

Content is available at: CRDEEP Journals
Journal homepage: <http://www.crdeepjournal.org/category/journals/ijssah/>

International Journal of Social Sciences Arts and Humanities

(ISSN: 2321-4147) (Scientific Journal Impact Factor: 6.002)

A Peer Reviewed UGC Approved Quarterly Journal



Research Paper

Health of Adolescent Girls in Rural Uttar Pradesh: A District Level Analysis of NFHS-4

Dr. Lakhan Singh*

Assistant Professor, Centre for Human Resource Development, National Institute of Rural Development and Panchayati Raj, Rajendranagar, Hyderabad, Telangana-500030

ARTICLE DETAILS

Corresponding Author:

Dr Lakhan Singh

Key words:

Adolescent Girls, Health, Rural Uttar Pradesh, District level Analysis, NFHS data, India

ABSTRACT

Although, it is a challenging task for India to address the reproductive health needs of adolescent population which is as high as 253 million, India has committed to provide universal access to health and wellbeing for all ages by 2030 Under SDG-3. It becomes further more challenging as one fifth of the total adolescent population belong alone to Uttar Pradesh where socioeconomic status comparatively to other states are poor. Keeping this in view, the present study aims to analyze reproductive health situation of rural adolescent girls at district level of Uttar Pradesh by using district level data from the fact sheet generated by National Family Health Survey-4 (2015-16) Govt. of India. Results show that one fourth women are getting married before attaining 18 years and it varies across districts, and more than 5 percent adolescent girls in 28 districts were already married or pregnant which puts them in vulnerable situations. Use of open field or unimproved toilet facility by majority of households is still rampant. Discriminatory sex ratio at birth against girl child and poor schooling was observed in many districts. Therefore, study suggests that there is urgent need of attitudinal change at individual and community level through mass awareness and sensitization towards girl child particularly on importance of reproductive health of adolescent girls and its impact on development of the country. In addition, active role of government in implementing laws made to protect reproductive health rights of girl child and providing essential infrastructures and amenities in schools and colleges are highly required.

1. Introduction and background of study

World Health Organization defines adolescence as the population between the ages of 10 and 19 years whereas youth refers to period between 15 and 24 years age group (WHO, 2014). Today, 1.2 billion adolescents stand at the challenging crossroads between childhood and the adult world. Nine out of ten people live in the developing world (UNICEF, 2011). India is home to more than 253 million adolescents, who accounts for 21 percent of the country's population (Census of India, 2011). This huge number of adolescent population itself plays a big challenge for country in addressing their problems and issues. Nevertheless, adolescent are the critical segment for India's future demographic dividend as the future demographic, social, economic and political development will depend on them. Therefore, investing in adolescents will be the best way to leverage the nation's competitive advantage for reaping the benefits of the demographic dividend.

Adolescents of today are working-force group for the tomorrow. But they are mostly overlooked in most health programs as they are basically considered a healthy group (Ghosh S, 1992; Friedman HL, 1994). A systematic analysis on 'global burden of disease in adolescents' reports that the total number of incident disability adjusted life years (DALYs) worldwide in the age

*Author can be contacted at: Assistant Professor, Centre for Human Resource Development, National Institute of Rural Development and Panchayati Raj, Rajendranagar, Hyderabad, Telangana-500030

Received: 27-03-2025; Sent for Review on: 30-03-2024; Draft sent to Author for corrections: 04-04-2025; Accepted on: 22-04-2025; Online Available from 29-04-2025

DOI: [10.13140/RG.2.2.31078.33605](https://doi.org/10.13140/RG.2.2.31078.33605)

IJSSAH: -9999/© 2025 CRDEEP Journals. All Rights Reserved.

group 10-24 years is 230 million which constitutes 15.5 percent of total DALYs (Gore FM, Bloem PJ, Patton GC, et al , 2011). Reproductive and sexual health is a major area of concern as the adolescents do not have adequate awareness and knowledge about these. The chances of having STIs, teenage pregnancy and unsafe abortions are much higher among adolescents. Among adolescents, girls constitute a more vulnerable group, particularly in India, where they are traditionally married at an early age and exposed to greater risk of reproductive morbidity and mortality. Maternal mortality ratio is still significantly high in India and one of the reasons is girls are married at early ages. Although the legal age at marriage in India is 18, the majority of Indian women marry as adolescents. NFHS-3 data show that 30 percent of girls aged 15-19 are currently married or in union, compared to only 5 percent of boys of the same age. So the problems for the adolescent girls are immense than the boys therefore they need focused attention for their overall development.

Keeping in view the importance of above subject in overall development of country this subject was selected for the study.

1.1 Objective

To analyze reproductive health situation of rural adolescent girls at the district level of Uttar Pradesh

2. Research Methodology

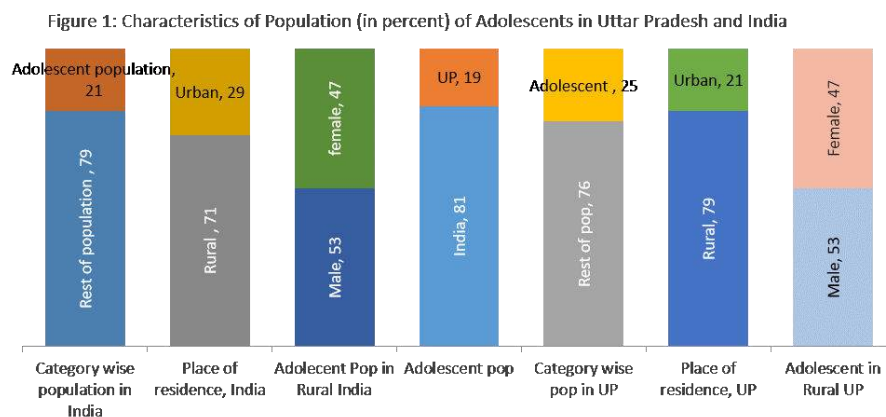
2.1 Source of Data Used

The data for the present study has been taken from the fact sheets of fourth round of National Family Health Survey (NFHS-4)-2015-16 conducted by International Institute for Population Sciences, Mumbai under the supervision of Ministry of Health and Family Welfare, Govt. of India, New Delhi. In addition, NFHS-4, for the first time, provides district-level estimates for many important indicators. The quality of data provided by National Family Health Surveys is internationally acclaimed. First time availability of data at the district level provides an excellent opportunity for researchers and academicians to analyze the data at micro level and come out with concrete solutions/suggestions to the health issues.

2.2 Reason for Selection of Uttar Pradesh as Study area

It is evident that although health indicators of Uttar Pradesh have improved over a period of time but still relatively on lower side while comparing the same with other states of the country (NFHS-1, NFHS-2 and NFHS-3) particularly reproductive health indicators of rural adolescent girls. Moreover, women empowerment indicators are also comparatively poorer than south Indian states. Since Uttar Pradesh is the most populous state of the country, it also has the highest population of adolescents. According to Census of India, 2011 Uttar Pradesh alone share almost one fifth (4.89 Crores) of total adolescent population of the country (25.32 Crores) and 79 percent of total adolescent population belong to rural areas and remaining 21 percent belongs to urban areas. Further, the composition of male and female adolescent population in rural area is 47 and 53 percent respectively. So, the role of Uttar Pradesh in achieving the reproductive health targets for adolescent population in general and female adolescents in specific in achieving sustainable development goals is crucial. A comparative picture of the characteristics of adolescent population of Uttar Pradesh and India is depicted through figure one.

Uttar Pradesh has as many as 71 districts representing different socio-economic and geographical conditions from east to west and south to north regions. The different topography plays crucial role in accessing basic health services. Since, first time, data is available at the district level it gives an immense opportunity to analyze the district specific issues and based on analysis districts which need urgent intervention can be easily identified and accordingly strategic plan can be prepared to improve the situation. Keeping all above in view Uttar Pradesh was selected as study area.



2.3 Variable selected for the study

Following variables related to reproductive health of adolescent girls were selected from the fact sheet of NFHS-4 of Uttar Pradesh for the analysis:

1. Population aged 6 years and above attended school
2. Sex ratio at birth

3. Percent of households has improved sanitation facility
4. Women age 20-24 years married before age 18 years
5. Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)
6. Women age 15-24 years who use hygienic methods of protection during their menstrual period (Available only at state and country level)

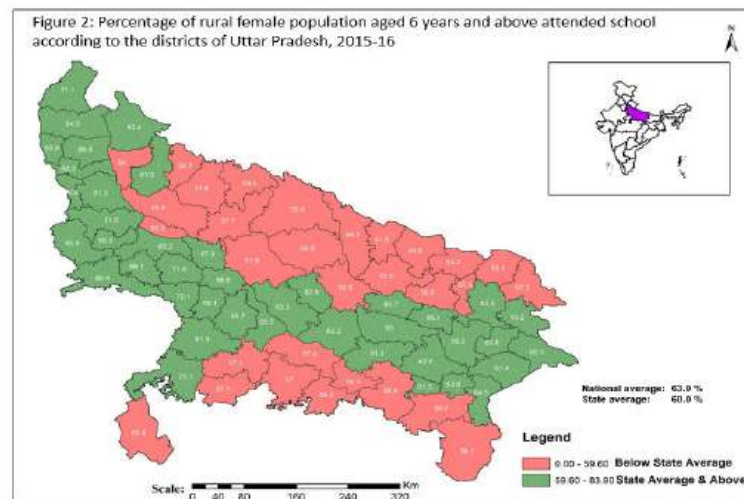
2.4 Data Analysis

The data for the above mentioned variables for each of district of Uttar Pradesh were transferred to excel sheet and arranged into descending order to understand the relative position of each district. Thereafter, the relative position of each district for each of indicators, Arc-GIS software version 10.1 was used to generate the maps.

3. Result

3.1 Girls aged 6 years and above attending school

Education is not only the most important socioeconomic indicator that influence behaviour and attitudes of an individual but it is also a fundamental indicator to measure the level of human development of a country. The Right to Education (RTE) Act, 2009 provides fundamental rights to every child aged 6-14 years to have free and compulsory education. SarvaShikshaAbhiyan (SSA) is a flagship programme of Govt. of India to achieve universalization of elementary education in India. One of the goals of SSA is to encourage the girl child education through bridging the gender gaps in elementary education. The figure 2 shows the percentage of girl child aged six years and above attending school in rural Uttar Pradesh.

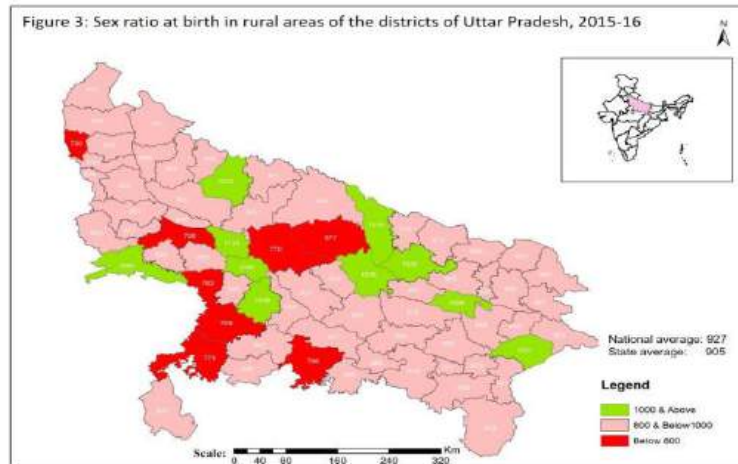


Despite the implementation of RTI Act, only 60 percent of girls aged 6 years and above in the Uttar Pradesh are attending school and remaining not. The average percentage girls attending school in Uttar Pradesh is 3 percentage points lower than the national average of 63 percent. About 30 districts are as such where attendance of the girls in the school is lower than the state average. These districts are basically from Eastern, Bundelkhand, and North region of Uttar Pradesh. However, district closed to New Delhi and located in western and central regions of Uttar Pradesh, percentage of girls attending school is higher than districts of other regions. Percentage of attending school varies from 84 percent in Lucknow (capital district) to 42 percent in Shravasti district.

3.2 Sex Ratio at birth:

Sex ratio at birth is an important indicator to understand the social norms of the society towards girl child. The literature shows that the sex ratio at birth can be affected by sex selective abortion targeting the female foetus, deliberate discrimination against the girl child which can result into higher mortality for girl than the boys. Sex preference of the child is directly linked with the health status of the child. The figure 3 depicts the sex ratio at birth in the district of Uttar Pradesh.

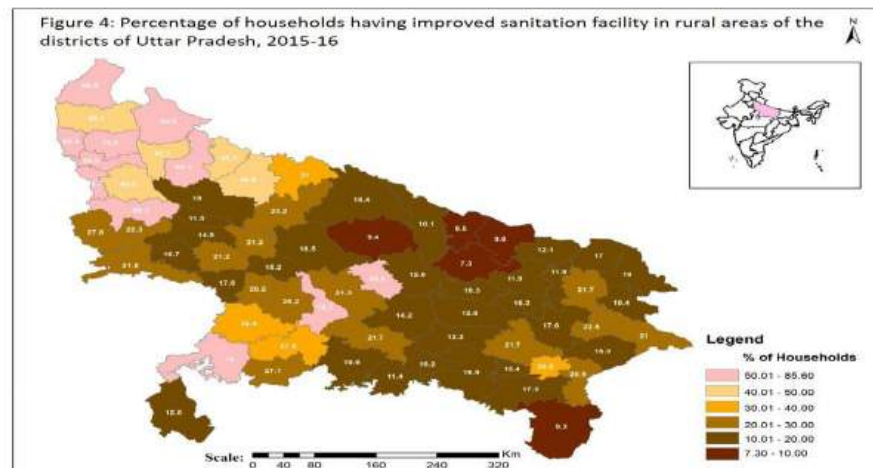
The fact sheet reveals that the sex ratio of the population at 0-6 years (girls per 1000 boys) in Uttar Pradesh is 905 which is lower than national average of 927. It is evident from the figure 3 that in rural areas of almost all districts, sex ratio at birth is against the girl child which reflects existence of discriminatory behavior of the people towards girl child in the fast changing society of modern time. There are only 10 districts where number of girls per 1000 boys is outnumbered centered. However, there are eight districts are as such where sex ratio at birth is even lower than 800 per 1000 boys. Sitapur has the lowest (766) and Farrukhabad has the highest (1135) sex ratio at birth. Districts located in western and Bundelkhand regions are performing worst in sex ratio at birth than other districts of Uttar Pradesh.



3.3 Household Using Improved Sanitation Facility

The prevalence of drop out from school is significantly higher among the girls aged 10-14 years than the boys in most of the states mainly because this is the period (10-14 years) when majority of girls attains their menstruation cycle and in absence of availability of proper toilets in school and due to lack of guidance from teachers on menstruation cycle, girls of this age tend to drop the schooling (Sulochana Pednekar et al 2024). Lack of improved sanitation in school not only affects girl's educational life but also it affects their psychological well-being as well.

Besides, due to unavailability of toilet facility in the households girls are forced to defecate in open areas because of which they are vulnerable to face violence, crime and rape from outsiders. The situation of using toilet facility at household level in Uttar Pradesh is also not very encouraging which also affect the overall health of adolescent girl child. The figure 4 present the availability of improved sanitation facility at household level in the rural areas of the districts of Uttar Pradesh.



It is evident from the figure 4 that in the rural areas, none of the district of Uttar Pradesh has achieved 100 percent availability of improved sanitation facilities at household level. Prevalence of improved sanitation facility is very low in rural parts of Uttar Pradesh (only 23 percent). Lucknow was observed to have highest (86 percentage) while Gonda was observed lowest (7 percentage) in having improved toilet facility at the household level. The poorer performing districts were in eastern and northern regions of Uttar Pradesh which require urgent attention for targeted interventions.

3.4 Women aged 20-24 years married before age 18 years:

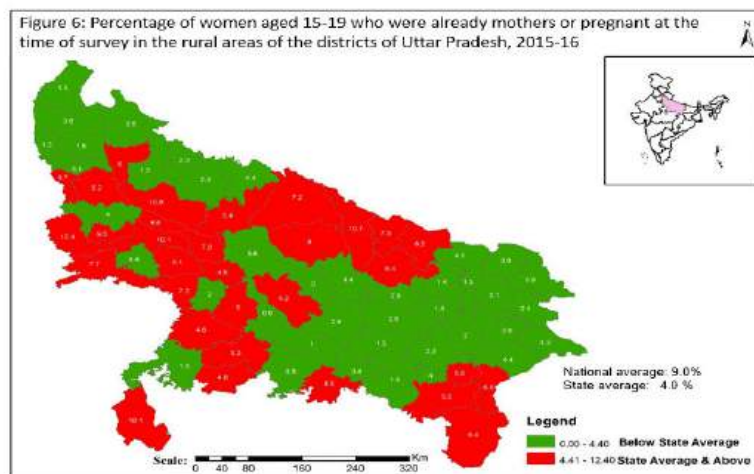
Marriage in India marks the point in a woman's life when childbearing become socially acceptable. Age at marriage has a profound impact on childbearing because women who marry early will have a longer period of exposure to pregnancy and a greater number of lifetime births. Early age marriage affects social, physical and mental health of the adolescent girls. The legal age at marriage for girls and boys in India is 18 and 21 years respectively. The figure 5 presents the percentage of women aged 20-24 married before attainment of 18 years of age.



It is evident from figure 5 that a huge percentage of women in Uttar Pradesh are getting married before reaching to the legal age of marriage. Figure shows that 25 percent women aged 20-24 years got married before attaining the legal age of marriage i.e. 18 years which is seven percentage points lower than the national level figure of 32 percent. It is clear from figure that most of the districts located in extreme north and east regions and a portion of west regions are badly affected by low age at marriage. Variation across the districts is huge ranging as high as 71 percent in Shravasti to lowest as 5 percent in Kanpur Nagar. Moreover, 23 districts are as such where more than 30 percent women got married before age 18 years. The districts located western and central regions are performing better than districts located in Bundelkhand, north Uttar Pradesh.

3.5 Women aged 15-19 years who are already mothers or pregnant

It is obvious that when a girl gets married at lower age, there is high chance that she will experience mother hood at very early age. NFHS-4 provides data on percentage of women aged 15-19 years who are already mothers or pregnant, which is very important information as far as reproductive health of adolescent girls is concerned. In Uttar Pradesh, four percent of rural adolescent aged 15-19 years girls have already experienced motherhood or are currently pregnant. Adolescent who had experienced motherhood at early ages was high in the districts located in western part, Bunderlkhand region and north region bordering to Haryana, Rajasthan, Madhya Pradesh, Jharkhand and Nepal respectively. There are 28 districts where five percent of adolescent girls were already mothers or pregnant. Adolescent girls experiencing motherhood was highest in Mathura (12 percent) and lowest in Lucknow with zero percent as show in figure six.



4. Conclusions

It is well established that in addition to other socio-economic factors, age at marriage and age at motherhood are the two most important factors as far as health of adolescent girls is concerned. These two factors alone significantly determine the social life, physical and psychological health of the adolescent girls. And the maps show that these two indicators are relatively poor in most of district of western north districts of Uttar Pradesh bordering to Madhya Pradesh, and Nepal respectively than the eastern parts of Uttar Pradesh. Other health indicators were poor in eastern and bundelkhand regions. Overall, health of adolescent girls in Uttar Pradesh is not up to the satisfaction and it varies from one region to another region. Therefore, the study suggests that there is strong need to change the attitude, behavior and mind sets of the people and society as whole towards girl child on urgent basis and focused attention is required particularly for adolescent girls. Mass awareness and BehaviourChange Communication which are important tools for behavioral change may be adopted as strategies to implement behavioral change activities in the rural areas through active participation of community workers, youths and school children.

In addition, the active role of government in creating the essential infrastructures, providing ease environment and strict implementation of laws made to protect the reproductive health rights of the girl child are highly required.

References

- Census of India. (2011). <http://www.censusindia.gov.in/2011census/C-series/C-13.html>. Data was calculated from a downloaded data from Census of India 2011 website.
- Friedman, H.L.(1994). Adolescent health care International Initiatives,*Indian Pediatrics*, 31, 503-510.
- Ghosh, S. (1992).It is time we thought of youth, *Indian Pediatrics*, 29, 821-823.
- International Institute for Population Sciences and Macro International.(2007). *National Family Health Survey (NFHS-3)*,2005-06: India: Volume I. Mumbai: IIPS.
- Gore, FM., Bloem,PJ., Patton, GC.et al. (2011). Global burden of disease in young people aged 10-24 years: a systematic analysis. *Lancet*, 377(9783):2093-102.
- Pednekar, S., Desouza, S., Mukhopadhyay, P. (2024). Monitoring WASH and school dropouts in India: Is there adequate data? An assessment of four national databases. *Journal of Water Sanitation and Hygiene for Development*, DOI: [10.2166/washdev.2024.195](https://doi.org/10.2166/washdev.2024.195)
- Registrar General, India (RGI). (2011). Census of India. New Delhi.
- UNICEF (2011).The state of the world's children-2011. *United Nations Children's Fund*. New York, NY 10017, USA.
- WHO. (2014).‘Health for the world’s adolescents: A second chance in the second decade’, World Health Organization, Geneva, Switzerland.