

ORIGINAL RESEARCH ARTICLE

Attitudes and Opinions of Young People in Mali on Family Planning, Barriers to Contraceptive Use, and Suggestions for Programming

DOI: 10.29063/ajrh2020/v24i2.10

Janine Barden-O'Fallon^{1*}, Aminata Traore² and Maimouna Tounkara³

Carolina Population Center and Maternal & Child Health Department, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, USA¹; John Snow, Inc., Bamako, Mali²; CECOFORME, Bamako, Mali³

*For Correspondence: Email: bardehof@email.unc.edu; Phone: +1-919-445-0420

Abstract

The purpose of the research was to investigate Malian youth's attitudes and opinions about Family Planning (FP), barriers to contraceptive use, and suggestions for FP programming. Qualitative data were collected in focus group discussions (FGD) held with 95 females and males ages 18–24 in the district towns of Kita, Kolokani, Mopti, Sikasso, and Tombouctou. Qualitative thematic content analysis techniques were used to analyze the data. Benefits of FP use were acknowledged; however, it was still considered a taboo topic, especially for unmarried youth. This makes it difficult for youth to access information and services. Many participants expressed a desire to learn more about FP, though they underscored the need for confidential and discrete services. Programming suggestions included improving access to information, raising community awareness, and improving access to methods. The study findings can be used to improve messaging, counseling, outreach, and communication, to improve youth's reproductive health in Mali. (*Afr J Reprod Health* 2020; 24[2]:106-114).

Keywords: Family planning, youth, contraception, Mali, West Africa, focus groups

Résumé

Le but de la recherche était d'étudier les attitudes et les opinions des jeunes maliens au sujet de la planification familiale (PF), les obstacles à l'utilisation des contraceptifs et les suggestions pour la programmation de la PF. Des données qualitatives ont été collectées lors de discussions de groupe (FGD) tenues avec 95 femmes et hommes âgés de 18 à 24 ans dans les villes de district de Kita, Kolokani, Mopti, Sikasso et Tombouctou. Des techniques d'analyse de contenu thématique qualitative ont été utilisées pour analyser les données. Les avantages de l'utilisation de la PF ont été reconnus; cependant, il était toujours considéré comme un sujet tabou, en particulier pour les jeunes célibataires. Cela rend difficile l'accès des jeunes à l'information et aux services. De nombreux participants ont exprimé le désir d'en savoir plus sur la PF, bien qu'ils aient souligné la nécessité de services confidentiels et discrets. Les suggestions de programmation comprenaient l'amélioration de l'accès à l'information, la sensibilisation de la communauté et l'amélioration de l'accès aux méthodes. Les résultats de l'étude peuvent être utilisés pour améliorer la messagerie, le conseil, la sensibilisation et la communication, afin d'améliorer la santé reproductive des jeunes au Mali. (*Afr J Reprod Health* 2020; 24[2]: 106-114).

Mots-clés: Planification familiale, jeunesse, contraception, Mali, Afrique de l'Ouest, groupes de discussion

Introduction

The West African country of Mali has a total population of 18.9 million, with 3.7 million, or almost 20 percent, between the ages of 15 and 24¹. Fertility is high in the country, at an average of 6.3 births per woman, having declined slowly from an average of 7.1 births per woman in 1987².

One contributing factor for the high level of fertility is the common practice of early marriage, which exposes women to early childbirth and long reproductive lifespans. An estimated 17 percent of women ages 20–24 are married by age 15, and 52 percent are married by age 18³⁻⁴. Almost half (46%) of women in this age group have given birth by age 18³⁻⁴. Another determining factor for

the high level of fertility is that Mali has one of the lowest modern contraceptive prevalence rates in the world¹. Recent estimates place modern contraceptive prevalence at 15 percent of married women ages 15–49¹. Married adolescents ages 15–19 have even lower use of modern contraception, at a prevalence of only 6.5 percent².

High fertility rates, early marriage, and low prevalence of modern contraceptive use contribute to increased maternal and infant mortality⁵⁻⁶. In Mali, there are an estimated 587 maternal deaths per 100,000 live births, one of the highest in the sub-Saharan African region⁷. The infant mortality rate in 2016 was estimated to be 68 per 1,000 live births and is higher than the average for the sub-Saharan African region, at 53 per 1,000 live births⁸. Individually, adolescents who give birth are known to be at higher risk for death and health complications, as well as long-term economic and social consequences⁹⁻¹⁰. Thus, adolescent use of family planning (FP) is of particular public health concern in Mali.

The government of Mali has made strides to improve these conditions by repositioning FP as an essential public health and development intervention. Mali is also actively participating in global FP initiatives, such as the Ouagadougou Partnership and FP2020. Mali's National FP Strategic Plan for 2014–2018 identified four priority areas for FP programming—increasing the demand for services, strengthening the supply of contraceptive methods and materials, improving the enabling environment, and improving the reliability of the monitoring and coordination system—to reach the goal of increasing the contraceptive prevalence rate from 9.9 to 15 percent by 2018¹¹. Youth have been a main focus of these efforts¹².

Despite official commitment to FP, there remain many obstacles to the use of FP in Mali. These include traditional cultural norms that support high fertility, negative attitudes about premarital sex, and gender inequality that restricts women's ability to make decisions about FP. Such norms constrain the open discussion of FP and lead to widespread rumors and misconceptions about FP methods¹³. Access to FP services is also a challenge; comprehensive and quality

counseling and information are not easily attainable, and stockouts of methods are known to be a problem¹⁴⁻¹⁵. A recent systematic review of qualitative research on the use of FP among young people in five developing countries (including Mali) identified lack of knowledge, lack of access to FP services, negative attitudes of male partners, social disapproval of premarital sex and adolescent pregnancy, and fear of side effects, especially infertility, to be the most common and consistent barriers to youth's FP use¹⁶. Religion, too, can be a factor contributing to cultural norms around fertility and FP use; fertility and desired fertility among Muslims are often higher than that of other religious groups, while contraceptive use is often lower¹⁷.

Information on youth's FP attitudes, opinions, and perceived barriers can inform country programs and policies aimed at reaching youth. However, this type of information is scarce in Mali. The purpose of this research was to contribute to a small body of research on what is known about youth in Mali and their attitudes and perceptions of FP, including their suggestions for FP programming.

Methods

The study used a qualitative approach to explore Malian youth's attitudes, opinions and perceptions of FP. Qualitative data were collected through focus group discussions (FGDs). Data collection was conducted by MEASURE Evaluation and its consultants (Cabinet d'Etudes-Conseils-Organisation-Formation Management-Evaluation [CECO FORME]), with funding from the U.S. Agency for International Development, as part of an evaluation of Mali's 2017 National Family Planning Campaign. Details on the methods, results, and recommendations of the evaluation can be found elsewhere¹⁵. The FGDs were held in the district towns of Kita, Kolokani, Mopti, Sikasso, and Tombouctou. These sites were purposively selected from ten districts identified by the government as priority districts for FP programming and according to safety and travel considerations. The study held ten FGDs; the sample was determined on the assumption that saturation of themes would be reached, in

accordance to research by Guest *et al*¹⁸. Five FGDs were held with female youth and five FGDs were held with male youth. Two FGDs were held in each of the five selected district towns. Each group had between eight and ten participants. The inclusion criteria for participation in the FGDs included women and men ages 18–24 and living in the selected districts. Participants were required to speak the language of the discussion group, either French or Bambara, and sign a consent form. There were no exclusion criteria based on parity, marital status, or ethnicity.

The FGDs were conducted from January 22–February 15, 2018. Staff at the district health offices helped to coordinate recruitment and identify meeting space for the discussion groups, which took place in an NGO office, a government-sponsored health facility, or an outdoor program space in the community. The FGDs were conducted by four CECO FORME consultants, after undergoing training on the FGD guides in Bamako. The discussions lasted from 45 minutes to one hour, were mainly conducted in the local language of Bambara, and were translated into French for analysis.

Qualitative thematic content analysis techniques were used to analyze the FGD data. Transcripts from the FGDs were reviewed separately by two members of the research team, who identified main themes for each of the pre-identified constructs. Pre-identified constructs were based on the FGD guide, and included attitudes about FP, common barriers to use of FP, and suggestions for improved FP programming for youth. Main themes and illustrative quotes for each construct were then organized into Excel spreadsheets. The analysis was conducted by sex and by location (district town).

Results

A total of 95 youth, 50 female and 45 males, participated in the discussions. The average age of the participants was 20.0 years for females and 20.5 years for males.

Youth's attitudes towards family planning

The youth expressed a mix of positive and negative attitudes toward FP. The words used most often to express positive attitudes about FP

were that “it is a good thing.” Many reasons were given to explain this statement, including that FP protects against unwanted pregnancy, helps young people plan for the future, allows for birth spacing, and provides economic benefits for the family.

If young women practice family planning, I think it stabilizes the family. You will easily be able to cope with the expenses of the family clothing, food and others if there are not many children. On the other hand, if they are numerous, and there are among them many girls, there are parents who do not have the girls attend school to decrease the expenditures related to the school fees. — Female FGD participant, Sikasso

You know, family planning is nothing more than birth spacing. It is the starting point that leads to other aspects related to development, economy, and health, among others. — Male FGD participant, Mopti

The use of family planning promotes the professional and social integration of girls because it allows girls to study, to start small business ventures, sewing, and hairdressing activities without any problem. Family planning is, therefore, a way for girls to carry out an income-generating activity. — Female FGD participant, Kolokani

Female participants in Tombouctou and Mopti added that FP can reduce the number of abortions, especially as parents of very-young girls often encourage the practice. Male participants talked about the potential health benefits of FP more generally, for example, to space births in order to “relieve the mother” and to reduce the number of births to “give women more strength.” The young men also mentioned that FP can “protect mothers and children” and that it can help “keep children in good health.” Some agreed that these positive benefits were due to changing attitudes, albeit slow changes, in the way men think about FP. A male participant from Kita stated, “[More] practice family planning now than did before. Now we talk about it in school”.

The male youth also expressed the opinion that FP can lead to unfaithfulness and, as this man from Kita said, "should not be used as an opportunity for debauchery on the part of women or girls." A male participant in Sikasso questioned, "If a mother brings a daughter to the health center for a family planning method, did she encourage her on the path of adultery?" A Kolokani participant suggested that it may be something for married couples only. In addition, a few men mentioned a continued reliance on large families for help in the fields, especially in the most rural areas, and also expressed the attitude that large families were still a sign of wealth and privilege. FP was understood to undermine these values. Men also noted a general reluctance of men in their communities to become involved with FP, stating that it was considered "women's business".

Despite public health efforts to disseminate information and promote FP use in youth, FGD participants agreed that FP was still a sensitive, taboo topic and that there could be shame in both talking about, and using, FP. This was especially the case for unmarried youth. Female FGD participants felt that FP was more likely to be discussed by younger women, especially those still in school, than older women. They believed that younger women tended to be more motivated to avoid unwanted pregnancy and abortion.

We [women ages 18–24] are talking about it more, because we are not the same. We are girls. Those who are older than us are married and can have children whenever they want while married. On the other hand, if we do not use planning, we can get pregnant without wanting to and it can set us back in our career. That's why we talk about it and we protect ourselves. —Female FGD participant, Kita

These women also suggested that the topic was less taboo for younger generations as "we unpack [tell each other] everything between us." One female participant in Kolokani noted that "older women do not discuss it with us." In Tombouctou, a female participant mentioned the use of "local codes" that have been developed to discuss FP methods discreetly without "being discovered."

For their part, men expressed additional hesitation about discussing the subject with older generations.

While acknowledging the taboo nature of the topic, participants in many of the groups expressed a desire to learn more about FP and frequently posed questions about specific methods or rumors to the FGD facilitators. As a young woman in Tombouctou said:

We especially like participating in family planning training sessions to learn about its advantages and disadvantages. —Female FGD participant, Tombouctou

Youth's observed barriers to family planning use

Discussions around barriers to FP use were framed in the context of married couples. When asked about the reasons why women and their husbands do not practice FP, the female participants most often mentioned men not trusting their wives to be faithful (and therefore not allowing them to use FP), the fear of side effects, and misunderstandings and rumors about FP. Focus group participants in Kita were especially concerned with the potential for divorce as a consequence of FP use. One participant stated:

There are husbands who are ready to divorce their wives if they adopt family planning. So, their wives abstain from the practice of planning for fear of their husbands divorcing them. —Female FGD participant, Kita

In contrast, young men most frequently mentioned positive attitudes toward large families and many children, religious doctrines against FP, and the potential for side effects, especially infertility, as reasons why couples do not use FP.

Side effects were discussed in all FGDs; the most commonly mentioned were related to menstrual disruption, either extended bleeding, heavy bleeding, or lack of bleeding and missed periods. Both young women and men viewed these menstrual changes as very problematic.

One day, when we were talking among us friends, one of us who used a method of family

planning complained of massive bleeding, and this state of affairs discouraged those who wanted it. —Female FGD participant, Sikasso

I wanted to tell the young, do not use Jadelle. I am a living witness. My periods did not come at all. I lived four years with that, and in the fifth year, I removed it. I advise young people, do not use Jadelle. —Female FGD participant, Mopti

Amenorrhea was also seen as going against religious teachings, as menstrual bleeding is considered a process that humans should not try to control or alter. Women's and men's groups discussed the condition of implants getting "lost" inside a woman's body or "buried under the skin." As a male from Kita stated, "Jadelle can disappear in the body of a woman once she gains weight." Less commonly mentioned were fears of other methods. One male expressed confusion about why something considered "good" could have negative side effects:

Some talk about the harmful consequences of family planning. I did not understand this aspect because I had always said that it was meant to protect women. If it can cause other worries, it is inexplicable. —Male FGD participant, Sikasso

Men's groups also mentioned fear of adultery, lack of knowledge, and not having any good role models to champion the practice, as additional barriers to use. Women's groups also mentioned the fear of infertility, religious teachings, and a lack of awareness about FP. Women in Kita, Sikasso, and Kolokani also felt that one barrier to use was the idea that FP was a way for white people to control or reduce the population.

Youth's suggestions for programming

The youth had a number of suggestions for improving FP programming in Mali that were broadly related to improving access to information, raising community awareness, and improving access to methods. Regarding access to information, most youth felt that more attention should be given to explaining the disadvantages of FP. For young women in particular, this meant

finding ways to alleviate fears of side effects, divorce as a consequence to use, and misunderstandings based on rumors. Current programs were thought to "just ask people to plan" rather than spending sufficient time to counsel on methods.

... [T]here are a lot of health centers, but very few qualified providers. Because they do not give themselves any time to provide good counseling before giving a family planning method to a woman. —Female FGD participant, Sikasso

The female FGD participants suggested that counseling could be improved by training more providers and allotting more time for the counseling. Furthermore, it was suggested that "promos" on the radio or television may have limited utility for helping individuals become better informed about FP because they do not allow for "questions or complaints" from the listeners. The young men felt that programs should emphasize messages on birth spacing, how FP can positively affect a family's health and finances, and "show more evidence of the importance" of FP.

The FGD participants emphasized the need for raising awareness of FP within the community. Young women most commonly mentioned the need to raise awareness among men. Reaching "heads of families" and going door-to-door were thought to be important strategies for raising FP awareness. They felt that such work should be ongoing and not limited to a few months of the year, which is how the annual FP campaign is run. They also recommended engaging highly regarded (and qualified) "wise women," elders, or mother educators from within the community to encourage FP use. They thought a good way to help young people use FP services was to teach them the topic at school.

In contrast, men focused on outreach channels, suggesting that social media was "the best information channel for young people nowadays." One participant in Sikasso stated, "If you launch your messages on radio or TV, few young people will perceive them," while a participant in Kolokani said, "We young people are not attracted to radio." Men also suggested

using leaders of all kinds to help spread information and awareness—peer educators, religious leaders, singers, and community leaders (“they are your best teachers”)—and to serve as role models. Young men and women agreed that outreach related to FP, while essential for young people, should also include outreach to older generations, as they were the ones most likely to “curse the practice”.

Trainers only train young people. Focus on training old people. Old people [need to] understand that family planning is not a bad thing in and of itself. —Female FGD participant, Tombouctou

This point was especially important, as dialogue between generations, particularly between mothers and daughters, was considered potentially helpful for young people. Access issues were not mentioned as often as information and awareness issues; however, confidential and discrete services were clearly important to the youth participants. As one participant from Tombouctou stated,

Most young people are ashamed to go and get condoms where they are distributed. Even if they are informed, they prefer to go to the pharmacy to buy than to go to the health centers that distribute them for free. —Male FGD participant, Tombouctou

In fact, pharmacies were considered preferred sites to obtain contraceptive methods, as they were viewed as more discrete than health centers and other providers. Although participants noted that provider biases can be a problem for youth:

We also have difficulties that are related to the accessibility of contraceptive products. Despite the sensitization given by health workers, we have difficulty accessing contraceptive products at our pharmacy unless we submit a prescription. Our pharmacist refuses to sell contraceptives to young people on the grounds that the product is not available at his pharmacy. We only have one pharmacy, and this is a barrier to family planning use because he systematically refuses to sell contraceptive products without

a prescription. —Female FGD participant, Kolokani.

Discussion

Youth involved in the FGDs reflected main messages of FP programming in Mali, particularly messages for youth about the potential educational and economic benefits of FP. There was general interest in the subject of FP among the young people involved in the FGDs; despite the taboo nature of the topic, the participants were eager to be involved and interested in sharing their thoughts. Some participants commented that the FGD itself had helped them to better understand the topic. However, young people were concerned with discretion around their interest in or use of FP, and there seemed to be limited knowledge about how to get their questions answered inconspicuously.

Negative aspects of FP included its perceived connection to adultery and undermining the attainment of large families as a sign of wealth and privilege. Barriers to the use of FP included male attitudes about infidelity, fear of side effects, and religious teachings. Young men also expressed a lack of “champions” or role models for FP.

Our findings are in line with research published in 2011 from a large qualitative study on the use of FP in three regions of Mali (Bamako, Koulikoro, and Ségou)¹⁹. In that study, traditional benefits of FP related to birth spacing were commonly acknowledged, and barriers to FP use had to do with husband/male partner opposition and real and perceived side effects¹⁹. The authors discussed the difficulty men and women in their study had of applying general knowledge about the benefits of FP to their own personal situations. Such a difficulty may help explain why FGD participants in our study felt that there needed to be a way to ask questions and interact with information sources, rather than just listen to general promotions on the radio or television. Elsewhere in Africa, a lack of knowledge about methods and embarrassment and shyness about obtaining FP services has been shown to be key barriers for young people's contraceptive use²⁰.

The focus group participants wanted more information about what they called the “disadvantages” of FP, including the potential side effects of different methods. Negative reactions to changes in menstrual bleeding patterns and fears of infertility have previously been noted among youth in Mali and other African countries²¹⁻²³. Such concerns are often given as reasons why young women avoid and discontinue use of FP²¹⁻²³. Our study found that these concerns persist. Interestingly, a perceived side effect of implants, which have been a focus of scale-up efforts in recent years (for example, see Duvall *et al.*²⁴ was both widespread and specific. A main programming recommendation from these youth included more counseling on side effects from trained providers at both health facility and community (outreach) levels. Young men felt that outreach through social media would be an effective channel to reach young people with FP messages and information. This recommendation is in line with emerging evidence on use of social media and digital technologies to reach youth²⁵.

In our study, as in previous research, young women frequently cited men as a barrier to FP use¹⁶. In turn, men commonly expressed that women should not use FP without the knowledge or consent of her spouse. Such attitudes were reinforced by religious teachings warning against “debauchery” as a potential outcome of women’s FP use. In fact, men’s role in FP decision making in Mali, and similar developing country contexts, has been described as “considerable, sometimes coercive”¹⁶. Although FP was sometimes referred to as a “women’s business,” men clearly expressed attitudes that supported male dominance regarding FP decision making. Such attitudes indicate a need for greater programmatic emphasis on positive male engagement in FP and reproductive health²⁶. Continued outreach to religious leaders and others who influence FP attitudes is also recommended and has been called for in other countries as well²⁷⁻²⁸.

One limitation of the study is that the sensitive nature of the topic may have influenced who agreed to participate in the FGDs. As a result, the FGDs may have been biased toward individuals who were more willing to discuss FP

and express positive attitudes than the general population of youth. Furthermore, the sampling prevented sub-group analysis, for example, by married vs. unmarried youth, or by FP experience (current users vs. never users). The participants nonetheless represent an important target population for FP programs in Mali, as they consist of youth open to FP messages who could become future FP clients. Another limitation relates to language. The FGDs were most commonly conducted in Bambara, the local language, and then simultaneously transcribed and translated into French. Transcripts were then analyzed in French and translated into English, as needed. Every effort was made to ensure that the sentiments expressed were as close as possible to the original; one of the co-authors conducted the FGDs and was able to verify quotes against the originals. However, it is possible that nuances in meaning were not correctly captured in quotations.

Ethics Approval

The protocol and data collection tools received full review and approval by Mali’s National Institute of Research in Public Health (INRSP) in November 2017. The study was exempted from full review by the University of North Carolina Institutional Review Board. Written informed consent was obtained from all participants. Because some discussion topics were sensitive, study staff made it clear that participation was voluntary and that participants could choose not to participate, or to stop participating, at any time.

Conclusion

The results of this study contribute to a small body of published research on FP in Mali. Additionally, they contribute to what is known about youth’s FP attitudes, perceptions, and responses to programming efforts, in an area of the world where youth are an increasingly large segment of the population. Mali’s culture of early marriage and early childbearing means that issues of birth prevention and birth spacing are immediately relevant to adolescents and youth. The study findings may be used by programs to improve messaging, counseling, outreach, and

communication in order to improve youth's sexual and reproductive health in Mali.

Acknowledgements

The authors thank the youth who participated in the focus groups for sharing their thoughts about family planning. We thank the health district staff in the five districts for assisting with recruitment. We are grateful for the support of the Office of the National Directorate of Health of Mali, specifically the Reproductive Health Division. Lavanya Gupta contributed to the qualitative data analysis. This study was funded by the United States Agency for International Development (USAID) Mali Mission under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. The Carolina Population Center and its NIH Center grant (P2C HD050924) provide general support.

Contribution of Authors

JBO conceived and designed the study, led project administration and data analysis, and wrote the draft manuscript. AT conceived the study, supervised fieldwork, validated results, and reviewed and edited drafts of the manuscript. MT led the data collection, validated results, and reviewed and edited drafts of the manuscript. All authors approved the final manuscript.

References

1. PRB demographers, Kaneda T and Dupuis G. 2017 World population data sheet. Population Reference Bureau; 2017. doi:10.2307/1972177.
2. The DHS Program. Mali demographic and health surveys. In: STATCompiler. 2018. <https://www.statcompiler.com/en/#> Accessed 5 Sept 2018.
3. WHO. Women aged 20-24 years married or in a union before age 15 and 18. In: Global health observatory indicator views. 2016. <http://apps.who.int/gho/data/view.main.CHILDMARRIAGEV?lang=en>. Accessed 14 May 2018.
4. United Nations Population Fund (UNFPA). Adolescents and youth dashboard: Mali. 2017. <https://www.unfpa.org/data/adolescent-youth/ML>. Accessed 14 May 2018.
5. Donovan P and Wulf D. Family planning can reduce high infant mortality levels. Issues in Brief (Alan Guttmacher Inst) 2002; (2): 1-4.
6. WHO. Family planning/contraception. 2018. <http://who.int/mediacentre/factsheets/fs351/en/>. Accessed 29 Jan 2018.
7. WHO. Maternal mortality: 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Populations Division. Executive summary. 2015. http://apps.who.int/iris/bitstream/handle/10665/193994/WHO_RHR_15.23_eng.pdf;jsessionid=5FACC51657C0176004B47AF924370D6C?sequence=1 Accessed 5 Sept 2018.
8. The World Bank Group. DataBank. 2018. <http://databank.worldbank.org/data/home.aspx>. Accessed 5 Sept 2018.
9. WHO. Fact sheet: adolescent pregnancy. World Health Organization; 2018. <http://www.who.int/mediacentre/factsheets/fs364/en/>. Accessed 29 Jan 2018.
10. Guttmacher Institute. Adolescent pregnancy and its outcomes across countries. 2015. <https://www.guttmacher.org/sites/default/files/factsheet/fb-adolescent-pregnancy-outcomes-across-countries.pdf>. Accessed 29 Jan 2018.
11. Ministère de la Santé et de l'Hygiène Publique, République du Mali. National plan for family planning in Mali 2014–2018. 2014. <http://www.familyplanning2020.org/entities/125> Accessed 10 Oct 2017.
12. FP2020. Engagements FP2020: Gouvernement du Mali. 2017. <http://ec2-54-210-230-186.compute-1.amazonaws.com/wp-content/uploads/2017/08/Engagements-FP2020-Mali-Revision-de-2017.pdf>. Accessed 21 Sept 2018.
13. Hernandez JH, Muanda M, Garcia M, and Matawa G. Awareness and perceptions of emergency contraceptive pills among women in Kinshasa, Democratic Republic of the Congo. Int Perspect Sex Reprod Health 2017; 43(3): 121-30.
14. MEASURE Evaluation. Assessment of Mali's 2016 national campaign for the promotion of family planning. Chapel Hill, NC: MEASURE Evaluation; 2017.
15. MEASURE Evaluation. Assessment of the 2017 national campaign for the promotion of family planning in Mali. Chapel Hill, NC: MEASURE Evaluation; 2018.
16. Williamson LM, Parkes A, Wight D, Petticrew M, and Hart GJ. Limits to modern contraceptive use among young women in developing countries: a systematic review of qualitative literature. Reprod Health 2009; doi:10.1186/1742-4755-6-3.
17. Heaton T. Does religion influence fertility in developing countries. Popul Res Policy Rev 2011; 30(3): 449-65.
18. Guest G, Namey E, and McKenna K. How many focus groups are enough? Building an evidence base for nonprobability sample sizes. Field Methods 2016; 29(1): 3-22.
19. Yoder PS, Guèye M, and Konaté M. The use of family planning methods in Mali. The how and why of taking action. Calverton, MD: ICF Macro; 2011.

20. Bankole A and Malarcher S. Removing barriers to adolescents' access to contraceptive information and services. *Stud Fam Plann* 2010; 41(2): 117-124.
21. Castle S. Factors influencing young Malians' reluctance to use hormonal contraceptives. *Stud Fam Plann* 2003; 34(3): 186-99.
22. Ochako R, Mbondo M, Aloo S, Kaimenya S, Thompson R, Temmerman M, and Kays M. Barriers to modern contraceptive methods uptake among young women in Kenya: A qualitative study. *BMC Public Health* 2015; 15(118).
23. Adongo PA, Tabong PT-N, Azongo TB, Phillips JF, Sheff MC, Stone AE, and Tapsoba P. A comparative qualitative study of misconceptions associated with contraceptive use in Southern and Northern Ghana. *Frontiers in Public Health* 2014; doi: 10.3389/fpubh.2014.00137
24. Duvall S, Thurston S, Weinberger M, Nuccio O, and Fuchs-Montgomery N. Scaling up delivery of contraceptive implants in sub-Saharan Africa: operational experiences of Marie Stopes International. *Glob Health Sci Pract* 2014; doi:10.9745/GHSP-D-13-00116.
25. Chandra-Mouli V, McCarraher DR, Philips SJ, Williamson NE, and Hainsworth G. Contraception for adolescents in low and middle income countries: needs, barriers, and access. *Reprod Health* 2014; 11(1).
26. Johns Hopkins University. Engaging men and boys in family planning: a strategic planning guide. In: *HIP: Family planning high impact practices*. 2018. <https://www.fphighimpactpractices.org/guides/engaging-men-and-boys-in-family-planning/>. Accessed 21 Sept 2018.
27. Burket MK. Advancing reproductive health and family planning through religious leaders and faith-based organizations. *Pathfinder International* 2006. http://www2.pathfinder.org/site/DocServer/FBO_final_reference.pdf?docID=6901. Accessed 13 Feb 2020.
28. Adedini SA, Babalola S, Ibeawuchi C, Omotoso O, Akiode A, and Odeku M. Role of religious leaders in promoting contraceptive use in Nigeria: Evidence from the Nigerian Urban Reproductive Health Initiative. *Glob Health Sci Pract* 2018; 6(3): 500-514.