

Original Article

Effect of Covid-19 on Seeking ANC Services in Baloda Bazar District of Chhattisgarh

Mridula Pandey¹, Kulbhushan Singh², Ratish Manjhi³

¹Freelance Public Health Expert, Chhattisgarh, India

^{2,3}Freelance Public Health Expert, Jharkhand, India

Received: 03 March 2022

Revised: 30 April 2022

Accepted: 07 May 2022

Published: 22 June 2022

Abstract - COVID-19 pandemic has overburdened the health systems, and the priority has been changed due to the response to the outbreak. This disruption has affected the supply of essential health services and preventive services like immunization & maternal health. The demand side has also been disrupted due to mobility constrain, lockdowns, afraid of visiting health centers to attend healthcare services due to fear of contracting the virus.

Maternal health services require more rigorous efforts, especially a plan of action in case of special conditions like the Covid-19 Pandemic. Very few studies have been done on the effect of the pandemic on maternal health care services and the health-seeking behavior of pregnant women during the pandemic. An analysis of the 2014 outbreak of the Ebola virus in West Africa showed that the indirect effects of the outbreak were more severe than the Outbreak itself. In past epidemics, health systems have struggled to maintain routine services, and utilization of services has decreased. Accordingly, Global organizations have called for maintaining routine health services during the pandemic.

The study has tried to understand the effect of the COVID-19 pandemic on maternal health care services with a special focus on ANC services and assess the effects of the Covid -19 pandemic on utilization of Maternal Health Services wrt ANC services in Balodabazar district of Chhattisgarh.

Keywords – Accessibility, ANC services, Covid -19, Curfew, Lockdown, Pandemic.

1. Introduction

COVID-19 virus is reported to begin in the Wuhan region of China in December 2019. The virus spread globally and infected millions of people across the globe. The direct contact with the virus, the pandemic protocols, and the prevailing societal situation are more likely to impact pregnant women and require better care and healthcare service accessibility. Categorizing pregnant women and new mothers as a more crucial population during the most critical pandemic of history is important. Pregnant women and new mothers are more vulnerable to mental and physical stress during the spread of the COVID pandemic. In India, the government adopted the policy of lockdown and curfew in the severely impacted areas to reduce the chances of spreading the virus.

Since the public healthcare system and general distribution of the required products and services were not fully prepared for the situations like lockdown, there was a delay observed in the services. Due to the prevalence of curfew and lockdown restrictions, the availability and accessibility of healthcare services were severely damaged. With the outbreaks, the lack of accessibility to routine healthcare services was disrupted in the country. With the pandemic outbreak, the resources in terms of the healthcare facilities and workforce were deployed to serve for COVID 19 pandemic. Due to the restriction on the mass gathering and the physical examination in the country, the healthcare services accessible to pregnant women and new mothers were negatively impacted, especially those who rely upon government healthcare

services. The pattern of ANC service seeking among pregnant women was heavily affected during the pandemic. Maternal health services require more rigorous efforts, especially a plan of action in case of special conditions like the Covid-19 Pandemic. Very few studies have been done on the effect of the pandemic on maternal health care services and the health-seeking behaviour of pregnant women during the pandemic. An analysis of the 2014 Ebola virus outbreak in West Africa showed that the indirect effects of the outbreak were more severe than the outbreak itself. In past epidemics, health systems have struggled to maintain routine services, and utilization of services has decreased. Accordingly, Global organizations have called for maintaining routine health services during the pandemic; as WHO notes during the pandemic, "People, efforts, and medical supplies all shift to respond to the emergency. It often leads to the neglect of basic and regular essential health services. Therefore, it is important to analyse the impact of COVID-19 on maternal health services. The current study will help in understanding the effect of the COVID-19 pandemic on ANC services.

2. Materials and Methods

The study was conducted in the Balodabazar district of Chhattisgarh. Mixed qualitative and quantitative methods were used for data collection. The primary data was collected through the structured schedule of the selected sample and in-depth interviewing of respondents to understand the Maternal Health care-seeking behaviour and affecting variables. The data was collected specifically on the utilization of ANC services & how they got affected



during the covid -19 pandemic. The questionnaire also had questions concerning other factors which affected ANC services. Primary data was collected from the 422 respondents. Respondents were selected from the period 1/04/2020 to 30/11/2020 who had completed the cycle of ANC, delivery, and PNC as per the information available on the State MIS system. These respondents were interviewed for the quantitative data collection through a semi-structured open-ended questionnaire. The information was collected from each selected beneficiary in a one-to-one field-level survey with the defined questionnaire. The interview was focused on information gathering on Socio-demographic characteristics of the women, information pertinent to delivery, ANC & PNC visits, and the questions on utilization of maternal health care service-seeking behavior during the COVID-19 period. Systemic random sampling was adopted to select the 422 respondents for the study.

The data collection followed Cochran's formula using a 5% margin of error, 95% confidence interval, and response distribution assumed at 50% (as no previous evidence was available for this setting).

3. Results and Discussion

Data collection was carried out on various factors which influenced covid -19. The primary data collected from respondents were analyzed to understand whether covid -19 harmed the utilization of ANC services.

The first parameter which was assessed was in terms of the effect of Covid -19 on timely ANC services.

Trimester in which ANC checkups conducted	% respondents with confirmation on delay due to covid -19
1-3 Months	25
4-6 Months	65
7-9 Months	10

The data showed that only 25% of respondents availed ANC services during the first trimester of pregnancy, 65% could get ANC services in the second & 10% in the third trimester of pregnancy.

The effect of the distance that the respondent had to travel to seek ANC services was also studied. The change of distance that the respondents had to travel was due to the unavailability of services due to the covid pandemic in nearby locations.

On average, 39% of respondents had to travel up to 12 km to seek ANC services & 25% of them had to travel between 6-9 km. 25% of them had to travel between 3-6 km to avail themselves of ANC services. The distance that the respondents had to travel harmed timely ANC services.

1-week delay	12.3
1-2 Weeks	26.2

3-4 weeks	39.3
More than 4 Weeks	18.2
No delay	4

Approximately 39% of respondents had to delay their visit to the hospital for 3-4 weeks due to covid -19. Almost 26 % had to delay it for 1-2 weeks & 18% had to delay the process for more than 4 weeks.

The respondents faced many difficulties, which affected their decision of timely & appropriate ANC checkups. The table shows one perspective of the difficulty that affected ANC utilization during the pandemic.

Fear of going out of the house	15
Financial Problems	8.2
Transportation/Accessibility issue	40.1
Supply affected	1
Awareness about service availability	35.7

The pandemic had posed many challenges in front of individuals. One such challenge was the availability of transportation during the lockdown. Almost 40 % of respondents claimed that non-availability of transportation was one reason they couldn't avail of ANC services. Similarly, the government's IEC/BCC activities were focused on spreading awareness about appropriate covid behavior with minimum focus on creating awareness about the shift in the availability of centers for routine RMNCHA services, which also affected service utilization.

During the pandemic, the focus of most of the providers was on providing emergency services to covid patients, which also affected ANC services. The table shows the covid effect on the availability of providers & its effect on ANC services utilization.

Transportation/Accessibility issue to preferred provider	29.6
Provider unavailable	44.2
Awareness about service availability at preferred provider	26.2

Distance	% ANC beneficiaries
<12 km	39.2
6-9 km	25.1
3-6 Kms	25.4
>3 Kms	10.3

The availability of service providers was also one of the major challenges affecting the utilization of ANC services during the pandemic. For almost 44% of respondents, the service provider was unavailable during the pandemic & for 26% of cases, awareness of service availability was not here. Similarly, for 29% of cases, the availability of transportation was a major challenge.

4. Discussion

The utilization of ANC services was affected during the pandemic. The study found that following the onset of the pandemic, the timely availing of ANC services got affected as only 25% of respondents got their first ANC checkup in the first trimester. Covid -19 had forced the public health system to divert all resources towards emergencies, creating accessibility issues for non-emergency general health issues. It has also impacted ANC services as approximately 39% of the study area's beneficiaries had to travel 12 km to seek ANC services. It directly impacted timely ANC as delays of almost 4 weeks

were also noticed. Almost 39% of beneficiaries delayed their ANC for up to 4 weeks due to pandemics. Transportation, availability of providers & awareness about service availability were other factors that affected ANC services.

ANC providers a window of opportunity to identify danger signs of pregnancy & also to manage any future emergencies which could lead to maternal or newborn deaths & complications.

The factors which harmed the utilization of ANC services during the pandemic must be considered for future pandemics/outbreaks before imposing the restriction. The system shall incorporate public health measures to ensure smooth non-emergency services for the general population.

5. Conclusion

The utilization of ANC services was affected during covid -19 due to unavailability of transportation, providers & fear of contracting the disease.

References

- [1] C, A. (2003). Safe Motherhood: A Brief History of the Global Movement 1947–2002.. *British Medical Bulletin* 67(1) (2003) 13-25.
- [2] Maternal Mortality Ratio (Per 100 000 Live Births). (2010, March 11). Retrieved From <https://www.who.int/healthinfo/statistics/indmaternalmortality/en/>
- [3] World Health Organization. Maternal Mortality in 2000: Estimates Developed by Unicef and Unfpa. Geneva: World Health Organization. 4(16) (2007) . ([Http://www.who.int/whosis/mme_2005.pdf](http://www.who.int/whosis/mme_2005.pdf), Accessed on 28 February 2008)
- [4] Maternal Mortality Ratio (Per 100 000 Live Births). (2015). Retrieved From <https://www.who.int/healthinfo/statistics/indmaternalmortality/en/>
- [5] Veneman, A., (2020). [Online] Unicef.Org. Available At: <https://www.unicef.org/publications/files/Progress_for_Children-No._7_Lo-Res_082008.pdf> .
- [6] https://www.cigionline.org/sites/default/files/mdg_post_2015v3.pdf> [Accessed 1 March 2020].
- [7] Niti.Gov.in. 2020. Maternal Mortality Ratio (Mmr) (Per 100000 Live Births) | Niti Aayog, (National Institution for Transforming India), Government of India. [Online] Available At: <<https://www.niti.gov.in/niti/content/maternal-mortality-ratio-mmr-100000-live-births>> [Accessed 10 April 2020].
- [8] Acharya, A., S. Vellakkal, F. Taylor, E. Masset, A. Satija, M. Burke, and S. Ebrahim. , the Impact of Health Insurance Schemes for the Informal Sector in Low- and Middle-Income Countries: A Systematic Review. Policy Research Working Paper 6324. Washington Dc, Usa: the World Bank, Development Economics Vice Presidency, Partnership, Capacity Building Unit, (2013).
- [9] India, M., (2020). Nhm: National Health Mission. [Online] Nhm.Gov.in. Available At: <<https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=822&lid=218>> [Accessed 23 March 2020].
- [10] Jat Tr, Ng N, San Sebastian M. Factors Affecting the use of Maternal Health Services in Madhya Pradesh State of India: A Multilevel Analysis. *International Journal for Equity in Health*, 10(59) (2011).
- [11] Alison B. Comfort,1 Lauren A. Peterson,2 and Laurel E. Hatt2. Effect of Health Insurance on The Use and Provision of Maternal Health Services and Maternal and Neonatal Health Outcomes: A Systematic Review. *J Health Popul Nutr*. (2013) S81–S105.
- [12] World Health Organization. Trends in Maternal Mortality: 1990 To 2010. Who, Unicef, Unfpa and The World Bank Estimates. Geneva: World Health Organization, (2012) 59.
- [13] United Nations. The Millennium Development Goals Report 2012. New York, Ny: United Nations,(2012) 68.
- [14] Devadasan N, Criel B, Van Damme W, Manoharan S, Sarma Ps, Van Der Stuyft P. Community Health Insurance in Gudalur, India, Increases Access to Hospital Care. *Health Policy Plan*, 25 (2010) 145-54.
- [15] Adinma Ed, Brian-D Adinma Ji, Obionu Cc, Asuzu Mc. Effect of Government-Community Healthcare Co-Financing on Maternal and Child Healthcare in Nigeria. *West Afr J Med*, 30 (2011) 35-41.
- [16] Adinma Ed, Nwakoby Ba, Adinma Bd. Integrating Maternal Health Services Into a Health Insurance Scheme: Effect on Healthcare Delivery. *Nig Q J Hosp Med*, 20 (2010) 86-93.
- [17] Renaudin P, Prual A, Vangeenderhuysen C, Ould Abdelkader M, Ould Mohamed Vall M, Ould El Joud D. Ensuring Financial Access To Emergency Obstetric Care: Three Years of Experience with Obstetric Risk Insurance in Nouakchott, Mauritania. *Int J Gynaecol Obstet* , 99 (2007) 183-90.
- [18] Huntington D, Banzon E, Recidoro Zd. A Systems Approach to Improving Maternal Health in the Philippines. *Bull World Health Organ*, 90 (2012) 104-10.
- [19] [Censusindia.Gov.in](http://censusindia.gov.in). (2020). [Online] Available At: <http://censusindia.gov.in/vital_statistics/srs_bulletins/mmr_bulletin-2015-17.pdf> [Accessed 20 March 2020]
- [20] Kavita Singh, Seema Puri, Geeta Chopra Maternal Mortality in India: An Overview of Social Causes. *International Journal of Scientific and Research Publications*, 8(3) (2018).

- [21] Ann L. Montgomery, Usha Ram, Rajesh Kumar,, Prabhat Jha, Maternal Mortality in India: Causes and Healthcare Service Use Based on A Nationally Representative Survey Published: January 15 (2014). <https://doi.org/10.1371/journal.pone.0083331>
- [22] TheLancet.Com. 2020. The Lancet, 13 October 2018, 392(10155) (2020). Available at <[https://www.thelancet.com/journals/lancet/issue/vol392no10155/pis0140-6736\(18\)x0043-9](https://www.thelancet.com/journals/lancet/issue/vol392no10155/pis0140-6736(18)x0043-9)> [Accessed 18 March 2020]. <http://164.100.24.220/Loksabhaquestions/Annex/12/As284.Pdf>
- [23] Pmjay.Gov.in. 2020. Home | Ayushman Bharat | National Health Authority | Goi. [Online] Available At: <<http://www.insights.pmjay.gov.in/>> [Accessed 23 March 2020].
- [24] Cprindia.Org. (2020). [Online] Available At: <http://www.cprindia.org/system/tdf/policy-briefs/nhm_2019_20.pdf?file=1&type=node&id=7563&force=1> [Accessed 23 March 2020].
- [25] Shiv D Gupta, Anoop Khanna, Maternal Mortality Ratio and Predictors of Maternal Deaths in Selected Desert Districts in Rajasthan (2009) 2020]