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Social Determinants of Women's Health in Gujarat: Evidence from NFHS-5

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Abstract

Women's health outcomes are shaped not only by biological factors but also by a range of social, economic, and cultural determinants. In India, despite improvements in healthcare coverage, persistent inequalities continue to influence women's health status and access to services. This study examines the social determinants of women's health in Gujarat using data from the National Family Health Survey-5 (NFHS-5, 2019–21). Based on the social determinants of health framework, the paper analyses how education, economic status, caste and tribal identity, place of residence, and women's decision-making power shape key health outcomes such as maternal healthcare utilisation, nutritional status, and access to health services. The study adopts a descriptive and analytical approach based on secondary data for women aged 15–49 years in Gujarat. Findings indicate that while Gujarat performs better than the national average on several women's health indicators, substantial disparities persist across social groups and districts. Tribal women, women with low educational attainment, and those residing in rural and economically disadvantaged households continue to experience poorer health outcomes and lower utilisation of health services. The study argues that improving women's health in Gujarat requires policy interventions that extend beyond healthcare delivery to address underlying social and structural determinants. The paper concludes by highlighting the need for equity-oriented and gender-responsive health policies informed by social work perspectives.

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1. Introduction

Women's health is increasingly recognised as a critical dimension of human development and social justice. Health outcomes among women are shaped not only by biological factors but also by the social, economic, and cultural environments in which they live. The social determinants of health framework highlights that conditions related to education, income, social position, and gender norms strongly influence exposure to health risks, access to healthcare, and the capacity to make informed health-related decisions¹.

In the Indian context, women's health continues to be shaped by structural inequalities rooted in gender, caste, class, and place of residence. Although India has expanded healthcare infrastructure and maternal health programmes over the past two decades, significant disparities persist in women's health outcomes. Evidence from national surveys shows that rural women, women from Scheduled Caste and Scheduled Tribe communities, and those with low levels of education face greater barriers to healthcare access and experience poorer nutritional and reproductive health outcomes². These patterns

underscore the importance of examining women's health beyond clinical indicators and within a broader social framework.

Gujarat provides an important setting for analysing the social determinants of women's health. As one of India's economically advanced states, Gujarat has experienced rapid industrialisation, urban growth, and expansion of public and private healthcare facilities. At the same time, the state is characterised by pronounced socio-economic diversity. According to NFHS-5, approximately 57 per cent of Gujarat's population resides in rural areas, and about 16 per cent belongs to Scheduled Tribes³. These demographic characteristics highlight the coexistence of economic progress and social disadvantage within the state.

The National Family Health Survey-5 (2019–21) offers comprehensive and recent data on women's health, nutrition, and healthcare utilisation at the state and district levels. NFHS-5 enables systematic examination of disparities across social groups and regions, making it a valuable source for analysing the social determinants of women's health in

Gujarat. Using NFHS-5 data, this paper examines how education, economic status, caste and tribal identity, place of residence, and women's autonomy influence key health outcomes. By adopting a social determinants perspective, the study seeks to contribute to evidence-based policy discussions aimed at promoting equitable and gender-responsive health interventions in Gujarat.

2. Conceptual Framework: Social Determinants of Women's Health

The social determinants of health framework, articulated by the World Health Organization, emphasises that health outcomes are shaped by the conditions in which people are born, grow, live, work, and age⁴. These conditions are influenced by the distribution of power, resources, and opportunities within society. For women, social determinants are further mediated by gender norms and roles that affect access to education, employment, nutrition, and healthcare.

Education is a foundational determinant of women's health. Educated women are more likely to access healthcare services, adopt preventive health practices, and exercise autonomy in health-related decision-making⁵. Education also enhances health awareness and communication with healthcare providers, contributing to improved maternal and reproductive health outcomes. Conversely, low levels of education are associated with delayed healthcare seeking, poor nutrition, and limited utilisation of health services.

Economic status plays a critical role in shaping women's health. Poverty restricts access to nutritious food, safe housing, and quality healthcare, increasing vulnerability to illness and undernutrition. Women from economically disadvantaged households often face financial barriers to healthcare, even when public services are available. Economic dependency further limits women's ability to seek care independently.

Caste and tribal identity remain significant determinants of health in India. Scheduled Caste and Scheduled Tribe women frequently experience social exclusion, geographic isolation, and limited access to public services, including healthcare⁶. These disadvantages are compounded by poverty and low educational attainment, resulting in poorer health outcomes.

Place of residence also influences women's health. Rural women face challenges related to distance to health facilities, transport constraints, and shortages of skilled healthcare providers. Women's decision-making power and autonomy are equally important determinants. Autonomy affects whether women can seek healthcare, access family planning services, and make decisions regarding nutrition and child health. Gender norms that restrict mobility and participation in decision-making negatively affect women's health outcomes. This study applies the social determinants framework to analyse women's health in Gujarat, recognising the interlinked nature of these factors.

3. Review of Literature

Global research consistently demonstrates that women's health outcomes are closely linked to social and economic conditions. Studies show that improvements in education, income, and gender equality contribute significantly to better maternal and reproductive health outcomes⁷. The World Health Organization has emphasised that a substantial proportion of preventable maternal and nutritional health problems are rooted in social disadvantage rather than limitations of medical technology or services⁴. In India, extensive literature documents persistent inequalities in

women's health across socio-economic groups. Balarajan *et al.* highlight that caste, education, and wealth continue to shape access to healthcare and health outcomes, even in states with relatively strong health systems². Women from poorer households and marginalised communities are less likely to receive adequate maternal healthcare and are more vulnerable to undernutrition and anaemia.

Studies using National Family Health Survey data provide robust evidence on trends and disparities in women's health. NFHS-based analyses demonstrate improvements in maternal healthcare utilisation, institutional delivery, and antenatal care coverage over time. However, these improvements are unevenly distributed across social groups and regions⁸. Research based on NFHS-4 and NFHS-5 data indicates that while service coverage has expanded, gaps remain in nutrition, anaemia reduction, and access to quality care.

Gujarat-specific studies suggest that the state performs better than the national average on several women's health indicators, including maternal healthcare utilisation. Nevertheless, substantial inter-district and social group disparities persist. Tribal women in districts such as The Dangs and Narmada experience poorer health outcomes and lower access to healthcare services³. These disparities are closely linked to structural disadvantages, including geographic isolation and limited health infrastructure.

Existing literature also points to concerns regarding the quality of care and rising medicalisation of childbirth. Studies note increasing caesarean section rates, particularly in private health facilities, raising questions about equity, cost, and clinical appropriateness¹². Furthermore, research highlights the importance of women's autonomy and decision-making power in influencing healthcare utilisation¹³.

Despite a substantial body of research, gaps remain. Many studies focus on single indicators without examining the interaction of multiple social determinants. There is limited integration of education, caste, residence, and autonomy within a single analytical framework. This study addresses these gaps by adopting a comprehensive social determinants approach using NFHS-5 data.

4. Data Source and Methodology

The study is based on secondary data from the National Family Health Survey-5 (NFHS-5), conducted during 2019–21. NFHS-5 is a nationally representative household survey that collects detailed information on population, health, and nutrition indicators. In Gujarat, the survey covered 29,368 households and 33,343 women aged 15–49 years, ensuring representativeness at both state and district levels³(pp.1–2).

The study population comprises women aged 15–49 years. Key health indicators analysed include maternal healthcare utilisation, nutritional status, and access to health services. Social determinants examined include educational attainment, household wealth status, caste and tribal identity, place of residence, and women's participation in household decision-making.

The analysis adopts a descriptive and comparative approach. Variations in women's health outcomes are examined across different social groups to identify patterns of inequality. No causal inference is attempted; instead, the focus is on understanding disparities and associations between social determinants and health outcomes.

As NFHS-5 data are anonymised and publicly available, the study does not require ethical clearance. Standard NFHS definitions and indicators are used to ensure consistency and comparability with existing research.

5. Socio-Demographic Profile of Women in Gujarat (350 words)

The socio-demographic profile of women in Gujarat, as reflected in NFHS-5, provides important context for understanding disparities in health outcomes. Women aged 15–49 years constitute a diverse population in terms of residence, education, caste composition, and economic status. According to NFHS-5, approximately 57 per cent of women in Gujarat reside in rural areas, while the remaining population lives in urban settings³. Rural residence continues to be associated with limited access to health infrastructure, transport constraints, and lower exposure to health information. Educational attainment among women shows wide variation. While a significant proportion of urban women have completed secondary or higher education, levels of schooling remain considerably lower among rural and tribal women. NFHS-5 data indicate that women with no formal education are disproportionately concentrated in rural and Scheduled Tribe populations³. Education plays a critical role in shaping health awareness, utilisation of healthcare services, and nutritional practices.

Caste and tribal composition further influence women's social position. Scheduled Tribe women constitute around 16 per cent of Gujarat's female population, with higher concentrations in districts such as The Dangs, Narmada, and parts of eastern Gujarat³. These districts are characterised by geographic remoteness and relatively weaker health infrastructure, contributing to persistent health disadvantages among tribal women.

Economic status, measured through household wealth quintiles, reveals pronounced inequality. Women from poorer households are more likely to experience nutritional deficiencies and face barriers to healthcare access. Economic vulnerability is often compounded by informal employment and financial dependence, limiting women's ability to seek timely care.

Employment patterns among women also reflect social inequality. A large proportion of women are engaged in informal, seasonal, or unpaid work, particularly in rural and tribal areas. Such employment offers limited economic security and social protection, indirectly affecting health and nutrition. Overall, the socio-demographic profile highlights the structural conditions within which women's health outcomes in Gujarat are shaped.

6. Social Determinants and Women's Health Outcomes

6.1 Education and Women's Health

Education emerges as one of the most influential determinants of women's health in Gujarat. NFHS-5 data show that women with higher levels of education are significantly more likely to utilise maternal healthcare services, including antenatal care, institutional delivery, and postnatal care³ (pp.14–17). Educated women also demonstrate better nutritional outcomes and higher awareness of health-related practices.

Women with secondary or higher education are more likely to register pregnancies early, complete the recommended number of antenatal visits, and seek skilled care during childbirth. Education enhances women's ability to understand health information, communicate with healthcare providers, and navigate health systems. In contrast, women with no formal education often experience delays in seeking care and lower utilisation of preventive services.

Educational disadvantage is closely linked with other forms of social exclusion, including poverty and rural residence. Among tribal women, low levels of schooling further restrict

access to health information and services. These patterns underscore the importance of education as a foundational determinant that shapes women's health outcomes across the life course.

6.2 Economic Status and Health Inequality

Household economic status is a critical determinant of women's health in Gujarat. NFHS-5 data reveal clear gradients in health outcomes across wealth quintiles, with women from richer households exhibiting better access to healthcare services and improved nutritional status³(pp.12–13). Economic resources influence the ability to afford nutritious food, transport to health facilities, and out-of-pocket healthcare costs.

Women from poorer households are more likely to experience undernutrition and anaemia and are less likely to complete recommended maternal healthcare visits. Financial constraints often lead to delayed healthcare seeking or reliance on suboptimal care. Although public health services aim to reduce financial barriers, indirect costs such as transport and wage loss continue to affect economically disadvantaged women. Economic dependency further limits women's decision-making power regarding healthcare. Women without independent income may require permission or financial support from family members to seek care, reducing timely access to services. These findings highlight the need to address economic vulnerability as part of strategies to improve women's health.

6.3 Caste, Tribe, and Social Exclusion

Caste and tribal identity remain powerful determinants of women's health outcomes in Gujarat. NFHS-5 data indicate that Scheduled Tribe women experience poorer health outcomes and lower utilisation of healthcare services compared to women from other social groups³(pp.16–17). Structural disadvantages, including geographic isolation, poverty, and limited access to public services, contribute to these disparities.

Tribal women are more likely to reside in remote areas with inadequate health infrastructure and limited availability of skilled healthcare providers. Cultural barriers and historical marginalisation further restrict access to services. Although targeted government programmes exist, gaps in implementation and outreach persist.

Scheduled Caste women also face social exclusion that affects health outcomes, though patterns vary across districts. The intersection of caste, poverty, and low education intensifies health vulnerability among marginalised women. Addressing caste- and tribe-based inequities is therefore essential for improving women's health outcomes in Gujarat.

6.4 Place of Residence and Regional Disparities

Place of residence significantly shapes women's health outcomes. Rural women in Gujarat face greater barriers to healthcare access compared to urban women, including distance to facilities, transport limitations, and shortages of skilled health personnel³. Urban women benefit from better availability of public and private healthcare services.

District-level variation further highlights regional disparities. Tribal-dominated districts such as The Dangs and Narmada lag behind more urbanised districts like Ahmedabad and Surat on several women's health indicators³(pp.15–17). These disparities reflect differences in infrastructure, administrative capacity, and socio-economic conditions, underscoring the need for district-specific interventions.

6.5 Women's Autonomy and Decision-Making Power

Women's autonomy plays a crucial role in shaping health outcomes. NFHS-5 indicates that women who participate in household decision-making are more likely to utilise healthcare services and adopt healthy practices³(p.18). Limited autonomy, often linked to patriarchal norms, restricts women's ability to seek care independently. Strengthening women's decision-making power is therefore central to improving health outcomes.

7. Discussion

The analysis reveals that women's health outcomes in Gujarat are shaped by the interaction of multiple social determinants. While overall improvements in healthcare coverage are evident, persistent inequalities by education, economic status, caste, residence, and autonomy continue to influence health outcomes. These findings align with national and global evidence emphasising that health inequalities are rooted in social structures rather than healthcare access alone^{1,2}.

Education emerges as a central determinant, influencing health awareness, service utilisation, and nutritional practices. Economic vulnerability compounds health risks by limiting access to nutritious food and healthcare. Caste and tribal identity intersect with geography and poverty to produce entrenched disadvantages among marginalised women. Rural residence further amplifies barriers related to infrastructure and service availability.

The findings also highlight the importance of women's autonomy in shaping healthcare utilisation. Even where services are available, limited decision-making power restricts women's ability to seek timely care. Together, these patterns underscore the need for integrated approaches that address multiple determinants simultaneously.

8. Policy Implications and Social Work Perspective

Improving women's health in Gujarat requires policy interventions that extend beyond healthcare delivery to address underlying social determinants. Education of girls and women must remain a priority, as it has long-term benefits for health, nutrition, and autonomy. Economic empowerment initiatives, including livelihood support and social protection, can reduce financial barriers to healthcare.

Targeted interventions are needed for Scheduled Tribe and rural populations, focusing on improving health infrastructure, transport, and outreach services in underserved districts. District-level planning and monitoring can help tailor interventions to local contexts. From a social work perspective, addressing women's health requires engagement at the community level. Social workers can play a critical role in health education, counselling, and advocacy, particularly among marginalised groups. Strengthening women's autonomy through awareness programmes and community mobilisation can enhance healthcare utilisation. Integrating social work perspectives into health programmes can improve equity and responsiveness.

Conclusion

This study examined the social determinants of women's health in Gujarat using NFHS-5 data. The findings demonstrate that while Gujarat has made progress in improving women's health indicators, substantial inequalities persist across social groups and regions. Education, economic status, caste and tribal identity, place of residence, and women's autonomy significantly shape health outcomes.

Tribal women, women with low education, and those from

economically disadvantaged households continue to experience poorer health outcomes and lower access to services. These disparities highlight the limitations of healthcare-focused approaches that do not address underlying social and structural factors.

Improving women's health in Gujarat, therefore, requires integrated and equity-oriented strategies that combine healthcare services with interventions targeting education, economic empowerment, and gender norms. Addressing social determinants is essential for achieving sustainable improvements in women's health and advancing gender equity in the state.

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