**Draft Paper**

# Abortion status in the time of COVID-19: Clinics based study from Parivar Seva Sanstha


**Abstract: -**

**Background:** - The unmet need for family planning and abortion services is already high in India. A total, of 15.6 million abortions take place in India annually, of which 11.5 million occur outside of health facilities, mainly through medication abortion. COVID-19 has exacerbated the situation by reducing access, availability and affordability of safe abortion and family planning in India.

**Methods:** Retrospective study carried out in 31 Clinics of the Parivar Seva Sanstha in 11 states. Data of women who were treated for Medical Termination of Pregnancy (MTP) and incomplete abortion between the periods of January 2019 to December 2020 was obtained from the records for analysis. Frequency was obtained to compare the abortion service availed by women from clinics in 2019 and 2020.

**Results: -** The total frequency of other abortion increased from 38.1% to 41.2% while Medical termination of pregnancy decreased 61.9% to 58.8% between 2019- 2020. During the lockdown period (25$^{th}$ March – 30$^{th}$ May) marked decreased in total number of abortion while proportion of other abortion increased while MTP done decreased. Majority of women belonged to Hindu religion, most of them from low socio income groups.

**Conclusion**

There was a marked decrease in the number of total abortions during the Covid 19 pandemic, the proportion of women seeking other abortion was more as compared to that during the pre Covid period. The COVID-19 emergency is pushing Government to strengthen health care system and improve the quality of medical training and services.

**Introduction –**

Complications arising from spontaneous and unsafely induced abortion are recognized worldwide as a major public health concern and are one of the leading reasons women seek emergency care(1). Approximately, 67,000 women die each year from untreated or inadequately treated abortion complications mostly in developing countries (2). In India, maternal mortality ratio is unacceptably high at 113 per 100,000 live births (SRS bulletin 2015-17) and unsafe abortions account for 8% of the maternal mortality.(3) (4)

Access to maternal health, family planning and abortion services were adversely affected due to COVID-19 pandemic and strict lockdown in India (5). India imposed a lockdown on March 25, 2020 to contain the spread of COVID-19 (6). The unmet need for family planning and abortion services is already high in India. COVID-19 has exacerbated the situation by reducing access, supply and availability of manpower. COVID-19 and the lockdown has had an unprecedented impact on women's ability to access abortion and contraceptive globally (7),(8),(9) .It has further weakened the health system and the performance was not up to the mark due to shortage of health professional, logistic issues and infrastructures(10).

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In the year 2015, a study by the Guttmacher Institute, a total of 15.6 million abortions take place in India annually, of which 11.5 million (73%) occur outside of health facilities, mainly through medication abortion. Approximately 0·8 million (5%) abortions were done outside of health facilities using methods other than medication abortion which has a higher probability of health complications compared with MA (11). An abortion assessment study published in 2005 found that public sector availability of safe abortion services was grossly inadequate (12). Covid-19 aggravates lack of access to safe abortion in India. The situation from March- September 2020 is much worse due to countrywide closure of safe abortion services(13). It was estimated that 1.85 million women will be unable to access abortion services(16)(14) , 7 million unintended pregnancies would be reported due to nonuse on contraceptive by 47 million women in low and middle income countries included India due to COVID-19 pandemic (15). Similarly, 9.5 million women and girls were at risk of losing access to contraceptive and safe abortion services in 2020 and that will cause 2.7 million of unsafe abortion and 11000 pregnancy related deaths(16). Predication from Foundation for Reproductive Health Services India (FRHS) India estimated that 25.63 million couples will be unable to access contraceptives, this is likely to result in an additional 2.38 million unintended pregnancies, 679,864 live births, 1.45 million abortions (including 834,042 unsafe abortions)(17).

Despite medical facilities and retail chemists being exempted from the lockdown from April 2020 by Government of India, the public articles predicted that with greater restrictions on movement under COVID-19(18) (Chandnaand Chakrabarti 2020), women may be even more dependent on male partners to obtain medication abortion pills.

The aim of this retrospective analysis is to identify the trends of abortion and examine the sociodemographic profile of women who approached the registered clinics for abortion and study the impact of Covid-19 on abortion services in registered clinics.

**Maternal and Methodology**

This study was a retrospective observational study carried out in the NGO Clinics. The NGO is professionally managed and active since its registration under the Societies Registration Act in 1978. It provides a range of quality, affordable reproductive health services and products in 14 states in India with in legal framework of MTP Act 1971. There are 31 registered clinics in 14 States.

The details of the registered clients availing various reproductive, sexual and other health services provided by the clinics were sent from each clinic in the form of Monthly Progress Report (MPR) by the Clinic in-charge to Supporting Office (SO) New Delhi on monthly basis. The complete data was entered in the excel sheet after cross verification by the concerned supervisors (both medical & non-medical) and a master data sheet is maintained by MIS officers. The data master sheet is maintained by trained MIS officer. The written consent and confidential form was obtained by the clinic in-charges from each client including their socio-demographic profile prior to treatment.

In the present study, the details of women who were treated for Medical Termination of Pregnancy (MTP) and other abortion due to interference outside health facility to induce abortion (Medication/non-medication), or in the process of spontaneous expulsion, missed abortion, intra uterine fetal death (IUD), or blighted ovum between the periods of January 2019 to December 2020, was obtained from the master sheet for analysis.

**Statistical methods**

The percentage was calculated to see the abortion service availed by women in two calendar years and situation of abortion during lockdown and pre & post lockdown.

**Results**

**Total number of Abortion**

A total of **66,258** women availed abortion services from 31 clinics from 11 States between the period of 1st January 2019 – 31st December 2020 (Table-1). Out of which, 26,071 (39.3%) women had come to the clinics with incomplete abortion for further intervention for retained tissues. The total frequency of other abortion increased from 38.1% to 41.2% while Medical termination of pregnancy decreased 61.9% to 58.8% between 2019- 2020.

**Table 1: Total number of abortions done in 2019 and 2020**

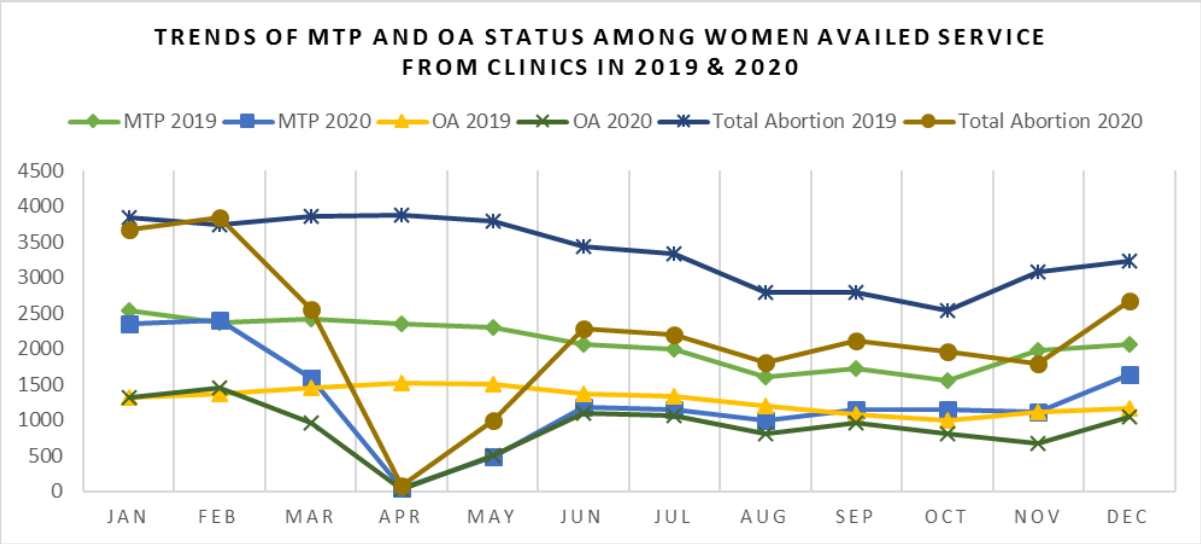
| **Abortion Status** | **2019** | | **2020** | | **Total** | |
|---|---|---|---|---|---|---|
| | **N** | **%** | N | % | **N** | % |
| MTP | 24938 | 61.9 | 15249 | 58.8 | 40187 | 60.7 |
| Other Abortion | 15374 | 38.1 | 10697 | 41.2 | 26071 | 39.3 |
| Total Abortions | **40312** | **100** | 25946 | 100.0 | **66,258** | 100 |

** MTP (Medical Termination of Pregnancy)*
** Other Abortion (self-medication with abortion pills and going to be spontaneous abortion/ Failure/Foetus death)*

Table-2 & figure-1 show that during the Lock down period of 25th March to May 2020 there was a marked decrease in the total number of abortions; while the proportion of other abortion increased while MTP done decreased. As the restrictions were eased from June 2020 onwards there was an increase in the number of abortions and the proportion of MTP increased more as compared to other abortions. Maximum number of total abortions (3848), MTP (2397) and OA (1446) was performed in the month of January while minimum number in the month of April (Total Abortion—77; MTP-48; OA-29).

**Table -2 Month wise MTP and OA status among women in 2019 and 2020**

| | **Jan- Dec 2019** | | **Jan to 24th March 2020** | | **25th March & May 2020** | | **Jun & Aug 2020** | | **Sep to Dec 2020** | | **Total 2020** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | | | N | % | N | % | N | % | N | % |
| MTP | 24938 | 61.9 | 6341 | 63.0 | 534 | 50.2 | 3329 | 53.0 | 5045 | 59.1 | 15249 | 58.8 |
| OA | 15374 | 38.1 | 3727 | 37.0 | 530 | 49.8 | 2955 | 47.0 | 3485 | 40.9 | 10697 | 41.2 |
| Total | 40312 | 100 | 10068 | 100 | 1064 | 100 | 6284 | 100 | 8530 | 100 | 25946 | 100 |




**Profile of women seeking treatment for incomplete Abortion**

**Table-2** shows the profile of women who obtained treatment from the clinics for abortion during pre and post COVID situation. Most (39%) of the women were between 25-30 years, followed by women aged 30-35 years and 18-25 years in both the calendar years.

Majority of them belonged to Hindu religion in both the years while percentage of Hindus was slightly lower in 2020 (80.4%) compared to 2019 (82.5%). On the contrary, abortion was slightly higher among Muslim (17.8%) women as compared to that in 2019 (16.1%). Almost 60% of women who availed services were coming from within a distance of 10 Km from the

facility. The frequency of financially better off clients seeking abortion increased in 2020 as compared to 2019. The frequency of other abortion was higher among women who had one to two children in 2020 (56.9%) and 2019 (55.6%) while frequency decreased among the women who had more than 3 children in 2020 (23.7%) when they availed abortion service from the clinics as compared to 2019 (25%). Similarly, the percentage of women who had 1-3 times abortions in the past was slightly higher in 2020 (44%) as compared to 2019 (41.9%) and more than half came to clinic for the first time for abortion.

**Table 2: Socio-Demographic profile of women who availed abortion services**

| | **2019 Abortion ( MTP)** | | **2020 Abortion ( MTP & OA)** | | **Total** | |
|---|---|---|---|---|---|---|
| **Age** | N | % | N | % | N | % |
| Below 18 | 11 | 0.0 | 65 | 0.3 | 76 | 0.1 |
| Above 18 - 25 | 10966 | 27.2 | 7185 | 27.7 | 18151 | 27.4 |
| Above 25 - 30 | 15591 | 38.7 | 10197 | 39.3 | 25788 | 38.9 |
| Above 30 - 35 | 9796 | 24.3 | 5966 | 23.0 | 15762 | 23.8 |
| Above 35 | 3948 | 9.8 | 2529 | 9.7 | 6477 | 9.8 |
| Total | 40312 | 100 | 25942 | 100.0 | 66254 | 100 |
| **Religion** | | | | | | |
| Hindu | 33258 | 82.5 | 20861 | 80.4 | 54119 | 81.7 |
| Muslim | 6499 | 16.1 | 4612 | 17.8 | 11111 | 16.8 |
| Others | 555 | 1.4 | 473 | 1.8 | 1028 | 1.6 |
| Total | 40312 | 100.0 | 25946 | 100.0 | 66258 | 100 |
| Distance | | 0.0 | | | | |
| Upto 5 Km | 11715 | 29.1 | 7798 | 30.1 | 19513 | 29.5 |
| Above 5 - 10 Km | 12726 | 31.6 | 8156 | 31.4 | 20882 | 31.5 |
| Above 10 - 30 Km | 9426 | 23.4 | 5936 | 22.9 | 15362 | 23.2 |
| Above 30 | 6445 | 16.0 | 4056 | 15.6 | 10501 | 15.8 |
| Total | 40312 | 100.0 | 25946 | 100 | 66258 | 100 |
| **Income** | | | | | | |
| Upto 10000 | 19188 | 47.6 | 11020 | 42.5 | 30208 | 45.6 |
| Above 10000 - 25000 | 15077 | 37.4 | 10670 | 41.1 | 25747 | 38.9 |
| Above 25000 - 50000 | 4855 | 12.0 | 3435 | 13.2 | 8290 | 12.5 |
| Above 50000 | 1192 | 3.0 | 821 | 3.2 | 2013 | 3.0 |
| Total | 40312 | 100 | 25946 | 100 | 66258 | 100 |
| **Parity** | | | | | | |
| None | 5944 | 14.7 | 3863 | 14.9 | 9807 | 14.8 |
| 1 - 2 | 22430 | 55.6 | 14772 | 56.9 | 37202 | 56.2 |
| 3 - 4 | 10079 | 25.0 | 6149 | 23.7 | 16228 | 24.5 |
| >4 | 1859 | 4.6 | 1162 | 4.5 | 3021 | 4.6 |
| Total | 40312 | 100 | 25946 | 100 | 66258 | 100 |
| **No. of Past Abortions** | | | | | | 0.0 |
| None | 21926 | 54.4 | 13635 | 52.6 | 35561 | 53.7 |
| 1 - 3 | 16905 | 41.9 | 11418 | 44.0 | 28323 | 42.7 |
| Four & Above | 1481 | 3.7 | 893 | 3.4 | 2374 | 3.6 |
| Total | 40312 | 100 | 25946 | 100 | 66258 | 100 |

**Trimester wise abortion**

Table-3 shows trimester wise distrubution of abortion. In both the calender years, majority (2019-90.3% ; 2020- 89.1%) of women were in first trimester when they approached the clinics for abortion while 9.7% and 10.8% were in second trimester respectively. In terms of MTP and OA, the number and proportion in the first trimester decreased (MTP- 48% & OA-75.9) while those in second trimester, the number decreased but proportion increased (MTP-52% & OA-24%) during the lockdown period ( Apri- May 2020). As the restriction were eased from June 2020 onwards there was an increase in the number and proportin of MTP and OA in first trimester as compared to second trimester. Table -4 shows gestation was ditribution and not much difference was observed between 2019 and 2020.

**Table -3 Trimester wise abortion services**

| | | 2019 | | Jan- 24 Mar 2020 | | 25th March & May 2020 | | Jun-Aug 2020 | | July-Dec 2020 | | Total 2020 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MTP | First Trimester | 21763 | 87.2 | 5512 | 60.7 | 471 | 48.0 | 2744 | 49.4 | 4267 | 56.3 | 12994 | 85.2 |
| | Second Trimester | 3173 | 12.7 | 3576 | 39.3 | 510 | 52.0 | 2807 | 50.6 | 3307 | 43.7 | 10200 | 14.8 |
| | **Total** | **24936** | **100** | **9088** | **100.0** | **981** | **100.0** | **5551** | **100.0** | **7574** | **100.0** | **23194** | **100** |
| OA | First Trimester | 14684 | 95.4 | 829 | 84.6 | 63 | 75.9 | 585 | 79.8 | 778 | 81.4 | 2255 | 95.4 |
| | Second Trimester | 692 | 4.5 | 151 | 15.4 | 20 | 24.1 | 148 | 20.2 | 178 | 18.6 | 497 | 4.6 |
| | Total | **15376** | **100** | 980 | 100.0 | 83 | 100.0 | 733 | 100.0 | 956 | 100.0 | 2752 | **100** |
| | Grand total | **40312** | | **10068** | | **1064** | | **6284** | | **8530** | | **25946** | |

**Table-4 Gestation wise of other abortion status among clients**

| | 2019 | | Jan- 24 Mar 2020 | | 25 March & May 2020 | | Jun-Aug 2020 | | Sep-Dec 2020 | | Total 2020 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6-8 Weeks | 22899 | 56.8 | 5675 | 56.37 | 566 | 53.2 | 3421 | 54.4 | 4685 | 54.9 | 14347 | 55.3 |
| 8-10 Weeks | 8790 | 21.8 | 2269 | 22.54 | 249 | 23.4 | 1358 | 21.6 | 1893 | 22.2 | 5769 | 22.2 |
| 10-12 Weeks | 4758 | 11.8 | 1144 | 11.36 | 166 | 15.6 | 772 | 12.3 | 996 | 11.7 | 3078 | 11.9 |
| 12-14 Weeks * | 1745 | 4.3 | 486 | 4.83 | 41 | 3.9 | 299 | 4.8 | 468 | 5.5 | 1294 | 5.0 |
| 14-16 Weeks * | 1058 | 2.6 | 246 | 2.44 | 23 | 2.2 | 186 | 3.0 | 218 | 2.6 | 673 | 2.6 |
| 16-20 Weeks * | 1062 | 2.6 | 248 | 2.46 | 19 | 1.8 | 248 | 3.9 | 270 | 3.2 | 785 | 3.0 |
| | **40312** | 100 | **10068** | 100 | **1064** | 100.0 | **6284** | 100 | **8530** | 100 | **25946** | 100 |

## Discussion

Despite the broad range of indications for legal abortion, illegal and unsafe abortions are common in India due to many reasons. Non- accessibility and shut down of clinics had significant impact on contraceptive and abortion services in India during the COVID-19 pandemic. It is evident from previous published articles also that due to COVID-19, performance of reproductive health services such as contraceptive and abortion services suffered due to shortage of skilled human resources, distance of clinics, supply chain for contraception, lack of transport facility, lack of clarity about availability of abortion services, logistics and infrastructure issues globally (19),(20) (21).

A total of **66,258** women availed abortion services from 31 clinics from 11 States between the period of 1st January 2019 – 31st December 2020. The total number of abortion services availed by women from the clinics decreased in 2020 (25946) as compared to 2019 (40,312). Out of total abortions, 26,071 (39.3%) women had come to the clinics with incomplete abortion for further intervention for retained tissues. The frequency of total Other Abortion increased from 38.1% to 41.2% while Medical Termination of Pregnancy decreased 61.9% to 58.8% between 2019- 2020. There was marked decrease in total number of abortion in the lock down period of April to May 2020 while the proportion of other abortion increased and MTP decreased. The reason for higher proportion of Other Abortion could be unavailability of transport and lack of access of health facilities women; women may have taken abortion pills from the chemist / pharmacist without doctor's prescription for inducing abortion and in the event of incomplete abortion approached the clinics. Medication abortion is very common practice in India, previous research has suggested that often medication abortion pills were purchased by male partner from local pharmacists without doctor's prescription already creating a barrier to women in getting direct care they need(22),(23) Due to restrictions and closures of clinics that provide safe abortion services during Pandemic, women may have to turn to unsafe abortion by un-skilled professional (24) and be more dependent on male partners to obtain medical pills for abortion (18). Another study from Malta reported that travel restrictions due to COVID-19 have led to an increase in the number of people reaching out to activities and abortion support groups and a surge in people ordering medical abortion pills online for termination of pregnancy(25). Limitation of abortion may lead to a rise in self-managed abortion often carried out safely using online telemedicine services, however, where such services are unavailable, the risk of unsafe abortion may increase as reported by Riley et al (9).

Closures and restriction on movement imposed by lockdown not only impact on access of abortion services , but also burdens them to seek abortion care beyond the first trimester. In the present study the frequency of MTP decreased from 87.2% to 85.2% in the first trimester while in the second trimester it increased from 12.7% to 14.8% in 2020. Not much difference was observed in term of Other abortion in first and second trimester between 2019 and 2020. During the lock down period (April –May 2020) the number and proportion of MTP (48%) and OA (75.9%) in the first trimester was decreased while in the second trimester number decreased but proportion increased (MTP- 52%; OA-24.1%). Similarly, most of the women availed abortion services from the clinics at 6-8 weeks of gestation period in both the calendar years, while proportion of abortion at 8-10 (23.4%) weeks and 10-12 (15.6%)

increased during the lock down period (24th March to May 2020). Previous research indicated that availability of abortion in the public and private sectors by the health professionals beyond the first trimester and within legal limits are marginal and access to abortion services is extremely challenging in pandemic situation(11). In a study in Europe many women experienced delay in seeking abortion care on time as they had to travel abroad for the abortion; logistic challenges and daily work-family arrangements resulting from loss of support usually provided by schools and relatives and mobility restrictions(26). Having to attend a clinic in person may also be challenging for those who work full-time, have children, and/or care for other relatives (27). Limited public transport, lack of awareness about guideline and lack of accessibility, fear of contracting the virus, during lockdown may increase seeking abortion care among the women in second trimester(5). To tackle the present situation of suspension of abortion services, home medical abortion has been expanded by Governments in many countries and tele health services/ telemedicine and self-management were prescribed for abortion during the COVID-19 outbreak (28),(29). Home abortion and telemedicine solutions was found to be safe, effective and acceptable to women for medical abortion indicated by previous study also(30). In some countries, upper gestation limits were extended and allowed home administration of both mifepristone and misoprostol supported by telemedicine. (31). In Australia, telehealth consultations for early medical abortion have increased by 25% since the pandemic began, indicating that telehealth services can improve access when distance and out-of-pocket costs are barriers (32).

In terms of socio demographic status of women who availed abortion services from all the registered clinics in both the calendar years, most (2019-38.7%; 2020-39.3%) of the women were more than 25-30 years of age group. Study conducted by Kumari (33)and Bhalla(34) in tertiary care center indicated that more than half women among the age group of 30-39 years had history of unsupervised intake of medical abortion pill.

Majority (>80%) of women belonged to Hindu religion. The frequency of total abortions was higher among Hindu women in 2019 while higher frequency was observed of Muslim women in 2020 (17.8%) as compared to 2019 (16.1%). These results are in concordance with various studies where higher acceptance of abortion is by Hindu women. (35), (36),(37), (38).

Distance from the health facility is an important determinant of access of health services. Non availability of public transport, cost of travelling, limited mobility, lack of availability of abortion services during the pandemic period affected the abortion services adversely in India(5),(8) as well as in other counties(26). In the present study, almost 60% of women reached the clinics for abortion services within 10 km of distance in both the calendar years. Not much difference was observed between 2019 and 2020 in terms of abortion services availed by women according to distance travelled. Several studies have found that greater distance to abortion facilities are associated with increased burden among patients(39) or higher odd of abortion-related death.

Studies indicated that out- of-pocket expenses is one of the major reason among the women for decreased access to safe abortion before and during pandemics (40),(41), (32). In the present study most of the women belonged to lower income group in both the calendar years. However, the frequency was higher of women who belonged to income group lower than Rs. 10000/ in 2019 (47.6%) as compared to 2020 (42.5%) while frequency was higher in 2020 (41.1%) of women who were financially better off (Rs 10,000/- to 25,000/-) compared to

2019 (37.45). The reason could be due to non-availability of public transport, health professionals and services during the pandemic the women belonging to lower economic statusmay not have been able to reach the clinics while the better off may have reached in their own vehicles or from private taxies. Strong association of induced abortion and incomplete abortion with lower socioeconomic groups has been reported by previous studies also (42),(40). Telehealth consultations for early medical abortion have increased by 25% since the pandemic began, indicating that telehealth services can improve access when distance and out-of-pocket costs are barriers(32).

The frequency of abortions was slightly higher among women who had one to two children in 2020 (56.9%) and 2019 (55.6%) while frequency was lower among the women who had more than 3 children in 2020 (23.7%) when they availed abortion service from the clinics as compared to 2019 (25%). Another study shows that women who had no children at the point of interview had a 30% higher odds of having unsafe abortion compared with women who had one to three children (42). In the present study it was observed more than half women approached the clinics for termination of pregnancy for the first time. However, the frequency increased from 55.4% to 58.3%. On the other side there were women who availed abortion services already had history of past abortion 1-3 times, although the frequency decreased from 40.1% to 38.4%. Study done by Uma el al (35) also reported that out of 184 women,183 (99.5%) of them approached termination of pregnancy for the first time. There is a need to make women aware about the risk associated with repeated abortion and various contraceptive measures available.

## Conclusion

There was a marked decrease in the number of total abortions during the Covid 19 pandemic, the proportion of women seeking other abortion was more as compared to that during the pre covid period. The decrease in number was more among women belonging to the lower socio economic group. As the Lockdown was eased there was a gradual rise in the number of women seeking abortion services. The COVID-19 emergency is pushing Government to strengthen health care system and improve the quality of medical training and services. There is immediate need to create awareness and educate not only the health care providers and women as well as the family members regarding legal and safe abortion. There is an urgent needs to educate them about self-administration of Combi pack of MA drug at home with correct prescription and family planning services in order to reduce abortion related morbidity and mortality in our country. The pharmacists need to be trained to improve their knowledge and quality of care to facilitate adequate exchange information on MA pills.

## Strengths & Limitations

The abortion data from the clinics was utilized and published in larger study titled Unintended Pregnancy and Abortion in India (UPAI)[16] and paper published in Lancet [4] other than data from other sectors. This study shows abortion status data from last five years.

The limitation of this study is that this study is a record based retrospective study a limited amount of information recorded at the clinics was available. It may not be representative of the situation at the community level.

## ACKNOWLEDGEMENTS

The authors acknowledge Mrs. Sudha Tiwari, President and Dr Alok Banerjee, Technical Advisor of Parivar Seva Sanstha and for all their guidance and valuable suggestions. We would also like to acknowledge invaluable contributors of all the services providers, clinic-in charges, group-in charges, doctors, nurses, medical superintends and all the clinic attendants who provided the services in these registered clinics.

## DECLARATIONS

*Funding:* No funding sources

*Conflict of interest:* The authors declare that they have no conflict of interest.

*Ethical approval: Not required*

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