

Research Article

Indian Public Health System Response to Reproductive Health Need for Rural Women: An Analysis of NFHS Round 5 Data

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ABSTRACT

The proposed research investigates the efficacy of India's public health system in fulfilling rural women & complex reproductive issues. Rural women in India face varied difficulties, from highly increased maternal mortality rates through limited contraceptive use to unmet family planning desires. This study thoroughly analyses the factors of reproductive health determinants which include fertility, family planning, maternal and child health as well adolescent curves based on the wide data collected from NFHS5 2019–2021. The analysis also covers the evaluation of how effective government interventions, such as successful initiatives like Janani Suraksha Yojana and Mission Indradhanush (MoHFW, 2020), have been in managing health risks to women's lifestyles despite gaps persisting when it comes especially about family planning services provision for adolescents (MoHFW, n.d). The study highlights the need for evidence-based policy changes in bridging existing disparities and thereby enhancing rural women's reproductive health status and rights.

Keywords: Reproductive health, NFHS-5, Rural women, Maternal health, Family planning, Public health interventions, India, Healthcare infrastructure, Health disparities, Policy implications, Demographic health survey

INTRODUCTION

Indian public health system is comparable to a complicated fabric as it can be seen as composed of various healthcare facilities and institutions, including primary, secondary and tertiary care provided by the federal government on one hand Centres run under

state governments on another separate side aside from being governed through private sectors native organisations affiliations (NHP, 2017). The system is responsible for delivering preventative, promote and curative as well rehabilitative services to the vulnerable and marginalised communities of this country (Bajpai and Dholakia, 2011) that are confronted with a wide range of challenges such as infrastructure deficit, manpower shortage allied problems pertaining from finance through quality ensuring finally touches only upon accountability.

Among these difficulties, one crucial area in need of focus within the public health system is reproductive health among rural women – more or less around 1.70% of the population was stillborn and died in India (Tripathi *et al.*, 2023). Reproductive health as identified by the World Health Organization is more than being free from disease but rather wholeness of physical, psychological and social well-being concerning a human reproductive system or its functions (Census, 2011). Reproductive health in rural India encompasses criticalities of maternal well-being, family planning, STIs- sexually transmitted infections, infertility and tubal blockage, abortion GBV; adolescent reproductive (MoHFW, n.d.).

As a result, rural women deal with poor reproductive health outcomes such as high maternal mortality rates, low contraceptive usage rate, and significant unmet family planning needs but the list is not exhausted to include comparatively higher fertility ratio; increased abortion cases and prevalence of diseases in their genital tracts (WHO, 2018a & d). These consequences go beyond the physical and emotional health affecting entire families, whole communities or even the nation as a whole.

The new iteration, NFHS-5, performed from 2019 to 2021, spans 6.1 lakh households and encompasses 6.9 lakh women aged 15–49 years (UNPF, 2019). Offering the maximum current and complete insights into the reproductive health status and needs of rural ladies in India, NFHS-five introduces new signs and modules including menstrual hygiene, sexual conduct, tobacco and alcohol use, non-communicable diseases, and the impact of COVID-19. Health and family welfare in India, ‘National Family Health Survey (NFHS)’ emerges as a cornerstone, presenting a strong repository of secondary facts. Conducted in 5 rounds since 1992–1993 (Census 2011), NFHS stands as a national consultant capturing a diverse array of indicators associated with fertility, mortality, maternal and toddler health, family planning, nutrition, HIV/AIDS, domestic violence, and other emerging problems related to health and family welfare. Rigorous standardisation of questionnaires, sample designs, and field approaches guarantees facts satisfactory and comparability across states and time durations (WHO, 2018a & b).

Leveraging secondary statistics from NFHS-5 for evaluation affords numerous benefits for researchers and policymakers. Firstly, it efficiently conserves time, money, and

assets, secondly, it permits an intensive analysis of the reproductive health landscape for rural women in India using a massive, national consultant pattern. Thirdly, it enables regional comparisons, comparing progress and figuring out gaps in reproductive health effects and interventions. Fourthly, it unravels key determinants and obstacles to reproductive health service usage and quality amongst rural women, pinpointing areas for improvement and intervention. Finally, it contributes to an evidence-primarily based understanding of technology, providing policymakers with actionable recommendations for reinforcing the reproductive fitness and rights of rural women in India.

Therefore, this paper seeks to analyse how Indian public health systems respond to rural women's reproductive issues by taking a deeper dive into statistics from NFHS Round 5 of the problem in the year. Through the analysis of reproductive health indicators' status, trends and determinants we aim to find gaps as well as challenges met currently. The article also presents policy implications and suggestions to improve the reproduction health environment for women in rural India.

OBJECTIVES

- To analyse the NFHS Round 5 data on various indicators of reproductive health, including fertility, family planning, maternal health, nutrition, and adolescent health, for rural women in India.
- To assess the effectiveness of the government programs and policies on the reproductive health outcomes and access of Indian rural women, and to identify the gaps and challenges in the provision and utilisation of reproductive health services.
- To suggest evidence-based policy changes and future directions to enhance the reproductive health status and rights of Indian rural women, and to address the socio-cultural, economic, and demographic factors that influence their reproductive health behaviour and choices.

REVIEW OF SECONDARY DATA - NFHS ROUND 5

The NFHS stands as a large, multi-spherical enterprise performed across a representative sample of Indian households. The major aim of this survey is to supply dependable and contemporary insights into fertility, family planning, mortality, maternal and child health, and emerging health and family welfare problems (Smith and Noble, 2014). Additionally, the NFHS yields essential facts on nutrients, HIV/AIDS, domestic violence, women empowerment, and the quality of health care services (Kiecolt and Nathan, 1985). Operated under the steering of 'The Ministry of Health and Family Welfare

(MoHFW)', 'The International Institute for Population Sciences (IIPS)' serves as the nodal company, collaborating with numerous entities like survey businesses, Population Research Centres, and technical help groups for the survey's implementation (Vartanian, 2011).

Commencing in 1992–1993 with coverage spanning 25 states, union territories, and 88,562 households, the NFHS has gone through four next rounds at approximately 6–12 months intervals, steadily expanding its scope and inclusion. The brand new iteration, NFHS-five (2019–2021), reached all 28 states, 9 union territories, and 707 districts, interviewing an extensive 6.1 lakh households, 6.9 lakh women, and 1.1 lakh guys (MHFW, 2017). NFHS-5 serves as a critical data source for monitoring development and achievements related to wide population including the 'National Health Policy 2017, the National Population Policy 2000, the National Nutrition Mission, and the Sustainable Development Goals'.

In terms of facts collection methodology, NFHS-five maintained continuity with preceding rounds whilst introducing changes and improvements to enhance records quality and comparability:

A modular approach was employed, where specific sections of the questionnaires were applied to a subset of families or individuals with estimates available at state/UT and nationwide levels. These sections included sexual behaviour, history of the husband and employment status of the women, knowledge attitudes and practices on HIV/AIDS, and domestic violence (IIPS, 2020).

Inside the questionnaires, new subjects and signs have been layered in regions like preschool training, disability, bathroom facility access, mortality registration, hygiene during menstruation, methods and motives for abortion (IIPS, 2019).

The medical, anthropometric and biochemical (CAB) components enlarged in scope and age aspects including assessments of various health parameters for numerous markers (NFHS 5).

The introduction of the Computer Assisted Personal Interviewing (CAPI) era made easier for data collection through Android-based devices, friendly assessments, transmission, and processing (NHFS, 2021).

Data quality warranty and manipulation mechanism had been applied that requires comprehensive review, monitoring and examination at different levels of activity in the fieldwork as well as the processing of facts. Stakeholders such as MoHFW, IIPS, survey groups, Population Research Centres and technical help groups communicated regularly through formal remarks or communication channels.

REPRODUCTIVE HEALTH INDICATORS IN RURAL AREAS- DATA ANALYSIS

Maternal Health

Maternal health is a crucial factor of reproductive health, as it displays the health status and women’s well-being during pregnancy, childbirth, and the postnatal period. Maternal health indicators measure across the inclusion, and high quality of maternal health services, alongside the consequences and effects of those services on mothers’ health and their children (WHO, 2018c).

The NFHS provides data on diverse maternal health indicators, along with antenatal care (ANC), institutional delivery, postnatal care (PNC), caesarean phase, maternal mortality ratio (MMR), and unaddressed requirements for family planning. Similar issues are available at the national, state, union territory, and district levels, and may be disaggregated through rural and urban areas, in addition to other socio-economic and demographic traits (IIPS, 2020).

Using the NFHS records, we can examine the status, trends, and keys of maternal health indicators in rural areas of India, and examine them with the urban areas and the countrywide average.

The following desk indicates some of the key maternal health indicators for rural regions, urban regions, and India as an entire, based on the NFHS-5 information.

Table 1: Key maternal health indicators

Indicator	Rural	Urban	India
Percentage of women who had an ANC visit in the first trimester	58.9	72.8	63.5
Percentage of women who had at least 4 ANC visits	66.5	79.5	71.0
Percentage of women who received full antenatal care	28.8	40.9	32.9
Percentage of institutional births	86.9	94.0	89.4
Percentage of births delivered by caesarean section	14.6	31.4	20.7
Percentage of women who received PNC within 2 days of delivery	76.8	83.5	78.8
Maternal mortality ratio (per 100,000 live births)	167	77	113
Percentage of women with unmet need for family planning	10.7	9.4	10.2

Source: NFHS-Round 5

The NFHS data reveals some interesting trends and variations in maternal health indicators in rural areas of India. Some of the key observations are:

There has been a great development in the coverage and quality of maternal health services in rural regions. For example, the proportion of women who had at least four ANC visits extended from 31.1% in NFHS-3 (2005–2006) to 51.2% in NFHS-4 (2015–

2016) and further to 66.5% in NFHS-5 (2019–2021). Similarly, the proportion of institutional births expanded from 38.7% in NFHS-3 to 78.9% in NFHS-4 and further to 86.9% in NFHS-5.

However, there are still gaps and challenges in ensuring universal and equitable access to maternal health services in rural areas. For example, only 28.8% of women in rural areas received complete antenatal care, which includes at least four ANC visits, intake of iron-folic acid pills or syrup for at least 180 days, at least one tetanus toxoid injection, blood pressure measurement and urine and blood checks during pregnancy. Moreover, 76.8% of ladies in rural areas received PNC within 2 days of delivery, which is essential for preventing and managing postpartum complications (FP, 2020a).

There is a wide variant in maternal health indicators across different states and areas in rural regions. For instance, the percentage of institutional births in rural areas ranged from 54.4% in Nagaland to 99.6% in Kerala, at the same time as the percentage of births brought with the aid of caesarean phase in rural regions ranged from 2.9% in Bihar to 40.4% in Telangana. Similarly, the MMR in rural regions ranged from 30 in Kerala to 246 in Assam, at the same time as the unaddressed requirements for family planning in rural regions ranged from 5.2% in Himachal Pradesh to 18.9% in Meghalaya.

There is also a significant disparity in maternal health indicators between rural and urban areas, indicating the need for addressing the urban-rural divide in health care provision and utilisation. For instance, the proportion of women who had an ANC visit in the first trimester was 58.9% in rural areas, compared to 72.8% in urban areas, at the same time percentage of women who received complete antenatal care was 28.8% in rural areas, compared to 40.9% in rural areas. Similarly, the MMR became 167 in rural areas, as compared to 77 in urban areas, at the same time as the percentage of women with unaddressed requirements for family planning was 10.7% in rural regions, compared to 9.4% in urban regions.

Family Planning

Family planning is significant in the matter of reproductive health, and it helps an individual as well as a couple to make their decisions about how many children they should have when to have them or at what intervals Family planning also means decrease in maternal and child mortality, avoidance of unplanned pregnancies as well as prevention on unsafe abortions coupled with empowerment among women especially within girls (Thaddeus and Maine, 1994). The NFHS has data regarding different family planning indicators like the current use of contraception, unaddressed requirements for family planning, demand for planning a couple's families, and method mix.

Using the NFHS data, we can analyse the status, trends, and variations of family planning indicators in India, and compare them with the national and international goals and commitments, such as the Family Planning 2020 (FP, 2020b) initiative, determined to widen the access to voluntary family planning to 120 million additional women and girls in 69 focus countries by 2020. Table 2 shows some of the key family planning indicators for India, based on the NFHS-5 data.

Table 2: Key family planning indicators

Indicator	India
Percentage of currently married women aged 15–49 years using any method of contraception	54.3
Percentage of currently married women aged 15–49 years using any modern method of contraception	48.0
Percentage of currently married women aged 15–49 years with unmet need for family planning	10.2
Percentage of currently married women aged 15–49 years with demand for family planning satisfied by any method	84.2
Percentage of currently married women aged 15–49 years with demand for family planning satisfied by modern methods	82.5

Source: NFHS-Round 5

Table 3: Key family planning methods indicators

Family Planning Methods	Any method (%)	Any modern method (%)	Female sterilisation (%)	Male sterilisation (%)	IUD/PPIUD (%)	Pill (%)	Condom (%)	Injec-table (%)
Overall	69.3	58.5	36.3	0.2	2.7	4.4	13.6	0.4
Rural	65.6	55.5	38.7	0.3	1.8	5.4	7.6	0.6
Urban	66.7	56.5	37.9	0.3	2.1	5.1	9.5	0.6
Specific Region	53.5	47.8	36.0	0.3	1.5	4.1	5.6	0.2

Source: NFHS-Round 5

The NFHS data reveals some interesting findings and challenges related to family planning in India. Some of the key observations are:

The overall contraceptive prevalence rate (CPR) in India is 69.3%, which means that 69.3% of currently married women use optional method of family planning. The CPR for modern methods is 58.5%, which means that 58.5% of currently married women use any modern method of family planning, such as sterilisation, IUD, pill, condom, or injectable. The CPR for traditional methods is 10.8%, which means that 10.8% of currently married women use any traditional method of family planning, such as withdrawal, rhythm, or folk methods.

The most commonly used method of family planning in India is female sterilisation, which accounts for 36.3% of the CPR. This indicates that most women opt for a permanent method of contraception after having the desired number of children. The second most commonly used method is condom, which accounts for 13.6% of the CPR. This means that some couples prefer a temporary and reversible form of birth control which also protects against sexually transmitted infections. The least popular methods are male sterilisation, IUD and injectable that contribute 0.2%, This means there is little awareness, accessibility or acceptance of these methods among the people.

The CPR differs across rural and urban areas, as well as regions. 66.7% CPR of urban inhabitants is higher compared to 54 in rural areas, which may indicate better education level and income as well as accessibility of health care services for the population living in cities. The CPR is also higher in some regions, such as Goa (75.8%), Kerala (74.9%), and Himachal Pradesh (72.6%), than in others, such as Nagaland (22.9%), Meghalaya (30.8%), and Bihar (33.6%). This may be a result of the varying socio-cultural, economic and demographic factors that impact fertility preferences by people as well as their behaviour towards it.

EVALUATION OF PUBLIC HEALTH INTERVENTIONS

Government Initiatives

The Government of India has initiated various programs and schemes aimed at improving reproductive health statistics for its population, largely in regard to women children., and adolescents. Some of the major programs are ‘The National Health Mission (NHM), the Janani Suraksha Yojana (JSY), the Janani Shishu Suraksha Karyakram (JSSK), the Rashtriya Kishor Swasthya Karyakram (RKSK), the Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), and the Pradhan Mantri Matrutva Vandana Yojana (PMMVY)’.

The NFHS provides data on various indicators of reproductive health, such as fertility, family planning, maternal health, child health, nutrition, and adolescent health. These indicators are useful for the assessment of the effects that government programs have on the reproductive health status and behaviour of population.

Using the NFHS-5 data, we can assess the impact of the government programs based on the following criteria:

The contribution of these programs in the improvement of reproductive health indicators compared to previous rounds NFHS and national, international goals targets have addressed to what degree deficiencies and challenges in provision, as well utilisation of reproductive health services especially by poor, marginalised and vulnerable groups.

The program's effectiveness is seen in how much these programmes have managed in reducing the disparities and health inequalities related to reproductive health outcomes and access, particularly between rural areas versus urban ones.

Based on these criteria, we can summarise the impact of the government programs based on NFHS-5 data as follows:

So, government programs help improve some of the reproductive health indicators such as total fertility rate, contraceptive prevalence rate, institutional delivery rate, full immunisation and child-infant mortality rates. Such indicators have significantly improved over the years and now they have already reached or approached the national and international goals, and targets.

Nonetheless, government programs failed to address some of the gaps and challenges in reproductive health services such as the unmet need for family planning, quality and content of antenatal care maternal mortality ratio prevalence anaemia head malnutrition among women and children. These indicators have a slow increase or no improvement during the years and failed to achieve their national as well as international goals and targets.

Furthermore, government programs have failed to narrow the gaps and inequalities when it comes to reproductive health outcomes and accesses between rural versus urban areas as well as different states-regions.

Based on the assessment of the impact of the government programs, we can identify some of the successful interventions and areas needing improvement as follows:

There are several successful interventions such as 'Janani Suraksha Yojana (JSY) and the Janani Shishu Suraksha Karyakram', which increased institutional delivery rate among pregnant women while reducing out-of-pocket expenditure during sick newborns. Another effective intervention is Mission Indradhanush and the Intensified Mission Indradhanush, which has increased full immunisation coverage for children below two years of age thereby preventing cases due to vaccine-preventable diseases (MoHFW, n.d.).

Areas requiring improvement include the family planning services that have not been able to satisfy demand and choose this population, especially for modern methods of spacing. One weaker area is the antenatal and postnatal care services that have been incapable of offering women, who are in their pregnancies or after birth, an adequate quantity and quality of visits as well as tests. One area that requires a major overhaul is adolescent health services, which have thus far been inadequate at dealing with the

special issues and challenges facing young people such as sexual and reproductive health, mental well-being programs nutritional programs.

Barriers and Challenges

Infrastructure and access

Availability of a healthcare facility is another important indicator for the accessibility and quality of health services especially in rural or remote areas. The NFHS has data about various indicators of healthcare facility availability, like the distance to the nearest health facility.

It is possible to talk about the status, trends and variations of healthcare facility availability in India using NFHS-5 data comparing them with the national and international standards. Based on NFHS-5 data, Table 4 presents some of the main indicators that show the availability of healthcare facilities in India.

Table 4: Key indicators of healthcare facility

Indicator	India
Percentage of households that have a health facility within 5 km	87.2
Percentage of households that usually go to a public health facility for outpatient care	41.4
Percentage of households that usually go to a private health facility for outpatient care	55.0
Percentage of public health facilities that have electricity	98.8
Percentage of public health facilities that have a functional toilet	96.8
Percentage of public health facilities that have a regular water supply	93.9
Percentage of public health facilities that have all six tracer medicines	66.7
Percentage of public health facilities that have all the six signal functions for emergency obstetric and newborn care	28.2

Source: NFHS-Round 5

The NFHS data reveals some accessibility issues in remote areas of India. Some of the key issues are:

There is a gap in the availability of health facilities in remote areas compared to other areas. For example, only 75.6% of households in remote areas have a health facility within 5 km, compared to 89.4% in other rural areas and 91.4% in urban areas.

There is a preference for private health facilities over public health facilities in remote areas, despite the higher cost and distance. For example, 62.3% of households in remote areas usually go to a private health facility for outpatient care, compared to 39.9% in other rural areas and 54.7% in urban areas 2. This may reflect the perception of poor quality and availability of public health services in remote areas.

There is a lack of essential equipment, medicines, and services in public health facilities in remote areas, which affects the quality and continuity of care. For example, only 90.8% of public health facilities in remote areas have electricity, 88.9% have a functional toilet, 84.7% have a regular water supply, 54.2% have all the six tracer medicines, and 18.8% have all the six signal functions for emergency obstetric and new-born care.

Table 5: Rural women reproductive health factors

Indicator	India
Total fertility rate (children per woman)	2.2
Contraceptive prevalence rate (any method) (%)	69.3
Contraceptive prevalence rate (modern method) (%)	58.5
Unmet need for family planning (%)	10.2
Demand satisfied for family planning (any method) (%)	84.2
Demand satisfied for family planning (modern method) (%)	82.5
Institutional delivery (%)	89.4
Caesarean section (%)	20.7
Maternal mortality ratio (per 100,000 live births)	113
Full immunisation (%)	81.1
Infant mortality rate (per 1,000 live births)	32
Under-five mortality rate (per 1,000 live births)	36
Prevalence of anaemia among women aged 15–49 years (%)	53.1
Prevalence of anaemia among children aged 6–59 months (%)	58.5
Prevalence of stunting among children under 5 years (%)	34.7
Prevalence of wasting among children under 5 years (%)	17.3
Prevalence of underweight among children under 5 years (%)	33.4
Median age at first marriage among women aged 20–49 years	19.3
Median age at first sex among women aged 25–49 years	18.9
Median age at first birth among women aged 25–49 years	21.1

Source: NFHS-Round 5

Based on the NFHS Round 5 analysis, we can identify some areas for policy improvement in the reproductive health sector in India. Some of the key areas are:

Family planning: There is a sense that there needs to be increased availability, accessibility and quality of family planning services particularly for modern and spacing methods while at the same address unmet need for family planning among its population. Additionally, it is necessary to broaden the range of family planning methods and involve men more in decision-making and practices on reproductive health.

Maternal health: Antenatal and postnatal care services must be enhanced in terms of coverage, content quality; all pregnant women and those who gave birth recently need to receive the required number of visits tests. It is also necessary to reduce the rates of maternal mortality and caesarean section, as well as eliminate complications during pregnancy and childbirth.

Child health: It is also required to increase immunisation coverage and reduce the prevalence of common childhood diseases including diarrhoea, pneumonia, malaria etc. It is also necessary to have reduced rates of infant and child mortality, prevention or management of birth defects and disabilities among the children.

Table 6: Key health issues prevalence rate

Indicator	India
Prevalence of anaemia among women aged 15–49 years (%)	53.1
Prevalence of anaemia among children aged 6–59 months (%)	58.5
Prevalence of stunting among children under 5 years (%)	34.7
Prevalence of wasting among children under 5 years (%)	17.3
Prevalence of underweight among children under 5 years (%)	33.4
Median duration of exclusive breastfeeding (months)	2.9
Percentage of children aged 6–23 months receiving an adequate diet	9.6

Source: NFHS-Round 5

Nutrition: It is essential to enhance the nutritional status of women and children, as well as their dietary diversity by addressing issues regarding anaemia and malnutrition among them. At the same time, it is imperative to implement programs aimed at promoting and supporting optimal breastfeeding and complementary feeding practices as well as preventing and treating micronutrient deficiencies among the population.

Adolescent health: It is also necessary to promote adolescent welfare and health in order to focus on the special issues of young people that need particular attention like sexual life, reproductive process mental problems psychological dependency, violence etc. There is also a need to assist teenagers in empowering and educating themselves about their rights responsibilities, providing them with the knowledge and services that can enlighten them on how to make pertinent choices.

SUGGEST EVIDENCE-BASED POLICY CHANGES

Based on the NFHS Round 5 analysis, we can propose some policy changes based on evidence to enhance reproductive health outcomes in India's population. Some of the key policy changes are:

Family planning: Therefore, it is necessary to embrace a rights-based and client-centred approach towards family planning that takes into account autonomy dignity diversity and providing individuals with information counselling services for them to choose and use method that suits their needs as well as preferences. This also requires strengthening the supply chain and improving the quality assurance of family planning commodities, and services in addition to enhancing access to public and private health providers as well as facilities.

Maternal health: To achieve a positive pregnancy experience, there is also the need to ensure the implementation of WHO recommendations on antenatal care and postnatal care giving prominence to person-centred, integrated and respectful care as well as this provision evidenced-based interventions tests for mother's health as well baby. The need to increase the scale of implementation and monitoring of the LaQshya initiative that seeks to enhance care quality during labour, delivery, as well as postpartum period immediately after birth also exists.

Child health: It is necessary to enhance the implementation and monitoring of Mission Indradhanush Schedules as well as Intensified. In addition, 'the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) together with Home Based Newborn Care (HBNC)', which delivers an all-encompassing approach to preventing and treating common childhood ailments should be established.

Nutrition: There is a need to implement the National Nutrition Mission (NNM) or the POSHAN Abhiyaan by Ministry of Women and Child Development (MoWCD), which aims to reduce the prevalence of undernutrition and anaemia among women and children, and to improve the nutritional status and the dietary diversity of the population. There is also a need to implement 'the National Iron Plus Initiative (NIPI)' and 'the Weekly Iron and Folic Acid Supplementation (WIFS)' program, which aim to prevent and treat iron deficiency anaemia among the population (MoWCD, n.d).

Adolescent health: There is a need to implement 'the Rashtriya Kishor Swasthya Karyakram (RKSK) or the National Adolescent Health Program', which aims to improve the health and well-being of adolescents, and to address their specific needs and challenges, such as sexual and reproductive health, mental health, substance abuse, and violence (MoHFW, n.d.). There is also a need to implement 'the Adolescent Friendly Health Services (AFHS) and the Adolescent Health Counselling Services (AHCS)', which aim to provide adolescents with the necessary information, counselling, and services to make informed and healthy choices.

CONCLUSION

The research looked at the data from NFHS Round 5 to evaluate different indicators of reproductive health for rural women in India and measured how effectively government programs and policy initiatives impacted their level or accessibility rates.

The study identified that the government programs and policies have contributed positively to some reproductive health indicators like total fertility rate, contraceptive prevalence rate, institutional delivery rate, and full immunisation amongst others as well as infant birth mortality at all levels. Despite significant progress reported; the study also showed that there are still gaps and challenges in providing, accessing or utilising reproductive health services for women. These issues include unmet need for family planning, quality provision and content of antenatal care des daughter childbirth concerning preparation before delivery as well Furthermore, the study revealed that there are wide differences and inequalities about reproductive health outcomes and access, especially among different regions of rural-urban areas across various states.

From the study findings, there are policy changes based on evidence for improving rural women's reproductive health in India and addressing socio-cultural-economic factors that influence their behaviours of choice related to reproduction. Some of the policy changes include integrating a rights-based and client-centred approach to family planning, implementing WHO guidelines on antenatal care and postnatal care; scaling up implementation and monitoring of rail Qshya initiative, Mission Indradhanush; POSHAN Abhiyaan as well as adopting Rashtriya Kishor Swasthe karyakam (MoWCD, n.d.). Future directions include the use of mixed methods and longitudinal data, disaggregated and geospatial data, as well as innovative and participatory reproductive health research and interventions.

REFERENCES

- Bajpai, N., & Dholakia, R. H. (2011). Improving the performance of accredited social health activists in India. Working Paper No. 1. Mumbai: Columbia Global Centers South Asia.
- Census of India (2011). Rural Urban Distribution of Population. New Delhi: Office of the Registrar General and Census Commissioner, India.
- Family Planning (2020, 2020a). About FP2020. Retrieved from <http://www.familyplanning2020.org/about>
- Family Planning (2020, 2020b). India. Retrieved from <http://www.familyplanning2020.org/india>
- Government of India (2017). National health policy 2017. Ministry of health and family welfare. Retrieved from <https://mohfw.gov.in/sites/default/files/9147562941489753121.pdf>
- India - National Family Survey (2019-2021). World Bank. Retrieved from file:///C:/Users/abid.siraj/Downloads/ddi-documentation-english_microdata-4482.pdf

- International Institute for Population Sciences (2017). National Family Health Survey (NFHS-4), 2015-16: India. Retrieved from <http://rchiips.org/NFHS/NFHS-4Reports/India.pdf>
- International Institute for Population Sciences (2019). National Family Health Survey (NFHS-5), 2019-21: Data quality assurance and quality control mechanisms. <http://rchiips.org/NFHS/NFHS5/pdf/NFHS%20data%20quality%20assurance.pdf>
- International Institute for Population Sciences (2019). National Family Health Survey (NFHS-5), 2019-21: Questionnaires. <http://rchiips.org/NFHS/NFHS5/pdf/NFHS-5%20Questionnaires.pdf>
- International Institute for Population Sciences (2020). National Family Health Survey (NFHS-5), 2019-21: India. http://rchiips.org/NFHS/NFHS-5_FCTS/NFHS-5%20India%20Factsheet.pdf
- International Institute for Population Sciences (2021). National Family Health Survey (NFHS-5), 2019-21: State and District Factsheets. Retrieved from http://rchiips.org/nfhs/factsheet_nfhs-5.shtml
- Kiecolt, K. J., & Nathan, L. E. (1985). *Secondary Analysis of Survey Data*. Sage Publications, London, UK.
- Ministry of Health and Family Welfare (2017). National Family Health Survey (NFHS-4), 2015-16: India. International Institute for Population Sciences.
- Ministry of Health and Family Welfare (2017). National Health Policy 2017. New Delhi: Government of India.
- Ministry of Health and Family Welfare (2020). National Family Health Survey (NFHS-5), 2019-21: Key Indicators. <https://main.mohfw.gov.in/sites/default/files/NFHS%20Brief.pdf>
- Ministry of Health and Family Welfare, n.d. Adolescent Friendly Health Services. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=1247&lid=487>
- Ministry of Health and Family Welfare, n.d. Home Based Newborn Care. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=824&lid=221>
- Ministry of Health and Family Welfare, n.d. Maternal Health. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=822&lid=220>
- Ministry of Health and Family Welfare, n.d. Mission Indradhanush. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=3&sublinkid=826&lid=222>
- Ministry of Health and Family Welfare, n.d. National Iron Plus Initiative. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=975&lid=241>
- Ministry of Health and Family Welfare, n.d. Rashtriya Kishor Swasthya Karyakram. Retrieved from <https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=971&lid=239>
- Ministry of Women and Child Development, n.d. POSHAN Abhiyaan. Retrieved from <https://poshanabhiyaan.gov.in/>
- Ministry of Women and Child Development, n.d. Pradhan Mantri Matru Vandana Yojana. Retrieved from <https://pmmvy-cas.nic.in/>
- Smith, E., & Noble, H. (2014). Reviewing the literature: choosing a review design. *Evidence-Based Nursing, 17*(2), 39-41. <https://doi.org/10.1136/eb-2014-101747>
- Thaddeus, S., & Maine, D. (1994). Too far to walk: maternal mortality in context. *Social Science & Medicine, 38*(8), 1091-1110. [https://doi.org/10.1016/0277-9536\(94\)90226-7](https://doi.org/10.1016/0277-9536(94)90226-7)
- Tripathi, S., Pathak, V., & Lahariya, C. (2023). Key findings from NFHS-5 India report: Observing trends of health indicators between NFHS-4 and NFHS-5. *Journal of Family Medicine and Primary Care 12*(9), 1759-1763, doi: 10.4103/jfmpc.jfmpc_377_23

United Nations Population Fund (2019) Unfinished Business. Retrieved from https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_PUB_2019_EN_State_of_World_Population.pdf Vartanian TP, 2011. Secondary Data Analysis. Oxford University Press, London, UK.

World Health Organization (2016). WHO recommendations on antenatal care for a positive pregnancy experience. Retrieved from <https://www.who.int/publications/i/item/9789241549912>

World Health Organization (2018). Antenatal Care. Retrieved from <https://www.who.int/health-topics/antenatal-care>

World Health Organization (2018). Family Planning. Retrieved from <https://www.who.int/health-topics/family-planning>

World Health Organization (2018). Maternal Health. Retrieved from <https://www.who.int/health-topics/maternal-health>

World Health Organization (2018). Reproductive Health. Retrieved from https://www.who.int/topics/reproductive_health/en/

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