

ORIGINAL RESEARCH ARTICLE

Identifying and addressing barriers to contraception uptake among adolescent girls in urban Burkina Faso: Evidence from a qualitative study

DOI: 10.29063/ajrh2022/v26i12s.13

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Abstract

Several barriers drive low uptake of contraception among adolescents. This study investigates the effectiveness of (re)solve, a school-based program in Burkina Faso, to overcome barriers to contraception uptake and facilitate the development of intention to use it. This paper presents qualitative endline findings from a mixed-methods longitudinal study conducted between 2019 and 2020 in two urban sites using in-depth interviews with girl participants and implementers, and key informant interviews with local stakeholders. We found that adolescent girls in the target group are likely to soon become sexually active but may be underestimating this risk. We also identified three key barriers to access to contraception in the study sites: misinformation and fear of side effects of contraception, stigma and negative attitudes, and a lack of youth-friendly sexual and reproductive health services. We conclude that the school-based (re)solve program was able to address barriers and spark contraceptive interest among participant girls. (*Afr J Reprod Health* 2022; 26[12s]: 119-126).

Keywords: Contraception; Burkina Faso; school-based program; sexual and reproductive health; adolescent pregnancy

Résumé

Plusieurs obstacles entraînent une faible utilisation de la contraception chez les adolescents. Cette étude examine l'efficacité de (re)solve, un programme scolaire au Burkina Faso, pour surmonter les obstacles à l'adoption de la contraception et faciliter le développement de l'intention de l'utiliser. Cet article présente les résultats qualitatifs finaux d'une étude longitudinale à méthodes mixtes menée entre 2019 et 2020 dans deux sites urbains à l'aide d'entretiens approfondis avec des filles participantes et exécutantes, et d'entretiens avec des informateurs clés avec des parties prenantes locales. Nous avons constaté que les adolescentes du groupe cible sont susceptibles de devenir bientôt sexuellement actives, mais qu'elles sous-estiment peut-être ce risque. Nous avons également identifié trois principaux obstacles à l'accès à la contraception dans les sites de l'étude : la désinformation et la peur des effets secondaires de la contraception, la stigmatisation et les attitudes négatives, et le manque de services de santé sexuelle et reproductive adaptés aux jeunes. Nous concluons que le programme (re)solve en milieu scolaire a pu surmonter les obstacles et susciter l'intérêt pour la contraception chez les filles participantes. (*Afr J Reprod Health* 2022; 26[12s]: 119-126).

Mots-clés: Contraception; Burkina Faso; programme scolaire; santé sexuelle et reproductive; grossesse chez les adolescentes

Introduction

Pregnancy in adolescence has huge and detrimental effects on girls' education, economic outcomes, social development and health^{1,2}. However, unmet need for contraception is high globally, particularly among women in sub-Saharan Africa^{3,4}. In Burkina Faso, 25.1 percent of adolescent girls between the ages of 15 and 19 have children or are currently pregnant⁵, yet adolescent contraceptive use remains low. Only 11.2 percent of sexually active adolescents use a modern method⁶.

Reasons for non-use vary widely, and include issues related to access and attitudes: stigma and misconceptions around the effects of contraception prevent adolescent girls from seeking and using contraception, even when it is available⁴. Fears of lasting side effects are widespread, including that contraceptives will lead to permanent infertility or could disappear inside the user's body^{7,8}. Previous studies have also noted a need for youth-friendly services (YFS) offering counseling and care designed with adolescents in mind and in a space that allows for the privacy demanded by young

people seeking access to sexual and reproductive health and rights (SRHR) services^{9,10}.

Globally, research around school-based programming has found that, in general, comprehensive interventions have resulted in improvements in adolescents' knowledge around, attitudes towards, and access to contraception^{11,12}. Comprehensive interventions have also been shown to improve behavioral intentions in very young adolescents, and indicate the importance of sexual education before sexual debut¹². However, the impact of similar interventions in the West African context is under-studied.

The (re)solve project

In 2016, Pathfinder International, in partnership with Camber Collective, the International Center for Research on Women (ICRW), and ideas42, launched (re)solve, a five-year, cross-disciplinary project in Burkina Faso, Ethiopia and Bangladesh, funded by the Bill & Melinda Gates Foundation. The (re)solve project aimed to identify barriers and bottlenecks to contraceptive use in the three countries, and to design and implement a set of innovative solutions in each country.

In Burkina Faso, the team identified a target population of unmarried adolescent girls in 4^{ème} and 3^{ème} (9th and 10th grades, respectively) in Ouagadougou and Bobo-Dioulasso. This age was considered a critical period for girls, when they begin to make key decisions about sex, SRHR, and contraceptive use. The interventions included: 1) a behavioral board game for girls to play in school during free periods, aided by a trained facilitator, who would lead discussions on contraception and pregnancy risk; 2) a health passport, which girls could show at selected health facilities to ensure quick and confidential services; 3) posters at health facilities advertising services specifically for adolescent girls, including for non-contraceptive services, such as menstrual care; and 4) nametags identifying healthcare providers at select facilities who had received training on provision of youth friendly services (YFS). We randomly selected thirty-two schools in Ouagadougou and Bobo-Dioulasso from within the catchments of purposively selected health facilities. Sixteen schools – eight in each city – were randomly assigned to receive the treatment; the others served as a comparison group. A half-day YFS training was

held for all administrative staff and providers at each participating facility between September and November 2019, and the game was implemented in selected schools between December 2019 and March 2020.

The interventions addressed specific barriers to contraception uptake, including misconceptions, stigma, and a dearth of YFS, with the objective of disseminating accurate information, creating positive attitudes toward contraceptive use among unmarried girls, and encouraging and prompting girls to seek SRHR services from providers trained to deliver them in a youth-friendly way.

The research aims were twofold: to understand key barriers to contraceptive use and intention in urban Burkina Faso, and to assess whether the (re)solve program was successful in addressing the identified barriers.

Methods

ICRW evaluated the extent to which the (re)solve project influenced girls' intentions, behaviors, and attitudes around contraception. Methods included a longitudinal survey at baseline (November 2019-January 2020) and endline (July 2020) with girls in intervention and control schools, in-depth interviews (IDI) at midline (January-February 2020) and endline (July 2020) with girls in intervention schools, IDIs with implementation staff at endline, and key informant interviews (KII) with local experts and authorities at endline.

This paper draws evidence from qualitative endline data to realize our objectives. All endline data collection activities were conducted over the phone due to the COVID-19 pandemic. A total of 41 girls aged 15-25, including 23 in Ouagadougou and 18 in Bobo-Dioulasso, participated at endline. Implementers included 16 game facilitators, 15 health facility workers, and four Pathfinder staff members from both Ouagadougou and Bobo-Dioulasso. Girls were selected randomly from all those who had played the game, and implementers and stakeholders were selected purposively. Both girls and implementers were asked to discuss their perceptions of the attitudes and practices of others in their communities around girls' use of contraception and sexual activity, and girls were also asked about their own present and intended contraception use and sexual activity. Both were

also asked at endline to reflect on their experience with the program. We also conducted six KIIs with stakeholders from Ouagadougou and eight with stakeholders from Bobo-Dioulasso. Stakeholders included health-facility managers, school principals, parent-association members, and officials from the Ministries of Education and Health. KIIs focused on use and perceptions of contraceptives and specific barriers to girls' contraceptive uptake.

Interviews were recorded, transcribed, and translated by the data collection team. Verbatim transcripts were sent to the ICRW research team, who reviewed them for clarity and quality, then coded them using NVivo 11. Codes were developed based on the goals of the qualitative research, including sexual and contraceptive behavior and attitudes, and the extent to which the (re)solve solutions influenced these. Intercoder reliability was conducted on 15 percent of transcripts of each type. These were each read and coded by two members of the team and compared for agreement. Once all transcripts were coded, the team reviewed code reports to identify common themes.

ICRW's Institutional Review Board, based in Washington, DC, and Comité D'Ethique Institutionnelle Pour la Recherche en Sciences de la Santé, based in Burkina Faso, reviewed and approved all versions of this study. We obtained informed consent from all participants over the age of 20 – the age of majority in Burkina Faso – and assent and parental consent from all participants under the age of 20.

Results

Adolescents' sexual activity and need for contraception

The majority of respondents perceived that most girls in the target age group are having sex for a variety of reasons, including poverty, which leads some girls to engage in transactional sex. Other reasons included competition with other girls, love, pleasure, and an expectation of marriage.

"Now we notice that our young sisters... are quickly sexually active. It's not like before when you had to wait at least the age of 25 to have sex. Nowadays, they are not even 16 years old and already have sex." (Game Facilitator, Ouagadougou)

"Some girls have sex because they hope for marriage. Because nowadays before a man introduces you to his family and marries you, he first wants to have sex with you. There are also girls who just like to have sex. For some, too, it is to have material goods." (Girl, age 18, 4ème, Bobo-Dioulasso)

However, girls' self-reported sexual activity was much lower. Nearly two-thirds of girls interviewed reported they had never had sex, and several others reported they were not currently sexually active. This influences their thinking about contraception and its relevance to their lives and whether and how they make plans to obtain it.

Girls overwhelmingly responded that they would use contraception at some point in the future, such as after marriage, after sexual debut, after they turn 18 or after completing school.

"Yes, [I will use contraception] because at some point I will have sex and I will have to protect myself to avoid unwanted pregnancies." (Girl, age 16, 3ème, Bobo-Dioulasso)

"[I will use contraception] when I get married... because I really want to focus on studying for now." (Girl, age 17, 4ème, Ouagadougou)

However, while most girls agreed they would use contraception later on, few girls were able to articulate a clear plan to obtain and use a method. For the most part, they expressed only vague intentions, and very few described them in immediate or real terms. There is a general sense that contraception is simply not relevant for these girls at this point in their lives, and it is not top of mind for them.

"[I don't have a plan to get contraception] because I don't even think about it." (Girl, age 19, 3ème, Bobo-Dioulasso)

"I am not ready to use it yet because I don't have sex with boys yet." (Girl, age 16, 4ème, Bobo-Dioulasso)

Still, the majority of girls reported that they were in romantic relationships, ranging in duration from a few weeks to eight years. Of 22 girls in relationships longer than one year, about half were sexually active.

Misinformation and fear of side effects of contraception

Girls frequently cited a fear of side effects and misinformation related to specific methods as key

reasons they were hesitant to use contraception. The most common was permanent infertility, particularly because of IUDs, pills, and implants. Other concerns included weight fluctuation and expressed concern that the implant could disappear in a user's body.

"There are others who have told me not to [use contraception], that it's not good. As I am not married, if I [use it] and I get married I may not have a child." (Girl, age 22, 3ème, Ouagadougou)

"No, none of my friends use contraception. Because they think it is dangerous, there are consequences." (Girl, age 18, 3ème Bobo-Dioulasso)

Implementers and local stakeholders were also very aware of misinformation around contraception and its impact on girls' interest in using it. This was seen as a major barrier to use – more than access – and therefore as a major driver of unwanted and early pregnancy. Misconceptions noted by these respondents mirrored those that girls themselves mentioned.

"I would say [girls' knowledge] is mixed because they are informed but they have more information on the effects, and it is especially the negative effects that they retain. For example, they say that when you adopt a method you cannot even have children." (Pathfinder Staff, Bobo-Dioulasso)

Furthermore, opportunities for girls to access accurate information are limited. Girls get most information about contraception, sex, and puberty from the internet and social media, and this information is often not available at home, since girls are not comfortable discussing it with their parents.

"As far as sex life is concerned these teenage girls are not informed by their parents, what they learn comes from movies, social networks, the media, and female friends." (Health Worker, Bobo-Dioulasso)

Stigma and negative attitudes toward unmarried girls' use of contraception

Interview participants described mixed attitudes towards young unmarried girls using contraception, held by girls themselves and others in the community. Some described the belief that contraception is only used by girls who engage in transactional sex or have multiple sexual partners, and that increased access to contraception would drive sexual promiscuity.

"My friends think that contraceptive methods are not recommended for girls who are not married." (Girl, age 22, 3ème Ouagadougou)

"People do not understand that a girl can take contraceptive methods at such a young age. They find that contraception is for married women... For them, the fact that the girl adopts a method even if she is not sexually active, she will become so because she will tell herself that she is protecting herself." (Game Facilitator, Ouagadougou)

Negative attitudes of parents and others in the community prevent girls from seeking and using contraception, at least openly. Although most respondents agree girls do not need permission from their parents or anyone else to use contraception, parents still act as a major barrier to girls' access, because girls are afraid to let their parents find out that they use contraception.

"Girls go out to health centers without their parents knowing... We are in a country where the Muslim religion is very applied, to see a girl who uses contraceptive methods is a shame for the family." (Girl, age 25, 3ème, Bobo-Dioulasso)

A desire for discretion also affects which methods girls feel are available to them. They feel more comfortable using discreet methods, which are not visible to friends, relatives, and even sexual partners. Pills especially are noted as a method that girls do not want to use, for fear someone will find out.

"Most of the time, they use the Norplant and the IUD because with these methods it's very private. It is okay with injectable as well, but if they [take] the tablets [oral contraception] we can easily find out." (KII Participant, Bobo-Dioulasso)

Lack of confidence in or comfort at health facilities

The availability of contraception and related services was not cited as a meaningful barrier to uptake. Most girls interviewed were aware of various methods and several girls described specific places where they could obtain contraception services. However, these places were not always considered to be attuned to the needs of adolescents, particularly because girls did not expect that privacy could be maintained in such a place. Because of the stigma associated with contraceptive use, discretion at these facilities was critical.

"The girl does not feel comfortable going to a health center for a contraceptive method without her parents' agreement. If one of her neighbors sees her taking information on contraceptive methods, she will tell her parents that she saw their daughter in a health center and even explain... what their daughter had gone to look for there. This represents a real block for these girls." (Game Facilitator, Bobo-Dioulasso)

"The setting and layout of our centers do not ensure a certain confidentiality for these girls. If they have rather special or discreet entrance doors where the most timid could meet a fairly available health staff; that could help a lot." (Health Worker, Bobo-Dioulasso)

Respondents also noted that girls did not think they would be well received by the staff at these clinics, and that they would be told they were too young for contraception and turned away. This was perceived to have a snowball effect: if girls were turned away, they would tell their friends about their experience and their friends would then not be inclined to visit the center themselves.

Addressing barriers to contraceptive uptake

Misinformation

Recognizing misconceptions and fear as a major barrier to girls' intention to obtain and use contraception, (re)solve sought to provide information that is more accurate and a pathway for girls to find answers to any remaining or future questions. The game instilled new knowledge about contraception, challenged previously held misconceptions about it and sparked girls' curiosity to learn more. Facilitators acted as mentors and answered girls' questions, and the health center passport gave girls the agency and confidence to take the next step: to learn more about contraception and SRHR and even obtain a method.

"We were curious to see what will happen [at the health facility] and see the questions we were going to be asked." (Girl, age 15, 4ème, Ouagadougou)

Although by endline misconceptions about contraception were still present, and girls continued to express reservations about using it as a result, there is evidence that girls began to question things they had heard or thought were true after playing the game, and that in many cases they were motivated to dig deeper into the game's messages through

conversations with facilitators and through visiting a health center.

"I thought that [contraception] was not a good thing and that what people were saying about it was not the truth. I thought contraceptives weren't safe to avoid getting pregnant. But after the game that changed." (Girl, age 19, 3ème, Ouagadougou)

"These misunderstandings changed because there were cards that gave information about the menstrual cycle so after the game they understood that what they thought was not verified. When they go to the health centres to get information, they understand that this is not what they thought." (Game Facilitator, Ouagadougou)

Facilitators noted specific questions that girls posed after playing the game, the most common of which included whether implants can disappear into the body, whether contraception compromises fertility, and what other side effects of contraception exist. It is noteworthy that these mirror girls' most common fears about contraceptive methods. Facilitators also reported that they reiterated the answers to these questions several times to ensure that girls understood, indicating the need for repeated messaging on these subjects.

Stigma and attitudes

By engaging girls in conversations about contraception after playing the game, (re)solve facilitators gave them the opportunity to challenge their beliefs about who could and should use it. Girls' own attitudes toward contraception were trending more positive at endline compared to baseline. Most girls reported that they and their peers had adopted the belief that contraception is a good thing because it can prevent pregnancy and disease and it is therefore acceptable even for young, unmarried girls to use it.

"All girls can use the contraceptive methods except those who want to become pregnant." (Girl, age 18, 3ème, Bobo-Dioulasso)

"Contraception! It's for all girls. It's a choice. If you want you can go on use it and if you don't want you leave it. Otherwise it's for every girl. There are several grades it depends on what you want." (Girl, age 19, 4ème, Ouagadougou)

However, while attitudes toward contraception show improvement, there remains a sense among some participants that abstinence is

still the best option, and contraception is a “second choice” for unmarried girls who cannot abstain.

“Some people think it's good, it's normal, but I don't think it's normal [to have sex before marriage] because a good girl must remain a virgin until marriage.” (Girl, age 16, 3ème, Bobo-Dioulasso)

“They want that the girls to practice abstinence until marriage; while in reality... these girls are already active and want to know all about the sex.” (Game Facilitator, Bobo, Endline)

Availability of YFS

(re)solve targeted the shortage of YFS in these communities by training health facility workers with a focus on providing services to adolescent girls, by improving anonymity in the facilities and by giving girls a non-contraceptive reason for visiting the facilities. Evidence suggests that these efforts to instill confidence in health facilities were largely successful. Girls who visited a facility had overwhelmingly positive experiences – they felt they were well received and their questions were answered or needs met.

“The agents welcomed me as soon as I presented the passport to them, they gave me a place... I was comfortable, because all the questions were confidential, I felt satisfied.” (Girl, age 16, 3ème, Bobo-Dioulasso)

“They made me feel welcome. When I arrived, they asked me what I came to do and I said that we were given passports and school to come for a consultation... When I walked in, I stated my problem and they asked me questions and they prescribed me products. I was very happy with the experience.” (Girl, age 19, 3ème, Ouagadougou)

Even among girls who had not yet visited a center, there was an expectation that if they did go, they would be well-received and have a positive experience.

“At the moment I haven't been [to a health facility] but I kept the passport. Maybe one day I will go. [If I do,] I think I will be welcomed because of the passport as the health workers are already trained for it.” (Girl, age 21, 3ème, Bobo-Dioulasso)

“I haven't gone yet but I am considering it. [If I do,] I think they will welcome me well and that they will answer my questions especially with the passports we have.” (Girl, age 18, 4ème, Ouagadougou)

For their part, health workers acknowledged that the training they received

enabled them to provide high quality services tailored to adolescent girls.

“Thanks to the project we received a lot of girls who came with their passports to get information on family planning. We have never seen a 14-year-old girl come for advice on contraceptive methods since we arrived, but now many girls come to health centers. [(re)solve] tried to brief the health workers on their behavior, it challenges us on our behavior towards the young girls who come to the centers.” (Health Worker, Bobo-Dioulasso)

“There is the reception; if the counseling is done well, if the setting itself is ideal, and if the health worker is pleasant, all of these make it easier [for girls to access contraception].” (Health Worker, Ouagadougou).

Discussion

The fact that most of these girls were not sexually active may contribute, at least in part, to their non-recognition of contraception as relevant to their lives, or their sense of a need or urgency to use it. The evidence presented here suggests that while many unmarried adolescent girls in urban Burkina Faso may not currently be engaged in sexual relationships or be sexually active, they may be on the cusp of becoming sexually active, and there is a strong possibility they may become so earlier than they expect. While adults report high rates of sexual activity and pregnancy among adolescents, girls themselves appear to underestimate their likelihood to become sexually active, leaving them unprepared to do so safely when the time comes. This reflects a regional trend towards adolescents underestimating their risk and the need for contraception⁷.

Even girls who might be more driven than others to use contraception face significant barriers to doing so, many of which are similar to those faced by similar girls elsewhere in West and sub-Saharan Africa, including fear of negative side effects and infertility, a strong social stigma against contraception for unmarried adolescents, and a lack of YFS^{7,9,13}. We find that these barriers are firmly in place in both Ouagadougou and Bobo-Dioulasso, and that they far outweigh lack of availability in preventing girls from seeking and obtaining a method. The stigma that surrounds contraception use is a strong driver for girls to desire methods they can keep secret, including from their parents and

sexual partners, particularly implants and injectables^{14,15}. Stigma can also act as a barrier for girls to even visit a health facility if privacy and confidentiality cannot be assured there.

We find, however, that (re)solve reached girls at a critical period to diminish, if not entirely break down, these key barriers to contraceptive use. Girls learned more accurate information from the pathway the project set up: playing the game, interacting with facilitators – who sometimes served as mentors even after the game – and visiting health facilities. The (re)solve project also ensured that girls had confidence in the health facilities and that, if and when they took that step, they had a positive experience. The messaging from the game and program in general also improved girls' attitudes toward their own and their peers' use of contraception. Though many girls did not express a firm and clear intention to use a method of contraception in the near future, it appears that in addressing these barriers, (re)solve has enabled them to start thinking about contraception and seek out more information, which we anticipate gives them the tools needed to eventually make such a plan.

We also identified specific components of the program that were critical to impacts. First, that the facilitators were viewed as mentors helped girls feel comfortable discussing sensitive topics and asking questions. That the facilitators were available – in person or through text messages – to continue answering questions and discussing these topics allowed for repeated touchpoints with the participants, which helped to reinforce messaging and improve knowledge. Likewise, the nature of the multi-stage intervention – beginning with the game, and then at the health facility – allowed for repeated engagement with participants to continue challenging deeply held misconceptions and negative attitudes. We observe that girls “followed up” at the health facility to confirm what they had heard from facilitators. Finally, the privacy that girls observed at the health facilities was critical, as was the advertisement of non-contraceptive services for adolescent girls, such as menstruation and puberty care.

Conclusion

Barriers to contraceptive uptake among adolescents in Ouagadougou and Bobo-Dioulasso, Burkina

Faso, are similar to those elsewhere in West Africa: misconceptions about side effects of contraception, particularly that it can cause permanent infertility, stigma against the use of contraception and sexual activity before marriage, and a lack of health facilities that are sensitive to the needs of adolescents. Yet we show that by engaging facilitators in a mentorship role, implementing a multi-stage behavioral solution set, and ensuring anonymity at targeted health facilities (re)solve was able to address these barriers and start girls down a path to seeking accurate SRH information about and using contraception. These findings contribute to addressing a gap in what works in SRHR programming, especially for adolescents in this region. There is a need for future programming to continue to address the barriers described in this paper and engage further with this key population.

Acknowledgements

The authors would like to acknowledge the Bill and Melinda Gates Foundation for funding for this project, Pathfinder International for their leadership, and Camber Collective and ideas42 for their partnership and collaboration.

Contribution of authors

Emily Schaub contributed to the data analysis and interpretation and drafted the manuscript. Dr. Laura Hinson led the study design and contributed to data analysis and interpretation. Connor Roth contributed to drafting the manuscript and critical review of the manuscript. Dr. Chimaraoke Izugbara provided critical review of the study and manuscript.

References

1. Maemeko EL, Nkengbeza D and Chokomosi TM. The Impact of Teenage Pregnancy on Academic Performance of Grade 7 Learners at a School in the Zambezi Region. *Open Journal of Social Sciences*. 2018; 6(9). Retrieved 19/07/2022 from <https://www.scirp.org/journal/paperinformation.aspx?paperid=87117>
2. McCracken K and Loveless M. Teen pregnancy: an update. *Current Opinion in Obstetrics and Gynecology*. 2014; 26(5), 355-359. Retrieved 19/07/2022 from <https://pubmed.ncbi.nlm.nih.gov/25136760/>
3. Darroch JE, Sedgh G and Ball H. *Contraceptive Technologies: Responding to Women's Needs*. Guttmacher Institute. Retrieved 19/07/2022 from

- https://www.guttmacher.org/sites/default/files/report_pdf/contraceptive-technologies.pdf. 2011.
4. Moreira LR, Ewerling F, Barros AJD and Silveira M. Reasons for nonuse of contraceptive methods by women with demand for contraception not satisfied: an assessment of low and middle-income countries using demographic and health surveys. *Reproductive Health*. 2019; 16. Retrieved 19/07/2022 from <https://doi.org/10.1186/s12978-019-0805-7>
 5. Hounton S, Barros AJD, Amouzou A, Shiferaw S, Maïga A, Akinyemi A, Friedman H and Koroma D. Patterns and trends of contraceptive use among sexually active adolescents in Burkina Faso, Ethiopia, and Nigeria: evidence from cross-sectional studies. *Global Health Action*. 2015; 8(1). Retrieved 19/07/2022 from <https://www.tandfonline.com/doi/full/10.3402/gha.v8.29737>
 6. World Bank. *Teenage mothers (% of women ages 15-19 who have had children or are currently pregnant) - Burkina Faso | Data*. World Bank Data. Retrieved April 8, 2022, from Retrieved 19/07/2022 from <https://data.worldbank.org/indicator/SP.MTR.1519.ZS?locations=BF>. 2018.
 7. Cohen N, Mendy FT, Wesson J, Protti A, Cissé C, Gueye EB, Trupe L, Floreak R, Guichon D, Lorenzana K and Buttenheim A. Behavioral barriers to the use of modern methods of contraception among unmarried youth and adolescents in eastern Senegal: a qualitative study. *BMC Public Health*, 2020; 20, 1025. Retrieved 19/07/2022 from <https://link.springer.com/content/pdf/10.1186/s12889-020-09131-4.pdf>
 8. Sedgh G, Ashford LS and Hussain R. *Unmet Need for Contraception in Developing Countries: Examining Women's Reasons for Not Using a Method*. New York. Retrieved 19/07/2022 from https://www.guttmacher.org/sites/default/files/report_pdf/unmet-need-for-contraception-in-developing-countries-report.pdf. 2016.
 9. Mbeba RM, Mkuye MS, Magembe GE, Yotham WY and Mellah AO. Barriers to sexual reproductive health services and rights among young people in Mtwara district, Tanzania: a qualitative study. *Pan African Medical Journal*. 2012; 13(1), 13. Retrieved 19/07/2022 from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3589247/>
 10. Kyilleh JM, Tabong PT and Konlaan, BB. Adolescents' reproductive health knowledge, choices and factors affecting reproductive health choices: a qualitative study in the West Gonja District in Northern region, Ghana. *BMC International Health and Human Rights*, 2018; 18, 6. Retrieved 19/07/2022 from <https://bmcinthealthhumrights.biomedcentral.com/articles/10.1186/s12914-018-0147-5#citeas>
 11. Denford S, Abraham C, Campbell R and Busse H. A comprehensive review of reviews of school-based interventions to improve sexual-health. *Health Psychology Review*. 2016;11(1), 33-52. Retrieved 19/07/2022 from <https://www.tandfonline.com/doi/abs/10.1080/17437199.2016.1240625>
 12. Kemigisha E, Bruce K, Ivanova O, Leye E, Coene G, Ruzaaza GN, Ninsiima AB, Mlahagwa W, Nyakato VN and Michielsen K. Evaluation of a school based comprehensive sexuality education program among very young adolescents in rural Uganda. *BMC Public Health*. 2019; 19. Retrieved 19/07/2022 from <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-019-7805-y>
 13. Sedgh G and Hussain R. Reasons for Contraceptive Nonuse among Women Having Unmet Need for Contraception in Developing Countries. *Studies in Family Planning*. 2014; 45(2), 151-169. Retrieved 19/07/2022 from <https://pubmed.ncbi.nlm.nih.gov/24931073/>
 14. Cover J, Lim J, Namagembe A, Tumussime J, Drake JK and Cox CM. Acceptability of contraceptive self-injection with DMPA-SC among adolescents in Gulu District, Uganda. *International Perspectives on Sexual and Reproductive Health*. 2017; 43(4), 153-162. Retrieved 19/07/2022 from https://www.jstor.org/stable/10.1363/43e5117#meta_data_info_tab_contents
 15. Kibira SPS, Karp C, Wood S, Desta S, Galadanci H, Makumbi FE, Omoluabi E, Shiferaw S, Seme A, Tsui A and Moreau C. Covert use of contraception in three sub-Saharan African countries: a qualitative exploration of motivations and challenges. *BMC Public Health*. 2020. Retrieved 19/07/2022 from <https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/s12889-020-08977-y.pdf>.