

Covid-19 And Its Impact On Family Planning And Reproductive Health

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Abstract

There is a shocking and an obscure impact of the current global pandemic on reproductive health and family planning services of people, especially women. According to some recent studies, there has been a massive reduction in using contraceptives' services. This reduction has led to unsafe abortions, unplanned pregnancies, or in sometimes maternal deaths. The World Health Organization, in a survey of 103 countries, said two-thirds of it has limitations in family planning and contraceptive services. The pandemic is increasing inequalities with each passing day, has a fear of pushing many girls to lose the ability and freedom to plan their families and their own individual health. It is also feared that 2030 Sustainable Development Goals of ending unmet needs of family planning, ending all preventable maternal deaths etc. would now become even more challenging. The source of data collection is secondary, use of the WHO data, UNFPA, NFHS, PFI, government reports, academic research papers, etc. In some parts of India, it is reported that the supply chain of reproductive health services has been limited, upended, considered non-essential and the quite high fair of costing. In India, where there is an enormous chunk of population lives in low economic setting and rural areas, free contraceptives were out of stock. Presently poor families have low economic stability and implication of these increased unplanned pregnancies both on women's health and economic condition is tragic. Thus, the paper tries to examine the various factors like economic, social and cultural in explaining the current status of women's health and sexuality during this pandemic.

Key words: COVID-19, Pandemic, Family Planning, Reproductive Health, Contraception, Women Health

Introduction

The ongoing pandemic because of the Novel Coronavirus, COVID-19 has shaken the entire world. It is one of the biggest humanitarian crises. People are facing dire consequences of it, whether it is physical, mental or economic. Health effects of pandemic for both males and females are different. Impact of it on sexual and reproductive health of women is crucial to understand. The World Health Organization in a survey report of 159 countries (105 responded) states that of many disrupted essential services, family planning and contraceptive services was around 68% (The World Health Organization, 2020). The survey period was from May to June 2020. Nearly all countries participated had stated *disruption in essential services*.

A projection study conducted by the UNFPA on the number of lock-down months explained that 14 million women from 114 countries cannot use modern contraceptives if lock-down had continued for six months. Further, if lockdown continues for three months, two million women will suffer. UNFPA declared that as of now, the COVID-19 pandemic is the fastest growing public health crisis (UNFPA, 2020)). There were disruptions in both manufacturing of contraceptives and in their supply channels. Below Table explains the impact of lock-down on disruptions of services resulting in women being unable to contraceptive services and number of total number maternal deaths during that period.

no. of months in lockdown	estimated number of women unable to use contraceptives (in million)	number of maternal deaths	level of disruptions
3	13	3,25,000	low
3	23	6,00,000	medium
3	44	10,00,000	high

Contraceptive use and unplanned pregnancies

There is an inverse relationship between contraceptive use and number of unplanned pregnancies. Modern Contraceptive use is indeed one of the reliable, affordable way to put an end to unplanned pregnancies. Unplanned pregnancies' not only put stress on household's livelihood, but it also keeps adding to women's stress in managing a lot of things.

Research suggests that use of contraceptives by women has contributed to improve their empowerment status. One study published in Plos one, observed an improvement in economic, educational and psychological aspects of empowering women because of improvement in contraceptive use. The study concentrates on the condition of Southern Ethiopia, where women had expressed their gratitude over contraceptive use. The result of being able to skip unplanned pregnancies has led to improve their economic condition. The time was used in raising cattle herds, growing vegetables in their land, sending children to schools, continuing their own education, and various other activities. Opposite to this, women who had quick successions in pregnancies led undernourishment of women, living in unhygienic settings, increase in household finances, etc. India has some similar factors in terms of woman's education, economic dependency and lack of freedom, early marriage of girls

women getting married early, etc. also faces struggle when it comes to unplanned pregnancies' (Alano & Hanson, 2018)

A study shows that in Gauteng, South Africa people using provider dependent contraceptives have seen a decline during March -April 2020. On the other hand, uptake of Oral contraceptive pills were on the rise for those two months (Adelekan et al., 2020) One newspaper reports that, In some parts of India, the supply chain of reproductive health services has been limited and the quite high fair of costing. The travel cost to reach primary health for contraception services has gone up. (Panicker, 2020)

Maternal health and COVID-19

Studies suggests that during the past pandemic of Ebola, utilization of family planning and maternal health services including Antenatal care & Post-natal services, institutional deliveries, caesarean deliveries were badly disrupted (Yerger, Jalloh, Coltart & King, 2020) (Menéndez, Lucas, Munguambe & Langer, 2015). Maternal Mortality during the second month of lockdown (March - May 2020) have seen in Nepal. There were problems like delay in transport facilities, fear of COVID transmission in hospitals, scarcity of adequate resource to manage transmission, etc. Institutional deliveries were also dropped by 52.4% during the first two months of lock-down in the country. Delay in breastfeeding practices, post-partum care, neonatal deaths, stillbirths were also on the rise. (Karkee & Morgan, 2020)

Brazil, which has witnessed some serious repercussions of COVID-19 like India, observes a greater number of maternal deaths than anywhere in the world.

A study in Brazil pointed out there were significant maternal deaths during COVID-19. Mortality was higher during the postpartum period than the pregnancy. There were several factors associated with it like poor antenatal care, insufficient resources during the pandemic (Takemoto et al., 2020).

The Lancet writes that In India 5598 maternal deaths were reported because of COVID-19 (till June 2, 2020) (Kumari, Mehta & Choudhary, 2020). Poor transportation services, especially public transport, have affected the emergency obstetric referral cases. A study conducted (from March 25 till June 2, 2020) in some tertiary hospitals in Western part of India revealed: low intake of admissions during the lockdown period as compared to pre-lock down period (Jan 15 till March 24, 2020), high unattended deliveries, hospital avoided behaviour of families, high caesarean deliveries, high mortality among pregnant women, and so on. In India, COVID-19 related fatalities are higher among women. A study shows 2.9% in males and 3.3 in women (Dehingia & Raj, 2021).

Sexual and Reproductive Health Services

Further, the question of prevalence of sexually transmitted diseases and reproductive health illnesses becomes ubiquitous. There are studies which signifies spike in numbers after a disaster (Zeinab HAMZEHGARDISHI, 2020).

It has been reported that globally young people are facing problems in sexual and reproductive activities. In an online survey conducted in China, it was found that young people were having problems in accessing good care during pregnancy, like beds or proper prenatal examination. There were problems related to desire for intercourse, high rate of masturbation leading to low sexual satisfaction & decrease quality of life. There was also disruption in contraceptive services and abortion services (Li at al., 2020).

Fuchs et al., 2020 explains the impact of COVID-19 on female reproductive health using Female Sexual Function Index (FSFI). The study explains the decreased quality of sexual life among women in Poland. A study conducted in Gauteng, South Africa, it was reported an increase use of less effective contraceptive like OCPs than IUCDS and sterilization. Adelekan T and others also write that lock-down restrictions might have an impact on an increase in unsafe abortion practices. In some states of the United States of America, like Texas, Ohio, Alabama and Oklahoma have tried to ban abortions, which do not have any serious health implication on women during the pandemic period. The step was taken because of the space crunch at the hospitals (Sandoiu, 2020) Comparative high number of fatality cases among women were also there in countries like Nepal and Vietnam. It is quite surprising that men whose immune system is weaker than

the women and additional behavioural patterns like smoking, still high number of fatalities in women in India, Nepal and Vietnam.

Indian Scenario

Country which has the largest number of young populations, it becomes crucial to address the family planning and sexual & reproductive health services during and after the pandemic. Stories from many newspapers explained the limited stock of condoms and Oral contraceptive pills for the health workers to distribute. (Santoshini, 2020) It is unquestionable that India from past many years have been consistent in restricting the family size. Low levels of Total fertility rates in most of the states/UTs also signify a high dependency on family planning methods. A recent report released by FOCUS 2030 by Women Deliver, India fact sheet, writes that females who migrate from one place to other for better economic prospects need smooth access to sexual and reproductive health services. There were 17 countries studied in the survey covering more than half of the world's population. The online survey is about the public opinion on gender equality. The survey also captures the impact of COVID-19 on gender distribution. 40% of the respondents who migrated for job feel that there was inequality in accessing sexual health services. 26% of them had problem in accessing abortion care (Women Deliver. Focus 2030, 2021)

There is also a recent report by The Population Foundation of India concentrating on the young people (15-24 years) of three Indian states (Bihar, Rajasthan and Uttar Pradesh) during the month of May 2020. Target population was over 800. The reports studied the knowledge and attitude of young population towards the pandemic. Respondents felt disruption in sexual and reproductive health and their mental wellbeing. Majority of respondents were not aware of the distribution of contraceptives by the Front-Line Workers (FLWs). Further observed an unmet need for sanitary pads in all the three states. About distribution of Iron supplements, two third of women respondents did not get any.

In India there is still a high burden of unmet need of family planning. According to NFHS-4 data, only 56.3% of women (15-49 years) were using any family planning method. Woman's health is constantly challenged in areas of sexual and reproductive health in terms of unattended, unplanned pregnancies', lack of contraception devices and methods, STDs etc.)

National Family Health Survey -5 phase one which was conducted before the COVID pandemic can provide us with some insight into what impact can COVID pandemic has on the family planning services. The table below explains the comparative analysis between two rounds of NFHS survey (4 and 5 phase 1) and percentage of contraceptive use.

States/UTs	NFHS-4 (2015-16) in percentage	NFHS-5 (phase 1- 2019-20) in percentage
Bihar	24.1	55.8
Dadar & Nadar Haveli Daman & Diu	38.2	68
Goa	26.3	67.9
Lakshadweep	29.7	52.6
Manipur	23.6	61.3
Nagaland	26.5	57.4
Sikkim	46.7	69.1
Himachal Pradesh	57	74.2

According to the findings from the latest round of Indian Health Survey, National Family Health Survey, Phase-1, use of modern contraceptive has increased in most of the states and union territories. Bihar shows significant improvement from 24.1% in 2015-16 to 55.8% in 2019-20. Ladakh, Mizoram, shows a reduction from 66.6% to 51.3% and 35.3% to 31.2%. However, there were some states, namely Maharashtra, Andhra Pradesh, Meghalaya which showed no or a little improvement (Ministry of Health and Family Welfare, 2020). It is however interesting to know that increase in contraceptive use in some states/UTs would or would not take a back seat during the disruption of family services service because of COVID-19 pandemic. Further, people of India are still more convinced and go for a permanent method of contraception, female sterilization.

GOI in a document shared the news on short suspension of Intrauterine facilities (IUCD) and sterilization in government health care settings (Ministry of Health and Family Welfare, n.d.). It is also questionable that the counselling over using condoms/OCP/injectables went through a normal pace or not? Further, there was no mention about the running of Adolescents and Reproductive & Sexual Health centres at district level. These very questions led to the distorted picture of sexual and reproductive health services in India.

In a commentary, author writes about the abortion services in India during and after the pandemic. It is unquestionable that abortion practices outside the health facilities in India outnumber what provided by Health facilities (Singh et al., 2018). According to the data, the incidence of abortion in India, states 47 abortions per 1000 women (15-59). Further, the number of abortions in facilities was 5 times high than what was reported according to government estimates. (34 lacs to 7, 01, 415 abortions in 2014-15). This points towards other problem of underreporting of abortions in India. The biggest concern is the informal means of purchasing medicines (i.e., without prescriptions) over the counters due to lack of trained staff and

lack of supplies in public health facilities. Government of India considered abortion services as essential services. During the early phase of lockdown survey by International Planned Parenthood Federation (IPPF), it was found out that there were transportation problems. Problems of moving the goods from warehouses to supply stores. Further, suspension of a permanent method of family planning, like IUCD and sterilizations, made room for high unintended pregnancies.

As reported, thousands of migrants came back to their native places during the pandemic (Rashid, 2020). The impact of their return might cause an increase in their sexual activities. A recent research paper tries to explain the implication of migration practices in Bihar on family planning services (Mahapatra et al., 2020).

Bihar which has the high percentage of migrant workers also seen to have an impact in their family planning services. It was reported that Accredited Social Health Activists (ASHAs) and other family planning workers were not focusing on evenly distributing contraceptive services in high male out migrant villages. Hence, it would be interesting to know the level of distribution during the pandemic in these areas, when the migrant population has returned in large numbers.

A primary global study was conducted surveying 714 maternal and new-born health professionals, of whom 82 were MCH professionals who belong to India. Many professionals from India reported people avoided norms of social distancing, there was a problem of place crunch to place patients in separate birthing room, there was no time for second stage-labour which likely to push for caesarean cases, there were also disruption in vaccination schedule (Semaan et al., 2020)

A study from tertiary care health centre in India reports that there has been a considerable decrease in Institutional deliveries and a slight increase in high risk-pregnancies (Goyal et al., 2020). Further, there were also lesser antenatal care visits and complication in pregnancy.

Special family planning isolation wards were built during the Ebola crisis (Adelekan et al., 2020) Putting efforts into public health care system at community and basic level is equally important. Jill Sheffield, Founder of Figo Contraception and Family Planning Committee writes that there should be innovation in areas of tele-consultations in terms of contraception use, social media use in creating awareness, doorstep distribution of contraceptives. Safe delivery care practices of maintaining hygiene and social distancing are critical (Townsend et al., 2020).

Conclusion

COVID-19 pandemic has resulted seen in a number of problems. Its impact on health and its associated factors are quite apparent. Sexual and reproductive health services and family planning services were affected badly. There has been a rise in number of gender-based violence, abortion services etc. Reproductive health services & family planning services are constantly challenged. It is evident that where on the one hand our health system is overburdened, there are still many people who were left unattended. There were still few services which are not readily available to people especially belonging to low economic background.

According to the information released by the UNDP, women belonging to low- and middle-income countries are losing access to modern contraceptive methods because of COVID-19 pandemic. (Rivera C et al., 2020) UNICEF in a policy brief explains the primary and secondary impact of an epidemic on human health. Primary impact refers to direct effect of an epidemic on people. Secondary impact may arise out of people's way of addressing the situation or the measures taken to control the crisis. Document reveals that this crisis will impact menstruating girls and women across the globe specially women belonging to marginalized group. Of 1.8 billion population menstruate globally, there are millions of them who find it difficult to manage a healthy and clean menstrual cycle (Yamakoshi, 2021).

In India, where there is no official segregation in the number of COVID-19 affected males or females, to study the impact of reproductive health services becomes challenging. According to a recent study, that however, there is a high overall burden of COVID-19 on males, females have a high mortality rates than men in India (Joe et al., 2020). International Federation of Gynaecology and Obstetrics states that this pandemic has led to shut down of sexual and reproductive health services in many parts of the world (Committee for contraception and Family Planning, 2020). Foundation for reproductive health services India, in a press brief had estimated a total of 27.1 million people of not able to access contraceptive services in the worst-case scenarios. Further, 2.9 million unintended pregnancies, 1.04 unsafe abortions and 2000 maternal deaths could happen. Here the worst-case scenario is defined as resumption of reproductive health care facilities and products in a phased manner in third week of May 2020 and full services in September 2020 (FRHS India, 2020).

The distorted picture of rural India and tier 3 and tier 4 cities is scarier. One report state that, till November 2020, rural or semi urban districts accounts for 27% percent of all fatalities. With the growing numbers of COVID-19 numbers and fatalities in rural area reflects the impact on many health services and unequal rural and urban divide, family planning being an important one (Gera, 2020)

There is evidence of health care facilities converted into COVID centres, shutting off some services, transportation issues, lack of limiting of contraceptive services and many other. Women were feared of catching infections limit them to reach out to the services. UNFPA has also addressed sexual and reproductive health as one of the major problems during the pandemic. It is well established that in case of after humanitarian crisis there has been increase in reduced family planning services along with many services. That would lead to unsafe abortions, mental agony, stress even maternal and child mortality in some cases (Singh et al., 2018).

According to another study, published in the Lancet also agrees the shutting of MSI clinics in India during lockdown (Cousins, 2020). Research shows that women living in rural areas are more prone to reproductive illness (Banerjee et al., 2015).

A note issued by the Ministry of health and family welfare, India has talked about the essential nature of family planning services and adolescents health services (a part of RMNCAH+N (Reproductive, Maternal, Newborn, Child, Adolescent Health and Nutrition) under “Enabling delivery of essential health services during the Covid-19 outbreak” (April 14, 2020) (Ministry of Health & Family Welfare, India, 2020)

Specific guidelines issued were as follows:

1. extra two-month supply for OCP and condoms to the clients to avoid repeated visits
2. All health faculties can perform abortion services under the MTP act
3. Sterilizations are to be conducted keeping in mind the norm of social distancing and overcrowding

Thus, there is a pressing burden on health care facilities which could drift the essential need of family planning services. While there is a rise in unplanned pregnancies, there is a reduction in planned pregnancies as couples are seeking less of the information and consultation.

References

1. The World Health Organization, 2020. *Pulse survey on continuity of essential health services during the COVID-19 pandemic: interim report, 27 August 2020*. [online] p.5. Available at: <https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS_continuity-survey-2020.1> [Accessed 10 February 2021].
2. UNFPA. (2020). *Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-based Violence, Female Genital Mutilation and Child Marriage Pandemic threatens achievement of the Transformative Results committed to by UNFPA* (p. 1). UNFPA. Retrieved from https://www.unfpa.org/sites/default/files/resource-pdf/COVID-19_impact_brief_for_UNFPA_24_April_2020_1.pdf
3. Alano, A., & Hanson, L. (2018). Women's perception about contraceptive use benefits towards empowerment: A phenomenological study in Southern Ethiopia. *PLOS ONE*, 13(9), e0203432. doi: 10.1371/journal.pone.0203432
4. Adelekan, T., Mihretu, B., Mapanga, W., Nqeketo, S., Chauke, L., Dwane, Z., & Baldwin-Ragaven, L. (2020). Early Effects of the COVID-19 Pandemic on Family Planning Utilisation and Termination of Pregnancy Services in Gauteng, South Africa: March–April 2020. *Wits Journal Of Clinical Medicine*, 2(2), 91. doi: 10.18772/26180197.2020.v2n2a7
5. Panicker, L. (2021). Covid-19: Focus on reproductive health. *Hindustan Times*. Retrieved from <https://www.hindustantimes.com/columns/covid-19-focus-on-reproductive-health/story-toARx2OOigHtHzxlQSho5N.html>
6. Yerger, P., Jalloh, M., Coltart, C., & King, C. (2020). Barriers to maternal health services during the Ebola outbreak in three West African countries: a literature review. *BMJ Global Health*, 5(9), e002974. doi: 10.1136/bmjgh-2020-002974
7. Menéndez, C., Lucas, A., Munguambe, K., & Langer, A. (2015). Ebola crisis: the unequal impact on women and children's health. *The Lancet Global Health*, 3(3), e130. doi: 10.1016/s2214-109x(15)70009-4
8. Karkee, R., & Morgan, A. (2020). Providing maternal health services during the COVID-19 pandemic in Nepal. *The Lancet Global Health*, 8(10), e1243-e1244. doi: 10.1016/s2214-109x(20)30350-8
9. Takemoto, M., Menezes, M., Andreucci, C., Nakamura-Pereira, M., Amorim, M., Katz, L., & Knobel, R. (2020). The tragedy of COVID-19 in Brazil: 124 maternal deaths and counting. *International Journal Of Gynecology & Obstetrics*, 151(1), 154-156. doi: 10.1002/ijgo.13300
10. Kumari, V., Mehta, K., & Choudhary, R. (2020). COVID-19 outbreak and decreased hospitalisation of pregnant women in labour. *The Lancet Global Health*, 8(9), e1116-e1117. doi: 10.1016/s2214-109x(20)30319-3
11. Dehingia, N., & Raj, A. (2021). Sex differences in COVID-19 case fatality: do we know enough?. *The Lancet Global Health*, 9(1), e14-e15. doi: 10.1016/s2214-109x(20)30464-2
12. Li, G., Tang, D., Song, B., Wang, C., Qunshan, S., & Xu, C. et al. (2020). Impact of the COVID-19 Pandemic on Partner Relationships and Sexual and Reproductive Health: Cross-Sectional, Online Survey Study. *Journal Of Medical Internet Research*, 22(8), e20961. doi: 10.2196/20961
13. Fuchs, A., Matonóg, A., Pilarska, J., Sieradzka, P., Szul, M., Czuba, B., & Drosdzol-Cop, A. (2020). The Impact of COVID–19 on Female Sexual Health. *International Journal Of Environmental Research And Public Health*, 17(19), 7152. doi: 10.3390/ijerph17197152
14. Sandoiu, A. (2020). How COVID-19 affects women's sexual and reproductive health. *Medical News Today*. Retrieved 11 February 2021, from <https://www.medicalnewstoday.com/articles/how-covid-19-affects-womens-sexual-and-reproductive-health>.
15. Santoshini, S. (2020). Family Planning Efforts Upended by the Coronavirus. *Foreign Policy*. Retrieved 11 February 2021, from <https://foreignpolicy.com/2020/05/13/india-family-planning-upended-coronavirus-womens-sexual-reproductive-health/>.

16. Women Deliver. Focus 2030. (2021). *CITIZENS CALL FOR A GENDER-EQUAL WORLD: A ROADMAP FOR ACTION FINDINGS FROM A 17-COUNTRY PUBLIC OPINION SURVEY ON GENDER EQUALITY PREPARED FOR THE GENERATION EQUALITY FORUM*. Focus 2030 & Women Deliver. Retrieved from https://focus2030.org/IMG/pdf/citizens_call_for_a_gender_equal_world_womendeliver_focus2030-2.pdf
17. Ministry of Health and Family Welfare. (2020). *Fact Sheets Key Indicators 22 States/UTs from Phase 1 National Family Health Survey (NFHS-5) , 2019-20*. International Institute of Population Sciences. Retrieved from http://rchiips.org/NFHS/NFHS-5_FCTS/NFHS-5%20State%20Factsheet%20Compendium_Phase-I.pdf
18. Ministry of Health and Family Welfare. *Enabling Delivery of Essential Health Services during the COVID 19 Outbreak: Guidance note*. Retrieved from <https://www.mohfw.gov.in/pdf/EssentialservicesduringCOVID19updated0411201.pdf>
19. Singh, S., Shekhar, C., Acharya, R., Moore, A., Stillman, M., & Pradhan, M. et al. (2018). The incidence of abortion and unintended pregnancy in India, 2015. *The Lancet Global Health*, 6(1), e111-e120. [https://doi.org/10.1016/s2214-109x\(17\)30453-9](https://doi.org/10.1016/s2214-109x(17)30453-9)
20. Rashid, A. (2020). Migrant workers return home against all odds — only to be seen as carriers of the virus. *The Indian Express*. Retrieved 11 February 2021, from <https://indianexpress.com/article/india/lockdown-migrant-workers-coronavirus-pune-uttar-pradesh-bihar-6419506/>.
21. Mahapatra, B., Saggurti, N., Mishra, R., Walia, M., & Mukherjee, S. (2020). Migration and family planning in the state with highest total fertility rate in India. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-09906-9>
22. Semaan, A., Audet, C., Huysmans, E., Afolabi, B., Assarag, B., & Banke-Thomas, A. et al. (2020). Voices from the frontline: findings from a thematic analysis of a rapid online global survey of maternal and newborn health professionals facing the COVID-19 pandemic. *BMJ Global Health*, 5(6), e002967. <https://doi.org/10.1136/bmjgh-2020-002967>
23. Goyal, M., Singh, P., Singh, K., Shekhar, S., Agrawal, N., & Misra, S. (2020). The effect of the COVID-19 pandemic on maternal health due to delay in seeking health care: Experience from a tertiary center. *International Journal Of Gynecology & Obstetrics*, 152(2), 231-235. <https://doi.org/10.1002/ijgo.13457>
24. Townsend, J., ten Hoop-Bender, P., & Sheffield, J. (2020). In the response to COVID-19, we can't forget health system commitments to contraception and family planning. *International Journal Of Gynecology & Obstetrics*, 150(3), 273-274. <https://doi.org/10.1002/ijgo.13226>
25. Rivera, C., Hsu, Y. C., Esbry F, P., Dugarova, E. (2020). What does coronavirus mean for women [Blog]. Retrieved 11 February 2021, from <https://www.undp.org/content/undp/en/home/blog/2020/what-does-coronavirus-mean-for-women.html>.
26. Yamakoshi, B. (2021). *Unicef Brief Mitigating the impacts of COVID-19 and menstrual health and hygiene*. Unicef.org. Retrieved 11 February 2021, from <https://www.unicef.org/media/68371/file/Mitigating-the-impacts-of-COVID-19-on-menstrual-health-and-hygiene-Brief.pdf>.
27. Joe, W., Kumar, A., Rajpal, S., Mishra, U., & Subramanian, S. (2020). Equal risk, unequal burden? Gender differentials in COVID-19 mortality in India. *Journal Of Global Health Science*, 2(1). <https://doi.org/10.35500/jghs.2020.2.e17>
28. Committee for contraception and Family Planning, F. (2020). *COVID-19 Contraception and Family Planning / Figo*. Figo. Retrieved 11 February 2021, from <https://www.figo.org/covid-19-contraception-family-planning>.
29. Foundation for Reproductive Health Services India. (2020). *Impact of COVID 19 on India's Family Planning Program Policy Brief*. Frhsi.org.in. Retrieved 11 February 2021, from <http://www.frhsi.org.in/images/impact-of-covid-19-on-indias-family-planning-program-policy-brief.pdf>.
30. Gera, I. (2020). Rural India: Covid deaths rising faster than cases. *Financial Express*. Retrieved 11 February 2021, from <https://www.financialexpress.com/lifestyle/health/rural-india-covid-deaths-rising-faster-than-cases/2134154/>.
31. Cousins, S. (2020). COVID-19 has “devastating” effect on women and girls. *The Lancet*, 396(10247), 301-302. [https://doi.org/10.1016/s0140-6736\(20\)31679-2](https://doi.org/10.1016/s0140-6736(20)31679-2)
32. Singh, N., Smith, J., Aryasinghe, S., Khosla, R., Say, L., & Blanchet, K. (2018). Evaluating the effectiveness of sexual and reproductive health services during humanitarian crises: A systematic review. *PLOS ONE*, 13(7), e0199300. <https://doi.org/10.1371/journal.pone.0199300>
33. Banerjee, S., Andersen, K., Warvadekar, J., Aich, P., Rawat, A., & Upadhyay, B. (2015). How prepared are young, rural women in India to address their sexual and reproductive health needs? a cross-sectional assessment of youth in Jharkhand. *Reproductive Health*, 12(1). <https://doi.org/10.1186/s12978-015-0086-8>
34. Ministry of Health and Family Welfare, India. (2020). *Guidance Note on Provision of Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCAH+N) services during & post COVID-19 Pandemic* [Ebook]. Ministry of Health and Family Welfare. Retrieved 11 February 2021, from <https://www.mohfw.gov.in/pdf/GuidanceNoteonProvisionofessentialRMNCAHNServices24052020.pdf>.