

ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)



ISRG PUBLISHERS

Abbreviated Key Title: ISRG J Arts Humanit Soc Sci

ISSN: 2583-7672 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjahss>

Volume – IV Issue -I (January- February) 2026

Frequency: Bimonthly



Effects of the Coronavirus disease (COVID-19) pandemic on access and utilization of reproductive health services in some health units in Yaoundé-Cameroon

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| **Received:** 08.01.2026 | **Accepted:** 12.01.2026 | **Published:** 21.01.2026

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Abstract

The COVID-19 pandemic came with major challenges to the capacity of health systems to continue the delivery of essential health services including reproductive health care while, at the same time, tackling the pandemic. The purpose of this study is to assess the effects of the COVID-19 pandemic on access and utilization sexual and reproductive health services in some health units in Cameroon's capital city, Yaoundé. This was done by comparing the consultations for reproductive health care recorded in selected health units in Yaoundé one year before the onset of the COVID-19 pandemic and those recorded during the pandemic year (2021). Interviews of reproductive service providers were conducted to find out the new difficulties faced as well as the solutions provided. Using data extracted from out-patient departments in these health units, this study found a significant reduction in the number of users seeking reproductive health services after March 2020, due to the COVID-19 pandemic scare and restrictions in all health units selected. Users mentioned fears of infection, and a fall in the quality of these services. Access was limited by demand and supply barriers including transportation disruptions, financial hardships, limited resources and legal restrictions. Faced with this situation, some health personnel developed tele-consultation techniques using telephones and some internet-based platforms, albeit with limited success. These findings call for the strengthening of health care systems for pandemic preparedness in Cameroon and elsewhere. This will enhance access to essential sexual and reproductive health care services in times of health emergencies.

Keywords: COVID-19, sexual and reproductive health, family planning, health personnel

Introduction

The novel coronavirus (SARS-CoV-2) declared by WHO as a global pandemic on 11 March 2020, placed enormous strains on health systems worldwide. Its sudden outbreak negatively impacted health services, causing the collapse of many including sexual and reproductive health services, especially in developing countries. The key challenge of every health system within the framework of the outbreak of this pandemic was to maintain a balance between responding to this new health crisis while at the same time maintaining essential health services including sexual and reproductive health systems.

With the onset of COVID-19, emphasis shifted significantly from other health concerns to tackling this new emergency. This significantly disrupted the delivery of essential health services including sexual and reproductive health services. Key sexual and reproductive health services negatively impacted by the shift of attention include family planning (FP), contraception, comprehensive safe abortion, post abortion care, pre-and post-natal care, HIV/AIDS and other sexually transmitted diseases, counselling, maternal and child care services (CDC, 2020). This transfer of resources towards fighting the pandemic led to the scaling down of non-essential health services including family planning commodities.

Other challenges to provisioning sexual and reproductive health services within the COVID-19 context include the fear of patients contracting COVID-19 during visits to health facilities; the conversion of some health facilities to exclusively COVID-19 quarantining centres; inadequate information on the continued provision of essential sexual and reproductive health services; and heavy workloads on the available health personnel. This was compounded by the limited capacity to confront the challenges associated with containing the spread of COVID-19 and the treatment of existing cases (Puri and Stone, 2020).

The 2018, Cameroon Demographic and Health Survey shows that much still has to be done to meet the targets set by the 2020-2030 and the Sustainable Development Goals. The devastation of COVID-19 and the resultant shift of attention from other health concerns including sexual and reproductive health in a poor resource setting has made a bad situation worse. The objective of this study is to assess the continuity of the delivery of essential sexual and reproductive health services during the COVID-19 context in selected health units in Yaounde.

Justification for the Study

- It is important to closely examine trends in reproductive health service delivery during a pandemic such as COVID-19 because it provides the foundation for an improved future response. The 2019 coronavirus pandemic is a prime example of the impact a pandemic can have on a nation's reproductive health system. Access to family planning services became more difficult with more barriers to access, likely contributing to increasing unintended pregnancy rates. Since abortion is illegal in Cameroon, the occurrence of unintended pregnancies often leads to clandestine and unsafe abortions. The reproductive health of vulnerable populations such as the poor and youths are more likely to be disproportionately affected by the virus.
- Examining these topics in depth will lead to the development of strategies that can be employed to

mitigate the negative effects on reproductive health in Cameroon and elsewhere during the current pandemic and can also be applied to future strategic plans to prevent similar negative outcomes.

Problem Statement

- Literature review shows that the impact of the COVID-19 pandemic on access to and utilization of sexual and reproductive health services was global and distributed across several service areas including contraception, in-clinic safe abortion and post-abortion care, in-person gender-based and intimate partner violence services and sexually transmitted infection/HIV testing, treatment and prevention. These impacts can be aggravated in contexts of less developed reproductive health service systems such as the case of Cameroon.
- Critical gaps on the impact of the pandemic on sexual and reproductive health in Cameroon and many other sub-Saharan countries remain, especially among adolescents and marginalized groups with distinct sexual and reproductive health needs.
- There are many barriers to accessing and using sexual and reproductive health care across the globe related to the pandemic due to transportation disruptions, financial hardships, reduced medical supplies and human resources and legal restrictions to abortion care. These barriers were more pronounced in countries with pronounced economic disadvantages that existed even before the pandemic period.

This study is guided by the following research questions:

How did the COVID-19 pandemic affect access and use of sexual and reproductive health services in health units in Cameroon capital city, Yaoundé?

What were the barriers to accessing and consequently using sexual and reproductive health services during the peak period of the COVID-19 pandemic in Cameroon's capital city, Yaoundé?

What were the new strategies put place to overcome the barriers imposed on access to reproductive health services and how successful were they?

What were the lessons learnt from the difficulties of faced in providing reproductive health care during the COVID-19 pandemic and how can they be useful in case of future pandemics?

Objectives

The general objective of this study is to describe and evaluate the impact of the COVID-19 pandemic on access to and utilization of sexual and reproductive health services in major health units in Cameroon's capital city, Yaoundé and to identify barriers to access and utilization of these services.

Specifically, this study seeks to:

- Examine the effects of COVID-19 on access to reproductive health services;
- Find out the organization of the delivery of reproductive health care in the context of anti-COVID-19 measures;
- Identify the problems faced in reproductive health service delivery systems in the health units concerned within the COVID-19 context; and

- Come out with policy suggestions for consideration in the case of future pandemics or resurgence of the present pandemic.

Method and Data

Data for this study was collected from three sources:

- ✓ First, registers of reproductive health services in the health units concerned provided information on the number of pre-COVID-19 service consultations (March 2019 to February, 2020) and the number of consultations during the COVID-19 period (March 2020 to June 2021). Access to these registers was not granted by all the health units covered by this study.
- ✓ Secondly, heads of reproductive health services in the health units selected were interviewed. These interviews provided qualitative information on the difficulties faced in reproductive health delivery during the COVID-19 period, measures taken to resolve these problems and suggestions.
- ✓ Users for reproductive health services were interviewed to have their assessments of reproductive service delivery before and during COVID-19.

Information for this study was collected between 24 and 30 June 2021

The following health units were purposefully selected. Their main selection criterion is the fact that they are among the biggest and most visited sexual and reproductive health service provision units in Cameroon's capital city

I. Public health Units

- Gynaecological, Obstetric and Paediatric Unit of the Yaoundé Reference Hospital with ten (10) users and one official interviewed.
- National Social Insurance Hospital with five (5) users and one official interviewed

II. Lay Private and Confessional Health Units

- Centre de Santé Bethesda with three (3) users interviewed.
- Centre de Santé Déo Gracias with 3 users interviewed;
- Centre de Santé CASS Nkoldongo with 1 official and five (5) users interviewed.
- Centre de Santé Sacré Coeur de Mesamendongo with 8 users interviewed ;

Centre de Santé Catholique Mont Camel with 4 users interviewed.

Limitations of this Study

The study has some shortcomings which are as follows:

- Reproductive health services include services for HIV/AIDS, breast cancer, infertility, hormone therapy, reassignment therapy, and abortion. In this study, focus is placed only on prenatal care and family planning. Other services are not considered due to the absence of information.
- Only women aged 15-49 years who visited the selected health units at the time of the pandemic were interviewed. Men who also have sexual and reproductive health needs were not included in this study. Even though women are those most in need of sexual and

reproductive healthcare services, leaving men out constitutes some limitation.

- During the study, only centres that receive more than 2000 clients for sexual and reproductive healthcare yearly were concerned. This means that the results of this study reflect the situation in major health centres and not necessarily that of minor centres which could have had different experiences
- Some earmarked centres for the study were not visited because their authorities did not grant access to their records on sexual and reproductive health visits. Thus even though they were major centres their situations were not considered for this study.

Definition of Concepts

Target Population

The target population for this study are women and girls of reproductive age (15–49 years old) seeking sexual and reproductive health services. These are people who can become pregnant and have female reproductive anatomy. However, not all individuals who seek sexual and reproductive health services are women.

Access

Access to sexual and reproductive health services is defined as (any measure of) an individual's ability to seek, reach and receive sexual and reproductive health services during the COVID-19 pandemic, which implicates measures of behavioural, logistic, infrastructural, organizational or policy changes made in response to the pandemic including the impact of lockdowns on these functions.

Utilization refers measures of peoples' self-reported or provider's noted use of sexual and reproductive health services, either in-person or remote through telehealth approaches.

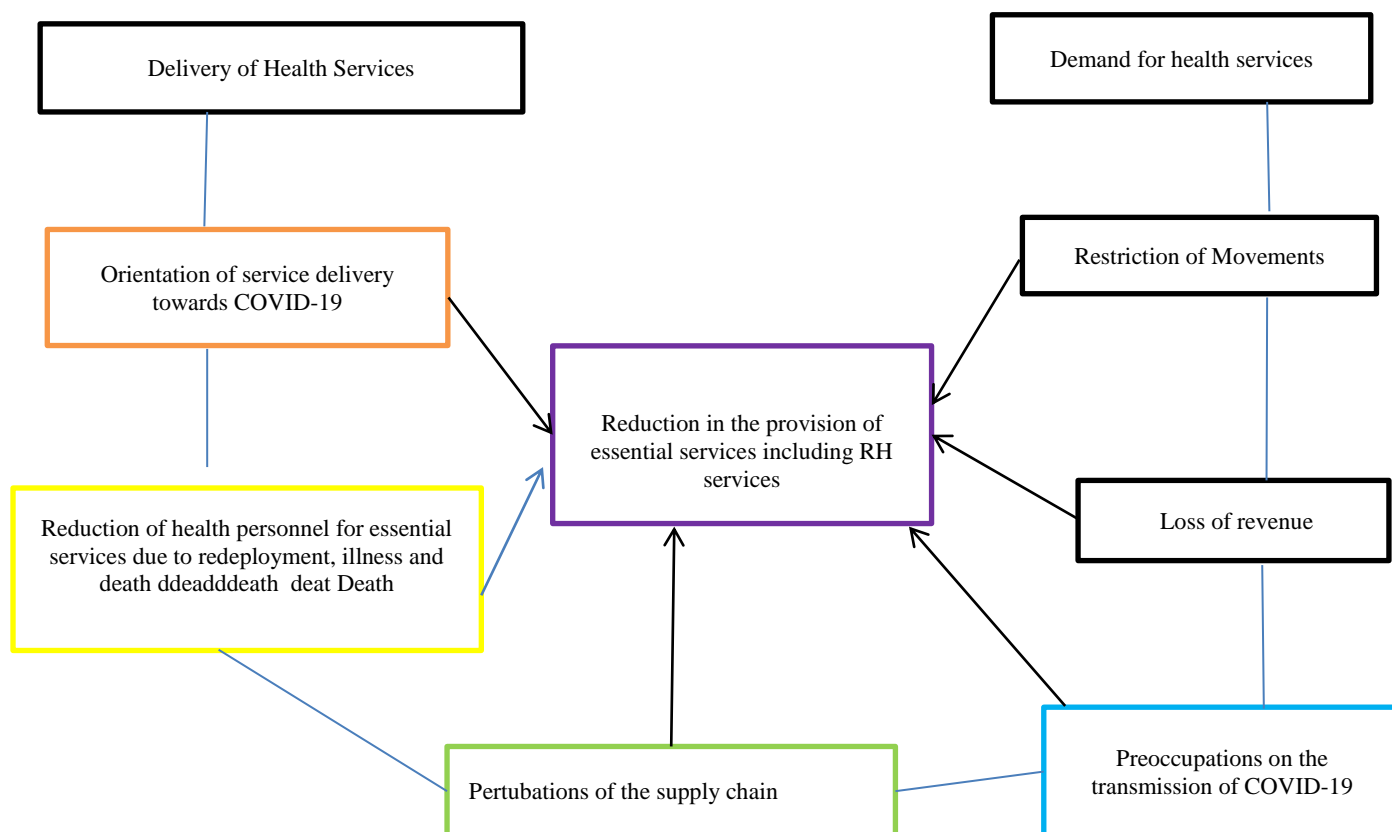
Sexual and Reproductive Health

Sexual and reproductive health refers to physical and emotional wellbeing and includes the ability to be free from unwanted pregnancy, unsafe abortion, sexually transmitted infections including HIV/AIDS, and all forms of sexual violence and coercion. In Cameroon, abortion is illegal unless for medical reasons. Under normal circumstances, abortions services provided by the Cameroon health system should be limited to those that are aimed at eliminating the health dangers to the mother or the unborn child (ren).

Conceptual and Theoretical Framework

The underlying theoretical and conceptual framework for this study is the fact that the sudden outbreak of the COVID-19 pandemic needed urgent attention. In order to respond to this need, already limited health resources were reduced for other health concerns and directed towards handling the pandemic. This led to a qualitative and a quantitative decrease in the delivery of essential health services including sexual reproductive health services. Apart from this reduction in resources, the increase in workload of health workers, the need for social distancing, the fear of potential reproductive health users contracting this virus led to a fall in the number of visits to these services. The linkages between the increased attention on the COVID-19 to the detriment of other health service provision is summarized on figure 1.

Figure1: Conceptual Framework of the Effects of COVID-19 on the Supply of Reproductive and other Essential Health Services



Brief Review of Relevant Literature

Since the onset of the COVID-19 pandemic, its direct and indirect effects on health systems have been documented globally. Primary and secondary effects of the infection with on public health and policy responses have exerted unequal health burdens among various populations (Wenham C, Smith J, Davies SE, *et al*, 2020). Infectious disease outbreaks are known to negatively affect human, social, physical and financial capital—livelihood assets that contribute to treatment seeking—leaving people more vulnerable to limited access and utilization of healthcare including sexual and reproductive health (SRH) services. Indeed, SRH care and outcomes have reportedly declined as a result of the COVID-19 pandemic and associated mitigation efforts such as lockdowns (Cousins S., 2020). At its onset, this public health crisis threatened hard-won progress towards modern contraceptive coverage targets set by the Sustainable Development Goals (SDGs); the United Nations Population Fund estimated that the pandemic interfered with contraceptive use for about 12 million women resulting in as many as 2.7 million unintended pregnancies in its first year (UNFPA, 2021). In addition, Marie Stopes, 2021 International estimated that there were 1.2 million unsafe abortions in the first 6 months of the pandemic alone (Church K, Gassner J, Elliott M., 2020). Treat to safe abortion access is perpetuated by an increase in circumstances that lead to unsafe abortions, such as restrictive abortion policies as in Cameroon, increased unintended pregnancies and maternal deaths. Clinic closures caused by the pandemic made the situation worse (Nash E., 2021).

Another vulnerable area of SRH is sexually transmitted infections (STIs) that continue to dominate the healthcare burden of many regions. Indeed, HIV is a major global health issue with AIDS being one of the leading causes of death among women of

reproductive age especially in Developing Country. At the beginning of the pandemic, it was estimated that in high-burden settings, there could be a 10% increase in deaths due to HIV over 5 years caused by the effect of the COVID-19 pandemic on HIV programmes (Hogan AB, Jewell BL, Sherrard Smith E, *et al*, 2021)

Reduced access to SRH services in the wake of the pandemic is of heightened concern considering the gendered impacts of the pandemic that aggravated existing health disparities for women and girls. Containment measures established in response to the pandemic increased the incidence of negative SRH outcomes for women and girls, particularly in low and-middle income countries. For instance, school closures resulted in increased risk and incidence of pregnancy among adolescent girls in regions of sub-Saharan Africa, thus exacerbating their SRH needs especially for contraception and safe abortion (Zulaika G, Bulbarelli M, Nyothach E, *et al*, 2022).

The COVID-19 pandemic also saw increased rates of domestic violence across the globe correlated with increased household economic insecurity, additional childcare work, loss of social networks and isolation. Each of these are risk factors for increased violence that disproportionately affects women and, in turn, hinder the ability of women to seek help (UN Women, 2020). The pandemic did not only come with an increase in certain SRH needs but also; the ability to access and use SRH services remains critical. Understanding where, how and for whom access to SRH services was most impacted is essential to ensuring continued restoration of SRH service coverage.

Among the four key SRH service areas that represent major health needs among women and girls of reproductive age: contraception, abortion, gender-based violence (GBV) and intimate partner violence (IPV), and STI, including HIV, most studies have focused only on contraception. These reviews have not reported evidence regarding the specific barriers imposed by the pandemic beyond the first year of the pandemic or synthesized both qualitative and quantitative data (Townsend R, Chmielewska B, Barratt I, *et al.*, 2021).

Evidence of the negative impact of the pandemic on access to services for treatment and management of STIs was reported by 14 studies (Nagendra G, Carnevale C, Neu N, *et al.*, 2020). Difficulty accessing antiretroviral treatment (ART) was reported in several countries with a high incidence of HIV, including Zimbabwe, Uganda, South Africa, Kenya and Haiti, as well as Myanmar, Thailand, China and the USA.

A large majority of studies showed a decline in access and utilization of long-acting reversible contraception (LARC). These studies found substantial declines in the administration of injectables and placement of LARCs (Flynn AC, Kavanagh K, Smith AD, *et al.*, 2021), a reduction in tubal ligation procedures, challenges with scheduling LARC removal and reduced provision of emergency contraception.

Other studies have reported decreases in family planning attendance, appointment availability and declines in unspecified contraceptive method (Roberts SCM, Schroeder R, Joffe C. 2021). For instance, Belay *et al.*, 2021, noted a 27% reduction in clinic visits for contraception and a 67% reduction in postpartum visits in one tertiary hospital in Ethiopia, while 55% of clinics surveyed in a study in the USA had to cancel or postpone contraceptive visits due to the pandemic (Roberts SCM, Schroeder R, Joffe C., 2020).

Several studies have provided evidence regarding challenges to access and utilisation of SRH services that were caused by the COVID-19 pandemic. Transportation and mobility restrictions,

such as shutdown of public transport, curfews and abuse by police/soldiers at roadblocks, limited access to contraceptive services and GBV/IPV services in particular. On the demand side, financial burdens due to the pandemic, including the inability to pay for face masks, transportation and childcare, were reported equally within all SRH service areas except abortion (Aryal S, Nepal S, Ballav Pant S. 2021). In addition, lack of information-fear of contracting COVID-19 at a service location and lack of privacy to schedule or attend appointments resulted in reduced SRH service access and utilisation (self-censorship of needs also limited access to care for some individuals who sought contraception and STI/HIV services). On the supply side, limited availability of medical and social resources such as stock cuts, shortages of staff, clinic closures and decrease in shelters were reported to have prohibited utilisation of services for all SRH services and HIV/STI, GBV/IPV and contraception especially (Sabri B, Hartley M, Saha J, *et al.*, 2020).

Furthermore, although telehealth was put in place as a way of improving access to health service delivery during the COVID-19 period, technological challenges were reported as a barrier to care for people seeking contraception, GBV/IPV and abortion services (De Kort L, Wouters E, Van de Velde S., 2021).

Impacts on Pre-Natal Consultations

Prenatal care is health care given or received during pregnancy. It is necessary to identify mothers at risk of delivering a pre-term or growth-retarded infants and to provide medical, nutritional, and educational interventions intended to reduce the determinants and incidence of low birth weight and other adverse pregnancy conditions and outcomes. Adequate prenatal care is important during pregnancy as it helps in the prevention of problems during delivery. Because of the importance of this care, many of such visits are prescribed for each pregnant woman, and the number of these visits should not be curtailed even in the presence of a pandemic such as the COVID-19. Unfortunately, studies have revealed their reduction because of COVID-19 (Riley, T. *et al.*, 2020).

Table 1: Changes in the number of prenatal visits between one year before COVID-19 and one year into COVID-19 in some health units in Yaoundé-Cameroon

Health Unit	Number of Pre-COVID-19 Visits (A)	Number of Visits during the COVID-19 Period (B)	Changes in absolute Numbers (B-A)	% Changes
Messamendongo Integrated Health Centre	4738	2921	-1817	-38.34
National Insurance Fund Hospital	10087	9306	-781	-7.74
Gynecologic, Obstetric and Pediatric Hospital	33847	27766	-6081	-18.0
Centre de Santé Catholique Mont Carmel	4335	2742	-1593	-36.75

Sources : BUCREP (2020). Survey on the Impacts of COVID-19

Table 1 makes a comparison between the number of prenatal visits a year before the advent of COVID-19 and one year into the COVID-19 pandemic (2020). From this table, all health units concerned witnessed varying levels of reductions in the number of prenatal visits with the onset of COVID-19. For private health units where some payments are required for prenatal service

delivery, the drop was as high as 40%. For public health units the drop was relatively low, generally below 20%.

Impacts on Family Planning Services

Family planning services help in the prevention of unintended pregnancies and the reduction of the spread of sexually transmissible diseases. Family planning services delivery need to

continue uninterruptedly even in times of crises such as the COVID-19 pandemic.

Table 2: Changes in the number of visits for family planning between one year before covid-19 and one year with covid-19 in some health units in Yaoundé Cameroon

Health Unit	Number of Pre-COVID-19 Visits (A)	Number of Visits during the COVID-19 Period (B)	Changes in absolute Numbers (B-A)	% Changes
Messamendongo Integrated Health Centre	4600	2890	-1710	-37.17
National Insurance Fund Hospital	10022	9171	-851	-8.49
Gynecologic, Obstetric and Pediatric Hospital (HGOPY)	33889	28760	-5129	-15.13
Centre de Santé Catholique Mont Camel	4244	2795	-1449	-34.14

Sources: BUCREP, (2020). Survey on the Impacts of COVID-19

All health units registered drops in the number of family planning visits between the pre-COVID-19 year (March 2019 to February 2020) and the first COVID-19 year (March 2020 to February 2021). For public health units, this drop was more gradual, 8.49 and 15% while for the private health units, it was more remarkable (Table 2).

A key cause of the drop in visits for reproductive and other health care services was the fear of contracting the disease. As one client declared, *"I only came here because my case was serious. Coming to a hospital increases the likelihood of contracting this deadly pandemic that has no cure. I strongly advise people with less serious cases to remain in their homes"*. Apart from users, some health workers were equally afraid of contracting the disease in health units. News of health workers who suffered and died of the virus intensified during the period. The head of one health unit reported on this fear in the following words, *"We, of the health sector, are also afraid of catching this deadly virus. The less courageous of us have designed subtle ways to be absent from service because of fear of contracting this virus. Some of our workers are suspected of faking illness in order to remain at home during this period. In this way the workers who managed to come here are overloaded"*.

Another cause is the financial cost. This involves the cost of transportation, payment of services delivered and medication. One patient reported this, *"This pandemic has caused me to lose my job and my husband's income has dropped. We don't know what the future holds. I can only spend on anything including medical care when it is extremely necessary"*.

Restrictions on movements during the lockdown period increased the cost of movement. Considering transport cost during the COVID-19 period, a woman who came for prenatal care at the Bethesda Hospital in Yaoundé said, *"I live 30 km from this health unit. I used to pay 1200 CFA Francs to come here before this pandemic, and the restrictions on the maximum number of persons that a vehicle was allowed to transport has brought this cost to 2000 CFA Francs. I cannot therefore, come for prenatal care as prescribed"*.

The consequences of the drop in the use of reproductive health services are many. This often results in an increase in unintended pregnancies, resurgences of STD and clandestine abortions. The COVID-19 lockdown most likely pushed youths into risky sex ventures which usually lead to unwanted pregnancies and

abortions. This is in line with the following declaration from the head of reproductive health services at HGOPY, *"In 2020, we registered only six (6) cases of serious illnesses resulting from poorly performed abortions but this year (2021) we have registered 12"*.

Another impact of the reduction in the use of reproductive services is the reduction in the revenue of private health units. Many private health units reported their increasing inability to pay the salaries of their workers due to the drop in the number of their clientele. In this connection, one head of a private health unit made the following declaration *"If this situation continues, we may be forced to reduce the salaries of our workers in the next few months"*.

Problems faced in accessing/delivering reproductive services within the covid-19 context

Provision of reproductive health care during the COVID-19 pandemic faced many problems. These problems include financial constraints, obliging users to respect COVID-19 barrier measures, and low internet connectivity among others.

During the lockdown period many people, especially those working with the informal sector either lost their jobs or witnessed a drop in their revenues. At the same time, the cost of some basic food items increased. There was a marked reduction in revenues, especially for the more vulnerable population groups. Increased financial burden due to the pandemic, including the need to pay for face masks, transportation, care for children who had stopped going to school were equally reported as barriers for accessing and using sexual and reproductive health services. As one female client reported, *"During this lockdown period, I lost my job as a bar attendant. Coming for prenatal care is very difficult for me. The high cost of transport, the increased cost of food and the need to take care of children who are now at home as schools have closed, make it impossible for me to regularly come here for prenatal care"*.

Many users of reproductive health services did not immediately adopt the new COVID-19 barrier measures. Many of them were reported to have gone for these services without face masks. As the head of these services at HGOPY reported, *"Many users of our services did not immediately adopt the barrier measures (physical distancing, frequent washing of hands using soap and wearing of face masks). We had to employ people specially to oblige them to respect these new measures"*.

The prohibition of assemblies of many people in an effort to halt the spread of COVID-19 created a number of problems for reproductive health service delivery in the health units concerned. There was the problem of limited space to receive users while respecting the prescribed physical distance. It was difficult to hold evaluation meetings via video conferencing in a context of low internet connections.

Although telemedicine was put as a way of improving access to healthcare during the COVID-19 period, technological challenges, cost and ignorance were reported as barriers. This approach had limited success. In one health unit, the head of the SRH section, reported that during lockdown period, they put a telemedicine unit in place but unfortunately, little use was made of it. This could be because this was fairly new in Cameroon, and it was introduced abruptly without adequate sensitization.

Fears of contracting COVID-19 at locations for the provision was one of the most frequently mentioned barriers to accessing and using sexual and reproductive health services. As a female respondent aged 34, declared, *"I hesitated before coming here for family planning services. I was afraid that coming to solve my family planning problems during this period may instead land me into another problem which is contracting this deadly pandemic (COVID 19) whose cure is still to be found."*

The problem of limited space for the provision for sexual and reproductive health services was equally mentioned among the barriers. In order to respect the physical distance of 1.5m separating two individuals, large space was required. Some SRH clinics even closed during the COVID-19 lockdown period. The problem of limited space of SRH consultations was reported by the head of one of the centres in these words, Traditionally, we face the problem of limited space but in order to respect the distance separating individuals during SRH consultations, this problem has become more serious. We are forced to either keep some users waiting or ask them to report at later dates. Unfortunately, some of them never came back".

Another barrier reported to have prohibited access and utilization of sexual and reproductive health services was limited availability of medical resources such as staff and stocks. While reproductive health service provision was considered an essential service which must not be left aside while facing the COVID 19 emergency, a reduction of SRH staff was reported during the peak period for COVID 19.

Discussion

This study has shown that the smooth provision of sexual and reproductive health services in all health units in Yaoundé, Cameroon's capital city has been largely handicapped by the shift of attention towards containing the COVID-19 crisis. This was also noted during the Ebola pandemic. When sexual and reproductive health problems remain unresolved, additional maternal and neonatal mortalities, morbidities, stillbirth, and disabilities increase. These implications can stretch to the post-COVID-19 period (Cousins, S., 2020) and could overturn all the gains already made so far. Evidence shows that in any emergency or humanitarian crises, women and girls face multiple sexual and reproductive health challenges (United Nations Policy Brief, 2020).

Unmet needs for sexual and reproductive health services in Cameroon as well as in other developing economies are still quite

high. Many women do not deliver in health facilities nor receive the care needed following major obstetric complications. High quality services for the treatment of complications resulting from unsafe abortions, the treatment of STDs such as chlamydia, gonorrhea, syphilis and HIV/AIDS are insufficient in Cameroon. This study has shown that the current COVID-19 crisis has led to a sharp fall of these already limited services, not only within the capital city but all over Cameroon. If this situation remains as it is, we could witness additional maternal deaths, adolescent pregnancies and other negative sexual and reproductive health outcomes.

The pandemic offers a window of opportunity to capitalize and expand on strategies that have been effective in balancing the negative effects thus far and that can be employed in future strategic plans to prevent similar negative outcomes. Four strategies will be briefly discussed: increasing access and reimbursement for contraception visits via telehealth; considering the legalization of abortion which remained illegal in Cameroon despite the changing times with no-touch policy programs, with a specific focus on catering to the underserved populations and lower socioeconomic class; encouraging vaccination in pregnant women by delivering current information via clear and concise messaging; and increasing vaccination in the general population by addressing vaccine hesitancy and debunking myths.

Telemedicine visits are a plausible mechanism by which the negative effects of limiting access to care may be mitigated. There should be a strong momentum toward initiating telemedicine in Cameroon as it is currently not yet properly developed. Those with low access to telemedicine are unfortunately those with low resources, in the lower socioeconomic class and who are disproportionately affected. Telemedicine has a multitude of preventive advantages in obstetrics and gynecology-related areas; however, Cameroon's health service delivery system has adopted telehealth practices and/or is not equipped to support the shift.

Additionally, several low-income patients lack health and digital literacy. Virtual telemedicine platforms should design applications, which are intuitive and easy to navigate.

The second strategy to mitigate the negative outcomes is to consider the legalization of abortion in Cameroon and increase access to medical abortions via no-touch/no-test policy programs. Telehealth and no-test (also called no-touch or no-contact) approaches for abortion care are useful to maintain social distancing which is one of the anti-COVID619 measures.

Encouraging vaccination in reproductive-age women and of the population at large will greatly mitigate all negative effects of COVID-19, including the negative effects on reproduction. Collaborating with colleagues in family medicine as well as other providers, such as nurse practitioners, physician assistants, and certified nurse midwives, can have a pivotal role in patient education regarding COVID-19 vaccination. This allows for patients to undergo counseling from multiple providers regarding the recommendation of the COVID-19 vaccine as well as its effects on reproductive health. Further distribution of evidenced-based resources to help women in making these decisions will likely limit the confusion concerning the benefits of vaccination.

Lastly, a strategic plan for addressing vaccine hesitancy in the general population will increase the vaccination rates, thus positively impacting global and reproductive health.

After the above analysis, the following policy options are important for consideration:

- Establishment of a program of preparedness and prioritization of sexual and reproductive health services alongside the strengthening of health systems during pandemics;
- The development of a reporting mechanism that can be used for advocacy, prioritization, mobilization of resources and policy changes during emergencies and pandemics that include sexual and reproductive health care and other essential services;
- Development of innovative and sustainable interventions for timely provision of sexual and reproductive health via tele-medicine, mobile clinics and use of trained and motivated community health workers or volunteers to enhance and integrate accessibility and maintain positive outcomes while overwhelmed by the COVID-19 pandemic;
- Integration of sexual and reproductive health issues in COVID-19 communication.

Conclusion

This study has revealed that the provision of sexual and reproductive health services in Cameroon's capital city, Yaoundé, and most probably in the country as a whole was negatively affected by the COVID-19 pandemic. Within only one year of the pandemic, the number of visits for sexual and reproductive health services in all health units included in this study fell drastically. As the COVID-19 crisis is not yet over, these negative impacts are likely to stay for some time and extend into the post COVID-19 period. This means a likelihood of resurgence of unintended pregnancies, maternal deaths, sexually transmissible infections including HIV/AIDS, unsafe abortions, etc. This will further reduce Cameroon's possibility of attaining Sustainable Development Goal 3 target 3.7 –which seeks to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes by 2030. Indicators from the 2018 DHS show that Cameroon is not very likely to attain this target especially with the shift of emphasis from other health concerns including sexual and reproductive health with the advent of COVID-19. There is need to place emphasis on addressing the challenging sexual and reproductive health needs of Cameroon while combating COVID-19. Even though the current global pandemic has and continues have a significantly negative impact on the health sector including sexual and reproductive health care; it presents an unparalleled opportunity to optimize and advance current practices to counteract the negative effects on reproductive health.

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