



ANALYSING THE RELATIONSHIP BETWEEN INFANT MORTALITY RATES AND FEMALE LITERACY RATES IN INDIA

Hitha K Abraham*

Associate, State Bank of India, Manimala, Kerala

ARTICLE INFO

Article History:

Received 8th November, 2017

Received in revised form 14th December, 2017

Accepted 18th January, 2018

Published online 28th February, 2018

Key words:

Infant Mortality rate, Female literacy rate

ABSTRACT

Infant mortality rate and literacy rates are among the crucial socio economic factors that explains the health of a nation. Reduction of infant and child mortality has been an important tenet of the Government of India right from the early stages of development. Lot many policies have been introduced to bring an improvement in these variables. This include, The National Population Policy (NPP) 2000, the National Health Policy 2002 and National Rural Health Mission (NRHM – 2005 to 2012). Improving the literacy rates and also reduction of IMR have been included in the Millenium Development Goals adopted by the United Nations in 2000. The present study analyses whether there exist any relation between these two variables. Also this paper suggests important policy implications that could bring out and improvement in both the areas.

Copyright©2018 **Hitha K Abraham**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Good health is the foundation of a quality life. We measure the health of a country by its socio economic indicators like infant mortality rate, maternal mortality rates, literacy rate etc. From the time of independence, the economic indicators are growing at as lower pace. We see a wide gender disparity in many indicators like male female literacy etc. While the male literacy is 82.14 %, female literacy is only 65.46% .

Poverty is one main reason for the lagged improvement in most of the socio economic indicators. Poverty in India is influenced by a higher rate of unemployment, low literacy rates and higher IMR and MMR rates. One of the main reason for this high unemployment is the poor literacy rates. The poor literacy rates are a result of the poor income and infrastructure facilities. These infrastructure facilities include education health etc.

Statistics says that one out of every four children that dies under the age of one is an Indian. This shows how seriously this matter needs to be tackled. Infant mortality rate is considered to be a sensitive indicator to explain the health of a nation. As of 2016, the IMR rates of India is 34 per 1000 live births.

The IMR of the early 1960s were 72 per 1000 live births. However there is a wide variation among different states. While states like Kerala shows a great improvement, the condition in states like Madhya Pradesh is worse.

Government has taken many steps to improve the situation. Programs like National Rural Health Mission were introduced. NHRM focuses on the child, maternal and mental health.

As a country becomes healthy, it gets reflected on all its phases, be it micro or macro. At micro level, it will improve the productivity of its citizens which in turn will increase the overall production in the economy which is a macro phenomena.

Now we need to look into solutions to improve this situation. Health and education go hand in hand. Once a country becomes educated, it is reflected on the health side too. They both help in fighting all evils that exists in the society. Good education will bring changes in the health conditions of individuals. This paper examines if there exists a relationship between the educational indicator, that is literacy rates and health indicator, IMR.

Effects of Socio economic Indicators

Maternal age

Infants of teen mother has more chances of mortality. The mothers age must be an optimum one between 25 and 40 to have a health child.

Birth order

The order of delivering a child is also important. Usually the second and third child's birth is considered less risky than the first one.

*Corresponding author: **Hitha K Abraham**

Associate, State Bank of India, Manimala, Kerala

Birth intervals

Shorter intervals means the higher is the chances for infant mortality.

Mother's education

Illiterate mothers usually faces more risk of infant mortality than an educated mother.

Parental care

Mothers who take prenatal care seems to be more safer than the ones without the prenatal care.

Type of delivery

Children born premature are found more riskier to mortalities than the ones born in full terms.

Birth weight

Babies born with less than 2400 gms of weight are considered riskier to mortal deaths.

Mother's health is an important factor in the health of the children. Only a healthy mother can give birth to a healthy child. Female literacy is an important factor for both birth stabilisation and healthy deliveries. Only when a female is able to recognize whether she is mentally and physically prepared to give birth to a child, she can give birth to healthy baby.

UNICEF Report speaks that at least 20% of the disease burden in children under 5 years is related to problems in the health of mother and malnutrition, as well as the quality of care at delivery and during new born period. Also UNICEF study says that the chance of survival of a child whose mother dies during child birth is less likely.

Children whose mother dies have 10 times more probability of dying before they reach of two. Mothers are the basic beings to ensure the health of a child. Its the mother we into first, when we fall sick. There is a saying that if we educate a mother, we educate a family. Every mother plays a crucial role in the character formation of a child. According to WHO reports, mother s are the fundamental factors who looks into factors like nutrition, oral health and psychological health of the children.

Objectives of the Study

1. To check if there exist any relation between IMR and literacy rates of women in India.
2. To analyse the trends observed in both variable over the years
3. To suggest policy measures to improve these socio economic indicators.

Infant Mortality Rates

Infant mortality rate (IMR) is the probability that a newborn dies before completing his 1st birthday and is calculated per 1000 live birth. IMR has 2 components, neonatal mortality, and post neonatal mortality. Neonatal mortality is a probability that a newborn dies before 28 days and calculated per thousand live births. Post neonatal mortality is a number of new-born deaths after 28th day to less than 1 year and is calculated per 1000 live births. IMR is greatly affected by nutritional and health status of mother and external environment factors.

The present infant mortality rate of India is 34/1000 live birth in 2016 as per SRS. Since 2005, IMR has declined from 58 to 34 in 2016. The declining trend has been shown below.

Infant mortality rate:

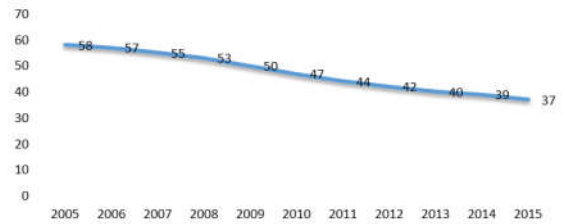


Fig 1: Infant Mortality Rate in India, SRS, 2005 - 2015

Increases in literacy and health facilities significantly reduce infant mortality. Improvements in male employment and reductions in poverty also reduce infant mortality, but their quantitative impact is weak in comparison to the improvement in the women's characteristics like literacy, workforce participation etc.

Maternal Mortality

Maternal mortality rates have always remained very high. The major causes for this high rates include hyper tension, bleeding, infections etc. UNICEF reports says that a woman dies from birth complications every minute. The report says that this alarming number can be reduced if proper guidance and access for proper post natal care is provided.

Every mother neglects her own health at the expense of the health of their child. But what actually happens is that when the mother is healthy, her baby will be healthy and, in turn the family.

Importance of Educating A Mother

Education is the link between maternal health and child mortality .improvement in the health of pregnant women and new m, other play a vital role in reducing child mortality rates. Poor nutrition of the women may lead to pre term birth and also babies born may be of less weight.

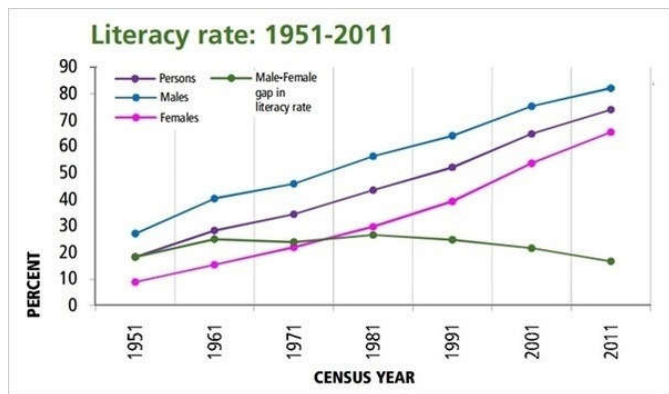
It is also noted that children whose mother die during child birth have less chances of surviving an age more than two. Attempts have been made to improve the education of women throughout the country. However still more than a half million women die every year as a result of complications that arise during and after pregnancy.

Education is an important building block in removing the social ills that exists in the society. It is when the seeds of education that helps a women in realising the importance of the health of the mother, in order to have a healthy baby. Education also provide, the courage and confidence to tackle every situation.

Most of the maternal and child birth that happens are a result of hyper tension of the mother. When she is educated, she understands the situation better and that will help her from being panic. When a women is educated, she takes proper family planning measures and this will help reducing child birth that occur due to unwanted pregnancy. The chances of child deaths are more when the number of children is more and the age of mother is old.

Indian Contest

India has made considerable progress in women literacy rates over the years. The following graph explains the trends observed since 1951.



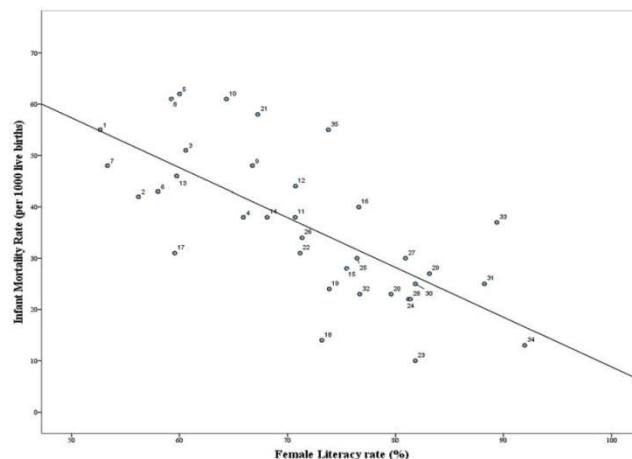
There has been an improvement in literacy rates for women over the year. From around 10% in 1951, it has increased to around 65% in the year 2015. As per census 2011, women literacy rates grow to 74.04 % in 2011 as compared to 12% at the time of independence. Though the progress sees very slow, undoubtedly, we can say that people are gaining awareness about the importance of women’s education and gone are the days, when women are just made to live behind the four walls of their home.

Census year	Crude literacy rates			Decadal change (in percentage points)		
	Persons	Males	Females	Persons	Males	Females
1901	5.4	9.8	0.6	--	--	--
1911	5.9	10.6	1.0	0.5	0.8	0.4
1921	7.2	12.2	1.8	1.3	1.6	0.8
1931	9.5	15.6	2.9	2.3	3.4	1.1
1941	16.1	24.9	7.3	6.6	9.3	4.4
1951	16.7	25.0	7.9	0.6	0.1	0.6
1961	24.0	34.4	13.0	7.3	9.4	5.1
1971	29.4	39.4	18.7	5.4	5.0	5.7
1981	36.2	45.9	24.8	6.8	6.5	6.1
1991	42.8	52.7	32.2	6.6	7.8	7.4
2001	55.3	64.1	45.8	12.5	11.4	13.6

The literacy rates in various censuses show an increasing trend for both males and females. There has been a monotonous increase of 5 to 8 percent in the literacy rates after 1951, it becoming 12.5 percent in the 1991-2001 decade. Thus the literacy rate has become more than three times during the past half-a-century.

It is noteworthy that, in recent years, the increase in female literacy rate has been higher than in male literacy rate narrowing the male-female gap particularly during the 1980s and 1990s. This can be explained as an influence of education, the present day policies of government followed in favour of girls and the implementation of programmes like DPEP, literacy promotion programmes through NLM and Adult Literacy Programme etc

Analysis



Correlating IMR with female literacy rates shows a value of -0.83 , which means there exists a strong negative relation between the two. Trend analysis also shows a negative trend as shown above. As a women is educated, the number of child birth that happens in the country lessens. Literacy Rate, which increases the awareness level and health consciousness among the people particularly women, show a very strong impact in reducing IMR

Main Findings of the Study

There is a strong negative correlation ($r = -0.83$) between female literacy rate and IMR i.e. the higher the literacy rate of a state, the lower the IMR of the state.

As the level of education provided to a women increases, less is the chance of infant mortality.

Both female literacy rates and Infant mortality rates have improved over the years.

These variables play a significant role in the development of every nation.

Policy Suggestions

Both education and health care are the backbone of a nation. This a crucial area that the govt of the country must give proper attention too. Even though a lot of new schemes and programmes exists, the proper execution of these policies is still a matter of concern. Government should ensure that these schemes benefit the needy.

Every family should realise the importance of educating their daughters. Awareness programmes must be set into remote areas of the country where people are still not regularly attending school.

Cleanliness must be observed in every locality. This will help prevent infections from reaching the baby and mother.

Financial aid must be given to every mother who struggles to take her baby to medical care.

Midwives must be made available in every health centres, when ever a call for emergency occurs.

CONCLUSION

Female literacy is the one of the major determinant influencing the socio cultural conditions of our economy. It has its share in improving the health condition of the economy too. As the saying says, if you educate a woman, you educate a family.

Thus, increasing female literacy leads to a win-win situation. Country needs to spend more on these two vital sectors-health and education. What we lack is not scarcity of resources, but proper utilisation of them. It is high time that the government must adopt serious measures to ensure that each and every child goes to school. Only then we can bring huge changes in the health conditions.

References

- Das Gupta, Monica. 1990. Death Clustering Mother's Education and the Determinants of Child Mortality in Rural Punjab, India.
- Ghosh. S. 1987. The Female Child in India - A Struggle for Survival, NFI Bulletin 8 (4)
- Hobcraft, J.N., McDonald R.W. and Rutstein, S.O. 1984. Demographic Determinants of Infant and Early Child Mortality: Comparative Analysis, Population Studies.
- National Family Health Survey-11. 1998-99. International Institute of Population Studies, Mumbai
- India's Population: Heading Towards a Billion. Delhi: B. R. Publishing Corporation.
- Registrar General & Census Commissioner, India 2001
- 2001a Census of India 2001, Series 1, *India, Provisional Population Totals*, Paper 1 of 2001. Delhi: Controller of Publications.
- Shieh C, Halstead JA. Understanding the impact of health literacy on women's health. *J Obstet Gynecol Neonatal Nurs* 2009; 38:601-10. [PUBMED]

How to cite this article:

Hitha K Abraham *et al* (2018) 'Analysing the Relationship Between Infant Mortality Rates And Female Literacy Rates in India', *International Journal of Current Advanced Research*, 07(2), pp. 10010-10013.
DOI: <http://dx.doi.org/10.24327/ijcar.2018.10013.1676>
