

Comparative Analysis of Women's Health in Uttar Pradesh and Uttarakhand: With Help of National Family Health Survey (NFHS) - 3 & 5

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Abstract

Women, for most of recorded history, have assumed a predominantly domestic role in society, serving largely and often exclusively as wives and mothers. Women's health is a better predictor of a child's health than the father's health. When a mother becomes ill, there is a larger likelihood that her children will also become ill. According to UNICEF, "Malnourished mothers give birth to malnourished children." We can easily see how the family's health is heavily reliant on the mother's health. Women often care for the health of their spouse and children before taking care of their own needs. They are prone to foregoing medical treatment to be able to provide for the needs of their family. Up to 80 percent of healthcare decisions in households are made by women. Unfortunately, women often are giving themselves low priority on the list of things to take care of. Women's health is a global issue and deserves attention in every country. This is why women's health is so important, and is at the very heart of the Millennium Development Goals and the UN's project to lower global poverty, as women are the bedrock of impoverished societies. In consequence, the main focus of the study is to know the status of women's health in Uttar Pradesh and Uttarakhand (based on NFHS-3 & NFHS-5).

Keywords: NFHS, Family Planning Methods, Maternity Care, Delivery Care & Nutritional Status.

Introduction

As per the very famous quotation of Jillian's Michaels about health as the actual wealth for all is as "At the end of the day, your health is your responsibility" for human beings of any communities or countries, they belonging. Prioritizing women's health is essential for promoting equity, improving health outcomes, and addressing the unique needs and challenges that women face across the lifespan. However, it's crucial to emphasize that this doesn't reduce the significance of addressing health issues affecting other genders as well. The World Health Organization (WHO) highlights the importance of addressing women's health as a key component of global public health. The roles of women in life are diverse and multifaceted, influenced by cultural, social, economic, and historical factors. Addressing the concerns related to women's health performance requires a multifaceted approach that encompasses

healthcare access, quality of care, preventive measures, reproductive health, mental health, and advocacy efforts aimed at promoting gender equity and improving health outcomes for women. Women's health is a concern for several reasons like Health disparities in access to healthcare services, quality of care, and health outcomes due to various reasons such as socio-economic status, geographical location, race, ethnicity, gender discrimination within healthcare systems and issues related to reproductive health, including access to family planning services, maternal mortality and reproductive rights, are significant concerns for women's health performance. Women are disproportionately affected by certain chronic conditions such as autoimmune diseases, osteoporosis, and mental health disorders.

Addressing the prevention, management, and treatment of these conditions is essential for improving women's health outcomes. Ensuring access to preventive care services, including screenings, vaccinations, and health education, is crucial for promoting early detection and prevention of diseases among women. However, barriers to accessing preventive care services can hinder women's ability to maintain optimal health. Maternal mortality, infant mortality, and other indicators of child and maternal health are significant metrics for assessing women's health performance. Improving access to prenatal care, maternal healthcare services, and postnatal support is essential for reducing MMR (Maternal Mortality Rate) and IMR (Infant Mortality Rate). Women experience certain health conditions unique to their biology, such as breast cancer, cervical cancer, and menopausal symptoms. Addressing the prevention, diagnosis, and treatment of these gender-specific conditions is critical for improving women's health outcomes. Issues related to mental health, including anxiety, trauma and depression, disproportionately affect women. However, stigma, lack of access to services about mental health, and gender-based disparities in mental healthcare can hinder women's ability to seek and receive appropriate treatment. Advocacy efforts are desired to prioritize women's health on policy agendas, allocate resources to meet women's health requirements, and promote gender-sensitive approaches to healthcare delivery and research.

Therefore, an attempt has been made to appraisal the status of women's health in terms of marriage and fertility, currently use of family planning method, maternity care, institutional births, nutritional status and women's empowerment and gender-based violence age 15 to 49 years of Uttar Pradesh and Uttarakhand on the basis of factsheets of NFHS 3 & 5 i.e. 2005-06 & 2019-20.

Objectives

The objective of this research paper is as follows:

1. With the help of National Family Health Survey 3&5 to compare the status Women's Health in Uttar Pradesh and Uttarakhand.

Methodology

This study is descriptive research in nature. In this study secondary data is used for the analysis. This data is collected from National Family Health Survey (NFHS) factsheets of Uttar Pradesh and Uttarakhand with the help of NFHS 3 & 5. The National Family Health Survey (NFHS) is a comprehensive, large-scale survey conducted in India to collect data on various

health and family welfare indicators. It is being carried out by the Indian Ministry of Health and Family Welfare, in collaboration with IIPS in Mumbai. NFHS provides valuable insights into maternal and child health, healthcare utilization, family planning and other related issues. It performs an important role in shaping health policies and programs in India. The time duration of the study 2005-06 & 2019-20 i.e. (NFHS-3 and NFHS-5) for various women's health related indicators in Uttar Pradesh and Uttarakhand. These indicators are as follows:

1. Marriage and fertility
2. Current Use of Family Planning Methods
3. Maternity Care
4. Delivery Care
5. Nutritional Status of Adults &
6. Anaemia among Children and Adults and Women's Empowerment and Gender Based Violence (age 15-49 years).

Women's Health Status in Uttar Pradesh and Uttarakhand

In India, the minimum age for marriage is specified by law. The Prohibition of Child Marriage Act of 2006 establishes the legal marriage age as 21 years for men and 18 years for women. Women's health is impacted by their marital age. Early marriage has been related to an increased risk of infant and mother mortality. The following table 1 (Marriage and Fertility) displays the status of women in Uttar Pradesh and Uttarakhand-

Table 1: Status of Marriage and Fertility

Women aged 20-24 years married before the age of 18 years. (%)		
States	NFHS 3 (2005-06)	NFHS 5 (2019-20)
Uttar Pradesh	58.6	15.8
Uttarakhand	23	9.8
Total fertility rate (children per woman)		
Uttar Pradesh	3.8	2.4
Uttarakhand	2.6	1.9
Women aged 15-19 years old who were already mothers or pregnant at the time of the survey (%)		
Uttar Pradesh	14.3	2.9
Uttarakhand	6.2	2.5

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Table 1 displays the fertility and marriage trends for Uttar Pradesh and Uttarakhand.

9.8% of women in Uttarakhand get married below the age of 18 with improvement of 57.39% from 2005-06 to 2019-20, but 15.8% of women in Uttar Pradesh marry below the age of 18 with improvement of 73% from 2005-06 to 2019-20. On the other side, the Uttar Pradesh and Uttarakhand factsheets of the NFHS factsheets 3 and 5 show a notable decline in early marriage. Uttarakhand's fertility rate is below the national population policy of 2000's replacement level of 2.1. According to table 1, Uttar Pradesh and Uttarakhand had extremely notable declines in their fertility rates, with 36.84% and 26.92%, respectively, going from 3.8% to 2.4% and 2.6% to 1.9%.

Women between the ages of 15 and 19 who are either mothers or pregnant (a situation known as adolescent pregnancy) express concern for both the mother's and the unborn child's health. According to table 1, both Uttar Pradesh and Uttarakhand have reduced adolescent pregnancies. Furthermore, the above table 1 illustrations that Uttar Pradesh has significantly reduced the rate of adolescent pregnancies from 14.3% to 2.9%, in contrast to Uttarakhand.

Table 2: Current Use of Family Planning Methods

(currently married women age 15–49 years)

Use of any method (%)		
States	NFHS 3 (2005-06)	NFHS 5 (2019-20)
Uttar Pradesh	43.6	62.4
Uttarakhand	59.3	70.8
Use of any modern method (%)		
Uttar Pradesh	29.3	44.5
Uttarakhand	55.5	57.8
Use of Female sterilization (%)		
Uttar Pradesh	17.3	16.9
Uttarakhand	32.1	26
Use of Male sterilization (%)		
Uttar Pradesh	0.2	0.1
Uttarakhand	1.8	0.7
Use of IUD/PPIUD (%)		
Uttar Pradesh	1.4	1.5
Uttarakhand	1.5	1.5

Use Pill (%)		
Uttar Pradesh	1.7	4.6
Uttarakhand	4.2	2.7
Use of Condom (%)		
Uttar Pradesh	8.6	19.1
Uttarakhand	15.7	25.6

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Table 2 shows the use of family planning by married women in Uttar Pradesh and Uttarakhand aged 15 to 49. Between 2005-06 and 2019-20, the percentage of contraceptive methods used in Uttar Pradesh and Uttarakhand increased. When compared to Uttar Pradesh, married couples in Uttarakhand employ more family planning methods.

The study period revealed that the use of all modern forms of contraception has increased in both states, but Uttar Pradesh saw the largest increase in use of any method, rising from 29.3% to 44.5%, while Uttarakhand saw a slightly smaller increase, rising from 55.5% to 57.8%, among married couples. According to table 2, the adoption of female sterilisation has dropped in both states.

When comparing the factsheet 3 & 5 of NFHS, Uttarakhand has reduced female sterilisation by 1/4, while Uttar Pradesh has had little decrease in the adoption of female sterilisation. According to data year 2019-20 (NFHS 5) compared to 2005-06 (NFHS 3), there has also been a decline in the use of male sterilisation in both states. When comparing the results of these factsheets 3 & 5, Uttar Pradesh saw a small decrease in the adoption of male sterilisation, while Uttarakhand saw a 50% decline.

When compared to the factsheets 3 to 5 of NFHS, both states continue to use IUDs and PPIUDs as a form of family planning. The percentage of IUD/PPIUD contraception in Uttar Pradesh increased slightly from 1.4% to 1.5% between the study periods.

Table 2 shows that using oral pills for family planning increased in Uttar Pradesh, going from 1.7% to 4.6% from 2005-06 to 2019-20, while in Uttarakhand, the usage of oral pills has decreased, going from 4.2% to 2.7% between this period.

According to table 2, in year 2019-20 (NFHS 5), both Uttar Pradesh (19.1%) and Uttarakhand (25.6%) have high condom usage rates as a method of contraception.

Table 3: Maternity Care

(for last birth in the 5 years before the Survey)

Mothers who had antenatal check-up in the first trimester (%)		
States	NFHS 3	NFHS 5

	(2005-06)	(2019-20)
Uttar Pradesh	25.7	62.5
Uttarakhand	43.3	68.8
Mothers who had at least 4 antenatal care visits (%)		
Uttar Pradesh	11.1	42.4
Uttarakhand	34.9	61.8
Mothers whose last delivery was protected against neonatal tetanus (%)		
Uttar Pradesh	64.5	92.1
Uttarakhand	68.5	93.6
Mothers who ingested iron folic acid for at least 100 days when pregnancy (%)		
Uttar Pradesh	6	22.3
Uttarakhand	16.4	46.6
Mothers who had full antenatal care (%)		
Uttar Pradesh	2.7	
Uttarakhand	12.7	
Registered pregnancies in which the mother obtained a Mother and Child Protection (MCP) card (%)		
Uttar Pradesh	-	95.7
Uttarakhand	-	97.1
Mothers who got postnatal care from a doctor/nurse/ midwife/ LHV/ANM/other healthcare staff within two days of delivery. (%)		
Uttar Pradesh	12.3	72
Uttarakhand	27.7	78

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Uttarakhand has better ANC care than that of Uttar Pradesh but Uttar Pradesh has better improvement in its performance from 25.7% to 62.5% from year 2005-06 (NFHS 3) to 2019-20 (NFHS 5) while Uttarakhand has better improvement in its performance from 43.3% to 68.8% between study period.

Table 3 revealed that Uttar Pradesh and Uttarakhand have improved at least 4 ANC but it is not a satisfactory improvement of these States. (Uttar Pradesh at 11.1% to 44.24% and Uttarakhand at 34.9% to 61.8%) because maternity healthcare guidelines emphasiser for 4

mandators ANC to insure safe maternal and foetus outcome. According to the 2019-20 (NFHS 5), only half of women who received at least 4 ANC visits attended in both states.

The protection of mothers against neonatal tetanus is encouraging for both the states according to year 2019-20 (Uttar Pradesh at 92.5% and Uttarakhand at 93.6%).

According to statistics from factsheet 5, consumption of IFA is substantially lower in Uttar Pradesh, with less than one-quarter of mother protected against anaemia and less than half of mother in Uttarakhand. However, Uttar Pradesh and Uttarakhand have increased the usage of Iron Folic Acid (IFA) by almost 3 times compared to factsheet 3 data. Mother and Child Protection (MCP) Card is embraced to monitor the states of maternal health for provision of services. Despite the fact, both the states show a good performance in catalogue the MCP card for the pregnant mothers in comparison to national average. (UP at 95.7% and Uttarakhand at 97.1% as per the factsheet 5 data).

Table 3 also revealed that the percentage of mothers that received post-natal care from a doctor /nurse/ LHV/ANM /midwife/ other health personal within 2 days of birth in both the states is satisfactory because of the children born at home by regular checkup by health facilities within 2 days of delivery is increased 12.32% to 72% in Uttar Pradesh and 27.7% to 78% in Uttarakhand between the 2005-06 and 2019-20.

Table 4: Delivery Care

(for births in the 5 years before the Survey)

Institutional births (%)		
States	NFHS 3 (2005-06)	NFHS 5 (2019-20)
Uttar Pradesh	20.6	83.4
Uttarakhand	32.6	83.2
Institutional births in public facility (%)		
Uttar Pradesh	6.6	57.7
Uttarakhand	15.7	53.3
Home delivery is conducted by skilled health care staff (out of total deliveries). (%)		
Uttar Pradesh	6.8	4.7
Uttarakhand	5.8	3.4
Births assisted by a doctor/ANM /LHV /nurse/ other health care staff. (%)		
Uttar Pradesh	27.2	84.8

Uttarakhand	38.5	83.7
Births delivered by caesarean section (%)		
Uttar Pradesh	4.4	13.7
Uttarakhand	8.1	20.4
Births in a private health facility delivered by caesarean section (%)		
Uttar Pradesh	26	39.4
Uttarakhand	27.5	43.3
Births in a public health facility delivered by caesarean section (%)		
Uttar Pradesh	11.1	6.2
Uttarakhand	22.2	14

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Table 4 shows that the institutional birth in both states Uttar Pradesh and Uttarakhand have improved as reported by factsheet 5 (NFHS 5) compared to factsheet 3 (NFHS 3) because of implementation/initiatives / programmes like Janani Suraksha Yojana has a better impact in both States. However, Uttar Pradesh shows a better increase of institutional births compared to Uttarakhand according to year 2019-20 (NFHS 5) as compared to year 2005-06 (NFHS 3). The institutional birth in Uttar Pradesh is increased from 20.6% to 83.4% and in Uttarakhand, it is increased from 32.6% to 83.2% between the study period. Institutional birth in the public facility of Uttar Pradesh is happening more as compared to Uttarakhand (Uttar Pradesh at 57.7% and Uttarakhand at 53.3%) according to factsheet 5 data.

The percentage of home delivery accomplished by skilled healthcare staff (out of total deliveries) have been decreased and less in both states. It is a good indication for people of Uttar Pradesh and Uttarakhand are adopting institutional delivery instead of home delivery as per data 2005-06 & 2019-20.

The percentage of birth assisted by doctor/nurse/ LHV/ANM /other health care staff in both states are good. As compared to Uttarakhand, Uttar Pradesh shows outstanding improvement (birth assisted delivery by skilled personnel) from 27.2% to 84.8% as per data 2005-06 & 2019-20.

World Health Organisation (WHO) has provided guidelines regarding the optimum rate for caesarean section (C-Sections) at the population level. According to WHO, the recommendation rate for C-Sections is between 10- 15 % of total births. This range is based on evidence suggesting that C- Section rates above this level may not inevitably result in better maternal and neonatal outcomes at the population level and may ever goes risks.

Caesarean Section deliveries have increased in both states as reported by factsheet 5 (NFHS 5) compared to factsheet 3 (NFHS 3) and as compared to Uttar Pradesh, Uttarakhand are alarmingly high of Caesarean Section deliveries at 20.4 % as per the factsheet 5 data. C-

Section delivery conducted by private health facilities are high in both states while C-Section delivery conducted by public health facilities are satisfactory according to WHO guideline regarding C- Section deliveries.

Table 5: Nutritional Status of Adults (15-49 years old) &Anaemia among Children and Adults

Women whose Body Mass Index (BMI) is less than normal (BMI < 18.5 kg/m ²) (%)		
States	NFHS 3 (2005-06)	NFHS 5 (2019-20)
Uttar Pradesh	36	19
Uttarakhand	30	13.9
Women who are obese or overweight (BMI ≥ 25.0 kg/m ²) (%)		
Uttar Pradesh	9.2	21.3
Uttarakhand	12.8	29.7
Children who are anaemic and between the ages of 6-59 months (%)		
Uttar Pradesh	73.9	66.4
Uttarakhand	60.7	58.8
Non-pregnant women who are anaemic and between ages 15-49 years (%)		
Uttar Pradesh	49.7	50.6
Uttarakhand	54.8	42.4
Pregnant women who are anaemic and between ages 15-49 years (%)		
Uttar Pradesh	51.5	45.9
Uttarakhand	50.8	46.4
All women who are anaemic and between ages 15-49 years (%)		
Uttar Pradesh	49.9	50.4
Uttarakhand	54.7	42.6

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Nutritional status plays a significant role in women's health across all stages of life, from childhood to adolescence, through reproductive years, and into older age. Ensuring access to nutritious food, encouraging awareness of healthy eating practices and addressing socio-economic factors that influences food security are essential components of improving women's nutritional status and overall health outcomes. Additionally, healthcare providers play an

important role in providing nutritional counselling and support to women at different stages of their lives. While in case of poor nutrition it leads to deficiency of blood (anaemia) and causes high risk in maternal health.

Table 5 reveals nutritional status of women of all face and is groups 15- 49 years as well as children of age group 6- 59 months who were anaemic in Uttar Pradesh and Uttarakhand during 2005-06 to 2019-20. Uttarakhand is in better position as compared to Uttar Pradesh in terms of women whose BMI is less than normal but Uttarakhand shows a better declining rate as compared to that of Uttar Pradesh in this regard.

Uttar Pradesh has better position in case of women who were obese or overweight as compared to that of Uttarakhand as per NFHS factsheet 3 to 5. But both the states show the same rate of declination in terms of obese women whose BMI is greater than or equal to 25 kg/m² during the study period.

Uttarakhand has a better position in case of Children who are anaemic and between the ages of 6-59 months as compared to that of Uttar Pradesh. Both states are showing a declining nature which is a good sign of improvement in case of Children who are anaemic and between the ages of 6-59 months.

In case of non-pregnant women who are anaemic and between ages 15-49 years, Uttar Pradesh has better position as per the NFHS factsheet 3 but as per the factsheet 5, Uttarakhand has in better position. During the year 2005-06 to 2019-20, both states are showing declining nature in this regard Uttarakhand are showing a faster rate of declaration as compared to that of Uttar Pradesh during 2005-06 to 2019-20.

In case of Pregnant women who are anaemic and between ages 15-49 years, Uttarakhand has better position as compared to that of Uttar Pradesh in the year 2005-06 (factsheet 3) but in factsheet 5, Uttar Pradesh shows a better position as compared to Uttarakhand. Both States are showing decreasing nature in terms of Pregnant women who are anaemic and between ages 15-49 years.

While in the case of all women who are anaemic and between ages 15-49 years, Uttar Pradesh has better position than that of Uttarakhand as per factsheet 3 but in factsheet 5, Uttarakhand is in a better position. On the other hand, Uttarakhand has declined from 54.7% to 42.6% of all women who are anaemic and between ages 15-49 years but Uttar Pradesh shows increment in this regard.

Table 6: Women's Empowerment and Gender Based Violence (age 15-49 years)

Currently married women who usually participate in household decisions (%)		
States	NFHS 3 (2005-06)	NFHS 5 (2019-20)
Uttar Pradesh	75.9	87.6
Uttarakhand	71.5	91

Women who worked in the last 12 months who were paid in cash (%)		
Uttar Pradesh	16	15.5
Uttarakhand	15.6	21.6
Ever-married women who have ever experienced spousal violence (%)		
Uttar Pradesh	42.3	34.8
Uttarakhand	27.8	15.1
Ever-married women who have experienced violence during any pregnancy (%)		
Uttar Pradesh	-	3.7
Uttarakhand	-	2.1
Women owning a house and/or land (alone or jointly with others) (%)		
Uttar Pradesh	-	51.9
Uttarakhand	-	24.6
Women having a savings bank account that they themselves use (%)		
Uttar Pradesh	13.2	75.4
Uttarakhand	20.1	80.2
Women having a mobile phone that they themselves use (%)		
Uttar Pradesh	-	46.5
Uttarakhand	-	60.9
Women aged 15-24 years who utilise hygienic methods of protection during their menstrual cycle (%)		
Uttar Pradesh	-	72.6
Uttarakhand	-	91.2

Data Source: National Family Health Survey 3 & 5 data (Compiled data)

Table 6 reveals women's empowerment and gender-based violence age 15 to 49 years of Uttar Pradesh and Uttarakhand during the study period. Uttar Pradesh has a better position in terms of currently married women who generally participate in household decisions according to factsheet 3 but according to the factsheet 5, Uttarakhand has a better position in this regard. Both states are showing an increasing rate of participation in household decisions during the study. However, when compared to Uttar Pradesh, Uttarakhand is increasing at a faster rate in this regard; that is, throughout the study period, Uttarakhand improved from 71.5% to 91%, whereas Uttar Pradesh improved at a slower rate, going from 75.9% to 87.6%.

In the case of women who were paid during working, Uttar Pradesh has a better position in factsheet 3(2005-06) but Uttarakhand has improved and is in a better position as compared to that of Uttar Pradesh in factsheet 5 (2019-20). According to year 2019-20 (factsheet 5), Uttar Pradesh experienced a fall in the women's percentage who were received payment for their work, whereas Uttarakhand experienced an increase, going from 15.6% to 21.6%.

In the case of ever married women who faced spousal violence, Uttar Pradesh is showing higher gender-based violence as compared to that of Uttarakhand during the study period. During 2005-06 to 2019-20, Uttarakhand shows higher rate of declination than that of Uttar Pradesh in this regard.

In the case of ever married women who have faced violence during any pregnancy, Uttar Pradesh has showing higher rate of violence with pregnant women as compared to that of Uttarakhand in this regard in factsheet 5. In factsheet 5, Uttar Pradesh is positioned higher than Uttarakhand in terms of the women's percentage who own a home and/or land.

In the case of women's empowerment, Uttarakhand is in a better position regarding women who have a savings bank account in factsheet 3 but in factsheet 5, Uttar Pradesh is in a better position as compared to that of Uttarakhand. During the year 2005-06 to 2019-20, Uttar Pradesh is showing a higher rate of increment than that of Uttarakhand in this regard i.e. Uttar Pradesh's women having a saving bank account from 13.2 % to 75.4% while on the other hand that of Uttarakhand's from 20.1% to 80.2%. In the same way for women's empowerment, Uttarakhand is in a better position than that of Uttar Pradesh regarding women who have a mobile phone that they themselves use in factsheet 5. In the case of women empowerment, Uttarakhand is in better position than that of Uttar Pradesh in terms of women of age group 15-24 years who utilise hygienic methods of protection during their menstrual cycle in factsheet 5.

Conclusion

The study concludes that the women's health status in terms of above indicators of Uttar Pradesh is not good as compare to that of Uttarakhand, so Uttar Pradesh requires a multi-faceted approach for improvement in health services and human resources. For this, some strategies should be included such as expand healthcare infrastructure, promote awareness of women's health issues and rights through education campaigns targeting women, empower women economically and socially enabling them to make informed decisions regarding their health and well-being, improve the quality of healthcare services including training, ensuring access to essential medicines and equipment, strengthen policies and governance frameworks to prioritise women's health, allocate resources effectively, and monitor progress towards achieving health targets, foster partnerships between government, non-governmental organisations, healthcare providers and other stakeholders to coordinate efforts and maximise impact in improving women's health outcomes. The state needs to implement these strategies requires sustained commitment, collaboration, resources from government, private sector and civil society to address the complex socio-economic and cultural factors influencing women's health in Uttar Pradesh.

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