International Journal of Advance and Applied Research

www.ijaar.co.in

ISSN – 2347-7075 Impact Factor – 8.141

Peer Reviewed Bi-Monthly

Vol. 6 No. 19 March - April - 2025

Health Equity for a Viksit Bharat: Maternal Healthcare Utilization in Rural and Urban India

Ms. Sonali Hari Badhe

Research Scholar, Department of Economics,

Prof. Ramkrishna More Arts, Commerce & Science College, Akurdi, Pune

Savitribai Phule Pune University, Pune

Corresponding Author –Ms. Sonali Hari Badhe

DOI - 10.5281/zenodo.15101022

Abstract:

Maternal health is a widely faced issue at global level. Among the countries, Sub Saharan Africa and Southern Asia accounted for around 87% of the estimated global maternal deaths in 2020 (SDG Progress Report, 2024). Most of the countries from these regions are low and middle income countries. Being one of the countries facing this dire issue, India has strategically initiated maternal health care programs to reduce maternal mortality rate and enhance maternal health conditions. Sustainable Development Goal 3.1 calls for reduction of maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030. (Statistics, U. N., 2019) which is 97 per 100000 live births. (NFHS 5). Despite notable advancements in maternal healthcare programs and policies in India, rural urban disparities in the utilization of maternal healthcare services still persist. Urban areas are often marked by better healthcare access and outcomes, whereas rural regions which are often underserved areas encounter significant challenges in healthcare provision. Maternal healthcare being one of the crucial indicators of development of a country, present study aims at understanding disparities in utilisation of maternal healthcare services in the context of rural and urban India. The study is comparative and descriptive in nature. Secondary data from National Family Health Survey 5 regarding key maternal Health indicators such as Antenatal Care, Institutional Delivery and post-delivery care has been used for the purpose of comparative study of utilisation of maternal health care services between rural and urban India. The study found that pregnant women from urban areas avail four or more ANC visits compared to rural areas. Percentage of women receiving ANC for skilled health service providers is comparatively higher in urban areas than rural areas. Percentage of institutional delivery is also greater in Urban areas. This research emphasizes the need for targeted interventions to bridge the rural-urban gap in maternal healthcare, improve service delivery in underserved rural areas, and ensure equitable access to maternal healthcare services across India.

Keywords- Maternal Health, Maternal Healthcare service utilization, Antenatal care, Institutional delivery, Rural urban India

Introduction:

India has strategically initiated maternal health care programs to reduce maternal mortality rate and enhance maternal health conditions. Sustainable Development Goal 3 is good health and wellbeing which pertains to ensuring healthy lives and promoting wellbeing for all at all ages. SDG 3.1 calls for reduction of maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030. (Statistics, U. N., 2019) MMR of India is 97 per 100000 live births. (SRS 2018-19). Despite notable advancements in maternal healthcare programs and policies initiated in India, rural urban disparities in the utilization of maternal healthcare services still

persist. Antenatal care, institutional deliveries, and postnatal care are the three vital indicators of utilisation of maternal health care services. Improvement in these indicators play a catalyst role in enhancing maternal health conditions of any nation. Utilization of maternal healthcare services is influenced by various factors such as socio-economic conditions, cultural and geographic factors. Geographical factors include the place of residence of the beneficiary, location of Primary Health Centre (PHC) and the distance home to the healthcare facility. Urban areas are often marked by better healthcare access and outcomes, whereas rural regions encounter significant challenges. It includes challenges such as lack of skilled health personnel, infrastructure deficits, lack of awareness, and affordability issues. This study aims at understanding disparities in utilisation of maternal healthcare services in the context of rural and urban India.

Objective of the study:

1) To compare the utilization of key maternal healthcare services between rural and urban areas in India using NFHS-5 data.
2) To analyze the rural-urban disparities in maternal healthcare utilization in India.

Significance of the study:

Maternal health is one of the key concern areas of the government and policy makers. In the light of India's vision to become Viksit Bharat, strategic efforts need to be taken for equal health care opportunities across the urban rural regions. Despite the rigorous efforts to reach rural pockets of the country India still faces challenges in accessibility to healthcare services which results in lower utilisation of health care services in rural areas in general and maternal health care utilisation specifically. Present study addresses disparities in urban rural utilisation of maternal healthcare. By focusing on barriers to healthcare access in rural areas, the study provides critical inputs to enhance healthcare equity and reach underserved regions of the country. It will provide insights to inform policies and interventions aimed at improving maternal healthcare access and equity in India.

Review of Literature:

(Ali B. et. al. 2022) studied inequalities in utilisation of maternal health services in urban areas using NFHS 4 data. The study found that a lower percentage of women used 4 ANC visits in urban areas. Percentage of deliveries attended by skilled birth attendants found to be improved. The study highlights lower utilisation of maternal health services across the socio economic group. Huge disparities found in utilisation of these services by the mothers with lowest wealth quintile was found to be very low in urban areas. Interstate inequality was found in utilisation of ANC, PNC and Skilled Birth Attendant. Study emphasises that demographic indicators such as education, socio economic status in the states reflect the pattern of utilisation of maternal health services and underlines north south divide. (Sharma J., 2017) identifies large inequalities existing in maternal health status across the states of India in terms of economic, social status and regional disparities. It identified education and empowerment of women as an integral factor of women's health which makes them capable of taking control of decisions regarding their lives, health and fertility. (Vidler et al., 2016) focused on the patterns of utilization of maternal health care services in rural Karnataka, studied the obstacles that act as hurdles in the utilization of the services. The study undertaken in districts of Karnataka viz. Belgaum and Bagalkot found a major tendency of concealing pregnancy at an early stage due to the customs or superstitions leading to not getting medical attention at an early stage of pregnancy. Observation states that the average frequency of ANC was 4 ANCs in the tenure of pregnancy highlighting more visits for near term or high risk

cases. Contrary to this, women rarely turn for postpartum check-ups except for immunisation of children. (Vora K.et.al.,2015) focused on various aspects of maternal health in India shedding light on inequality in accessing maternal health. Problems at policy level, processes, human resource, logistic and finance, limited management capacity of maternal health services etc as key factors influencing maternal healthcare utilisation. (Shrivastava A. 2014) examined quality of care in maternal health in India found that maternal health quality concerns in India are influenced by various factors like political and economic developments in the nation, regional level and global trends in health and development. Major reasons for low level of utilization of public facilities was poor access to services, infrastructure constraints, high costs, ineffective treatment and insensitive behavior. (Arokiasamy P and Pradhan J.,2013), found a comparative increase in maternal care service coverage in southern states of India but poor performance in northern states like Bihar, U.P and Madhya Pradesh. The coverage of institutional deliveries is comparatively low in northern states like Uttar Pradesh, Bihar Rajasthan, Madhya Pradesh, and North Eastern states like Assam and Orissa. The study emphasises that maternal education, husband's education, beneficiary's exposure to mass media, household economic status, cultural norms, socio-economic status and awareness about the importance of health care for mothers are important factors influencing utilisation of ANC. Most of the studies about maternal healthcare utilization found to be having limited focus on rural urban comparison. Present study offers insights helpful to understand inequalities between rural and urban areas.

Research Methodology:

Present study is comparative study which discusses utilisation of maternal healthcare services in rural and urban regions of India. The study is based on secondary data obtained from National Family Health Survey 5 (NFHS 5). Relevant data for the purpose of study is taken from NFHS 5 (2019-21) India Report. Indicators used for the comparison of maternal healthcare service utilisation between rural and urban India are Antenatal Care, Institutional delivery and post-delivery checkup of mother. Descriptive statistics is used for analysis of data.

Data and Discussion:

Table 1: Pregnancy registration and distribution of MCP in India

Indicator	Urban	Rural
Percentage of pregnancies that were registered	93.6	93.9
Pregnancy registered in first trimester	87.2	84.4
Pregnancy registered later (after first trimester)	12.4	15.2
Don't know	0.4	0.3
Percentage of mother's given an MCP card	94.9	96.3

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

Data reveal that registration of pregnancy is more than 90%, nearly universal in both urban (93.6%) and rural (93.9%) areas, with no significant difference. Whereas registration of pregnancy in the first trimester of pregnancy is comparatively lower in rural areas (84.4%) than urban areas (87.2%) which signifies prominent delays in availing or receiving maternal healthcare in rural areas. Moreover, a comparatively higher percentage of women from rural areas (15.2) have registered pregnancy later than women in urban areas (12.4). Barriers to access to healthcare services, cultural factors constraints, lack of awareness among the community about the urge of

maternal healthcare can be the possible factors responsible for delays in pregnancy registration among rural women.

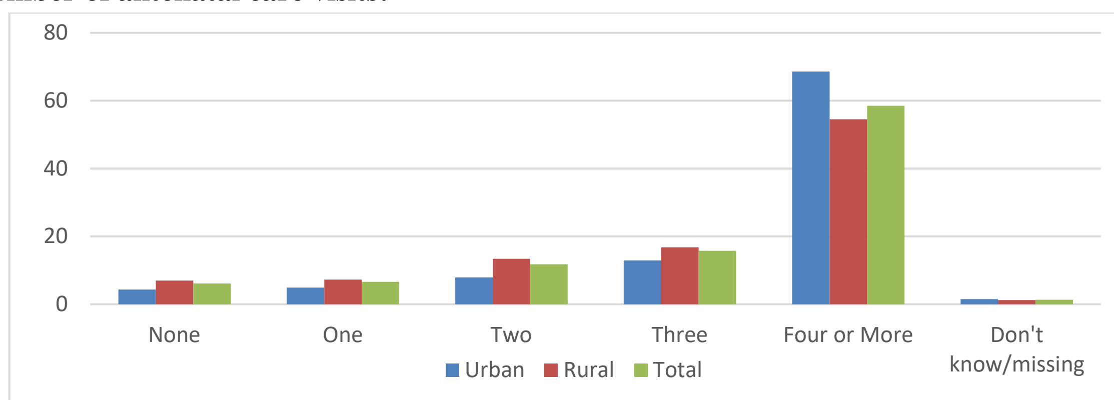
Mother and Child Protection card (MCP) is a card which contains a record of the checkups of the expectant mother and the child. Data shows that the percentage of distribution of MCP cards is comparatively higher in rural areas (96.3%) than urban areas (94.9%). ASHA and Anganwadi workers are responsible for registration and distribution of MCP cards. Being from the community itself they are well acquainted with the women in the areas. Pregnancy screening is done by them to get the expectant mother registered. It helps to get the lady registered and to track the pregnancy MCP cards are distributed.

Table 2: Number of antenatal care visits in India

Number of ANC visits	Urban	Rural	Total	Absolute Differences (Urban) – (Rural)
None	4.3	6.9	6.1	-2.6 (Rural higher)
One	4.9	7.2	6.6	-2.3 (Rural higher)
Two	7.9	13.4	11.8	-5.5 (Rural higher)
Three	12.9	16.8	15.7	-3.9 (Rural higher)
Four or More	68.6	54.5	58.5	+14.1 (Urban higher)
Don't know/missing	1.5	1.2	1.3	+0.3 (Urban higher)

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

Number of antenatal care visits:



(Source: Table No. 2)

Antenatal Care is one of the important indicators in maternal healthcare utilisation. It refers to the healthcare services availed by the expectant mother during the period of pregnancy. A pregnant woman should receive at least 4 ANC checkups during her pregnancy. The data reveals rural-urban disparity in antenatal care (ANC) visits in India, with rural areas showing higher percentages of lower ANC visits (None to Three), while urban areas have a significantly higher percentage of women receiving four or more ANC visits (68.6%) as compared to rural areas (54.5%) which denotes the difference between rural urban is 14.1% which is critical for maternal health of the nation.

Table:3 Antenatal care receiving from a skilled provider in India

Type of skilled health service provider	**Urban**	**Rural**
Doctor	76.0	57.3
ANM/ nurse/ midwife/ LHV	15.5	25.2
Dai/ TBA	0.2	0.4
Anganwadi/ ICDS worker	2.3	5.2
Community/ village health worker	0.1	0.2

ASHA	1.4	4.7
Other	0.2	0.1
No ANC	4.3	6.9
Percentage receiving ANC from a skilled provider1	91.5	82.6

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

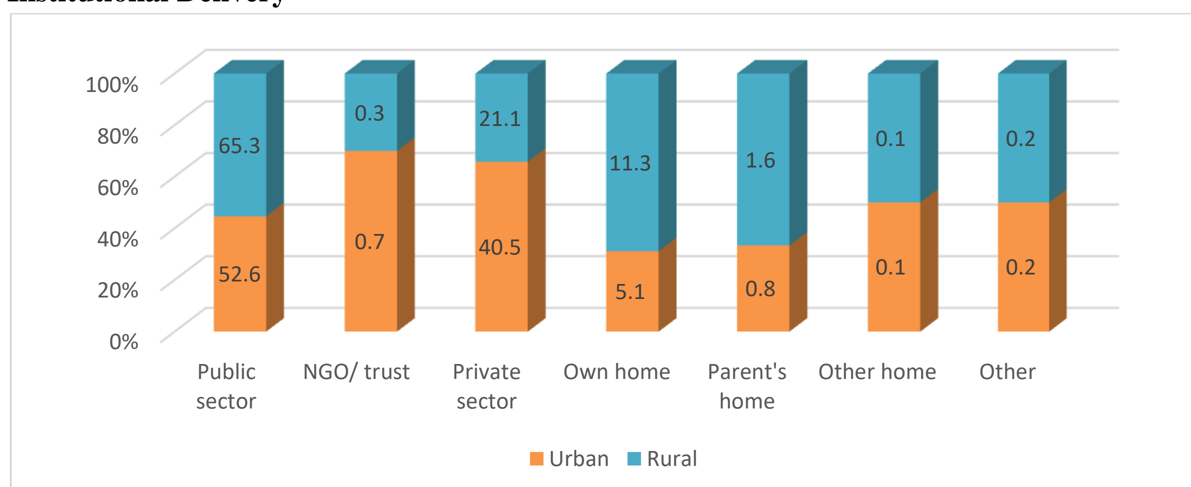
Receiving ANC from a skilled provider is the foremost prerequisite for any expectant mother. It ensures the safety of mother and the child. Data shows that 76% women in urban areas receive ANC from a doctor whereas the percentage for the same is low for rural areas which is 57.3%. It highlights constraints on availability and accessibility to doctors in rural areas as health service providers. On the contrary the percentage of women receiving ANC from ANM/ nurse/ midwife/ LHV is comparatively higher (25.2%) than urban areas (15.5%) indicating prominent role of these community health workers in rural areas who come after doctors as ANC providers. Data also highlights the role of Anganwadi / ICDS worker/ASHA/ community health worker in rural areas of India. The percentage of women receiving ANC from these is altogether 10.1% which is considerably higher than urban areas which is 3.1%. it highlights the need of emphasizing more on provision of skilled health personnel in rural areas.

Table 4: Institutional Delivery (Place of delivery)

Place of delivery	Urban	Rural
Public sector	52.6	65.3
NGO/ trust	0.7	0.3
Private sector	40.5	21.1
Own home	5.1	11.3
Parent's home	0.8	1.6
Other home	0.1	0.1
Other	0.2	0.2
Percentage delivered in a health facility	93.8	86.7

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

Institutional Delivery



(Source: Table 4)

Institutional delivery is one of the important indicators of maternal health utilisation in any nation. Above data depicts higher institutional deliveries in urban areas (93.8%) than rural areas (86.7%), moreover it underlines greater reliance on public sector health facilities for delivery services in rural areas. The possible reasons can be affordability and accessibility to

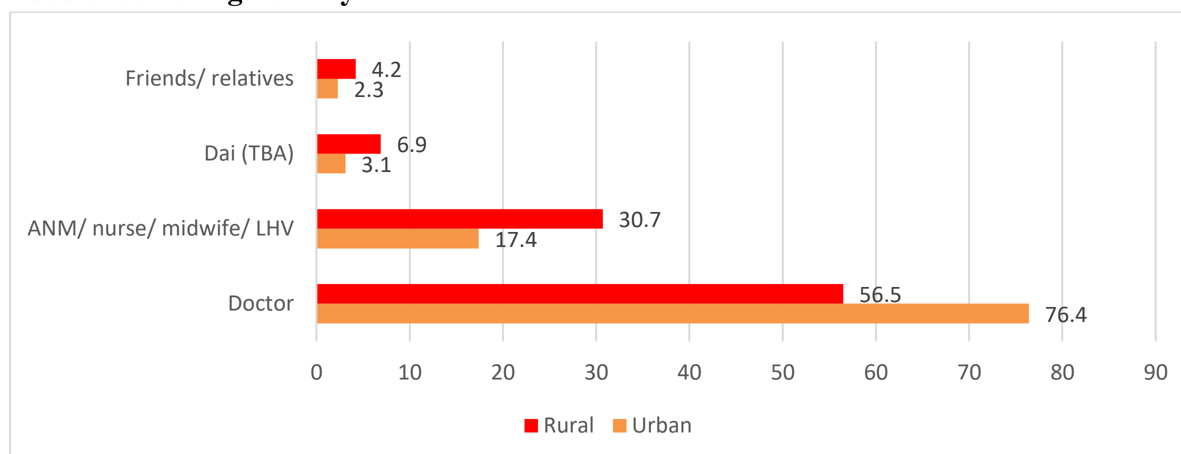
health facilities. The benefits of government schemes such as Janani Suraksha Yojana and Janani Shishu Suraksha Karykram can be availed when delivery is done in a public health facility. It also emphasizes the role of government health programs in enhancing maternal health conditions in rural areas of India. Percentage of deliveries in private health facilities in urban areas reflect affordability and access to private hospitals in urban areas, whereas rural women may face financial or geographical constraints. On the other hand, home deliveries are more common in rural areas. It demonstrates continued challenges faced by the health system in ensuring 100% institutional deliveries in rural areas. Possible reasons for this are lack of awareness, cultural factors, transportation issues. Home deliveries as a persistent challenge calls for targeted interventions and campaigning.

Table 5: Assistance during delivery

Person providing assistance during delivery	Urban	Rural
Doctor	76.4	56.5
ANM/ nurse/ midwife/ LHV	17.4	30.7
Other health personnel	0.2	0.5
Dai (TBA)	3.1	6.9
Friends/ relatives	2.3	4.2
Other	0.4	0.8
No one	0.2	0.4

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

Assistance during delivery:



(Source: Table 5)

Attending delivery by the skilled health personnel ensures safety of the mother and the child. It is one of the crucial factors in enhancing maternal health conditions in a country. The table depicts the differences in the delivery assistance by skilled personnel between urban and rural areas in India and highlights the disparities in the type of healthcare providers present during childbirth. The percentage of doctors assisting deliveries in urban areas (76.4%) is higher than rural areas (56.5%). It underlines availability and access to specialized medical care in urban areas**.** Whereas in rural regions of India more reliance on healthcare providers such as ANM/ nurse/ midwife/ LHV (30.7%) indicates that these health workers play a crucial role in deliveries where doctors are not available. It underlines that nurses and midwives fill the gap in professional delivery assistance where doctors are less available in rural areas The percentage of deliveries assisted by dais in rural areas (6.9%) is comparatively higher than urban areas (3.1%) highlights persistence of traditional childbirth practices in rural and urban areas as well.

Prevalence of deliveries assisted by family, friends and dai or traditional birth attendant in rural as well as urban areas shows that when medical healthcare facilities are not available or accessible deliveries are still handled in traditional ways. It highlights gaps in institutional delivery coverage and accessibility challenges. The smallest but notable percentage of unassisted deliveries draws attention to the risk factor for maternal mortality.

Table 6: Time between delivery and mother's first postnatal health checkup

Time between delivery and mother's first postnatal health checkup	Urban	Rural
Less than 4 hours	50.0	46.8
4-23 hours	3.6	3.7
1-2 days	8.8	10.3
3-6 days	7.1	8.4
7-41 days	17.8	12.5
Don't know/ missing	0.8	0.7
No postnatal health check	11.9	17.6

(Source: National Family Health Survey (NFHS-5), India, 2019-21)

Postnatal checkup is vital for understanding possible post-delivery health risks for the mother. Above table represents the time between delivery and mother's first postnatal health checkup. Though the percentage of women receiving first postnatal checkup within 4 hours of delivery is comparatively greater in urban areas (50%) than rural areas (46.8%), it is not satisfactory for both the settings calling for strategic efforts to increase awareness among women and family about urge of PNC immediately after delivery which in turn will contribute to reduce complications. Data shows that the rest of the women receive PNC between the period after 4 hours which indicates delays in PNC. Data depicts a higher percentage of rural women receiving PNC between 1 to 6 Days. The percentage of women in rural areas receiving no PNC is 17.6% which is comparatively higher if compared with urban areas which is 11.9%. It is a major concern for the nation since lack of postnatal care increases the risk of maternal and newborn complications. In context to urban areas the percentage of women receiving PNC between 7 to 41 days is higher (17.8%) than rural areas (12.5%) indicating substantial delays in PNC which could be due to perceived lower necessity and affordability. Delays in PNC calls for the need for creating awareness and access to postnatal care services. Lesser percentage of immediate PNC in both urban and rural areas emphasizes on the need of stronger follow-up system and rigorous implementation of community health programs.

Result:

1. Percentage of pregnancy registration is high in urban and rural areas of India showing increasing awareness about maternal health care in the country
2. Comparatively lower percentage of early registration in rural areas (84.4% vs. 87.2%), signify delays in accessing and availing healthcare services in rural areas.
3. MCP card distribution is higher in rural areas highlighting the proactive role of ASHA and Anganwadi workers in rural areas of India regarding pregnancy tracking and registration.
4. A lower percentage of women receiving four or more ANC visits compared to urban women reflects the gap in urban rural utilisation of maternal healthcare services and highlights the need for effective implementation of current programs and new initiatives by government for improved ANC access in rural areas.
5. A significant rural-urban gap in ANC from doctors Showing constraints to accessibility to maternal care services in rural areas.

6. Rural areas rely more on ANMs/nurses for health care. This emphasizes the crucial role played by ANM, nurses and community health workers and the need to strengthen skilled healthcare personnel in rural regions.
7. Percentage of institutional deliveries is found comparatively higher in urban areas than rural areas.
8. Women in rural areas found making use of public health facilities. This preference might be due to the affordability, accessibility of public health services. Inclusiveness of maternal health schemes of the government such as Janani Suraksha Yojana play a pivotal role in bringing rural women to public health facilities.
9. Comparatively higher home deliveries in rural areas highlight persistent challenges like awareness, cultural factors, and transportation, necessitating targeted interventions for improved maternal healthcare access.
10. Disparities persist in delivery assistance by skilled personnel in urban-rural areas. Less percentage of deliveries are assisted by doctors in rural areas. Contrary to this ANMs/nurses/midwives play a crucial role in rural deliveries.
11. Persistence of traditional delivery practices shows gaps in accessibility of healthcare in rural areas emphasizing the need for improved institutional delivery coverage.
12. Postnatal check ups within 4 hours of delivery are unsatisfactory for both rural and urban areas signifying delays in PNC indicates the urgency of strengthening follow-up systems and community health programs.

Recommendations:

1. Coverage of ANC can be enhanced by providing ANC through mobile clinics and telemedicine in remote pockets of India.
2. Training of ASHA, ANM, LHV and anganwadi workers should be ongoing in nature addressing their difficulties in reaching out to the expectant mothers.
3. Increasing awareness among the women and families about ANC through audio visuals making use of media.
4. Primary Health Centers should be equipped with modern delivery facilities and obstetric care.
5. Infrastructure like roads, bridges and public transportation should be developed in rural areas to increase utilisation of health care services.
6. Existing maternal health schemes should be implemented effectively.
7. To bridge the gap recruitment of health personnel in rural areas should be taken care of. Strengthening rural health workforce can result in enhancing overall maternal health conditions.

Conclusion:

This study analyzed the urban rural disparities in utilization of maternal healthcare services in India using the data from NFHS-5 focusing on antenatal care (ANC), institutional delivery, and postnatal checkup (PNC) as indicators of maternal health care utilization. The findings of the study show a significant gap in maternal healthcare access and utilization in urban rural areas. Urban areas indicate higher coverage across the three indicators. Despite improvements in maternal health services over time, rural areas still face barriers to access and utilization of maternal healthcare services such as lower healthcare accessibility, socioeconomic constraints, and limited awareness. By strengthening the healthcare infrastructure, focusing on recruiting skilled health personnel in rural areas is fundamental for bridging the urban rural gaps in maternal healthcare utilization in India. Decisive awareness programs on maternal healthcare through media will help to spread awareness across all segments of the society. Effective

implementation of current maternal health programmes such as JSY, JSSK, PMSMVY will enhance utilization of maternal health care services in rural areas. Further studies focusing on specific healthcare policies and interventions aiming at reducing rural-urban disparities can be taken up. Additionally, qualitative research further can provide deeper insights into the social and cultural factors influencing maternal healthcare utilization in rural settings.

References:

1. Ali, B., & Chauhan, S. (2020). Inequalities in the utilisation of maternal health care in rural India: Evidences from National Family Health Survey III & IV. BMC public health, 20, 1-13.
2. Arokiasamy P and Pradhan J (2013), Maternal health care in India: access and demand determinants, Primary Health Care Research & Development; 14: 373–393 doi:10.1017/S1463423612000552
3. International Institute for Population Sciences (IIPS) and ICF. 2021. National Family Health Survey (NFHS-5), India, 2019-21: Maharashtra. Mumbai: IIPS. https://dhsprogram.com/pubs/pdf/FR374/FR374_Maharashtra.pdf (accessed on 04 April 2024)
4. SDG target 3.1 Maternal Mortality. World Health Organisation https://www.who.int/data/gho/data/themes/topics/sdg-target-3-1-maternal-mortality (Accessed on 22 January 2025)
5. Sharma Jyoti, (2017), Maternal and Child Healthcare in Rural India, Kurukshetra, 65(9), Pp13-17
6. Srivastava A, Bhattacharyya S, Clar C, Avan BI. (2014), Evolution of quality in maternal health in India: Lessons and priorities. International Journal Medical Public Health; 4:33-9.
7. Statistics, U. N. (2019). Global indicator framework for the sustainable development goals and targets of the 2030 agenda for sustainable development. Developmental Science and Sustainable Development Goals for Children and Youth, 439.
8. UN DESA. 2024. The Sustainable Development Goals Report 2024 – June 2024. New York, USA: UN DESA. © UN DESA. https://unstats.un.org/sdgs/report/2024/.
9. Vidler et al. (2016), Utilization of maternal health care services and their determinants in Karnataka State, India Reproductive Health, 13(Suppl 1):37 DOI 10.1186/s12978-016-0138-8
10. Vora K. Shardul Yasobant, Poonam Trivedi, Dilip Malavankar, (2015), Maternal Health Situations in India: Issues & Options, Editor: David A. Schwartz (Book): Maternal Mortality, Nova Science Publishers, Inc. ISBN: 978-1-63482-709-6