

AFRICA UNIVERSITY
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DETERMINANTS OF FAMILY PLANNING UTILIZATION DURING COVID-19
PANDEMIC IN MUTARE CITY, ZIMBABWE, 2019-2020: A CROSS-SECTIONAL
STUDY

BY

MASVAYA JOYCE FATI

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH IN
THE COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES

2022

Abstract

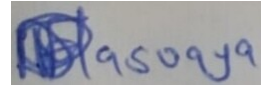
COVID-19 is exacerbating the unmet need in family planning (FP) world over and Zimbabwe included due to regulations which were erected to fight COVID -19. To this end, there has been a decline in number of women receiving FP services leading to unintended pregnancies and huge spike in maternal deaths in Mutare. The study sought to determine factors associated with utilization of FP during COVID-19 pandemic in Mutare city for the period 2019 to 2020. A cross sectional mixed-method design was used through face to face interviews with FP users and providers from Mutare City clinics. The quantitative arm involved the collection of longitudinal data from Mutare City clinics six months before and after the first recorded case of COVID-19 in Zimbabwe whilst the qualitative arm assessed acceptability of different access models for use in future similar pandemics. Factors associated with the utilization of FP during COVID-19 were computed using Chi-square test, paired t test and ANOVA test in SPSS 22.0. Four hundred women were enrolled into the study and the most commonly used FP methods during COVID-19 were control pill (60.2%) and implant (12.6%). The sociodemographics that were associated with utilization status were namely age ($p<0.000$), marital status ($p<0.000$), partner education level ($p<0.000$), income ($p=0.000$) and religion ($p<0.000$). Moreover, there was a significant average difference between period before and period during COVID-19 for utilization shifts and method used and P Values of 0.001 and 0.020 respectively were obtained. Furthermore, the effects of COVID-19 on FP utilization were statistically significantly different within groups and the following P Values were obtained age ($p<0.000$), marital status ($p=0.005$), income ($p<0.000$) and religion ($p<0.000$). In conclusion, Covid 19 had an effect on choice of method and utilisation status. The determinants of family planning utilization during covid 19 were high user fees, lack of entertainment, high exposure to partners, proximity to clinics, pregnancy and partner familiarization. To this end, variety of FP methods should be made available to enable clients to choose their preferred method and FP services should be made free.

Key words: Family Planning, Unmet need, Covid 19

Declaration

I declare that this research proposal is my original work except where sources have been cited and acknowledged. The work has never been submitted, nor will it ever be submitted to another university for the award of a degree.

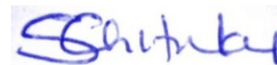
Joyce F Masvaya



Student's Full Name

Student's Signature (8/05/22)

Dr S. Chituku



Main Supervisor's Full Name

Main Supervisor's Signature (8/05/22)

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Acknowledgements

I would like to acknowledge the support and technical guidance I got from my academic and field supervisor, Dr Chituku and Ms. Z Sithole respectively in making this dissertation a success. I would also like to appreciate and thank Mutare City Council Executive and team for their assistance in making this research fruitful. I am especially indebted to Dr Mugomeri, Masters of Public Health Program Coordinator for the technical guidance I received throughout the thesis. My heartfelt gratitude goes to my colleagues and friends who helped me to pull through. Special mention goes to my hero and heroine Mr Simon Takawira and Dr Ntobi Sithole for assisting me in writing this dissertation. Nobody has been more important to me in the pursuit of this project than the members of my family. I would like to thank my mother and sister whose love and guidance are with me in whatever I pursue. Most importantly, I wish to express my gratitude to my newly found best friend Advocate Munashe Blessing Tinorwa, who has been a pillar of strength, mentor and actively assisted me in overcoming the challenges of postgraduate studies.

Dedication

I would like to dedicate this work to my enthusiastic, determined and courageous self. It was not a stroll in the park, and through the difficulty phases of this masters I soldiered on. Above all, thank you God.

List of Acronyms and Abbreviations

ANC	Antenatal Care
AUREC	Africa University Research and Ethics Committee
CBD	Community Based Distribution
CDC	Centres for Disease Control
CHW	Community Health Worker
CHW	Commuity Health worker
FP	Family Planning
HIP	High Impact Practices
HIV	Human Immunodeficiency Virus
IUD	Intra Uterine Device
LARC	long-acting reversible contraceptive
LMIC	Low and Middle income Countries
mCP	modern contraceptive prevalence rate
MDG	Millennium Development Goals
MOHCC	Ministry of Health and Child Care
PAHO	Pan American Health Organization
PPE	Personal Protective Equipment
PSI	Population Services International
SBC	Social and behavior change
SBCC	Social and Behavior Change Communication
SNO	Senior Nursing Officer
SRH	Sexual and Reproductive Health
SSA	Sub Saharan Africa
STI	sexually transmitted infections
UNFPA	United Nations Population Fund

USAID	United States Agency for International Development
WHO	World Health Organisation.

Definition of Terms

Family Planning	information, means and methods that allow individuals to decide if and when to have children (UNFPA, 2020)
Unmet need	unsatisfied demand for contraception (Wulifan et al, 2016)

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CHAPTER 1 INTRODUCTION

1.1 Introduction

The novel COVID-19 pandemic has strained health systems across the globe significantly in an extent unparalleled in present day history. According to the (World Health Organisation [WHO],2020), over 200 countries, areas and territories have been affected and consequently health systems of most nations have been critically affected.

Of particular importance in relation to this study is the effect of COVID-19 to sexual and reproductive health services. One of the most commonly disrupted component of the later is family planning (FP) services, with 68% of countries reporting service disruptions (WHO, 2020). The COVID-19 pandemic has caused disruptions to voluntary family planning and reproductive health care due to competing health priorities, service disruptions, stockouts, and lockdowns.

Estimates suggest that if a high level of FP service disruptions persist for over a year, approximately 51 million women may not be able to access modern contraceptives, leading to an estimated 15 million unintended pregnancies (Riley, Sully and Ahmed, 2020). Similar projections suggest that even a 10% annual reduction in access to FP and pregnancy-related care may contribute to significant increases in maternal, newborn, and child morbidity and mortality (United Nations Population Fund [UNFPA], 2020).

Maintaining access to reproductive health services, including provision of contraception, is key to a comprehensive COVID-19 mitigation strategy and to sustaining the successes of high-quality family planning services that contribute to lowering maternal mortality and improving newborn and child health (Nanda et al, 2020).

Promotion of family planning in countries with high birth rates has the potential to reduce poverty and hunger and avert 32% of all maternal deaths and nearly 10% of childhood deaths. In the past 40 years, family-planning programmes have played a major part in raising the prevalence of contraceptive practice from less than 10% to 60% and reducing fertility in developing countries from six to about three births per woman.

Throughout all of human history, efforts to plan, avoid or delay pregnancy had been a private struggle endured by women and girls. But at the 1968 International Conference on Human Rights, family planning became a human rights obligation of every country, government and policymaker (UNFPA, 2021).

According to the Teheran Proclamation parents have a basic human right to determine freely and responsibly the number and spacing of their children. Thus, access to voluntary family planning is a public health and human rights imperative and emergencies should not diminish the necessity of this human right. To further buttress the later, family planning supplies have since been globally recognized as essential medicines.

Family planning's benefits range from improved maternal and child health to increased education and empowerment for women, to more financially secure families, to stronger national economies.

Thus contraception is lifesaving and an essential component of reproductive health care. I, therefore, hypothesized that COVID-19 pandemic may have further exacerbated the already poor family planning services utilization in Mutare City in Zimbabwe.

1.2 Background of the study

At least 222 million, particularly in developing countries, want to delay or avoid a pregnancy but do not have access to an effective method of family planning (Machiyama, Casterline and Mumah, 2017). In sub-Saharan Africa alone, 58 million women have an unmet need for family planning and each year there are 80 million unintended pregnancies and 40 million abortions worldwide. Every day almost 800 women and girls die of pregnancy-related complications, 99 per cent of these occur in developing countries and nearly all are preventable. Furthermore, for every woman who dies, 20 or more experience serious complications (Gahungu, Vahdaninia and Regmi, 2021).

According to UNFPA, family planning is the information, means and methods that allow individuals to decide if and when to have children. This includes a wide range of contraceptives including pills, implants, intrauterine devices, surgical procedures that limit fertility, and barrier methods such as condoms as well as non-invasive methods such as the calendar method and abstinence. Family planning also includes information on how to become pregnant when it is desirable, as well as treatment of infertility.

Contraceptives prevent unintended pregnancies, reduce the number of abortions, and lower the incidence of death and disability related to complications of pregnancy and childbirth. If all women in developing regions with an unmet need for contraceptives were able to use modern methods, maternal deaths would be reduced by about a quarter, according to recent estimates by UNFPA partners.

Additionally, male and female condoms, when used correctly and consistently, provide dual protection against both unintended pregnancy and sexually transmitted infections (STIs), including Human Immunodeficiency Virus (HIV).

UNFPA (2021) states that every individual has the right to make their own choices about their sexual and reproductive health. However, due to the COVID-19 pandemic there has been disruptions in the Healthcare systems and more resources were directed towards the COVID-19 pandemic leaving other ailments unattended including those related to sexual and reproductive health. With more than 56 077335 cases and 1 346248 deaths reported globally, numerous nations executed strict social distancing rules with full or halfway lockdowns (WHO, 2021).

Utilization of Family planning services during the COVID-19 pandemic can be categorized into two major factors, which are the user factor and the health system factor. Movement restrictions or lockdown, transport problems and anxiety secondary to being exposed to corona virus possibly are acting as the user factors that affect the utilization of family planning service (Hailemariam, Agegnehu & Derese ,2021). On the other hand, the health system factor includes the capacity of health staff, attitude of care providers, infrastructure and other forms of interactions that take place within the healthcare system (Hailemariam, Agegnehu & Derese (2021).

With the recent COVID-19 pandemic, the resilience of health systems' and countries' emergency preparedness and response have been tested. To this end, health professionals may not be able to give the highest quality of care at the time of COVID-19 pandemic with basic safeguards in put, client-provider communication is seriously affected due to social distancing and the time to get the service required may take more as health workers attempts to secure themselves from the contamination. Thus, the aim of this study is to determine factors associated with utilization of family planning during COVID-19 pandemic in Mutare city for the period 2019 to 2020.

1.3 Problem statement

COVID-19 is exacerbating the unmet need in FP in Zimbabwe which is currently at 8%. This is due to Covid 19 regulations such as lockdown, physical distancing and staying indoors. Consequently, many people who would otherwise be using healthcare are now choosing to stay home. To this end, women have been forgoing care because of fear of exposure to COVID-19 and there has been decline in number of women or girls receiving critical Sexual and Reproductive Health Services particularly Family Planning Services. This includes limited access to information on family planning, contraceptives of one's choice and infertility treatment. Consequently, leading to unintended pregnancies which can have dire consequences ranging from unsafe abortion to serious pregnancy complications that contribute to maternal and infant mortality. The latter can be further buttressed by a huge spike in maternal deaths that has been recorded in Mutare 20 deaths and 26 deaths in 2019 and 2020 respectively.

1.4 Broad Research Objectives

The aim of this study is to determine factors associated with utilization of family planning during COVID-19 pandemic in Mutare city for the period Aug 2019 – Sept 2020.

1.4.1 Specific Objectives

This study seeks to:

1. To determine trend on FP utilisation before and during the COVID-19 pandemic in Mutare city
2. To identify COVID-19 related factors associated with FP utilization, retention, discontinuation and adoption in Mutare city

3. To determine acceptability of different access models for FP in Mutare city through key informants for future similar pandemics

1.5 Research questions

1. What is the trend in FP use before and during the COVID-19 pandemic in Mutare city?
2. What are the COVID-19 related factors associated with utilization of FP, retention, discontinuation and adoption in Mutare city?
3. What are the acceptable access models for Family planning in Mutare city for future similar pandemics?

1.6 Significance of the study

This study has identified the gaps in family planning utilisation during the Covid 19 pandemic in Mutare City to come up with recommendations and strategies to inform managers on FP effective strategies during pandemics. The findings of the study further buttressed the importance of maintaining access to FP services ie access to information on family planning, contraceptives of one's choice and free FP methods which then reduce the unmet need for FP, unintended pregnancies and finally contribute to lowering maternal mortality and morbidity and improving newborn and child health.

1.7 Delimitation of the Study

This study focused on the factors associated with family planning utilization during the COVID-19 pandemic in the city of Mutare for the period from September 2019 to August 2020. The study was only limited to Mutare City and excluded other cities due to the limited study time frame and lack of financial support to conduct the research. The study was confined to the Mutare City Health Clinics and excluded those accessing

health care from other districts, private sector and government institutions. Data was collected within a month period.

1.8 Limitation of the study

There are no financial rewards for the study participants, consequently study participants might provide biased information. The COVID-19 pandemic is caused by emerging virus, to this end there is lack of local literature on the utilisation of FP services during the COVID-19 pandemic.

1.9 Summary

This chapter presented the study introduction, background of the study, problem statement, the study objectives, justification, delimitations and limitations of the study.

CHAPTER 2 REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter reviews literature on the factors associated with utilisation of family planning services during the COVID-19 pandemic globally, regionally and locally. Special focus is given to what other studies have reported as barriers and enhancers associated with utilization of family planning services during the COVID-19 pandemic.

2.2 Conceptual framework

The study will adopt the Conceptual model of COVID-19 related factors influencing maternal health services uptake among women in a rural community in Bench-Sheko Zone, 2020 that was developed by Hailemariam, Agegnehu & Derese (2021) as shown in the figure below.

The below figure reveals the relationship of the health facility factors, risk minimization measure, perceived poor quality of care, anxiety, and government measures on prevention and control of COVID-19 with Family Planning utilization (Figure 2.1)

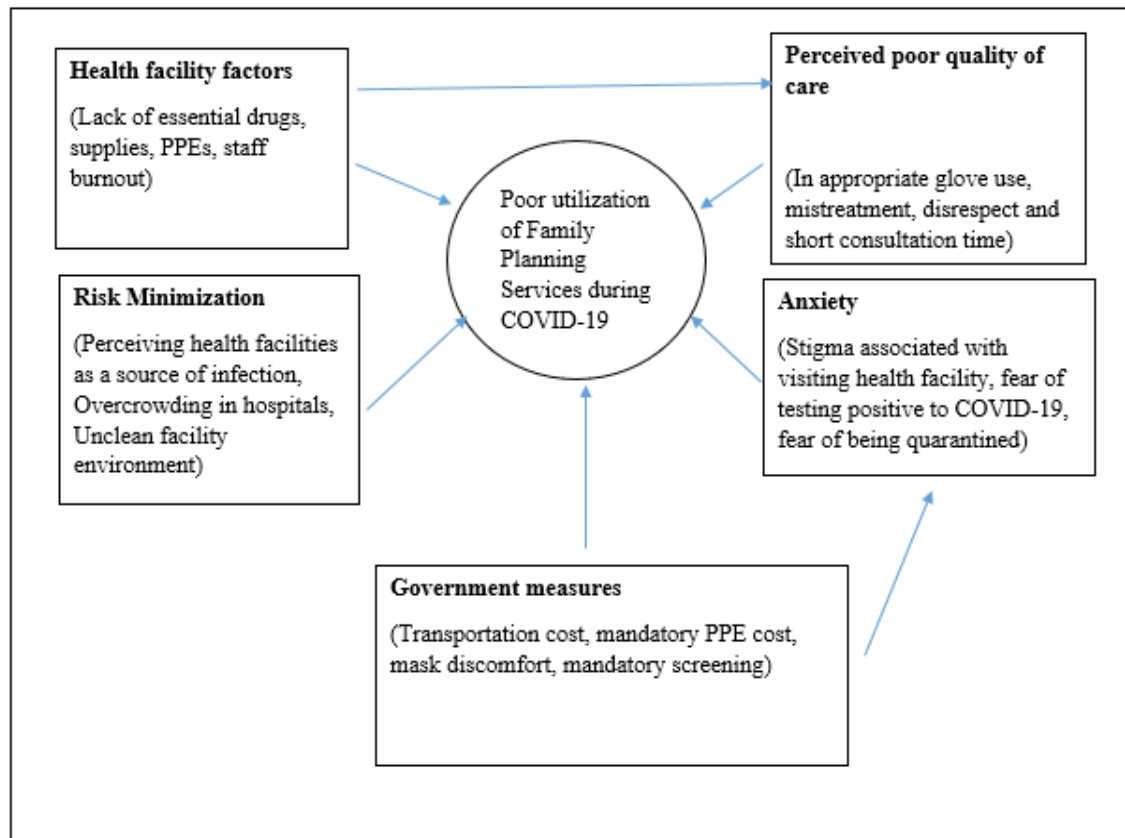


Figure 2.1: Conceptual framework [adopted from Hailemariam, Agegnehu & Derese (2021)]

2.3 Significance of the conceptual framework

The theoretical framework highlights the key variables that affect the utilization of Family planning services during the COVID-19 pandemic and these are discussed below.

2.4 Utilization of family planning services before COVID-19 pandemic

Unmet need for Family Planning is generally defined as unsatisfied demand for contraception (Wulifan et al, 2016). However, it can further be defined as unmet need for limiting, i.e. any unwanted pregnancy in a woman of reproductive age who does not wish to have any more children; and unmet need for spacing, i.e. any mistimed

pregnancy in any woman of reproductive age who wishes to delay the birth of her next child by at least two years (Nortman, 1982).

Unmet need for modern contraception has been estimated to be 214 million women in developing regions and it has declined in most countries in recent decades, with the regional average falling from 17.2% in 1990 to 10.6% in 2013 (Guttmacher Institute; 2017).

Haiti tops the list of countries with the greatest unmet demand for family planning, as almost 4 out of 10 women (35.3%) do not have access to contraceptive methods. Other countries that also have high levels of unmet demand are Guyana (28.5%), Guatemala (20.8%), the Plurinational State of Bolivia (20.1%) and Honduras (16.8%). In 2013, only nine countries of the region with data available had rates of unmet demand for family planning of below 10% (ECLAC, 2020d).

Globally, in spite of existing national FP programs, about one in three women who desires to space (16 %) or limit (13 %) the birth of an additional child is still restricted to contraceptive use (Casterline and Sinding, 2000). Many women in most Low and Middle income Countries (LMICs) particularly in Asia, the Middle East, the Caribbean, and Sub-Saharan Africa continue to have unmet need for FP as a result of various demographic and socioeconomic factors even though contraceptive knowledge increased over the last few decades (Palamuleni, 2013).

Tackling persistent unmet need and low contraceptive use remains a challenge given that consistent adherence and access to FP methods is under influence of a number of different factors (Casterline and Sinding, 2000).

The unmet need for FP differs greatly both between countries and within countries, suggesting that there are always some women with better access than others to contraceptive use (Casterline and Sinding, 2000).

2.4.1 Factors affecting utilization on individual woman level

In a scoping review study done by Wulifan et al (2016) the age of the woman was explored in eleven quantitative studies and in only six of these studies, age as a determinant of unmet need was found to be significant. If significant, a woman's age was negatively associated with total unmet need for FP, meaning as women get older the unmet need for FP decreases. Two studies one from Zambia and one from Nepal indicated that the relationship between a woman's age and her unmet need changed across the reproductive age range between younger and older reproductive years.

While unmet need increased with the years of life below the age of 34 years, it decreased with age once a woman reached 34 years or more (Wulifan et al, 2016). Woman's age also influenced other determinants of unmet need, such as discussions on FP. Older women from Rwanda and Eastern Sudan, for example, seemed to be more likely to engage in discussions on contraceptive use with their partners compared to their younger counterparts (Ali and Okud, 2013). Younger women were less likely to engage in FP discussion with health workers compared to older women due to prevailing stigma attached to contraceptive use in young females, such as unfaithfulness and extramarital relations (Kabagenyi et al, 2014), resistance to and intervening with God's reproductive plans, or distrust in health workers confidentiality (Plummer et al, 2006).

Wulifan et al (2016) examined a woman's level of education as possible determinant of unmet need, which was found to have a significant association in seven studies. Six of these studies showed that a woman's higher level of education is associated with a decrease in total unmet need.

Qualitative evidence by Wulifan et al (2016) indicates that female approval or disapproval of modern contraceptive methods is mainly influenced by women's misconceptions of FP methods and/or limited understanding of potential side effects. Fears of side effects are often rooted in an overestimation of rare complications (e.g. permanent infertility as result of OCP use, malignancies or even death as result of hormonal contraceptives or IUDs), wrong indications (e.g. abuse of OCP without physician guidance), or based on nonvalidated rumors (e.g. commercial condoms to be purposefully infected with HIV (Kabagenyi et al, 2014).

2.4.2 Factors affecting utilization on partner level

The partner's contribution to unmet need was examined in seven quantitative studies by Wulifan et al (2016). Particularly the role of partner's education was found to be a significant negative determinant for unmet need in two of these studies. Of seven reviewed qualitative studies, all identified men as often being hesitant to approve of any contraceptive use, mainly out of fear of losing their role as family heads and/or of indirectly encouraging their wives to be unfaithful or promiscuous. Three studies further mentioned that men had only limited knowledge on most modern contraceptive methods and it was felt that FP programs tend to target mainly women (Kaida et al, 2005). Thus little or no discussion occurs among partners, often because contraceptive use is considered "a woman's domain", especially in rural settings with strictly divided gender roles (Kabagenyi et al, 2014).

Wulifan et al (2016) demonstrated that communication between husband and wife actively shape decisions on contraception use, especially in relation to the overall number of desired children, and thus affect the perception of unmet need (Kaida et al, 2005).

2.4.3 Factors affecting utilization on household or community level

Low socioeconomic status and/or rural residence were examined by nine of the reviewed quantitative studies and both found to increase total unmet need for FP in five studies (Mekonnen and Worku, 2011), while in the other studies no such association could be found (Ali and Okud, 2013). Low socioeconomic status significantly increased unmet need for spacing in the studies from Pakistan, Zambia, and Eritrea (Imasiku et al, 2014), mainly as women from lower socioeconomic status are very likely to have lower educational level (Hall et al, 2008).

Men in some rural settings, for example, considered birth control to negatively affect the productivity of a household, on the one hand due to reduced family size in households depending on agricultural income and on the other hand as women experiencing side effects from using contraception incur additional medical expenses to households (Kabagenyi et al, 2014). Women, especially in urban settings, instead considered FP supportive to household economics, as the costs of child rearing (e.g. nutrition, education, medical) could be better allocated and controlled (Hall et al, 2008).

Furthermore, across studies a variety of additional determinants could be identified at the household level to affect unmet need for FP. In Nepal and Egypt the families' preference for male offspring showed a negative association thus the total unmet need for FP decreased in settings where higher value was given to a woman bearing sons (Kotb Sultan et al, 2010).

Some qualitative studies suggested limited contraceptive use in communities where high value is given to many children might increase unmet need (Mosha et al, 2013). In India, women described how FP use and women's fertility was closely observed by family members (in particular mothers-in-law) (Hall et al, 2008).

Also in societies where bride payments are judged against a woman's ability to give birth to several children, deep expectations prevail for women's reproductive role and women's need for FP. This social pressure attached to women's desire to control births can in extreme cases even lead to women being subjected to physical abuse and battering if they attempt using contraceptives – even if just for the purpose of delaying a pregnancy (Bawah et al, 1999).

2.4.4 Factors affecting utilization on Health service level

Health service factors, such as FP provider behavior (friendliness towards clients), quality of care given, user fee payments, and proximity to FP centers were commonly mentioned to influence contraception use. Determinants grouped at the health service level, such as access to FP information, access to FP services, or the availability of long-acting FP methods were examined in five quantitative studies and found to be negatively associated with the total unmet need for FP, but also with both the unmet need for spacing and for limiting (Wulifan et al, 2016).

The role of health service level determinants was explored in seven qualitative studies by Wulifan et al (2016). In respect to the health service level, the reviewed studies pointed at a variety of factors contributing to unmet need. Five of these studies identified lack of trust towards FP services providers as a contributor to unmet need. From a demand perspective, FP service users criticize to be rudely treated by FP officials, to have only limited trust in FP officials' clinical competency and in keeping

their clients' confidentiality, the poor distribution of FP outlets, and that FP information is not provided in local languages (Kaida et al, 2005).

All seven studies identified shortcomings in the provision of information on and supplies of modern FP methods as determinants of unmet need. From a programming or supply perspective, the most challenging aspects in providing FP services seems to meet the quantity and quality of FP supplies and information materials, but also to ensure sufficient competency among the service personnel (Sonalkar et al, 2013).

In addition, frequently voiced criticism, mainly by men, was related to how FP services primarily target women while husbands and partners often feel excluded or their initiatives unappreciated (Kaida et al, 2005). Taken together, service providers' incompetence, occasional stock outs of contraceptives, and the inadequacy of a client's preferred FP method were brought up as common reasons for unmet need for FP (Sonalkar et al, 2013).

2.5 Utilization of family planning services during COVID-19 pandemic

The COVID-19 pandemic reached sub Saharan Africa (SSA) in February 2020; as of mid-September, it had caused nearly 33 000 deaths. While the direct impact of COVID-19 in SSA is not as widespread as in other regions, the indirect costs are potentially greater (Johns Hopkins University, 2020).

Most African countries including Zimbabwe, Burkinafaso and Kenya implemented national lockdown, social distancing, restricted gatherings and closed borders in March 2020. Due to the aforementioned measures to prevent and control COVID-19 there has been mobility restrictions, service disruptions and economic insecurity, which inhibit access to time-sensitive care which then exacerbate the existing challenges of satisfying women's need for contraception in the region (Bearak et al, 2020). As a result, the

pandemic may increase rates of unintended pregnancy and unsafe abortion, women's fertility intentions and need for contraception (Riley et al, 2020).

A study done by Lin et al (2021) on the impact of the COVID-19 pandemic on economic security and pregnancy intentions among people at risk of pregnancy results is in tandem with the forecast of low utilization of Family Planning services during COVID-19.

One in 6 (17%) reported that access to contraceptives had become more difficult during the pandemic (20% of those who were currently using). Only 4% reported that access had become easier. Looking at specific ways in which access had become more difficult during the pandemic: 9% reported it was harder to get to a pharmacy, 4% reported it was harder to afford contraceptives, 3% reported it was harder to get a prescription, 2% reported it was harder to have long-acting reversible contraceptives placed, and 1% reported it was harder to have long-acting reversible contraceptives removed. This pattern suggests that people seeking to avoid pregnancy were also encountering difficulty in accessing the health care they needed to achieve their reproductive health goals (Lin et al, 2021).

According to Lin et al (2021) during the pandemic, increased desire to avoid pregnancy and decreased income were both associated with increased difficulties in access to contraception. These findings suggest that barriers to contraceptive access and family planning services were heightened during this vulnerable time when women may have increased need for them.

Furthermore, Guttmacher study indicated that 20% of women who were currently using contraceptives indicated it has been harder to access contraceptives while 39% of respondents reported they had to delay or cancel general sexual and reproductive health

care visits, including contraceptive care, due to the pandemic. A recent survey study on the impact of the COVID-19 pandemic on sexual and reproductive health in China (Li et al,2020) suggests that increased difficulty in accessing reproductive health care is not unique to the US and may be generalizable worldwide.

However, according to a research done by Karp et al (2021) most women did not change their contraceptive status during COVID-19 (68.6% in Burkina Faso and 81.6% in Kenya) and those who did were more likely to adopt a new method (25.4% and 13.1%, respectively) than to discontinue (6.0% and 5.3%, respectively). Altogether, 14.4% of non-contraceptive users in Kenya and 3.8% in Burkina Faso identified COVID-19-related reasons for non-use.

Most women who switched contraceptives were using methods as or more effective than their pre-pandemic contraception shown in the graph below.

According to Karp et al (2021), Among consistent users, about 10% switched to more effective methods (81.6% and 70.6% of whom switched to long-acting methods in Burkina Faso and Kenya, respectively), while fewer shifted to less effective methods (5.0% in Burkina Faso and 7.3% in Kenya).

In a UNFPA data reporting survey of more than 70 countries, 56 per cent (n=41) reported that facility-based family planning services were maintained as compared with pre-COVID-19 levels and 41 per cent (n=30 countries) reported that services were interrupted. Two countries (Turkmenistan and Trinidad and Tobago) reported services were expanding (UNFPA, 2021).

Another survey by UNICEF in late August 2020 found that more than half of countries (n=45 of 84) reported no or minimal declines in family planning services. Gabon and Suriname reported as much as a 75 per cent drop in family planning services, while

seven countries reported drops between 50 to 75 per cent, 14 countries reported drops between 25 to 49 per cent, and another 16 reported drops between 10 to 24 per cent (UNFPA, 2021).

Furthermore, a key informant pulse survey by the World Health Organization found that some 59 per cent of countries (n=102) reported “partial” disruptions, and 9 per cent reported “severe” disruptions in family planning and contraception services.

Furthermore, according to analysis by the Global Financing Facility and the World Bank’s Development Research Group of health management information system (HMIS) data in select countries through June 2020 it was found that Family planning services in Nigeria decreased by 10 per cent or more in April and 15 per cent in May (UNFPA, 2021).

However the PMA COVID-19 survey found no declines in use of modern contraception (mCPR) in Burkina Faso, Democratic Republic of the Congo, Kenya and Nigeria (Lagos and Kano). Most women in this telephone survey reported success in accessing a health service during COVID-19 (UNFPA, 2021).

2.6 Trend in the utilization of Family Planning before and during the COVID-19 pandemic

According to the UNFPA Supplies Annual report for 2020, the unmet need has steadily declined between 2012 and 2020. As of 2020, 21 countries in the UNFPA supplies programme have a unmet need below 26 percent and 16 countries have met the 2020 target of an unmet need below 24% among women married or in union. The average unmet need for Family planning decreased from 27.5% in 2019 to 26.5% in 2020 among the 46 countries in the UNFPA Supplies Programme.

The highest level of unmet need was in Democratic Republic of Congo (40.2%) and the lowest in Zimbabwe (10%). Data in the 46 countries is consistent with the overall trends for this indicator, which show on aggregated level the unmet need has slowly declined (UNFPA ,2021a).

2.6.1 Modern contraceptive prevalence rate

Use of modern contraceptives has been growing across all UNFPA Supplies countries since 2012. The average modern contraceptive prevalence rate (mCPR) for all women of reproductive age in the 46 countries was 25.2 per cent in 2020 . There was a steady increase from 23.2 per cent in 2016 up to 25.1 percent in 2019. Growth greater than 1 percent in contraceptive use among all women of reproductive age was recorded in 10 countries im UNFPA Supplies during 2020. An additional 23 countries had mCPR growth between 0.5 and 1 percent the same period. In total,33 out of 46 UNFPA supplies countries had more than 0.5 annual percentage increase in Mcrp

2.6.2 Range and types of contraceptive methods

Access to a wide variety of family planning methods increases contraceptive use and satisfaction and reduces discontinuation, as women are more likely to find a method that suits their needs.

The most-used methods across UNFPA Supplies countries are injectable contraceptives (intramuscular and subcutaneous) (39.8 per cent of users), oral contraceptive pills (17.5 per cent of users) and implants (16.3 per cent of users). Use of male sterilization is extremely limited, with just 0.8 per cent of all users, and no data are recorded on prevalence in the majority of the 46 programme countries. The use of long-acting reversible contraceptive (LARC) methods increased to 20.8 per cent in 2020, up from 17.5 per cent in 2019.

An additional 28.1 million women and girls (aged 15-49) are using modern contraceptives in the 46 UNFPA supplies countries in 2020, compared with 24.5 million million additional users in 2019. This brings the total number of users in these countries to 70.3 million since 2012.

Even though the FP 2020 was not met, the pace of growth since 2012 London Summit on Family planning has increased and this happens to be an important step towards achieving the 2030 agenda for sustainable development.

2.7 COVID-19 related factors associated with utilisation of Family Planning Services

COVID-19 could result in a five-year setback in the reduction of the specific epidemiology rates eg adolescent fertility rate in Latin America and the Caribbean is expected to rise from 61 to 65 live births per 1,000 adolescents aged 15 to 19 (UNFPA, 2020b).

Thus the COVID-19 pandemic is already having adverse effects on the supply chain for contraceptive commodities by disrupting the manufacture of key pharmaceutical components of contraceptive methods or the manufacture of the methods themselves (e.g., condoms), and by delaying transportation of contraceptive commodities (Pan American Health Organization [PAHO], 2020).

Moreover, the crisis is affecting the supply of contraceptives in both the public and private sector, its effects are being seen both in difficulties in maintaining supplies and in service interruptions and in decrease in the number of consultations due to people's fear of contagion. Sales in pharmacies, meanwhile, are declining because of lower household incomes.

Healthcare providers and health extension works mentioned several facility barriers impacting Sexual and Reproductive health services eg ANC service uptake during the COVID-19 pandemic which are majorly related to poor logistic supply, staffs' reduced work appetite due to lack of risk allowance and other necessary accommodations, and patient overcrowding which is against the COVID-19 prevention measure of physical distancing (Hailemariam et al, 2021)

In addition, equipment and staff involved in provision of sexual and reproductive health services may be diverted to fulfill other needs, clinics may close and people may be

reluctant to go to health facilities for sexual and reproductive health services. Many governments are restricting people's movements to stem the spread of the virus, and providers are being forced to suspend some sexual and reproductive health services that are not classified as essential, such as abortion care, thus denying people this time-sensitive and potentially life-saving service (Marie Stopes International, 2020). For example, the country lockdowns in Nepal and India have forced clinics operated by Marie Stopes International (the largest provider of family planning services in India outside of the public sector) to close.

Furthermore, most people would otherwise visit the hospitals for treatment and counselling are foregoing care because they perceive health facilities as a source of infection and due to overcrowding in hospitals thus they want to minimize risk of exposure.

In a study done by Lin et al (2021) on the effect of COVID-19 on the utilization of ANC services, 20% of the respondents indicated that they were very worried about contracting COVID-19, 41% were somewhat worried, 34% were a little worried, and 5% indicated that they were not worried at all. Among those with comorbidity conditions, 29% reported that they were very worried about contracting COVID-19.

Additionally, 4–14% of non-users of contraceptives identified COVID-19-related barriers to contraceptive use. Concerns about becoming infected with COVID-19 were associated with lower adoption and less switching to more effective methods among Burkinabe women. Fear of contracting COVID-19 was invoked by 2% and 10% of non-users as a reason for non-use in Burkina Faso and Kenya, respectively. These results align with studies reporting an indirect impact of epidemics on SRH service utilization (Lin et al, 2021)

These include pregnant women's fear of attending health facilities because they might be infected with the virus and, in some cases, the reassignment of health-care staff and infrastructure to patients with COVID-19. Anxiety also stemmed from stigma associated with visiting health facility, fear of testing positive to COVID-19, fear of being quarantined.

Perceived poor quality of care was also another barrier to utilization of SRH services during the COVID-19 pandemic due to implementation of measures restricting social distancing which led to short consultation time, the closure or repurposing of some health care centres, the pre-eminence of a biomedical approach to containing the spread of the virus and its effects and the overburdening of health care teams leading to inappropriate glove use, mistreatment and disrespect.

Another barrier associated with utilization of SRH services including family planning is government measures ie restriction measures which have led lot of people to forgo care because of mandatory screening which is expensive, mask discomfort, cost associated with buying PPE and transport cost to the hospitals. Another challenge was accessing pass to go through the police roadblocks.

However, there are also facilitators which are associated with utilization of family planning services during the COVID-19 pandemic.

The UN Secretary General issued a call to continue the delivery of sexual and reproductive health services even without prescription. Special counseling and support is essential as COVID19 has a devastating effect on women and girls. The recommendation is to prescribe or dispense multi-month refills of the pill to minimize trips to the pharmacy or clinic. Health insurance plans should waive time limitations (Nanda et al, 2020). The progesterone only pill can safely be started for individuals even

without face-to-face consultation, and prescription can be given for 3–6 months. Injection DMPA or insertion of intrauterine contraception or subcutaneous implants are suitable options to LNG IUD and the copper IUD. Emergency contraception should be available without delay in appropriate cases and termination of pregnancy by medical and surgical methods should be available. These facilities supported with telemedicine and self-care should be promoted and explained to women and men. Delivering contraceptives to the doorstep is crucial (Nanda et al, 2020).

2.8 Access Models for Family Planning in Urban and Rural Areas

Despite efforts to make contraceptive services more accessible, the unmet need for contraception among women in sub-Saharan Africa remains high. Furthermore, the COVID-19 pandemic may have further exacerbated the already poor family planning services utilization world over due to lockdown restrictions that were enacted since the beginning of the pandemic.

For health systems to effectively respond to the reproductive health needs of a growing population in epidemics, it is imperative to explore access models for family planning in urban and rural areas so as to develop more targeted strategies for expanding access to family planning services for women.

Engaging the private sector and task-shifting to lower-level providers offer promising approaches; however, additional research is needed to identify the key facilitators and barriers to the success of these strategies in different contexts.

2.8.1 Community Health Workers

Community health worker (CHW) programs can increase use of contraception, particularly where unmet need is high, access is low, and geographic or social barriers to use of services exist. CHWs are particularly important to reducing inequities in

access to services by bringing information, services, and supplies to women and men in the communities where they live and work rather than requiring them to visit health facilities, which may be distant or otherwise inaccessible. Use of local health workers or volunteers can also be referred to as Community-based distribution (CBD).

CHWs provide a critical link between their communities and the health and social services system (Bhutta, Lassi, Pariyo, Huicho, 2010). CHWs “provide health education, referral and follow up, case management, and basic preventive health care and home visiting services to specific communities. They provide support and assistance to individuals and families in navigating the health and social services system” (International Labor Organisation [ILO], 2008). The level of education and training, the scope of work, and the employment status of CHWs vary across countries and programs. CHWs are referred to by a wide range of titles such as a “village health worker,” “community-based distributor,” “community health aide,” “community health promoter,” “health extension worker,” or “lay health advisor.”

In Rwanda, training of government-supported community health workers to offer comprehensive contraceptive counseling and provide short-term methods at the community level, including condoms, pills, and injectables has contributed tremendously to expanding access to contraceptives (FHI360, 2010). Thus in the context of epidemics or pandemics women would not face challenges accessing family planning services due to lockdown restrictions as counselling services and short term methods would be available in their communities.

A systematic review of CBD in Africa concluded from several quasi-experimental and descriptive studies that community distributors could increase contraceptive use,

although the level of effects are often unknown or less than reported for similar projects conducted in Asia (Phillips, Greene and Jackson , 1999).

Prata,Vahidnia, Potts, Dries-Daffner (2005) reviewed the evidence on CBD programs and concluded that CBD serves an important role in meeting the needs of rural communities. Questions regarding the utility of CBD programs also have been raised, including the cost-effectiveness of delivering goods to remote areas, the sustainability of the community-based model, the inability to scale small pilot projects to regional or national levels, and the long-term effect of CBD on national fertility due to low coverage (Prat et al, 2005). Some concerns such as the scalability and sustainability of CBD have been addressed to an extent (Nyonator, Awoonor-Williams, Phillips, Jones, Miller, 2005).

The study in Zambia reviews the potential role of community-based distribution for stimulating family planning use in rural areas of sub-Saharan Africa. Zambia was selected for study because of its differential access to health services between rural and urban areas and its prominence as a 'success story' in a recent case study on family planning use in Africa (ACQUIRE Project, 2005). Multiple studies have underscored the health service gap between rural and urban Zambia. For example, in 2005, a group of reproductive health experts were asked to rate Zambian women's access to a range of reproductive health services, such as postpartum family planning and antenatal care (POLICY Project, 2006). On a scale from 0–100, with 0 indicating a low score, the mean score on access to reproductive health services was 66 for urban areas and 30 for rural areas.

According to BMC Health Services Research (2007) efforts to use community health workers for the delivery of family planning services were believed to be an effective,

albeit underused, tool for getting services to rural populations (ACQUIRE Project, 2005). Thus, household distribution of family planning services to clinic-based service delivery proved at least as effective.

These outreach efforts in Zambia were associated with higher modern contraceptive use among rural women. If all households in rural Zambia received a home visit from a community worker, the contraceptive prevalence rate for this group would increase by 5.9 percentage points; this amounts to a 21- percent increase in modern contraceptive use and represents a substantial improvement. Nevertheless, the gap between rural and urban patterns in contraceptive use would remain. Moreover, changes to fertility desires of rural women would increase use of modern family planning more than would a household visit by a health worker to each rural woman (BMC Health Services Research, 2007).

Review of data from Zambia offered an opportunity to learn more about the impact of community-based distribution as a supply-side strategy on increasing uptake of family planning services. Proponents of CBD argue that home visits made by community workers may help to fill an unmet need for family planning among women who lack ready access to contraceptive supplies and information. Sceptics of CBD point to research demonstrating that cultural and social barriers to using contraception may determine whether a woman with an unmet need actually uses family planning to a greater degree than does access (PATH and United Nations Population Fund, 2006).

This model indicates that community-based outreach as it existed in Zambia in 2001 to 2002, would lead to only a modest increase in contraceptive use. Supply provision appears to be one of many determinants of family planning use in Zambia. Creating demand may be at least as important (Casterline and Sinding, 2001).

Consequently this approach would include targeting women and men to increase approval of family planning. An unmet need for family planning may exist in rural areas; however, providing contraceptives may not reduce this unmet need if women and their partners do not approve of family planning, lack firm desires to delay or limit childbearing, or do not find that the available methods meet their needs.

2.8.2 Social and Behavior Change

Social and behavior change (SBC) refers to activities or interventions that seek to understand and facilitate change in behaviors and the social norms and environmental determinants that drive them. SBC interventions are grounded in a number of different disciplines, including social and behavior change communication (SBCC), community mobilization, marketing, advocacy, behavioral economics, human-centered design, and social psychology. SBC is an essential element of family planning programming, as it shapes not only demand for services, but also client-provider communication, couples' communication, and the engagement of community leaders and other influencers of health-related behaviors and norms (United States Agency for International Development [USAID], 2018).

In the context of family planning programs, SBC interventions can increase demand for family planning services, quality of services, and agency to use family planning by:

- Creating demand for services and products
- Supporting correct utilization of health products
- Promoting healthy behaviors that are enacted outside the health system
- Supporting provider behavior change and enabling positive client-provider interactions
- Improving patients' ability to articulate and advocate for their needs

- Shifting social norms that enable healthy behaviors

Effective SBC programming begins by identifying a set of priority behaviors that the program aims to influence. Behaviors like contraceptive use, delay of first birth, and birth spacing are composite behaviors: They are complex, multi-step behaviors. For instance, contraceptive use involves seeking information and services, obtaining a method, and potentially repeatedly taking or using that method. Formative research and behavioral analysis are vital to identifying the strongest determinants, motivators or barriers to each of these behaviors for the targeted audience.

There are currently four identified HIPs pertaining to SBC: mass media, community group engagement, interpersonal communication, and digital health for SBC

Mass media programming in reproductive health can influence individual behaviors by providing accurate information, building self-efficacy, and promoting attitudes and social norms that support healthy reproductive behaviors (USAID, 2018). The distinguishing characteristic of mass media programs is that they reach a large audience, primarily through TV and radio (e.g., public service announcements or advertisements, talk shows, or serial dramas).

Mass media programming can be designed to overcome lack of knowledge about fertility and contraception, correct misperceptions about one's risk for unintended pregnancy, allay concerns about side effects of contraceptive methods, increase self-efficacy or confidence to take action, and/or change perceived norms that discourage family planning and contraceptive use.

Another strategy under SBC is Community Group Engagement, the distinguishing characteristic of CGE interventions is that they work with and through community groups to influence individual behaviors and/or social norms rather than shifting

behavior by targeting individuals alone. Specifically, community support can shift individual behaviors, including contraceptive behaviors, either by changing norms or individual knowledge and attitudes (Storey et al ., 2011).

Digital technologies such as mobile phones, computers, or tablets to convey information and messages has been a part of an evidence-based multichannel social and behavior change (SBC) strategy which may contribute to promoting, adopting, and maintaining healthy sexual and reproductive behavior (USAID,2018).

2.8.3 Mobile Outreach Services

Mobile outreach services address inequities in access to family planning services and commodities in order to help women and men meet their reproductive health needs. Outreach models allow for flexible and strategic deployment of resources, including health care providers, family planning commodities, supplies, equipment, vehicles, and infrastructure, to areas in greatest need at intervals that most effectively meet demand.

Evidence demonstrates that mobile outreach services can successfully increase contraceptive use, particularly in areas of low contraceptive prevalence, high unmet need for family planning, and limited access to contraceptives, and where geographic, economic, or social barriers limit service uptake. A study in Nepal concluded that female sterilization services provided through mobile outreach and in hospitals were comparable in terms of client screening and quality of care (Thapa and Friedman, 1998). Observational studies in India found that incidence of side effects and complications for clients receiving IUDs or sterilization services through mobile services were similar to rates in published literature (Aruldas, Khan, Ahmad, Dixit, 2013).

However, cost-effectiveness should be evaluated while designing a mobile outreach program. The cost of delivering family planning services through mobile outreach varies by the model used; the number and cadre of providers employed; and the distance that mobile outreach teams must travel and the associated transportation costs (USAID, 2018).

A prospective economic analysis of service delivery in Ethiopia comparing the cost-effectiveness of outreach by clinical specialists with provision of the same services through a referral system found that outreach was 1.45 times more cost-effective in using scarce clinical specialists' time than the referral system (Kifle and Nigatu, 2010). In Tunisia, a study concluded that although one-fourth of the national family planning operating budget supported the mobile outreach program, the mobile units contributed one-third of the total output of the national program (USAID, 2018).

2.9 Summary

This chapter presents literature on the factors associated with utilisation of Family Planning services during the COVID-19 pandemic globally, regionally and locally. Special focus was given to what other studies have reported as COVID-19 related factors studies associated with utilization of family planning services during the COVID-19 pandemic and what access models are available for Family Planning utilisation. The literature lacked information of which access models are acceptable and which models are to be utilised in future similar pandemics and this will be researched in this study.

CHAPTER 3 METHODOLOGY

3.1 Introduction

The purpose of this study was to determine factors associated with utilization of family planning services during COVID-19 pandemic in Mutare city for the period 2019 to 2020. This chapter outlines the research design, study setting, study population, sampling criteria and methods, data collection methods, data analysis plan and ethical considerations.

3.2 The Research Design

A cross sectional mixed-methods design was used to determine factors associated with utilization of family planning during COVID-19 pandemic in Mutare city, Zimbabwe for the period 2019 to 2020. Specifically, the cross-sectional explanatory sequential design was used since qualitative data was used to explain the results of the quantitative data and to explore acceptability of Family planning access models for use in future similar pandemics.

The quantitative arm of the research involved the collection of longitudinal data from Mutare City clinics services six months before (September 1, 2019, to February 28, 2020) and after (March 21 to August 31, 2020) the first recorded case of COVID-19 in Zimbabwe.

The qualitative part evaluated the perceptions of users of healthcare facilities and health workers, on how COVID-19 shaped the utilization of family planning services and assessed acceptability of different access models for use in future similar pandemics.

3.3 Study setting

This study was carried out in Mutare City Council Clinics, Zimbabwe. The district is about 300 km to the east of Zimbabwe's capital, Harare. The latest data based on 2012 census projections showed that its' population is approximately 188,243 urban (Zimbabwe National Statistical Agency (ZIMSTAT, 2012). Mutare City runs 9 health institutions in total and these are found in the urban areas of Mutare.

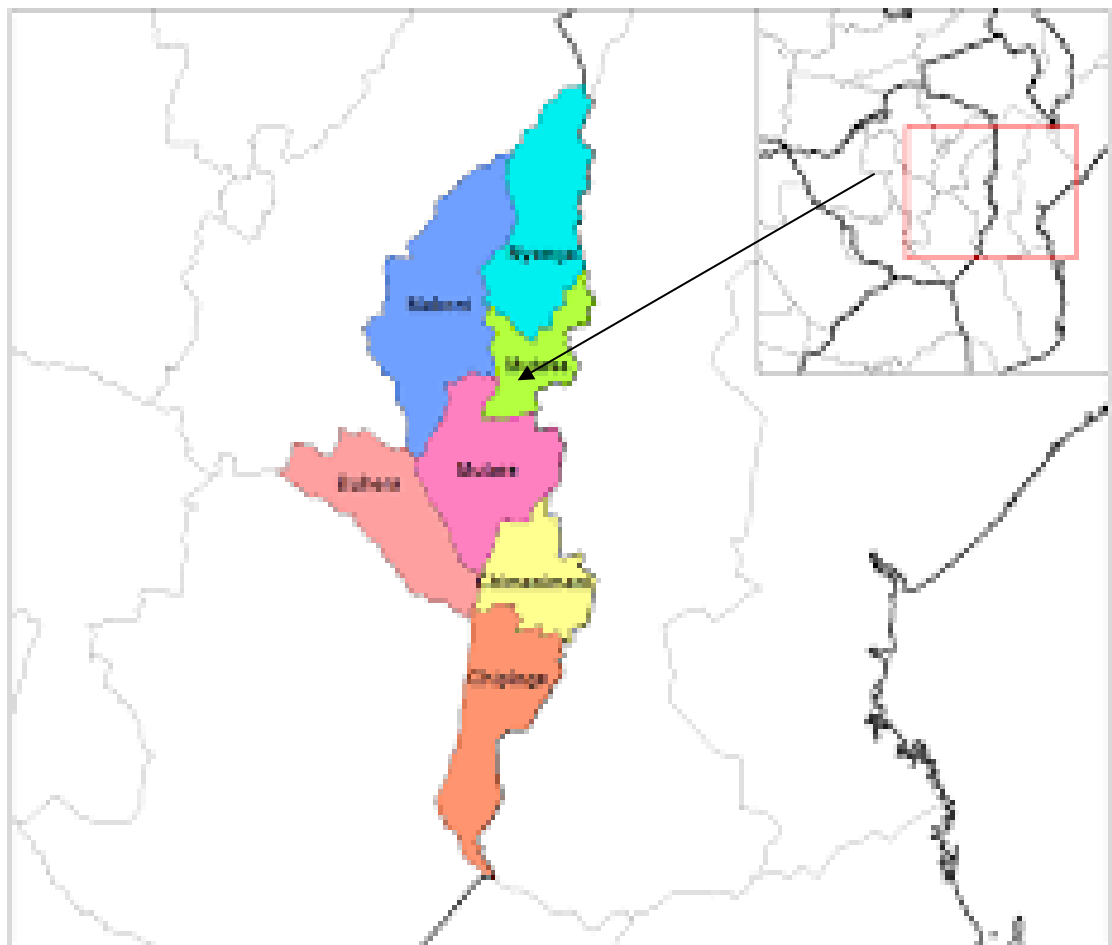


Figure 3.1: Study Area

3.4 Study population

Participants for the qualitative survey were identified, screened for eligibility, and selected by purposive sampling method by the investigator in each of the selected clinics. The participants included service providers and service users from each of the participating clinics.

The service providers helped in the recruitment of the service users who presented for services of Family Planning during the study period.

3.4.1 Inclusion Criteria

All health professionals employed under city health who were involved in the direct provision of Family planning services in any of the study facility six months before and during the current COVID-19 pandemic and service user ie someone who has accessed Family planning services six months before or during the COVID-19 pandemic. Eligible participants are those aged at least 18 years with adequate physical, mental, and cognitive capacity who give informed consent to participate in the study.

3.4.2 Exclusion Criteria

All health professionals not working under the selected city clinics were excluded. Furthermore, any health worker or service user who was not willing to participate or incapacitated to give consent was excluded from the study.

3.5 Sample size

Since the clinics are only 9 and the staff also limited, the study enrolled all health staff in the selected clinics to be study participants after seeking their consent. Key informants were the Senior Nursing officer for Mutare City, maternal child and health officers and provincial reproductive health focal person

For users, the sample size was determined using the formula for cross sectional study formula

$$n = N / (1 + Ne^2)$$

Where n = sample size

N = Population of interest/ known population size ie 63 722 ,

e = margin of error and the precision will be set at 0.05

$$\text{Thus } n = 63722 / (1 + 63722(0.05)^2)$$

$$n = 398$$

3.6 Sampling Procedure

The clinics were purposively selected according to the number of reported COVID-19 cases in the particular location where the clinic is situated and were categorized either as “high-burden-location (high number of cases) or low-burden location (low number of cases)”. For this study, two clinics in locations with highest number of COVID-19 reported cases and two clinics in locations with the lowest number of COVID-19 reported cases were selected. The high burden locations include Sakubva (n=26) and Chikanga (n=93), while the low-burden locations are Fernvalley (n=14) and City Health (n=14).

The investigator approached healthcare workers and service users through the hospital administration and the heads of the departments, explained the purpose of the study; got written consent and made appointments to interview the service providers and users. All found on duty in the selected clinics were recruited into the study.

Simple random sampling was used to select service users that participated in the study and for key informant interview convenience sampling was used to select key informants.

3.7 Data collection instruments

A structured interviewer administered questionnaire was used to interview users and to collect information on sociodemographics and COVID-19 related factors associated with FP utilisation.

A key informant guide was used for the standardisation of key informant interviews to collect data from key informants. The guide mainly focused on assessing acceptability of Family Planning access models and recommendations on which one to use.

3.7.1 Dependent variable

The dependant variable was the utilization of Family Planning by the clients , and this was measured by checking records to note attendance, sociodemographics, methods of Family planning used, adoption, continuation or discontinuation.

3.7.2 Independent variables

The independent variables were categorized into two major factors ie the user factor and the health system factor. Movement restrictions or lockdown, transport problems and anxiety secondary to being exposed to corona virus possibly acted as the user factors that affect the utilization of family planning service. On the other hand, the health system factor included the capacity of health staff, attitude of care providers, infrastructure, equipment, supplies and other forms of interactions that take place within the healthcare system

3.8 Pretesting of Instruments

The questionnaire was evaluated for test-retest reliability using 10% of the sample size and they were excluded from the larger study sample. The test-retest assessments was carried out 2 days apart and participants were not told that they would be re-tested to minimise bias. Item completion of the questions and percentage agreement between test–retest assessments was calculated for each question. The results determined whether the questionnaire was adopted for use in the study. Face and construct validity was enhanced through subjecting the questionnaire to review by experts in public health and aligning the research instrument to the conceptual framework that predicts Family Planning utilisation. The key informant guide was not translated into Shona since health professionals are conversant in English. The structured interviewer administered questionnaire for users was converted into shona.

3.9 Data collection procedure

Quantitative data was drawn from a line list of Family Plannig beneficiaries between Aug 2019 – Sept 2020. Data collected included total family planning services rendered, sociodemographics of clients, the type of methods preffered by clients, total number of clients who adopted a new method, total number of clients who continued use and discontinued use. The data was used to determine the trends in the utilization of Family Planning services in Mutare City during the COVID -19 pandemic.

To optimise response rate, the investigator used a structured interviewer administered questionnaire to collect information on sociodemographics and COVID-19 related factors associated with FP utilisation. A key informant guide was used to interview key informants on access models i.e. Senior Nursing Officer (SNO) for Mutare City, maternal child and health officers and provincial reproductive health focal person.

A written informed consent was obtained from the participants who would have volunteered to participate in the study ie those who continued, discontinued or adopted. Following a written informed consent, participants were interviewed in a private and confidential space using a structured interviewer-administered structured questionnaire. The participants were informed that the interview would be recorded during the informed consent process. The study participants were informed about the purpose of the study and were invited to participate in the interview, which lasted for approximately 20 to 30 minutes. After the interview, the audio recordings were transcribed verbatim. The transcripts were compared with the audio recordings to ensure completeness.

3.10 Data analysis and organisation

Quantitative data: This data was entered into a computer and analysed using SPSS version 20.0 for Windows to show the trends of utilization of Family Planning services over the twelve months review period. The differences in Family Planning services utilization between the study period (before and during the COVID era) were tested using the independent sample t-test. The level of significance will be reported at $P < 0.050$.

Qualitative data: Audio recorded interviews were transcribed verbatim and transcripts were anonymized with pseudonyms. Data analysis began with the reading of transcripts repeatedly to achieve immersion and deriving codes by identifying words in the text that capture key concepts. Initial codes were sorted into categories based on linkages between key concepts. The themes that represent key issues with Family Planning services access models were developed for initial coding and inductive analysis.

3.11 Ethical considerations

The investigator obtained ethical approval from the Ethics Committee of Africa University (AUREC). The permission to collect data was sought from the City health directorate. A written consent was obtained from all participants prior to each session. All the participants were assured that they can withdraw from the process whenever they want with no disadvantage to their employment. Privacy and confidentiality were maintained throughout the study process. Measures to ensure confidentiality included telling clients that no information was to be shared to other people and privacy was to be maintained, no names was to used on the questionnaires but coded using numbers. Furthermore, collected data was kept in a safe and locked cupboard.

3.12 Summary

This chapter presented the study methodology, outlining the design, the study setting, study population, sampling and sampling procedure, data collection and analysis together with ethical considerations to be observed in this study.

CHAPTER FOUR DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter is going to present the findings on the determinants of family planning utilisation during covid 19 pandemic in Mutare City. The results will be presented sequentially according to the objectives as set out in chapter 1. The trend on FP utilisation before and during the COVID-19 pandemic in Mutare city is presented first, followed by the COVID-19 related factors associated with FP utilization, retention, discontinuation and adoption in Mutare city and lastly the acceptable access models for FP in Mutare city.

4.2 Trend Analysis

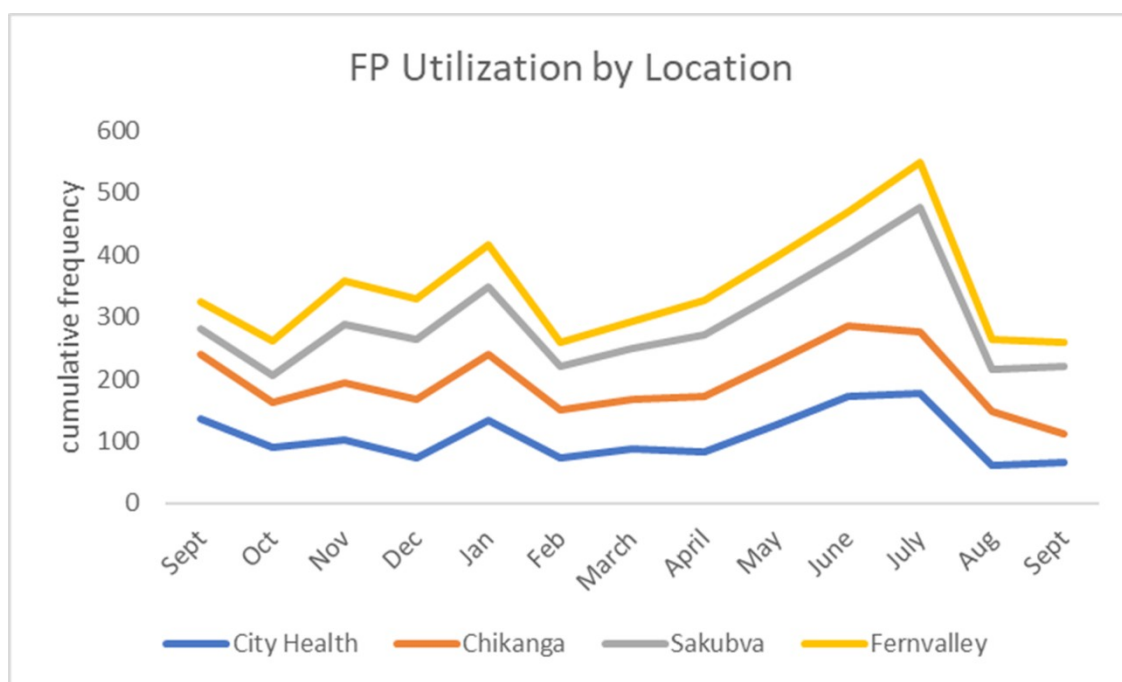


Figure 4.1: FP utilization by location

4.2.1 FP utilization by location

A total of 4 clinics were included in the study i.e., Chikanga and Sakubva (Covid 19 high burdened clinics) and Fernvalley and City Health (Covid 19 low burdened clinics). In all these clinics, before covid 19 there was a fluctuation in number of women receiving FP and a sharp decrease was noted in Feb and in March a gradual rise was noted and a pick was reached in July and a sharp decrease in August.

4.2.2 FP Utilization by age

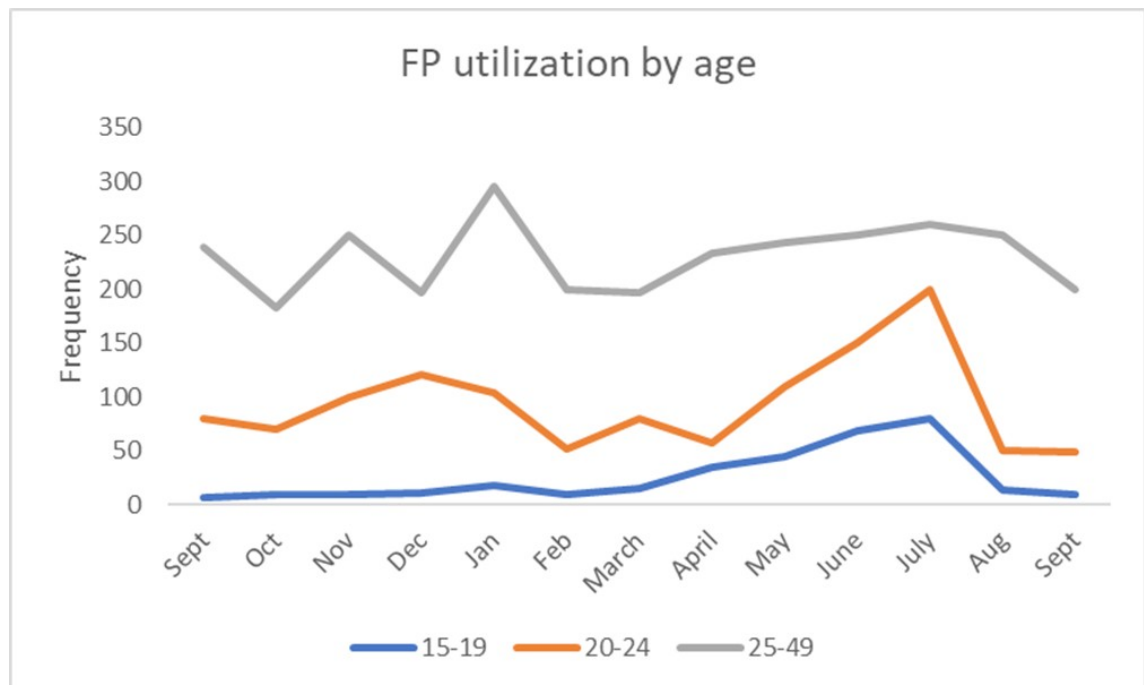


Figure 4.2: FP Utilization by Age

Before the pandemic started the number of women receiving FP fluctuated in the age group 25 – 49 and afterwards a steady rise was noted and a gradual decrease in August. For the age group 20-24 the number of women receiving FP fluctuated before covid 19 and in March a gradual decrease was noted and from April a sharp increase was noted and a peak was reached in July and sharp decrease was noted in August.

For the age group 15-19, in the non-covid period the number of women receiving FP was almost equal to zero, during covid 19 a steady rise was noted and a peak was reached in July and a steady decrease in August.

4.3 The COVID-19 related factors associated with FP utilization, retention, discontinuation and adoption in Mutare city

4.3.1 Association between sociodemographic and utilization status

Table 4.1: Association between Sociodemographic and utilization status

		Non-Users n (%)	Discontinuation n (%)	Adoption n (%)	Continuation n (%)	p-value
Marital Status	Married	70 (97.2)	15 (100)	0 (0)	191 (84.1)	<0.001
	Single	2 (2.8)	0 (0)	8 (100)	36 (15.9)	
Level of education (spouse)	Primary	0 (0)	0 (0)	0 (0)	0 (0)	<0.001
	Secondary	68 (97.1)	0 (0)	1 (100)	99 (51)	
	Tertiary	2 (2.9)	15 (100)	0 (0)	95 (49)	
Average monthly spending	>50	71 (98.6)	0 (0)	8 (100)	103 (45.4)	<0.001
	50-500	1 (1.4)	0 (0)	0 (0)	124 (54.6)	
	<500	0 (0)	15 (100)	0 (0)	0 (0)	
Religion	Apostolic Sect	9 (12.5)	0 (0)	0 (0)	0 (0)	<0.001
	Non Apostolic	63 (87.5)	15 (100)	8 (100)	227 (100)	
Age Group	18-25	71 (98.6)	0 (0)	8 (100)	33 (14.5)	<0.001
	26-30	0 (0)	0 (0)	0(0)	74 (32.6)	
	31-40	1 (1.4)	15 (100)	0 (0)	102 (44.9)	

40+	0 (0)	0 (0)	0 (0)	18 (7.9)
-----	-------	-------	-------	----------

A chi-square test was conducted to check for association between sociodemographic factors such as age, marital status, level of education of the woman and that of a spouse, religion and average monthly expenditure. From the table all the P values are less than 0.050, meaning sociodemographic factors were significantly associated with utilisation status.

4.3.2 Effect of Covid 19 on utilization

Table 4.2: Effects of Covid 19 on utilization

Currently using any FP methods					P-value
Affected by COVID-19		Yes	33(14)	71(83)	0
		No	202(86)	15(17)	
Willingness to continue using contraceptive		Yes	390(98)	78(90)	0.001
		No	5(2)	9(10)	

A chi-square test was conducted to determine effect of covid 19 on utilisation and the table above shows that covid 19 had an effect on FP utilization status and choice of method since p values were less than 0.050 meaning the relationship was statistically significant.

Table 4.3: Effects of Covid 19 on FP utilization within groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Age group	244.949	3	81.65	95.92	<0.001
Religion	45.269	1	45.269	30.797	<0.001
Income	128.069	2	64.034	52.705	<0.001
Marital Status	12.596	1	12.596	8.013	0.005

All the P Values from the table above are less than 0.050 meaning the effects of COVID-19 on FP utilization were statistically significantly different within groups.

Thus there are differences that exist within groups.

4.3.3 Family Planning Utilization Shift

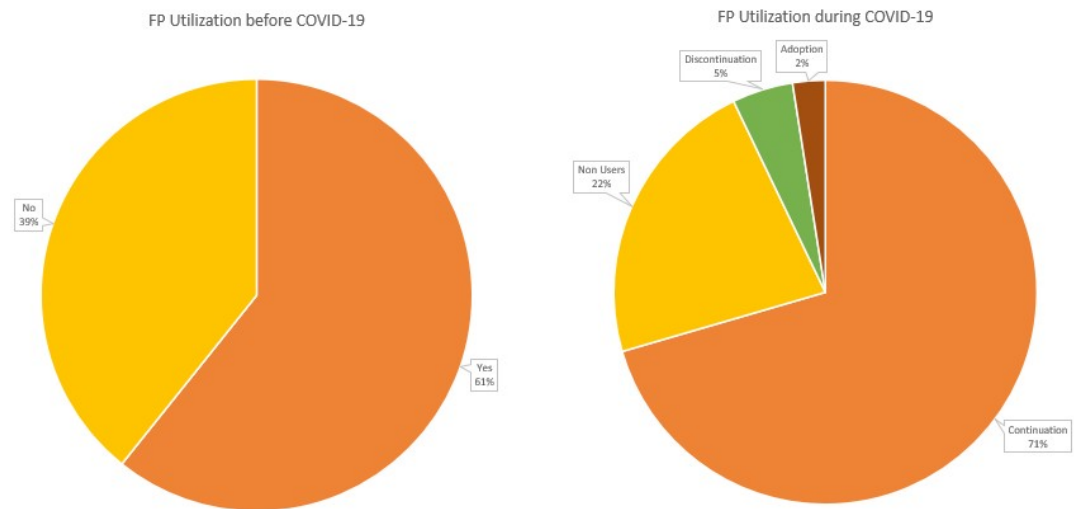


Figure 4.3: Family Planning Utilization shift

Before Covid 19, 243 (61%) women were using contraceptives whilst 157 (39%) women were not using contraceptive. During COVID-19, 227 (71%) women continued use, 15 (5%) women discontinued use, 8 (2%) women adopted and 72 women were non users thus percentage nonuse was 22%.

A paired T Test was conducted to check for difference between period before and period during covid 19 and a P Value of 0.001 was obtained. Thus there was a significant average difference between period before and during covid 19 since the P value was less than 0.050.

4.3.4 Changes in Method used

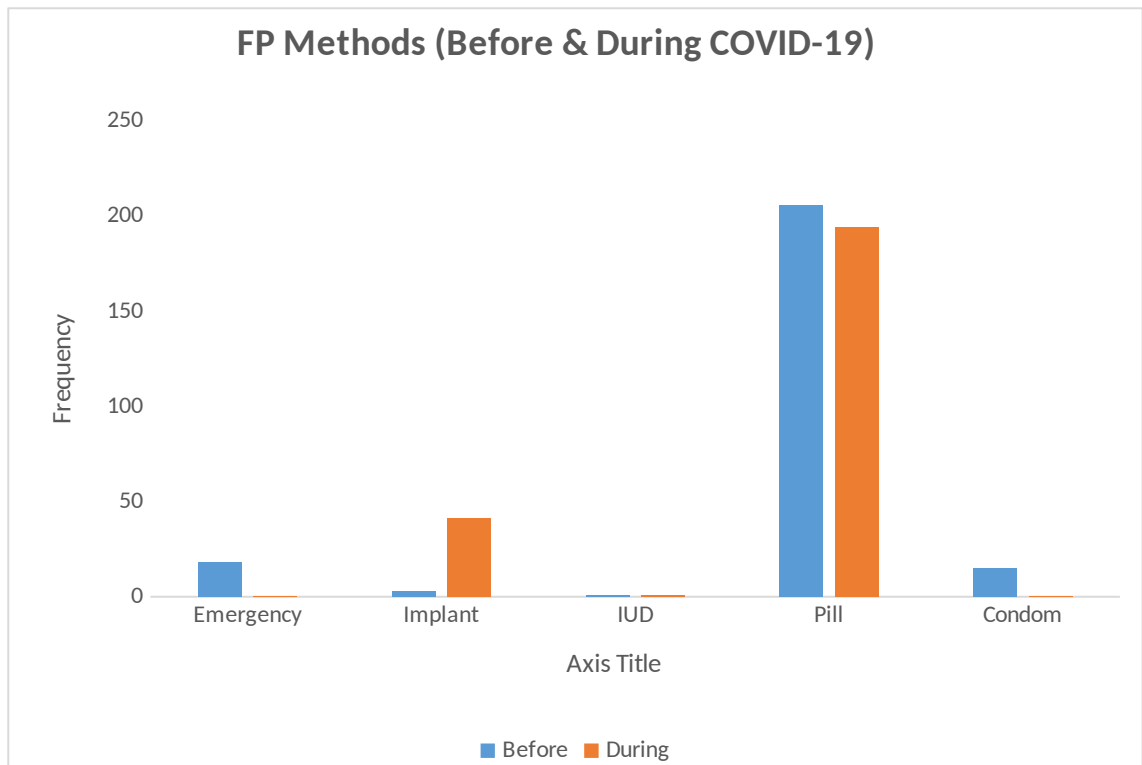


Figure 4.4: FP Methods comparing period before and during Covid 19

From the graph above, there was an increase in use of implants during Covid 19 in comparison to period before, and there was slight decline in use of pills during Covid 19 compared to non-Covid 19 period. During the Covid 19 period there was a decline in use of condoms and emergency contraceptives as compared to the non-Covid 19 period.

A paired T Test was conducted to check for difference between period before and during in method used. P value of 0.020 which is less than 0.050 was obtained, meaning that there was a significant average difference between period before and period during in method used.

4.3.5 Access Models



Figure 4.5 Thematic associated with acceptable access models for Family Planning

Four Key participants were interviewed by the researcher and these were all clinic managers from the selected clinics i.e., Dangamvura, Sakubva, Fern Valley and City Health.

From the picture shown above, all the themes i.e., door step, clinic to the house, free of charge and community-based health workers were related to the Mobile Outreach Services and Community Health Workers / Community Based Distribution.

CHAPTER 5 DISCUSSION, CONCLUSION AND RECOMENDATIONS

5.1 Introduction

This chapter will discuss the meaning of the results and interpret them in light of similar existing evidence from similar researches carried out locally, regionally and globally as highlighted in the literature review.

5.2 Discussion

5.2.1 FP utilization comparing period before and during COVID -19

Increase in Family Planning in January was associated with outreaches to distribute FP methods. This finding is similar to BMC Health Services Research (2007), where outreach efforts in Zambia were associated with higher modern contraceptive use among rural women. Decrease in Family Planning utilization in February and March can be attributed to speculations on spread of Covid 19 and the strict first lockdown that was erected in March.

Increase in FP utilization in May, June & July is associated with increased exposure to partners thus more women were now seeking Family Planning methods to prevent pregnancies. These findings are similar to the findings of Lin et al (2021) where an increased desire to avoid pregnancy was noted during the pandemic.

Increase in number of women seeking Family Planning can be attributed to age groups 15-19 and 20 -24 who wanted to prevent pregnancies. Most reported sex as a source of entertainment during this period. Decrease in Family Planning in August can be attributed to partner familiarization among age groups 15-19 and 20-24 age, hence less utilization.

5.2.2 Association between Sociodemographic factors and utilization status

According to Wulifan et al (2016), Family Planning utilisation increases with age. However, these findings are different from the researchers' findings between April to July as there was an increase in FP utilisation in young age groups due to the Covid-19 pandemic. Higher level of education is associated with increase in FP utilisation and role of partner's education was found to be significant ((Kaida et al, 2005). These findings are similar to the findings of this study.

According to Imasiku et al (2014), low socioeconomic status significantly decreases FP utilisation and these findings are similar to the findings of the researcher findings. Low socioeconomic status and/or rural residence were examined by nine of the reviewed quantitative studies and both found to increase total unmet need for FP in five studies (Mekonnen and Worku, 2011), while in the other studies no such association could be found (Ali and Okud, 2013). Low socioeconomic status significantly increased unmet need for spacing in the studies from Pakistan, Zambia, and Eritrea (Imasiku et al, 2014), mainly as women from lower socioeconomic status are very likely to have lower educational level (Hall et al, 2008).

Women, especially in urban settings considered FP supportive to household economics, as the costs of child rearing (e.g. nutrition, education, medical) could be better allocated and controlled (Hall et al, 2008). This finding is similar to the findings of this study where there is utilization of FP planning services in Mutare City.

Health service factors, such as FP provider behavior (friendliness towards clients), quality of care given, user fee payments, and proximity to FP centers were commonly mentioned to influence contraception use Sonalkar et al (2013). Determinants grouped

at the health service level, such as access to FP information, access to FP services, or the availability of long-acting FP methods were examined in five quantitative studies and found to be negatively associated with the total unmet need for FP, but also with both the unmet need for spacing and for limiting (Wulifan et al, 2016).

These findings are similar to researcher's findings as most women preferred LARCs due to user fee payment of \$6 however due to lack of LARCs most women continued to use the control pill.

Another study identified shortcomings in the provision of supplies of modern FP methods as determinants of unmet need. From a programming or supply perspective, the most challenging aspects in providing FP services seems to meet the quantity and quality of FP supplies (Sonalkar et al, 2013).

5.2.3 Utilization Shifts

According to a research done by Karp et al (2021) most women did not change their contraceptive status during COVID-19 (68.6% in Burkina Faso and 81.6% in Kenya) and those who did were more likely to adopt a new method (25.4% and 13.1%, respectively) than to discontinue (6.0% and 5.3% respectively).

However, in this study only (2%) women adopted a method of contraception and this was due to high exposure to partners during lockdown and discontinuation was reported by married women (5%) due to pregnancy and husbands locked down in other countries and cities and 72% continued use and this was due to close proximity to FP centers and ease of access.

5.2.4 Changes in method used

Increase in use of implants was due to free price however increase was not significant enough as Population Service International (PSI) only visits clinics one day a month.

Decrease in pill was due to method price \$6 for 4 months compared to period before and decline in use of condoms and emergency contraceptives due to partner familiarization.

The most-used methods across UNFPA Supplies countries are injectable contraceptives (intramuscular and subcutaneous) (39.8 per cent of users), oral contraceptive pills (17.5 per cent of users) and implants (16.3 per cent of users). This finding is different from the findings of the study where the most common used methods were the control pill (60.2%) and implant (12.2%) due to availability of those methods.

5.2.5 Acceptable access models for Family Planning

The themes i.e., door stop, clinic to the house, free of charge and community-based health workers were related to the Mobile Outreach Services and Community Health Workers / Community Based Distribution. These findings are similar to findings obtained by (FHI360, 2010) in Rwanda, training of government-supported community health workers to offer comprehensive contraceptive counseling and provide short-term methods at the community level, including condoms, pills, and injectables contributed tremendously to expanding access to contraceptives (FHI360, 2010).

Moreover mobile outreach services have been reported to address inequities in access to family planning services since the model allow for flexible and strategic deployment of resources, including health care providers, family planning commodities, supplies, equipment, vehicles, and infrastructure, to areas in greatest need at intervals that most effectively meet demand.

5.3 Conclusion

In conclusion, Covid 19 had an effect on choice of method and utilisation status. The determinants of family planning utilization during covid 19 are as follows;

Adoption was influenced by high user fees causing clients to switch from pills to LARCs. Moreover, lack of entertainment during covid 19 led to high sexual encounters as sex was reported to be a source of entertainment by most young women and high exposure to partners due to the lockdown that was erected influenced adoption of Family Planning methods.

Continued use was due to proximity to clinics and ease of access since these clinics are situated in the locations thus the Covid 19 regulations e.g., erection of intercity or locations roadblocks did not affect access to clinics.

Discontinued use was influenced by pregnancy thus no need to take contraception when one is already pregnant and partner familiarization.

5.4 Recommendations

Table 4.4: Recommendations

Recommendation	Responsible Person
FP services should be made free	Policy makers and Ministry of Health and Child Care (MOHCC)
Variety of FP methods should be made available to enable clients to choose their preferred method	Ministry of Health and Child Care
Sensitize community on the importance of continued use of contraception	MOHCC Health Promotion Officers
Frequent visits with LARCs to allow clients to choose their preferred methods	Population Service International
Outreaches/ mobile clinics to increase utilisation	Population Service International

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Appendices

Appendix 1: Permission letter from Mutare City



IF CALLING OR TELEPHONING PLEASE
REFER THE MATTER TO:
Dr k Murembwe Ext. 203

Your Ref:

Our Ref: KM/em/research

25 November 2021

Att: Joyce Fati Masvaya

Dear Madam


**RE: PERMISSION TO CARRY OUT A RESEARCH ON THE FACTORS ASSOCIATED
WITH UTILIZATION OF FAMILY PLANNING SERVICES IN MUTARE CITY**

The above matter refers:-

I have no objection to your carrying out the above-mentioned research on the following conditions:

- 1) The study be purely for education purposes and the results will therefore not be published for public use without the permission of council.
- 2) **You will be required to do a presentation on the findings of your study to our department prior to presentation anywhere else.**

Yours faithfully,


PP DR K. MUREMBWE
ACTING DIRECTOR OF HEALTH SERVICES

Appendix 2:English Questionnaire Survey Instrument

Questionnaire for women of reproductive age residing in Mutare Urban

Demographic Information

#	Question	Coding	Go to---
1	How old are you in years?		
2	Place of residence	Town-----1 Low Density-----2 Middle Density-----3 High Density-----4	
3	What's your marital status?	Married-----1 Previously/never married---2	
4	Have you ever attended school?	Yes-----1 No-----2	If no go to 6
5	What is your highest level of education	Primary-----1 Secondary-----2 Tertiary-----3	
6	What is the highest level of education of your spouse	Primary-----1 Secondary-----2 Tertiary-----3 N/A.....4	
7	Do you work outside home?	Yes-----1 No-----2	If no go to 9
8	What is your occupation? (<i>Teacher-1, Nurse-2, Vending-3, Store keeper-4, House maid-5</i>)	Professional-----1 Non-professional—2	

9	On average, how much is the usual household expenditure in a month?	>\$50-----1 \$50-\$500-----2 \$500+-----3	
1 0	What is your religion?	Apostolic sect-----1 Non-Apostolic-----2	

Family Planning Services utilisation during COVID-19

NO	QUESTIONS	CODING
1	Were you or your partner doing something or using any method to delay or avoid getting pregnant before Coronavirus restrictions (COVID-19) began?	Yes..... 1 No..... 0
2	What method were you using when the Coronavirus (COVID-19) restrictions began?	Female sterilization..... 1 Male sterilization..... 2 Implant..... 3 IUD..... 4 Injectable - Intramuscular..... 5 Injectable - Subcutaneous..... 6 Pill..... 7 Emergency Contraception..... 8 Male Condom..... 9 Female Condom..... 10 Std. Days/Cycle beads..... 11 LAM..... 12 Rhythm method..... 13 Withdrawal..... 14 Other method..... 15 No response..... -99
3	Where did you obtain the method? Probe to identify the type of source	Public sector Govt. Hospital/polyclinic..... 1 Govt. Health center..... 2 Mobile clinic..... 3 CHW..... 4 Community event..... 5 Private medical sector Private hospital/clinic..... 6 Private doctor..... 7

		Pharmacy.....8
		Chemical/drug store.....9
		Other source
		Shop/market.....10
		Friend / relative.....11
		Direct to consumer
		Delivered to my home.....12
		Website.....13
		App.....14
		Phone service.....15
		Other.....96
		Don't know.....-88
		No response.....-99
4	Are you currently pregnant?	Yes.....1 No.....0 Unsure.....2 No response-99
5	Did you plan to be pregnant at this time?	I/we planned this pregnancy at that time ... 1 I/we planned a pregnancy, but I/we had planned to wait until later.....2 I/we did not plan to become pregnant at all 3 No response-99
6	Did the Coronavirus (COVID-19) pandemic and the social restrictions affect your ability to avoid or delay pregnancy?	Yes.....1 No.....0 Unsure.....2 No response-99
7	Are you or your partner currently doing something or using any method to delay or avoid getting pregnant?	Yes.....1 No.....0 No response.....-99
8	What method are you using?	Female sterilization.....1 Male sterilization.....2 Implant.....3 IUD.....4 Injectable - Intramuscular.....5 Injectable - Subcutaneous.....6

		Pill..... 7 Emergency Contraception.....8 Male Condom.....9 Female Condom.....10 Std. Days/Cycle beads.....11 LAM.....12 Rhythm method.....13 Withdrawal.....14 Other method.....15 No response..... -99
9	Where did you or your partner last obtain your current [method from Q8]? Probe to identify the type of source	Public sector Govt. Hospital/polyclinic.....11 Govt. Health center.....12 Mobile clinic.....13 CHW.....14 Community event.....15 Private medical sector Private hospital/clinic.....21 Private doctor.....22 Pharmacy.....23 Chemical/drug store.....24 Other source Shop/market.....31 Friend / relative.....32 Direct to consumer Delivered to my home.....41 Website.....42 App.....43 Phone service.....44 Other.....96 Don't know..... -88 No Response..... -99
10	What is the main reason why you Choose this location?	Covid reasons Usual place/other places closed.....11 Usual place/other places not offering FP services or no

		<p>available provider.....12</p> <p>Have the method that I want.....13</p> <p>Less/no risk of being infected with COVID than other places14</p> <p>Afraid people would think I had COVID if they saw me going to usual/other places.....15</p> <p>Not able to go to other places due to COVID government restrictions.....16</p> <p>Partner/family prevented me from going elsewhere due to worries about COVID.....17</p> <p>Non covid reasons</p> <p>It's where I usually go.....21</p> <p>Close to home.....22</p> <p>Discreet.....23</p> <p>Providers have a good reputation.....24</p> <p>Recommend by friend/relative.....25</p> <p>Method available for low cost / free.....26</p> <p>Other.....96</p> <p>Don't know -88</p> <p>No response -99</p>
11	Did the Coronavirus (COVID-19) pandemic and the social restrictions affect why you chose this location?	<p>Yes.....1</p> <p>No.....0</p> <p>Unsure.....2</p> <p>No response -99</p>
12	Was [method from Q8] the method you wanted?	<p>Yes.....1</p> <p>No.....0</p> <p>Did not have a preference.....2</p> <p>No response -99</p>
13	You said you were using [method from Q2] before the Coronavirus (COVID- 19) restrictions began and you are using [method from Q8] now. What is the main reason why you chose [method from Q8]?	<p>Can administer/manage myself.....1</p> <p>No need to see a provider.....2</p> <p>Nobody will know I am using it.....3</p> <p>Lasts long time/longer than other methods. 4 Effective/more effective than other methods 5</p> <p>Few side effects/fewer side effects than other methods.6</p> <p>Side effects manageable/easier to cope with than other</p>

		methods.....7 Recommend by partner.....10 Recommend by provider.....11 Recommend by friend/relative.....12 Method available for low cost / free.....13 Other.....96 Don't know -88 No response -99
14	Did the Coronavirus (COVID-19) pandemic and the social restrictions affect why you chose [method from Q8]?	Yes.....1 No.....0 Unsure.....2 No response -99
15	You said you were using [method from Q8] before the Coronavirus (COVID- 19) restrictions began and you are using it now. Have you wanted to switch methods?	Yes.....1 No.....0 Did not have a preference.....2 No response -99
16	What method did you want to use?	Female sterilization.....1 Male sterilization.....2 Implant.....3 IUD.....4 Injectable - Intramuscular.....5 Injectable - Subcutaneous.....6 Pill.....7 Emergency Contraception.....8 Male Condom.....9 Female Condom.....10 Std. Days/Cycle beads.....11 LAM.....12 Rhythm method.....13 Withdrawal.....14 Other method.....15 No response -99
17	What is the main reason why you did not obtain [method from 16]?	Method not available 1 Method requires a prescription method 2

		Provider did not have equipment or supplies to provide method 3 Provider not trained to provide the method I wanted 4 Provider recommended a different method . 5 Not eligible for method 6 Did not have enough money 7 Provider thought I had COVID-19 8 Other 96 Don't know -88 No response -99
18	Did the Coronavirus (COVID-19) pandemic and the social restrictions affect why you did not obtain [method from Q16]?	Yes 1 No 0 Unsure 2 No response -99
19	At any time since the Coronavirus (COVID-19) restrictions began, did you want to obtain a contraceptive method?	Yes..... 1 No.....0 No response -99
20	Have you tried to obtain a method?	Yes..... 1 No.....0 No response -99
21	What is the main reason why you did not try to obtain a method?	Covid reasons Usual/other places to get FP closed..... 11 Usual/other places not offering FP services or no available provider..... 12 Afraid of being infected with COVID.....13 Afraid people would think I had COVID if they saw me going..... 14 Not able to go due to COVID government restrictions 15 Partner/family prevented me from going due to worries about COVID.....16 Too sick to leave the house.....17 Looking after sick family member.....18 Too busy to leave the house.....19 Non covid reasons Changed my mind.....21

		Partner disapproved or did not like.....22 Lost partner/partner away/infrequent sex.....23 Too old/menopause/infecund.....24 Did not have enough money.....25 I became pregnant.....26 Other.....96 Don't know -88 No response -99
22	Where did you go to obtain a method? Probe to identify the type of source	Public sector Govt. Hospital/polyclinic..... 11 Govt. Health center.....12 Mobile clinic.....13 CHW.....14 Community event.....15 Private medical sector Private hospital/clinic.....21 Private doctor.....22 Pharmacy.....23 Chemical/drug store.....24 Other source Shop/market.....31 Friend / relative.....32 Delivered to my home.....40 Other.....96 Don't know..... -88 No response..... -99
23	What is the main reason why you were not able to obtain a method?	Covid reasons Not offering FP services or no available provider..... 11 Told that providers did not have enough protective equipment to see clients during COVID-19.....12 Provider thought I had COVID-19.....13

		Non covid provider reasons Method not available.....21 Method requires a prescription.....22 Provider did not have equipment or supplies to provide method.....23 Provider not trained to provide the method I wanted.....24 Provider recommended a different method 25 Not eligible for method.....26 Non covid reasons Changed my mind.....31 Did not have enough money.....32 I became pregnant.....33 Other.....96 Don't know.....-88 No response.....-99
24	Did the Coronavirus (COVID-19) pandemic and the social restrictions affect why you have not obtained a method?	Yes.....1 No.....0 Unsure.....2 No response-99
25	Do you still want to obtain a contraceptive method?	Yes.....1 No.....0 Currently pregnant.....2 No response-99

Appendix 3:Shona Questionnaire Survey Instrument

Bepa remibvanzo yevakadzi emakore ekuzvara vanogara maMutare

Demographic Information

#	Mubvunzo	Mapindurire	
1	Mune makore manganic ekuzvarwa?		
2	Munogara kupi?	Mudhorobha----1 Kumayahi -----2 Kuri pakati nepakati-----3 Kughetto -----4	
3	Makaroorwa here?	Hongu-----1 Kwete---2	
4	Makaenda kuchikoro here?	Hongu-----1 Kwete-----2	Kana mhindur o iri kwete endai ku 6
5	Makadzidza kusvika padanho ripi?	Puraimari -----1 Sekondari-----2 Dzidzo yepamusoro-----3	
6	Mumwe wenyu akadzidza kusvika pagwaro ripi?	Puraimari-----1 Sekondari-----2 Dzidzo yepamusoro-----3 N/A.....4	
7	Munoshandira kunze kwemusha here?	Hongu-----1 Kwete-----2	Kana mhindur o iri kwete endai ku 9

8	Munoita basa rei? (<i>mudzidzisi-1, mukoti-2, kutengesa-3, Muchengeti wechitoro -4, mushandi wemumba-5</i>)	Makadzidzira -----1 Hamuna kudzidzira—2	
9	Mari inokwana kushandisa pazvinhu zvemumba ingasvike kumarii pamwedzi?	>\$50-----1 \$50-\$500-----2 \$500+-----3	
10	Muri vechitendero chipi?	Chechi yevaApositora-----1 Isiri yevaApositora-----2	

Kushandiswa kwenzira dzinodzivirira pamuviri munguva yedenda reCOVID-19

NO	QUESTIONS	CODING
1	Pane zvamaita here imi nemumwe wenyu kuti musabate pamuviri pakatanga mitemo yedenda reCOVID-19?	Hongu..... 1 Kwete..... 0
2	Maishandisa nzira ipi pakatanga mitemo yedenda re COVID-19)?	Female sterilization..... 1 Male sterilization..... 2 Implant..... 3 IUD..... 4 Injectable - Intramuscular..... 5 Injectable - Subcutaneous..... 6 Pill..... 7 Emergency Contraception..... 8 Male Condom..... 9 Female Condom..... 10 Std. Days/Cycle beads..... 11 LAM..... 12 Rhythm method..... 13 Withdrawal..... 14 Imwewo nzira..... 15 Handina mhinduro..... -99
3	Pakawanepi nzira iyi? Tsvakurudza kuti uwane nzira	Public sector Govt. Hospital/polyclinic..... 1 Govt. Health center..... 2 Mobile clinic..... 3 CHW..... 4 Community event..... 5 Private medical sector Private hospital/clinic..... 6 Private doctor..... 7 Pharmacy..... 8 Chemical/drug store..... 9

		Other source Shop/market.....10 Friend / relative.....11 Direct to consumer Delivered to my home.....12 Website.....13 App.....14 Phone service.....15 Other.....96 Don't know.....-88 No response.....-99
4	Mune pamuviri here?	Hongu.....1 Kwete.....0 Handizive.....2 Handina mhinduro.....-99
5	Makangamakaronga pamuviri apa here?	Hongu.....1 Hongu asi taida kuzoita pamberi.....2 Kwete hatina kunge taparonga.....3 Handina mhinduro-99
6	Denda reCoronavirus (COVID-19) uye nemitemo yakaiswa yakakanganisa kusada kubata pamuviri here?	Hongu.....1 Kwete.....0 Handizive.....2 Handina mhinduro-99
7	Imi nemumwe wenyu mune zvamukuita here kudzivirira pamviri?	Hongu.....1 Kwete.....0 Handina mhinduro.....-99
8	Mukushandisa nzira ipi?	Female sterilization.....1 Male sterilization.....2 Implant.....3 IUD.....4 Injectable - Intramuscular.....5 Injectable - Subcutaneous.....6 Pill.....7

		Emergency Contraception.....8
		Male Condom.....9
		Female Condom.....10
		Std. Days/Cycle beads.....11
		LAM.....12
		Rhythm method.....13
		Withdrawal.....14
		Imwewo nzira.....15
		Handina mhinduro..... -99
9	Makawanepi nzira iyi [nzira kubva kumubvunzo 8]? Tsvakurudza unzwisise kwakabva nzira	Public sector Govt. Hospital/polyclinic.....11 Govt. Health center.....12 Mobile clinic.....13 CHW.....14 Community event.....15 Private medical sector Private hospital/clinic.....21 Private doctor.....22 Pharmacy.....23 Chemical/drug store.....24 Other source Shop/market.....31 Friend / relative.....32 Direct to consumer Delivered to my home.....41 Website.....42 App.....43 Runhare.....44 kumwewo.....96 Handizive..... -88 Handina mhinduro..... -99
10	Sei makasarudza kwamakawana nzira iyi?	Zvikonzero zvinoenderana necovid Ndokwa ndinosingoenda.....11 Kwandinosienda havasi kupa uye hakuna anobatsira...12

		Vanenzira yandaia.....13 Kune njodzi shoma yekubatira denda iri.....14 Kutya kuti vanhu vanozofunga ndine denda re COVID vakadiona ndichienda kwandisinoenda kana kuti kumwe15 Handikwanisi kuenda kwandoda nokuda kwemitemo yakaiswa yeCOVID-19.....16 Mumwe wagu uye huri yangu yandizivisa nekuda kwekundityira kuti ndinobata denda re COVID-19.....17 Zvikonzero zvinoenderana necovid Ndokwandinoenda.....21 Pedyo nekumba.....22 Ndokwandaia.....23 Vashandi vanogona basa.....24 Ndakakuudzwa neshamwari.....25 Nzira yacho yakachipa ikoko kana kuti ndeyemahara. 26 Mamwewo.....96 Handizivi..... -88 Handina mhinduro -99
11	Denda reCoronavirus (COVID-19) uye nemitemo yakamisikidzwa yakaita musarudze nzvimbo iyi here?	Hongu.....1 Kwete.....0 Handizive.....2 Handina mhinduro -99
12	Ndiyo nzira yamaida here [nzira kubva kumubvunzo 8] ?	Hongu.....1 Kwete.....0 Ndanga ndisina sarudzo.....2 Handina mhinduro -99
13	Mati maishandisa nzira [nzira kubva kumubvunzo Q2] Coronavirus (COVID- 19) nemutemo weCOVID-19 usati watanga uye ikozvino mava kushandisa [nzira kubva kumubvunzo 8]. Nemhaka yei mava kushandisa [nzira kubva kumubvunzo 8]?	Ndokwanisa kushandisa ndega.....1 Hazvidi rubatsiro kubva kune vandipa.....2 Hakuna anoziva ndiri kuishandisa.....3 Inogara kudarika dzimwe nzira..... 4 Inoshanda kudarika dzimwe nzira..... 5 Ine maside effects mashoma kudarika dzimwe nzira.....6 Ine maSide effects ari nani uye andinokwanisa kudarika dzimwe nzira.....7

		Mumwe wangu akati ndishandise nzira iyoyo.....10 Ndakaudzirwa nevezveutano.....11 Ndakaudzirwa nehama neshamwari.....12 Nzira ine mutengo wakaderera or mahara.....13 Mamwewo.....96 Handizive -88 Handina mhinduro -99
14	Denda re Coronavirus (COVID-19) pandemic uye nemitemo yakaita musarudzo nzira iyi hr [nzira kubva kumubvunzo 8]?	Hongu.....1 Kwete.....0 Hadizive.....2 Handina mhinduro -99
15	Mati maishandisa [nzira kubva kumubvunzo 8] mitemo ye Coronavirus (COVID- 19) isati yatanga nanhas muchiri kushandisa nzira iyi. Maida kuchinj nzira here?	Hongu.....1 Kwete.....0 Ndanga ndisina sarudzo.....2 Handina mhinduro..... -99
16	Maida kushadisa nzira ipi?	Female sterilization.....1 Male sterilization.....2 Implant.....3 IUD.....4 Injectable - Intramuscular.....5 Injectable - Subcutaneous.....6 Pill.....7 Emergency Contraception.....8 Male Condom.....9 Female Condom.....10 Std. Days/Cycle beads.....11 LAM.....12 Rhythm method.....13 Withdrawal.....14 Dzimwewo nzira.....15 Handina mdinduro..... -99
17	Sei musiri kushandisa [nzira kubva kumubvunzo 16]?	Nzira haipo.....1 Nzira inoda prescription2 Vabatsiri vanga vasina zvokushadisa 3

		Vabatisiri vanga vasina ruzivo rwekushandisa nzira yandaida4 Vabatsiri vakakurudzira imwewo nzira..... 5 Handikodzeri kuwana nzira iyi.....6 Ndaisava nemari yakakwana.....7 Mubatsiri aifunga ndine denda reCOVID-19 8 Mmwewo.....96 Handizive..... -88 Handina mhinduro..... -99
18	Denda reCOVID-19 uye nemitemo zvakakukanganisai kuwana[nzira kubva kumubvunzo 16]?	Hongu.....1 Kwete.....0 Handizive.....2 Handina mhinduro..... -99
19	Kubva pakatanga Coronavirus (COVID-19) uye nemutemo maida kuwana nzira here?	Hongu.....1 Kwete.....0 Handina mhinduro -99
20	Makamboedza kuwana nzira here?	Hongu.....1 Kwete.....0 Handina mhinduro..... -99
21	Nemhaka yei musina kuwana nzira yekushandisa?	Zvikonzero marige necovid Kwaive kwakavharwa.....11 Vaive vasingapi nzira.....12 Ndaitya kubata COVID.....13 Ndaitya kunzi ndine COVID.....14 Mitemo yeCOVID yakanditadzisa kuenda.....15 Mhuri yangu pamwe nemumwe wangu vaitya kuti ndiende nekuda kwe COVID.....16 Ndairwara.....17 Ndaichengeta hama yairwara.....18 Ndaive ndine zvokuita zvakawanda.....19 Zvikonzero zvisinei necovid Ndakashandura mafungiro.....21 Mumwe wangu aisada.....22 Mumwe wangu akafa/aiva kure.....23 Ndakura.....24

		Ndaive ndisina mari.....25 Ndakaita pamuviri.....26 Zvimwewo.....96 Handizivi -88 Handina mhinduro..... -99
22	Makawanepi nzira iyi? Tsvakurudza kuti nzira yakawanikwepi	Public sector Govt. Hospital/polyclinic.....11 Govt. Health center.....12 Mobile clinic.....13 CHW.....14 Community event.....15 Private medical sector Private hospital/clinic.....21 Private doctor.....22 Pharmacy.....23 Chemical/drug store.....24 Other source Chitoro.....31 Hama/shamwari.....32 Yakauya kumba.....40 Kumwewo.....96 Handizivi..... -88 Handina mhinduro..... -99
23	Nemhaka yei musina kukwanisa kuwana nzira?	Zvikonzero maringe necovid Hakuna kukupihwa nzira idzi11 Vabetseri Havana zvekudzivirira nazvo denda kuti vati batsire.....12 Mubatsiri anofunga ndine denda.....13 Zvikonzero zvisinei necovid zvinekuita nekunobatsirwa Hakuna nzira yacho.....21 Nzira inoda prescription.....22

		Mubetseri haana zvokushandisa23 Mubetseri haana kufundiswa kushandisa nzira iyi24 Mubatsiri andikurudzira imwe nzira..... 25 Handina kukodzera kushandisa nzira iyi.....26 Zvikonzero zvisinei necovid Ndashandura mafungire angu.....31 Handina mari yakakwana.....32 Ndine pamuviri.....33 Mamwewo.....96 Handizive.....-88 Handina mhiduro.....-99
24	Denda re Coronavirus (COVID-19) uye nemitemo zvakakanginisa kuwana nzira here?	Hongu.....1 Kwete.....0 Handizive.....2 Handina mhinduro.....-99
25	Munoda here nzira yekudzvivirira pamuviri?	Hongu.....1 Kwete.....0 Ndine pamuviri.....2 Handina mhinduro.....-99

Appendix 4: Key Informant Interview guide

Interviews will be conducted with a range of health service providers who are directly involved in Family planning services. The Senior Nursing Officer (SNO), maternal child and health officers and provincial reproductive health focal person will be interviewed.

1. What are the available access models for Family Planning in Mutare city?
2. Are there any challenges with implementing the available access models in Mutare City?
3. Do you have any recommendations on how to improve implementation of the available access models in Mutare City?
4. What are your views on the acceptability of the following access models in Mutare City?
 1. Mobile Outreach Services
 2. Social and Behavior Change
 3. Community Health Workers

Appendix 5: English Consent Forms

TITLE OF THE STUDY: FACTORS ASSOCIATED WITH UTILISATION OF FAMILY PLANNING SERVICES DURING THE COVID-19 PANDEMIC IN MUTARE CITY: A CROSS-SECTIONAL STUDY

Good morning/ afternoon. I am Masvaya Joyce F, a student at Africa University. I am conducting a study to determine factors associated with utilization of family planning during COVID-19 pandemic in Mutare city clinics for the period 2019 to 2020. This form gives you information about the study and will be used to document your willingness to take part should you choose to do so.

Purpose of the study

The purpose of this study is to determine factors associated with utilization of family planning during COVID-19 pandemic in Mutare city clinics. The study is for academic purposes. Also, information from this study will assist Ministry of Health and Child Care to design effective Family Planning strategies for future similar pandemics.

Procedures and Duration

The eligible participants for this study are; 1) Women of reproductive age 2) Key informants i.e. Senior Nursing Officer (SNO), maternal child and health officers and provincial reproductive health focal person in delivering Family Planning services in Mutare city clinics. You have been randomly selected as a possible participant because you meet both or at least one of the stated selection criteria. About 398 participants will be enrolled in this study. If you decide to participate, you will be asked to undergo a face to face interview while completing this questionnaire. The interview will take about 45 minutes.

Benefits, Risks and Discomforts

There are no direct benefits to you for participating in this study. I am hoping that findings from this study will be used to improve the ANC program. The risks of participating in this study are minimal. It is possible that you may feel uncomfortable with some of the questions I will ask you. You can choose to skip or to discontinue the interview if you feel uncomfortable.

Confidentiality

If you participate in this study, your personal details will not appear on the questionnaire. Any information that is obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. You will be assigned a study participant identity number which will be used to identify the questionnaire. All study records will be kept in secure, locked filing cabinets, separate from any information that identifies you personally like this consent form. Your name will not be used in any reports or publications that may arise from this study. Your details may be released to authorized individuals if required by the law. Under some circumstances, the University or Medical Research Council of Zimbabwe may need to review records for compliance audits only.

Additional Costs

There will be no additional costs to you because of your participation in this study except those related to the time taken while participating in this study.

Voluntary Participation

Participation in this study is voluntary. If you decide not to participate in this study, your decision will not affect your future regular health care services in any way. If you

decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty.

Authorization

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over. Your signature indicates that you have read and understood the information provided above, have had all your questions answered, and have decided to participate.

Signature of Participant or legally authorized representative

Relationship to the Participant

_____	_____	_____

Name of Staff Obtaining Consent

Signature

Date

Appendix 6: Shona Consent Forms

MUSORO WETSVAKURUDZO: ZVINHU ZVINGAVANDUDZA KANA KUKANGANISA KUSHANDISWA KWECHIKAMU CHEKUVAKA MHURI KANA KUDZIVIRIRA PAMUVIRI MUNGUVA YEDENDA RECOVID-19 MUGUTA REMUTARE MUGORE RA 2019/20

Mutsvakuridzi – Masvaya Joyce F (mudzidzi wekucikoro chepamusoro cheAfrica University)

Zvamunofanira kuziva nezvetsvakurudzo ino

- Muri kukumbirwa kupinda mutsvakurudzo.
- Gwaro retenderano rino rinotsanangura tsvakurudzo iyi nezvamunotarisirwa kuita mutsvakurudzo.
- Munokumbirwa kuti munyatsoverenga gwaro rino kana kuti kukumbira kuti mumwe munhu akuverengerei. Shandisai nguva yose yamungada pakuriverenga.
- Munopinda mutsvakurudzo nokuda kwenyu uye munogona kusarudza kusapinda muzvirongwa zvetsvakurudzo. Chero mukapinda mutsvakurudzo, munogona kubuda panguva chero ipi zvayo. Hapana zvamunoitwa nechikonzero chekuti munenge masarudza kubuda mutsvakurudzo.
- Panguva yetsvakurudzo, tichakuzivisai kana tikawana ruzivo rutsva runogona kushandura pfungwa dzenyu maererano nekuti mungada kuramba muri mutsvakurudzo here kana kuti kwete.

Chinangwa chetsvakurudzo

Tinoda kuziva zvinhu zvingavandudza kana kukanganisa kushandiswa kwechikamu chekuvaka mhuri kana kudzivirira pamuviri munguva yedenda recovid-19 muguta remutare mugore ra 2019/20

Chikonzero chaitea kuti mukumbirwe kupinda mutsvakurudzo

Masarudzwa kupinda mutsvakurudzo ino kuburikidza nekwamunogara. Munogara munzvimbo ichaitirwa tsvakurudzo uye imba yenyu yakasarudzwa pasina nzira chaiyo yaishandiswa .

Zvichaitwa

Kana muchibvuma kupinda mutsvakurudzo ino, tichakubvunzai mibvunzo. Tinoda kukubvunzai mibvunzo maererano nezvekuwana rubatsiro rwekuvaka mhuri kana kuti kudzivirira pamuviri munguva yedenda reCOVID-19.

Zvakanaka zvamunowana

Hapana chamunowana kuburikidza nekupinda mutsvakurudzo ino.

Mubhadharo

Hapana chamunobhadhara kuti mupinde mutsvakurudzo ino.

Kuchengetedzwa kweruzivo

Ruzivo rwamuchapa zvichaiswa pamwe chete nenhamba yerupawo yamuchapiwa, kwete zita renyu. Vatsvakurudzi vetsvakurudzo ino, Africa University Research Committee (AUREC) chete ndivo vachawana mukana wekuziva zvinenge zvabuda muongororo yemhinduro dzamuchapa kumibvunzo ichabvunzwa. Ruzivo urwu ruchachengetedzwa mumakombiyuta akachengeteka. Hatisi kuzoshandisa mazita mumaripoti ari maererano netsvakurudzo.

Zvimwe zvinogona kuitwa kana mamwe marapirwo

Kupinda mutsvakurudzo kuda kwenyu uye munogona kusarudza kubuda mutsvakurudzo chero nguva.

Muripo wekuva mutsvakurudzo

Hamubhadharwi mari kuburikidza nekupinda kwenyu mutsvakurudzo.

Chii chichaitika kana mukabuda mutsvakurudzo nguva isati yakwana?

Zvisinei nekuti hamudi kupinda mutsvakurudzo kana kuti mabuda mutsvakurudzo, mucharamba muchiwana rubatsiro rwakafanana nerwamaisiwana kubva kukirinika kana kuchipatara chemunharaunda menyu.

Kugoverana ruzivo rwezveutano hwenyu nevamwe

Ruzivo ruri maererano nenhamba yerupawo ndirwo ruchagoveranwa nevamwe vatsvakurudzi, kwete zita renyu.

Sainecha yenyu kana chidhindo chemunwe wenyu chinorevei pagwaro retenderano rino?

Sainecha yenyu kana chidhindo chemunwe wenyu pagwaro rino chinoreva kuti:

- Maziviswa nezvechinangwa chetsvakurudzo ino, zvichaitwa
- Mapiwa mukana wekubvunza mibvunzo musati masaina.
- Mazvipira kupinda mutsvakurudzo ino pasina kumanikidzwa.
- Munonzwisisa kuti ruzivo rwatorwa pamuri zvinogona kuchengetedzwa kuti zvizoshandiswa mutsvakurudzo dzinenge dzabvumidzwa dzinokoshesa utano hwevanhu

Nyorai zita remunhu mukuru apinda

mutsvakurudzo.....

.....

Sainecha yemunhu mukuru ari mutsvakurudzo

.....

Zuva.....

Nyorai zita remunhu awana

Sainecha yemunhu awana

Zuva mvumo

mvumo