Gale and colleagues, using the seven stages (Gale, 2013). Following

their staged process[1], we familiarized ourselves with transcripts, cleaned the data and checked all translated transcripts for accuracy. We then conducted initial coding and iteratively developed a shared analytic framework that combined inductive codes emerging from the data with deductive codes that aligned with our study aims. The research lead designed a codebook with predetermined themes and categories using deductive coding. Analytic inductive codes were added to the codebook that highlighted new themes and patterns from the data gathered. The research lead and two research assistants from UC Berkeley, reviewed the transcripts to identify significant quotes. We added memos to the analysis while coding. Research assistants with prior experience in qualitative research supported the coding process to ensure inter-coder reliability. After coding the first few transcripts, all coders met regularly to compare labels. Two-three researchers coded each anonymized transcript. We then applied the finalized framework consistently across the dataset. Data was charted into a matrix to support transparent comparison within and between participant groups (e.g., refugee women and health workers) and across levels of influence (i.e. individual, community, health system). We analyzed themes, insights and verbatims on Excel after retracting all thematic codes from the codebooks on MaxQDA. A third reviewer identified coding discrepancies. We resolved the discrepancies through team discussions and recorded them with consensus.

3.2.5 Ethical Approvals

The study received approval from the Committee of the Protection of Human Subjects (CPHS) at the University of California, Berkeley (CPHS #2023-10-16754) (see Appendices, section B), and the Kenyan National Commission for Science, Technology, and Innovation (NACOSTI License #NACOSTI/P/24/32807) (see Appendices, section C). Additionally, approval from the Commissioner of Refugee Affairs, Department of Refugee Services, Ministry of Internal and National Affairs, Kenya was also granted for this research.

Informed Consent

All participants were verbally informed of the project's goals and methods. Oral consent was requested of all participants. The consent form provided an overview of the study, explained

[1] Stage 1: transcription, stage 2: familiarization with the interview, stage 3: coding, stage 4: developing a working analytical framework, stage 5: applying the analytical framework, stage 6: charting data into the framework matrix, and stage 7: interpreting the data

confidentiality, the voluntary nature of participation, risks and the benefits of the research (see Appendices, section D and E). During data collection, no personal identifiers were collected.

3.3 Results

In total, thirty in-depth interviews were conducted with refugee WRA (18-49 years) (see table 7). The refugee women were from Kakuma (n = 19) and Kalobeyei (n=11). Twelve women interviewed in Arabic, eight in Dinka, and ten in Nuer languages. Of the thirty participants, thirteen were between the age of 20-29, eight were between 30-39, six between 40-49 years and three did not report their age. Only 13.3% (n=4) women ever used or were currently using contraception. The average number of children per woman among the participant group was 4.7. Of the total number of participants, 40% reported 6 or more pregnancies. Seventeen participants had reached the age of menarche by fifteen years. In many cases, they reported their first pregnancy soon after.

	Kakuma (n=19)	**Kalobeyei (n=11)**	**Total (n=30)**
Variable	n(%)	n(%)	n(%)
Age (years) **(missing = 3)**			
20-29	7 (36.8%)	6 (54.5%)	13 (43.3%)
30-39	6 (31.6%)	2 (18.2%)	8 (26.7%)
40-49	3 (15.8%)	3 (27.3%)	6 (20%)
Educational Status **(missing = 9)**			
No Formal Education	6 (31.6%)	2 (18.2%)	8 (26.7%)
< High School	5 (26.3%)	6 (54.5%)	11 (36.7%)
Completed High School	1 (5.3%)	1 (9.1%)	2 (6.7%)
Marital Status **(missing = 8)**			
Married	8 (42.1%)	6 (54.5%)	14 (46.7%)
Single	3 (15.8%)	1 (9.1%)	4 (13.3%)
Divorced	0 (-)	1 (9.1%)	1 (3.3%)
Separated	0 (-)	2 (18.2%)	2 (6.7%)

Widowed	1 (5.3%)	0 (-)	1 (3.3%)
Employment Status (missing = 8)			
Employed	1 (5.3%)	2 (18.2%)	3 (10%)
Not employed	11 (57.9%)	8 (72.7%)	19 (63.3%)

Table 2: Sociodemographic characteristics of interview participants in Kenya (n=30) by location

Additionally, four focus groups were conducted: one each with private health providers, safe motherhood promoters, community health volunteers, and reproductive health staff and doctors from a public hospital (see table 8). Twenty-eight health workers from Kakuma and Kalobeyei participated in the study, six-eight participants per group discussion, of whom, 50% (n=14) participants were between the ages of 20-29, 32.1% (n=9) were between 30-39, 10.7% (n=3) were between 40-49, and 7.1% (n=2) were between 50-59 years. Of the twenty-eight participants, 50% of them (n=14) identified as women and others (n=14) as men. In total, four health facility assessments were conducted, one each in public hospitals in Kalobeyei and Kakuma, one at a reception center, and one at a public clinic in Kalobeyei.

	Clinicians (n=7)	**Private Providers (n=6)**	**Safe Motherhood Promoters (n=8)**	**Community Health Volunteers (n=7)**	**Total (n=28)**
Variable	n(%)	n(%)	n(%)	n(%)	n(%)
Age (years)					
20-29	6 (85.7%)	4 (66.7%)	2 (25%)	2 (28.6%)	14 (50%)
30-39	0 (-)	2 (33.3%)	3 (37.5%)	4 (57.1%)	9 (32.1%)
40-49	1 (18.3%)	0 (-)	2 (25%)	0 (-)	3 (10.7%)
50+	0 (-)	0 (-)	1 (12.5%)	1 (14.3%)	2 (7.1%)
Gender					
Man (cisgender)	1 (18.3%)	5 (83.3%)	4 (50%)	5 (71.4%)	15 (53.6%)
Woman (cisgender)	6 (85.7%)	1 (16.6%)	4 (50%)	2 (28.6%)	13 (46.4%)

Years of Experience as a Health Worker					
<1 year	0 (-)	0 (-)	1 (12.5%)	0 (-)	1 (3.6%)
1-3 years	0 (-)	2 (33.3%)	4 (50%)	2 (28.6%)	8 (28.6%)
4-6 years	5 (71.4%)	2 (33.3%)	0 (-)	3 (42.8%)	10 (35.7%)
7-9 years	1 (18.3%)	2 (33.3%)	3 (37.5%)	1 (14.3%)	7 (25%)
10 years +	1 (18.3%)	0 (-)	0 (-)	1 (14.3%)	2 (7.1%)
Years of Experience in Kakuma/ Kalobeyei					
<1 year	1 (18.3%)	0 (-)	1 (12.5%)	0 (-)	2 (7.14%)
1-3 years	4 (57.1%)	2 (33.3%)	4 (50%)	3 (42.8%)	13 (46.4%)
4-6 years	2 (14.3%)	3 (50%)	0 (-)	4 (57.1%)	9 (32.1%)
7-9 years	0 (-)	1 (16.6%)	3 (37.5%)	0 (-)	4 (14.3%)

Table 3: Sociodemographic characteristics of FGD participants in Kenya (n=28) by health worker category

According to the compounded crises framework (see figure 4), the prolonged, layered, and compounding impacts of crises create co-occurring stressors such as food insecurity, economic instability, or weakened health infrastructure. This creates a level of strain that exceeds what any single sectoral response can absorb. These are recurring stressors because they are ongoing conditions that repeatedly disrupt reproductive decision-making, social support, and health service delivery. Some of the recurring stressors at all socio-ecological levels are listed below (it is not an inclusive list but what were identified by our study participants in the interviews and FGDs) (see the circle in figure 4).

Individual Level

- Economic instability: rarely a permanent source of income, rising prices, debt cycles, and reliance on irregular cash/aid that repeatedly disrupts ability to pay for health services.
- Food insecurity: recurring shortages of safe drinking water and food.
- Mobility and time constraints: repeated restrictions on movement (curfews, insecurity, documentation checks), long travel times, and competing demands (care work, queuing for rations/water), which regularly delay or deter care-seeking.
- Chronic stress: sustained anxiety, grief, and psychological strain that progressively reduces capacity to respond or cope.

- Safety threats: recurring exposure to harassment, violence risk on routes to services, or unstable household dynamics that facilitates intimate partner violence (IPV).

Community Level

- Social cohesion strain: repeated tensions across groups (e.g. new arrivals vs. longer-term residents, host vs. refugee communities, inter-ethnic dynamics).
- Reinforcement of gender norms that intensify the social and cultural burden on women.
- Reduced community trust: repeated experiences of inconsistent assistance, shifting eligibility rules, or perceived inequities that erode trust in institutions, particularly health systems.

Health Systems Level

- Weakened health systems: supply chain challenges, cyclical stockouts and delayed procurement of essential commodities (including SRHR supplies), driven by transport disruptions, funding unpredictability, and logistical bottlenecks. In addition, recurring staffing gaps.
- Fragmented donor support: shifting donor priorities, short project cycles, and changing implementing partners that repeatedly disrupt continuity and sustainability of care.
- Infrastructure and utilities unreliability: repeated interruptions in power, water, transport, communications, and facility functionality that reduce operating hours and constrain quality of health services.

These recurring stressors become amplifiers of vulnerability when overlapping crises intensify them, for example, livelihood collapse or heightened insecurity. But analytically they can be identified as recurring pressures shaping baseline risk. Each theme organized below shows an amplified vulnerability due to multiplying crises and their recurring stressors. The themes are organized according to the individual, community and health systems level of the socio-ecological model. Each theme then elaborates on insights that depict the direct and indirect impacts on women's reproductive health outcomes at each level.

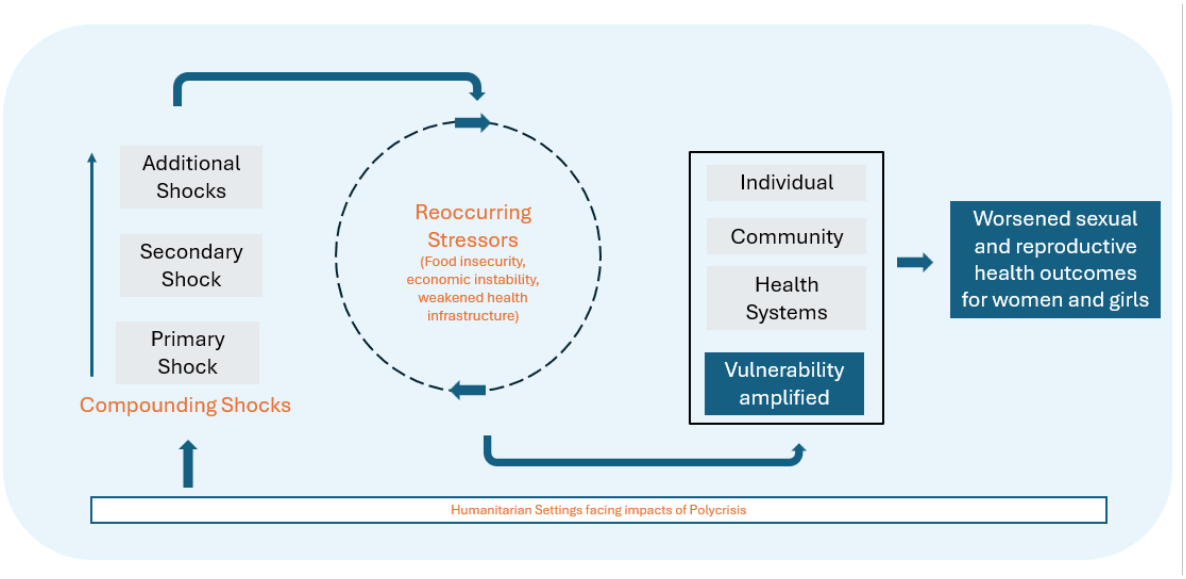

Figure 5: Compounded Crises Framework

3.3.1 Individual Level

Theme 1: Increased transactional sex among young women and girls

Participants described transactional sex among young women as a response to financial and food insecurity. In terms of SRHR outcomes, it was linked to increased risk of unintended teenage pregnancy, sexually transmitted infections (STIs), and increased sexual and gender-based violence. Several participants also described fear of stigma and blame among young women that aids them to have unattended domiciliary deliveries. As a result, obstetric fistula cases also increased among this group.

> *"So, you will find that the number of girls engaging in transactional sex increases. In time, you'll find that the number of teenage pregnancies increases, and the number of defilement cases also increases. So, and the number of rape cases also increase. As a result, you'll find that a lot of women come to the hospital. And some of them are directly affected with STIs and HIV." – Clinician, Focus Group Discussion*

> *"I am asking a girl, she is 16 years. I ask her, why pregnancy, what caused her to be pregnant? She told me, do you see this (my condition)? When you are in a bad situation and when you get someone who may help you, there is no problem." – Safe Motherhood Promoter, Focus Group Discussion*

The results from this theme extend beyond health, contributing to dropping out of school, stigma and social exclusion, ostracization from community, and reduced employment prospects. These social and economic consequences can increase a woman's vulnerability in which transactional sex becomes a survival strategy to meet basic needs.

> *"Because they are students, there is no employment, they have to fare for their daily upkeep. So, they would go for sexual advances. If someone would give sexual advance to give you money, then it would increase for lack of a better word, the prostitution and then from there, it would increase other infections, like HIV, HIV and STIs. Those are the complications that actually came up after COVID as a result of many crises interacting."*
> *- Clinician, Focus Group Discussion*

Theme 2: Increased and prolonged food insecurity undermining maternal and child health outcomes

Women and health workers identified food insecurity as a chronic, recurring stressor whose severity and duration amplified vulnerabilities. Its elevated and prolonged nature directly and indirectly worsened maternal and child health outcomes. Health workers linked inadequate and unpredictable food access to maternal anemia, malnutrition during pregnancy and postpartum, and challenges with breastfeeding. Food scarcity was also associated with child malnourishment and heightened caregiver distress.

> *And as these mothers, they are pregnant, they also face malnutrition. And at the same time when they give birth because of hunger, they cannot be able to secrete a lot of milk for them to breastfeed their children. That is why you find them even in residual programs, we have a lot of admissions, just because, you know, good health means good nutrition. – Community Health Volunteer, Focus Group Discussion*

Theme 3: Familial needs and social expectations drive delayed care seeking behavior

At the family level, women and health workers described how recurring financial strain, food insecurity, water insecurity, and competing household needs of other family members create a budgeting crisis where SRH care was deprioritized unless perceived as urgent. This burden in the family often fell on women and girls. Most women had to deprioritize their reproductive health needs related to menstrual health and hygiene needs to health facility visits to fulfill familial needs.

Health workers also observed that women often presented later in pregnancy or only when complications escalated to prioritize familial needs. As a result, many women delay seeking facility-based care or give birth without skilled supervision in informal or unprepared settings. This increases the risk of obstetric complications and adverse maternal outcomes, including morbidity and mortality.

> *"Most of the time we have birth before arrivals. Women get labor but again they have their family to take care of. And they do not have someone who is old enough to take care of these other kids. So, the woman would say, yes, I have labor. And by the time I'm delivering, I have a few hours to go. So, she would prefer to go and fetch water to come and leave water at home so that other family members don't have issues, and then she comes to the hospital. And by doing that, you'd find that most of them give birth at the water points. Because maybe there are long queues." – Safe Motherhood Promoter, Focus Group Discussion*

Societal pressure and stigma also shaped what SRH needs could be voiced and addressed. In compounded crises, pre-existing social and cultural norms become more restrictive and heighten caregiving burdens on women and reduced autonomy. Limited or no access to reproductive health services often reduced contraceptive uptake, encouraged unsafe abortion pathways, delayed SGBV disclosure or nondisclosure, and in some cases, avoidance of family planning clinics. Women and providers described substantial stigma surrounding abortion, family planning, transactional sex, SGBV reporting and marginalized groups (e.g. gender diverse and LGBTQI+ (Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, and Intersex + populations, and persons with disabilities etc.). Due to this cultural disapproval, women emphasized that SRH access on these issues operated as a way of surveillance on women that discouraged hospital attendance for specific services (e.g., family planning, SGBV care, and abortion).

> *For me, my culture doesn't allow that, even my religious my culture, my Christianity, my Bible doesn't allow me to enter in family planning. But with that now, we have done a lot to tell them that- because as African we believe in God- we have told them that God doesn't allow someone that will deliver anyhow- you have to get a plan. – Safe Motherhood Promoter, Focus Group Discussion*

Currently, the teenage pregnancies are high, and these girls are not ready to go for family planning in the same unit where their mothers are going. Because they feel they will be talked off in the community. - Clinician, Focus Group Discussion

In this case, because we are coming from a different country that is South Sudan, we have a very big problem of accepting family planning because when now we are teaching in Kalobeyei, to tell the benefit of family planning. We say, let her stop for some time. Let her use family planning. This problem may bring a lot of issues from some families. Even some families separate. The men they can tell you, why are you thinking like this? I married you. I gave the right dowry to your family. I am the one who can decide, because I need the children. – Safe Motherhood Promoter, Focus Group Discussion

Family planning is supposed to be the role of men. They don't want to agree to come with their women to get the methods. And if a woman decides to come alone, it will be a challenge because the man will say, this woman doesn't want to share family with me. But if the woman shares, he doesn't want the woman to come with him to select the method. Their fighting will continue in that home, until later. Why do you do that, without my consent? - Community Health Volunteer, Focus Group Discussion

There are some ladies they come to us like a secret to take injection. But last year they got caught- one lady. Now this lady is alone because the husband took their children to South Sudan. And she lives here in the camp, alone, all because of the injection. This lady complained about more pregnancies, because she already had more than 4 children and her husband was still wanting more. Because when they deliver here, within three months, the mumma she gets pregnant again. – Safe Motherhood Promoter, Focus Group Discussion

It's like, abortion is, like, illegal here in this country. But not only the law of the land, but still the books that we believe in, Christianity and Muslims. You know, it's not allowed to have this abortion. But medically, there is time for this condition which can lead you to have that abortion. But that will only be agreed by doctor. So, you have to abort, so it's allowed there. But others, it is not allowed. So, if we, if you tend to do that one, the spirit of it thereafter, like, you'll be changed for lifetime, or else you'll have to pay for the price of that. – Private Provider, Focus Group Discussion

Theme 4: Fear and safety constraints due to increased SGBV risks

Fear of violence and harassment when moving through the settlement, particularly when women traveled alone to collect water or firewood, was described. Several accounts referred to severe forms of sexual violence, including gang rape. Health workers noted that many survivors did not disclose these incidents due to fear of stigma, retaliation, or relationship breakdown. Married women were perceived to face the additional risk of abandonment by their husband if they reported any incidence of SGBV. These safety constraints and the underreporting of sexual violence were linked to heightened exposure to SGBV, significant psychosocial distress, disrupted family stability, unintended pregnancy, and delayed care-seeking for reproductive health complications.

> *"Sometimes these ladies get a lot of defilement or rape when they go fetching water. Sometimes there's a lot of scarcity of water in the camp. So, getting the water, you have to wake up very early in the morning, that is probably when there's a certain water point that is being opened in a certain neighborhood, maybe your neighborhood water comes once a week. And within that week, you have completely used all the water that you had fetched. So, you have to wake up very early to go to another neighborhood that is receiving water next time to fetch water. So, when they are doing that transversing within the community, then they get such issues like rape and defilement."* - *Clinician, Focus Group Discussion*
>
> *"When the mother going in the morning to the go to look for the firewood, they are getting rape cases in the forest. And when they come back, some of them are coming to report and some of them are fearing to report. And this thing also can bring a lot of problems because after three months you are here getting pregnant and your husband in the house is saying tell me where you are getting pregnant." – Safe Motherhood Promoter, Focus Group Discussion*

Providers also highlighted safety risks associated with collecting household food rations, such as women being robbed while returning home, resulting in lost supplies and worsening household food insecurity.

> *"Another one is the food distribution because we have those people who live in Kalobeyei, and they are receiving the ration from Kakuma card- since the ration there is also deducted. It also affects these mothers because they move from Kalobeyei to Kakuma to*

get food. And they are pregnant. When they're coming back after receiving food, some thieves stay on the way, they can just hijack and take this food. So, when they come home, they come without the food. So, it gives them stress which it is affecting them." - Community Health Volunteer, Focus Group Discussion

Theme 5: Sustained psychosocial distress and trauma

Psychosocial distress was repeatedly reported in all focus group discussions and interviews. It was linked with ongoing stress, grief, and uncertainty due to recurring stressors and inability to cope. Within compounded crises, psychosocial strain accumulated rather than resolving, amplifying vulnerability by eroding women's emotional bandwidth, decision-making capacity, and ability to plan or seek timely care. Health workers additionally noted that prolonged stress could heighten relationship conflict and reduce social support, further isolating women and constraining care seeking. Some women described the emotional toll of repeated disruptions as diminishing their ability to advocate for themselves during care encounters. The SRH impacts were reduced disclosure of needs to providers and increased SGBV, including intimate partner violence.

"There was some information (about COVID) that was announced (by community health workers) but I never bothered to listen to them, as you know, we have our own problems, so you won't bother to listen to anything or anyone. I do sit alone. I don't go to associate (socialize) with people. When Corona came, I just wanted it to kill myself." – Refugee Woman, Nuer In-Depth Interview

Participants noted that under sustained stress, and some households diverted monthly stipends toward alcohol or sold part of their food rations to generate cash. These coping behaviors were described as intensifying household tension contributing to increased intimate partner violence and other forms of gender-based violence. Health workers also emphasized that children are frequently exposed to violence in the home, with lasting effects on their safety and well-being. Over time, participants perceived these cumulative harms as contributing to intergenerational patterns of psychosocial distress and mental health challenges.

"Due to financial struggles, you'll find that when they received food, they sell. Or when they receive this money, they go for alcohol. So, we see, that partners fight most of the time.

So, when parents start fighting, meaning that even a kid they are not well." – Safe Motherhood Promoter, Focus Group Discussion

Mothers described intense pressure to provide for their families, and when they were unable to meet these expectations, some reported experiencing severe psychological distress, including suicidal thoughts. Participants also noted instances of alcohol use during pregnancy, framed as a coping response to prolonged stress and hardship.

"Even some families, maybe they can do suicide. Because you know when the mother stay at home and she sees her children, they are suffering, she cannot accept. So, she says, it is better that I die before and those children, they can die after me." – Safe Motherhood Promoter, Focus Group Discussion

"Because of hardship, because of stress and stigma, they end up taking alcohol. Like women who are pregnant, they end up taking alcohol. So, when someone who will be drunk, at the time of labor pain it will reach, you do not care and just deliver at home." – Safe Motherhood Promoter, Focus Group Discussion

	Vulnerability Amplified	**SRHR Outcomes (direct and indirect)**
Individual Level	● Transactional sex among young women and girls	● Rate of STIs transmission increases ● Unintended pregnancies increase ● Teenage pregnancies increase ● Increased SGBV
	● Prolonged food insecurity	● Malnourishment in mothers and newborns ● Maternal anemia ● Challenges with breastfeeding
	● Increased social and familial pressures	● Delayed or prevented SRH care leading to higher risks of maternal morbidity and mortality
	● Increased threats to safety	● Increased **S**GBV ● Increased mental stress ● Unwanted pregnancies ● Impact on married life ● Added mental health concerns for pregnant women

	● Sustained psychosocial distress	● Increased SGBV, including IPV ● Reduced continuity of care ● Reduced disclosure of SRH needs to health workers

Table 4: Amplified vulnerabilities and SRHR outcomes at the individual level

3.3.2 Community Level

Theme 6: Higher fertility rates and wider reproduction period

Health workers stated the average number of children per woman is around eight, with childbearing ranging from ages 9-52 years. Among the thirty refugee women, the average number of children among the participant group was 4.7. Of the 30 women, 40% reported six or more pregnancies.

> *"The camp is so fertile. It's from 9 to 52 years. But you'll find most of them that come to maternity, the average is 8." - Clinician, Focus Group Discussion*

Women connected enhanced economic security to an increased number of pregnancies because of the higher monthly stipend from UNHCR associated with every family member. In some cases, women also attributed higher numbers of pregnancies to social pressures. This meant they reproduced for the lost population in the war. Overall, SRH impacts were reported to have higher fertility rates in the camps, higher risks of maternal health complications, lower uptake of family planning services, unsafe abortions, and limited uptake of post-abortion care.

> *"Some women are used to competing according to size (family size). You know, in this town, we have size, we have we received the Bumba Chakula (monthly stipend/aid) and that Bumba Chakula when you have size 7 size 8 so you have a lot of money. So when you're going to counsel that woman for family planning, she will tell you, for me, I have not enough food and I have to give birth so that I add my size." - Community Health Volunteer, Focus Group Discussion*

Theme 7: Reproductive health is not prioritized when basic survival needs are unmet

In Maslow's hierarchy of needs[2], health only falls in the second tier of safety needs, once physiological needs like food, water and shelter are met (McLeod, 2026). Overall, reproductive health was not prioritized by women when basic survival needs remained unmet. Even if health systems and services existed, reproductive health was not sought.

Health workers often reported challenges in working with women who were facing food and economic insecurities. Community health workers (CHWs) reported difficulties in providing key health messages to pregnant women who had not eaten in the last several days. This food insecurity in the camps, was particularly faced by pregnant women at the reception centers. Women were often stressed and were sometimes even found crying by community health workers because they were hungry and had not received enough food intake during their pregnancy. Women from different cultural contexts have different eating habits, which often included a meal with diverse ingredients. However, at the reception centers, they only received maize for their meal, twice a day - once during the day and once at night. SMPs try to counsel and support women but often face a challenge because hunger takes precedence over health. Proving food during health consultations is a limitation with their role, because the community expects support with food and fulfilling their basic needs but the SMPs mandate is primarily to counsel. So, when SMPs request pregnant women to visit hospitals, they often refuse due to their lack of trust in the SMPs.

> *"That is why even they are complaining when we are we have had more challenge there (at the reception) because like us, Safe Motherhood Promoters, when you are going to look for your pregnant mother's – even they are complaining. They say, 'you people of hospital, you are disturbing us. You are just coming and looking at us and you are not helping us. We are tired, we are hungry." You know what … you only work … and they are complaining to us and about us. And like us, we are just going to help them. We have nothing, or anything to give them. You know sometimes they refused to go to clinic." – Safe Motherhood Promoter, Focus Group Discussion*

Theme 8: Social support responsibilities created additional barriers to SRH care-seeking

[2] Maslow's Hierarchy of Needs is a theory of human motivation created by psychologist Abraham Maslow in the 1940s.

Health workers described that women would often bring unwilling to leave reception centers, which are perceived as the first official point of arrival. They stayed, waiting for family or other community members to reach Kalobeyei. This waiting constrained mobility and contributed to delayed engagement with routine reproductive health services. In these cases, reuniting with the family can be more important than seeking health services. Access barriers were reinforced by the distance between reception centers and higher-level facilities, limited service capacity and commodities within reception center clinics, and fewer opportunities for follow-up and referral support from community health workers. This facilitates SRH access inequities, reduces the ability to seek referrals and emergency care, and promotes inconsistent uptake of prenatal, postnatal and newborn services.

> *"Some people they are there in the reception since 2022. They do not get out from there. Because they say that others they arrive, they have their alliance in Uganda, some come from camps of Uganda and others also from Ethiopia, others also from South Sudan. So, they wait for the whole group to also come here in the camp. And that is why they are in line and they are not opening. They say that just let them sit in reception. That is why sometimes people are fighting because even other side sitting with stress." – Safe Motherhood Promoter, Focus Group Discussion*

	Vulnerability Amplified	**SRHR Outcomes (direct and indirect)**
Community Level	● Higher fertility rates and wider reproduction period (9-52 years)	● Higher fertility rates ● Lower uptake of family planning ● Unsafe abortion and limited uptake of postabortion care. ● Higher risk of maternal health complications with every growing pregnancy ● Women are expected to make-up for the lost population during wars. ● More children in compounded crises means higher stipend from development agencies which helps with survival needs. ● Families get extra income by getting bride prices so there is an increase in child marriage.

	● Health is not prioritized when basic survival needs are unmet.	● Community health workers reported difficulties in providing key health messages.
	● Added responsibility for social networks	● Reduced ability to seek referrals and emergency care ● Inconsistent uptake of prenatal, postnatal and newborn services ● Inequity in SRH access

Table 5: Amplified vulnerabilities and SRHR outcomes at the community level

3.3.3 Health Systems Level

Theme 9: Deprioritization of SRH with competing crises response and shifting donor priorities

Participants described how SRH services were frequently deprioritized when compounded crises intensified, as resources, staffing, and attention shifted toward immediate response needs. Health workers noted that health agencies often cut SRH programming and staff in response to donor priorities. For example, in Kakuma, private providers reported that the gynecologist was removed when resources were constrained.

> *"Then also you find even the donors, they're saying, we don't have fund right now to provide a particular service, therefore, you find that the person who are working in that particular department may be removed. Like, for instance, here in the camp, the gynecologist, I don't think we have. Because once this happens, they find that the organization they are not having the money to pay, to pay those people." – Private Provider, Focus Group Discussion*

Women perceived these shifts as unpredictable and discouraging, contributing to mistrust and reduced care-seeking. Over time, this deprioritization led to reduced reproductive healthcare at the facilities and loss of trust among community members. During the COVID-19 pandemic, women who delivered were given sanitary napkins, which helped maintain menstrual hygiene, but due to shifting donor priorities, the service scaled down and eventually stopped after COVID-19.

Women also reported that information about available reproductive health services was often difficult to obtain and unevenly distributed, with inequities becoming more pronounced during the

COVID-19 period. They also perceived a decline in the quality of care at the health facilities, describing prolonged waiting times and instances in which they were either not seen or received no services despite attending the facility.

> *"We never received any information. If there were women who got them, it's ok, but I didn't get them because the population is high in the community." – Refugee Woman, Nuer In-Depth Interview*

> *"The services wasn't enough there was strict restriction of crowding making it more difficult to access the R.H.S the way you want." – Refugee Woman, Arabic In-Depth Interview*

> *"The reproductive health services were rare to get and there were a lot of restrictions. Almost everywhere was closed, even schools. So, I didn't get any reproductive health services." – Refugee Woman, Dinka In-Depth Interview*

Overall, some SRH services were not available. Comprehensive emergency obstetric and newborn care (EmONC) and safe abortion provisions were not delivered in the health facilities at all. Cervical cancer screening was also limited.

Theme 10: Every crisis sets back the availability, accessibility and quality of health services, creating an increasing lag in service delivery

The revival of SRH services, after the deprioritization, takes time, creating a lag in service delivery. Women and health workers noted that when SRH services are deprioritized, reinstating them is not immediate. The restart period creates a lag in service delivery, and even after services resume, provision is often uneven and this is characterized by fragmented care, delayed appointments, and inconsistent follow-up.

> *"Gynecologists were there before. Nowadays, they do booking, after booking. When they see the numbers reach a certain target then they will call for the doctor to come and attend to the patient." – Private Provider, Focus Group Discussion*

> *"They never call, but they used to come home. They once came for reproductive health, but they usually come home when you miss out on child injections." – Refugee Woman, Nuer In-Depth Interview*

Theme 11: Service interruptions and recurrent stockouts undermining continuity of SRH care

Women and health workers described low availability of essential SRH commodities and clinical supplies. Recurrent stockouts disrupted routine service delivery and reduced the system's capacity to provide consistent care. For private providers, there was a surge in the pricing of medical supplies during compounded crises due to low availability of these supplies, which had a negative impact in the accessibility to reproductive health services in their catchment area. Providers described fragmented programming across implementing partners and funding cycles, which created uneven service coverage and discontinuity. Inconsistent service delivery and program fragmentation limited integration across the SRH continuum.

> *"The same thing here, service that we provide, for example, doing consultation, doing this awareness, we don't charge anybody. We only charge for some medicines we provide. Because this is also what we buy. We buy then we when we give, when we give out, you have to get whatever cost us. So, other services are just free. We don't charge… But if things at the top there, they're very expensive then down here, we can't reduce any prices. – Private Provider, Focus Group Discussion*

Women reported being turned away at health facilities or advised by health workers to return later. These supply disruptions contributed to service discontinuity, reduced trust in facilities, and increased reliance on private providers. Women experienced this fragmentation in the light of inconsistent information, changing service points, and unclear eligibility. Health workers emphasized that short-term project logic did not match long-term needs in protracted displacement.

> *"I was told that there were no medicines and come back another day and sometimes I was told that they were working on other things so I should come another day." – Refugee Woman, Nuer In-Depth Interview*

Theme 12: Centralized SRH service delivery limits equity in accessing services

Most reproductive health services were concentrated in specialty hospitals, while private providers primarily offered basic family planning and counseling in communities. Reception centers and primary-level facilities reported a narrower service package, resulting in limited

capacity for routine SRH care, reduced accessibility, and fewer entry points for comprehensive services outside referral hospitals.

> *"You will force yourself with the footing (walking) until here (hospital). You know, the reception is very far. This is a challenge we are facing. You will talk until you die." – Safe Motherhood Promoter, Focus Group Discussion*

	Vulnerability Amplified	SRHR Outcomes (direct and indirect)
Health Systems Level	● Deprioritization of SRH services	● Reproductive health service delivery decreased/ deprioritized with reduced staff – non availability of gynecologist ● Lost trust in the health system and reduced reliance on health system for SRH services ● Comprehensive emergency obstetric and newborn care, and safe abortions were not delivered in the health facilities at all ● Cervical cancer screening was limited
	● Fragmented and delayed health services and lag in service delivery	● Women are dropped from the health system during these times ● Inconsistent follow-up
	● Service interruptions and recurrent stockouts	● Due to financial constraints on implementing organizations (IRC or Red Cross Kenya) during CC, they often cut staff working on reproductive health services, deprioritizing it from its mandate ● For private providers, there is a surge in the pricing of medical supplies during CC due to low availability of these supplies, which negatively impacts accessibility of RH services in their catchment area ● Women get turned away or advised to come back later

	● Centralized SRH service limiting equitable access	● Narrower SRH package ● Limited capacity for routine SRH care ● Fewer entry points for comprehensive services outside referral hospitals ● Reduced accessibility

Table 6: SRHR outcomes and vulnerabilities at the health systems level.

3.4 Discussion

We found that the compounded crises in Kakuma and Kalobeyei were experienced less as discrete events and more as recurring, reinforcing stressors. The crises accumulate over time and at all levels - individual, community, and health system- to produce amplified vulnerabilities that eventually brought disruption across the SRHR continuum. Refugee women and health workers described a cyclical pattern in which stressors intensify, SRH services are deprioritized or become practically inaccessible. When services resume, recovery is slow, fragmented, and uneven, further eroding trust and delaying care-seeking. These dynamics help explain why, in compounded crises settings, SRHR gaps worsen even when services exist. Our research also demonstrates how the compounded crises framework can be applied to understand context-specific needs when multiple crises intersect. Participants repeatedly emphasized that recurrent stressors created a cycle in which vulnerabilities deepened. Across narratives, deep social vulnerabilities were cross-cutting. These vulnerabilities impacted populations and the health system's ability to cope with the recurring stressors at the individual, community, and health systems level.

A central contribution of these findings is that compounded crises operate through linked pathways, not as isolated barriers (see figure 5). At the *individual level*, the recurring stressors results in food and financial insecurity lead to transactional sex among young women and girls. Participants described transactional sex as a survival strategy linked to constrained livelihoods and limited options, especially for adolescents and young women. Crucially, the impacts of transactional sex were not limited to SRH outcomes such as unintended pregnancy, STI risk, and SGBV, but extended into education and social participation, such as school dropout, stigma, social isolation, and reduced employment prospects. These impacts create a self-reinforcing cycle that not only amplifies vulnerability but sustains it. Transactional sex was also described as a survival

strategy when livelihoods and social safety nets erode. As a result, these impacts were not a one-time occurrence but often evolved into repeated engagement in transactional sex, leading to recurrent exposure to its associated risks. The prior studies similarly document transactional sex in humanitarian contexts and links it to heightened SRH risks, including unintended pregnancy and STI exposure, particularly where power imbalances constrain negotiation of condom use and stigma limits service uptake (Casey I. M., 2020; Logie H. K.-T., 2025).

Findings at the *community level* suggest that effective responses must engage the broader social determinants of health. As long as basic survival needs remain unmet, health systems are unlikely to realize their full capacity to deliver lifesaving services in compounded crises settings, even where services and supporting structures formally exist. A systematic review of health system strengthening in fragile and conflict settings noted that prior studies mostly focused only on early recovery stages of a crisis or disaster missing the layered and intersectional impacts of crises (Bogale, 2024). The interventions in these settings are often short-term, providing humanitarian relief but not supporting health system strengthening (Bogale, 2024), creating a gap when health systems are faced with sudden and new shocks.

Our findings also highlight the lack of understanding of interconnections among crisis impacts. Within the health system, greater service integration is essential, as disruptions in reproductive health care can have cascading effects on other domains, including nutrition and mental health. These findings therefore support the integrated approach to SRHR that has been well-established in the literature (Logie M. M.-B., 2024; IAWG, 2018). An approach that treats mental health, nutrition, education, and livelihoods not as peripheral concerns, but as central to the continuity and effectiveness of SRHR services in these settings. This finding aligns with evidence that food insecurity and chronic stress are associated with maternal depression and can shape caregiving and health-seeking trajectories (Barnes, 2024; Ali, 2021).

Additionally, age-based program categories may exclude women and girls who fall outside conventional definitions of adolescents or WRA (WHO, 2026; WHO, 2026). In humanitarian settings, where lived realities often do not align neatly with these classifications, such rigid boundaries can leave marginalized populations further marginalized. Adopting a life-course perspective is therefore critical to ensure that SRHR programs are responsive to the needs of all

women and girls, including those who fall outside standard age categories (UNFPA, 2019; Entre Nous, WHO, UNFPA, 2015).

Finally, at the *health systems level*, a particularly important insight is the recovery lag described after SRH services are deprioritized that even when services are formally reinstated, women and providers report fragmented, delayed delivery of services and weak follow-up. This extends existing concerns in humanitarian SRH programming beyond initial service disruption, when trust and continuity may be hardest to rebuild. This finding also resonates with evidence from humanitarian contexts during COVID-19, where SRHR services were negatively impacted (VanBenschoten, 2022; Singh A. R., 2023; Ho, 2022). These studies underscored how shocks can reverberate long after the acute phase.

SRHR services are an essential component of universal health coverage (UNFPA, 2019), the sustainable development agenda (United Nations, 2022; United Nations Sustainable Development, 2015), and promotion of human rights of all, without leaving anyone behind (WHO and OHCHR, n.d.). To meet SRHR needs, a comprehensive, integrated and multi-sectoral approach is essential (Entre Nous, WHO, UNFPA, 2015; Egli-Gany, 2021; UNFPA, 2019; IAWG, 2018).

Our findings suggest that recurring stressors and amplified vulnerabilities result in SRHR service delivery that is fragmented, incomplete, and poorly aligned with the realities of compounded crises settings. While the challenges facing affected populations are inherently multi-sectoral, responses remain insufficiently coordinated across sectors and are rarely designed in an integrated manner (IAWG, 2018). Instead, interventions tend to focus on managing the most immediate or identified crisis. These interventions lack addressing the cumulative and interacting effects of multiple, overlapping crises and the ways in which crises intensify harm over time. Recent studies on polycrisis have begun to draw attention to how intersecting shocks vary across regions in their intensity (Bambra, 2025; Wypych-Ślusarska, 2025). However, our findings underscore the need to move beyond recognizing crises overlap toward understanding how these dynamics are experienced locally and how they disrupt SRHR systems in practice.

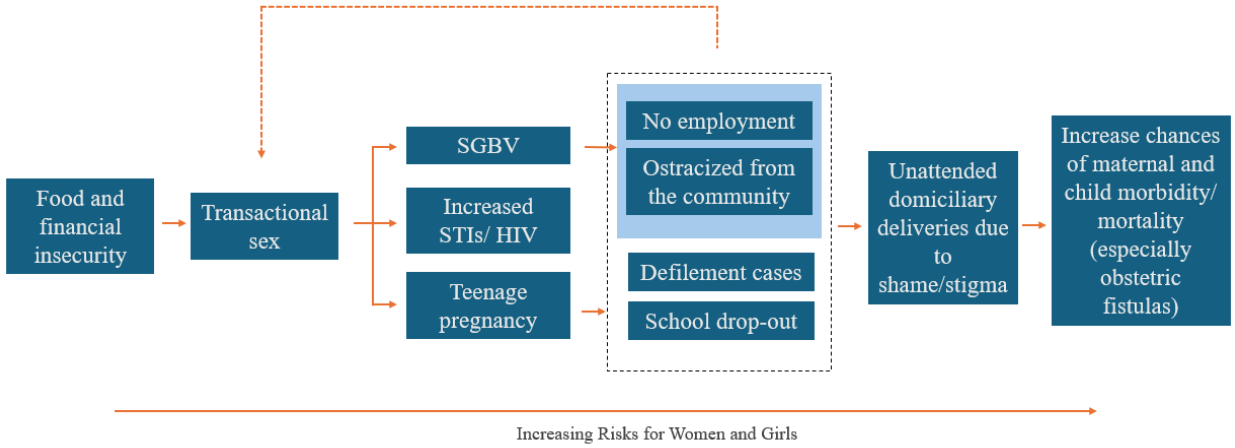

Figure 6: Pathway showing amplified vulnerabilities and corresponding SRH risk
Note: Not an inclusive list, as reported in the data

3.5 Strengths and Limitations

The study had several limitations. First, recruitment strategies may have introduced selection and participation bias, potentially under-representing women who were less connected to community networks or less able to participate. Second, although interviews were conducted privately (i.e., without partners or family members present), conducting some interviews in participants' homes may still have constrained disclosure due to concerns about being overheard or perceived lack of anonymity, limiting depth on particularly sensitive topics. Third, the sample included only South Sudanese women, which may not capture perspectives of refugees of other nationalities, men, or gender-diverse individuals. Finally, given the sensitivity of SRHR topics including abortion, contraception, and sexual and gender-based violence, responses may have been influenced by social desirability or fear of stigma, leading to underreporting or selective disclosure.

Despite these limitations, the study had several notable strengths. It leveraged on-the-ground evidence to refine and contextualize the Compounded Crises Framework, linking conceptual framing to empirically observed realities. By grounding displaced women's and health workers' narratives, the analysis captured the lived experiences of compounded crises across individual, community, and health system levels. The qualitative multi-method design strengthens triangulation, enables a more comprehensive insight generation process, and supports diverse comparisons across participant groups, ages, languages, and locations. Finally, the study was ethically strengthened by a community-based participatory approach, which enhanced relevance,

improved cultural and contextual fit of data collection process, and supported accountable interpretation and dissemination of findings.

3.6 Recommendations

Study participants proposed a range of recommendations aimed at preventing healthcare service collapse and mitigating vulnerabilities under compounded crises conditions. Our recommendations emphasize continuity of SRHR services, targeted support for groups facing heightened risk, and working to ensure the creation of systems to withstand recurrent shocks. These recommendations were proposed by research participants during the in-depth interviews and focus group discussions. Additionally, they are proposed by community-based partners, research participants, members of ministry of health, non-governmental organizations, humanitarian organizations, academicians and other stakeholders during workshops and stakeholders' consultations. The recommendations are:

- Safeguarding SRHR services as essential during compounded crises and not deprioritizing essential reproductive health services, such as emergency obstetric care, antenatal care, family planning, and clinical SGBV care and ensuring essential SRH staffing is not impacted.
- Providing sustained aid support and prioritizing new arrivals at reception centers, youth, and socially excluded women.
- Expanding women's economic empowerment/livelihood programs to reduce financial barriers and negative coping strategies, especially for young women and women at the reception centers.
- Implementing a multi-sectoral SRHR approach during compounded crises that helps cope with re-occurring stressors, before they amplify pre-existing vulnerabilities (linking SRHR with education, livelihoods/cash, food security, economic security, and safety).
- Strengthening intimate partner violence prevention and response within SRHR platforms, including counseling on intimate partner violence and marital rape.
- Strengthening community sensitization (especially for youth) on family planning, transactional sex risks, unintended pregnancy, early marriage, and localized conflict mitigation.

- Scaling youth-friendly SRHR services (e.g. dedicated youth clinics/sessions, confidential counseling).
- Providing comprehensive sexuality education for adolescent girls and boys, with particular attention to those below 18 years of age.
- Maintaining sustained SRHR programming at health facilities and through community outreach; avoiding stop–start programs that erode trust.
- Increasing availability of essential supplies and commodities (e.g. medicines, maternal/newborn kits, menstrual supplies, malaria nets, diapers/supplies for fistula care).
- Increasing male involvement in family planning to support shared decision-making, smaller family size, and reduce gendered caregiving burden.
- Training health cadres on compounded crises management and recognizing/responding to amplified vulnerabilities.

3.7 Conclusion

In Kakuma and Kalobeyei, compounded crises are experienced as recurring stressors that interact across levels, amplifying vulnerability and undermining SRHR. Efforts in compounded crises settings should ensure all stakeholders provide a holistic and integrated response, particularly for SRH service. Our results highlight the importance and urgency of using a compounded crises framework through an on-the-ground example of a context where such crises have impacted access to reproductive health services. They also support the need for developing and implementing policies and programs that recognize the complex interplay of multiple crises and the layered impact on affected populations.

Insights from our findings could lead to improvements in reproductive health of refugees in Kenya and guide policy makers as they plan for crises management during compounded crises. When humanitarian organizations understand and anticipate the complexities of compounded crises and can provide coordinated aid, forcibly displaced populations can benefit from continued health services to achieve better health outcomes.

Future research should apply the Compounded Crises Framework in diverse settings to test how recurring stressors interact and accumulate, how they translate into amplified vulnerabilities, and how these pathways shape women's reproductive health outcomes. Comparative work is needed in urban displacement, acute-onset emergencies, border/transit settings, and non-camp contexts,

where mechanisms, service delivery models, and priority stressors may differ. Future studies should also evaluate women's and providers' coping strategies and assess community-led programs and system adaptations, ideally using community-based approaches, to identify what measures mitigate stressors and reduce vulnerability amplification in compounded crises settings.

The next chapter shares qualitative findings from the on-ground formative assessment conducted in Kakuma and Kalobeyei to assess health workers' perspectives on the barriers and facilitators influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings.

Chapter 4.
"Functioning but Strained: The Right to Reproductive Health Services in Compounded Crises Settings

Abstract

Background: Health is a fundamental human right. For the full realization of the right to health, all services, goods and facilities must be available, accessible, acceptable, and should be of good quality. While the reproductive health outcomes in humanitarian settings are well documented, the mechanisms through which compounded crises shape reproductive health service delivery at the local level remain insufficiently understood. Understanding how healthcare workers perceive, navigate, and are constrained by compounded crises is essential for designing interventions that respond to the realities of contemporary humanitarian settings rather than to the assumptions of single-event emergency models. This study contributes to the literature by demonstrating how the AAAQ framework can be operationalized to capture the spectrum of rights realization across the reproductive health continuum in Kakuma and Kalobeyei refugee camps in Kenya (a compounded crises context).

Methods: In 2024, we conducted a formative qualitative study in Kakuma Refugee Camp and the Kalobeyei Integrated Settlement, Kenya. Data were collected through focus group discussions with health workers and in-depth interviews with refugee women of reproductive age (18-49 years). The analysis used a framework approach, organizing findings across individual, community, and health-system levels and examining how recurring stressors interacted to shape SRH outcomes.

Results: The study found a reproductive health system that was nominally functional but substantively strained across all four AAAQ dimensions. Availability was constrained by fragmented services, concentration of care in a small number of facilities; the complete absence of comprehensive emergency obstetric and newborn care and safe abortion services; commodity instability driven by aid contraction, and structural demand suppression in which food assistance stipends led to larger household sizes. Accessibility was shaped by geographic distance to the health facilities, procedural gatekeeping, gendered household dynamics, and a critical after-hours gap in which survivors of nighttime sexual violence relied on informal pathways to reach emergency care. Acceptability was undermined by socio-cultural norms that eroded trust, active preferences for home delivery to uphold cultural maternity practices, language barriers across more

than twenty nationalities, and the systematic exclusion of LGBTQI+ populations. Quality was degraded primarily through community health workers operating without basic material support, including phone credit to call ambulances, outbreak-related disruptions to home visits, and a fundamental mismatch between health communication and the survival realities of food-insecure households. The COVID-19 pandemic produced measurable erosion in quality through budget cuts and compressed clinical encounters while services remained nominally available.

Conclusion: The findings from Kakuma and Kalobeyei demonstrate that the right to reproductive health in compounded crises settings is not realized through the presence of services alone. Across all four pillars, the findings revealed a health system that was functioning but strained. The service delivery coexisted with significant gaps in the consistency, equity, and quality of what was delivered within the camps. This study demonstrates that the AAAQ framework, applied as an empirical assessment tool, can capture the gradient of rights realization that compounded crises produce.

4.1 Introduction

Health is a human right which was first guaranteed in 1948 in the World Health Organization Constitution (WHO, 2020) and the Universal Declaration of Human Rights (UDHR) (United Nations, 1948). WHO in its constitution states that "enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without any discrimination" (WHO, 2020). Article 25 of the UDHR affirms "everyone has the right to a standard of living adequate for their health and well-being and that of their families" (United Nations, 1948).

Health as a human right was comprehensively described in article 12 of the International Covenant on Economic, Social, and Cultural Rights (ICESCR) in 1966 (OHCHR, 1966). General comment 14 of ICESCR elaborates on the state's responsibility to fulfill the right to health at the national level (OHCHR, 2000). This includes the state's obligation to respect the right to health by refraining or limiting equal access for all persons, including asylum seekers and undocumented immigrants, and abstain from imposing discriminatory practices, particularly relating to women's health status and needs (OHCHR, 2000). Additionally, the right to health in international human rights law has been recognized in article 5 (e) (iv) of the International Convention on the Elimination of All Forms of Racial Discrimination of 1965 (OHCHR, 1965). Also, the right to health is guaranteed in articles 11.1 (f) and 12 of the Convention on the Elimination of All Forms of Discrimination against Women of 1979 (OHCHR, 1979) and in article 24 of the Convention on the Rights of the Child of 1989 (OHCHR, 1989). Hence, the right to health is not an abstract concept or commitment. International frameworks and guidelines provide a legal obligation for states that is grounded in international human rights law. These frameworks provide specific operational implications for how health services must be respected, protected, and delivered, including in humanitarian settings.

For the full realization of the right to health, all services, goods and facilities must be available, accessible, acceptable, and of good quality. In their general comment 14, the UN human rights committee on economic, social, and cultural rights explains the four components of availability, accessibility, acceptability, and quality which are crucial to the enjoyment of the right to health by all (OHCHR, 2000). **Availability** is that functioning public health and health care facilities, goods, services, and programs should be available in sufficient quantity (OHCHR, 2000). **Accessibility** comprises non-discrimination, physical accessibility, economic accessibility (affordability), and information accessibility (OHCHR, 2000). **Acceptability** entails respectful integration of medical

ethics and culturally appropriate practices that are gender and age sensitive (OHCHR, 2000). **Good Quality** of service delivery refers to scientifically and medically appropriate care delivery (OHCHR, 2000), which requires qualified healthcare professionals, access to safe and effective medications and functional medical equipment, as well as proper sanitation and a reliable supply of clean drinking water (OHCHR, 2000).

General Comment No. 14 also establishes that states have the obligation to respect, protect, and fulfil the right to health, including through ensuring that the AAAQ conditions are met for all persons without discrimination (OHCHR, 2000). General Comment No. 22 extends this obligation explicitly to sexual and reproductive health, specifying that "health facilities, goods, information and services related to sexual and reproductive health care should be accessible to all individuals and groups without discrimination and free from barriers" (OHCHR, 2016). In crisis settings, the AAAQ framework has been used as a tool to understand and identify potential barriers to accessing health or GBV services (UNICEF, 2019; UNICEF and Nutrition Cluster, 2023; Alliance's Child Protection Minimum Standards (CPMS) Working Group). In crisis settings, where state capacity is often severely compromised and where humanitarian actors assume significant responsibility for health service delivery, the AAAQ framework provides an ethical basis for assessing whether the right to reproductive health is being realized. It does not merely examine whether services exist, but also whether the services function in ways that meet the standards that human rights obligations demand.

While the reproductive health challenges in humanitarian settings are increasingly well-documented (see Chapter 1, 2 and 3), the mechanisms through which compounded crises shape reproductive health service delivery at the local level remain insufficiently understood. Prior studies examined service disruptions associated with a single crisis, for example, a pandemic, conflict, or natural disaster (Norton, 2024; Shah, 2024). They rarely examined the cumulative and interacting effects of multiple crises unfolding simultaneously within the same service delivery context. Understanding how healthcare workers perceive, navigate, and are constrained by compounded crises is essential for designing interventions that respond to the realities of contemporary humanitarian settings rather than to the assumptions implied in single-event emergency models.

This study addresses this gap by applying the AAAQ framework to assess the state of reproductive health service delivery in the compounded crises context of Kakuma and Kalobeyei,

Kenya. The AAAQ framework was selected because it offers an analytical structure that provides both normative and empirical guidance. It defines what the right to reproductive health requires and provides the criteria against which the extent of rights realization can be systematically assessed. Furthermore, this framework promotes health equity by ensuring that we reach populations that are furthest behind, first and we leave no one behind.

The application of the AAAQ framework to reproductive health in a compounded crises setting is novel. While the AAAQ has been used in development contexts and in normative analyses of SRHR obligations (Kähler, 2017), its application as an empirical assessment tool for reproductive health service delivery in a setting experiencing multiple, interacting crises has not been previously documented. This study contributes to the literature by demonstrating how the AAAQ framework can be operationalized to capture the spectrum of rights realization (from full realization through partial and nominal realization to complete absence of rights) across the reproductive health continuum in a compounded crises context.

The study tries to understand barriers that health workers identify as influencing the availability, accessibility, acceptability, and quality of reproductive health services in compounded crises settings. We recognize that the conditions shaping this continuum are patterned by gender, amplified by layered crisis dynamics, and deepened by the cumulative pressures that define compounded crises contexts. The study uses formative qualitative data from health workers in Kakuma and Kalobeyei, to capture lived experiences and frontline perspectives on how compounded crises shape the conditions under which reproductive health services are delivered and accessed. The analysis traces how the compounded crises framework manifest across the four AAAQ dimensions, carrying implications for how humanitarian health responses are conceived, planned, and implemented.

4.2 Methods

4.2.1 Positionality Statement

To address my positionality in relation to this research process, I have described my perspective in the positionality statement (see Appendices, Section A).

4.2.2 Data Collection and Methods

A doctoral student (research lead) researcher and six refugee women from the community who carried out the data collection. Data collection was in collaboration with local partners in Kenya (AMREC Kenya), community-based organizations in Kakuma, and international organizations leading health service delivery in Kakuma and Kalobeyei. The research lead supported focus group discussions, data collection and led training and participatory workshops. Refugee women from the community led interviews, note-taking, translation, and transcription work. Kenya lifted its COVID-19 mask mandate on 11 March 2022. As a result, no restrictions on gatherings were in place at the time of data collection (Logie H. K.-T., 2025). However, during our study that was conducted in-person, we used masks and hand sanitizers and maintained health protocols as guided by clinicians at the hospitals.

Study Sites

Kakuma Refugee Camp and the adjacent Kalobeyei Integrated Settlement are situated in northwestern Kenya bordering South Sudan, Uganda, and Ethiopia (see figure 3). Kakuma was established in 1992 and Kalobeyei in 2016 (UNHCR, 2024; UNHCR Kenya, 2026; UNHCR Kenya, 2026). Collectively, they now host over 295,0005 refugees of twenty countries, including South Sudan, Somalia, the Democratic Republic of Congo, Ethiopia, among other countries (UNHCR, 2024). The camps are jointly managed by the Government of Kenya, the United Nations High Commissioner for Refugees and other national and international organizations (UNHCR, 2024; Ministry of Interior and National Administration, Republic of Kenya, 2019). A network of humanitarian organizations provides reproductive health services, including family planning, antenatal and postnatal care, skilled delivery, and care for survivors of sexual violence.

For more than three decades, Kakuma camps have experienced cycles of new arrivals, funding fluctuations, disease outbreaks, climate shocks, and shifting policy environments. Literature shows Kakuma has been impacted by financial crises, climate crises, political instability and regular public health outbreaks, particularly in the last five years. (UNHCR, 2024; Logie H. K.-T., 2025; Luundo, 2025). This intersection of crises, represents a salient example of a protracted humanitarian context that is shaped by compounded crises.

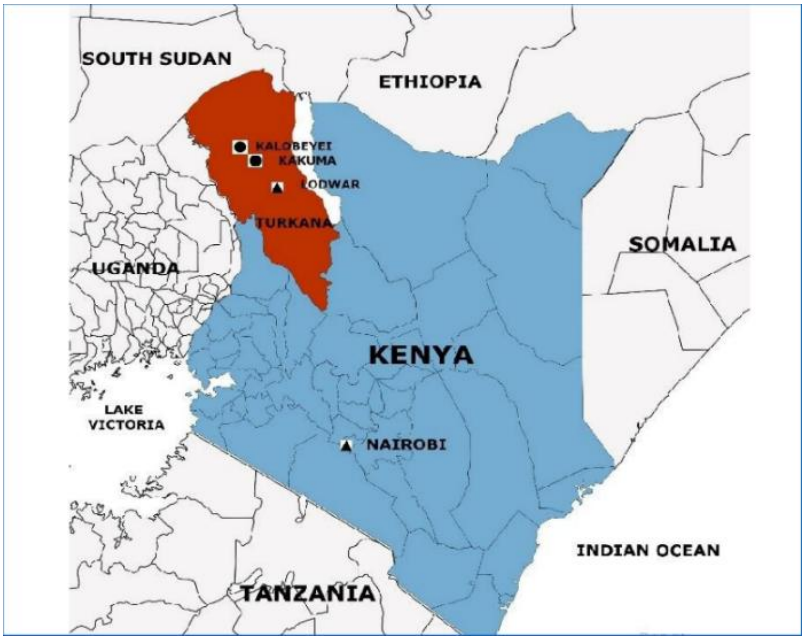

Figure 7: Map showing Kakuma Refugee Camp and the adjacent Kalobeyei Integrated Settlement

Study Design

Our research employed qualitative methods, including thirty in-depth interviews, four focused group discussions, four health facility assessments and two participatory workshops to understand reproductive health utilization and service delivery during compounded crises. Using multiple qualitative methods represents an intra-paradigm approach that can generate a richer, more holistic understanding of social processes, interactions, and contextual dynamics (O'Reilly, 2020).

For the data collection, a team of six refugee women (three teams of two) was trained as study research assistants to act both as a facilitator and note taker. All interactions were audio recorded upon consent. Interviews were conducted in Arabic, Dinka, and Nuer and the interactions lasted forty-five minutes. Two-three research assistants conducted the interactions in Arabic, one in Nuer, and two in Dinka language. All teams were comprised of refugee women from the Kakuma and/or Kalobeyei camps. The interviews were conducted in safe spaces, identified by the interviewers

and interviewees. Each focus group discussion was conducted in a private room within the health facility or in a space identified by the local team and partners to ensure privacy and confidentiality. The research lead facilitated the focus group discussions and a research assistant provided with note taking. FGDs were conducted in English and the interactions lasted 90-120 minutes.

Health facility assessments were conducted by the research lead to understand reproductive health service delivery and triangulate findings from the focus group discussion. Four health facilities were assessed to understand the variation in reproductive health service delivery, health facility functioning, the range of services provided, stocking of supplies, staffing and resources. The four health facilities included a reception center, a primary health facility, a specialty hospital and a public hospital. These assessments did not involve interaction with human subjects.

Study Participants and Inclusion Criteria

The target population selected for this study included health workers in Kakuma and Kalobeyei who were affiliated with a public or private health system and were actively in service, providing reproductive health service to refugee women. There were no constraints on healthcare provider recruitment related to age, gender, race, ethnicity, or language. FGDs were conducted with, (1) community health volunteers, (2) safe motherhood promoters, (3) private providers, and (4) public health clinicians.

The study also included South Sudanese refugee women of reproductive age (18-49 years). The eligibility criteria for study inclusion included: age, gender, South Sudanese women who have been forcibly displaced and who have accessed or have tried to access reproductive health services across the reproductive health journey during and post COVID-19, and was a resident at the camp since January 2019. In total, thirty interviews were conducted, twelve in Arabic languages, eight in Dinka and ten in Nuer.

Sampling and Recruitment

The geographical location for conducting the study was selected based on the definition of compounded crises and interest in the local community to collaborate on the research topic. Convenience purposive sampling was used to select camp sites for the study. The research assistants- refugee women from the community - were recruited by our local partners in Kenya.

Focus Group Discussions

Upon identification of camp sites, homogenous sampling was used by partner organizations to identify humanitarian agencies and other organizations working on delivering health services in

the camps. Participants were also recruited through phone calls, messages, study flyers, and recruitment scripts. Recruitment was stopped upon reaching the sample size of six-eight participants per FGD. The overall study design employed a maximum variation approach to include different demographic groups of health workers such as age, nationality, health service delivery experiences, and location (camps).

Interviews

Convenience sampling was used to select the villages in the camps for the study. Upon identification of the villages, village leaders were approached, and their verbal consent was sought for accessing the community. In the first stage, in each selected data collection site (for example, village 1, 2, and 3 in Kalobeyei), criterion purposive sampling was used to recruit refugee women from these villages who had met the inclusion criteria (stated above) using study flyers and recruitment scripts. The scripts and flyers were pasted on hospitals walls, circulated to the community by the healthcare workers and were forwarded via what's app by research assistants. In the second stage, participants were recruited directly through phone calls and messages. Contact details were obtained either through the calls we received from potential participants or from the research assistants who helped with recruitment from their communities. In the third stage, snowball sampling was used to meet the sampling size. This included word of mouth referrals or identification of potential participants who met the study criteria by refugee women who participated in the study. Overall, the study design used a maximum variation to include participants from diverse demographics like age, language, and location (camps).

Training

A three-day training was conducted with the enumerators to familiarize them with the study and pilot test the tools. The topics of the training included human subjects research, reproductive health, compounded crises, qualitative research, study overview, conducting interviews, conducting FGDs, note-taking, consent process, ethically conducting the study, team communication and troubleshooting. Mock practice and consent seeking sessions were also held. Arabic, Dinka, and Nuer interview guides were translated, checked for accuracy and contextualization. English FGD guides were tested for contextualization. Extra enumerators were trained for bench strength and emergencies. Training manuals were created and shared with all participants. Trained enumerators pilot tested the guides. All guides were revised based on feedback from the pilot testing.

Data Monitoring

Daily debriefs were held with the enumerators. In the morning debriefs, the teams went through the checklists, finalized their field movement plan, and received their audio recorders. In the evening debriefs, the team reported on sample completion, note taking, troubleshooting, and returned the audio recorders. A review of completion, gaps, and quality of information was performed, and regular feedback for improvement was given during debriefs.

4.2.3 Approach

We used a community-based participatory approach that positioned community members as partners in the research and embedded shared decision-making across all stages of the study. The local partners were key in deciding whether the study should be conducted in Kakuma. The communities we worked with included local partners, refugees and staff at community-based organizations who helped shape the research questions and priorities, training materials, informed the study design and tools, and guided recruitment and data collection strategies to ensure cultural and contextual relevance. Refugee women conducted all interviews and helped with translation, data transcription, and data cleaning. We engaged community members in iterative interpretation of findings through two stakeholder workshops, checking emerging themes for accuracy and meaning and in determining how results would be communicated and used locally. This approach strengthened the study's validity, accountability, and practical relevance by ensuring the research remained responsive to community-defined needs and realities (Wallerstein, 2017).

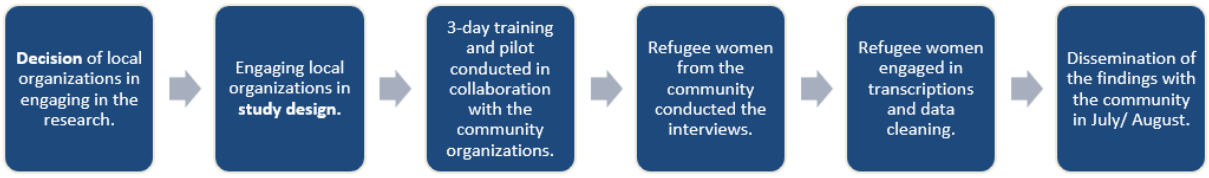

Figure 8: Steps of Community Engagement

4.2.4 Analysis

We conducted data analysis on MaxQDA version 24 and Microsoft Excel 16.80. During fieldwork, research lead and research assistants recorded and tracked analytical insights. We stored transcriptions and audio recordings on a University of California, Berkeley cloud system. We analyzed the qualitative data using the Framework Method described by Health Policy and

Sociology Professor Nicola Gale and colleagues, using the seven stages (Gale, 2013). Following their staged process[3], we familiarized ourselves with transcripts, cleaned the data and checked all translated transcripts for accuracy. We then conducted initial coding and iteratively developed a shared analytic framework that combined inductive codes emerging from the data with deductive codes that aligned with our study aims. The research lead designed a codebook with predetermined themes and categories using deductive coding. Analytic inductive codes were added to the codebook that highlighted new themes and patterns from the data gathered. The research lead and two research assistants from UC Berkeley, reviewed the transcripts to identify significant quotes. We added memos to the analysis while coding. Research assistants with prior experience in qualitative research supported the coding process to ensure inter-coder reliability. After coding the first few transcripts, all coders met regularly to compare labels. Two-three researchers coded each anonymized transcript. We then applied the finalized framework consistently across the dataset. Data was charted into a matrix to support transparent comparison within and between participant groups (e.g., refugee women and health workers) and across levels of influence (i.e. individual, community, health system). We analyzed themes, insights and verbatims on Excel after retracting all thematic codes from the codebooks on MaxQDA. A third reviewer identified coding discrepancies. We resolved the discrepancies through team discussions and recorded them with consensus.

4.2.5 Ethical Approvals

The study received approval from the Committee of the Protection of Human Subjects at the University of California, Berkeley (CPHS #2023-10-16754) (see Appendices, section B), and the Kenyan National Commission for Science, Technology, and Innovation (NACOSTI License #NACOSTI/P/24/32807) (see Appendices, section C). Additionally, approval from the Commissioner of Refugee Affairs, Department of Refugee Services, Ministry of Internal and National Affairs, Kenya was also granted for this research.

Informed Consent

All participants were verbally informed of the project's goals and methods. Oral consent was requested of all participants. The consent form provided an overview of the study, explained

[3] Stage 1: transcription, stage 2: familiarization with the interview, stage 3: coding, stage 4: developing a working analytical framework, stage 5: applying the analytical framework, stage 6: charting data into the framework matrix, and stage 7: interpreting the data

confidentiality, the voluntary nature of participation, risks and the benefits of the research (see Appendices, section D and E). During data collection, no personal identifiers were collected.

4.3 Results

In total, thirty in-depth interviews were conducted with refugee WRA (18-49 years) (see table 7). The refugee women were from Kakuma (n=19) and Kalobeyei (n=11). Twelve women interviewed in Arabic, eight in Dinka, and ten in Nuer languages. Of the thirty participants, thirteen were between the age of 20-29, eight were between 30-39, six between 40-49 years and three did not report their age. Only 13.3% (n=4) women ever used or were currently using contraception. The average number of children per woman among the participant group was 4.7. Of the total number of participants, 40% reported 6 or more pregnancies. Seventeen participants had reached the age of menarche by fifteen years. In many cases, they reported their first pregnancy soon after.

	Kakuma (n=19)	**Kalobeyei (n=11)**	**Total (n=30)**
Variable	n(%)	n(%)	n(%)
Age (years) **(missing = 3)**			
20-29	7 (36.8%)	6 (54.5%)	13 (43.3%)
30-39	6 (31.6%)	2 (18.2%)	8 (26.7%)
40-49	3 (15.8%)	3 (27.3%)	6 (20%)
Educational Status **(missing = 9)**			
No Formal Education	6 (31.6%)	2 (18.2%)	8 (26.7%)
< High School	5 (26.3%)	6 (54.5%)	11 (36.7%)
Completed High School	1 (5.3%)	1 (9.1%)	2 (6.7%)
Marital Status **(missing = 8)**			
Married	8 (42.1%)	6 (54.5%)	14 (46.7%)
Single	3 (15.8%)	1 (9.1%)	4 (13.3%)
Divorced	0 (-)	1 (9.1%)	1 (3.3%)
Separated	0 (-)	2 (18.2%)	2 (6.7%)
Widowed	1 (5.3%)	0 (-)	1 (3.3%)

Employment Status (missing = 8)			
Employed	1 (5.3%)	2 (18.2%)	3 (10%)
Not employed	11 (57.9%)	8 (72.7%)	19 (63.3%)

Table 7: Sociodemographic characteristics of interview participants in Kenya (n=30) by location

Additionally, four focus groups were conducted: one each with private health providers, safe motherhood promoters, community health volunteers, and reproductive health staff and doctors from a public hospital (see table 8). Twenty-eight health workers from Kakuma and Kalobeyei participated in the study, six-eight participants per group discussion, of whom, 50% (n=14) participants were between the ages of 20-29, 32.1% (n=9) were between 30-39, 10.7% (n=3) were between 40-49, and 7.1% (n=2) were between 50-59 years. Of the twenty-eight participants, 50% of them (n=14) identified as women and others (n=14) as men. In total, four health facility assessments were conducted, one each in public hospitals in Kalobeyei and Kakuma, one at a reception center, and one at a public clinic in Kalobeyei.

	Clinicians (n=7)	**Private Providers (n=6)**	**Safe Motherhood Promoters (n=8)**	**Community Health Volunteers (n=7)**	**Total (n=28)**
Variable	n(%)	n(%)	n(%)	n(%)	n(%)
Age (years)					
20-29	6 (85.7%)	4 (66.7%)	2 (25%)	2 (28.6%)	14 (50%)
30-39	0 (-)	2 (33.3%)	3 (37.5%)	4 (57.1%)	9 (32.1%)
40-49	1 (18.3%)	0 (-)	2 (25%)	0 (-)	3 (10.7%)
50+	0 (-)	0 (-)	1 (12.5%)	1 (14.3%)	2 (7.1%)
Gender					
Man (cisgender)	1 (18.3%)	5 (83.3%)	4 (50%)	5 (71.4%)	15 (53.6%)
Woman (cisgender)	6 (85.7%)	1 (16.6%)	4 (50%)	2 (28.6%)	13 (46.4%)
Years of Experience as a Health Worker					

<1 year	0 (-)	0 (-)	1 (12.5%)	0 (-)	1 (3.6%)
1-3 years	0 (-)	2 (33.3%)	4 (50%)	2 (28.6%)	8 (28.6%)
4-6 years	5 (71.4%)	2 (33.3%)	0 (-)	3 (42.8%)	10 (35.7%)
7-9 years	1 (18.3%)	2 (33.3%)	3 (37.5%)	1 (14.3%)	7 (25%)
10 years +	1 (18.3%)	0 (-)	0 (-)	1 (14.3%)	2 (7.1%)
Years of Experience in Kakuma/ Kalobeyei					
<1 year	1 (18.3%)	0 (-)	1 (12.5%)	0 (-)	2 (7.14%)
1-3 years	4 (57.1%)	2 (33.3%)	4 (50%)	3 (42.8%)	13 (46.4%)
4-6 years	2 (14.3%)	3 (50%)	0 (-)	4 (57.1%)	9 (32.1%)
7-9 years	0 (-)	1 (16.6%)	3 (37.5%)	0 (-)	4 (14.3%)

Table 8: Sociodemographic characteristics of FGD participants in Kenya (n=28) by health worker category

The findings are organized according to the four pillars of the AAAQ framework, as derived from the right to health that is established in the international human rights mechanisms. Within each pillar, results are presented according to the sub-criteria specified by the AAAQ framework: sufficiency, continuity, and workforce capacity for Availability; physical, economic, informational, and non-discriminatory access for Accessibility; cultural sensitivity, gender concordance, confidentiality, and institutional adaptation for Acceptability; and clinical competence, continuity of care, and resilience under compounded crises settings for Quality. This structure enables an assessment not merely of whether services existed, but of the extent to which the right to reproductive health was being realized across each dimension, and where compounded crises eroded, distorted, or sustained that realization.

4.3.1 Availability of Reproductive Health Services

Under the right to health, availability requires that functioning health facilities, goods, services, and programs exist in sufficient quantity and continuous supply to meet the reproductive health needs of the population they serve (Kähler, 2017; OHCHR, 2000). In humanitarian settings, the Minimum Initial Service Package for Sexual and Reproductive Health operationalizes this obligation by establishing the baseline of services that must be in place from the onset of a crisis and sustained throughout the response (IAWG, 2020). The findings from Kakuma and Kalobeyei revealed that while the architecture of reproductive health service delivery broadly reflected the

MISP framework, the extent to which these services were functionally available - consistently present, adequately resourced, and accessible at the point of care - fell substantially short of what the right to health requires.

Theme 1: Fragmented Service Architecture and Lack of Comprehensive SRHR Coverage

Across Kakuma and Kalobeyei, the full range of reproductive health services was concentrated in just two specialty or super-specialty hospitals serving both camps (see table 9).

The health system serving over 280,000 refugees across Kakuma and Kalobeyei comprises eight facilities operated by three implementing partners (International Rescue Committee, Kenya Red Cross Society, and African Inland Church Mission) in collaboration with UNHCR and the Ministry of Health (UNHCR, 2026). Of these, only one is classified as a general hospital, two as health centers, and the remaining five are dispensaries (also known as health clinics). Primary care dispensaries offer basic services like immunization, nutrition screening, uncomplicated consultations, but were not equipped to deliver the full continuum of reproductive health care.

The most consequential availability gaps within this fragmented architecture were the complete absence of comprehensive emergency obstetric and newborn care and safe abortion services. Neither service was delivered in any health facility at the time of data collection. The absence of EmONC is particularly significant in a setting where referral pathways are already constrained by distance, insecurity, limited transport, and reduced service hours across five of the eight facilities. This availability gap, in the context of compounded crises, translates directly into preventable maternal and neonatal mortality.

> *"And then there are those service that needs more specialized care, that we can't provide over here (Kalobeyei health center). We will find that they (the patients) will still remain (at the hospital). Some, we will refer to the next level. Then they will not get the services. When they are unable to get the services from Kakuma, then we will see this client coming to our hospital every day, till it becomes even torture to the service providers that we can't help these clients coming for help. But we can't help because we don't have the service provision." - Clinician, Focus Group Discussion*

> *"We don't have an operation theatre. We are forced to refer these clients… For example, we have a mother with a ruptured uterus but we had to refer. The referral would take time and the complication would be more. And like when we have the theatre here, and we have*

this mother here, we know we are having a ruptured uterus here and that the first services can be provided here, rather than referring to the farthest end to be critical importance. That's the challenge we still have in our facility that we get the theater, maybe to help more our clients." - Clinician, Focus Group Discussion

Safe abortion services were similarly absent, though the mechanisms driving this gap were different. Participants, including health workers, consistently reported that abortion was illegal in Kenya. Abortions continue to happen in the camps but the service provision for safe abortion care is non-existent.

"Another thing when we are we still have a very big challenges about the abortion of which it is illegal in Kenya to procure abortion. Of which we still, we encourage those who we find will procure abortion at their home but will come here (to the hospital) for their post-abortion care. Like, you went and did their abortion, sometimes you will find that they're having the pills, when we go examine, we see the pills…. So you're coming to the hospital." - Clinician, Focus Group Discussion

Private health providers operating within the camps offered only basic family planning and counseling services, providing no meaningful alternative pathway for women requiring higher-level reproductive care. The absence of a functional private sector alternative meant that the entire population depended on the fragmented, overstretched public humanitarian health system, with no recourse when that system could not meet their needs.

Categories	**Services**	**Availability**
Maternal Health	Basic EmONC	Yes
	Comprehensive EmONC	No
	Safe Delivery	Yes
	Antenatal care	Yes
	Postnatal care	Yes
Contraception	Male condoms	Yes
	Female condoms	Yes
	Oral contraceptive pills	Yes
	Emergency contraceptive	Yes
	IUDs	Yes
	Injectable contraceptives	Yes
	Implants	Sometimes (only 5 years)

	Safe abortion care	No
	Postabortion care	Yes (in some cases)
	STIs	Yes
	Care provisions for people living with HIV	Yes
Gender Based Violence	First line of support (listening and validation, and identifying available support services)	Yes

Table 9: Availability of RH service as established in MISP guidelines

Theme 2: Inconsistency of Supplies

Beyond the MISP-defined services, participants identified additional availability gaps. Availability under the AAAQ framework requires not only the existence of services but their continuous and reliable supply (OHCHR, 2000). The findings revealed significant variation in the consistency of the availability of different reproductive health commodities and services. Implants, a long-acting reversible contraceptive method, were provided only intermittently, a gap driven by commodity supply chain disruptions.

> *"We typically have two types of implants. We have we have the long-acting - for three years, and we have for five years. So, all of them are usually available, but currently, the one for three years- it's not available. And we rely on one for five years, which is what we have right now, but most of the clients prefer the three-year implant, but we don't have it. So, if they don't get it, they'll just accept the deal. But, in two years' time, they want to remove it." - Clinician, Focus Group Discussion*

Post-abortion care was similarly inconsistent.

> *"And also most of them do abortions. Most of the young ones do abortion. And you'll find like they go to the community's set-up. They abort from there. And then in the same facility, the moment you find yourself bleeding, they rush to Kenya Red Cross hospital. So, when it comes here, it's an inevitable situation. We just have to help." - Clinician, Focus Group Discussion*

Menstrual health and hygiene products were provided only sporadically, despite menstrual health being a prerequisite for women's ability to engage in daily life, attend health appointments, and maintain dignity in displacement.

> *"What I know is that they provide sanitary towels to new delivery women, but not in full; they only provide one." - Refugee Woman, Nuer In-Depth Interview*

"So, you will find that, since this has reduced, there is no money to cater for, for example, menstrual health, hygiene products, there is no money to cater to the children who were born as a result of teenage pregnancies. So, you will find that the number of girls engaging in transactional sex increases. In time, you'll find that the number of teenage pregnancies increase, and the number of defilement cases also increase. So, and the number of rape cases also increase. As a result, you'll find that a lot of women come to the hospital. And some of them are directly affected with STIs and HIV. And then you'll also find that the number of girls dropping out of school also increases. So it's a multi, multi sectoral kind of thing. Multi-dimensional. When one thing fails, it directly affects everything." - Clinician, Focus Group Discussion

Access to specialist care, particularly gynecological services, was also limited. A gynecologist visited only once per week for routine appointments, and availability was not guaranteed. The frequency of visits was insufficient for a population of this size with high reproductive health burden.

"Then also you find even the donors, they're saying, we don't have fund right now to provide a particular service, therefore, you find that the person who are working in that particular department may be removed. Like, for instance, here in the camp, the gynecologist, I don't think we have. Because once this happens, they find that the organization they are not having the money to pay, to pay those people." – Private Provider, Focus Group Discussion

These gaps were not isolated stockouts but symptoms of a deeper structural vulnerability, reflecting the dependence of the humanitarian health system on external donor financing that has contracted in recent years. Participants identified aid cuts as a direct driver of commodity shortages, with cascading consequences that extended beyond the immediate absence of supplies. When reproductive health commodities became unavailable or unreliable, women reported turning to transactional sex to meet basic needs, including the commodities the health system had failed to provide. This pathway, from aid contraction to commodity shortages to transactional sex, illustrates a compounded crises dynamic, in which macro-level donor decisions interact with household survival realities in refugee camps. This enhances and produces gendered harms that conventional availability metrics cannot capture. For example, a supply chain indicator might register that implants were out of stock for a given month. However, it cannot register that the

women who would have sought those implants, finding them unavailable, subsequently faced unintended pregnancies, STIs, or exposure to sexual exploitation as they employed the coping strategies (that a failing supply system forced upon them).

Theme 3: Survival Overrides Availability of Supplies

The third availability barrier documented in this study is analytically distinct from the first two. Despite the consistent availability of most contraceptive methods, including pills, injectables, and condoms, uptake of family planning services among refugee women remained low. The explanation for this gap lies in a structural economic calculation that makes larger family size a survival strategy rather than a choice.

Refugee households in Kakuma and Kalobeyei receive food assistance through the Bamba Chakula program, a UNHCR-administered cash-based intervention that provides a monthly food stipend calibrated to household size. The stipend amount increases with each additional member of the household, meaning that each additional child generates additional food assistance. Over successive years, UNHCR has reduced the per-person value of the Bamba Chakula stipend in response to declining donor funding and growing refugee populations. The change in the stipend impacted household food security and intensified the logic by which larger family size becomes the only viable survival strategy for many families.

> *"Also, some women are used to competing according to size (family size). You know, in this town, we have size, we received the Bumba Chakula and that Bumba Chakula when you have size 7 size 8 so you have a lot of money. So when you're going to counsel that woman for family planning, she will tell you, for me, I have not enough food and I have to give birth so that I add my size (family size). To have enough food." – Community Health Volunteers, Focus Group Discussion*

> *"So right now, we'll find that the Bumba Chukula (monthly stipend) has reduced this is the amount of money they're given to fend for themselves per month. Okay, by UNHCR, so, it used to be 2000, then it decreased up to 600 hundred. It is around 1300 now." – Clinicians, Focus Group Discussion*

This finding also reveals that the AAAQ framework, as traditionally applied, does not fully capture availability. The availability of a service can be meaningless when the broader structural

environment actively incentivizes non-utilization. Contraceptives were physically present, free of charge, and offered without restriction. Yet uptake was low because of socio-cultural norms and practices, trust in the health system, men as primary decision makers, and the very architecture of humanitarian assistance that had constructed a household economy in which childbearing was the most reliable pathway to food security. This represents a compounded crises dynamic in its most consequential form. It highlights an internal contradiction of the humanitarian response system itself, in which food security programming actively undercuts family planning programming. Addressing this gap cannot be achieved through increased contraceptive supply or better counseling alone. It requires a multi-sectoral approach that looks into how humanitarian assistance architecture shapes reproductive decision-making.

> *"And that is why I was telling you the other time this is it was directly linked to the Bumba Chakula. You know, when they were getting 2500 (as a stipend), there's no way you could tell them to come for family planning and they would accept. Because they think that the number of children, the greater number of children, they have directly correlates to the 2500 stipend. So, it's 2500 into 10 so that 25k a month. And it's a lot of money for the whole population. I mean, for the household for the month. And now, it's got down to 1300. And we've seen a little bit of positive reaction to the uptake of farming." – Clinicians, Focus Group Discussion*

4.3.2 Accessibility of Reproductive Health Services

Under the right to health, accessibility requires that health facilities, goods, and services are within safe physical reach, economically affordable, informationally transparent, and free from discrimination for all individuals and groups (Kähler, 2017) (OHCHR, 2000). General Comment No. 22 further specifies that "health facilities, goods, information and services related to sexual and reproductive health care should be accessible to all individuals and groups without discrimination and free from barriers" (OHCHR, 2016). In humanitarian settings, accessibility is not a static condition but one that shifts with each layer of crisis. Distance, cost, information, and discrimination interact with compounding stressors to determine who reaches care and who does not.

Theme 4: Physical Accessibility Barriers

The AAAQ framework requires that SRH services be "within safe physical reach" of the populations they serve (Kähler, 2017). In Kakuma and Kalobeyei, physical accessibility was constrained by distance, terrain, climate, and transport infrastructure. Health facilities were not uniformly distributed across the settlement, and women living in peripheral blocks faced significant travel distances to reach the central hospitals where most specialized reproductive health services were concentrated.

> *"There's a time I didn't seek help because I was very sick and I couldn't walk the distance because I was weak. And at times we are given appointments to go to a different facility which is far from here. It is not easy for us to go there because we lack fare and the distance is too long." – Refugee Woman, Dinka In-Depth Interview*

The absence of paved roads compounded this challenge, particularly during the rainy season when routes between residential blocks and health facilities became impassable. For women in labor or experiencing obstetric complications, these conditions transformed a manageable distance into a life-threatening barrier. Additionally, the community health volunteers and safe motherhood promoters could not effectively conduct community outreach during the rainy season, due to lack of resources like gumboots and raincoats.

> *"Some challenges that we also face are that we are lacking umbrella, gumboots, raincoats. Even sometimes, some vehicles cannot move when it rains. Because they can rain for the whole day and the area become muddy, it becomes very hard for CHVs to proceed from door to door. So those are some of the challenges that we face. Then distance, the distance, distance from facility to the community where we are working. That's why we are even requesting the administration if they can provide for us each and every one that's possible to provide at least a scooter for emergency cases." – Community Health Volunteers, Focus Group Discussion*

Ambulance services were available but insufficient in number relative to the population. Participants reported that ambulances were not always available when needed, creating gaps in the referral pathway precisely at the moments of greatest clinical urgency.

> *"Also, us in community, when we get our client in labor pain in the day, even the ambulance is not there, I can even come with her, escort her in this facility." – Safe Motherhood Promoter, Focus Group Discussions*

Women who overcame distance and transport barriers then encountered procedural obstacles at the facility itself. Entering health facilities without a prior appointment was reported as difficult, adding a bureaucratic layer to the physical barriers already in place. For women whose reproductive health needs were unpredictable, the appointment requirement functioned as a gatekeeping mechanism that deferred care or discouraged it altogether.

> *"The services weren't enough there was strict restriction of crowding making it more difficult to access the R.H.S (reproductive health services) the way you want." – Refugee Woman, Arabic In-Depth Interview*

Long wait times at triage further eroded physical accessibility. Women who had overcome distance and transport barriers then faced additional delays at the facility. The time spent visiting the hospital, encompassing travel, waiting, consultation, and return, represented a substantial opportunity cost that disproportionately affected women already managing caregiving, household labor, and the daily logistics of survival in a resource-constrained setting. For women weighing this time investment against competing responsibilities, routine reproductive health visits were frequently deprioritized in favor of more immediately pressing demands.

> *"Sometimes it is difficult for patients who need urgent treatment because they suffered a lot waiting in line. Yes, that is where the problem is, but it is mostly felt badly by the family members who brought the patient to healthcare because they feel like they are being treated unfairly." – Refugee Woman, Nuer In-Depth Interview*

Past negative experiences, whether a woman's own or those reported by community members, also shaped care-seeking decisions. Trust in the health system was not uniform. Women who had experienced disrespectful care, long wait times, or treatment they perceived as culturally insensitive were less likely to return, and their accounts circulated through social networks, influencing the decisions of others.

> *"I was told that there were no medicines and come back another day and sometimes I was told that they were working on other things so I should come another day… I never went back." – Refugee Woman, Nuer In-Depth Interview*

Theme 5: Economic Accessibility Barriers

The AAAQ framework stipulates that SRH services must be "affordable for all" and must not "disproportionally burden the poor" (Kähler, 2017). Reproductive health services within the formal

humanitarian health system in Kakuma and Kalobeyei were provided free of charge, including family planning products, maternity care, and facility-based services. This constituted a significant structural facilitator. However, the absence of direct service costs did not eliminate economic barriers. Women reported bearing indirect costs that functioned as de facto financial barriers. Transportation costs for women living far from facilities, particularly when ambulances were unavailable, created out-of-pocket expenses that many could not afford in a context of widespread unemployment.

> *"I had miscarriage… I had abdominal pain… I went to the hospital and the health worker performed Manual vacuum aspiration... After medication, I got pregnant and miscarriage again but the cost of services is too high…about 100 United States Dollars … the services were there but there is nothing for free." – Refugee Woman, Arabic In-Depth Interview*

Additionally, menstrual products, when not provided by the health system, had to be purchased. This was an expense that, in a setting where livelihoods were severely constrained, forced women to choose between menstrual management and other household needs.

> *"The quality of services are bad because they could only give like two (sanitary napkins) immediately after birth and after that you take care of yourself. The doctor tells mothers to go buy themselves. At this time I didn't have money to get myself enough sanitary pads as I was heavily bleeding. I begged one of the nurses to help me with some but all in vain." – Refugee Woman, Dinka In-Depth Interview*

> *"There should be enough sanitary towels for women, especially school going girls as they sometimes miss classes when on their periods and lack sanitary napkins. When in my period and I don't have pads at home it becomes difficult. I would sometimes wear a black clothes and stay at home, because when it is soiled, it won't be easily visible." – Refugee Woman, Arabic In-Depth Interview*

Theme 6: Information Accessibility Barriers

The right to health includes the right to "seek, receive and impart information and ideas concerning health issues" (OHCHR, 2000). The framework identifies information accessibility as a prerequisite for the exercise of reproductive autonomy and informed decision-making (Kähler, 2017). Findings indicated that information accessibility was partial and unevenly distributed. A

significant proportion of women were not aware of the full range of reproductive health services available at the health facilities. This gap existed not because services were absent but because knowledge of their existence had not reached the women who needed them.

Men's roles in engaging with the SRHR community outreach were limited, despite their dominant role in household decision-making and on matters of family planning. This was a disconnect that meant the primary gatekeepers of access, especially for family planning services, were the least engaged by the health system's outreach efforts. This gendered gatekeeping was compounded by the high number of dependents in many refugee households. Women with multiple young children faced the practical impossibility of traveling to a distant facility, waiting in long queues, and receiving care while simultaneously responsible for child supervision.

> *"Most of the women actually are not even really relying on their men for family planning. They come hiding to get the family planning. So most of them just come with some fixed mind that they want the injectable. Simply because they'll just dash in the hospital, you inject them, they go home, and no one would know what they've done." – Clinicians, Focus Group Discussion*

> *"Lack of information most of the time makes me not to go to the hospital and again when l have no one to leave my kids with." – Refugee Woman, Dinka In-Depth Interview*

Limited knowledge about health rights further constrained women's ability to demand or seek services they were entitled. In a setting where health literacy was low and information channels were fragmented, the gap between service availability and service awareness functioned as an invisible barrier that reduced utilization.

Health workers and the humanitarian health system made deliberate efforts to address the gap of limited knowledge about reproductive health services in the community. Consistent community outreach and education activities, including household-level visits by community health workers, aimed to extend reproductive health information to underserved populations. During the COVID-19 pandemic, communication and awareness campaigns were delivered through community leaders and community health workers. However, women did not seek routine, non-critical reproductive health services during the pandemic due to restrictions on movement. This finding illustrates a dynamic central to the compounded crises framework, when a new crisis layers onto an existing humanitarian setting, even well-intentioned public health messaging can inadvertently

restrict access to routine reproductive health services by reshaping women's perceptions of what constitutes a legitimate reason to seek care.

In Kakuma and Kalobeyei, refugees from over twenty countries reside, speaking dozens of distinct languages and dialects. Language barriers were reported as a persistent challenge to the accessibility of reproductive health services. The linguistic diversity of the camp population meant that the initial clinical encounter was frequently mediated through translation or conducted in a language in which the patient was not fully fluent. While translators were available, their presence introduced a third party into consultations concerning intimate reproductive health matters. This meant that confidentiality was challenged, especially when the translator was from their community.

> *"I think to add on this is the issue of language. The facility might be accessible, but if you can't communicate the needs that you have, that becomes a barrier to accessing sexual and reproductive health." – Clinicians, Focus Group Discussion*

4.3.3 Acceptability of Reproductive Health Services

Under the right to health, acceptability requires that all health facilities, goods, and services be "respectful of medical ethics and culturally appropriate, sensitive to gender and life-cycle requirements, as well as being designed to respect confidentiality and improve the health status of those concerned" (OHCHR, 2000). General Comment No. 22 extends this principle to sexual and reproductive health, specifying that services must be "respectful of the culture of individuals, minorities, peoples and communities and sensitive to gender, age, disability, sexual diversity and life-cycle requirements" while clarifying that cultural considerations cannot be invoked to justify the denial or restriction of care (OHCHR, 2016). Kakuma and Kalobeyei host refugees and asylum seekers from over twenty nationalities with distinct cultural, linguistic, and religious practices. The challenge of delivering acceptable reproductive health care is both structural and can vary in this context.

Theme 7: Socio-Cultural Norms and Erosion of Trust in the Health System

Refugee communities brought diverse cultural practices surrounding pregnancy, childbirth, and the postpartum period. These practices include specific birthing positions, rituals around the placenta, involvement of traditional birth attendants, and postpartum confinement traditions, often

existed in tension with the clinical protocols and facility-based service delivery models. When these practices encountered the clinical protocols of the humanitarian health system, such as facility-based placenta disposal, breastfeeding practices, and companion policies that limited the number of family members who could accompany the woman, they did not align well with the cultural practices and beliefs of refugee women. Trust was further eroded by the circulation of negative experiences through community networks. The reputation of the system was constructed socially, and once damaged, it was difficult to rebuild.

> *"A challenge in the community is home delivery. With home delivery, there is some cultural belief in community. In some cultures, they say when you deliver in hospital, this placenta, they cannot throw away. You can burry it at home….. Women say when you deliver (at the hospital), they (hospital staff) throw your placenta in the bin, which means you cannot deliver again. But now our condition, we can tell them that when you deliver at home, your child, cannot get the birth certificate in the hospital. And UNHCR can also not recruit your child for all the benefits." – Safe Motherhood Promoters, Focus Group Discussion*

> *"Sometimes, the years that have passed, there are some women who say they would never give birth again in the hospital, since they believe that the babies die in the hospital because of negligence or one thing or another… These were because of some medical issues, of course. But since they didn't understand it, they interpreted it the wrong way, they say that the doctors and the nurses killed the baby because they left her baby hungry. That is what the mother believed." – Clinicians, Focus Group Discussion*

> *"We have different tribes in the community, which means you have also different traditional cultures and witchcraft. There are some people who don't want to come to the facility and they need to use their traditional witchcraft. When you get and see a sign, you don't come to the health facility, you just go to the witchcraft. Which are the local doctors in the village… My community person was sick for a long time for some sort of two months, almost three months, staying at home. They don't want to come to the facility, they're just to do that traditional treatment. After that, when they see that person almost to be defeated to be treated. And that person was opposed to be almost to die so that you don't bring to the facility while that person already was finished. Because they were defeated for that*

traditional and the obtain after it. That is the most challenging part what have happened in this entire camp." – Community Health Volunteers, Focus Group Discussion

"You know, my challenge here, which I get in my work is like some women don't understand. Even though you are putting a lot of effort to teach them, but you will find some percentage, they are having that behavior of delivering at home due to their culture. Because we are having different beliefs and even the cultures- we who are refugees. We are not coming from one nationality, but we are coming from different countries so everybody came in with his own belief and culture." – Safe Motherhood Promoters, Focus Group Discussion

"You know, in some cultures, there are some women who refuse to go to the hospital. But there are those mamas that are traditionally trained. They train themselves. They didn't go to any school. They don't know anything, but they did that thing (giving birth) professionally." – Private Providers, Focus Group Discussion

The erosion of trust was not only experienced by women encountering the health system but also by the health workers tasked with delivering reproductive health services to their own communities. Male community health workers, in particular, reported facing social ridicule for engaging in work that their communities coded as exclusively "women's work."

"And the other one is that we have not been accepted. People are just laughing at me and saying how you are working in the work of women. They say, you, you are a man and you are working as a safe motherhood promoter yet only women should do that work." – Safe Motherhood Promoters, Focus Group Discussion

This finding reveals a paradox at the heart of the acceptability challenge. The humanitarian health system had deliberately recruited male community health workers into SRHR programming. This practice is grounded in the recognition that male engagement is essential for shifting household decision-making and reaching the men who serve as gatekeepers of women's care-seeking.

Theme 8: Gender-Based Violence and Barriers to Disclosure

Reporting gender-based violence was constrained by cultural beliefs that normalized certain forms of violence within intimate partnerships or that attached shame to the survivor rather than the perpetrator. For women navigating the intersection of displacement, cultural dislocation, and patriarchal norms, the health facility existed within a social ecosystem where seeking certain forms of care carried social consequences. Without enabling a private, confidential and safe environment for women, the formal availability of GBV response services did not translate into acceptable, and therefore utilized, care.

> *"Our work to do in the community is to teach and sensitize women who are pregnant. But when you reach there, you will see their eyes bursting. Their cheeks are bursting so you will see that there is a problem. And when you really start investigating now, then the client will start narrating you the story. How that bad thing happened. Yeah, maybe she will tell you that she has been beaten yesterday by her husband, because of this and this. Now it is the way now we can get to hear a problem from them." – Safe Motherhood Promoters, Focus Group Discussion*

Theme 9: Layered barriers for marginalized populations

LGBTQI+ refugees in Kakuma and Kalobeyei exist at the intersection of multiple layers of vulnerability. They are displaced from their countries of origin. They then arrive in a host country where same-sex relationships are criminalized, and where community norms within refugee populations may themselves be hostile or exclusionary. They frequently cannot openly disclose their identities to family members, community leaders, or even fellow refugees without risking further violence or social ostracism. And when they seek reproductive or sexual health care, they encounter a health system whose workforce is often unprepared to meet their needs.

> *"We have issues with LGBTQ as they are not accepted in the community. But within the facility, they have a safe space that they can go and get all the services they want. Within the shortest time that they want…… For the first time when we helped the LGBTQ clients, most of the healthcare workers were like how can we handle this community? First, we just showed (demonstrated family planning services) to this person, but with time we came to learn and understand and accept their situation." – Clinicians, Focus Group Discussion*

LGBTQI+ individuals have distinct sexual and reproductive health needs. When the health system cannot deliver these services in a culturally competent and non-judgmental manner,

LGBTQI+ refugees are forced to choose between seeking care that does not meet their needs, concealing their identities in ways that produce clinical mismatches, or avoiding the health system entirely. All three outcomes represent failures of acceptability under the right to health.

4.3.4 Quality of Reproductive Health Services

Under the right to health, quality requires that health facilities, goods, and services be "scientifically and medically appropriate and of good quality" (OHCHR, 2000). The DIHR framework operationalizes this through structural requirements including skilled health personnel, scientifically approved and unexpired drugs, appropriate equipment, quality assurance mechanisms, and respect for informed consent and privacy throughout service delivery (Kähler, 2017). Quality is not a subjective indicator but a measurable standard against which the content, competence, and outcomes of care can be assessed.

Theme 10: The fragility of community-based quality assurance during outbreaks

Quality of service delivery in Kakuma and Kalobeyei was associated with the community-centered outreach work. Led by the community health workers, quality was ensured through home visits, follow-up with pregnant women, health education sessions, re-engagement of defaulters. The continuity of care that community health workers provided served as the connection between community and health system, which is crucial in a dynamic refugee population. This community-based layer of the health system reached across geographic distance – from reception centers to distant village, and through the social complexity of a culturally diverse camp population. It was also the layer most vulnerable to disruption during infectious disease outbreaks.

When disease outbreaks occurred, home visits were halted due to restrictions on movement implemented for infection control. CHWs were unable to reach the households they normally supported, follow-up with pregnant women and new mothers lapsed, and the continuous engagement that CHWs provided was severed at precisely the moment when populations were most anxious, most uncertain, and most in need of trusted guidance. Once restrictions were lifted and home visits resumed, the task of rebuilding client relationships and restoring trust fell on CHWs.

"COVID-19 came with a lot of problems. Due to restriction of movement, we could not follow-up with women and their health. We could not assist many who were pregnant during that period. After Corona, we had to catch up." – Safe Motherhood Promoters

"During COVID19, we were scared of going to hospital based on the information that we received. People were taken to isolation without proof that they were affected by COVID, and once someone is taken the whole family is taken to isolation even if the first person was having only a normal flu ." – Refugee Woman, Nuer In-Depth Interview

Theme 11: Resource constraints for frontline workers

Frontline workers, including SMPs, operated under material constraints that routinely compromised their capacity to deliver quality care. An example of this was a form of emergency communication.

"We find that our safe motherhood promoters they are strained in terms of credit. Their incentive money is too small for them to accommodate the phone credit and you'll find sometimes they go far and reverse call us, so that we can call the ambulance. And you know that all process the mother goes to the safe motherhood promoters, the safe motherhood promoters will then call us, and then us calling the ambulance. So, then they reverse the communication. It's usually becomes a big challenge." – Clinicians, Focus Group Discussion

The structural significance of this finding lies in what it reveals about the architecture of the referral system. The SMP role is predicated on the capacity to initiate rapid contact with facility-based emergency services at the moment of obstetric crisis or labor and delivery. When this capacity is absent, the referral pathway fails. This finding reflects a broader pattern of systemic under-investment in the CHW workforce, which is positioned as the bridge between community-based care and health systems.

Theme 12: Health communication conflicts with food insecurity

One of the most fundamental challenges to quality in the Kakuma and Kalobeyei context concerned the mismatch between what CHWs were trained to deliver and what the populations they served needed at the moment of engagement. CHWs arrived at households with messages

about reproductive health, antenatal care, family planning, immunization, and hygiene. The households they arrived at were frequently experiencing acute food insecurity, with family members who had not eaten in days and who were focused entirely on the immediate problem of survival.

> *"The work we have been doing was getting a lot of challenges, because restriction of movement. We experienced now even some women out in the community which tried to disturb the worker which you have been doing. But again after Corona, these economic crises which is hitting the entire world it is hitting also the refugee camp. People who are having stress they are having the stigma of not having the means- money how they're going to survive. Now they cannot even listen to whatever you are teaching them- someone who has slept without eating anything. And even though you will teach him the whole day, they will not understand. So this is the challenges which is affecting us when we are we are delivered you try to deliver the work but it is harder these days." – Safe Motherhood Promoters, Focus Group Discussion*

This finding reveals that the quality of a health intervention cannot be assessed in isolation from the survival context of the people receiving it. A health education session on antenatal care nutrition delivered to a woman who has not eaten in three days is not high-quality care. In some cases, it becomes a form of interaction that communicates indifference to the woman's most pressing reality.

Theme 13: Perceived quality erosion under compounded crises

The COVID-19 pandemic provided a real-time test of the health system's capacity to sustain quality under compounded crises conditions. According to the compounded crises framework, health system erosion is gradual and often invisible. The findings revealed a pattern consistent with the framework. While the architecture of service delivery remained in place, the quality of care within it severely declined. Women who continued to seek reproductive health services during the pandemic reported experiencing a diminished quality of care.

> *"The services during that pandemic era weren't sufficient. That was the result of few number of people being allowed to meet at one point. During COVID-19 I gave birth while the doctor forced me to put on a mask while I need to scream (laughing)." – Refugee Woman, Arabic In-Depth Interview*

"The quality was bad. When you happen to go to the hospital and have high temperatures the doctors don't attend to you. They assume you have COVID and isolate you (even when you don't have COVID-19). I didn't go to the maternity wing since I was not expectant at that time. But from what I learned from my friends, it wasn't easy to get helped because of the COVID-19 protocols put across." – Refugee Woman, Nuer In-Depth Interview

4.4 Discussion

Together, these findings suggest that in compounded crises settings, SRHR coverage and it's continuum of care can be functioning but inadequate. The services may exist on paper, yet remain intermittently unavailable, inaccessible, unacceptable, of low quality, particularly for those facing layered vulnerabilities like new arrivals of refugees, LGBTQI+ populations, adolescents, socially excluded women like those with fistulas, and survivors.

Availability

The health system serving Kakuma and Kalobeyei comprises eight health facilities distributed across the settlements and operated by three different implementing partners: the International Rescue Committee, Kenya Red Cross Society, and the Africa Inland Church, in collaboration with UNHCR and the Kenyan Ministry of Health (UNHCR, 2026). Of these eight facilities, only one is classified as a hospital (see figure 9). The remaining facilities include two 24-hour health centers and five dispensaries or clinics operating only during daytime hours (8am to 3pm) (UNHCR, 2026). This architecture means that for a population of over 280,000 refugees and asylum seekers, the full range of reproductive health services capable of addressing complications, emergencies, or specialized needs is concentrated in a handful of facilities. For health services after 3pm, the entire settlement depends on just three facilities for any health need, including obstetric emergencies.

The MISP framework envisions a distributed model of service delivery in which reproductive health is integrated across primary, secondary, and tertiary levels of the humanitarian health system (IAWG, 2020). The fragmentation of reproductive health services in Kakuma and Kalobeyei was compounded by inconsistency in the range and quality of services provided across facilities. This pattern also reflected the different mandates of the implementing partners and the uneven distribution of resources, commodities, and workforce across the facility network. For example,

reproductive health services provided to women in Kakuma varied from the services provided in Kalobeyei because of the difference in resources provided by different humanitarian implementing agencies.

The absence of safe abortion services was particularly revealing because it was driven not by the interaction of legal misconceptions, cultural stigma, and informational gaps. Health workers and refugee women alike reported that abortion was illegal in Kenya. This understanding persisted despite constitutional provisions permitting it under specific circumstances (Center for Reproductive Rights, 2026). This finding illustrates that in humanitarian settings, where refugees aren't considered nationals of the country, normative barriers and informational gaps can extinguish the availability of a service (even if the service is legally permitted). Similar dynamics have been documented in other humanitarian settings, where the legal ambiguity surrounding abortion in host countries, combined with provider reluctance and organizational caution, effectively renders safe abortion services nonexistent even where they are not prohibited (McGinn, 2016). Nearly half of abortions worldwide are unsafe (Sedgh, 2012; McGinn, 2016). Of these unsafe abortions, 97 % are in sub-Saharan Africa (Sedgh, 2012; McGinn, 2016). Addressing the availability gap requires not only commodity provision and clinical training but sustained legal literacy efforts targeting both providers and the communities they serve.

Name	Also known as	Type	Agency	Location	Opening hours
Ammusait General Hospital	Clinic 7	Hospital	IRC	Kakuma 4	24 hours
Kaapoka Health Centre	Main Hospital	Health center	IRC	Kakuma 1	24 hours
Natukubenyo Health Centre	Kalobeyei Health centre	Health center	KRCS	Kalobeyei V1	24 hours
Lochangamor Dispensary/Clinic	Clinic 4	Dispensary/ clinic	IRC	Kakuma 1	8am – 3pm
Hong-Kong Dispensary/Clinic	Clinic 2	Dispensary/ clinic	IRC	Kakuma 1	8am – 3pm
Nalemsekon Dispensary/Clinic	Clinic 5	Dispensary/ clinic	AIC	Kakuma 2	8am – 3pm
Nationokor Dispensary/Clinic	Clinic 6	Dispensary/ clinic	IRC	Kakuma 3	8am – 3pm
Naregae Dispensary/Clinic	Kalobeyei Village 2 Clinic	Dispensary/ clinic	KRCS	Kalobeyei V2	8am – 3pm

Figure 9: Health facilities in Kakuma and Kalobeyei, UNHCR

Accessibility and Acceptability

The intersection of economic vulnerability and reproductive health access was particularly visible for women living with obstetric fistula, who experienced social isolation that compounded

their economic marginalization. Unable to work, stigmatized within their communities, and sometimes requiring medical interventions, these women occupied the furthest margins of the health system. This is precisely the population that the right to health framework's emphasis on reaching the most vulnerable is designed to protect. The accessibility findings reveal that the barriers women face in reaching reproductive health services are not primarily institutional but social, relational, and deeply gendered. While the humanitarian health system had removed the most direct economic barrier by providing services free of charge, the indirect costs of accessing care, including transportation, lost time, and the opportunity costs of caregiving, functioned as de facto financial barriers that disproportionately affected the poorest women.

The communities to which the health workers belong, did not accept their role as frontline health workers. The gendered norms that designated reproductive health as "women's work," undermines the legitimacy of male providers in their own communities. The consequences extend in two directions. First, it constrains workforce capacity. Male CHWs facing constant social sanction may disengage or quietly shift away from reproductive health tasks. Second, the community's rejection of male SRHR workers reinforces the very norms the health system is trying to change. It is crucial to communicate to husbands, fathers, and male relatives that reproductive healthcare is not a women-only domain, and that men who enter it do not violate cultural boundaries. Acceptability in compounded crises settings depends on whether the community accepts the providers as well as the services. When gendered norms make some providers unacceptable to the communities they serve, the health system's capacity to deliver care under the right to health framework is impacted.

The barrier identified in the findings regarding the LGBTQI+ populations is well documented in other humanitarian settings as well. LGBTQI refugees have been experiencing multiple layers of marginalization simultaneously- displacement, criminalization, community stigma, family rejection, language barriers, and the inability to access culturally competent health care. Each layer amplifies the others. And each layer is shaped by structural conditions that individual health workers can resolve on their own. Addressing this gap requires sustained investment in provider training, explicit institutional policies that protect LGBTQI+ patients from discrimination, safe disclosure pathways that do not risk criminal exposure, and specialized services tailored to the clinical needs of this population. In the absence of these measures, the acceptability standard is not being met for those who may need it most.

Quality

The most consistent finding across all four AAAQ dimensions was the gap between what existed on paper and what was experienced in practice. Services were nominally available but functionally fragmented. Care was technically free but practically costly. Information was disseminated but unevenly received. Clinical encounters occurred but their quality varied dramatically, depending on timing, staffing, language, and the presence or absence of additional crisis pressures. This gap in services is not unique to Kakuma and Kalobeyei. Studies from humanitarian settings in the Democratic Republic of Congo, South Sudan, and Bangladesh have documented similar dynamics, where the formal presence of SRHR services masks significant gaps in the consistency, quality, and equity of their delivery (Ho, 2022; Belaid, 2020; Singh A. R., 2023).

What the compounded crises framework adds to this understanding is the recognition that quality erosion is not a temporary disruption but a progressive and gradual weakening of the health system. This weakening of the health system may not reverse when the acute additional crisis passes. The budget cuts, workforce strain, and deprioritization of reproductive health that accompanied COVID-19 in Kakuma and Kalobeyei did not occur in a vacuum. They occurred in a system already stretched by decades of protracted displacement, chronic underfunding, and recurrent climatic shocks. Each successive crisis compounds the damage of the one before, progressively reducing the system's capacity to deliver quality care.

Finally, across all four AAAQ dimensions, gender emerged not as one variable among many but as the structural determinant that shaped how every other barrier operated. This pervasive gendered patterning reinforces the compounded crises framework's identification of gender as a cross-cutting dimension.

4.5 Strengths and Limitations

The study had several limitations. First, recruitment strategies may have introduced selection and participation bias, potentially under-representing women who were less connected to community networks or less able to participate. Second, although interviews were conducted privately (i.e., without partners or family members present), conducting some interviews in participants' homes may still have constrained disclosure due to concerns about being overheard or a perceived lack of anonymity, limiting depth on particularly sensitive topics. Third, the

interviews sample included only South Sudanese women, and thus may not capture perspectives of refugees from other nationalities, men, or gender-diverse individuals. The focus group discussions had diversity and representation from various countries and contexts in Africa. Given the sensitivity of SRHR topics including abortion, contraception, sexual and gender-based violence, responses may have been influenced by social desirability or fear of stigma, leading to underreporting or selective disclosure. Finally, the study design captured a snapshot of the AAAQ dimensions at a specific point in time.

Despite these limitations, the study has several notable strengths. To the authors' knowledge, this represents the first systematic application of the AAAQ framework to reproductive health service delivery in a compounded crises context. The study demonstrates the AAAQ framework's capacity to capture the gradient of rights realization across dimensions. Furthermore, the study operationalized the compounded crises framework (through its six components) by gathering on-the-ground evidence from refugee women and different cadres of healthcare workers. The qualitative multi-method design strengthens triangulation, enables a more comprehensive insight generation process, and supports diverse comparisons across participant groups, ages, languages, and locations. Finally, the study is ethically strengthened by a community-based participatory approach, which enhances relevance, improves cultural and contextual fit of data collection process, and supports accountable interpretation and dissemination of findings.

4.6 Recommendations

Study participants proposed a range of recommendations that are organized according to the four AAAQ pillars. These recommendations were proposed by research participants during the in-depth interviews and focus group discussions. Additionally, they were proposed by community-based partners, research participants, members of the ministry of health, non-governmental organizations, humanitarian organizations, academicians and other stakeholders during workshops and stakeholders' consultations. The highlighted bullets under each category are priority recommendations. The recommendations are:

Availability

- **Strengthen supply chain management and coordination among humanitarian agencies to ensure efficient distribution and management of reproductive health supplies.**

- **Expand access to safe abortion services to the extent permitted by Kenyan law, with particular attention to survivors of sexual violence.**
- Increase the number of health facilities serving Kakuma and Kalobeyei, with a target of having facilities located within approximately two kilometers of residential blocks to reduce geographic concentration of care.
- Improve the infrastructure and service capacity of existing health facilities, including upgrading dispensaries to deliver a broader range of reproductive health services.
- Establish and enforce minimum service standards for reproductive health in humanitarian settings, including age-specific service guidelines.
- Integrate basic reproductive health services at reception and transit centers alongside other essential health services, so that newly arrived refugees have immediate access to health services.
- Prioritize comprehensive services for children, including adolescent girls, at all transit centers.
- Preposition reproductive health emergency kits (including contraceptives, sanitary towels, and dignity kits) to ensure commodity availability during supply disruptions and acute crisis events.

Accessibility

- **Integrate men into reproductive health programming as partners and decision-makers rather than as peripheral audiences, recognizing their central role in household decisions about care-seeking.**
- **Design and implement social and behavior change communication (SBCC) programs targeting men and WRA on family planning and reproductive health services.**
- Increase the number and reliability of ambulances to support referrals for obstetric and reproductive health emergencies.
- Organize community campaigns on sexual and reproductive health to raise awareness about available services and entry points to care.
- Engage policymakers to review and remove legal, administrative, and institutional barriers that prevent healthcare providers from offering reproductive health services, including misconceptions about the legality of abortion care.

- Expand access to reproductive health services for girls below 18 years of age, ensuring age-appropriate, confidential, and rights-based care.
- Implement interactive voice recording (IVR) and other community-accessible communication tools to disseminate information about where and how to access reproductive health services. Health technology and Artificial Intelligence (AI) tools can be leveraged to implement this recommendation.

Acceptability

- **Build trust with the communities served through sustained, respectful, and culturally grounded engagement rather than episodic outreach.**
- **Strengthen collaboration with refugee-led organizations (RLOs), community-based organizations (CBOs), and other partners who have the trust of the communities they serve.**
- Design behavior change communication materials tailored to the cultural, linguistic, and demographic diversity of the refugee population in Kakuma and Kalobeyei.
- Create safe, confidential spaces within health facilities for women to access family planning services without fear of disclosure to family or community members.
- Engage male community health workers as respected members of the reproductive health workforce and invest in community sensitization to shift gendered norms that currently reject men's involvement in reproductive health delivery.

Quality

- **Invest in community health workers, Safe Motherhood Promoters, and frontline outreach staff as essential members of the health workforce, with adequate financial support, material resources, and training.**
- Strengthen partnerships and collaboration with diverse stakeholders to develop innovative service delivery models, including mobile clinics for reproductive health services in hard-to-reach areas.
- Promote continuous community engagement to sustain uptake of reproductive health services and maintain relational continuity of care.

4.7 Conclusion

The findings from Kakuma and Kalobeyei demonstrate that the right to reproductive health in compounded crises settings is not realized through the presence of services alone. Across all four pillars, the findings revealed a health system that was functioning but strained. The service delivery coexisted with significant gaps in the consistency, equity, and quality of what was delivered within the camps. This study demonstrated that the AAAQ framework, applied as an empirical assessment tool, is capable of capturing the gradient of rights realization that compounded crises produce.

Insights from our findings could lead to improvements in reproductive health of refugees in Kenya and guide policy makers to plan for crises management during compounded crises. There is a need to reorient our understanding of delivering reproductive health during compounded crises, not as a service that can be deprioritized but as a right whose protection becomes more urgent.

Future research could act upon the priority recommendations listed above. Additionally, research could complement qualitative findings with clinical quality audits, commodity tracking data, and reproductive health outcome measures to triangulate the subjective assessments that are documented here with objective measures of service delivery. Future research should also include the perspectives of humanitarian policymakers, donors, or senior health system administrators whose decisions shape the structural conditions under which frontline workers operate. These perspectives will help produce a more complete account of how decisions at the policy level translate into the quality failures documented at the community level. Futhermore, workshops with these stakeholders can be held at conferences to discuss the barriers and shortcomings identified in this research. Finally, given that compounded crises are, by definition, dynamic and evolving, longitudinal research is needed to trace how the availability, accessibility, acceptability, and quality of reproductive health services change as crisis conditions shift over time. As a follow-up of this research project, we plan to create a guidebook that helps practitioners develop and their services in compounded crises settings.

Chapter 5.
Conclusion

Protracted displacement settings commonly experience chronic health system strain (workforce gaps, supply chain disruptions, fragmented coordination), contributing to persistent gaps in reproductive health service delivery. Due to fragmented health services, evidence shows that women and girls in crisis contexts face heightened SRHR risks (unmet contraception needs, maternal complications, exposure to SGBV). These risks are mediated by social norms, insecurity, poverty, and service disruptions. SRHR needs increase and service delivery becomes more difficult in humanitarian settings due to insecurity, displacement, workforce shortages, and disrupted supply chains. Global guidance sets minimum standards for lifesaving SRH services in crises. Most SRHR research in humanitarian contexts has focused on acute emergencies, coverage indicators, or discrete program evaluations (e.g., contraception uptake, facility delivery). Lesser emphasis on protracted displacement and how repeated shocks affect continuity of care over time.

Humanitarian reproductive health research has largely been organized around single-crisis emergency models, which can miss how crises overlap and evolve in compounded crises settings. The literature recognizes related concepts such as protracted crises and polycrisis, but there is limited empirical work that explicitly maps recurring stressors and feedback loops to SRHR service disruption across levels in a single analytic framework.

This study introduces a Compounded Crises Framework that conceptualizes how overlapping and sequential crises interact locally to create recurring stressors that shape reproductive health systems and outcomes. The study further provides grounded empirical evidence from Kakuma and Kalobeyei that links crisis interactions to recurring stressors at individual, community, and health-system levels. It also integrates lived experiences of refugee women and operational perspectives of health workers, generating a multi-level understanding of how compounded crises are perceived and navigated by applying an AAAQ as an explanatory lens to identify specific barriers affecting reproductive health services under compounded crises conditions. The study also demonstrates how a community-based participatory approach can strengthen relevance, validity, and interpretability of findings in complex humanitarian contexts.

Findings from this study provides a compounded crises framework for studying SRHR in settings where crises are overlapping and persistent. Insights from our study could lead to improvements in reproductive health of refugees in Kenya and guide policy makers to plan for crises management during compounded crises. When humanitarian organizations understand and anticipate the complexities of compounded crises and can provide coordinated aid, forcibly displaced populations can benefit from continued health services to achieve better health outcomes. Additionally, it could lead to improvements in reproductive health of refugees in Kenya and guide policy makers to plan for crises management during compounded crises. There is a need to reorient our understanding of delivering reproductive health in compounded crises, not as a service that can be deprioritized but as a right whose protection becomes more urgent.

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Appendices

A. Positionality Statement

I am a Doctor of Public Health (DrPH) candidate at the University of California, Berkeley, and my academic scholarship focuses on sexual and reproductive health and rights (SRHR) in humanitarian settings. My training in public health and human rights informs how I conceptualize SRHR as both a service-delivery priority and an issue of equity, dignity, and accountability—especially for refugee women of reproductive age living in protracted displacement. I am a first-generation graduate in my family.

I was born and brought up in New Delhi, India in a middle-class family. As a woman brought up in a patriarchal system, I was confined to gender norms and the harsh realities of deep-rooted gender biases, structural and systemic inequities that manifest as eve teasing, reduced autonomy, and in some cases forms of gender-based violence. A lot of my passion stems from my own lived experiences of gender-based violence. I shuddered to think if I in my privileged bubble I could undergo such experiences what it meant for women in marginalized communities. So, I decided to build an interdisciplinary academic background in international law and human rights, gender, and peace and conflict studies. I have invested a decade in global public health working with marginalized communities using community driven approaches to uplift health as a fundamental human right.

Before Berkeley, I led several global public health initiatives across South Asia focusing on sexual and reproductive health, WASH, waste management, market facilitation, health finance, health systems, economic empowerment of women, and using user-centered design to improve health outcomes in marginalized communities. Through my work, which is at the intersection of health, human rights, and humanitarian response, I am committed to reaching the furthest behind first — ensuring that their voices are included in research and discourse.

This study is grounded in community-engaged and participatory approaches. I entered this work with a commitment to centering the knowledge and priorities of refugee women and frontline health workers, while recognizing that I am not a member of the communities most directly affected by displacement in Kakuma and Kalobeyei. As an affiliated researcher from a well-resourced academic institution, I occupy a position of structural privilege that shapes what I can access, how I am perceived, and how participants may choose to share their experiences. I am also mindful that humanitarian settings involve layered power dynamics among refugees, host communities, service providers, implementing partners, and external institutions, and that research can unintentionally reproduce extractive practices if benefits and decision-making remain concentrated outside the community. We recognize the importance of engaging with communities as equal partners, ensuring that their voices and experiences are central to the research process.

To address these dynamics, I worked to build reciprocal relationships with local partners and prioritize ethical, culturally responsive engagement. The research was led by refugee women, community-based organizations, local partners and community health workers. This included investing time in trust-building; using local languages where possible through trained interpreters and/or multilingual research team members; and supporting collaborative interpretation of findings with community and health-system stakeholders. Throughout data collection and analysis, I practiced reflexivity by documenting assumptions, monitoring how my positionality shaped interactions and interpretation, and actively seeking disconfirming perspectives—particularly when narratives diverged across participants or stakeholder groups.

Given the sensitivity of SRHR topics and the realities of insecurity and stigma in humanitarian contexts, I emphasized participant safety, privacy, and informed consent. I approached interviews with trauma-informed principles, avoided pressuring participants to disclose distressing experiences, and reinforced that participation was voluntary and could be paused or ended at any time. Finally, I view dissemination as an ethical obligation, not an afterthought. I presented the preliminary findings in Kakuma and Nairobi to the community before we presented the findings at any other platform. Additionally, I am committed to returning findings in accessible formats to local partners and stakeholders, and to ensuring that recommendations reflect the priorities and constraints articulated by refugee women and health workers themselves.

B. Institutional Review Board (IRB) Protocol Approval from University of California, Berkeley

Berkeley
UNIVERSITY OF CALIFORNIA
Committee for Protection of Human Subjects (CPHS)
Office for Protection of Human Subjects (OPHS)

1608 Fourth Street, Suite 220
Berkeley, CA 94710-5940
510 642-7461
ophs@berkeley.edu
cphs.berkeley.edu
FWA# 00006252

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE:	*January 22, 2024*
TO:	Ndola Prata Bhavya Joshi, Public Health Administration
CPHS PROTOCOL NUMBER:	*2023-10-16754*
CPHS PROTOCOL TITLE:	*Formative Study to Assess Reproductive Health Service Delivery and Needs of Refugee Women in Compounded Crises*
FUNDING SOURCE(S):	*Funding Type: Campus Funding*

A(n) ***new*** application was submitted for the above-referenced protocol. The Committee for Protection of Human Subjects (CPHS) has reviewed and approved the application by ***Full Review*** review procedures.

Effective Date: ***January 22, 2024***

Expiration Date: ***November 16, 2033***

Continuation/Renewal: Applications for continuation review should be submitted no later than 6 weeks prior to the expiration date of the current approval. *Note: It is the responsibility of the Principal Investigator to submit for renewed approval in a timely manner. If approval expires, all research activity (including data analysis) must cease until re-approval from CPHS has been received.* See Renew (Continue) an Approved Protocol.

Amendments/Modifications: Any change in the design, conduct, or key personnel of this research must be approved by the CPHS ***prior*** to implementation. For more information, see Amend/Modify an Approved Protocol.

For protocols that have been granted approval for more than one year: Certain modifications that increase the level of risk or add FDA oversight may require a continuing review application to be submitted and approved in order for the protocol to continue. If one or more of these changes occur, a Continuing Review application must be submitted and approved in order for the protocol to continue.

Unanticipated Problems and Adverse Events: If any study subject experiences an unanticipated problem involving risks to subjects or others, and/or a serious adverse event, the CPHS must be informed *promptly*. For more information on definitions and reporting requirements related to this topic, see Adverse Event and Unanticipated Problem Reporting.

This approval is issued under University of California, Berkeley Federalwide Assurance #00006252.

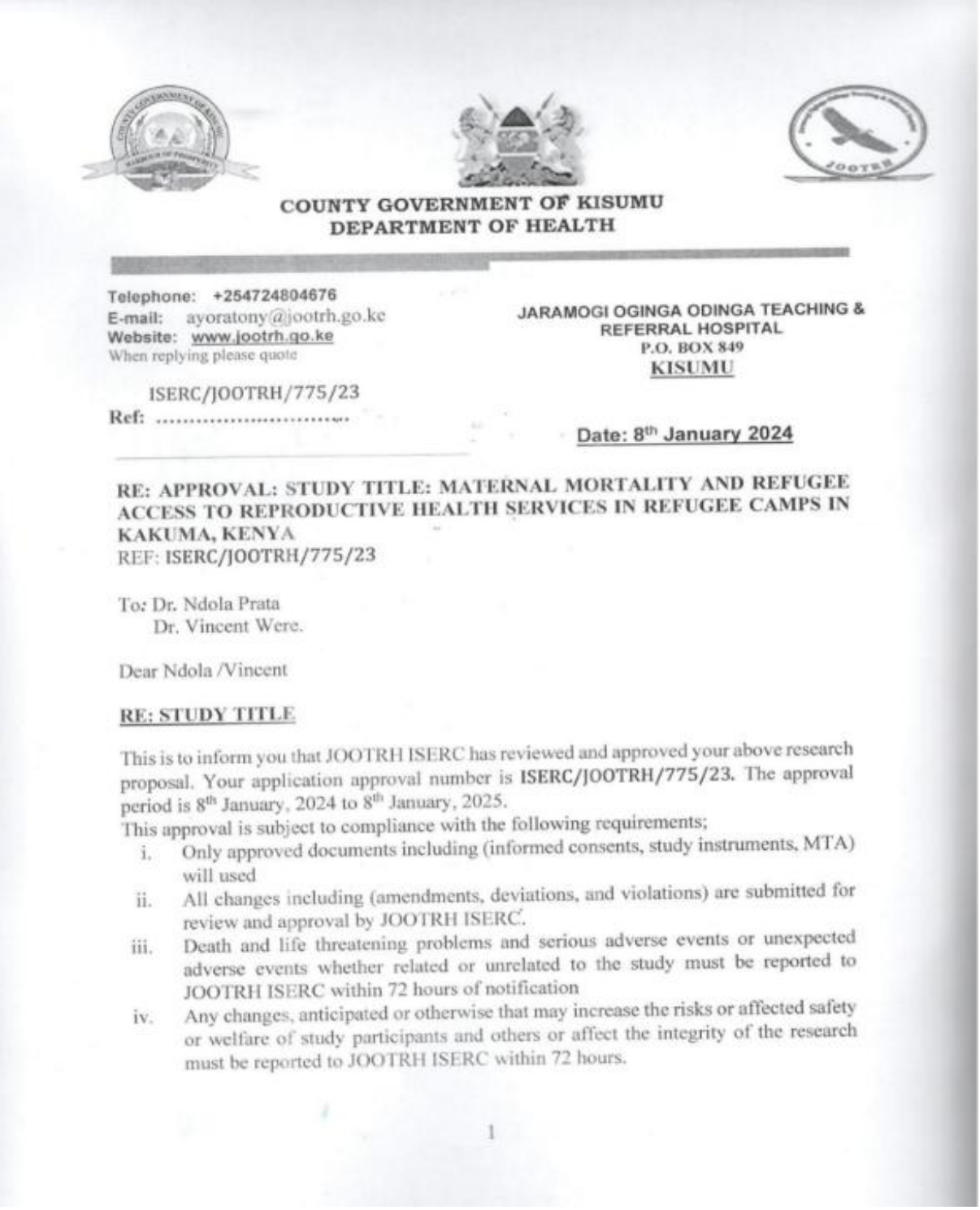
If you have any questions about this matter, please contact the OPHS staff at 642-7461 or email ophs@berkeley.edu .

Sincerely,

Committee for Protection of Human Subjects (CPHS)

UC Berkeley

C. IRB Protocol Approval from Department of Health, Kenya



COUNTY GOVERNMENT OF KISUMU
DEPARTMENT OF HEALTH

Telephone: +254724804676
E-mail: ayoratony@jootrh.go.ke
Website: www.jootrh.go.ke
When replying please quote

JARAMOGI OGINGA ODINGA TEACHING & REFERRAL HOSPITAL
P.O. BOX 849
KISUMU

Ref: ISERC/JOOTRH/775/23

Date: 8th January 2024

RE: APPROVAL: STUDY TITLE: MATERNAL MORTALITY AND REFUGEE ACCESS TO REPRODUCTIVE HEALTH SERVICES IN REFUGEE CAMPS IN KAKUMA, KENYA
REF: ISERC/JOOTRH/775/23

To: Dr. Ndola Prata
Dr. Vincent Were.

Dear Ndola /Vincent

RE: STUDY TITLE

This is to inform you that JOOTRH ISERC has reviewed and approved your above research proposal. Your application approval number is **ISERC/JOOTRH/775/23.** The approval period is 8th January, 2024 to 8th January, 2025.
This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by JOOTRH ISERC.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to JOOTRH ISERC within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to JOOTRH ISERC within 72 hours.

1

v. Clearance for export of biological specimens must be obtained from relevant institutions.

vi. 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.

vii. Submission of an executive summary report within 90 days upon completion of the study to JOOTRH ISERC.

viii. In case the study site is JOOTRH, kindly report to Chief Executive Officer before commencement of data collection.

ix. 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.

Yours sincerely,

JOOTRH ETHICS & REVIEW COMMITTEE
P. O. Box 849 - 40100
KISUMU

ANTONY AYORA
SECRETARY – ISERC
JOOTRH - KISUMU

D. Consent Forms for Refugee Women

Unsigned Consent to Participate in Research- Refugee Women*[4]

Title of Study: Formative Study to Assess Reproductive Health Services and Needs of Refugees Women in Compounded Crises

Key Information

- You are being invited to participate in a research study. Participation in research is completely voluntary.
- The purpose of the study is to examine access to reproductive health services and unmet reproductive health needs of refugee women in camps in Kakuma, Kenya.
- The interview will take a total of 60-90 minutes and you will be asked to read the consent form and answer questions about it.
- Risks and/or discomforts may include the risk of breach of confidentiality.
- There is no direct benefit to you. The results from the study may show whether this additional consent element is helpful to subjects.

Introduction and Purpose

My name is Bhavya Joshi. I am a Doctor of Public Health student at the University of California, Berkeley. I would like to invite you to take part in my research study, which looks at access to reproductive health services and unmet reproductive health needs of refugee women in camps in Kakuma, Kenya.

This study is being conducted by Bixby Center, UC Berkeley in partnership with Amrec, Kenya.

- Dr. Ndola Prata, University of California, Berkeley: Co-Principal Investigator
- Dr. Vincent Were, AMREC Kenya: Co-Principal Investigator
- Bhavya Joshi, University of California, Berkeley: Student Investigator

Procedures

If you agree to participate in my research, I will conduct an interview with you at a time and location of your choice. The interview will involve questions about your reproductive health needs and access. It should last about 75-90 minutes. With your permission, I will audiotape and take notes during the interview. The recording is to accurately record the information you provide, and will be used for transcription purposes only. If you choose not to be audiotaped, I will take notes instead. If you agree to being audiotaped but feel uncomfortable or change your mind for any reason during the interview, I can turn off the recorder at your request. Or if you don't wish to continue, you can stop the interview at any time.

[4] *The translations of the consent documents that will be used will be provided for CPHS review and approval prior to use in the field.

I expect to conduct only one interview; however, follow-ups may be needed for added clarification. Follow-ups are voluntary and you may change your mind at any time about participation. This time will be used to clarify any points that remained unclear after the original interview. If so, I will contact you by phone to request this. Including recruitment, scheduling, the interview itself, and time for follow-up questions, the time commitment associated with the study will not exceed two hours and 15 minutes. In most cases, the total time commitment will be between 60 and 90 minutes.

Benefits

There is no direct benefit to you from taking part in this study. It is hoped that the research will help advance the field and provide relevant information for program implementers to use when providing reproductive health services in camps.

Risks/Discomforts

Some interview questions may make you uncomfortable. To minimize this risk, you have the right not to answer any question and the right to end the interview at any time.

Additionally, there might be potential risk in you sharing your experiences and you might want to complain about services in refugee settings. To manage this risk, your responses will be kept confidential and away from the access of healthcare providers.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, your names and other personally identifiable information will not be used.

To minimize the risks to confidentiality, all data will be anonymized, interview codes will be provided for every interaction, and data will be stored in password protected laptops and files.

Audiotaping will only be done upon your consent. We will transcribe the audio recordings as soon as possible after the interview, and then destroy the recordings. When the research is completed, we will save the transcriptions and other study data for possible use in future research done by myself or others. We will retain these records for up to three year after the study is over.

Your personal information may be released if required by law. Authorized representatives from the following organizations may review your research data for purposes such as monitoring or managing the conduct of this study:

- Amrec Consulting, Kenya
- University of California, Berkeley, USA

Identifiers might be removed from identifiable private information. After such removal, the information could be used for future research studies or distributed to other investigators for future research studies without additional informed consent from the subject or the legally authorized representative.

Compensation
You will not be paid for taking part in this study. There will be snacks and soft drinks provided.

Rights
Participation in research is completely voluntary. You are free to decline to take part in the project. You can decline to answer any questions and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research and whether or not you choose to answer any questions or continue participating in the project, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

Questions
If you have any questions about this research, please feel free to contact me at *bhavya.joshi@berkeley.edu* or *+1 720-292-4399* or our local PI, Dr. Vincent Were at *vincentwere@gmail.com* or *+254-721-876573.*

If you have any questions about your rights or treatment as a research participant in this study, please contact the University of California at Berkeley's Committee for Protection of Human Subjects at 510-642-7461, or e-mail subjects@berkeley.edu.

****

CONSENT

If you agree to participate in this research study, please say so. We will give you a copy of this form to keep for future reference.

_____ _____
Signature of Investigator/Person Obtaining Consent Date

E. Consent Forms for Healthcare Workers

Unsigned Consent to Participate in Research- Healthcare Workers*[5]

Title of Study: Formative Study to Assess Reproductive Health Services and Needs of Refugees Women in Compounded Crises

Key Information

- You are being invited to participate in a research study. Participation in research is completely voluntary.
- The purpose of the study is to examine reproductive health service delivery and unmet reproductive health needs of refugee women in camps in Kakuma, Kenya.
- The discussion will take a total of 120 minutes and you will be asked to read the consent form and answer questions about it.
- Risks and/or discomforts may include the risk of breach of confidentiality.
- There is no direct benefit to you for participating in this study.

Introduction and Purpose

My name is Bhavya Joshi. I am a Doctor of Public Health student at the University of California, Berkeley. I would like to invite you to take part in my research study, which looks at access to reproductive health services and unmet reproductive health needs of refugee women in camps in Kakuma, Kenya.

This study is being conducted by Bixby Center, UC Berkeley in partnership with Amrec, Kenya.

- Dr. Ndola Prata, University of California, Berkeley: Co-Principal Investigator
- Dr. Vincent Were, AMREC Kenya: Co-Principal Investigator
- Bhavya Joshi, University of California, Berkeley: Student Investigator

This study is a part of UC Berkeley's student doctoral research and is funded by Center for African Studies and Center for Global Public Health, UC Berkeley.

You are invited to participate in a research study. This form has information to help you decide whether or not you wish to participate. Research studies include only people who choose to take part—your participation is completely voluntary and you can stop at any time.

Procedures

[5] *The translations of the consent documents that will be used will be provided for CPHS review and approval prior to use in the field.

If you agree to participate, you will participate in a focused group discussion with 6-8 participants which asks questions related to women's reproductive health in refugee camps in Kakuma, Kenya. Your participation will last for approximately 2 hours but will not be more than 3 hours.

Benefits

There is no direct benefit to you from taking part in this study. It is hoped that the research will help advance the field and provide relevant information for program implementers to use when providing reproductive health services in camps.

Risks/Discomforts

We will keep all of the information provided during the focus groups as confidential as possible, and we will strongly encourage all participants to do likewise. However, please be aware that we cannot ensure that participants will not disclose any information obtained during a focus group.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, your names and other personally identifiable information will not be used.

To minimize the risks to confidentiality, all data will be anonymized, discussion codes will be provided for every interaction, and data will be stored in password protected laptops and files.

Audiotaping will only be done upon your consent. The discussion will be audio recorded to ensure the interaction is documented and we can back check for verbatims. We will transcribe the audio recordings as soon as possible after the interview, and then destroy the recordings. When the research is completed, we will save the transcriptions and other study data for possible use in future research done by myself or others. We will retain these records for up to three year after the study is over.

Your personal information may be released if required by law. Authorized representatives from the following organizations may review your research data for purposes such as monitoring or managing the conduct of this study:

- Amrec Consulting, Kenya
- University of California, Berkeley, USA

Identifiers might be removed from the identifiable private information. After such removal, the information could be used for future research studies or distributed to other investigators for future research studies without additional informed consent from the subject or the legally authorized representative.

Compensation

You will be paid ($8.33 or its equivalent in local currency) for taking part in this study and for your time.

Rights

Participation in research is completely voluntary. You are free to decline to take part in the project. You can decline to answer any questions and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research and whether or not you choose to answer any questions or continue participating in the project, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions about this research, please feel free to contact me at *bhavya.joshi@berkeley.edu* or *+1 720-292-4399* or our local PI, Dr. Vincent Were at *vincentwere@gmail.com* or *+254-721-876573.*

If you have any questions about your rights or treatment as a research participant in this study, please contact the University of California at Berkeley's Committee for Protection of Human Subjects at 510-642-7461, or e-mail subjects@berkeley.edu.

****

CONSENT

If you agree to participate in this research study, please say so. We will give you a copy of this form to keep for future reference.

_____ _____

Signature of Investigator/Person Obtaining Consent Date

F. Interview guide

Interview Guide for Refugee Women

**Before starting the interview, we will review some key terms used during the interview such as health issues, reproductive health, health services, and access to and use of health services.*

Socio Demographic Questions
Before we begin the interview, I would like to ask some basic questions about your identity.

Age:
Educational level:
Marital status:
Occupation (if any):
Ethnicity:
Country of origin or Name of hometown:
Time spent in South Sudan/Kenya:
Time spent in the current camp:
Movement (Alone/ With family / With friends / Caravan / Other):

(For refugees only)
First time in Kenya: Yes / No
Desired country of destination:

Reproductive Health History
Next, I would like to ask some basic questions about your reproductive health history. Reproductive health is defined as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. This could include accessing service like maternal and child health, menstrual health, abortion, family planning among others.

1. Age at Menarche?
2. Number of Pregnancies?
3. Number of Children?
4. Number of Abortions?
5. Current Contraception Use
(Probe: Methods, frequency, If not using, ask for intent to use?)

Reproductive Health Needs and Access across the Journey

Next, I would like to ask some questions about your journey as a forcibly displaced person and reproductive health needs that arise during this journey. Reproductive health needs can include anything regarding maternal and child health, menstrual health, abortion, family planning among others.

There are health needs that anyone coming from country x to country y might have (heart conditions, asthma, [insert any health condition that women and men they know might worry about]). But, there are also needs that women have that men don't. Did you have any healthcare needs that were specific to being a woman? Can you share with me what happened when you felt like you needed support or care? What were you facing? Did you try to get healthcare or support? If so, from whom?

Upon Leaving and During the Journey

6. How was your journey to this camp when you moved [fill from above]?
(Probes: What are some reasons that made you leave [country of origin or hometown]? How did you make this decision? With whom did you leave your country/ hometown? How did you move through South Sudan (e.g. by train, by foot, by bus)?

7. What has been your experience accessing reproductive health services during this journey? (split it by at the place of origin, during the journey, and at the border for refugees)

a. What were these reproductive health needs? (Probe: menstrual health [not being able to access menstrual pads, menstrual- related pain relief medications], pregnancy [prevention of pregnancy, abortion, prenatal care, delivery care, postpartum care], discomforts in your genital area, cancer in your breast, uterus, or genital area)?

i. Can you tell me more about these health needs? Why do you think that they appeared?

b. Where did these health needs arise? (Probes: before arriving at the camp, in another state in South Sudan, in [country of origin/ hometown])?

c. When did these health needs arise? (Probes: timeline of the last few years, during covid-19?)

Crisis Setting- At the Camp/ Current Location

8. When you identify a reproductive health need, what are some of the factors that help you decide that you need to seek reproductive health services and from where?
(Probes: People-centered care, trust, knowledge, cultural context, preference of service delivery staff, logistics, lack of other options?)

9. Can you share your experiences of accessing reproductive health services?

a. Do you have access to reproductive health services here? (Probes: Are you comfortable approaching your healthcare provider for your reproductive health needs? How far is it from here? Who takes you there? How much does it cost? What reproductive health services are provided?)

b. If, don't have access to reproductive health services here, where do you typically go when a reproductive health need arises?
(Probes: How far is it from here? Who takes you there? Are you comfortable approaching your healthcare provider for your reproductive health needs? How much does it cost? What reproductive health services are provided?)

c. Did you ever have difficulty in accessing or was denied access? (Probes: What were these difficulties? Why were you denied access?)

10. In your experience, how is the availability of these services?
(Probes: Reason for your visit? Frequency of visit? What time do you typically go? How often are the services available in a week/day? Who attends you? Do you take an appointment?)

11. In your experience, how is the quality of these services?

a. Do you feel the services are delivered to your expectation? Do you feel satisfied with your experience?
(Probe: Where do you receive your information from? Have you experienced stigmatization or discrimination based on your reproductive health choices? Do the services respond to your socio-cultural needs? Are they delivered safely and timely? Do you get details of a follow-up?)

<u>Compounded Crises Setting- Use of Reproductive Health Services During Covid-19</u>

12. Where were you based during Covid-19 or between March 2020 till March 2021?

13. What were some of the messages you received regarding Covid-19 and accessing reproductive services?

14. Did you access reproductive health services during Covid-19?
(Probe: If the participant mentions a SRH-related issue: Can you walk me through the process of recognizing this health problem and what you did after noticing it?)

15. When you identified a reproductive health need, did you seek care? How was your process of finding where you could receive this care? Where did you go?
If you sought care:

a. Why did you decide to go to this place? What happened there? Were you able to receive the care you needed? What happened after?

b. Thinking of your experience seeking care in these places, what are some of the factors that limit your abilities or facilitate them to seek and receive care?
(Probe: knowledge, social networks, money, transportation, appointment mechanisms, policies in the healthcare facility, family-related factors, trust, quality of services).

If you did not seek care:

c. What are some of the reasons you decided not to seek care?
(Probe: perceived or actual barriers they faced).
d. What things/factors would have made it easier for you to seek care?
(Probe: accessibility of information given, ability to access diagnostic services and treatment, adherence, continuum of care, caregiver support, social networks, mobility-related factors)

16. Can you share your experiences of accessing reproductive health services during Covid-19?

a. Did you have access to reproductive health services here?
(Probes: Are you comfortable approaching your healthcare provider for your reproductive health needs? How far is it from here? Who takes you there? How much does it cost? What reproductive health services are provided?)
b. If, didn't have access to reproductive health services here, where do you typically go when a reproductive health need arose?
(Probes: How far is it from here? Who takes you there? Are you comfortable approaching your healthcare provider for your reproductive health needs? How much does it cost? What reproductive health services are provided?)

17. In your experience, how was the availability of reproductive health services during Covid-19?
(Probes: What were the reasons for your visit? Frequency of visit? What time did you typically go? How often were the services available in a week/day? Who attended you? Did you take an appointment?)

18. In your experience, how was the quality of reproductive health services during Covid-19?

a. Did you feel the services were delivered to your expectation? Did you feel satisfied with your experience?
(Probe: Where did you receive your information from? Had you experienced any stigmatization or discrimination based on your reproductive health choices? Did the services respond to your socio-cultural needs? Are they delivered safely and timely? Did you get details for a follow-up visit?)

19. What would you have liked in your experience to be different?

(Probe: Why? Could you expand a little bit more? What are some of the services that were lacking? What worked well? What should be improved?)

Closing Questions

Next, I would like to ask some final questions before we end this interview.

20. Based on your knowledge and experience, what advice would you give to women who are moving through South Sudan and that have a reproductive health need?
(Probe: What can be improved? What are some recommendations you would give to people who are taking decisions regarding reproductive health services for women in South Sudan?)

21. Is there anything I should have asked, and I did not, but that you would like to share with me?

22. Is there anything you want to ask me?

Thank you so much for your time. Is there anyone else you know who might be interested in giving this interview? If yes, could you please provide their contact details so that I can get in touch with them and schedule the interview.

Do you consent and are comfortable to participate in a follow-up interview in the coming days? It will be for approximately 30 minutes?

G. FGD guide

Reproductive Health Service Delivery in Kakuma Refugee Camps, Kenya
Healthcare worker FGD guide

SECTION I. FGD Introduction

Thank you for coming today and sharing some of your time with us. My name is Bhavya Joshi and I am conducting this research in partnership with the University of California, Berkeley and Amrec, Kenya. This is a study that is exploring healthcare worker beliefs, attitudes, and practices around reproductive health care for South Sudanese refugees in Kenya.

I would like to remind participants that confidentiality cannot be guaranteed after the focus group ends so participants should not share any information which they do not wish to be made public.

I would like to record our session to make sure I accurately capture what you share with me. Only members of the research team will have access to the recording to ensure that no important information is missed. I will delete the recording after the discussion is transcribed. Is it okay if I record the session today?

Turn on audio recorder if participant consents to recording.

Do you have any questions at this time?

SECTION II. Preliminary Information

<table>
<tr><td colspan="2">Was informed consent obtained from all focus group discussion participants?

YES _____ (Proceed with focus group.)

NO _____ (STOP! Thank the participant(s) for their time and do not proceed with the focus group.)</td></tr>
<tr><td>Date:</td><td>Location of focus group discussion:</td></tr>
<tr><td>Start time:</td><td>Participants' country of origin:</td></tr>
<tr><td>End time (if available):</td><td>Host country:</td></tr>
<tr><td>Name of focus group discussion facilitator:</td><td rowspan="2">Please list the names of the area/s where participants live:</td></tr>
<tr><td>Name(s) of note-taker(s):</td></tr>
<tr><td>Translation used for interview:</td><td>If yes:
Translation from
_____(language)
to _____(language)</td></tr>
</table>

Number of participants in this group (total):	Age of FGD participants: ☐ Females (specify number) _____ ☐ <18 years ☐ 18-24 years ☐ 25-49+ years ☐ Males (specify number) _____ ☐ <18 years ☐ 18-24 years ☐ 25-49+ years

SECTION III. Questions

THROUGHOUT THE FOCUS GROUP DISCUSSION, REMIND STUDY PARTICIPANTS THAT THEY SHOULD NOT USE ANY NAMES OR PROVIDE INFORMATION THAT COULD IDENTIFY OTHER PERSONS.

Before beginning the discussion, make sure to discuss and establish ground rules. These should include, but are not limited to:

- Respect everyone's opinions even if you do not agree.
- There are no right or wrong answers.
- Do not share personal information about your or anyone else's health or health-related experiences.
- Everything shared during this discussion is confidential and should not be shared or discussed outside of this focus group.

A. Demographics

Before we begin the interview, I would like to ask some basic questions about your identity.

1. What organization/entity do you work for?

2. How long have you been working as a healthcare provider?

3. How long have you been working in Kakuma camps

4. What type of healthcare provider are you??

5. Are you a community health worker or do you work at a health facility? If at a facility, which type?

6. What does a typical day look like for you at work?

7. How do refugee women get registered in the health system? Who leads the process? Are there any who do not get registered in the system?

B. Next, I would like to ask you some general questions about the delivery of sexual and reproductive health services in Kakuma camps since the arrival of South Sudanese refugees.

1. What sexual and reproductive health services have been available and delivered since COVID-19? [PROBE: Tell me about the specific types of services that are available in the community. Which organizations provide these services? Have you heard of any problems with clinic or hospital hours? Providers? Medicines? Safety concerns]

2. What does quality in reproductive health service delivery mean to you? How do you ensure quality in service delivery? [PROBE: What are some measure you take to ensure quality? Heard anything about maternal health service delivery? Adolescent?]

3. What does accessibility in reproductive health service delivery mean to you? How do you ensure accessibility in service delivery? [PROBE: What are some measure you take to ensure accessibility? Cost? Distance to facilities?]

4. What does acceptability of reproductive health services mean to you? How do you ensure acceptability in service delivery? [PROBE: What are some measure you take to ensure acceptability?]

    i. How have women and adolescent girls in this community been involved in the services that they receive? [PROBE: At what stage of the planning process were they involved? What were their contributions during the planning of the services?]

5. What are the key strengths in service delivery? What is working [PROBE: Can you tell me more about stocks, services, support from partner organizations? How have organizations been communicating about their available services?]

6. What challenges remain in service delivery? [PROBE: Can you tell me more about stocks, services, support from partner organizations? How have organizations been communicating about their available services?]

7. Overall, how do you think sexual and reproductive health services for women and adolescent girls within Kakuma camps could be improved?

C. Now we would now like to talk about pregnancy and giving birth and family planning.

1. Where do women and adolescent girls go for health care when they are pregnant, giving birth or postpartum, and what services are available to them? [PROBE: Are there different locations for each of these services that women would visit?]

2. During childbirth, who in the community do women and adolescent girls seek help or assistance from? For example, traditional birth attendants, traditional healers, midwives, etc.

3. What are the current breastfeeding practices in this community? How have these practices changed since the crisis began?

4. What do women and girls do if they want to prevent or postpone having babies in Kakuma camps? [PROBE: What methods of birth control are available to women?]

5. Tell me about the availability of the different methods that women would like to use.

6. What barriers exist to accessing birth control if someone would like to use it?

7. What do women in this community do if they are pregnant but do not want to be pregnant?

D. We would now like to talk about training and service delivery during multiple events of crises.

1. What training have you received to work on reproductive health delivery in Kakuma camps with refugee population? [PROBE: Who gave the training? How long was it (hours/days)? What specific to reproductive health? Is it one time or needs to be repeated? How often?)

2. What are the key differences in service delivery before, during, and after COVID?

3. How does reproductive health service delivery change when multiple events of crises occur simultaneously?

4. What are your suggestions/recommendations for improved reproductive health service

delivery during these times?

Wrap-up

E. Before we finish, I would like to invite you to speak if there is anything about health care services, especially as it relates to sexual and reproductive health care that we have missed and you would like to discuss.

We thank you for your time. You have all helped to provide a good understanding of the situation here. Your contributions are greatly appreciated. If you have any concerns, or think of additional information that you'd like to share, you can contact our organizations through the following contacts this week. [Provide each participant with information about local contacts for complaints, concerns, or follow-up.]
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