Idealism and Reality: Exploring safe abortion advocacy and implementation strategies for the Central African Republic

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A thesis submitted in partial fulfilment of the requirement for the degree of Master of Science in Public Health

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Declaration:

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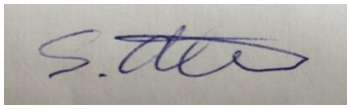
Signature: 

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« *Ici il s'agit de combiner l'idéalisme et le réalisme. Le gouvernement, l'État, a l'obligation de protéger la santé publique. Et on ne peut pas avoir pour ambition de réduire la mortalité maternelle et infantile et occulter une cause majeure de cette mortalité qui est l'avortement non médicalisé. L'idéalisme ici doit plutôt être placé dans le sens de sauver des vies, dans le sens d'assurer la santé et le bien-être des femmes.* » - Dr Pierre Somse, Ministre de la Santé, République Centrafricaine (RFI 2020 p. 1).

"It is a question of combining idealism and realism. The government, the state, has an obligation to protect public health. And we cannot have the ambition to reduce maternal and infant mortality and hide a major cause of this mortality, which is unsafe abortion. Rather, idealism here should be placed in the sense of saving lives, in the sense of ensuring the health and well-being of women." - Dr Pierre Somse, Minister for Health, Central African Republic (RFI 2020 p.1).

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ABBREVIATIONS

CAC:	Comprehensive abortion care
CAR:	Central African Republic
CSE:	Comprehensive sexuality education
FCAS:	Fragile and conflict-affected state
HCW:	Health care worker
IAWG:	Inter-Agency Working Group (on reproductive health in crises)
ICPD:	International Conference on Population and Development
IDPs:	Internally displaced people
INGO:	International Non-Governmental Organization
MMR:	Maternal mortality ratio
MNH:	Maternal-newborn health
MOH:	Ministry of Health
MOHP:	Ministry of Health and Population
MVA:	Manual vacuum aspiration
OB/GYN:	Obstetrician and gynaecologist
PAC:	Post-abortion care
SAC:	Safe abortion care
SRH:	Sexual and reproductive health
SSA:	Sub-Saharan Africa
UN:	United Nations
WHO:	World Health Organization

KEY TERMS

Advocacy: the act or process of supporting a cause or proposal (1).

Awareness raising: an action that focuses on spreading information, which may include advocacy or not (2).

Conscientious objection: objection on moral or religious grounds (3) (in this thesis, of health workers to providing safe abortion care).

Gestational age: age of a pregnancy, measured in days weeks from the first day of a woman's last menstrual period in a woman with regular cycles (assumed to be two weeks prior to conception) (4).

Less safe abortion: abortion performed with outdated methods like dilatation and curettage, even if the procedure is done by a skilled provider, or those done with an updated method like mifepristone and misoprostol medication, but without appropriate information or access to care in case of complication (5).

Least safe abortion: abortion performed by ingestion of dangerous substances (including traditional potions) or insertion of foreign objects into a woman's reproductive tract by an unskilled person (5).

Medical (medication) abortion: use of pharmacological drugs to terminate pregnancy (6).

Program intervention: an act performed for, with or on behalf of a person or population whose purpose is to assess, improve, maintain, promote or modify health, functioning or health conditions (7).

Safe abortion: an abortion done with a WHO-recommended method that is appropriate to the pregnancy duration, and if the person providing or supporting the abortion is trained (8).

Surgical abortion: use of transcervical procedures for terminating pregnancy, including vacuum aspiration and dilatation and evacuation (6).

Unsafe abortion: an abortion performed by an untrained provider or using a method that does not meet medical standards (5).

Women of reproductive age: females aged 15-49 years (9).

ABSTRACT

Introduction: The Central African Republic (CAR) has one of the highest maternal mortality ratios in the world, estimated at 829/100,000 live births in 2017. Up to one third of maternal deaths are due to complications following unsafe abortion, according to CAR's Minister for Health. The objectives of this review are to assess barriers and enablers to safe abortion access in CAR, and analyse which safe abortion advocacy and implementation strategies could be most effective in this context.

Methodology: A literature review and semi-structured interviews with key informants were used to assess factors relating to abortion access in CAR and other sub-Saharan African (SSA) countries, and analyse which abortion advocacy and program interventions have been successfully used in these contexts. SSA countries outside CAR were assessed because limited evidence has been published from CAR; other SSA countries were presumed to be most easily comparable. Results were organized in reference to a conceptual framework for evaluating safe abortion programs.

Results: Many barriers to safe abortion implementation in CAR and SSA were identified; chiefly, restrictive abortion laws, widespread abortion stigma, and poor access to and quality of health care services. Advocacy and program intervention strategies utilized in other SSA countries which successfully addressed these barriers have been identified. In CAR, progress has been made in safe abortion advocacy at national level, but this has not yet translated to advocacy or service interventions at community or health facility level. The ongoing COVID-19 pandemic has stalled progress.

Discussion: Advocacy and intervention strategies have been identified in SSA which may prove useful in CAR, however the restrictions present in the country due to the humanitarian context could lead to more difficult implementation. Recommendations are made to remove legal restrictions to abortion access, to engage civil society in implementation, to implement interventions which address key barriers in CAR like low availability of health facilities and health care workers, and to address stigma through values clarification exercises at national, community and health facility level.

Key words:

- Abortion advocacy
- Abortion, Induced / Legislation and Jurisprudence
- Central African Republic
- Safe abortion implementation
- Unsafe abortion

Word count: 13121

INTRODUCTION

I am a Canadian registered midwife. Since 2015, I have worked in different humanitarian contexts with an international non-governmental organization to improve sexual and reproductive health access and quality.

In 2019 I spent three months in the Central African Republic (CAR). Having worked in low income or fragile contexts before, including three in sub-Saharan Africa (SSA), I felt well-prepared when I arrived. However, I had taken on a new job when I arrived in CAR. My responsibility was to improve access to and quality of care provided to survivors of sexual and gender-based violence. Beyond focusing on clinical work, I had the opportunity and challenge to engage with the community and my fellow health workers on a highly stigmatized topic. Part of the service implementation included making safe abortion care available for sexual violence survivors. While abortion is legal in cases of rape per CAR's penal code, the provision of abortion care was controversial among health care staff. Many had moral objections to providing abortion or expressed fear of legal repercussions or stigma from colleagues or the community should it become known that they were abortion providers. Colleagues working in the primary health centres reported sending women away who sought safe abortion care.

I heard stories in the community of women with unintended pregnancies that they did not wish to keep, but who had not dared to request help at health facilities, due to community stigma and lack of confidence that they would receive a safe abortion from health care providers. At the same time, colleagues working in the local hospital reported patients with severe post-abortion complications arriving on a regular basis, many with evidence of unsafe abortion in the community, like foreign objects remaining in the reproductive tract or uterine perforation.

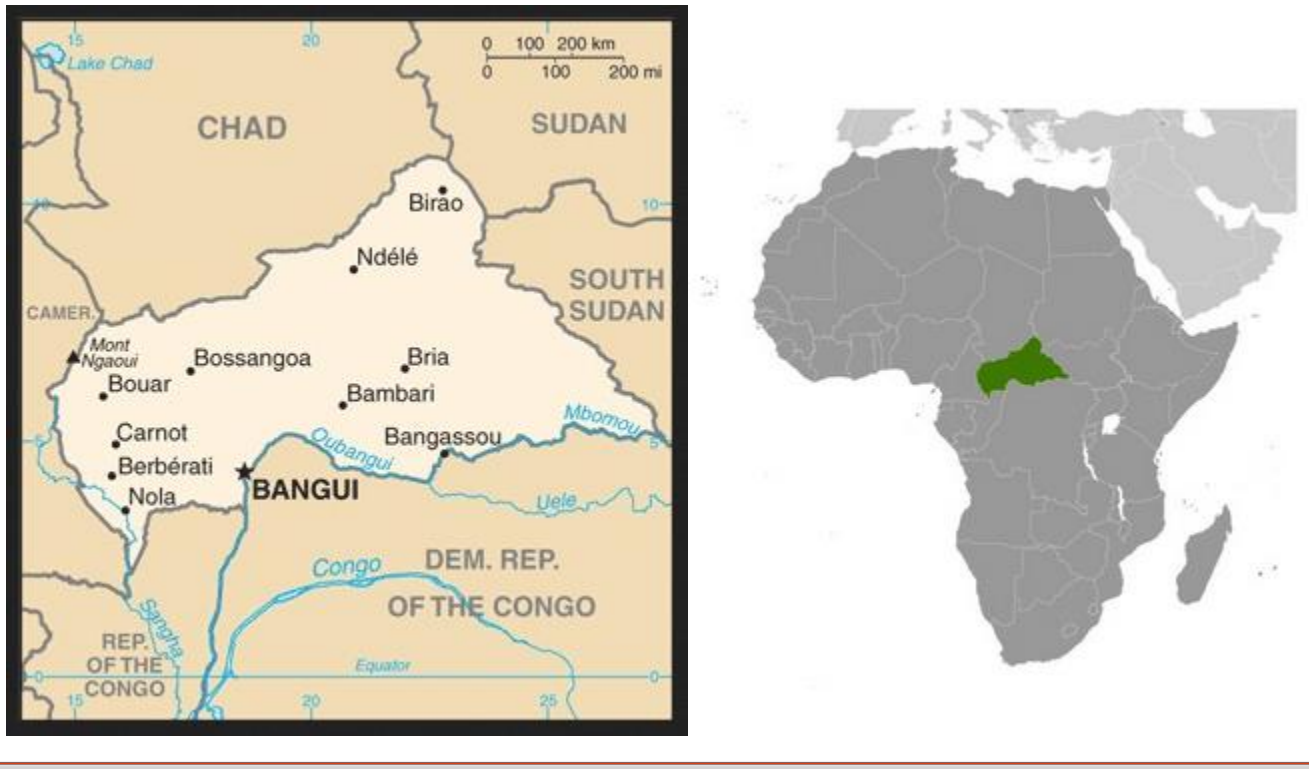
I chose this subject for my thesis because I experienced how difficult the implementation of a stigmatized health service like safe abortion can be, and I struggled with how best to promote a change that required more than skills training or new supplies, but in fact required a cultural shift. With my thesis, I wanted to create the document that I would have liked to read prior to my experience in CAR, that would have given a broader perspective on how to advocate and implement more effectively, and that could theoretically be used in the future to guide those working in safe abortion advocacy and implementation in CAR or similar contexts.

This thesis is a result of literature review and interviews with key informants on safe abortion advocacy and implementation in CAR, as well as in other SSA contexts. The results chapter addresses first barriers and enablers to safe abortion access, followed by a review of abortion advocacy strategies, and finally abortion program interventions, and the discussion chapter explores in depth which advocacy and intervention strategies could be most successful in CAR.

CHAPTER 1: BACKGROUND

The Central African Republic (CAR) is a land-locked sub-Saharan African (SSA) country which shares borders with Cameroon, Chad, Sudan, South Sudan, Democratic Republic of Congo and Republic of Congo (see Figure 1). CAR's population in 2020 is estimated at nearly 6 million (10,11). Half of CAR's population is under the age of 18 (12), and the average life expectancy at birth is 54 years (13). The sex ratio in 2020 is estimated at 0.99 men for ever Central African woman (11).

Figure 1. Map of the Central African Republic (Source: CIA Factbook. *Africa: Central African Republic.* Available from: https://www.cia.gov/library/publications/the-world-factbook/geos/ct.html).



CAR has faced decades of conflict and political instability (12) and is included on the World Bank's Fragile and Conflict-affected State (FCAS) list (14). Violence has led to the internal displacement of an estimated 700,000 CAR citizens (15). More than 600,000 Central Africans are living as refugees, most in neighbouring countries (10).

CAR is one of the poorest countries in the world, with a gross domestic product per capita in 2017 of just $700 United States dollars per person (11). Up to 50% of the population is dependent on humanitarian aid (12).

Inequalities are extreme in CAR. In terms of religion, 90% of CAR's population is Christian, and 8.5% are Muslim (11). Christians have traditionally held the roles of power, until the latest coup d'état in 2013, led by a majority Muslim group. The recent conflict has been broadly divided along religious lines, and Muslims and Christians typically live in

segregation (16,17). Education and health facilities are concentrated in urban areas, especially in the country's capital, Bangui, although 60% of CAR's population live rurally (12,17).

In CAR, the average child will attend seven years of school (11). Only one third of adults are literate (18). Women receive less education than men - on average they attend two fewer years of schooling and are half as likely as males to be literate (11). Further evidence of gender inequality lies in statistics around gender-based violence - 21.9% of women in 2017 reported they had experienced violence by their intimate partner in the previous 12 months (19). Harmful practices remain common: 18% of girls aged 15-19 have undergone female genital mutilation and 68% of girls are married before age 18 (12,13).

When it comes to health, CAR performs poorly on almost every indicator, scoring only 12 (out of a possible 100) on the Sustainable Development Goals health-related index (19).

Maternal and neonatal deaths were the fifth leading cause of death nation-wide in 2017, and maternal deaths represent the third leading cause of death for women of reproductive age (20). Complete information on the most significant causes of death and disability for the general population and women of reproductive age can be found in Annex 1. The maternal mortality ratio (MMR) in CAR is one of the highest in the world, estimated in 2017 at 829 per 100,000 live births, with each woman facing a 1/25 risk of dying of maternal-related causes in her lifetime (21). National data on proportions of maternal deaths due to different causes is not publicly available, but presumably reflect the five main global causes of maternal death: haemorrhage, infection, hypertensive disorders, complications during delivery and unsafe abortion (22). The fertility rate in CAR in 2017 was 4.6 children per woman (13). The adolescent birth rate is 229/1000 women aged 15-19, twice the average of West and Central African countries (13).

The health system in CAR is a three-tier system, with primary care available through health centres and health posts, secondary level care available at regional hospitals and tertiary level care available only in the country's capital, Bangui (12). These structures are supported by the Ministry of Health and Population (MOHP), many in collaboration with International Non-Governmental Organizations (INGOs) (12). Private services (formal and informal) are available through private clinics, pharmacies or traditional healers (17).

The health system is not able to meet the needs of the CAR population. Funding for health is insufficient, with only 5.8% of the annual budget spent on health (11). Fifty percent of financing for health comes from development assistance, and 36% is from out of pocket spending (23). Health facilities and referral systems are often inadequate, particularly in rural areas where there may be as few as 1-2 health facilities per 1000 km2 (12,24). The availability of human resources for health is severely limited, with only 0.5 health care workers (HCWs) per 1000 citizens (12,19), which is far lower than the required 4.45 doctors, midwives and nurses per 1000 citizens recommended to meet universal health care needs by the World Health Organization (WHO) (25). Unfortunately, even where services are available, the quality of care may be insufficient. The healthcare access and quality index rated CAR a 28.6 out of a possible 100 in 2015 (26), based on death rates from 32 causes which should be preventable through timely and effective medical care. This was the lowest rating given to any country globally.

The MOHP has stated that improving maternal-newborn health (MNH) is a national priority (12). All services for pregnant and lactating women, as well as children less than 5 years of age, should be available free of charge (12). All health centres should offer prenatal care, postnatal care, vaccinations and family planning. Facilities with sufficient capability (hospitals, some health centres) should, in addition, offer delivery services, prevention of mother-to-child transmission of HIV and care for survivors of sexual violence. Complicated deliveries and other pregnancy-related complications, including post-abortion care (PAC) are managed in hospital (12), as is safe abortion care when legally permitted (27). Unfortunately, MNH suffers from the same issues as the rest of CAR's health system. Just 18% of the medical staff required to meet the needs are available (13). Poor access to services has led to only 40% of deliveries being attended by a skilled birth attendant. Only 21% of women are using a modern contraceptive method, and 23% of reproductive-age women report an unmet need for contraception (13).

Access to safe abortion care (SAC) services is restricted in CAR. There are two legal documents pertaining to abortion which are not aligned. The first document is the Bangayassi reproductive health law, adopted in 2006 (28). It gives the legal right to abortion when continuing the pregnancy would threaten the life or health of the mother, and additionally supports abortion in cases of rape, incest and foetal anomaly. The second document, the 2010 Central African Penal code (27), states that abortion may be considered in the case that continuing the pregnancy would "seriously compromise" the life of the mother, as well as in cases of rape, incest or foetal anomaly, and adds that abortion can be legal in cases where a pregnant minor is in "serious distress". It is unclear if the penal code supersedes the reproductive health law.

CAR has signed the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (also known as the Maputo Protocol) in 2008, which includes a section on the rights of women to access safe abortion (29), but the CAR government has not yet ratified the agreement (30), and corresponding laws and policies are not in place.

CHAPTER 2: PROBLEM STATEMENT AND JUSTIFICATION

Access to safe abortion services is internationally recognized as an essential component of the sexual and reproductive health (SRH) care package (5,31) and as a basic human right (32-34). Despite this recognition, access to SAC has not shown as much progress as access to other SRH services, particularly in developing regions where unsafe abortion remains prevalent (35). In Africa, 97% of all abortions are estimated to be unsafe (36).

The WHO defines an abortion as unsafe when it is performed "by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both" (5). Unsafe abortion is the one direct cause of maternal mortality that is almost completely preventable (37). Globally, unsafe abortion contributes to up to thirteen percent of maternal mortality (38). Sub-Saharan Africa (SSA) carries a disproportionate burden, with 65% of global maternal deaths due to unsafe abortion occurring in the region (38). This is due to multiple factors, including restrictive abortion laws in all but three SSA countries (39) as well as cultural norms, low access to sexual and reproductive health information and poor quality of health services in many contexts (40).

An estimated 35 induced abortions are estimated to occur per 1000 women aged 15-44 in the middle-African region (41). If transferable to CAR, this equates to approximately 37,000 induced abortions this year based on recent CAR population estimates (42). Where access to safe abortion is restricted, like in CAR, the majority of pregnancy terminations will be done unsafely (4).

The consequences of unsafe abortion include haemorrhage, sepsis, long term disability, infertility and death (43). Regional data in SSA suggests that 596 severe post-abortion complications will occur for every 100,000 live births, including 90 maternal deaths (44). If this estimate is accurate for CAR, it would mean approximately 11% of maternal mortality in the country would be subsequent to unsafe abortion. However, there are concerns that the actual percentage may be much higher - CAR's Minister of Health, Dr. Pierre Somse, has declared unsafe abortion as the leading direct cause of maternal mortality, contributing to 33% of maternal mortality nation-wide (45,46). Dr Somse is an advocate for eliminating restrictions to safe abortion access (46).

Dr. Somse's statistics are alarming but have not been referenced to a published data set. Evidence from nearby SSA countries gives strength to Dr Somse's claims - CAR's neighbour, Cameroon, which has similarly restrictive abortion laws as well as fragile setting status, found in 2015 that 25% of maternal deaths were subsequent to unsafe abortion (47). Estimates from Kenya indicate that 35% of maternal deaths are attributable to unsafe abortion, while the estimate in Zambia is 30% and in Ethiopia 26.8% (48).

In addition to having devastating physical and mental health consequences, unsafe abortion can ruin women and families financially if they must pay out-of-pocket for health care to treat abortion-related complications (35,49). Preventable maternal mortalities and morbidities following unsafe abortion more often impact women of low-economic status and those living in rural locations (35). For women who suffer long-term disabilities as a result of an unsafe abortion, this may impact ability to generate income or take care of family. Adolescents and young women may be unable to continue education, impacting future employment opportunities. In FCAS like CAR, treating complications from unsafe

abortion consumes essential resources from already over-burdened health care systems (35). From a broader perspective, unnecessary deaths and disabilities from unsafe abortions lead to poorer social and economic outcomes for CAR's society as a whole.

Providing comprehensive SRH care, including SAC, is an essential piece of meeting the health needs and supporting the reproductive rights of people living in CAR.

From a public health perspective, the evidence for safe, medical abortion services in humanitarian settings like CAR is well established (50); however, the process of advocating for and successfully implementing these services is complex. Abortion is a stigmatized topic, and resistance to offering SAC on request (without legal restriction) is often high. Perhaps because of the challenges, very little research has been done on effectiveness of abortion services in fragile or humanitarian settings. A 2018 systematic review of SRH programs in FCAS found only one resource which had assessed provision of abortion services as part of their SRH response (51). There is little published research on abortion (safe or unsafe), abortion outcomes or strategies for provision of SAC services in CAR.

This research gap, along with the demonstrated and presumed health needs and the changing political climate around SAC in CAR mean that there is an opportunity to better understand the needs relating to abortion in CAR, and how best to address them. This thesis, through literature review and interviews with key informants, will analyse which factors influence safe and unsafe abortion in CAR, and how. Additionally, it will analyse which SAC advocacy and implementation strategies have been used in CAR so far, as well as which have been successful in similar contexts in SSA. The end goal is to make recommendations for successful SAC implementation, based on CAR's specific context.

2.1 STUDY OBJECTIVES

General objective : Analyse which safe abortion advocacy and implementation strategies are likely to be most effective in the Central African Republic in order to guide development of effective strategies in this context.

1. Analyse factors influencing access to safe abortion services in CAR and SSA, and how these serve as barriers or enablers to SAC implementation;
2. Assess SAC advocacy strategies and their effectiveness in CAR and SSA;
3. Assess SAC program intervention strategies and their effectiveness in CAR and SSA;
4. Make recommendations and disseminate results to relevant national and international stakeholders, including the CAR government/MOHP and NGOs working in abortion advocacy or service implementation in CAR, in order to guide development of effective strategies for SAC implementation in this context.

CHAPTER 3: METHODS

The methodology of this thesis consists of a literature review supported by semi-structured interviews with key informants. Literature review was the method chosen given its feasibility within the constraints of the thesis timeline as well as the restraints imposed by the global COVID-19 pandemic. It was known prior to beginning the thesis that little published literature existed about CAR, especially on the subject of abortion. Therefore, the literature review focused on CAR as well as other SSA contexts, based on the assumption that other SSA contexts would be most easily comparable with CAR. Interviews with key informants with experience in CAR were used, to help validate what information from elsewhere in SSA was transferable to CAR.

Databases searched for the review include PubMed, Cochrane Library, Science Direct, African Journals OnLine (AJOL) as well as search engine Google Scholar. Resources were also sourced directly through the WHO, IAWG, Ipas and UNFPA websites. Snowballing of relevant articles was used after the initial literature search was performed. Key search terms included "Central African Republic" or "Central Africa" or "middle Africa" or "sub-Saharan Africa" AND "abortion" or "safe abortion" or "SAC" or "medical abortion" or "medication abortion" or "surgical abortion" or "pregnancy termination" or "termination of pregnancy on request" or "unsafe abortion" or "clandestine abortion" AND "access" or "barrier" or "demand" or "utilization" or "advocacy" or "implementation" or "strategy" or "program" or "intervention".

Abstracts were assessed by inclusion and exclusion criteria as defined in Table 1. The articles selected were then individually analysed for the type and quality of evidence provided, for the theme of the intervention(s) used, the outcomes reported, and for how the findings might apply to the CAR context.

Table 1. Literature search inclusion and exclusion criteria.

Category	**Included**	**Excluded**
Population of interest	Population of Central African Republic, or other sub-Saharan African country/region	Population of countries outside sub-Saharan Africa
Topics and interventions of interest	Barriers and enablers to safe abortion care, safe abortion advocacy and/or safe abortion program intervention (government, community, or health facility level)	SRH interventions not including SAC

Outcomes of interest	Change in legal status, availability, accessibility, utilization and coverage of services, quality of services, demand for services, stigma and discrimination related to services, impact on morbidity and mortality of women	
Study types and design	Primary research, systematic reviews, grey literature	
Publication date	2000-2020	Before 2000
Language	English and French	Other languages

Key informants were selected based on clinical experience in CAR in sexual and reproductive health, specifically with SAC or PAC services, or based on experience with SAC implementation in CAR or similar settings in sub-Saharan Africa. Two key informants (see Table 2) have been interviewed with semi-structured interviews, using a topic guide. The guide is based on the literature review and Benson's (52) conceptual framework for evaluating safe abortion programs (see Figure 2) and reflects the specific objectives (see Annex 2 for topic guide). A waiver form was submitted to and approved by the KIT ethics review board prior to commencing interviews.

Table 2. Key informant details.

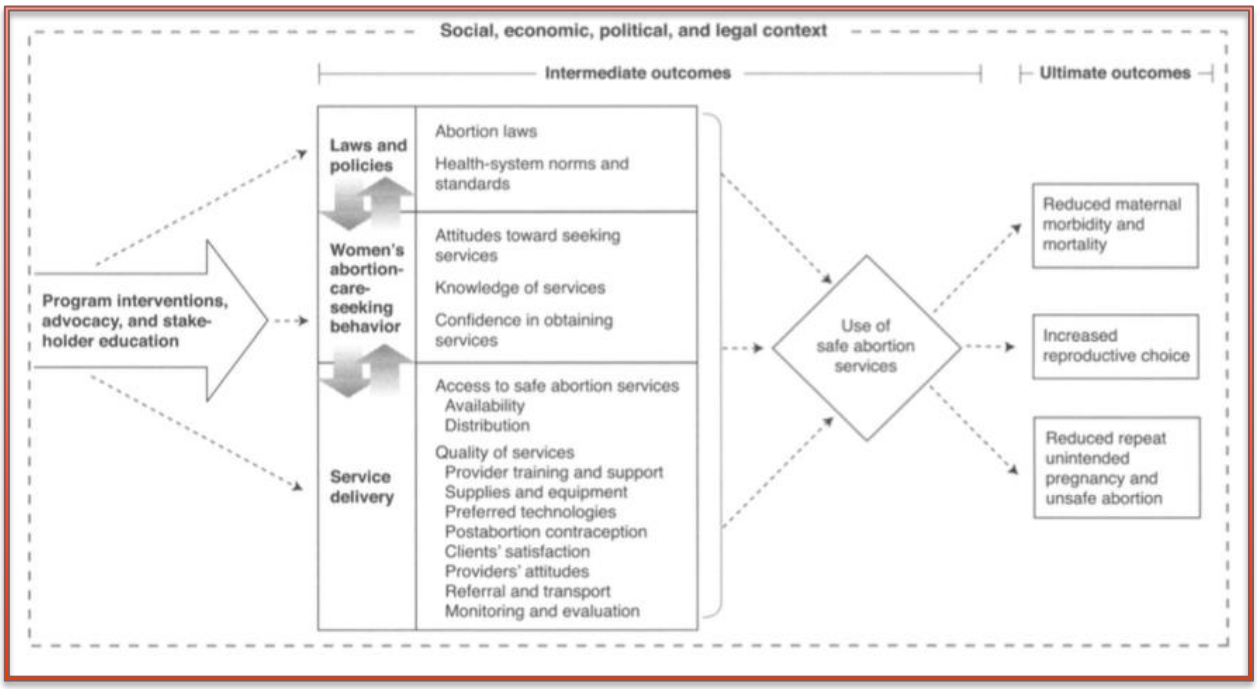
	Profession	Stakeholder group	CAR citizen?	Work experience in CAR?
KI1	Physician	INGO	No	Yes
KI2	Physician	INGO	No	Yes

3.1 FRAMEWORK

Analysis of the literature and interviews has been carried out thematically, using a conceptual framework for evaluating safe abortion programs (52) as a guide (see Figure 2). This framework was selected because it allows analysis of legal, community and health systems factors affecting SAC programs, while taking into account the social, economic, political and legal context. The framework shows evidence-based pathways from intermediate outcomes in abortion laws and policies, women's abortion care-seeking behaviour, and abortion service delivery, which lead to safe abortion service utilization and

finally to the ultimate outcomes of successful SAC implementation - reduced maternal morbidity and mortality, increased reproductive choice, and reduced repeat unintended pregnancy and unsafe abortion. This is helpful as measuring the three ultimate outcomes can present many logistical challenges (52). By measuring intermediate outcomes, inferences can be made about progress in the ultimate outcomes.

Figure 2. Conceptual framework for evaluating safe abortion programs (Benson J. Evaluating Abortion-Care Programs: Old Challenges, New Directions. *Studies in Family Planning*. 2005;36(3):189-202).



The three intermediate outcome sections (laws and policy, women's abortion care-seeking behaviour and service delivery) are further divided into multiple subsections, representing how progress in abortion advocacy, program implementation and stakeholder education can be measured.

Other frameworks considered but not chosen include Harvey & Kitson's (53) implementation framework. The International Federation of Gynaecology and Obstetrics used this framework in case studies describing abortion implementation. However, it is a general framework for implementation and not found to be specific enough to SAC to provide a good jumping-off point for the review.

Coast et al's (54) framework was also considered. The focus was found to be on women's abortion-related experiences and care-seeking behaviour, with inadequate emphasis on abortion services and the legal and political environment to be suitable for this review.

CHAPTER 4: RESULTS

The results section is organized according to the three intermediate outcome sections of the framework, as described in chapter 3. Section 4.1 explores factors influencing safe abortion access, while 4.2 assesses abortion advocacy strategies and 4.3 program intervention strategies.

4.1 FACTORS INFLUENCING ACCESS TO SAFE ABORTION SERVICES

Throughout SSA, numerous barriers and enablers have been identified to SAC access. These are reviewed under the categories of "laws and policies", "women's abortion care-seeking behaviour" and "service delivery".

4.1.1 LAWS AND POLICIES

Globally, abortion laws and policies are seen as key indicators for how open or restricted abortion access is likely to be. Abortion laws may be assessed in terms of the indications which exist for legal safe abortion care. Health systems norms and standards can be appraised for existing barriers or enablers to receiving access to care (52).

Abortion laws were found to differ substantially across SSA. Three countries allow for abortion on request (without restriction), while others do not permit abortion under any circumstances or permit it only to save the life of the mother (39). The remaining countries, including CAR, allow abortion access for multiple indications, but still apply some restrictions.

More liberal abortion law can enable better access to SAC. However, this is not always the case. In Zambia, despite law allowing abortion on broad social or economic grounds (39), unsafe abortions remained a significant public health problem (55). This was attributed in part to health system norms dictating that three physicians sign off prior to any abortion (55). This, combined with high rates of conscientious objection and low availability of doctors, meant many women in Zambia still faced severely restricted abortion access, especially in rural areas. Ghana (56) and South Africa (57) had similar health system barriers despite relatively liberal abortion laws (further discussed in section 4.1.3).

Clear clinical abortion laws and policies enable SAC access. In Ethiopia, clinical guidelines state when a woman has the legal right to abortion, and that she must be able to receive this service within 3 days of making the request (58). This last aspect of the guideline addresses conscientious objection, as the HCW must give a referral within 3 days to a willing abortion provider if they themselves are a conscientious objector. Ethiopia's guideline on conscientious objection was an exception; most SSA countries did not have a policy on conscientious objection, restricting SAC access (57,59,60).

CAR's abortion laws are neither liberal nor completely restrictive. As discussed in chapter 1, several legal indications for abortion exist, however indications are limited and ambiguous. A woman may access safe abortion if continuing the pregnancy would "seriously compromise" her life. This could be interpreted liberally as a serious compromise to a woman's mental health or even social and economic well-being, all of

which impact her life, but could also be interpreted narrowly as only allowing abortion to save the life of the woman. What constitutes "serious distress" in a minor is also open to interpretation. A key informant describes the ambiguity of CAR's abortion laws, and how this serves as a barrier to SAC access:

> *"These laws are still quite unclear, especially what exactly constitutes "une détresse grave" [serious distress] so it leaves itself open to different interpretations... most health professionals take a more narrow interpretation of the law." – KI2*

Additionally, the laws in CAR conflict on the maximum gestational age of a pregnancy when a woman may be legally eligible for SAC. The 2006 reproductive health law (28) states that a woman may have an abortion for significant foetal anomaly at the time of diagnosis and may seek SAC within 2.5 months of "the incident" (the date of rape or incest). The 2010 penal code (27) states that a woman may only be offered SAC until 8 weeks gestational age, regardless of indication. This means a woman has four fewer weeks to seek SAC following rape or incest according to the penal code than according to the reproductive health law. As physical or cognitive foetal anomalies are difficult to diagnose before 10 weeks gestational age (61) this raises questions of whether the penal code genuinely allows for SAC based on foetal anomaly. A final barrier in CAR is that both laws require that every abortion is approved by a physician, or preferably a college of physicians. The penal code additionally requires that an abortion be carried out by a doctor in a hospital. In a country with a severe shortage of HCWs of all kinds, including doctors, and limited hospital access for the majority of CAR residents, this is a significant barrier to access.

The review revealed several factors that were identified as enabling or restricting a country from the establishment of liberal, clear abortion laws and policies.

One factor was the international climate. The International Conference on Population and Development (ICPD) in Cairo in 1994 brought new attention to unsafe abortion and its consequences. The ICPD raised discussion on liberalization of abortion laws across SSA (and the world) and created a push to increase available services to the full extent of the law (55). Reviews of successful legal reform in South Africa in 1996 (57) and Ethiopia in 2005 (62) both stated that the ICPD was a strong factor in creating a climate favourable to a less restrictive abortion law. The adoption of the Maputo Protocol into the African Charter on Human and Peoples' Rights in 2003 gave further incentive for African countries to adapt abortion law and policy (63). International acknowledgement of abortion as a human right created more incentive at national government level to change law and policy in Ghana (64) and increased advocacy efforts by health care workers and medical societies in Ethiopia (65). Guidelines from large international organizations such as the WHO inform national policies and guidelines, which in turn influence norms and standards within health systems (66). The WHO has declared that safe abortion services should be implemented in every country, to the full extent of the law (5). The Inter-Agency Working Group (IAWG) on reproductive health in crises includes safe abortion care as part of the minimum initial service package to be implemented whenever legally possible in humanitarian settings, along with other essential SRH services like skilled birth attendance (31).

However, international policy can present barriers to SAC access. The United States adoption of the Mexico City Policy was found to give strength to anti-abortion advocacy efforts, and serve as a barrier to legal reform (59).

In CAR, the Mexico City Policy was identified by one key informant as a factor which changed SRH norms and standards in certain organizations, and reduced SAC access:

> *"Funding to some organizations has come down recently due to political changes in policy especially in the US, and that also impacts ability to offer proper sexual and reproductive health care." – KI1*

CAR, as a country which is exceptionally reliant on external aid, is more likely to be impacted by global health policies.

In SSA, the political will of the Ministry of Health (MOH) was identified as a key factor impacting SAC law and policy reform. In Ethiopia (66,67) and Ghana (67,68) the strong MOH support for legal reform and expansion of services enabled SAC access. The MOH has been key in facilitating dialogue between stakeholders and establishing health system norms and standards in multiple SSA countries, even when abortion law, health infrastructure and human resources were acting as barriers (67). In Ghana political will and momentum from the MOH and other stakeholders enabled the ambiguous abortion law to be interpreted in its most liberal form, making space for expanded SAC implementation (68). In contrast, in countries like Kenya (55), Tanzania (58) and South Africa (67), where political will was low, or directly opposing the expansion of SAC, this created a barrier that proved difficult to overcome.

As discussed in chapter 1, CAR's current Minister for Health is an outspoken advocate for legal reform to reduce restrictions to abortion access.

In SSA, moral or religious opposition was identified as a barrier to legal reform. It was discussed in literature from multiple countries (55,58,59,65). This ethically based opposition often created another barrier - stigma against those who might advocate for better access to SAC, and therefore less willingness from health care workers and others to speak out publicly in favour of law and policy reform (59,69). This is an issue noted in CAR, further discussed in section 4.1.3.

A lack of national data on unsafe abortion and associated outcomes was described as a barrier to legal reform in several SSA countries (58,59). Data allows a thorough description of the consequences of unintended pregnancies and unsafe abortion as a public health problem; without this, stakeholders may find it difficult to understand why change is necessary. As discussed in chapter 2, nation-wide data on unintended pregnancies, safe or unsafe abortions, and related consequences is not publicly available in CAR.

In summary, several factors within abortion law and policy have been identified in SSA settings as either enablers or barriers to SAC access. Many of these factors are reflected in what is known about CAR. There seem to be more barriers present in CAR than enablers.

However, the political will of the MOH, identified as one of the most important enablers in multiple SSA countries, supports increased safe abortion access in CAR.

4.1.2 WOMEN'S ABORTION CARE-SEEKING BEHAVIOUR

Women and girls in CAR may be more likely to have unintended and unwanted pregnancies, leading to increased demand for abortion. SRH needs, including the need for SAC services, are higher in FCAS (70). Women living in humanitarian settings like CAR have a higher risk of unintended pregnancies due to reduced access to contraception (70,71). This can be due to the weak health system infrastructure or security issues which force populations to flee away from existing health facilities, both of which are persistent concerns in CAR as discussed in chapter 1. Furthermore, sexual violence increases during conflict, and can result in unwanted pregnancies (72).

As outlined in the framework (52), when faced with an unwanted pregnancy, women's abortion care-seeking behaviour is impacted by knowledge of, attitude towards, and confidence in her ability to receive services. In describing confidence, Benson includes a women's decision-making ability as well as her perception of how likely she is to receive SAC at a health facility. Confidence in care-seeking is about a woman's perceived barriers to access, whether at home, in the community or at health system level (52).

In SSA, several sources described how women's knowledge impacts abortion care-seeking behaviour. In South Africa (57) and Ethiopia (58), where abortion law is relatively liberal and services are available, women were found to lack information on their legal right to abortion and how to access services. This contributed to ongoing high numbers of unsafe abortions. Where abortion law is known or believed to be restrictive, fear of legal repercussion can drive women to choose unsafe abortion. However, in settings where legal consequences for having an abortion are known to be rare, like in Tanzania, women seek SAC in health facilities despite a restrictive abortion law (58).

Age, education level and geographic location may impact knowledge of both abortion services and prevention of unwanted pregnancies. Being younger than 25, having a low education level and living rurally were correlated with having less knowledge about contraception and abortion (73,74). In low- and middle-income countries, including those in SSA, adolescents have been identified as a group with low knowledge of contraception and safe abortion options (75-77).

In CAR, a key informant identified adolescents and young unmarried women as a vulnerable group to unintended pregnancies and unsafe abortion, due to lack of awareness of services and their rights, and lack of decision-making power (KI1). One large hospital in Bangui monitored admissions following unsafe abortion over four years and found that 82% of those admitted were single. The average age at admission was 23.6 years (78). However, the paper reports just 267 admissions following unsafe abortion in four years, representing 34.1% of women admitted for abortion-related complications. It is possible that due to abortion stigma, the total reported numbers in this study are an underestimate. It is also possible that young unmarried women were more often questioned on the circumstances surrounding their pregnancy loss.

Attitudes towards seeking abortion care impact access. If a woman belongs to a community or society where abortion is highly stigmatized, she is more likely to have a negative attitude towards seeking abortion care (58). Women may also prefer to seek health care, including abortion services, from traditional healers and/or traditional birth attendants (79).

In CAR, Ngbale (78) found that of the women who presented for PAC at the Hôpital Communitaire du Bangui from 2016-2019, and who revealed they had had an induced abortion in the community, 57% reported having had their procedure with a HCW (doctor, nurse or midwife) or a health care student. There was also a provider category of "rescuer" which was not clearly defined in the resource but seems to also be a medical or paramedical profession. Just 14% of women reported that their procedure was carried out by a lay person. It is unclear if the procedures carried out by medical personnel were done in health facilities, private clinics or elsewhere in the community. Regardless, this indicates that in Bangui, women may prefer to seek abortion with a health worker rather than a traditional practitioner.

A woman's confidence to seek abortion care is enabled by having confidence both in her own decision-making power and in the health system.

A 2020 study covering 27 SSA countries assessed the relationship between women's reproductive health decision-making ability (measured by ability to decide on sexual intercourse and condom use, as reported by national demographic health surveys) and pregnancy termination (80). The study concluded that women who terminate pregnancies are more likely to have high levels of decision-making power. In CAR, lack of women's decision-making power or empowerment levels was identified as a barrier to SAC access by one key informant (KI1).

Perceived barriers in health facilities were widely reviewed in relationship to SAC access. In several SSA countries, it was found that women preferred to seek SAC services in a private clinic or in the informal health sector due to perceptions of improved confidentiality (58,81,82). This may be especially true in rural areas where fear of lack of confidentiality and stigma may steer women away from seeking SAC at their local facility (57,58).

Perception of high cost of service has also been shown to be a barrier to seeking SAC in Ethiopia (58,62) and South Africa (81) even though both these countries have a policy to provide SAC services at low or no cost (67).

This literature review did not yield results on whether women in CAR should expect free SAC if they have a legal indication. Both key informants shared that some INGO-supported facilities do offer SAC services for free, but that this is not the case in all health facilities. Some obstetricians in CAR may offer abortion services, but typically require payment for this service (KI2).

Across SSA, fear of stigma from health care workers is a notable barrier in abortion care-seeking behaviour, as was described in South Africa (57). Stigmatized groups like sex workers, adolescents or unmarried women may be even less likely to seek SAC within the formal health system due to additional stigma from health care providers (74,81-83).

Conditions that decrease stigma are enabling, as was found in Tanzania, where misoprostol can be purchased from private pharmacies without questions being asked (58).

The implications of men's knowledge, attitudes and confidence regarding abortion services did not appear in the SSA literature as a barrier or enabler to SAC access. This is a research gap that should be addressed.

In summary, published data is missing on women's abortion care-seeking behaviour in CAR, including knowledge, attitudes and confidence. While extrapolations can be made from the limited data available from CAR or from other SSA settings that women in CAR face many barriers to seeking SAC, further research is needed to confirm or deny these assumptions. Much of this information will be obtainable only if legal reform and service delivery allow for increased utilization of SAC

4.1.3 SERVICE DELIVERY

This chapter describes factors relating to delivery of SAC services, including access and quality.

SAC delivery access in SSA has many barriers and enablers. Geographic distribution of health facilities is higher in urban settings, and many countries were found to have large disparities in service availability between urban and rural areas (57-59,62). In Ethiopia this disparity was thought in part to be due to INGO's focusing implementation efforts in urban centres (62). As seen in chapter 1, this geographic disparity of health facilities applies in CAR, to all health services and presumably SAC services as well.

Health care providers play a large role in availability of services (59). In Ghana, SAC access is restricted by HCW shortages and high conscientious objection rates (68). In Ethiopia, health care workers could act as "gatekeepers" of abortion access, and were found to refuse to provide SAC, even when a woman was legally eligible, out of fear of being stigmatized themselves as a known abortion provider. This was especially true in small rural communities (58). This barrier was identified in CAR as well:

> *"Fear of being found foul of the law either by the government but more importantly by pressure groups or religious actors was quite high, so access to care was limited because of that." – KI1*

Elsewhere in SSA, HCWs were found to be enablers of SAC access. In South Africa it was found that if key people, especially facility managers, supported SAC, that this enabled abortion provision (84). In Tanzania, though the abortion law is restrictive, legal consequences for providing abortion are uncommon and SAC can be provided quietly, within the formal health system (58). Where different kinds of providers (doctors, midwives, nurses) have SAC within their scope of practice, this is also an enabler of care provision as it expands the number of HCWs who are both skilled and willing to provide SAC (58).

Cost can be a barrier to access, especially for young or poor women (59). In Ethiopia, even though the government aims to provide SAC at low cost, this low cost was still prohibitive for adolescents or women of very low socio-economic status (58).

Supply availability is essential for SAC access. The most commonly used WHO-recommended abortion methods are medical abortion with mifepristone and misoprostol medications or surgical abortion using manual vacuum aspiration (MVA) (6) both of which require regular supply. The availability of misoprostol is growing all over the world, including in SSA (85) and can be purchased in some countries without medical consultation. This has enabled SAC access in some settings, including Zambia (86). In Ghana, an assessment found that 50% of pharmacies stocked misoprostol but that there was significant disparity between rich and poor areas - pharmacies in rich areas were much more likely to stock misoprostol. However, while pharmacies reported a high level of demand for misoprostol, many pharmacists also reported that they were conscientious objectors and would not supply misoprostol if abortion was the indication (87).

In CAR, data on the availability of misoprostol in pharmacies and other health facilities is not available; key informants could also not provide information on this subject, though both believed misoprostol was more likely to be available in Bangui than elsewhere in CAR.

Quality of care is an essential piece of service delivery. It is improved when clear guidelines are available and when health care workers understand their responsibilities regarding SAC provision (59). Quality is decreased when referral systems are not in place, and when essential medical supply is not consistently available (59).

In CAR, inconsistencies in supply networks and health infrastructure lead to frequent medication stock-outs. One key informant states this has led to some abortion providers preferring dilatation and curettage, a method now considered outdated and "less safe" by the WHO (5), because the metal instruments can be reused for years (KI2). Indeed, the recent review of unsafe abortion complications in Bangui (78) reports that 65.9% of the 267 patients who were admitted for PAC and disclosed a history of unsafe abortion reported that the abortion provider had used curettage.

Studies in SSA show that even when supplies are available, this is not a guarantee that quality care is provided. An assessment in Senegal found that 35% of pharmacists carried misoprostol, but information on reproductive health indications for use, including abortion, was low (88). No data is published on whether this is also a concern in CAR.

CAR seems to have more barriers to SAC delivery than enablers, in large part due to the struggling health system that results in poor availability and distribution of health facilities and HCWs, and low quality of health services including SAC services.

The barriers and enablers to SAC access identified in 4.1 provide a better understanding of the factors affecting SAC implementation in SSA, including CAR. Importantly, CAR's abortion laws, which may appear relatively liberal compared to other SSA settings, contain in their details many barriers to SAC access - especially considering the status of CAR's health system. Little is published about women's abortion-care seeking behaviour in CAR, but key informants have identified abortion stigma and lack of women's decision-making

power as potential barriers. The literature in SSA, including CAR, does not describe men's roles in influencing abortion care-seeking behaviour. Service delivery of SAC in CAR faces the same issues as other health services in CAR, namely low accessibility and low quality. Because of stigma, even in locations with an appropriate facility, provider and supply in place a woman may still be unable to access care.

4.2 ADVOCACY STRATEGIES

The issues identified in 4.1 provide insight into what needs to be addressed in CAR, through advocacy and program interventions, to allow for successful SAC implementation. Section 4.2 addresses advocacy strategies. When it comes to SAC implementation, advocacy is particularly important as the activity can be so highly stigmatized.

Throughout SSA, SAC advocacy interventions have occurred on many different levels, from developing international commitments to programs targeting abortion stigma. Assessed advocacy efforts have focused primarily on the domain of changing laws and policies, and to a lesser extent on advocacy in communities and within health structures. As in section 4.1, results have been organized according to the framework (52).

4.2.1 LAWS AND POLICIES

The assessment of SAC advocacy strategies in SSA directed at abortion laws and establishing health system norms and standards revealed different strategies.

The first strategy identified was to advocate for legal reform using research, country-specific data and a public health perspective, emphasizing the negative impacts of unsafe abortion. To be able to describe the extent of the public health problem with clear data, and advocate for safe abortion access in addition to contraceptive services, frames SAC as one key element in the fight against maternal morbidity and mortality. SAC advocacy in Malawi, Uganda, Zambia (89), Ghana (68) and Ethiopia (62,66) relied on public health arguments, as they were found to incite less public controversy and push-back than rights-based arguments. Providing data on unsafe abortions and related outcomes proved essential not only in for initial legal reform, but for ongoing advocacy once laws become less restrictive. In Ghana, data showing a decrease in abortion-related death after liberalization of abortion laws supported ongoing expansion of SAC services (67).

One country that did use a right-based advocacy strategy is South Africa, the first SSA country to successfully liberalize abortion laws. This was a strategic approach in the country, which was emerging from apartheid and where political will was focused on upholding human rights (67). However, because the public health benefit was not emphasized, South Africa faced a lot of resistance from the health system itself to expand services following legal reform (67).

In CAR, both key informants felt the public health approach had a better chance of leading to successful legal and policy reform. One key informant reported that the sharing of data on post-abortion complications from a Bangui hospital was key in gaining vocal support from the Minister for Health to expand safe abortion access (KI2).

Articles from Ethiopia (62) and Ghana (64) report that in addition to using public health data, they used a "silence strategy" in their advocacy for legal reform - that is, they advocated without bringing their efforts into public view. This enabled successful legal and policy change without significant anti-abortion opposition.

In SSA, international collaboration with INGOs can also play an important role in legal and policy reform. In Ghana, the MOH worked together with Ipas and Marie Stopes International to develop policy change that impacted health system norms across the country (64). In Ethiopia, INGO involvement was an important factor in the successful liberalization of previously restrictive abortion laws (66). INGO training on abortion values clarification has been successfully used to create more favourable attitudes towards decriminalization of abortion with stakeholders such as policy makers, health care workers, media (90) and the general public (86).

One key informant (KI2) who has closely watched the CAR SAC advocacy journey, describes how the sharing of PAC data, including morbidity and mortality following unsafe abortion, from an INGO-supported Bangui Hospital set a chain of abortion advocacy events in motion. The data raised awareness among stakeholders, including the MOHP, and led to a national consultation on unintended pregnancies and the consequences of unsafe abortions in March 2019. A values clarification exercise was used with the almost 90 attendees, and hard copies of the Maputo Protocol were distributed. This consultation resulted in an acknowledgement of unsafe abortion as a public health emergency in CAR. Three months later, in June 2019, following a national meeting on maternal-infant mortality, the following actions were called for:

> *"From that meeting, what emerged was ... a very clear call actually, to ask the government to decriminalize abortion, for the government to ratify the Maputo Protocol and revise the penal code, and the Bangayassi law, and ... to start to provide safe abortion care, as well as to involve the community in this fight against maternal mortality and morbidity." – KI2*

Another strategy that arose in SSA literature was that of national alliances for abortion law reform. Collaboration between government, medical societies, NGOs, and other national groups like lawyers and women's rights activists were helpful in advocating for policy change in Kenya (55), Ethiopia (58,62), Ghana (68), Zambia (58) and Tanzania (58).

Medical societies particularly can play an important role in advocacy. In SSA, and globally, national ministries of health rely on medical societies like those of obstetricians and gynaecologists (OB/GYN) to help inform policies and guidelines (59,65). The involvement of the Ethiopian Society of Obstetricians and Gynaecologists was critical for the country's 2005 legal reform, as they provided data and research showing the depth of unsafe abortion as a problem in the country (65,66). In Kenya, medical society advocacy was a key contributor to the abortion law becoming less restrictive in 2010 (48).

In CAR, a key informant reports that following the successful advocacy steps in Bangui in 2019, an eight-person committee was created to follow up on the recommendations described above (KI2). The committee is a group made up of representatives from youth groups, civil society, legal experts, local OB/GYNs, as well as the ministry of health and one INGO representative. Unfortunately, the COVID-19 pandemic is reported to have significantly impacted the momentum of the committee:

> *"What was challenging in CAR was that … this committee, was really at its early stages, and quite fragile. That made it really vulnerable to COVID-19 coming in, because it was just so early in its development." – KI2*

Advocacy in CAR for legal and health system norm change seems to be following proven advocacy strategies in other SSA settings. Advocacy is taking a public health perspective, and is drawing strength from international commitments, values clarifications exercises with key stakeholders, and the creation of a diverse stakeholder committee for continued progress. However, it is unclear how advocacy will now progress give competing priorities with the COVID-19 pandemic.

4.2.2 WOMEN'S ABORTION CARE-SEEKING BEHAVIOUR

While legal and policy reform are common targets for SAC advocacy efforts, abortion decriminalization is not sufficient to prevent unsafe abortion, as has been found in South Africa, Ethiopia, Zambia and Ghana (57,58,86). As reviewed in section 4.1.2, women's care-seeking behaviour and utilization of SAC services relies on having knowledge of available services, as well as their attitude towards accessing services and their confidence that they will receive care.

Abortion advocacy strategies target abortion stigma and opposition in communities, to reduce barriers to abortion-seeking behaviour, including the attitudes of women themselves. These strategies can involve multiple stakeholders, including legal advocacy organizations and women's rights activist groups along with medical organizations (67) and have been used in countries with liberal access to safe abortion as well as in countries with a restrictive legal framework.

In some SSA countries, advocacy for legal reform has not translated to advocacy at community level for women's right to seek safe abortion care. This was an issue noted in countries who adopted the "silence strategy" as discussed in 4.2.1 - though law and policy reform was successful in Ethiopia (58) (62) and Ghana (64), surveys found community members were unaware that women had the right to safe abortion. In Ethiopia, the silence strategy meant that unsafe abortions continued at a higher rate than predicted (58).

This could be a concern in CAR as well. A key informant describes that while SAC advocacy is ongoing in CAR and has seen some successes (described in 4.2.1), these discussions were happening almost exclusively at Bangui-level (KI2).

The review revealed few interventions in SSA that were specifically directed at advocating within communities to address these barriers to women's abortion care-seeking behaviour. The most recent international Ipas advocacy guideline (91) recommends targeting different community groups, including women's groups, community and religious leaders.

One study that did address community perception of abortion took place in Ethiopia (92). Hoping to address barriers in a way that would eventually lead to an increased utilization of SAC services, a 12-month community intervention was carried out. This consisted of trained health volunteers performing community mobilization in selected communities. Following the intervention, researchers performed a survey comparing women in areas which had received the intervention with women in similar locations where there had been no intervention. Eight hundred women responded to the survey. Women in the intervention group were significantly more likely to know that safe abortion was legally available, to feel that women should have the right to access abortion and to state that they felt comfortable themselves to discuss abortion with their partner or a health care provider. The research concluded that community mobilization in this low resource setting was an effective way not just to increase knowledge and confidence in seeking care, but to change attitudes around safe abortion.

An intervention in Zambia used value clarification exercises along with community outreach and education methods like radio, theatre and visual aids to increase knowledge and decrease abortion-related stigma (86). Results from this two year intervention show how difficult changing community norms can be - while communities showed more willingness to engage in dialogue around abortion and displayed more empathy towards women seeking abortion, fewer felt that women should have the right to safe abortion services than before the intervention began.

Unfortunately, neither of these studies specifically reported on the influence of women's empowerment levels or men's attitudes.

In summary, advocacy may be useful to address some barriers (described in 4.1.2) that women in CAR likely face to seeking abortion care. Involving communities in the fight against maternal morbidity and mortality due to unsafe abortion has already been identified as a priority in CAR (see 4.2.1), which must include advocating for decreased abortion stigma. Advocacy efforts should engage with different community stakeholders if SAC implementation is to be successful in CAR. Values clarification exercises and community mobilization strategies have been used in other low resource SSA settings and may be helpful in CAR.

4.2.3 SERVICE DELIVERY

Advocacy for service delivery can take different forms. It could involve advocacy for services in general, if none are available, or could advocate for better access to underserved areas or vulnerable groups, for better financial accessibility or for more health care workers who are both skilled and willing to provide SAC services.

From the literature, it seems these advocacy approaches are rarely tackled alone but rather in combination with program intervention activities. For this reason, most will be

discussed under 4.3 – program interventions. The exception is interventions designed to promote willingness in skilled health care workers to provide abortion.

As discussed in section 4.1.3, HCWs may refuse to provide SAC if they are conscientious objectors or because they fear they will be stigmatized as abortion providers. Advocacy interventions to address these barriers impact both access and quality. Ideally, they lead to higher numbers of willing abortion providers, as well as more respectful HCW attitudes.

In Ghana, where the level of conscientious objection was found to be a major contributor to low utilization of SAC services, it was discovered that health care providers who had studied abroad in countries with more liberal abortion practices or who had worked with INGOs were less likely to be conscientious objectors (56). This may mean that exposure to pro-choice dialogue is an intervention in itself. Values clarification workshops, as designed by Ipas (90), build on this idea and have been found to facilitate empathy for women seeking abortion and increase support for providing SAC. In South Africa, the department of health, in collaboration with Ipas, offered multiple values clarification workshops to health workers over 2 years in Limpopo province. After participation, more HCWs stated they were willing to provide abortion services (93).

Less studied is the impact of stigma against abortion providers on the willingness of HCWs to provide services. The Providers Share Workshop is an intervention which provides an opportunity for abortion providers to discuss experiences of providing abortion including any difficulties entailed (69). It aims to support HCWs and reduce the impact of abortion-provider stigma. Results showed that following a workshop in SSA, participants (59 providers from three SSA countries) showed more favourable attitudes toward SAC provision, and revealed that they felt less burn-out and more safe to provide SAC. The results of this study indicate that the Providers Share Workshop or similar interventions which support abortion providers may be helpful in keeping existing work force in place and motivated to continue providing SAC.

In CAR, both key informants report that values clarification training has been used with care providers by INGOs, but this has not been implemented nationally. There is no report of a Providers Share Workshop or anything similar being used in CAR. It is probable that there is a high level of conscientious objection and fear of stigma among abortion providers in CAR, as reviewed in section 4.1.3. These advocacy interventions for healthcare workers could prove helpful if implemented on a larger scale in CAR.

The review reveals that many SAC advocacy efforts that have proved effective in other SSA settings have been implemented and are ongoing in CAR, especially at law and policy level. However, advocacy efforts at community level and within health facilities are limited outside of INGO-supported areas. Ongoing advocacy efforts in CAR have been threatened by competing priorities since the emergence of the COVID-19 pandemic.

4.3 PROGRAM INTERVENTION STRATEGIES

The literature from SSA focuses on program intervention in service delivery, with fewer interventions focused at community level. As in sections 4.1 and 4.2, the results in this section will be analysed according to Benson's framework (52).

4.3.1 LAWS AND POLICIES

The WHO acknowledges governance as a fundamental health system building block (94) which allows for successful implementation of health services. Laws and policies are therefore key enablers (or barriers) to program interventions. Barriers to legal and policy reform are typically addressed through advocacy; these interventions have been extensively discussed in sections 4.2.1 and will not be repeated here.

4.3.2 WOMEN'S ABORTION CARE-SEEKING BEHAVIOUR

Program interventions have targeted women's abortion care-seeking behaviour as a means to prevent unsafe abortion. These strategies involve raising awareness about SAC and how to access it, but are different from advocacy in that they do not have as a primary goal to change attitudes and reduce abortion stigma.

Community mobilization, as seen in Ethiopia and Zambia, could be considered both advocacy or program implementation, and was discussed in section 4.2.2.

Comprehensive sexuality education (CSE) has been shown to reduce unintended pregnancies and unsafe abortions globally (37), and is becoming more widely integrated in the education systems of many SSA countries (95). Most CSE in SSA is incorporated into school education programs (95), but this may not be a strategy that is suitable in CAR given the average Central African girl completes just five years of school (11). CSE can also be offered through media, including radio or television or websites (95). This option may work well in urban areas of CAR, but would likely leave the rural and poorest CAR residents (without access to technology) behind. CSE can target both boys and girls, and when gender and power are explicitly discussed within CSE this can increase women's decision-making power (96).

Another approach to increasing women's abortion knowledge was used in Kenya and Tanzania. Both countries have restrictive abortion laws, so rather than educating about SAC availability in health facilities, community campaigns were used to raise awareness of misoprostol medication and its use in both medical abortion and prevention or treatment of post-partum haemorrhage (97). In both countries, private pharmacies often carry misoprostol. By sharing information on misoprostol and medical abortion, women were able to bypass health facilities and self-manage medical abortions. Perhaps surprisingly, there was very little resistance to this information-sharing in the community, which the authors attribute to the fact that misoprostol was also being discussed in relation to postpartum haemorrhage.

Putting safe abortion in women's hands through self-managed medical abortion is a growing topic, in SSA and globally. The WHO has recently released a guideline including self-managed medical abortion (at less than 12 weeks' gestation) as an evidence-based option (8). Advocates express that self-managed medical abortion allows SAC to be accessible and safe even in areas where it is legally restricted, or where there are no appropriate facilities or trained and willing personnel (98,99). To work properly, women must be provided with correct information (through community information campaigns as earlier discussed, or through hotlines or websites), there must be a consistent availability of supply, and there must be a medical safety net - a referral strategy in case of complication (98).

Research from Burkina Faso (100) showed that the availability of misoprostol through local pharmacies has changed women's attitudes towards seeking abortion care. Medical abortion may be experienced differently by women - as opposed to an invasive procedure like curettage or MVA, women experienced taking abortion medication more as a spontaneous miscarriage or "emergency contraception" as opposed to a "pregnancy termination". This finding may indicate that medical abortion results in less self-stigmatising behaviour from women themselves.

Implementation of self-managed medication abortion in CAR is a theoretically interesting intervention which is further discussed in section 4.3.3.

In summary, program interventions targeting women's abortion care-seeking behaviour aim to increase women's knowledge about the availability of SAC, and their confidence in accessing care. Awareness-raising has been accomplished in different SSA contexts through CSE, community information campaigns and mass media campaigns. This has been effective in some SSA contexts to increase utilization of services. Self-managed medical abortion is a promising intervention which may improve women's confidence in seeking care. These could be useful interventions in CAR if SAC services were to become widely available.

4.3.3 SERVICE DELIVERY

Program implementation interventions for SAC service delivery, in SSA and elsewhere, focus on access, quality, or both.

The first strategy identified was the expansion of SAC access through the bundling SAC with other SRH services like contraception, PAC, or antenatal care. This was found to be a successful approach in Ghana (68) and Ethiopia (67) and was mentioned in reference to INGO interventions in CAR by one key informant (KI1). By incorporating SAC into existing services, countries have been able to take advantage of facilities and HCWs that are already in place. Framing the provision of SAC as just one aspect of a complete package of reproductive health care may also create less anti-abortion community opposition (60).

Access can be expanded by increasing the number of facilities offering SAC. In Ethiopia, Ghana and South Africa, this was accomplished through public-private partnerships (67). All three countries have a relatively permissive legal framework but had difficulties with increasing service delivery within the public health system. Collaboration with private

facilities allowed for expansion of service availability. In Zambia, increasing the number of facilities providing SAC was accomplished through decentralization of services - where before SAC was only available in hospitals, Zambia facilitated health centres to provide uncomplicated abortion procedures (86).

This decentralization process in Zambia went hand in hand with two other interventions that emerged as strategies through literature review - task-shifting and expansion of low-technology abortion methods.

Task-shifting means including abortion in the scope of more kinds of HCWs, like midwives and nurses, and has been successfully used to expand SAC availability in Ethiopia (58,62,67), Ghana (67,68), South Africa (67) and Zambia (86). While not found in SSA literature, the WHO has also indicated that traditional birth attendants or community health workers could be appropriate providers of medical abortion in some contexts (101).

Low-technology first trimester abortion methods (like medical abortion) are lower risk and do not require physician oversight or a hospital facility to be performed safely (101). This means they can be offered by mid-level providers in primary care facilities that are more widely distributed than hospitals. Zambia (86), South Africa, Ethiopia and Ghana (67) successfully expanded SAC services by increasing use of medical abortion. This was an especially important intervention for expanding services in hard-to-reach or underserved areas which did not have easy access to a hospital or a doctor (67). Interestingly, providers show less moral opposition to providing abortion with medication as compared to surgical methods in South Africa, Ethiopia and Ghana (67) which draws a parallel with women's own perceptions of medical abortion in Burkina Faso as discussed in section 4.3.2.

Aside from geographic accessibility, financial accessibility impacts utilization of SAC services. Ghana, Ethiopia and South Africa ensured that SAC services were available at low or no cost as part of their interventions to increase service delivery (67).

Training health care workers emerged as a strategy that addresses both access and quality of service delivery. Trainings have been used even before abortion policy reform was established - in Ghana this ensured that once a policy on expansion of SAC provision was final, the workforce was already in place (64). Training is an essential step in ensuring other kinds of interventions can be successful - like task-shifting and expansion of low-technology abortion methods. Trainings can also focus on quality alone, like was done in Burkina Faso and South Sudan (102), where refresher trainings on MVA were provided to existing abortion providers, or in Kenya where training focused on improving quality of post-abortion contraceptive counseling by SAC providers. In Kenya, this intervention resulted in higher reported patient satisfaction levels (103)

In Zambia, one training intervention focused on pharmacists (86). Pharmacists were identified as often being asked about abortifacient medication, both by women and by health professionals, and training was designed to promote accurate information sharing and decrease stock-outs of mifepristone and misoprostol. Eighty pharmacists were given updated information and technical guidance on medical abortion and local referral systems. The training contained a values clarification aspect to encourage respectful discourse with women seeking abortion. This intervention resulted in more pharmacists having favourable attitudes toward SAC, and mystery clients were significantly more likely

to be offered information on medical abortion, to be referred to an appropriate health facility and to be treated with respect than prior to the intervention (86).

Interventions targeting pharmacists can help to ensure supply availability, which improves both access and quality. In countries where misoprostol is available in pharmacies without prescription, this can provide the possibility for self-managed medical abortion as discussed in section 4.3.2. Interventions targeting pharmacists which include knowledge-transfer, values clarification and linking to health services could enable rapid expansion of safe medical abortion.

Quality is enhanced through the distribution of clear technical guidelines. In three different SSA countries, the establishment of clear national guidelines allowed HCWs to feel confident that they were working within approved standards (69).

Program interventions in SSA specifically targeting other elements of quality service delivery identified by Benson (52), like referral and transport and monitoring and evaluation, were not found. This may be because referral networks and monitoring and evaluation are considered part of SAC implementation, and therefore not addressed separately.

In CAR, both key informants disclosed that certain INGOs are utilizing some of the above strategies, namely bundling of SAC with other SRH services, expanding the use of low technology abortion methods, training HCWs and ensuring supply. The delivery of SAC within CAR's national health system was a priority identified in June 2019 (see 4.2.1), but service delivery interventions have yet to be rolled out on a national scale. It is unclear when CAR will have the capacity to move forward with SAC program interventions. One key informant summarizes the situation:

> *"It's been challenging ... to keep up the momentum that's been originally generated, and especially now with COVID, the Minister and the Ministry of Health obviously have other priorities." – KI2*

While CAR shows progress in SAC advocacy, there has been less progress in program interventions. The barriers present in CAR's health system, now compounded by the COVID-19 pandemic, make program interventions more challenging. On the other hand, if program interventions that have been shown to be successful in other SSA contexts, like decentralization of services, task-shifting, and increasing usage of low-technology SAC methods, were implemented in CAR, (in combination with awareness-raising interventions) this could potentially result in a quick expansion of SAC services.

CHAPTER 5: DISCUSSION

The review has revealed many factors which impact abortion access in CAR and SSA, as well as SAC advocacy and implementation strategies that have been utilized to address barriers to SAC access. The discussion will be used to explore which key strategies might be most successful in CAR.

5.1 LAWS AND POLICIES

Several factors relating to abortion law and policy have been identified in SSA as either enablers or barriers to SAC. Laws and policies may be restrictive or ambiguous, serving as a barrier, or liberal and clear, serving as an enabler. The international climate can enable legal reform, but can also be a barrier (if opposed to SAC). Political will of the MOH, if favouring SAC access, is an enabler, but political opposition to SAC is a significant barrier. Religious or moral opposition creates barriers to SAC access, as does a lack of data on unintended pregnancies, unsafe abortions, and outcomes. Currently, CAR seems to have more barriers present than enablers. However, the political will of the MOH, identified as one of the most important enablers in multiple SSA countries, is in favour of increasing safe abortion access in CAR. This positive political will creates an opportunity to turn advocacy into action.

CAR currently has relatively restrictive abortion laws. As reviewed in chapter 1 and section 4.1.1, the laws allow for safe abortion with several indications, however these indications are not clearly defined and conflict between laws. Access is further restricted by gestational age limits and requirements for abortion to be performed by a physician in a hospital.

Many SAC advocacy steps have been taken at national level in CAR. CAR's Minister for Health has acknowledged unsafe abortion as a public health emergency in the country, based on hospital data. A committee made up of diverse stakeholders has been established to work towards legalization of SAC without restriction and ratification of the Maputo protocol. However, this committee has struggled to maintain momentum, especially in light of the time and resources required to address the COVID-19 pandemic.

In other SSA settings, using national data on unsafe abortion and its consequences and advocating from a public health perspective has been key to continued progress. Global evidence indicates that SRH needs, including SAC, increase in times of emergency, which includes the COVID-19 pandemic (104). Demonstrating this with national data could help to re-establish momentum for SAC implementation in CAR, even while the pandemic is ongoing. This data should be representative of the whole country, including rural areas and vulnerable groups. The MOHP should collaborate with INGO-supported health facilities to ensure health data is shared between stakeholders. Having strong data would improve the sustainability of advocacy and implementation efforts in CAR, even if political leaders change.

Legal reform is a lengthy and challenging process, subject to the bureaucracy of government. Another strategy, discussed in 4.2.1, is to interpret existing law as liberally as possible and expand services to the full extent of the existing law. The ambiguous language in CAR's existing penal code (reviewed in 4.1.1), if interpreted liberally, would allow legal

access to SAC for many more girls and women in CAR. The most essential component of success in this strategy is the political will of the MOH, which is present in CAR.

5.2 WOMEN'S ABORTION CARE-SEEKING BEHAVIOUR

In SSA, several factors impact women's abortion care-seeking behaviour. Knowledge about abortion services was impacted by age, education level and geographic location, with young women and girls, those with low education level and rural-dwellers having the least knowledge. Attitudes to seeking SAC are least favourable in communities where abortion-stigma is high or where there is a preference to seek care outside the formal health system. Confidence in care-seeking is impacted by all barriers a woman perceives to getting a safe abortion. This includes her decision-making ability within her household or relationship, which is tied to gender, women's empowerment and community norms, as well as perceived barriers at health facility level, which might include fear of abortion stigma from HCWs, perceived cost of service, or concerns about confidentiality.

Interventions reviewed in SSA were primarily carried out through community mobilization and education campaigns. Some were designed to advocate for reduced abortion stigma in communities, using values clarification exercises, and some focused on sharing information about services. Interventions in low resource settings relied on community health workers and group sensitization, theatre or radio messaging. These techniques are likely most suitable in CAR, where many citizens are illiterate or have low access to media.

A notable gap in interventions was in the assessment of men's impact on abortion-seeking behaviour. Women's care seeking behaviour is informed by gender and community norms which must be understood to successfully implement safe abortion services.

Literature assessed women's perceptions of self-managed medical abortion, and found that it may improve women's confidence in seeking care. This intervention requires further research before knowing if this intervention could be appropriate in CAR, where referral networks and monitoring of quality could prove especially difficult.

Data on women's abortion care-seeking behaviour in CAR have not been published. Currently, most discussions on abortion are happening at Bangui-level, with key stakeholders. These discussions have not extended to smaller communities. Given low SAC availability through much of the country, in the short term, interventions at community level could focus more on reducing abortion stigma and educating about unsafe abortion prevention through contraception. These conversations could pave the way for easier SAC implementation once service delivery is more widely available.

Input from different groups, including community leaders, men, and those women presumed to be most vulnerable to unsafe abortion must be included as SAC implementation moves forward. For CAR, this information will prove essential in how successful the country can be in addressing the public health emergency of unsafe abortion.

5.3 SERVICE DELIVERY

In SSA, health systems factors were found to influence SAC implementation. Geographic distribution of health facilities, availability of skilled and willing HCWs, supply availability and financial accessibility were identified as affecting SAC access. HCW training, quality and type of supply, preferred abortion techniques, the availability of abortion guidelines and HCW attitudes were factors identified which impact quality of SAC delivery.

Key interventions in SSA which target access include bundling of SAC within existing SRH services, promoting low technology abortion methods, decentralization of SAC services, task-shifting of SAC to mid-level providers, and making SAC free or low-cost.

SSA interventions which target both access and quality include improving supply chain and offering training. Clinical training can increase access by training new HCWs on abortion methods, and improve quality by refreshing skills. Values clarification training can improve access by increasing the number of willing abortion providers, and improve quality by enabling more positive HCW attitudes towards women seeking abortion. Having appropriate supply and clinical skills can also impact a HCW's preferred abortion method, ideally aligning with WHO-approved safe abortion methods (6) and improving quality. Training pharmacists can reduce medication stock-outs and improve the quality of information provided on medical abortion.

Quality and access to SAC is improved by the distribution of clear abortion guidelines, especially when they outline the legal indications for abortion and the policy on conscientious objectors.

A program intervention that is gaining global recognition is self-managed medical abortion. This intervention can address legal barriers, abortion stigma, and limited health facilities and HCWs. However, it requires women to have good access to information, a consistent supply of appropriately packaged and maintained drugs, a functional referral system in case of complication, and a method of monitoring and evaluating quality of care, all of which may prove difficult in CAR.

In CAR, program interventions related to SAC quality and access have been piloted by some INGOs. They have not yet begun on a national scale, though it is one of the objectives set for the SAC committee in Bangui. Training on low technology SAC methods, if made widely available, could effectively increase access and quality in CAR - but would have to be rolled out in combination with legal change allowing mid-level health professionals to provide SAC outside of hospital facilities. Interventions targeting supply in CAR could prove helpful, to expand SAC services in health facilities but theoretically also through self-management of medication abortion.

5.4 RELEVANCE OF ANALYTICAL FRAMEWORK

The framework (52) was helpful in the analysis of findings. Advocacy and program interventions did fall into one of the three main categories of laws and policies, women's abortion care-seeking behaviour, or service delivery.

According to the framework's author, confidence (under women's care-seeking behaviour), was meant to encompass both confidence in the health care system and confidence in a

woman's own decision-making power. These may be more effectively addressed as two separate issues. This would better enable a gender lens within the framework.

Under the service delivery section, "access" might be more thoroughly described using the 5 A's of access - approachability, acceptability, availability and accommodation, affordability and appropriateness as outlined in Levesque (105).

The "quality of services" subsection is quite thorough, and though medication abortion and self-managed abortion were not widely available or discussed in 2005, the framework still lends itself to reviewing these topics.

5.5 LIMITATIONS

This study was undertaken with the knowledge that little information has been published on the CAR context and abortion. What data has been published in CAR may be subject to under-reporting due to stigma.

While much literature exists and can be drawn on from sub-Saharan African countries, little of this evidence is from contexts with similar levels of challenge in the healthcare system. The hope through the thesis process was to use interviews with key informants to validate how information from elsewhere might be applied in CAR. Many potential key informants were approached, including Central African researchers, and representatives of INGOs, UN agencies, and other international organizations with experience in CAR or in other FCAS in SSA. Unfortunately, only two key informants agreed to participate. Reasons to not participate included lack of detailed knowledge of the CAR context, or limited time availability due to the COVID-19 pandemic. Unfortunately, neither of the key informants are CAR citizens and lack of input from Central African voices is a significant limitation to the study.

5.6 IDEALISM AND REALITY: SAC IMPLEMENTATION IN FCAS

This study assesses factors influencing SAC access and utilization in CAR and SSA. It reviews SAC advocacy and implementation strategies which have been successful in these contexts, and aims to critically analyse which strategies could be effective in CAR.

SAC implementation is extremely difficult not because it is clinically complicated, but because of the intense stigma and moral debate that it generates. This makes it a rich subject for a study on implementation strategies. However, this focus is not meant to imply that safe abortion should be addressed alone, but rather as one of many SRH services, including contraception, that are essential in the fight against maternal morbidity and mortality, and ensuring individual right to autonomy, health and well-being.

As described throughout chapter 4 and 5, the global COVID-19 pandemic has drawn attention and resources away from other health priorities, including SRH. COVID-19 has already proven to have an impact on SAC implementation in CAR, by slowing down the momentum of both advocacy and program interventions. This is a particular risk in fragile settings, as noted by the IAWG, as not only is the health system less able to respond to non-

COVID-19 priorities, but the emergency itself may increase SRH needs, including unintended pregnancies (104).

In CAR, a public health emergency of unwanted pregnancies and unsafe abortion was declared in March 2019. It is still ongoing. The MOHP, in collaboration with humanitarian and development partners, must continue to work towards decreasing the burden of maternal morbidity and mortality from this preventable cause.

This thesis aims to explore how proven safe abortion strategies from throughout SSA could work in CAR. Research originating in similarly fragile contexts was not widely available, and this review allows an opportunity to explore the complexity of SAC implementation in an FCAS, as well as which solutions may be best suited to address the barriers present in this humanitarian setting. Many safe abortion implementation strategies employed successfully in other countries may be prove more complicated in CAR due to existing difficulties in the health care system. More research is required on how SAC implementation can be effective in FCAS.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

Girls and women in CAR face one of the highest risks of maternal mortality globally. One third of these deaths may be due to unsafe abortion. Barriers to safe abortion access in CAR are many, chiefly: restrictive and ambiguous abortion laws, widespread abortion stigma and a weak health system in which SAC services are hardly available.

Abortion advocacy and implementation strategies used in other sub-Saharan countries provide guidance on how to effectively address these barriers in CAR.

Following strategies identified in other SSA contexts, advocacy in CAR has been based on public health arguments and available health data. CAR has already made progress on advocacy at the national level, and in 2019 mortality and morbidity from unsafe abortion was declared a national public health emergency. The current MOH is supportive of safe abortion implementation, however national advocacy efforts have been stalled due to competing priorities with the COVID-19 pandemic.

SAC advocacy efforts and program interventions at community and health facility level have been limited to those supported by certain INGOs. These could be seen as pilot interventions, on which expansion and institutionalization of SAC in CAR can be based. INGOs have proven effective partners in successful SAC implementation in other contexts. In CAR, INGOs are well-situated to be key implementation partners as well.

The ongoing humanitarian situation in CAR, now complicated further by COVID-19, heightens the need for SRH services, including SAC. The government of the Central African Republic, along with relevant national and international stakeholders, have a responsibility to continue the momentum of 2019.

From the evidence reviewed, nine recommendations have been identified for effective SAC advocacy and implementation in CAR. They have been organized into research, policy and intervention recommendations.

6.1 RECOMMENDATIONS

6.1.1 POLICY

1. The CAR parliament must reform and clarify the existing abortion laws, removing abortion restrictions and barriers, and ratify the Maputo Protocol. ***This step is ideal but not required prior to implementing other recommendations.*

2. The MOHP and CAR parliament must enable task-shifting and decentralization of SAC services through legal reform and policy change. ***This step is essential to allowing expansion of SAC services throughout CAR and should be prioritized.*
    a. Laws and policies must acknowledge nurses and midwives as appropriate providers for low risk abortion procedures, in line with WHO guidelines;
    b. Laws and policies must acknowledge health centres as appropriate facilities for low risk abortion procedures, in line with WHO guidelines.

6.1.2 INTERVENTION

3. The MOHP, in collaboration with OB/GYN societies, (I)NGOs and other stakeholders, should take a public health approach to abortion advocacy, emphasizing the dangers of unsafe abortion in CAR by using national data.
    a. The MOHP should improve the health management information system and support health facilities in accurate data collection and transmission;
    b. INGOs supporting CAR health facilities must support data collection and sharing with the MOHP;
    c. The MOHP should conduct national maternal mortality reviews;
    d. The MOHP must establish a monitoring and evaluation plan of PAC and SAC activities; data should be used for ongoing advocacy throughout SAC implementation.

4. The MOHP must create national SAC guidelines and disseminate these to all health facilities in CAR. These must include:
    a. Technical guidelines based on international (WHO) standards;
    b. A description of which HCWs and which health facilities are appropriate for each type of abortion procedure;
    c. Clearly described indications for legal access to abortion;
    d. A guideline on conscientious objection.

5. The MOHP, in collaboration with medical training institutions and INGO partners, should provide abortion training to health care workers and students, including values clarification and skills training. This will improve quality and facilitate task-shifting and decentralization of services once legally feasible.

6. The MOHP in collaboration with the Ministry of Education and relevant INGO partners should strengthen community mobilization and education (including school-based and out-of-school-based for adolescents) on abortion-related topics, including prevention of unintended pregnancies through contraceptive use.
    a. The education plan should be context-specific, and adapted based on access to technology, literacy levels and cultural norms;
    b. Particular effort should be made to reach underserved areas and vulnerable groups, as well as key community stakeholders;
    c. Values clarification exercises should be incorporated;
    d. Information shared must adapt with legal abortion reform and increased availability of safe abortion services.

7. The MOHP and INGO partners must improve supply chain for SAC, particularly to rural and remote areas.

6.1.3 RESEARCH

8. The WHO acknowledges that pharmacists or lay health workers may be appropriate providers of medical abortion in specific contexts. Research should be done to determine if CAR's context would be appropriate for this intervention.

9. More research is needed on safe abortion implementation in fragile and conflict-affected settings. This research should include the feasibility of self-managed abortion in these settings, including how supply, referral networks and monitoring and evaluation of quality can best be supported.

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The thesis-writing process was not always easy; several people I know compared writing a thesis to dying. I'm a midwife, so I think in birth analogies more than death analogies. When I assist a labouring woman, there is a point around 8cm dilatation where the contractions come fast and furious and even more intense. This is inevitably the point when a woman turns to me and says, "I can't do this anymore". And it's my job, having seen countless women before move through this same process, to reassure her: "you can do it. You are doing it. Soon it will all be worth it."

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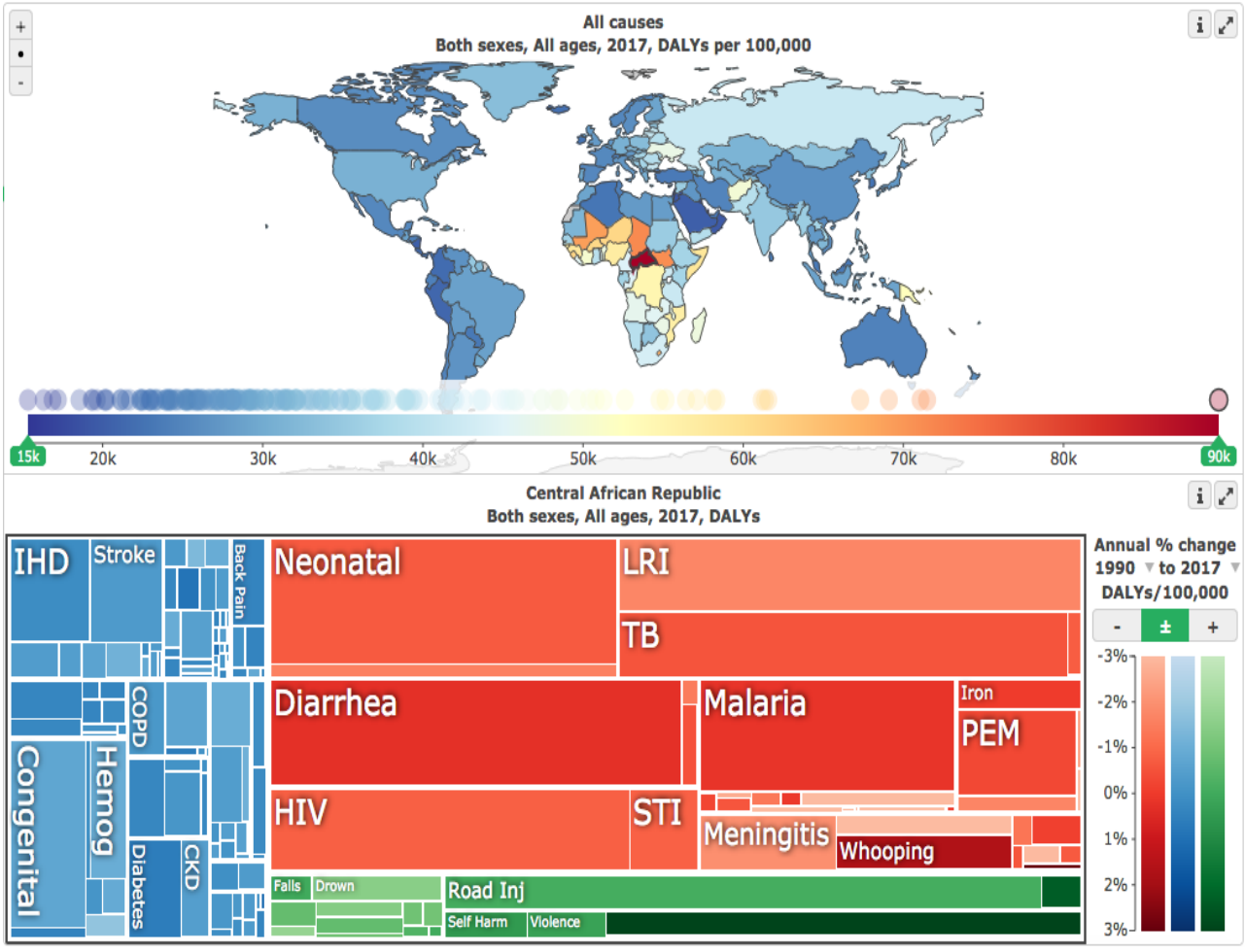
APPENDICES

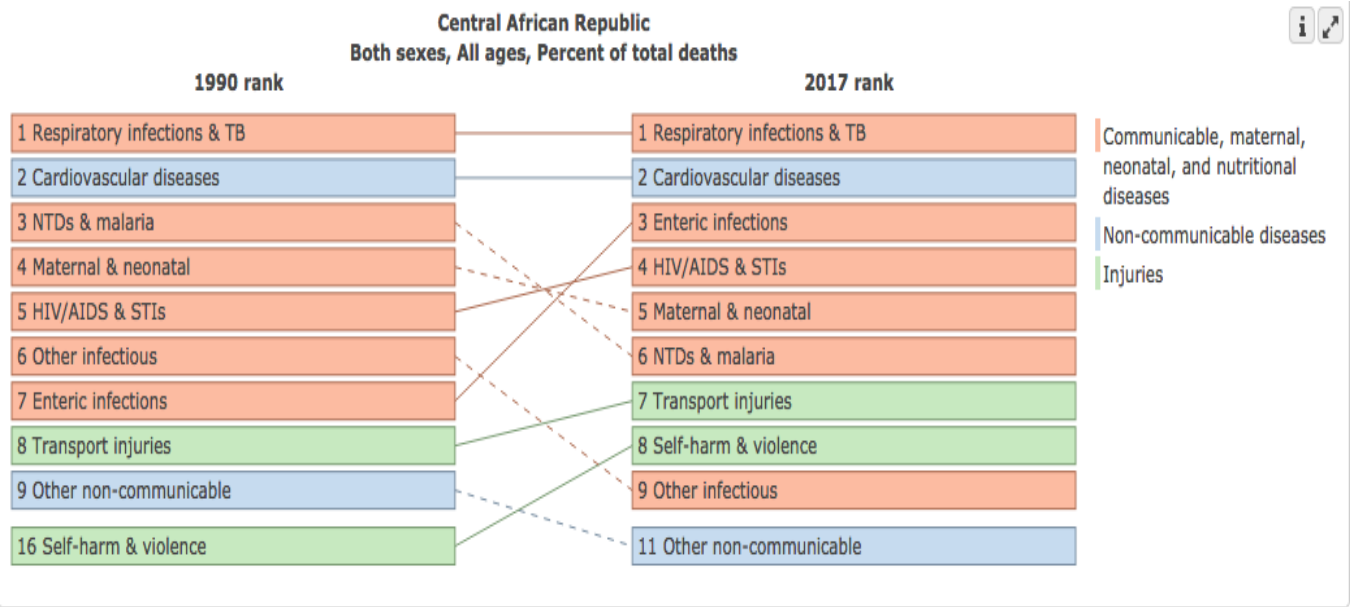
APPENDIX 1: CAR HEALTH DATA

Graphic data displaying deaths and disability-affected life years (DALYs) in CAR in 2017 (for entire population, followed by measurements for women of reproductive age 15-49yrs). Source for all: IHME Measuring what matters: Central African Republic. Available from: http://www.healthdata.org/central-african-republic (20)

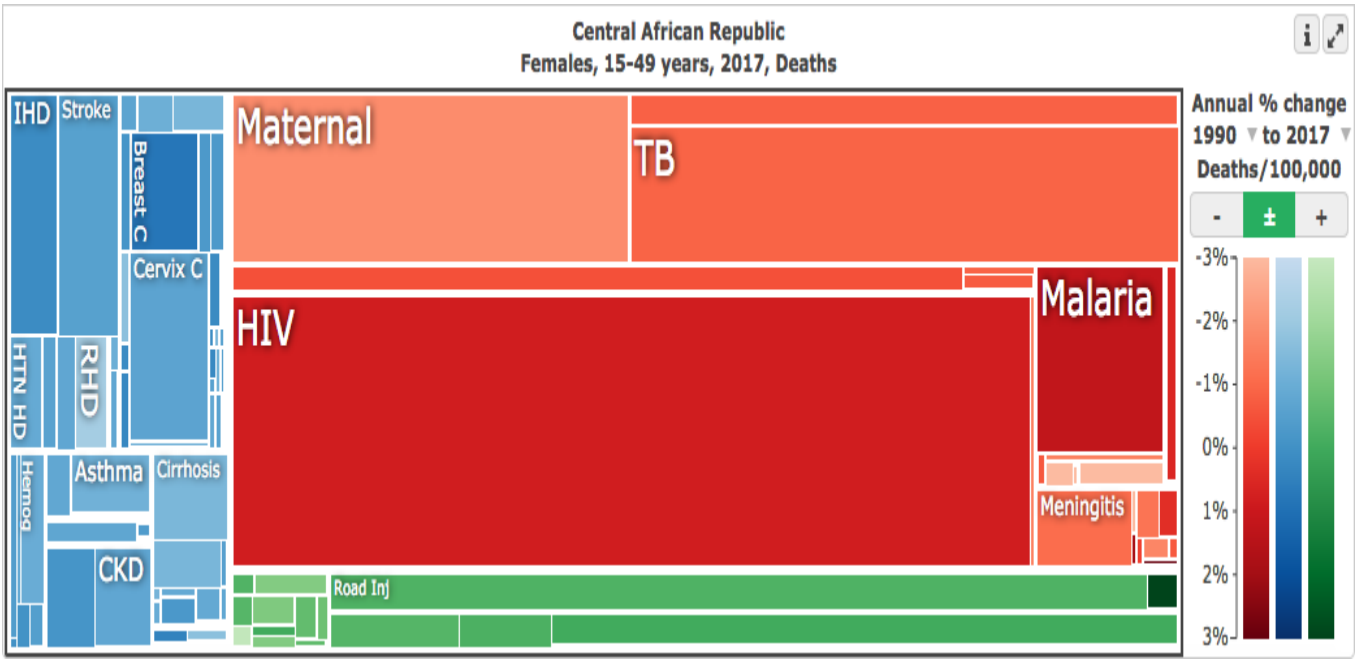
1. Central African Republic: DALYs per 100,000 population (both sexes, all ages, 2017).



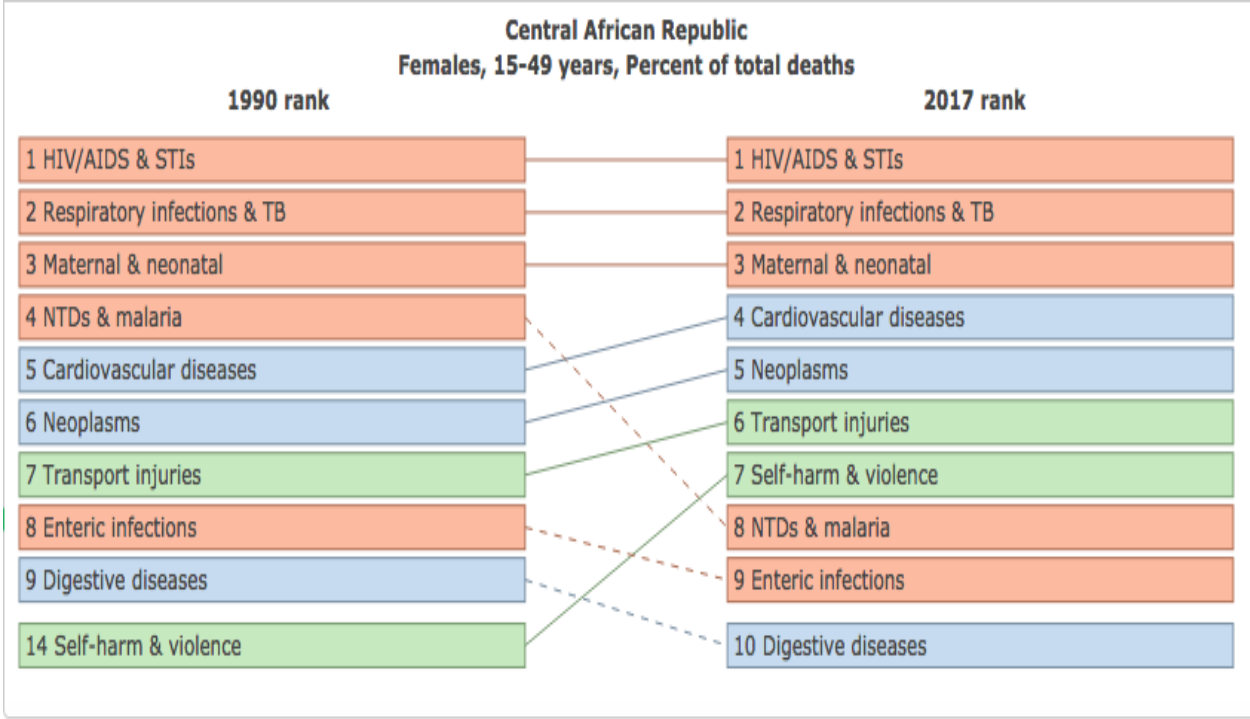
2. Central African Republic: both sexes, all ages, percent of total deaths, 1990 vs 2017.



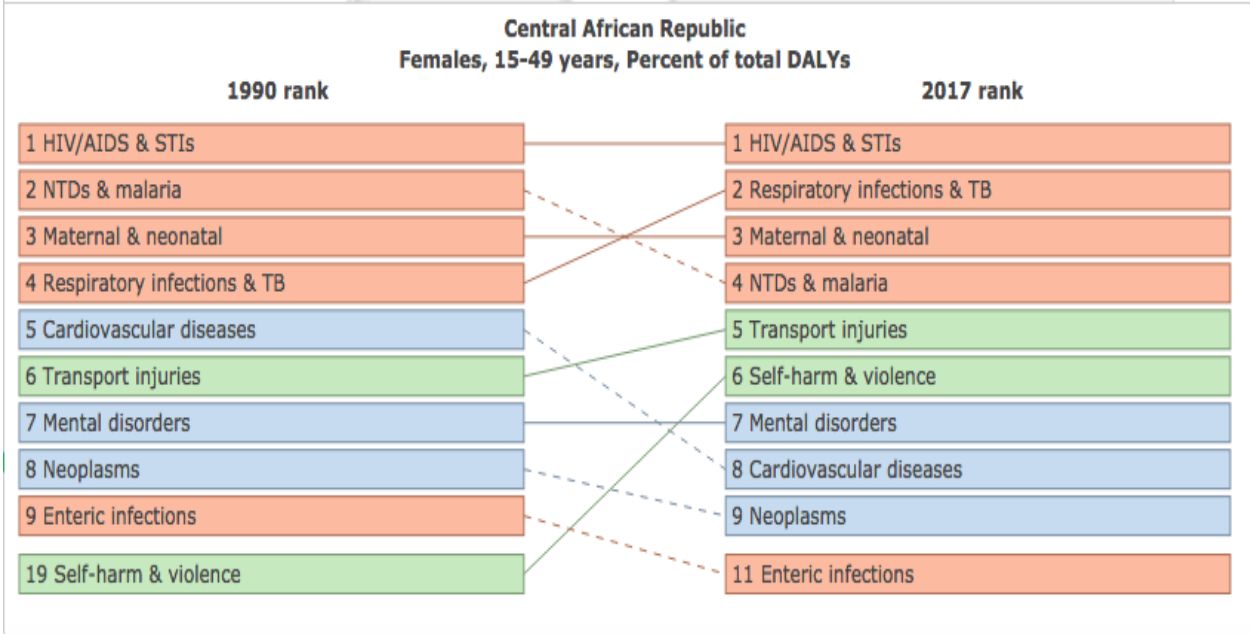
3. Central African Republic: females age 15-49 years, 2017, deaths.



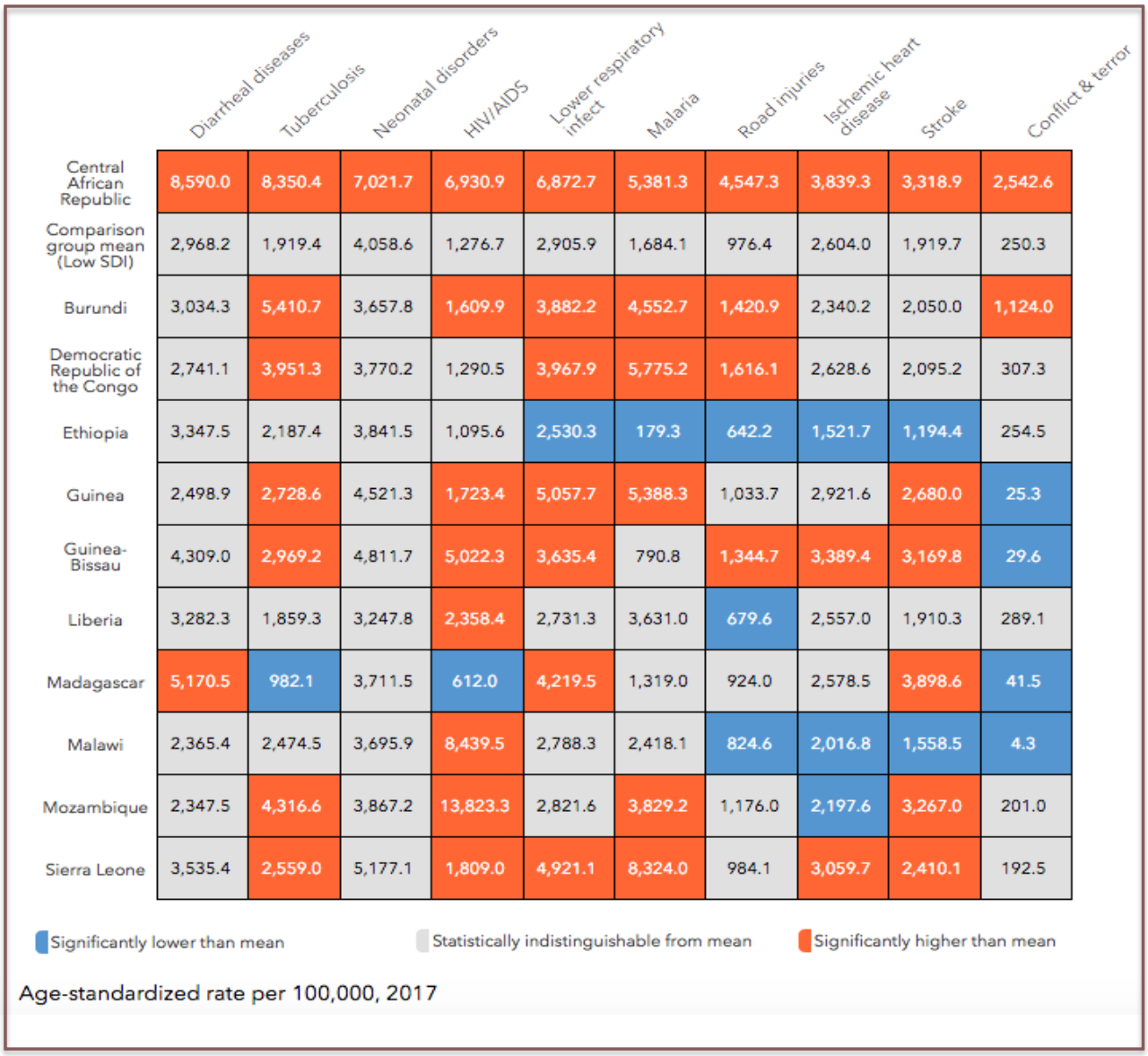
4. Central African Republic: females, age 15-49 years, percent of total deaths, 1990 vs 2017.



5. Central African Republic, females age 15-49 years, percent of total DALYs, 1990 vs 2017.



6. How causes of death and disability (DALYs)in CAR compare to similar contexts.



	Diarrheal diseases	Tuberculosis	Neonatal disorders	HIV/AIDS	Lower respiratory infect	Malaria	Road injuries	Ischemic heart disease	Stroke	Conflict & terror
Central African Republic	8,590.0	8,350.4	7,021.7	6,930.9	6,872.7	5,381.3	4,547.3	3,839.3	3,318.9	2,542.6
Comparison group mean (Low SDI)	2,968.2	1,919.4	4,058.6	1,276.7	2,905.9	1,684.1	976.4	2,604.0	1,919.7	250.3
Burundi	3,034.3	5,410.7	3,657.8	1,609.9	3,882.2	4,552.7	1,420.9	2,340.2	2,050.0	1,124.0
Democratic Republic of the Congo	2,741.1	3,951.3	3,770.2	1,290.5	3,967.9	5,775.2	1,616.1	2,628.6	2,095.2	307.3
Ethiopia	3,347.5	2,187.4	3,841.5	1,095.6	2,530.3	179.3	642.2	1,521.7	1,194.4	254.5
Guinea	2,498.9	2,728.6	4,521.3	1,723.4	5,057.7	5,388.3	1,033.7	2,921.6	2,680.0	25.3
Guinea-Bissau	4,309.0	2,969.2	4,811.7	5,022.3	3,635.4	790.8	1,344.7	3,389.4	3,169.8	29.6
Liberia	3,282.3	1,859.3	3,247.8	2,358.4	2,731.3	3,631.0	679.6	2,557.0	1,910.3	289.1
Madagascar	5,170.5	982.1	3,711.5	612.0	4,219.5	1,319.0	924.0	2,578.5	3,898.6	41.5
Malawi	2,365.4	2,474.5	3,695.9	8,439.5	2,788.3	2,418.1	824.6	2,016.8	1,558.5	4.3
Mozambique	2,347.5	4,316.6	3,867.2	13,823.3	2,821.6	3,829.2	1,176.0	2,197.6	3,267.0	201.0
Sierra Leone	3,535.4	2,559.0	5,177.1	1,809.0	4,921.1	8,324.0	984.1	3,059.7	2,410.1	192.5

APPENDIX 2: TOPIC GUIDE FOR KEY INFORMANT INTERVIEWS

Main research questions for the key informant interviews:

- Relating to specific objective 1: What do experts perceive as the major contributors to unsafe abortion incidence in CAR?
- Relating to specific objective 1: How do experts describe the legal restrictions in CAR when it comes to provision of safe abortion?
- Relating to specific objective 1: How do experts believe health professionals or facilities interpret CAR's abortion laws?
- Relating to specific objective 1: What do experts believe are barriers or enablers to women seeking safe abortion care?
- Relating to specific objective 2: What do experts perceive to be culturally acceptable and contextually feasible advocacy strategies to increase access to safe abortion services in CAR?
- Relating to specific objective 3: What do experts perceive to be culturally acceptable and contextually feasible program interventions to increase access to safe abortion services in CAR?

(a) Introduction, overview of unsafe abortion and consequences, and safe abortion access in CAR (relating to specific objective 1):

(i) Welcome, introduction to study objectives and brief motivation for focusing on unsafe abortion and CAR

(ii) Discussion CAR - current situation

(1) How significant is the problem of unsafe abortion in CAR? What are sources of information for this?

(2) How does this compare to other countries?

(3) What issues contribute most to the incidence of unsafe abortion in CAR? To the level of morbidity and mortality?

(4) How can CAR's abortion laws be described?

(5) How do health professionals and facilities interpret CAR's abortion laws?

(6) How could a woman access a safe abortion in CAR?

(7) What would prevent her from accessing a safe abortion?

(b) Discussion of advocacy strategies and how they might apply to CAR (relating to specific objective 2):

(i) Legal and policy level
    (1) What advocacy for safe abortion laws and policies has taken place in CAR?
        a) Have they been effective?
        b) How could these be more successful?
        c) What are the biggest barriers to change?

(ii) Health systems, facilities and professionals
    (1) How can SAC access be improved under the current legal framework in CAR?
        a) Which health facilities or professionals should be targeted?
        b) Are there specific at-risk groups who are especially vulnerable to stigma from HCWs when seeking abortion? Married vs unmarried? Adult vs adolescent? Rural vs urban? Religious background? Why are they more vulnerable? How could advocacy target these groups in the CAR context?
    (2) How could advocacy for access to safe abortion at health facility level work if SAC were to be decriminalized?
        a) Which health facilities or professionals should be targeted?
        b) Are there specific at-risk groups who are especially vulnerable to stigma from HCWs when seeking abortion? Married vs unmarried? Adult vs adolescent? Rural vs urban? Religious background? Why are they more vulnerable? How could advocacy target these groups in the CAR context?

(iii) Community and individual level:
    (1) What are issues to be considered when doing advocacy, health promotion or education about safe abortion in communities? What approaches would be best to address these?
    (2) Which community groups would be most important to discuss with from an advocacy perspective?
    (3) What strategies are appropriate given the current legal framework? What would be best if SAC were to be decriminalized?
    (4) Are there vulnerable groups most in need of advocacy for SAC access within communities? If yes, who, why, and how should this be approached?

(c) Discussion of program intervention strategies and how they might apply to CAR (relating to specific objective 3):
    (i) Health systems, facilities and professionals
        (1) Which health facilities or health care workers should be targeted for program interventions?
        (2) Which interventions would be most effective in the CAR context? Why?
            a) HCW trainings
            b) Task-sharing of SAC services between different kinds of providers
            c) HCW attitudes
            d) Supply chain
            e) Referral networks
    (ii) Community and individual level:
        (1) How can individuals best be reached to promote change in health-seeking behaviour when it comes to SAC?
        (2) Which groups will be most difficult to reach (vulnerable groups, rural areas etc) and which interventions would work best to reach them?
        (3) How would e-health, phone hotlines, lay health workers or self-managed medical abortion could work in the CAR context? Why would they work (or not)?

(d) Conclusion
    (i) Summary of discussion
    (ii) Allow for questions
        (1) How was this discussion for you?
        (2) Is there anything you would have liked to talk about that we didn't cover?
        (3) Do you have any questions for me?
    (iii) Review how results will be shared and ensure interviewee has researcher's contact information
    (iv) Remind interviewee that if they want to withdraw from the study at any point, that their information will not be used.