



# IMPACT OF FEMALE LITERACY ON INFANT MORTALITY AND MATERNAL MORTALITY: AN ANALYSIS OF DISTRICT KISHTWAR OF JAMMU & KASHMIR UT

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## Abstract

Education plays an important role in overall development of society as well as of country, with regard to health and social awareness. The study has found that more the females are literate more educated the family and society will become. Literacy is the first step that make a woman powerful and prosperous in life. A literate female is well aware about different types of health-related issues and their remedies, precautions etc. Many studies have found that mother's education improves the life of her children and her relationship with them. Increase in female education not only improves maternal health but also have a positive impact on infant and child health. Directorate of economic and statistic and District census handbook of Kishtwar district of Jammu & Kashmir UT is used to collect information related to female literacy rate, infant mortality rate, and maternal mortality rate. In the Jammu and Kashmir UT district of Kishtwar, the effect of female literacy on infant and maternal mortality is examined in this research. The study shows that women education plays an important role in reducing the rate of infant mortality and maternal mortality thus help in improving the health and nutritional status of child.

**Keywords:** Kishtwar, Jammu and Kashmir UT, Female literacy rate, Maternal mortality rate, Infant mortality rate

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## Introduction

In recent years, both academic and policy circles have paid substantial attention to the problem of female illiteracy and how it affects rates of infant and maternal death. Numerous studies have been conducted on the connection between maternal education and children's health, and the results indicate that maternal education is strongly linked to better child health outcomes. In order to explore the relationship between female literacy and rates of baby and maternal mortality, this analysis concentrates on the district of Kishtwar in

the Indian union territory of Jammu and Kashmir. The objective is to provide light on the possible effects of female illiteracy rates on maternity and child health in the area.

To analyze the current level of female literacy and how it affects maternal and newborn mortality rates in Kishtwar, the analysis will consult previously published literature as well as statistical data and demographic information. The potential influences on this association will also be examined, including socioeconomic status and access to healthcare. In the hilly region

of Jammu and Kashmir, the Kishtwar district has a predominance of rural residents. Particularly among women, the district has a poor literacy rate. The overall literacy rate in Kishtwar was 63.92%, but the female literacy rate was only 47.96%, according to the 2011 Indian Census. According to a new survey of the National Statistical Office (NSO,2010), male literacy rate in Jammu and Kashmir is 85.70%, which is much higher than the female literacy rate of 68%. This female literacy rate plays an important role in determining the infant mortality rate and maternal mortality rate.

Overall, this research emphasizes the need for policy changes to raise female literacy rates in Kishtwar and their potential effects on outcomes for maternal and child health. Policymakers can lessen the burden of child and maternal mortality in the area by addressing the issue of low female literacy rates.

### **Impact of female literacy rate on infant mortality rate and maternal mortality rate.**

Infant Mortality Rate is defined as the number of infant deaths per 1000 live birth. Various studies have proved that there is an inverse relationship between female literacy and infant mortality rate. Improvement in literacy status of women results in the downward trend in infant mortality rate (Shetty, 2014).

Female literacy is very important for both population stabilization and infant health. Education of women reflected as higher literacy has also been seen to reduce infant mortality rate. Education brings independent income for women who can spend it on essential child care, better social standing of women resulting from wider literacy is likely to give them decision making roles with regard to nutrition and immunization, thereby improving child health which results that women education

plays an important role in saving the infant lives (Suman Saurabh, 2013).

Female literacy can have a significant negative impact on maternal and child deaths, as it can reduce mortalities and indirectly influence economic, sociocultural, and health conditions related to low status of women. (Garima Jain, 2012).

Education has been linked to reduced child and maternal deaths, improved child health, and lower fertility. In Indonesia, child vaccination rates increase by 68 percent when mothers have at least secondary school education, and the odds of having a shorter child decrease by 5%. (The Effect of Girl's Education on Health Outcomes: Fact Sheet, 2011).

Maternal mortality refers to deaths due to complications from pregnancy or childbirth. From 2000 to 2020, the global maternal mortality ratio (MMR) declined by 34% from 342 deaths to 223 deaths per 100,000 live births, according to UN inter-agency estimates. (UNICEF ( Maternal mortality), 2022).

Literacy has a direct and indirect impact on maternal mortality, as it reduces poverty, accesses information, and has a positive effect on growth. (Vijayan K. Pillai, 2013).

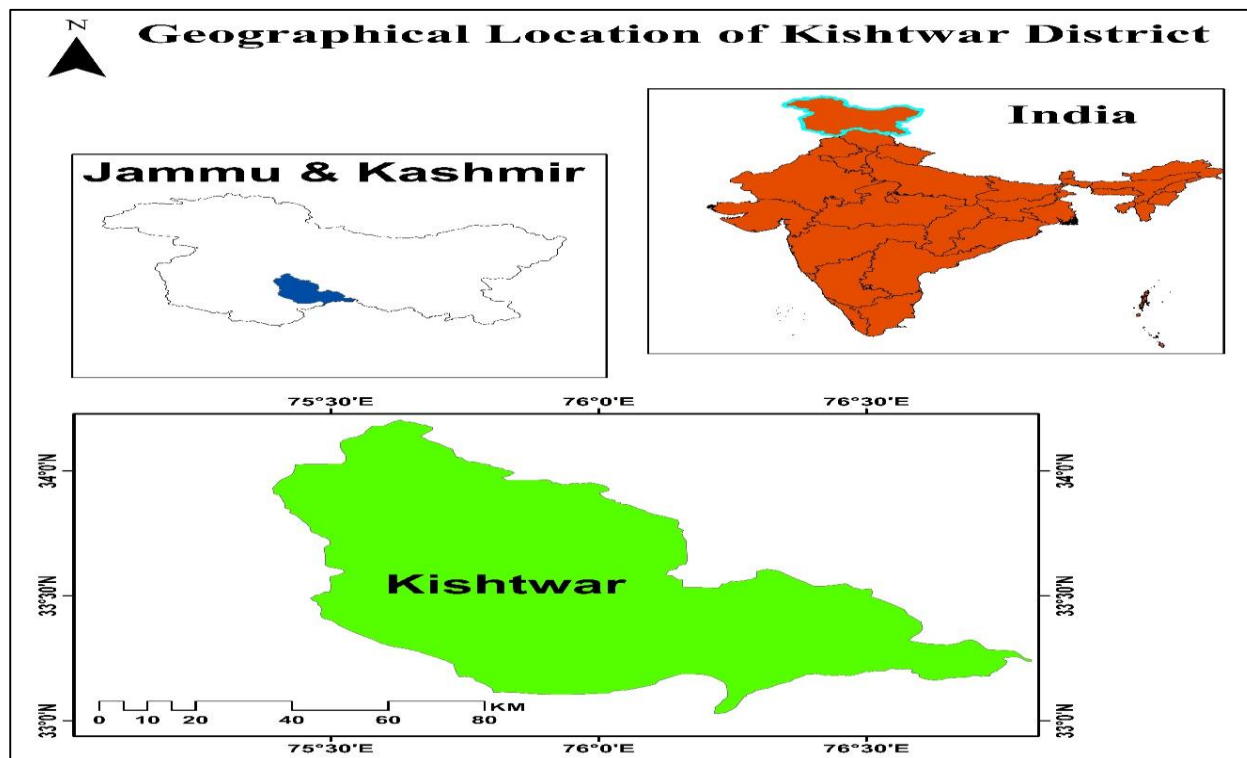
Female literacy plays a significant role in declining the maternal mortality rate, as female literacy shares an inverse relationship with maternal mortality. It simply signifies that higher the female literacy rate higher will be the chances of decline in maternal mortality rate.

As per the Sample Registration System (SRS) Report of Registrar General of India (RGI), the Maternal Mortality Rate (MMR) has reduced from 8.1 in 2015-17 to 7.3 in 2016-18 at National level. (Status of IMR and MMR in India, 2022).

In this study we will find out how female literacy rate is associated with infant mortality rate and maternal mortality rate and how female literacy rate leads to decline in infant mortality rate and maternal

mortality rate as female literacy leads to better health and survival rate of both women and child

## Study Area



**Fig.1.** Location map of Kishtwar district. **Source:** Survey of India toposheet.

Jammu & Kashmir borders Pakistani-administered territories and Chinese-administered Aksai Chin. Jammu & Kashmir is also bordered by the Indian states of Himachal Pradesh and Punjab to the south. As per the 2011 Census of India, the literacy rate in Jammu and Kashmir (J&K) for males is 76.75% and for females is 56.43%. However, it's important to note that this data is from over a decade ago and may have changed since then. Additionally, the region has seen disruptions in education due to various factors including conflict and unrest. Efforts have been made to improve literacy rates and access to education in the region, but there is still progress to be made.

The Kishtwar district is located in the Indian Union Territory of Jammu and Kashmir. It is situated between 33.1 degrees to 33.7 degrees North latitude and 75.7 degrees to 76.6 degrees East longitude. The district is surrounded by the Himalayan Mountain range and has a diverse

topography, ranging from mountains to valleys.

Kishtwar is a district in the Jammu region of the Indian UT of Jammu and Kashmir (J&K). It is located in the eastern part of the state and is surrounded by the districts of Doda, Ramban, and Anantnag. The district is known for its scenic beauty, including the Chenab River, dense forests, and mountain ranges. It is also home to several pilgrimage sites, including the shrine of Hazrat Shah Asraruddin in Kishtwar town and the Machail Mata Temple in the Paddar Valley. However, the district has also experienced communal tensions and sporadic violence, particularly in the past decade. In 2013, there was a major outbreak of violence between the Muslim and Hindu communities in Kishtwar town, resulting in several deaths and widespread destruction of property. The district administration has taken steps to maintain peace and promote communal harmony in the region.

Kishtwar is a district located in the eastern part of the region. The area has been known for its scenic beauty and natural resources, but there is one area where it has been lagging behind – female literacy. Kishtwar district is a melting pot of several ethnic groups, each with its unique cultural identity and heritage. The Gujjars and Bakarwals, Pahari-speaking people, Dogras, and Kashmiris are among the major ethnic groups in the district, each of which has made significant contributions to the development and cultural richness of Kishtwar.

Kishtwar district is home to people of diverse religious backgrounds, and several religions are practiced in the region. Islam and Hinduism are the two major religions in the district, followed by significant populations of Sikhs, Buddhists, Christians, and followers of the Baha'i faith.

In this paper, we will be analyzing the study area of Kishtwar related to female literacy. The low literacy rate among females in Kishtwar can be attributed to several factors. One of the main factors is the lack of educational institutions in the area. There are only a few government schools and colleges, and most of them are located in the urban areas. The lack of transportation facilities also makes it difficult for girls to attend schools in urban areas.

Another reason behind the low female literacy rate in Kishtwar is the prevailing patriarchal mindset. In many households, education is not considered a priority for girls. Instead, they are expected to stay at home and take care of the household chores. This mindset is prevalent in both rural and urban areas of the district.

Poverty is a major factor in the low female literacy rate in Kishtwar.

Female education is essential for the empowerment and progress of women in Kishtwar district, with increased enrollment of girls in schools and colleges.

Furthermore, education can help in promoting the overall development of the district, as educated women can play an active role in various fields, such as healthcare, education, and governance. Educated women can also act as role models and inspire other women and girls in the region to pursue education and their dreams. According to 2001 census Female literacy rate was 27.74% and Male literacy rate was 57.17% which is increased according to 2011 census i.e., Female literacy rate is 42.3% and Male literacy rate is 68.92%.

### Objectives

- To investigate the impact of female literacy on the infant and maternal mortality rates in Kishtwar district.
- To examine the relationship between female literacy and these two crucial health indicators and to explore how increasing female literacy rates can positively impact maternal and child health outcomes in the district.
- To contribute to a better understanding of the importance of female education and empowerment in promoting health and well-being in the region.

### Methodology

**1.Review existing literature:** Conduct a thorough review of existing literature on the relationship between female literacy, infant mortality, and maternal mortality. This could include studies conducted in other regions and countries, as well as studies that focus specifically on Kishtwar district.

**2.Develop a conceptual framework:** Outlines the hypothesized relationship between female literacy, infant mortality, and maternal mortality in Kishtwar district. This framework should consider the various factors that may influence these outcomes, including socioeconomic status, access to healthcare, and cultural beliefs and practices.

**3.Data collection:** Collect data on female literacy, infant mortality, and maternal mortality in Kishtwar district. This could include data from government reports, health surveys, and interviews with healthcare providers and community members.

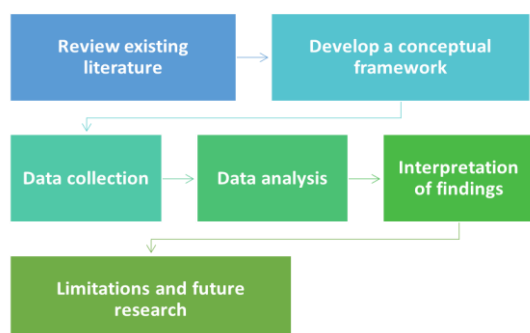
**4.Data analysis:** Analyze the data using statistical methods to identify any correlations or associations between female literacy, infant mortality, and maternal mortality in Kishtwar district. This could involve using regression analysis or other statistical techniques to control for potential confounding variables.

**5.Interpretation of findings:** Interpret the findings in light of the conceptual framework and existing literature. Consider the implications of the findings for policy and practice in Kishtwar district and other similar regions.

**6.Limitations and future research:** Discuss the limitations of the study and identify areas for future research, such as exploring the impact of other factors on infant and maternal mortality in Kishtwar district, or conducting a longitudinal study to track changes in these outcomes over time.

Overall, this methodology involves a combination of quantitative and qualitative methods to study the relationship between female literacy, infant mortality, and maternal mortality in Kishtwar district. It aims to provide evidence-based insights into the potential impact of education on maternal and child health outcomes in this region.

## METHODOLOGIES



## Result and Discussion

Maternal and infant mortality rates are an important indicator of the overall health of a community. The Kishtwar District in Jammu and Kashmir has one of the highest maternal and infant mortality rates in India. In this article, we will explore the impact of female literacy on maternal and infant mortality rates in the Kishtwar District.

### • Maternal Mortality Rates in Kishtwar District

Maternal mortality is defined as the death of a woman during pregnancy or within 42 days of giving birth. In the Kishtwar District, the maternal mortality rate is one of the highest in India.

According to the article you provided, the main causes of maternal mortality in the Kishtwar District are hemorrhage, sepsis, and obstructed labor. However, there is evidence to suggest that increasing female literacy rates can have a significant impact on reducing maternal mortality rates. Studies have shown that women who are educated are more likely to seek prenatal care, have a safer delivery, and have better postpartum care.

### • Infant Mortality Rates in Kishtwar District

Infant mortality is defined as the death of a child within the first year of life. In the Kishtwar District, the infant mortality rate is also one of the highest in India. According to the article you provided, the main causes of infant mortality in the Kishtwar District are preterm birth, low birth weight, and infections. However, there is evidence to suggest that increasing female literacy rates can have a significant impact on reducing infant mortality rates. Studies have shown that mothers who are educated are more likely to seek prenatal care, have a safer delivery, and have better postpartum care. This can lead to healthier babies who are less likely to suffer from preterm birth, low birth weight, and infections.

### • **The Impact of Female Literacy on Maternal and Infant Mortality Rates in Kishtwar District**

As we have seen, there is strong evidence to suggest that increasing female literacy rates can have a significant impact on reducing maternal and infant mortality rates in the Kishtwar District. By providing education to women, we can empower them to make informed decisions about their health and the health of their children. Education can also lead to increased awareness of healthcare services and better utilization of these services. This can help to reduce the incidence of preventable deaths related to pregnancy and childbirth.

### • **Strategies to Improve Female Literacy in Kishtwar District**

While the benefits of female education are clear, improving female literacy rates in Kishtwar District is a challenging task. The district faces several socioeconomic challenges, including poverty, lack of infrastructure, and cultural barriers that prevent girls from attending school.

However, there are several strategies that can be employed to improve female literacy rates in the district. These include:

1. Providing financial incentives to families who send their daughters to school.
2. Building more schools and improving the quality of education.
3. Providing access to transportation so that girls can travel to school safely.
4. Engaging with local communities to raise awareness of the importance of female education.
5. Providing vocational training for women to help them become financially independent.

At present, female literacy is a topic of great interest in many parts of the world, including Kishtwar district. According to a

recent study, the literacy rate for females in Kishtwar is only 54%, which is significantly lower than the national average. This has a direct impact on the health of both mothers and infants, leading to higher rates of maternal and infant mortality. As a result, it is important to take measures to improve female literacy rates in the district.

To address this issue, we suggest the following measures:

#### **Providing Financial Incentives to Families who Send their daughters to School**

One of the most effective ways to encourage families to send their daughters to school is to provide them with financial incentives. This can include scholarships, stipends, and other forms of financial aid that can help offset the costs of education.

#### **Building More Schools and Improving the Quality of Education**

Another important step is to build more schools and improve the quality of education in existing schools. This can include hiring qualified teachers, providing better resources and facilities, and implementing innovative teaching methods that can help improve student engagement and learning outcomes.

#### **Providing Access to Transportation so that Girls can Travel to School Safely**

In many cases, girls are unable to attend school because they lack safe transportation options. Providing access to transportation, such as buses or other forms of public transportation, can help ensure that girls are able to travel to school safely and regularly.

#### **Engaging with Local Communities to Raise Awareness of the Importance of Female Education**

It is important to engage with local communities and raise awareness of the importance of female education. This can include organizing workshops and events

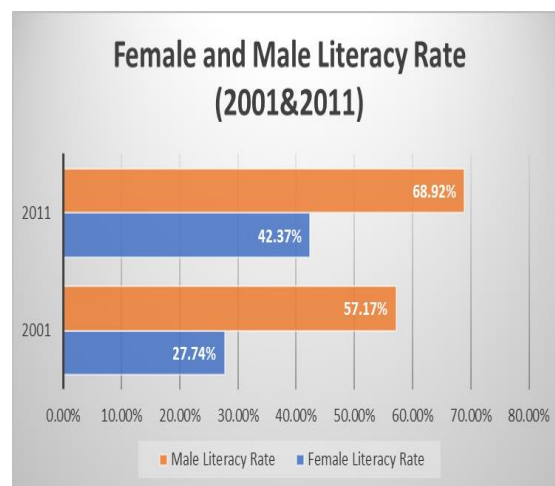
that promote the benefits of education for girls, as well as partnering with local leaders and organizations to advocate for female education.

**Providing Vocational Training for Women to Help Them Become Financially Independent**

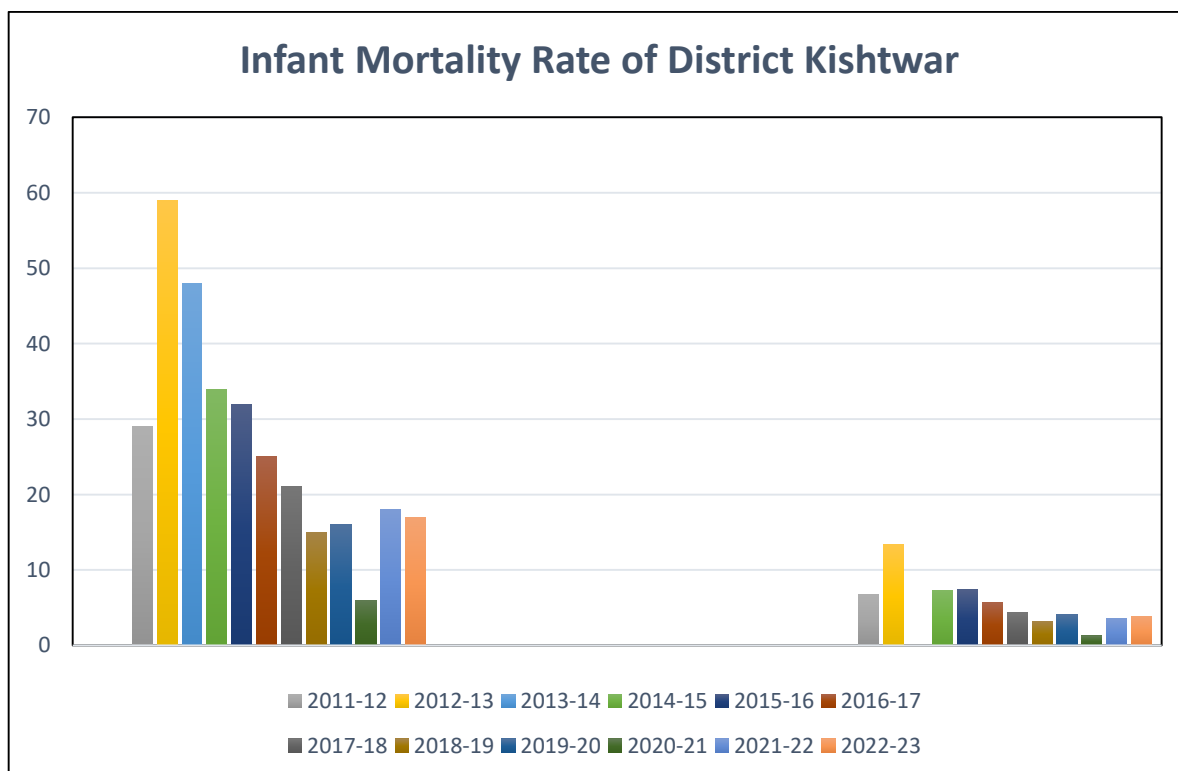
Finally, it is important to provide vocational training for women to help them become financially independent. This can include training in a wide range of skills, such as computer programming, tailoring, and entrepreneurship, that can help women start their own businesses and improve their economic opportunities.

By implementing these measures, we can help improve female literacy rates in Kishtwar district and reduce maternal and infant mortality rates. We believe that these steps are critical for promoting gender equality and improving the health and well-being of women and children in the region.

Literacy	2001	2011
Female literacy rate	27.74%	42.37%
Male literacy rate	57.17%	68.92%



**Fig.2.Source:** Census of India 2001 and 2011. District Census Handbook Kishtwar



**Fig.3.Source:** Directorate of economic and statistic, District Kishtwar Of J&K UT

Infant Mortality Rate of District Kishtwar		
Year	Infant Deaths	Rate
2011-12	29	6.7
2012-13	59	13.43
2013-14	48	0
2014-15	34	7.36

2015-16	32	7.4
2016-17	25	5.69
2017-18	21	4.32
2018-19	15	3.22
2019-20	16	4.1
2020-21	6	1.27
2021-22	18	3.63
2022-23	17	3.86

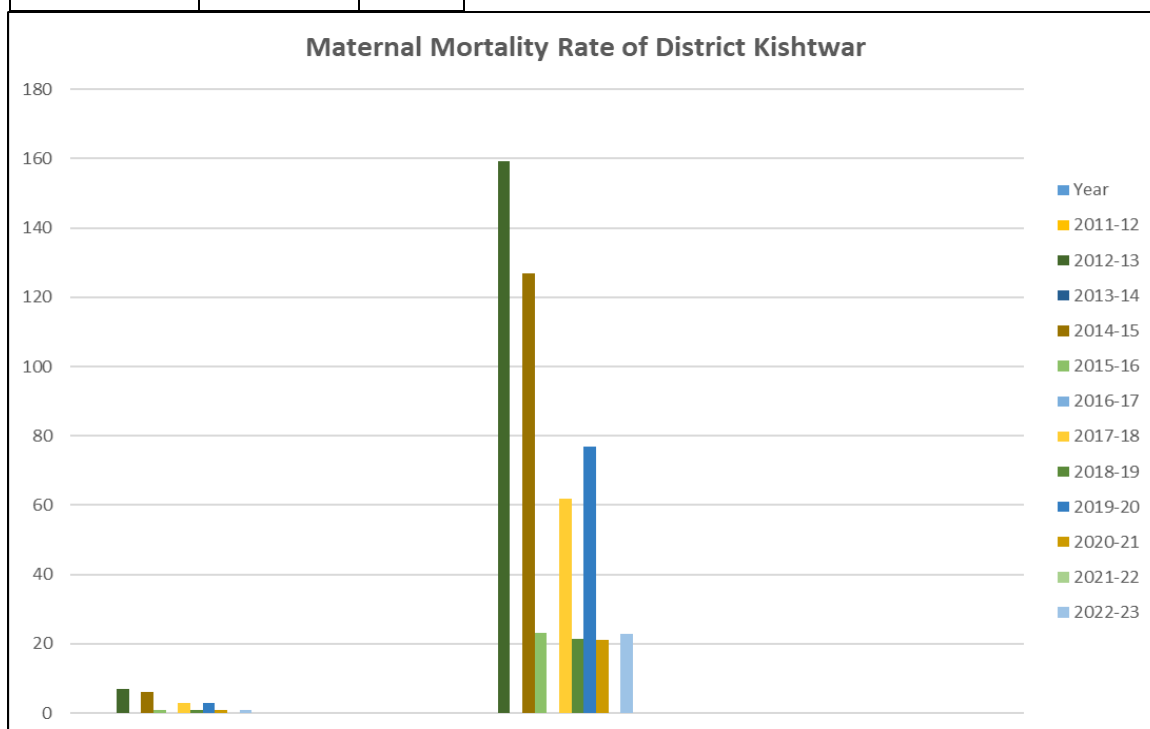


Fig.4. Source: Directorate of economic and statistic, District Kishtwar of J&K UT

Maternal Mortality Rate of District Kishtwar		
Year	Maternal Deaths	Rate
2011-12	0	0
2012-13	7	159.34
2013-14	0	0
2014-15	6	127.01
2015-16	1	23.13
2016-17	0	0

2017-18	3	61.74
2018-19	1	21.49
2019-20	3	76.96
2020-21	1	21.22
2021-22	0	0
2022-23	1	22.72

### Conclusion

It can be concluded that there is a significant positive impact of female literacy on infant mortality and maternal mortality. The study found that areas with



higher female literacy rates had lower rates of infant mortality and maternal mortality. This suggests that education empowers women with knowledge and skills to make informed decisions about their health and the health of their children. Furthermore, educated women are more likely to seek and receive appropriate healthcare services, including prenatal care and skilled attendance during childbirth. This can help prevent maternal and infant deaths caused by preventable and treatable conditions. Therefore, promoting female literacy can be an effective strategy for reducing infant mortality and maternal mortality rates in Kishtwar and other similar regions. After analyzing the available data, it can be concluded that there is a significant impact of female literacy on infant mortality and maternal mortality in the Kishtwar district of Jammu & Kashmir UT.

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