

**AN ANALYSIS OF GENDER DISPARITIES IN ACCESS TO HEALTH
CARE IN KOLKATA ACROSS DIFFERENT LEVELS OF
DEVELOPMENT**

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Subject: Geography

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ABSTRACT

This study examines the gender disparities in health care access in Kolkata, India, with a focus on how these disparities vary across high, medium, and low development zones within the city. Using a cross-sectional, mixed-methods approach, data were collected through structured surveys, interviews with health care providers, and secondary health records. The findings reveal that women, particularly in low development areas, face significant barriers to accessing health care, including financial constraints, lack of awareness, cultural restrictions, and inadequate infrastructure. Statistical analysis confirms that income, education, and area development level significantly influence women's access to health services. The study underscores the need for targeted interventions, including improved infrastructure, health education, and gender-sensitive policies, to promote equitable access to health care in urban settings like Kolkata.

Keywords: Gender Disparities, Health Care Access, Socioeconomic Development, Gender Inequality.

1. INTRODUCTION

Access to health care is universally acknowledged as a fundamental human right and a key determinant of social well-being and economic development. Equitable access to health services ensures better health outcomes, enhances productivity, and promotes social justice. However, in many parts of the world, including India, access to health care is neither universal nor equal. Among the most persistent and troubling forms of inequality in this context is gender-based disparity, where women often face more barriers to accessing health care compared to men. These disparities are often multifactorial, influenced by socio-economic

status, cultural norms, education, income, and the availability and quality of health infrastructure.[1]

In India, gender inequality in health care is a long-standing concern, with numerous studies documenting how women often experience limited access to medical services, delayed treatment, and poorer health outcomes.[2] This issue becomes even more pronounced in urban areas with stark intra-city disparities, where some regions enjoy well-developed health infrastructure while others suffer from neglect. Kolkata, a major metropolitan city in India, presents a unique case for studying such disparities due to its diverse population and varying levels of urban development. While certain areas in Kolkata are highly developed with easy access to health services, others remain underdeveloped with limited facilities and support systems.[3]

This research focuses on analyzing gender disparities in access to health care across different levels of development in Kolkata, namely high, medium, and low development zones. It seeks to explore how socioeconomic development influences gender-based differences in health care access, and to identify the specific barriers faced by women in accessing essential health services. Factors such as financial constraints, lack of awareness, cultural restrictions, and physical distance to health care facilities are examined to understand their role in creating and perpetuating these disparities.[4]

Furthermore, the study draws attention to how urban planning and policy interventions often fail to consider gender-sensitive approaches in health care delivery. Despite significant advancements in health care infrastructure in certain parts of the city, the benefits are not evenly distributed, and vulnerable populations, especially women in low-income and underdeveloped areas, continue to struggle for basic health care access. This study thus aims to highlight the intersectionality of gender and urban development and contribute to policy discussions focused on promoting inclusive and equitable health care systems.[5]

In light of these concerns, the research not only seeks to document and analyze existing disparities but also aims to recommend actionable strategies that can help bridge the gender gap in health care access. These include targeted health interventions, community-based awareness programs, capacity building among health care providers, and improved infrastructural development in low-income areas. By doing so, this study aspires to support ongoing efforts toward achieving health equity in urban India, with Kolkata as a representative case study.

1.1.Objectives

- To assess the extent of gender disparities in access to health care in Kolkata.
- To analyze the influence of development levels on gender-based health care access.
- To identify socio-economic and cultural factors contributing to gender discrimination in health care.
- To provide recommendations for improving equitable access to health care services.

2. LITERATURE REVIEW

Das et al., (2018) When considering the unique sociocultural context of Indian slums, it is important to look at how gender influences the health-seeking activities of men and women. The research took place in the peri-urban slum of Sahid Smriti Colony in Kolkata, India. The study's participants were selected via the referral technique because residents of the study area were reluctant to discuss their health issues and health-seeking behaviours. A total of 66 people were included in the final sample, with 32 women and 34 males. To collect data, researchers employed a semi-structured questionnaire to administer in-depth interviews to individuals in person. Cultural competency of care, gender-induced affordability, ease of communication, avoiding social stigma and labelling, bearing the weight of cultural expectations, and the cognitive and geographic distance of formal health care are six categories of factors that explain why women prefer informal healers, according to the data analysis. Accessibility, treatment quality, and expected therapeutic results were the three main factors that males cited as explaining why they favoured institutional care.[6]

Patra & Bandyopadhyay (2020) examined health-seeking behaviour as a measure of health access conditions, factors influencing them, and equity between Kolkata's slum and non-slum populations. Despite their struggles with high indirect costs and access hurdles, public hospitals were found to be preferred by those with less education and insurance and to offer cheaper services. Individuals with richer socioeconomic backgrounds and larger opportunity costs were shown to take therapy more seriously. However, there was no discernible difference in the health-seeking conduct of those living in slums and those who did not. It is advised to have a more robust public health system with lower barriers to entry.[7]

Karmakar (2024) investigates the pervasive disparities brought about by religious beliefs, customs, and sociocultural norms that influence how residents of Kolkata's slums seek medical attention, allocate money, and get medical care. This study examined the relationships among religion, poverty, and healthcare access using a mixed-methods approach. It seeks to provide

light on the complex relationships that underlie health inequities. In order to identify particular strategies to alleviate these gaps, this study aims to investigate how religious beliefs affect healthcare utilisation and attitudes. Developing inclusive policies and initiatives that support equitable healthcare delivery and address health disparities based on religious beliefs in Kolkata's slum areas requires a thorough understanding of these complex interactions.[8]

Islam & Siddiqui (2020) analyse regional patterns between 2001 and 2011 to determine the extent of gender inequality in the Muslim literacy rate compared to the overall population; compare the literacy rates of Muslim and non-Muslim women in West Bengal; and identify the factors that lead to the low rate of Muslim female literacy in West Bengal. Sources for the data utilised in this study include the sex and religion databases of the Census of India (2001 and 2011) and Indiastat. Geographical organisation is shown using the GIS tool ArcMap, while the coefficient of equality depicts the degree of gender inequality. According to the results, there has been a considerable decline in gender gap in the Muslim literacy rate across most districts in this state. The decline is most pronounced in districts where Muslims make up the majority. In 2011, the literacy rate of Muslim females was higher than that of non-Muslim females in the majority of districts. Legislators should prioritise achieving gender equality in literacy for the sake of future generations, even though gender inequality is decreasing in West Bengal.[9]

Hasan & Ghosal (2025) Disparities in access to public healthcare in the West Bengal area should be evaluated using Penchanskey and Thomas's Theory of Access. In pursuit of this objective, it developed a public healthcare access index (PHAI) based on principal component analysis. Further analysis was conducted using multiple linear regression to ascertain the relative importance of the employed index's availability, accessibility, accommodation, cost, and acceptability in guaranteeing health equity. In light of the two-way strong relationship between healthcare access and health outcomes, a few selected health outcome indicators were examined to determine the relationship between PHAI and these variables: life expectancy, neonatal mortality, under-five mortality, and maternal mortality. Karl Pearson's correlation technique was employed for this purpose. In addition to insufficient supply and demand, the study found that consumers' financial capacity, their desire to pay, and the effectiveness of the healthcare system all play a role in preventing health service disparities. The disparity in healthcare access is worsened in most districts in the central and eastern regions because of their poor infrastructure, lack of economic capability, shortage of trained female workers, and distance from healthcare facilities. Additionally, correlation estimations confirmed a strong

negative association between PHAI and mortality indices, indicating that districts with more health resource access and utilisation tend to have healthier populations. Along with supply and demand, governments and policymakers may prioritise cost, acceptability, and accommodation in their efforts to improve the healthcare system and achieve universal coverage.[10]

3. RESEARCH METHODOLOGY

Gender gaps in health care access across Kolkata's socioeconomic strata are identified and analysed using a cross-sectional research design. In order to get a full picture of the problem, researchers have used a mixed-methods strategy that includes quantitative and qualitative data.

3.1.Study Area

The study was conducted in various zones of Kolkata, categorized into high, medium, and low development areas based on indicators such as income levels, infrastructure quality, education status, and availability of public services. The target population included adult residents (aged 18 and above) and health care providers in these areas.

3.2.Sampling Technique

To guarantee that each developmental zone was represented, a stratified random selection procedure was used. Within each stratum (development level), participants were randomly selected:

- High development zone – 100 residents
- Medium development zone – 100 residents
- Low development zone – 100 residents

Additionally, 15 health care providers (5 from each zone) were purposively selected for interviews.

3.3.Data Collection Methods

3.3.1. Quantitative Data

To gather information about the inhabitants' socio-demographic characteristics, health outcomes, access to care, frequency of usage, perceptions of prejudice, and more, a structured survey questionnaire was sent out to them.

3.3.2. Qualitative Data

In-depth interviews were conducted with health care providers to gather insights on institutional practices, gender bias, and barriers to health care access.

A review of existing health records (e.g., patient intake data, treatment records) was also undertaken, subject to data availability and consent from institutions.

3.4.Tools Used

3.4.1. Quantitative Analysis

The results of the surveys were input into statistical programs like SPSS or R. The data was summarised using descriptive statistics, which include mean, frequency, and percentage. To investigate potential causes of health care access inequities, researchers used inferential statistics like logistic regression analysis and chi-square tests to look for correlations between gender and health care access.

3.4.2. Qualitative Analysis

The interview transcripts were analyzed using thematic content analysis. Recurring themes related to gender discrimination, provider attitudes, and systemic barriers were identified and categorized.

3.5.Ethical Considerations

The institutional review board gave their stamp of approval. All participants were asked to provide their informed permission. The confidentiality and anonymity of the data were upheld at all times during the research.

4. DATA ANALYSIS

Table 1: Access to Health Care Facilities by Gender and Development Zone

Development Zone	Male Access (%)	Female Access (%)	Chi- square Value	p-value
High Development	88%	80%	3.21	0.073
Medium Development	76%	62%	6.45	0.011
Low Development	68%	48%	9.8	0.002

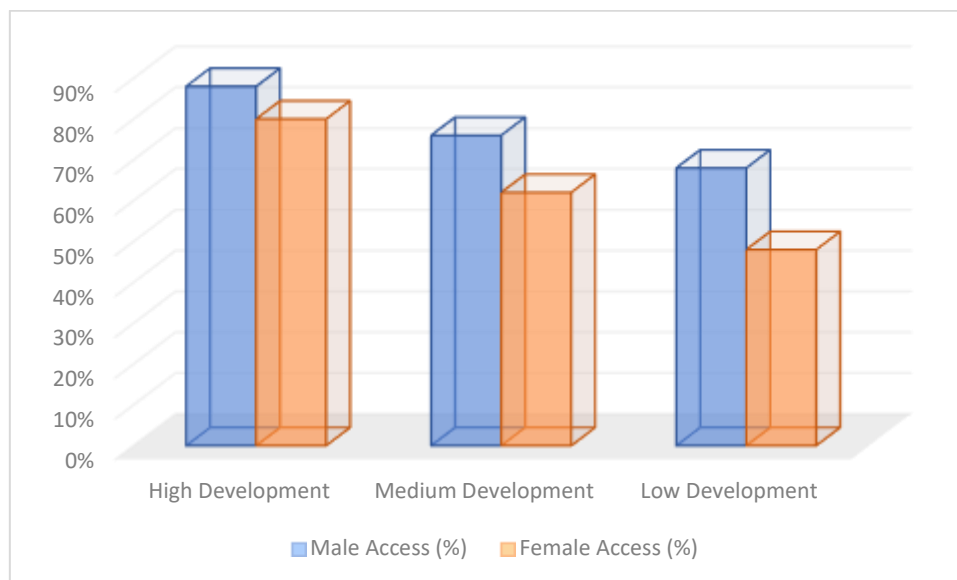


Figure 1: Access to Health Care Facilities by Gender

Table 1 shows that there is a continuous gender gap in health care access in Kolkata across all socioeconomic strata. In high development zones, there is a minor 8% gender disparity in access to health care, with 88% of males and 80% of females having quite high levels of access. While there is a discrepancy, it might be attributable to random variation in this zone, since the chi-square value of 3.21 and p-value of 0.073 show that this difference is not statistically significant at the customary 5% level.

A disparity of 14% exists between the sexes in medium development zones, where 76% of men and 62% of women report having access to health care. This discrepancy is statistically significant (chi-square = 6.45, $p = 0.011$), suggesting that there is a substantial gender gap in these areas of access to health care.

There is a staggering 20% gender discrepancy in health care access in low development zones, where 48% of women and 68% of men have access. We can validate that this difference is extremely statistically significant with a chi-square value of 9.8 and a p-value of 0.002. It appears that women have additional challenges when trying to access health care in less developed areas due to factors like poverty, inadequate infrastructure, and socio-cultural restraints.

Table 2: Reasons for Limited Access to Health Care Reported by Female Respondents

Reason	High Dev. (%)	Medium Dev. (%)	Low Dev. (%)

Financial Constraints	25%	38%	52%
Lack of Awareness	18%	30%	46%
Social/Cultural Restrictions	10%	20%	35%
Distance to Health Facility	12%	22%	40%

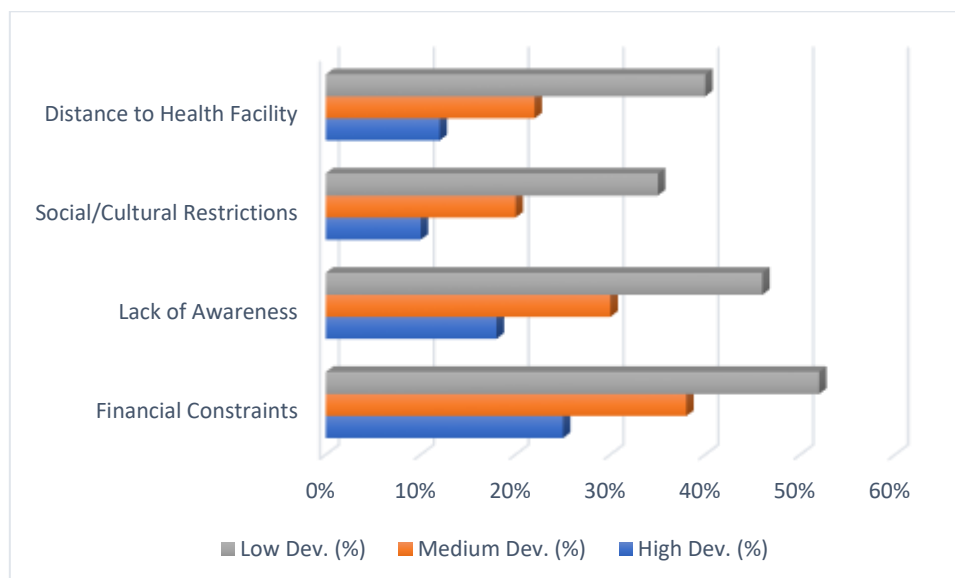


Figure 2: Reasons for Limited Access to Health Care

The data in Table 2 reveals that financial constraints are the most commonly reported barrier to health care access among women, increasing from 25% in high development zones to 52% in low development zones. Similarly, lack of awareness and social/cultural restrictions show a marked rise in lower development areas, affecting 46% and 35% of women respectively. Distance to health facilities also becomes a significant challenge in low development zones (40%) compared to only 12% in high development areas. Overall, these findings indicate that economic hardship, inadequate health awareness, cultural barriers, and poor infrastructure are more severe in less developed areas, significantly limiting women's access to health care.

Table 3: Logistic Regression Analysis – Predictors of Health Care Access (Female Respondents)

Predictor Variable	Odds Ratio (OR)	95% Confidence Interval	p-value
Income Level	1.8	1.30 – 2.50	0.001
Education Level	1.5	1.10 – 2.05	0.007
Development Zone (Low)	0.6	0.45 – 0.82	0.002
Cultural Restrictions	0.75	0.55 – 1.02	0.068

The logistic regression results show that higher income (OR = 1.8, $p = 0.001$) and higher education levels (OR = 1.5, $p = 0.007$) significantly increase the likelihood of women accessing health care. In contrast, living in a low development zone significantly reduces access (OR = 0.6, $p = 0.002$), indicating a strong negative impact of poor infrastructure and services. Cultural restrictions also reduce access (OR = 0.75), though this finding is marginally significant ($p = 0.068$). Overall, the data suggest that socioeconomic status and area development are key determinants of women's health care access, while cultural barriers also play a notable role.

5. CONCLUSION

This study highlights significant gender disparities in access to health care in Kolkata, particularly influenced by the level of socioeconomic development across different areas. Women, especially those residing in low development zones, face considerable challenges in accessing health care services compared to men. These challenges are rooted in a combination of financial limitations, lack of awareness, cultural constraints, and infrastructural deficits. The disparities are most acute in underdeveloped areas, where health care resources are scarce and societal norms often restrict women's mobility and decision-making autonomy regarding their health.

The analysis also reveals that income and education levels are critical factors that positively influence women's ability to seek and receive health care. Conversely, living in a low development zone significantly reduces the likelihood of access, reinforcing the role of environmental and infrastructural factors in creating inequality. Although cultural restrictions did not reach strong statistical significance, they still appear to negatively impact women's access to health care, indicating a need for further exploration of social norms and gender roles. In conclusion, addressing gender-based health disparities in Kolkata requires a multi-pronged approach, including targeted policy interventions to improve health infrastructure in underdeveloped areas, financial support and health education programs for women, and efforts to challenge and transform discriminatory cultural practices. Ensuring equitable health care access for all, regardless of gender or locality, is essential for promoting overall social development and achieving inclusive public health outcomes.

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