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# EXAMINE SOCIOECONOMIC INFLUENCES ON HEALTH OUTCOMES IN RAJASTHAN

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## ABSTRACT

This study examines the complex interplay between socioeconomic factors and health outcomes in Rajasthan, India, a state marked by stark disparities in development, education, income, and access to healthcare. Using data from national health surveys, government reports, and peer-reviewed studies, the research highlights how urbanization, income levels, female literacy, caste, sanitation, and fuel access collectively shape the health landscape. The findings reveal a dual burden: while wealthier and more urbanized districts exhibit higher rates of non-communicable diseases like obesity and hypertension, poorer and rural areas continue to struggle with maternal health complications, respiratory illnesses due to biomass fuel use, and limited healthcare access—particularly among Dalit communities. Improved sanitation and rising incomes are positively associated with life expectancy, whereas social exclusion, gender disparities, and low educational attainment exacerbate vulnerability to disease and limit service utilization. The study underscores the urgent need for targeted, inclusive health policies that address structural inequities, promote education, expand clean energy access, and ensure the effective implementation of health rights legislation. These insights contribute to understanding how social determinants must be systematically addressed to achieve equitable health outcomes in Rajasthan.



## I. INTRODUCTION

Health is widely acknowledged as a fundamental human right and an essential component of well-being and development. In India, the pursuit of health equity continues to face formidable challenges due to deep-rooted socioeconomic disparities, particularly in states with large, diverse, and underserved populations. Rajasthan, the largest state in India by area and home to over 78 million people, provides a compelling case study in examining the role of socioeconomic influences on health outcomes. Characterized by stark regional disparities, varying levels of urbanization, wide educational gaps, and historically marginalized communities, Rajasthan encapsulates many of the social and economic complexities that shape public health in developing regions. Despite recent gains in healthcare access and state-sponsored insurance coverage, health indicators in Rajasthan remain uneven, with patterns of morbidity and mortality closely tied to the social determinants of health.

Socioeconomic determinants refer to the conditions in which people are born, grow, live, work, and age, shaped by the distribution of money, power, and resources. These factors include, but are not limited to, income, education, occupation, gender, caste, access to clean water and sanitation, housing, nutrition, and fuel sources. When these determinants are unfavorable, they can create barriers to accessing quality healthcare, increase vulnerability to diseases, and ultimately limit life expectancy and quality of life. In Rajasthan, such disparities are acutely visible. The state is marked by a mix of advanced urban centers like Jaipur and Jodhpur alongside deeply underserved rural and desert districts such as Barmer, Jaisalmer, and Banswara. These regions reflect contrasting realities of health and development, making Rajasthan an ideal setting for exploring the socioeconomic roots of health inequalities.

Several recent national and state-level health surveys, such as the National Family Health Survey (NFHS) and District Level Household and Facility Survey (DLHS), have revealed disturbing variations in key health indicators across Rajasthan's districts. For instance, while urban districts show a rising prevalence of non-communicable diseases (NCDs) such as hypertension and obesity—largely attributable to changing diets, sedentary lifestyles, and stress—rural and tribal regions continue to grapple with high maternal and infant mortality, widespread anemia, and infectious diseases. Moreover, the adoption of clean energy sources such as liquefied petroleum gas (LPG) is still limited in many rural households, where



women—often the primary cooks—suffer disproportionately from respiratory illnesses due to prolonged exposure to indoor air pollution from biomass fuels like wood, cow dung, and crop residues.

Education, particularly female literacy, emerges as a key determinant of health outcomes in Rajasthan. Districts with higher rates of female education consistently report better maternal and child health indicators, such as institutional deliveries, antenatal care utilization, and child immunization coverage. Conversely, early marriage, low educational attainment among women, and lack of reproductive autonomy continue to fuel adverse health outcomes, including high-risk pregnancies, low birth weight, and poor nutrition among children. Furthermore, education influences health-seeking behavior, awareness of hygiene and sanitation practices, and the ability to navigate healthcare systems—critical factors in disease prevention and timely intervention.

Caste and social identity play a deeply entrenched role in shaping health outcomes in Rajasthan. Scheduled Castes (SCs), Scheduled Tribes (STs), and other marginalized communities face systemic exclusion from healthcare services, often experiencing discrimination, disrespect, or neglect within both public and private healthcare settings. These social barriers compound economic disadvantages and geographical inaccessibility, further alienating already vulnerable populations. For example, while Rajasthan has made strides in expanding health insurance coverage through schemes like the Mukhyamantri Chiranjeevi Yojana and Ayushman Bharat, the actual utilization of these services remains lower among Dalit and tribal populations. This is not merely a function of financial access but also of social alienation, mistrust of institutions, and lack of culturally sensitive service delivery.

Income and occupational status also influence health outcomes significantly. Agriculture continues to be the primary occupation in rural Rajasthan, and many households depend on seasonal labor, animal husbandry, or small-scale trade. Income volatility, dependence on rainfall, and lack of social security expose these communities to health shocks they are poorly equipped to handle. Higher income levels generally correlate with better nutrition, housing, education, and access to healthcare. Moreover, income influences the ability to adopt preventive health behaviors, purchase medicines, access specialized care, and maintain health insurance coverage. At the same time, rapid urbanization and economic growth in cities like



Udaipur, Kota, and Bikaner have introduced a new set of health risks, including lifestyle-related diseases, mental health disorders, and pollution-related illnesses.

Access to clean water, improved sanitation, and hygienic living conditions is another critical determinant of health in Rajasthan. Despite progress under the Swachh Bharat Mission and Jal Jeevan Mission, many rural households continue to lack access to safe drinking water and toilet facilities. Open defecation, contaminated water sources, and poor hygiene practices are linked to the spread of diarrheal diseases, intestinal infections, and child stunting. These conditions disproportionately affect the poorest communities, particularly children under five, contributing to a cycle of poor health and poverty. Research has shown that investments in sanitation and hygiene have a significant positive impact on life expectancy, particularly in low-income districts.

Fuel use and energy access also have gendered implications for health in Rajasthan. Traditional cooking methods using wood, charcoal, and dung expose women to high levels of particulate matter, leading to chronic bronchitis, asthma, and other respiratory issues. Government programs such as the Pradhan Mantri Ujjwala Yojana (PMUY) have aimed to promote the adoption of LPG among poor households. However, despite initial success, many women revert to traditional fuels due to affordability concerns, irregular LPG supply, or cultural preferences. The health benefits of clean fuel access thus remain unrealized for a significant portion of the rural female population.

The policy environment in Rajasthan has shown promising developments in recent years. The Right to Health Care Act, passed in 2022, promises free healthcare services at all public health institutions in the state. This landmark legislation has the potential to improve health outcomes substantially, especially among marginalized groups. However, its implementation faces challenges such as underfunding, staffing shortages, and resistance from private healthcare providers. Similarly, community-based programs such as ASHA (Accredited Social Health Activist) workers, Janani Suraksha Yojana, and maternal–child mapping tools like the "yellow bindi" initiative in Jhalawar demonstrate how innovative, localized interventions can bridge the gap between socioeconomic disadvantage and healthcare access.



## II. URBANIZATION, LITERACY & HUMAN DEVELOPMENT

Urbanization, literacy, and human development are among the most influential social determinants shaping health outcomes across Rajasthan. These interlinked factors do not operate in isolation but together form a powerful framework that either enhances or restricts individuals' ability to lead healthy lives. Rajasthan, with its diverse geography, cultural heritage, and uneven economic development, exhibits sharp contrasts between urban and rural districts in terms of health indicators. Urbanization has brought about substantial changes in the socio-economic fabric of the state, contributing both positively and negatively to public health. On one hand, urban centers like Jaipur, Udaipur, Jodhpur, and Kota have witnessed improved access to healthcare infrastructure, education, and employment opportunities. On the other hand, rapid and unregulated urban growth has led to the emergence of informal settlements with inadequate sanitation, air pollution, overcrowding, and rising incidences of non-communicable diseases (NCDs) such as obesity, hypertension, and diabetes. The National Family Health Survey (NFHS-4 and NFHS-5) highlights that districts with higher urbanization levels also tend to show greater prevalence of these NCDs, especially among women. For instance, obesity among women correlates strongly with urbanization (correlation coefficient  $\sim 0.68$ ), female literacy ( $\sim 0.46$ ), and Human Development Index (HDI) ( $\sim 0.70$ ), indicating that urban lifestyles, while economically advantageous, often come at the cost of physical health due to sedentary routines, increased consumption of processed foods, and psychosocial stress.

Literacy, particularly female literacy, emerges as a transformative determinant in the public health landscape of Rajasthan. Education empowers individuals with the knowledge, awareness, and decision-making capabilities essential for making informed choices about nutrition, hygiene, contraception, maternal care, and immunization. In Rajasthan, female literacy rates vary dramatically across districts—from over 80% in urbanized zones like Jaipur and Ajmer to below 50% in tribal and desert districts such as Barmer, Dungarpur, and Jalore. These disparities are directly mirrored in the health outcomes of women and children. Districts with high female literacy exhibit higher rates of institutional deliveries, antenatal checkups, and child immunization coverage, while also reporting lower instances of maternal anemia, early marriage, and adolescent pregnancy. For example, women with at least



secondary education are more likely to use modern contraceptives, delay marriage beyond age 18, and seek early diagnosis of pregnancy complications. Education also has intergenerational health impacts: mothers with formal schooling tend to provide better nutrition and care for their children, leading to reductions in child stunting and underweight prevalence. Additionally, literate women are more likely to access health insurance schemes, utilize public health facilities, and participate in health-related community programs such as those facilitated by Accredited Social Health Activists (ASHAs). Thus, literacy not only equips individuals with the tools to improve their own health outcomes but also creates a culture of health consciousness within families and communities.

Human Development Index (HDI), a composite measure of income, education, and life expectancy, serves as a comprehensive reflection of a region's overall well-being. Rajasthan's HDI remains below the national average, with significant disparities between districts. Urbanized and better-educated districts like Jaipur, Kota, and Ajmer enjoy higher HDI scores and correspondingly improved health outcomes. These regions benefit from better access to clean water, sanitation, electricity, health facilities, and skilled medical personnel. In contrast, low-HDI districts—often tribal-dominated or located in the arid western belt—struggle with chronic poverty, infrastructural gaps, and low state capacity to deliver essential health services. Studies have shown a positive correlation between HDI and indicators such as life expectancy, immunization coverage, and nutritional status. For instance, district-level analyses reveal that a one-unit rise in HDI is associated with a substantial improvement in life expectancy, particularly among children under five. This association is driven by both direct effects—such as access to medical care—and indirect effects like improved education, employment, and gender equality. It is also important to note that higher HDI does not automatically translate into universal well-being; intra-district inequalities persist, especially in slum areas of urban centers where migrant populations often lack access to formal healthcare and social safety nets.

Urbanization also influences health outcomes through environmental pathways. Air and water pollution, a byproduct of unplanned urban expansion, poses serious public health risks. Vehicle emissions, construction dust, and industrial pollutants have significantly worsened air quality in cities like Jaipur, where respiratory diseases such as asthma and bronchitis have



become increasingly common. Urban heat islands, caused by extensive concrete surfaces and limited green cover, contribute to heat stress and dehydration, especially among the elderly and those with pre-existing health conditions. Moreover, the influx of populations into cities strains public health systems, leading to overcrowded hospitals, longer waiting times, and reduced quality of care. Informal settlements, which house a significant portion of the urban poor, often lack basic amenities such as toilets, waste disposal systems, and clean drinking water—conditions that facilitate the spread of communicable diseases like cholera, typhoid, and hepatitis A. These challenges highlight the paradox of urbanization: while cities promise better opportunities and services, the reality for many urban residents—particularly those in informal labor or migrant communities—is one of heightened exposure to health risks and systemic exclusion.

A significant consequence of urbanization and literacy is the shift in disease burden from communicable to non-communicable diseases. As per recent studies, NCDs now account for more than half of all deaths in urban Rajasthan. This epidemiological transition reflects broader socioeconomic shifts, including increased life expectancy, changes in dietary habits, and reduced physical activity. While such transitions are a hallmark of development, they also present new policy challenges: chronic diseases require long-term care, early detection, and lifestyle modification, all of which are difficult to manage in under-resourced public health systems. The literacy-health connection becomes especially critical in this context. Individuals who are better educated are more likely to undergo regular health check-ups, adhere to medication, recognize early symptoms of disease, and avoid risk behaviors such as tobacco and alcohol use. Health promotion campaigns—whether related to cancer screening, diabetes management, or cardiovascular health—are more effective among literate populations who can understand and act on medical advice. Despite the many benefits of urbanization and education, the advantages are not evenly distributed. Gender disparities in literacy continue to limit health equity in Rajasthan. In many conservative communities, girls are still withdrawn from school early due to patriarchal norms, safety concerns, or domestic responsibilities. This educational deprivation curtails their future earning potential, restricts their mobility, and diminishes their agency in health-related matters. Similarly, urban development has often bypassed the needs of the poor, with high-income neighborhoods receiving better infrastructure and public services than low-income ones.



### III. INCOME, SANITATION & LONGEVITY

Income and sanitation are two of the most crucial social determinants of health that directly influence longevity, especially in low- and middle-income regions like Rajasthan. While health outcomes are often shaped by a complex web of factors, income levels and access to safe sanitation facilities are foundational in determining the overall health and life expectancy of individuals and communities. In Rajasthan, these two variables display a strong correlation with disparities in disease prevalence, maternal and child mortality, nutritional status, and ultimately, longevity. Income not only affects the ability to access health services and medicines but also determines the kind of food people eat, the quality of their housing, their access to clean water and sanitation, and their capacity to practice preventive healthcare. Similarly, sanitation—the availability and use of safe toilets, clean drinking water, proper drainage, and waste disposal—plays a vital role in preventing communicable diseases and ensuring environmental hygiene. The combination of low income and poor sanitation creates a vicious cycle of illness and poverty, particularly in the state’s rural and marginalized communities.

Across Rajasthan, variations in per capita income are strongly associated with differences in health status and life expectancy. Higher-income households tend to enjoy better nutrition, live in cleaner environments, and have better access to health services, all of which contribute to increased longevity. District-level analyses have shown that even a modest increase in household income can have a substantial impact on life expectancy. According to a panel data study on determinants of life expectancy in Rajasthan, a 10% increase in per capita income corresponds to approximately 20 additional days of life expectancy at birth. This is because higher income enables families to afford better healthcare services—both preventive and curative—seek timely treatment for illnesses, and ensure that children are vaccinated and adequately nourished. It also allows individuals to avoid work environments that are physically harmful or mentally stressful, thereby reducing the risk of both communicable and non-communicable diseases.

However, income inequality in Rajasthan remains stark. While urban centers and wealthier districts like Jaipur, Kota, and Udaipur have seen a rise in middle-class prosperity, large parts of rural Rajasthan remain dependent on low-income subsistence agriculture or informal labor



with little job security. These economically backward districts—such as Barmer, Dholpur, and Banswara—suffer from persistent poverty, lack of basic infrastructure, and minimal access to healthcare facilities. The rural poor often face catastrophic health expenditures that drive them deeper into poverty, creating a downward spiral. They are less likely to have health insurance, less likely to travel to healthcare centers, and more likely to resort to traditional or unqualified healers. Furthermore, in low-income households, opportunity costs—such as losing a day’s wage—deter people from seeking timely medical attention, even in emergencies. This results in delayed treatment, complications, and in some cases, avoidable deaths.

Sanitation, another major determinant, is closely intertwined with income and has a profound impact on longevity. Poor sanitation conditions contribute to the spread of waterborne diseases such as diarrhea, cholera, dysentery, hepatitis, and typhoid. These diseases disproportionately affect children under the age of five and significantly contribute to child mortality rates. According to the NFHS and other health surveys, Rajasthan has historically lagged behind the national average in terms of sanitation coverage. Although major initiatives like the Swachh Bharat Mission (SBM) have made strides in promoting toilet construction and use, open defecation remains prevalent in several rural areas, particularly in socioeconomically disadvantaged communities. A lack of functional toilets, combined with entrenched cultural practices and limited awareness about hygiene, undermines the effectiveness of sanitation interventions. Additionally, many newly constructed toilets are either unused due to water scarcity or poorly maintained, highlighting the gap between infrastructure creation and behavioral change.

A direct link exists between sanitation and life expectancy. In the same panel study of Rajasthan districts, it was observed that improving sanitation access by 10% can potentially add nearly 3.5 months to average life expectancy. The explanation for this relationship is straightforward: clean environments reduce the exposure to pathogens, especially for vulnerable populations such as infants, pregnant women, and the elderly. In areas with improved sanitation, the incidence of diarrheal diseases declines, school attendance increases—especially for girls—and families are more likely to practice better hygiene behaviors, such as handwashing with soap. These practices cumulatively contribute to a



healthier population and increased productivity, which in turn reinforces income growth—a classic example of how development and health feed into one another.

The intersection of income and sanitation is especially evident in Rajasthan's urban slums and rural hamlets. Urban slums, though geographically located within cities, often reflect some of the worst health and sanitation outcomes due to extreme overcrowding, lack of municipal services, and unsafe water supplies. Families living in such conditions are exposed to multiple health hazards, including poor air quality, vector-borne diseases like dengue and malaria, and food insecurity. In rural villages, poor road connectivity, lack of piped water, and limited government presence further complicate the situation. Even when sanitation infrastructure exists, low-income households may not be able to afford regular maintenance or purchase essential hygiene products such as sanitary pads, soaps, and disinfectants. This lack of affordability often forces families to make health-compromising choices, such as using contaminated water sources or practicing unsafe menstrual hygiene.

Gender also plays a critical role in how income and sanitation affect health and longevity. Women and girls bear the brunt of inadequate sanitation, facing issues such as urinary tract infections, reproductive health complications, and safety risks associated with open defecation. Adolescent girls are particularly vulnerable and often miss school during menstruation due to the absence of clean and private toilets. This not only affects their education but also their long-term economic prospects, perpetuating the cycle of poverty and poor health. Additionally, when sanitation is inadequate, women must spend more time and energy managing household hygiene, fetching water, and caring for sick children—tasks that reduce their time for income-generating activities or self-care.

Government interventions have attempted to address these challenges with mixed success. Programs like the Swachh Bharat Mission, Jal Jeevan Mission, and Pradhan Mantri Awas Yojana have made progress in improving infrastructure and access to basic amenities. However, the real impact on health and longevity depends not just on the availability of services but also on the quality, sustainability, and equitable distribution of those services. Policy implementation must be sensitive to the socio-economic realities of different districts, with special attention paid to low-income, tribal, and marginalized communities. For instance, targeting sanitation and clean water interventions in the districts with the highest



under-five mortality and lowest HDI scores would yield high returns in terms of both health and human capital development.

#### **IV. ENERGY USE, GENDER & RESPIRATORY HEALTH**

In Rajasthan, where a significant proportion of the population still relies on traditional forms of biomass energy for cooking and heating, the issue of energy use is not merely an economic or technological concern—it is fundamentally a public health issue, and one that is deeply gendered. Energy poverty, defined as the lack of access to modern, clean, and safe energy sources, disproportionately affects women and children, particularly in rural and marginalized communities. The continued dependence on solid fuels such as wood, dung cakes, crop residues, and charcoal has a direct bearing on the respiratory health of millions of people, especially women, who are primarily responsible for household cooking. The exposure to smoke and toxic particulate matter generated by the combustion of biomass in poorly ventilated kitchens leads to a wide range of health problems, including chronic obstructive pulmonary disease (COPD), acute lower respiratory infections, asthma, and even tuberculosis. Women in low-income and rural households spend several hours a day in close proximity to indoor fires, often without any protection or ventilation, inhaling smoke concentrations that, according to WHO estimates, can be many times higher than safe levels. This persistent exposure places a heavy burden on their respiratory systems, reducing their quality of life and life expectancy.

The gendered nature of energy use and its health impacts in Rajasthan is inseparable from broader patterns of social inequality and economic deprivation. In many rural households, decision-making power regarding fuel choice, resource allocation, and technology adoption rests with male members, while women bear the physical and health consequences of those decisions. Even when women express a desire to switch to cleaner fuels like LPG (liquefied petroleum gas), economic constraints, supply irregularities, and entrenched gender norms often prevent this transition. The Pradhan Mantri Ujjwala Yojana (PMUY), launched in 2016, aimed to address this challenge by providing subsidized LPG connections to women in below poverty line (BPL) households. Rajasthan has been one of the major beneficiaries of this scheme, with millions of connections issued. However, subsequent studies have revealed that many households still revert to using biomass after exhausting the initial free or subsidized



LPG cylinders. The primary reasons include the inability to afford refills, poor distribution networks in remote areas, and the lack of sustained behavioral change campaigns. This pattern of “stacking” fuels—where households use a mix of traditional and modern fuels—diminishes the potential health benefits of the program.

Respiratory health outcomes in Rajasthan reflect the persistent reliance on polluting fuels. According to findings from NFHS-5 and other epidemiological studies, the prevalence of symptoms such as chronic cough, wheezing, shortness of breath, and frequent chest infections is significantly higher in districts where biomass usage is most widespread. Rural women, in particular, exhibit higher rates of respiratory morbidity compared to their urban counterparts who have transitioned to cleaner fuels. Children under five, often carried on their mothers’ backs during cooking or spending time in smoky kitchens, are also at heightened risk for acute respiratory infections (ARI), which remain a leading cause of child mortality in the state. Moreover, the health burden from indoor air pollution is not limited to respiratory ailments alone. Prolonged exposure to household smoke has been linked to cardiovascular diseases, adverse pregnancy outcomes such as low birth weight, and even some forms of cancer. Women in energy-poor households are thus caught in a cycle where their domestic roles expose them to health risks, while poor health limits their social mobility and economic participation.

Beyond direct health consequences, the time and labor costs of energy poverty further exacerbate gender inequalities. In areas where biomass is still the primary energy source, women and girls are often responsible for collecting fuelwood—an arduous task that can take several hours each day. This time burden limits their ability to pursue education, engage in paid work, or participate in community activities. Girls may be pulled out of school to help with household chores, including fuel collection, setting in motion a chain of disadvantage that affects their lifelong health and economic outcomes. The physical strain of carrying heavy loads of firewood over long distances also contributes to musculoskeletal problems, fatigue, and reproductive health issues. In water-scarce and deforested regions of Rajasthan, where fuel collection becomes increasingly difficult, these burdens are even more severe. Consequently, improving access to clean energy is not only a matter of environmental sustainability or economic development—it is central to advancing gender equity and public



health.

The regional disparities in energy access and its health implications in Rajasthan are stark. While urban and peri-urban areas have seen significant penetration of LPG and electricity, large parts of southern and western Rajasthan—including tribal-dominated districts such as Banswara, Dungarpur, and Udaipur—continue to rely heavily on biomass. These areas also report higher prevalence of poverty, lower female literacy, and weaker healthcare infrastructure, creating a compound vulnerability. For instance, a study published in the *International Journal of Environmental Research and Public Health* found that in these districts, education level, household income, and gender significantly influenced fuel choice. Women from households with no formal education and low income were far more likely to report respiratory symptoms and use traditional stoves. On the other hand, women in higher-income and educated households were more likely to switch to LPG, understand its health benefits, and sustain its usage despite economic pressures. These findings underscore the importance of integrating energy policy with education, health promotion, and targeted subsidies to address multiple dimensions of deprivation simultaneously.

Efforts to mitigate the health impacts of traditional energy use in Rajasthan require a multi-sectoral approach. Expanding the reach and affordability of LPG through infrastructure investment and tiered subsidy models can make clean fuel adoption more sustainable. Education and awareness campaigns tailored to rural women, perhaps delivered through self-help groups or ASHA workers, can help bridge the knowledge gap and challenge harmful gender norms around cooking practices. Furthermore, innovations in stove design—such as improved biomass stoves with chimneys or air filters—can serve as interim solutions for households that are unable to afford regular LPG use. Integrating respiratory health screening into primary healthcare services, particularly in high-risk rural areas, can facilitate early detection and treatment of chronic illnesses. Mobile health units, community health camps, and digital platforms may also be leveraged to reach remote and underserved populations with information and services.

In the context of Rajasthan's development agenda, clean energy access must be seen as both a health intervention and a driver of social transformation. By reducing women's exposure to indoor air pollution, time poverty, and physical hardship, clean cooking technologies can



enhance women's autonomy, health, and well-being. This, in turn, contributes to improved child health outcomes, better educational attainment, and greater economic productivity. Investments in clean energy thus yield multiple dividends: improved health, enhanced gender equity, reduced environmental degradation, and strengthened resilience to poverty. However, these benefits will only be realized if policies are grounded in a nuanced understanding of local realities, including cultural practices, affordability concerns, and logistical constraints.

## V. CONCLUSION

Health outcomes in Rajasthan are shaped by a complex mix of social, economic, and environmental factors. This study highlights how key socioeconomic elements—such as income, education, sanitation, fuel access, gender, caste, and urbanization—directly and indirectly influence the health and well-being of individuals and communities. People in poorer, less-educated, and socially marginalized groups face greater challenges in accessing healthcare, maintaining hygiene, and adopting healthy practices. Women, in particular, are more exposed to health risks due to their roles within households, especially in contexts of low income and traditional energy use. While Rajasthan has made notable progress in recent years through government schemes aimed at improving health coverage, sanitation, and clean energy access, large gaps remain. These inequalities must be addressed through integrated, inclusive policies that focus not only on improving healthcare infrastructure but also on tackling the root causes of poor health—poverty, lack of education, gender inequality, and social exclusion. Sustainable improvements in health outcomes will only be possible when all sections of society have equal opportunities to lead healthy lives, supported by strong public systems and community engagement.

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