# MNTASE CARES

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**COMBATING TEENAGE PREGNANCY IN SOUTH AFRICA:**
**A COMPREHENSIVE & INNOVATIVE APPROACH TO EMPOWERING YOUTH**

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## 1. Introduction

Imagine a future where every young person in South Africa, and eventually all of Africa, has the power to make informed reproductive health choices, breaking free from poverty and teenage pregnancy. Mntase Cares Mobile Clinics is set to turn this vision into reality. By bringing essential services directly to the most vulnerable, these mobile clinics will offer contraception, family planning education, and reproductive health services to male and female youths aged 15 to 24. High rates of teenage pregnancy and limited access to family planning perpetuate cycles of poverty and restrict educational and economic opportunities. Our initiative aims to disrupt this cycle, paving the way for healthier futures and brighter prospects for young Africans and their families.

'Mntase' is a colloquial isiXhosa word commonly used across South Africa. It loosely translates to 'my sibling' and is used affectionately to address someone as a brother or sister when not related by blood. The term conveys a sense of closeness and camaraderie and, in the context of "Mntase Cares," it emphasizes the clinic's commitment to providing health services with a personal, non-judgmental, and familial touch.

The urgency of this mission is highlighted by the stark reality in regions like Matjitjileng village in South Africa, where teenage pregnancy rates are alarmingly high due to factors such as a lack of parental guidance, peer pressure, and limited access to contraceptives and sexual education. Each year, approximately one million teenagers become pregnant, with about 30,000 of them under the age of 18. These high rates are intricately linked to poverty, insufficient education, and cultural stigmas surrounding sexual health discussions. By deploying mobile clinics, we aim to address these challenges head-on, providing youth with the necessary resources and education to make informed reproductive choices (Thobejane, 2015).

Enhancing reproductive health accessibility and advancing environmental sustainability are paramount in fostering a more equitable society (Delacroix & Engelman, 2023). Given the

global human population size, it is imperative to reevaluate the interactions between humans and their environment. Human reproduction and access to family planning are critical ethical issues that address ethical concerns and advance sustainability objectives by managing population growth and alleviating environmental pressures (Taylor, 2019; Rieder, 2016).

Rwanda's remarkable progress in family planning provides a compelling blueprint for our project. Between 2005 and 2015, contraceptive use in Rwanda soared from 17% to 53%, driven by strong government leadership, innovative use of community health workers, and the integration of family planning with other health services. These efforts resulted in a dramatic reduction in maternal mortality, from 750 to 210 per 100,000 live births, and empowered women through increased educational and economic opportunities. By gaining greater control over their reproductive lives, Rwandan women could make informed decisions about the timing and number of their children, significantly improving health outcomes and enabling higher participation in education and the workforce. For instance, women's labor force participation in Rwanda increased from 61% in 2005 to 77% in 2015. Additionally, access to family planning services was linked to improved maternal and child health, contributing to reduced infant mortality rates and advancing overall socio-economic development (Schwandt et al., 2018).

Our Mntase Cares project will employ the proven methodologies from Rwanda to overcome service accessibility barriers, particularly in rural areas, and combat the stigma surrounding family planning among adolescents. This comprehensive approach, adapted to the unique needs of South African communities, aims to empower youth, enhance health outcomes, and drive socio-economic development across the continent.

## 2. Problem Statement

The youth of South Africa and the continent face numerous barriers to achieving their potential, including high rates of teenage pregnancy, limited access to reproductive health services, and persistent poverty. These challenges are exacerbated by socioeconomic disparities, gender inequality, and a lack of education. Without access to contraception and family planning services, young people are more likely to experience unintended pregnancies, disrupting their education and limiting future economic opportunities, thus perpetuating cycles of poverty.

A critical distinction must be made between childbearing and pregnancy, as terminated pregnancies and miscarriages often go unrecorded, with statistics typically only reflecting births. According to the African Committee of Experts on the Rights and Welfare of the Child (ACERWC, 2022), nearly four in ten (38%) unintended pregnancies in Africa end in abortion, and the continent accounts for 29% of the global average of unsafe abortions. This alarming statistic indicates the urgent need for effective interventions.

A five-year review of statistics reveals a concerning trend: across all indicators of "Deliveries and terminations of pregnancy in adolescent girls aged 10-19 in the public health sector, South Africa," there has been a significant increase. Particularly troubling is the 48.7 percent rise in deliveries to girls aged 10-14 years old over this period (Barron et al., 2022). Teen pregnancies remain a pressing issue in South Africa, with a study indicating a consistent increase across all provinces from 2017 to 2021. A multi-sector approach is necessary, emphasizing the use of digital platforms and community-based channels to improve access to information, support, and services, especially in rural and underserved areas (Barron et al., 2022).

## 3. Literature Review

The issue of teenage pregnancy in Africa is complex, involving socioeconomic, cultural, criminal, and educational factors. A thorough literature review highlights the intricacies of this problem and the need for a multi-faceted solution, such as the Mobile Family Planning Clinics for Youth Empowerment in Africa project. Successful initiatives, like Marie Stopes International mobile clinics providing reproductive health services in remote areas and the UNFPA's adolescent reproductive health programs, serve as models.

### 3.1 Scope of the Problem in South Africa and the Continent

Africa has the highest percentage of girls under 15 engaging in sexual activity (Exhibit 5) and the highest "unmet need for family planning for limiting, sexually active unmarried women aged 15-24," with South Africa ranking third (Exhibit 6). In South Africa, 91 out of 1000 girls aged 10-19 in the Northern Cape and Northwest give birth (Exhibit 4), close to the WHO African region average of 97 per 1000. The WHO European region's rate is significantly lower at 13.1 per 1000 adolescent girls in 2023 (who.int).

Much of Africa is rural, making it crucial to bring solutions to prevent unplanned pregnancies to girls in these areas (Exhibit 7). Family planning programs show significant improvements in health, poverty reduction, and female empowerment. However, today's youth face barriers in accessing these services, including insufficient information, limited healthcare availability, community and religious resistance, stigma, misconceptions about side effects, and high financial costs (Bongaarts, 2023).

Meeting the demand for family planning could dramatically reduce unwanted pregnancies, maternal mortality rates, and infant deaths. Adolescent pregnancy (ages 10-19) is associated with high maternal mortality rates. The global Maternal Mortality Rate (MMR) is 210 maternal deaths per 100,000 live births, rising to 640 per 100,000 in Sub-Saharan Africa, 15 times higher than in developing countries. Nigerian rates are even higher at 723 per 100,000 (Kolleh et al., 2022). The MMR in Europe and North America is 16 and 23 deaths per 100,000 live births, respectively, according to the World Health Organization in 2010. In Sub-Saharan Africa, it is

545.1 per 100,000 live births (UNFPA, 2016). South Africa reported an MMR of 127 in 2020 (Macrotrends, 2024).

Kenya has the most severe teenage pregnancy crisis in East Africa, with a prevalence rate of 15%. Contraceptive use among adolescent expectant mothers is significantly lower (11.5%) compared to adults (48.3%) (Kemuma Mokua et al., 2024). According to UNICEF, 15% of women aged 20-24 years gave birth before they were 18 between 2003 and 2004 in South Africa (data.unicef.org).

Abortion poses significant health risks for young women in developing countries. Sub-Saharan Africa accounts for 75% of unplanned pregnancies and 25% of unsafe abortions. In 2008, nearly all of the 43.8 million induced abortions occurred in developing nations, with 41% involving women aged 15 to 24 (Statistics South Africa, 2016; Sithole & Appunni, 2024). Studies have found that despite not planning to have children, about 60% of young women did not use contraceptives, resulting in unintended pregnancies. Similarly, MacPhail et al. (2007) noted that less than half of sexually active young women under 24 consistently used contraceptives.

Former South African Minister of Basic Education Angie Motshekga called teenage pregnancy a “national crisis” on 29 August 2021, explaining that it perpetuates poverty, disrupts growth and development, and contributes to high dropout rates in South African schools (Fourie & Lamb, 2020).

Teenage pregnancy is linked to mental health complications for adolescent parents, including stigma, exclusion, and rejection, which increase their vulnerability to mental illness and risky behavior, perpetuating the cycle of adolescent pregnancy and HIV infection through unprotected sex. Parental mental health also affects their children's developmental outcomes (ACERWC, 2022).

Young women from marginalized communities often lack access to family planning options, making them particularly vulnerable to developmental degradation. Reproductive

empowerment is not only a health and rights issue but also an environmental strategy to promote sustainability (Delacroix & Engelman, 2023).

Daughters of teenage mothers face increased risks of early pregnancy due to single-parent households, lower socioeconomic status, maternal education levels, ethnic background, parental instability, early puberty, peer pressure, high-risk behavior, and academic underachievement (Woodward et al., 2001). Poor parenting skills and financial hardship can drive teenagers to engage in early sexual activities, including transactional sex (Gyan, 2013).

### 3.2 Efficiency of Mobile Clinics and ICTs

Kenya has effectively used Information and Communication Technology (ICT) to enhance reproductive health services, particularly for remote and underserved regions. Initiatives like Text2Speak and m4RH provide family planning and maternal health information via SMS. Telemedicine allows remote consultations, and mobile applications offer services like menstrual cycle tracking and contraceptive reminders. Digital health records improve data management, and social media platforms like Facebook and Twitter promote awareness and community engagement on reproductive health issues (Wagacha, 2015).

South Africa exhibits high mobile phone penetration, with 134.8 mobile subscriptions per 100 people in 2012 (International Telecommunications Union). A 2011 survey reported that 80% of South African adults have access to a mobile phone, compared to just 15% with a landline at home. Gender disparities in mobile ownership are minimal, with a 5% higher ownership among men. Research involving 411 low-income youths in Cape Town indicated that 77% own their phones, highlighting widespread access to mobile technology among the youth and economically disadvantaged groups (International Telecommunications Union, 2013).

A randomized controlled trial (RCT) assessed the feasibility and efficacy of information and follow-up provided via mobile phone after medical abortion in South Africa for 234 women in 2011. The study found that text messages were highly acceptable, providing guidance and support throughout the process. Privacy concerns were minimal, and the study concluded that mobile phones could simplify medical abortion provision. Findings align with other

studies on SMS messages in healthcare, suggesting text messages and questionnaires can be adapted for other medical conditions (De Tolly & Constant, 2014).

The 2014 Kenya Demographic and Health Survey revealed that a significant number of young women between 15 and 19 are already mothers or pregnant with their first child, with rates of 15% and 18% respectively. This indicates the necessity for effective Adolescent Sexual Reproductive Health (ASRH) information. Early pregnancy is often linked to ongoing poverty, highlighting the critical need for accessible ASRH information. A study found that 69% of adolescents had access to both mobile phones and the internet, identifying mobile phones as an optimal platform for disseminating ASRH content to mitigate issues like unintended pregnancies, sexually transmitted infections (STIs), and unsafe abortions.

Mobile clinics in South Africa have been well-documented. A Cape Town study involving over 300 patients revealed that mobile clinics attracted more men and younger patients and yielded more HIV diagnoses compared to conventional clinics (Smith et al., 2019). Similarly, an Egyptian study found that mobile clinics in the Assiut region were more effective in providing long-term protection through IUD use than static clinics (Al-Attar et al., 2017). Digital media, including mobile applications, have proven effective in disseminating contraception options and reproductive health information to young women aged 15-24, particularly when the target age group was involved in their development (Akinola et al., 2019).

3.3 Efficiency of Proposed Interventions: Condoms, Copper T, Injection/Pills, and Family Planning Education

The effectiveness of contraceptive methods is measured using the Pearl Index (PI), with lower values indicating higher effectiveness. According to PI values, the most effective methods are:

Progesterone-Only Implant (PI = 0.05)
Progestogen-Only Injection (PI = 0.2)
Levonorgestrel Intra-Uterine System (PI = 0.2)
Combined Hormonal Contraception (PI = 0.3)
Progestogen-Only Pill (PI = 0.3)

Female Sterilization (PI = 0.5)

Copper Intra-Uterine Device (PI = 0.6)

Barrier Methods (Condoms) (PI = 2-18)

Natural Methods (Fertility Awareness Methods/Abstinence, Coitus Interruptus) (PI = 0.4-5)

Emergency Contraception (Levonorgestrel or Ulipristal Acetate) (PI = 0.05)

When considering contraception options, it is essential to evaluate both hormonal and non-hormonal methods based on individual factors, effectiveness, and cost. The Copper T device, which ranks sixth among reversible contraceptives, provides significant benefits, such as the absence of hormonal exposure and immediate reversibility. Non-hormonal alternatives like barrier methods, Copper IUDs, female sterilization, and vasectomy offer effective contraception without hormonal complications. Personal medical history, lifestyle, and preferences play vital roles in selecting the most suitable contraceptive method (Pollacco J, 2024).

From a cost-effectiveness perspective, injectable progesterone is economically favorable but requires regular administration every two to three months, potentially increasing overall costs compared to other methods. The Copper T device is a cost-effective solution among reversible methods. Although progesterone IUDs and implants are more expensive initially, they are highly effective. In terms of long-term costs, the progesterone IUD (57% cost-effective) is more economical compared to implants (28.5% cost-effective) (Amalia et al., 2023). IUDs typically incur lower upfront costs and fewer ongoing expenses than implantable devices, offering better value over time (Amalia et al., 2023).

Numerous interventions exist to prevent pregnancy, such as parental involvement, community involvement, education, and youth programs (Denwigwe, 2018; Harden et al., 2009; Nkhoma et al., 2020; Oyedele et al., 2015). A holistic approach is required to address teenage pregnancy, involving family, school, society, and healthcare professionals (Gyan, 2013).

The Teenage Mothers Project (TMP) in Uganda empowers unmarried teenage mothers through a community-based approach, providing support in education, income generation,

and coping with stigma and motherhood. Key components include community sensitization, support groups, counselling, and advocacy, emphasizing continued education and economic autonomy to improve participants' psychological and social well-being (Leerlooijer et al., 2013).

Project TEEN Mirrors of Motherhood (M.O.M.) is an arts-based media production research initiative designed to empower pregnant teenagers and young mothers at Elizabeth House, Montreal. Utilizing digital photography, art, and video, it enables participants to reframe and present their life issues, encouraging community participation and policy discussions. The project culminates in exhibits, film screenings, and a website, fostering self-knowledge, social awareness, and public engagement (Levy L, 2011).

The Taking Charge Program in the United States is a school-based life skills initiative designed to help teenage mothers at alternative high schools engage more deeply with their education by teaching problem-solving strategies. The program encourages students to address personal challenges in education, relationships, parenting, and career, leading to improved self-efficacy and school engagement (Bolla, 2020).

### 3.4 Current Policy and Legal Framework

In South Africa, Section 13 of the Children's Act 38 of 2005 states, "Every child has the right to- (a) have access to information on health promotion and the prevention and treatment of ill-health and disease, sexuality and reproduction." However, unplanned and adolescent pregnancies remain high. The age of sexual consent in South Africa is 16 years. According to the Criminal Law (Sexual Offences and Related Matters) Amendment Act no 32 of 2007, sex with a child between the ages of 12 and 16 is deemed statutory rape unless both parties are within this age range. Children under 12 are incapable of consenting to a sexual act (Section 57). The South African government gazetted the Department of Basic Education's Policy on the Prevention and Management of Learner Pregnancy in Schools in December 2021, outlining guiding principles for sexual and reproductive health in schools. The guidelines require schools to create enabling environments for pre- and post-natal schoolgirls, access to pregnancy prevention and care, and counselling and support for adolescent mothers (RSA Department of Education, 2023).

The African Charter on the Rights and Welfare of the Child of 1990 states, "Parties to the present Charter shall take all appropriate measures to ensure that children who become pregnant before completing their education shall have an opportunity to continue with their education on the basis of their individual ability." The custodian of the charter, the African Committee of Experts on the Rights and Welfare of the Child (ACERWC), released a report highlighting that while teenage pregnancy affects girls globally, those in Africa are at greater risk. Contributing factors include poverty, low levels of education, economic status, family and community attitudes, and lack of access to reproductive health services.

Unplanned and adolescent pregnancies hinder global poverty reduction and ensure that all people live in peace and prosperity. SDG 3.7 states, "Ensure universal access to sexual and reproductive health-care services, including family planning, information and education, and the integration of reproductive health into national strategies and programs." The WHO notes, "Contraceptives are not easily accessible to adolescents in many places. Even when adolescents can obtain contraceptives, they may lack the agency or resources to pay for them, knowledge on where to obtain them, and how to use them correctly" (WHO, 2024).

### 3.5 Religious and Cultural Sensitivities in Africa

Religious beliefs frequently act as barriers to contraceptive use. Higher fertility rates are associated with followers of African Indigenous Religions and Islam, while Christian denominations, particularly Protestants, show lower fertility rates (Turner, 2021). Religious leaders influence fertility and contraceptive practices, suggesting that educating them on family planning benefits could improve contraceptive uptake and reduce fertility rates. Women in sub-Saharan Africa face cultural pressures such as patriarchal family structures where husbands or family members make reproductive decisions, taboos on discussing sexual health, and fear of disapproval or abuse from partners and family. Contraceptive use is often viewed negatively, linked to promiscuity, and misconceptions about safety and effectiveness persist (Sharma, 2022). In Ghana, teenagers become pregnant for various reasons, including economic gain, respect from society, lack of sex education, and sexual violence (Konadu Gyesaw & Ankomah, 2013).

### 3.6 Innovative Financing Through Social Impact Bonds

Social impact bonds (SIBs) are an innovative financing instrument using private investment to fund public services with defined social goals. Investors supply upfront funds, and the government repays them only if predetermined results are met, sometimes with a return on investment. SIBs have been used to improve maternal health outcomes in many health projects, including South Carolina's Nurse-Family Partnership program (Crowley, 2014). Benefits include aligning stakeholder incentives, supporting evidence-based solutions, and potential cost savings for the government. However, challenges such as complex agreements, the need for rigorous evaluation, and the risk of prioritizing easily measurable outcomes above qualitative advantages exist (Stoesz, 2014; Warner, 2013). In funding teenage pregnancy mobile clinics in South Africa, SIBs may attract private investment to cover initial expenses and deliver reproductive health services, securing long-term support by linking repayment to lower adolescent pregnancy rates and better health outcomes.

### 3.7 Case Studies

Rwanda's success story in family planning, characterized by a shift from controlling population size to empowering citizens, saw contraceptive usage increase from 17% to 53% between 2005 and 2015. Robust governmental leadership, community health worker deployment, and education on sustainable childbearing practices contributed to reducing maternal mortality and alleviating poverty. This integrated approach improved health outcomes and socio-economic empowerment, illustrating a replicable model for national development (Schwandt et al., 2018).

The family planning program in Palestine saw an increase in contraceptive prevalence from 51% to 57% between 2000 and 2014, despite challenges like limited contraceptive availability and sociocultural factors (Stavridis et al., n.d.).

Teenage mothers face challenges such as community stigmatization, rejection, inexperience in caring for infants, and balancing increased responsibilities (Konadu Gyesaw & Ankomah, 2013). Early motherhood leads to reduced opportunities due to school dropouts, poor

educational performance, social challenges, economic dependency, and mental health issues (Woodward et al., 2001). Pregnant teenagers who leave school face limited opportunities, and their children risk underperforming academically, perpetuating poverty (Gyan, 2013).

Teenage fathers face challenges, such as low-income backgrounds, less education, fewer job opportunities, emotional issues, and unstable relationships with the child's mother. Financial problems and differing views on fatherhood roles make it hard for them to stay involved with their children (Bunting & McAuley, 2004).

Teenage mothers in Accra, Ghana, receive more support from families and partners than in South Africa, where they experience violence and rejection (Konadu Gyesaw & Ankomah, 2013). Partner support correlates with school dropout but improves psychological well-being and economic outcomes if stable. For children, partner support generally links to better developmental outcomes, although inconsistent involvement reduces these benefits (Atuyambe & Universitetsservice, 2008).

These case studies and strategies highlight the importance of comprehensive, multi-faceted approaches to tackling teenage pregnancy, involving community support, education, and innovative financing to improve reproductive health outcomes across Africa.

## 4. Methodology

The project involves a comprehensive, multi-phase approach designed to address the reproductive health needs of underserved youth. This approach integrates public health principles, community engagement, technology, and continuous monitoring to ensure effectiveness and sustainability.

### 4.1 Interdisciplinary Approach and Data Collection

Leveraging expertise from public health, sociology, education, and public policy, the project begins with a thorough needs assessment in selected pilot regions. This includes surveys, focus group discussions, and community consultations to gather quantitative and qualitative data on the reproductive health needs and challenges faced by the youth in identified regions. Engaging local leaders, healthcare providers, and stakeholders is crucial for understanding the community context and gaining support for the project.

### 4.2 Mobile Clinic Deployment and Services

Mobile clinics will be equipped to offer various contraceptive options (pills, implants, condoms, emergency contraception), reproductive health services (Pregnancy and STI testing, prenatal and postnatal care, general health check-ups), and educational workshops on reproductive health, safe sex practices, and family planning. These clinics aim to overcome barriers such as distance, cost, and stigma, making essential services accessible to underserved areas.

### 4.3 Community Engagement and Education

Community engagement involves setting up educational booths, conducting workshops in schools and community centers, and implementing a mentorship program where volunteers and peer mentors provide guidance and support. Media campaigns utilizing local and social media platforms will raise awareness and reduce the stigma associated with family planning services.

### 4.4 Training Healthcare Providers

Healthcare providers will undergo specialized training to deliver empathetic and effective services. Initial training will occur before the pilot phase, focusing on non-judgmental care. Continuous professional development will be provided every six months to update healthcare providers on best practices and new tools for supporting adolescent girls.

### 4.5 Technology Integration

Technology will enhance service delivery and engagement through the Community Health Toolkit (CHT), customized to include workflows for reproductive health services, data management, and performance tracking. Telehealth consults via WhatsApp will facilitate individual counseling and follow-ups. A custom app with a GPT-based tool will provide instant answers to FAQs, support, and guidance, making it easier for young people to access reproductive health information.

### 4.6 Monitoring and Evaluation

A robust monitoring and evaluation framework will track the project's impact and enable data-driven adjustments. Key Performance Indicators (KPIs) such as the number of clinic visits, contraceptives distributed, teenage pregnancy rates, and patient satisfaction will be monitored. Regular reporting, feedback from beneficiaries and stakeholders, and continuous improvement processes will ensure the project remains effective and relevant.

By implementing this streamlined methodology, the project aims to provide accessible, sustainable, and effective reproductive health services, ultimately improving health outcomes and empowering underserved youth.

### 4.7 Partnering with the government

While “Mntase Cares” seeks to champion this initiative, it must be a collaborative effort that involves the government as well. In our pilot Phase, we will engage with the Department of Education to ensure that children of school going age get age-appropriate sexual education, to break the stigma around sexual health and contraception from an early age.

## 5. Proposed Solution

The proposed solution for addressing the challenges of teenage pregnancy and limited access to family planning services among African youth involves a multipronged approach centered on Mobile Clinics. These clinics will provide essential reproductive health services, family planning education, and support directly to underserved areas, particularly focusing on youth aged 10 to 24 years.

These clinics will be equipped to offer a range of contraceptive options, including pills, implants, condoms, and emergency contraception, as well as menstrual supplies in the form of menstrual cups. In addition to contraception and menstruation services, the clinics will provide comprehensive reproductive health services such as STI testing and treatment, pregnancy testing, basic prenatal care and postnatal care, and general health check-ups. By bringing these services directly to the communities, the clinics aim to overcome the transactional costs and barriers to access, such as distance, cost, and stigma associated with visiting fixed healthcare facilities. The use of specifically kitted motorcycles would function to increase targeted penetration to areas based on need.

Education is a crucial component of the solution. The clinics will conduct workshops and individual counseling sessions to educate young people about reproductive health, safe sex practices, and basic physiology. This education will empower youth to make informed decisions about their reproductive health and reduce the incidence of unintended pregnancies.

Parents of adolescents and children of all ages will also be invited to our workshops to equip them with various tools on how to manage the challenges they face in raising adolescent children and to help them educate their children around sexual health and break the stigma regarding speaking with children about sex. This will break boundaries and improve communication channels between mother and child.

Engaging with local communities is vital for the project's success. The initiative will work closely with community leaders, schools, and local organizations to raise awareness about the importance of reproductive health. Efforts will be made to reduce the stigma associated with using such services and to create a supportive environment for youth seeking these services.

In addition to health services, the project will offer counseling and support services to the youth. This includes mental health support and mentoring for young people, with specific programs targeting boys and girls, young mothers and families. The project will ensure collaboration with law enforcement in cases of statutory rape and sexual assault.

Mobile technology will be leveraged to enhance service delivery and engagement. A website and a custom app will be developed to schedule clinic visits, provide educational content, and follow up with patients. The app will also feature a GPT-based tool to answer frequently asked questions and provide tailored support to users. Telehealth consults via WhatsApp will be integrated for real-time communication with healthcare providers and counsellors where needed.

The project will involve collaboration between government, healthcare providers, educational institutions, corporates, and non-profits. This partnership model will ensure comprehensive support and sustainability of the project, combining resources and expertise from various sectors.

## 6. Implementation Plan

The implementation will be done in two distinct phases: the Pilot and Scaling Phase. Each phase is designed to ensure the project's feasibility, effectiveness, and sustainability, ultimately aiming to provide comprehensive reproductive health services and education to underserved youth populations.

### 6.1 Pilot Phase

The 12-month pilot phase will focus on testing the feasibility and effectiveness of mobile family planning clinics in a controlled setting. This phase will take place in two selected regions: one rural and one underserved urban area within South Africa. Initially, a needs assessment will be conducted through surveys and focus group discussions to understand the specific challenges faced by the target youth population. Surveys and focus group discussions will be conducted to understand the specific needs and challenges faced by the target youth population. CHT will be used for baseline data harvesting and needs assessment and community buy-in through engagement will be key at this stage.

At this stage a volunteer drive will recruit at least 20 mentors to support young girls in the program. These mentors will engage with the girls on a one-on-one or one-on-two basis, providing guidance and wisdom. Monthly workshops will feature interactive learning activities, such as dramatic arts with educational messages. The cohort will receive practical tools and knowledge, including pamphlets on reproductive health. A WhatsApp group will facilitate continuous interaction and information sharing. Educational booths will provide detailed information about contraception methods.

Peer mentors, selected from academically strong Matric students, will foster relationships with younger schoolgirls, providing guidance and referring urgent matters to senior mentors. The mentorship program will also target young boys, educating them about the dangers of not using condoms and providing guidance on fatherhood and responsible sexual behavior.

The program could partner with the Department of Health's initiative "mababuye bephila." In traditional Xhosa culture, young initiates were taught to sleep with a young lady without protection to remove bad luck. By partnering with initiation schools, mentors will deliver talks

and mentorship to these initiates, educating them on the dangers of unprotected sex and sharing real-life experiences of early fatherhood. This partnership will continue even after the initiates return to their communities, ensuring ongoing mentorship and support.

Once the needs assessment is completed, two mobile clinics will be equipped and deployed in the selected regions. These clinics will be staffed with specialized and experienced nurses familiar with the communities they serve. The services offered will include a range of contraceptives, reproductive health services, and educational materials. Additionally, telehealth sessions via WhatsApp will be integrated on a case-by-case basis.

The Initial offering will include:

- Depo-Provera
- Copper T
- Condoms
- Pregnancy testing
- Menstrual Cups
- STI testing, treatment and referrals
- Antenatal and postnatal care and referrals
- Provision and distribution of hard copy educational materials in the local language and English
- Conduct workshops on common issues to the area
- A website/app with:
    - Electronic copies of educational materials
    - Access to basic, individual tele counseling and specialist tele consults via WhatsApp.
    - Access to a curated mentorship network
    - A custom GPT based tool to handle FAQs

Community engagement will be an integral part of the pilot phase. Efforts will be made to raise awareness of the clinic and its services and reduce the stigma associated with using them. This will be achieved through local media and community events promoting the clinics and disseminating basic information about reproductive health.

A significant barrier to contraceptive use among young girls in South Africa is the stigma perpetuated by healthcare providers at government clinics. To address this, the initiative will deploy mobile clinics staffed with healthcare professionals who have undergone specialized training to develop empathy and understanding towards adolescent girls seeking contraceptive services. Initial training will occur before the mobile clinics open during the pilot phase. Every six months, healthcare professionals will receive refresher training and new tools to continue supporting the young girls using the clinic services.

By ensuring healthcare providers are well-trained and empathetic, the initiative aims to create a supportive and non-judgmental environment, encouraging more young girls to access and consistently use contraceptive services.

The Community Health Toolkit (CHT) will be implemented to assess needs, schedule clinic visits, and manage timetables. A website and/or custom app featuring educational resources, referral networks, CHT integration, and a GPT-based tool will be developed to answer frequently asked questions and offer support to users in an anonymous space.

The integration of the Community Health Toolkit (CHT) and telehealth consults via WhatsApp is a key innovation. The CHT will be customized to include specific workflows for reproductive health services, ensuring efficient data collection, reporting, and performance tracking. Telehealth consults will be facilitated using WhatsApp, both standalone and integrated within the custom app, enabling individual counseling and follow-ups. WhatsApp will also be used for reminders, educational content, and direct communication with healthcare providers, enhancing patient engagement.

A custom app featuring a GPT-based tool will provide instant answers to FAQs, support, and guidance for youth. This app will include multimedia resources and interactive features to enhance user engagement and education. Leveraging advanced technology, the app will serve as a comprehensive resource for reproductive health information, making it easier for young people to access the support they need.

Appendix 2 shows cost estimates for the pilot phase of the project. Appendix 3 shows cost

estimates for the scaling phase assuming financial analysis after pilot phase shows need for progression to scaling phase.

## 6.2 Scaling Phase

Following the successful completion of the pilot phase, the project will enter the scaling phase, which will span 24 to 36 months (about 3 years). This phase aims to expand the mobile family planning clinics to additional regions based on the findings from the pilot phase. Expansion planning will involve identifying new regions for deployment, securing funding, and establishing partnerships with local healthcare organizations, NGOs, corporations, and government agencies. The project will seek funding from Private sector organizations with ESG goals aligning with its mission through innovative mechanisms such as Social Impact Bonds (SIBs), government NHI grants, health-focused NGOs such as the Gates Foundation, WHO, UNICEF, UNFPA, and Save the Children. This will ensure that funding is utilized effectively to meet the intended outcome of teenage pregnancy reduction.

Capacity building will be a priority during this phase. Additional healthcare professionals and community educators will be trained to support the expanded operations. Partnerships with local entities will be strengthened to ensure a collaborative approach to service delivery. The infrastructure will be enhanced by acquiring and equipping additional mobile clinics, bikes and establishing regional hubs for logistical support and coordination.

Service provision will continue to be comprehensive, replicating successful elements from the pilot phase and introducing more contraceptive options as resources allow. Tailored community engagement strategies will be implemented in new regions, drawing on feedback from the pilot phase to improve outreach and maintain relevance. The technology integration initiated in the pilot phase will be scaled up, ensuring consistent use of the CHT and the custom app across all regions.

Monitoring and evaluation will be ongoing throughout the implementation process. Baseline data on teenage pregnancy rates, contraceptive use, and health outcomes will be established, and data on clinic utilization, patient satisfaction, and health outcomes will be continuously collected and analyzed. This will enable the project team to adjust strategies based on real-time data and feedback, ensuring the program’s impact is maximized.

The phased implementation approach, combined with continuous monitoring and evaluation, will ensure that the project is effectively executed, scalable, and sustainable. By addressing the reproductive health needs of underserved youth, the project aims to significantly reduce teenage pregnancy rates, improve health outcomes, and empower young people to make informed decisions about their reproductive health.

The budget will include costs for mobile clinics, medical supplies, training materials, staff salaries, and operational expenses. Funding will be sourced from government grants, private sector investments, and international aid.

### 6.3 Sustainability

To ensure long-term sustainability, the project will develop local capacity by training healthcare workers and establishing self-sustaining mobile clinic operations. Continuous engagement with private and public sector partners will secure long-term funding. Integrating mobile clinics into the existing healthcare infrastructure will ensure they become a permanent part of the community's health services.

### 6.4 Advocacy and Policy Engagement

Advocacy and policy engagement are essential for creating a supportive environment for reproductive health services and family planning education. The project will actively advocate for policies that enhance these areas and engage with policymakers to address barriers to access and promote gender equality. By collaborating with government officials, the project aims to influence policy changes that improve health outcomes and empower young people.

### 6.5 Capacity for Adaptation

Flexibility and adaptability are crucial for the project's success. The program will be designed to respond to changing circumstances and new challenges. Continuous feedback from beneficiaries and stakeholders will be gathered to improve service delivery. This iterative process will ensure the project remains relevant and effective in meeting the needs of the target population.

## 6.6 Long-term Impact

The project aims to create a generational shift in attitudes towards family planning and reproductive health. By empowering and educating youth, the project will contribute to socio-economic development. Empowered youth with control over their reproductive health can pursue education and economic opportunities, breaking cycles of poverty and inequality. This generational shift will foster informed decision-making and gender equality, leading to sustainable development.

## 7. Evaluation and Monitoring

The project's evaluation and monitoring framework is designed to ensure the initiative's effectiveness, efficiency, and sustainability. This framework will use a combination of qualitative and quantitative methods to assess the project's impact and make data-driven adjustments to improve outcomes continuously.

### 7.1 Key Performance Indicators (KPIs)

To measure the project's success, several KPIs will be tracked:

*Service Utilization:* This will include the number of young adults accessing contraception and family planning services, the total number of clinic visits, and the number of contraceptives distributed. These metrics will help gauge the reach and acceptance of mobile clinics within the target communities.

*Health Outcomes:* Reduction in teenage pregnancy rates and improvements in reproductive health outcomes will be critical indicators of the project's impact. Data will be collected on STI rates, maternal and infant health statistics, and the participants' overall health status.

*Educational Impact:* The number and quality of educational workshops conducted, along with participant engagement and feedback, will be assessed. This will include measuring the increase in knowledge about reproductive health and family planning among the youth.

*Participant Satisfaction:* Regular surveys and focus group discussions will be conducted to gather feedback from the participants. This will include their satisfaction with the services provided, the effectiveness of the educational components, and their overall experience with the mobile clinics.

*Community Engagement:* The level of community involvement and support will be measured through engagement metrics, such as participation in community events and the number of local partnerships established.

## 7.2 Data Collection Methods

Data will be collected through various methods to ensure a comprehensive evaluation:

*Surveys:* Regular surveys will be distributed to participants to gather quantitative data on service utilization, health outcomes, and satisfaction levels.

*Focus Group Discussions:* These discussions will provide qualitative insights into the experiences and perceptions of the participants, helping to identify areas for improvement.

*Health Records:* Detailed health records will be maintained and analyzed to track changes in reproductive health outcomes and identify trends over time.

*Community Feedback:* Feedback from community leaders and local organizations will be gathered to assess the level of community support and identify potential barriers to success.

## 7.3 Feedback Mechanism

A robust feedback mechanism will be established to ensure continuous improvement. This will involve:

*Regular Reporting:* Monthly and quarterly reports will be generated to summarize the data collected and highlight key findings.

*Review Meetings:* Regular meetings with project stakeholders, including healthcare providers, community leaders, and NGO partners, will be held to review progress and discuss any challenges or opportunities.

*Adjustment Plans:* Based on the feedback and data analysis, adjustment plans will be developed and implemented to address any identified issues and enhance the project's effectiveness.

## 8. Conclusion

Empowering young women to make crucial decisions about their future will uplift individuals, families, and entire communities. Mobile Family Planning Clinics for Youth Empowerment in Africa presents a comprehensive, innovative approach to tackling the challenges of teenage pregnancy, limited access to reproductive health services, and entrenched poverty. Through a collaborative private-public partnership, this initiative addresses health, educational, and economic challenges, ensuring sustainable development and social inclusion.

By focusing on the specific needs of South African communities and integrating cutting-edge technology and community engagement strategies, this initiative aims to create a sustainable impact. The project's multipronged approach, which includes deploying mobile clinics, providing extensive education and support, engaging local communities, and incorporating advanced technology, addresses the multifaceted nature of the problem.

The focus on a collaborative private-public partnership ensures that the project harnesses the strengths and resources of various sectors, enhancing its reach and effectiveness. By building local capacity, training healthcare providers, and continuously engaging with policymakers, the initiative will foster a supportive environment that promotes gender equality and socio-economic development.

As we implement this project, we envision a future where young South Africans have the knowledge, resources, and support to make empowered decisions about their reproductive health. This generational shift will not only improve health outcomes but also break the cycles of poverty and inequality, leading to sustainable development and social inclusion. Through this initiative, we are not just providing services; we are creating a movement towards a brighter, healthier future for the youth of South Africa. This is a bold step towards realizing a future where every young person has the power to shape their destiny, contributing to a more equitable and prosperous society for all.

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10. **APPENDICES**

*Appendix 1:* Photographs of existing Mobile Clinics in use in South Africa


*Appendix 2: Costing Table – Pilot Phase (12 Month estimates)*

| PHASE 1: PILOT (12 months) | |
|---|---|
| | ZAR |
| **Initial Set-up & Capital Costs:** | |
| Mobile Clinic | 2,000,000 |
| Mobile Clinic Medical Equipment (Diagnostics, Vital Signs Monitoring, Laboratory, Emergency) | 200,000 |
| Community Health Toolkit and supplies – 12-month supply | 200,000 |
| IT Infrastructure (Hardware, Website & App Development) | 300,000 |
| Marketing and Branding Campaign (pamphlets, Radio, TV, T-shirts) | 250,000 |
| Launch Event | 200,000 |
| Healthcare Staff Training | 100,000 |
| Legal and Regulatory Compliance: - | |
| *Clinical Facility Application & registration fees* | 100,000 |
| *Nursing Staff Annual Registration Fees (3 nurses)* | 4,500 |
| Research: - | |
| *Focus Groups discussions* | 20,000 |
| *Surveys (10 People for 3 months – R6000 stipend per month)* | 180,000 |
| *Community consultations and Engagement workshops* | 30,000 |
| Contingent Fees (5% of Set-up fees) | 179 225 |
| **Total Initial Set-up Costs** | **3,763,725** |
| **Annual Recurrent Costs** | |
| Salaries and Wages (Annual Salary - Driver, Nurses, Clinic Manager) | 936, 000 |
| Training Costs | 10000 |
| Medical Supplies & consumables (R25 000 monthly) | 300,000 |
| Vehicle Maintenace & Fuel (R40 000 p. m) | 400,000 |
| Telecommunication (R10 000 pm) | 100,000 |

| | |
|---|---|
| Marketing & Outreach Campaigns (TV, Radio, Travel to schools, + social media) | 200,000 |
| Monitoring and Evaluation - (R20 000 pm) | 200,000 |
| contingent Fees 5% of Monthly recurrent fees | 108,842 |
| **Annual Recurrent Costs** | **2,295,300** |
| **Total Year One Costs** | **6,059,025** |

*Appendix 3: Costing Table –Scaling Phase (24-36 Month estimates)*

| PHASE 2: SCALING PHASE (24-36 months) | |
|---|---|
| | ZAR |
| **Subsequent Capital Costs: Some amounts are adjusted for inflation of 6%)** | |
| Additional Mobile Clinics (R2m*4 Trucks) | 8,000,000 |
| Community Health Toolkit (Trucks) | 848 000 |
| Mobile Clinic Medical Equipment (Diagnostics, Vital Signs Monitoring, Laboratory, Emergency) (R200 000 Per mobile clinic) | 800,000 |
| Motorcycles (R25K *2) | 50,000 |
| IT expansion (Hardware) | 100,000 |
| Branding (training guides, pamphlets, booths, banners, T-shirts) | 350,000 |
| Legal and Regulatory Compliance: - | |
| *Clinical Facility Application & registration fees* | 50,000 |
| *Nursing Staff Annual Registration Fees (10 staff)* | 15,000 |
| Contingent Fees (5% of Set-up fees) | 510 650 |
| **Total Subsequent Capital & Set-up Costs** | **10,753,650** |
| **Recurrent Costs – 4 additional Trucks** | |
| Salaries and Wages (936 000p.a*1,06) *4 Trucks | 3,968,640 |
| Medical Supplies & consumables (4*125 000*1,06) | 530,000 |
| Vehicle Maintenace & Fuel (Less travel the more trucks we have) | 400,000 |
| Telecommunication (Split amongst 4 trucks) | 50,000 |
| Marketing & Outreach Campaigns | 200,000 |
| Monitoring and Evaluation and research | 250,000 |
| Contingent Fees 5% of Monthly recurrent fees | 269 932 |
| **Total Recurrent Costs -** | **5 668 572** |
| **Total Costs – Per Annum** | **16 392 222** |

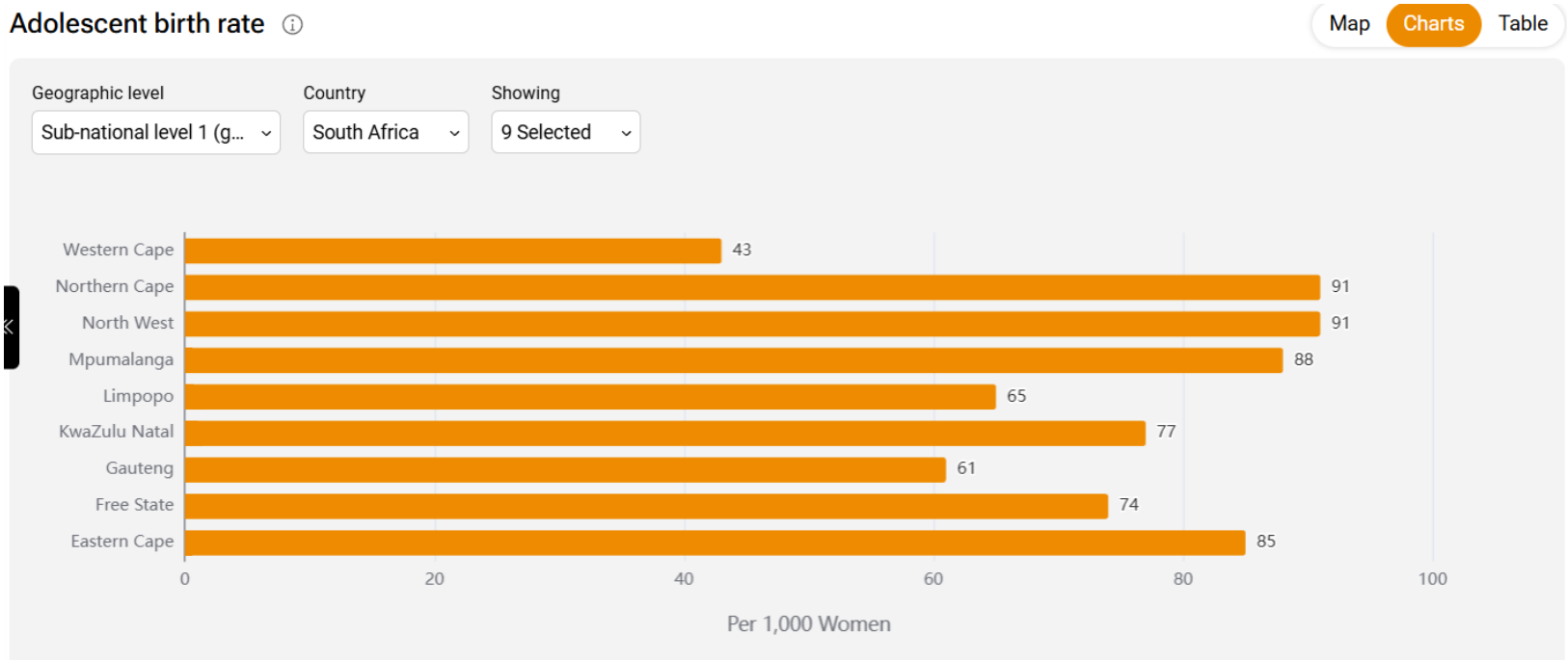
**Cost Summary:**

Total Cost for Phase 1: ZAR 6,059,025

Total Cost for Phase 2: ZAR 10 753 650 (Set-up costs) + Annual costs (R5 668 572 *3 = R17 057 716) = R27 759 366

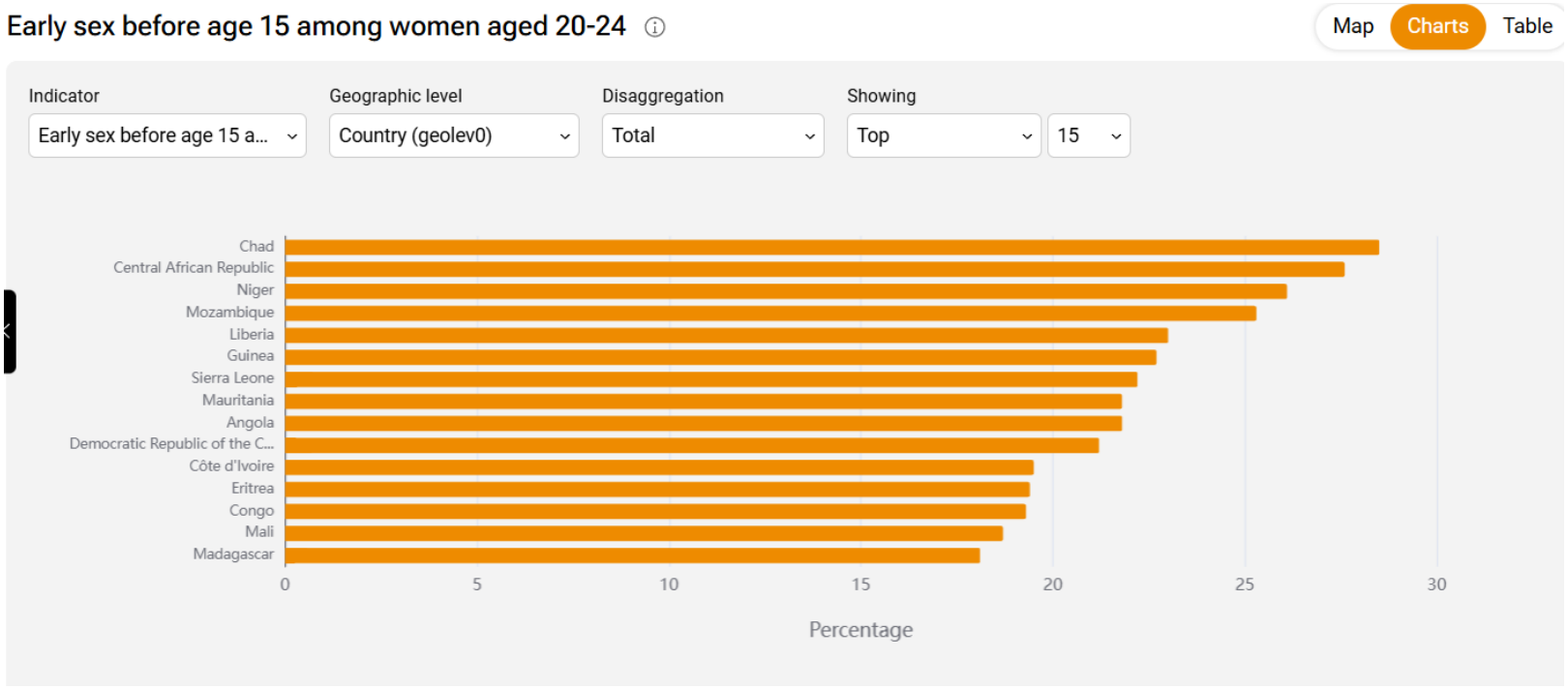
Overall Total Cost: ZAR 33 818 391 (0ver 48 Months)

*Appendix 4*: Adolescent Birth Rate per 1000 women in South Africa by Province



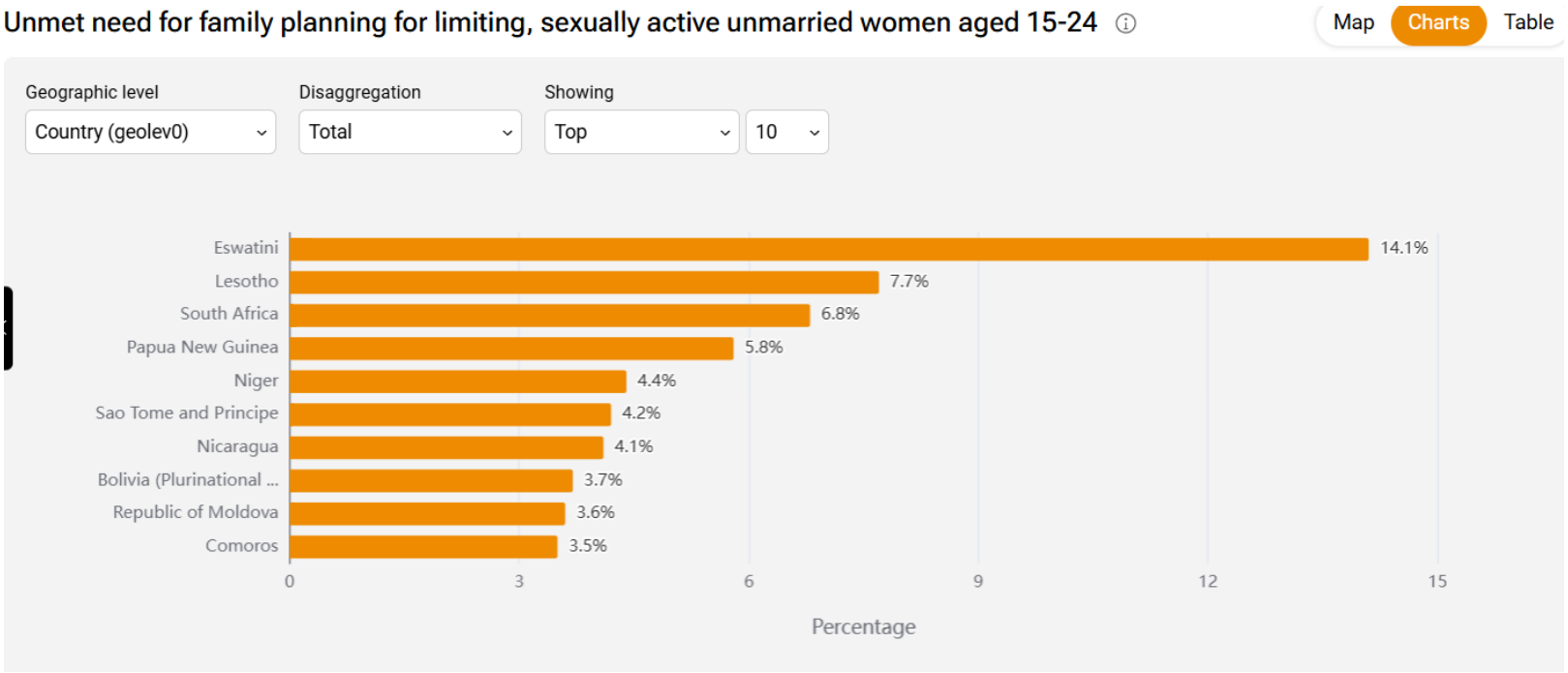

Source: [Population Data Portal (unfpa.org)]

*Appendix 5: Early Sex before age 15 (%) among women aged 20-24 by African Country*



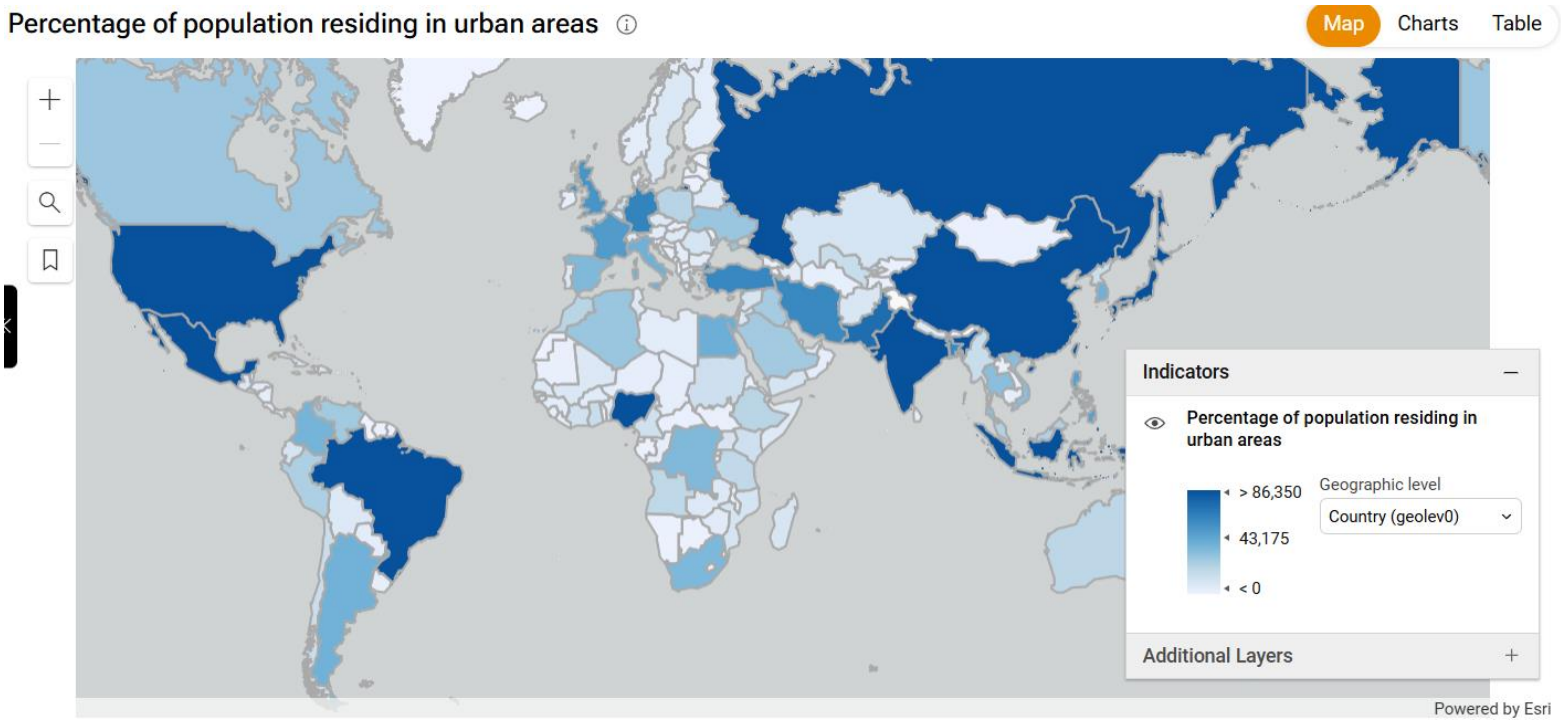

Source: [Population Data Portal (unfpa.org)]

*Appendix 6: Unmet need for family planning for limiting, sexually active unmarried women aged 15-24 (%) by African Country*




Source: [Population Data Portal (unfpa.org)]

*Exhibit 7: Percentage of population residing in urban areas globally*




Source: [Population Data Portal (unfpa.org)]

*Appendix 7: Breakdown of various Contraceptive Methods*

| | **Contraceptive Method** | **Pearl Index (PI)** | **Specific Risks** | **Cost Estimates** |
|---|---|---|---|---|
| 1 | Progestogen-Only Implant (Implanon-Etonogestrel) (Norplant/ Jadelle system - levonorgestrel | 0.05 | Side effects: irregular menstrual bleeding, acne, breast tenderness, mood swings, nausea, headaches, ovarian cysts, bloating, Discomfort in insertion/removal, rare insertion issues<br>Implanon – 3yrs<br>Norplant – 5 yrs | ZAR 1,500 - 3,000<br>EUR 75 - 150 |
| 2 | Progestogen-Only Injection | 0.2 | Decreased bone mineral density with long-term use, Possible weight gain, Delayed return to fertility after discontinuation | ZAR 250 -400, EUR 12.50 - 20. |
| 3 | Levonorgestrel Intra-Uterine System | 0.2 | Side effects: irregular menstrual bleeding, acne, breast tenderness, mood swings, nausea, headaches, ovarian cysts, bloating, Insertion discomfort, Increased risk of ectopic pregnancies | ZAR 2,000 - 4,000, EUR 100 - 200, excluding insertion fee |
| 4 | Combined Hormonal Contraception | 0.3 | Increased risk of venous thromboembolism with newer progestogens, Side effects: breakthrough bleeding, amenorrhea, headaches, nausea, mood changes, weight gain, Cardiovascular risks | ZAR 150-300, EUR 7.50 - EUR 15. |
| 5 | Progestogen-Only Pill | 0.3 | Irregular menstrual bleeding, acne, breast tenderness, loss of libido, depression, headaches, nausea, ovarian cysts, bloating. Slightly higher failure rate | ZAR 100-250<br>EUR 5 - 12.50. |
| 6 | Female sterilizations (PI = 0.5) | 0.5 | Considered permanent; difficult and sometimes impossible to reverse, Risk of complications from surgery such as bleeding, infection, or damage to surrounding organs, Possible regret, especially in younger women or those who experience significant life changes, small risk of failure, resulting in unintended pregnancy | |
| 7 | Copper Intra-Uterine Device | 0.6 | Heavier menstrual bleeding and cramping, Higher risk of pelvic inflammatory disease and ectopic pregnancy, Insertion discomfort | ZAR 800 - 2000<br>EUR 40 - 100. Excl. insertion fees. |
| 8 | Barrier methods (condoms) | 2-18 | Possible discomfort, contact dermatitis, Effectiveness depends on correct application, Higher failure rate in male condoms | ZAR 60 - 200,<br>EUR 3 - 10. |
| 9 | Natural methods (fertility awareness-based methods/ | 0.4 -5 | High user-dependency, less reliable, Difficulty in determining the fertile period, higher risk of unintended pregnancy | 0 |

| | | | | |
|---|---|---|---|---|
| | abstinence, coitus interruptus) | | | |
| 10 | Emergency contraception (such as levonorgestrel or ulipristal acetate) | 0.05) | Not intended for regular use as it is less effective than other forms of contraception, Possible side effects include nausea, fatigue, headache, dizziness, breast tenderness, and disruption of menstrual cycle, May be less effective in women over a certain body weight or BMI | |

*Appendix 8: Estimated Impact*

| Phase 1: Pilot | | | |
|---|---|---|---|
| | **Annual Frequency** | **Number of Lives** | **Annual Number of Lives** |
| Physical Community Outreach | 12 | 50 | 600 |
| Peer Mentorship Program | 12 | 20 | 240 |
| Digital & Social Media Awareness Campaigns | 365 | 100 | 36,500 |
| Mobile Clinic Healthcare Services | 365 | 5 | 1,825 |
| Digital & Telehealth Services | 365 | 5 | 1,825 |
| **Total lives Impacted** | | | **40,990** |
| **Phase 2: Scaling** | | | |
| | **Annual Frequency** | **Number of Lives** | **Annual Number of Lives** |
| Physical Community Outreach | 12 | 250 | 3,000 |
| Peer Mentorship Program | 12 | 100 | 1,200 |
| Digital & Social Media Awareness Campaigns | 365 | 500 | 182,500 |
| Mobile Clinic Healthcare Services | 365 | 25 | 9,125 |
| Digital & Telehealth Services | 365 | 25 | 9,125 |
| **Total lives Impacted** | | | **204,950** |