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INFANT AND CHILD MORTALITY IN INDIA: A SOCIOLOGICAL ANALYSIS

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ABSTRACT :

An infant death refers to any baby who was born alive but died before his or her first birthday. The Infant Mortality Rate (IMR) is the number of such deaths per 1,000 live births in any given time period. This measure is a barometer used worldwide to determine the health of a community. In Milwaukee, infants are dying at a rate that remains a public health crisis. Infant mortality is an indicator of the health status not only of infants, but also of the whole population and of their social and economic status. They face excessive vulnerability, as underprivileged, to a hostile environment and suffer from malnutrition and serious health problems. All these lead to high rates of infant mortality and morbidityThe objective of this paper is to highlight the importance of infant mortality and to examine the trends of the child mortality in India and the factors explaining the sociological analysis of the infant child mortality which is important and can find the child mortality among socially

and economically disadvantaged groups in India. The knowledge of these factors is important for policy formulation and implementation because it will enable policy makers to formulate appropriate policies for the reduction of childhood mortality by paying special attention to the disadvantaged sub-groups.Children are important assets of a nation, therefore reduction in infant andchild mortality is likely the most important objective of the Millennium Development Goals (MDG). Infant and child mortality rates react a country's level of socio-economic development and quality of life and are used for monitoring and evaluating population, health programs and policies.

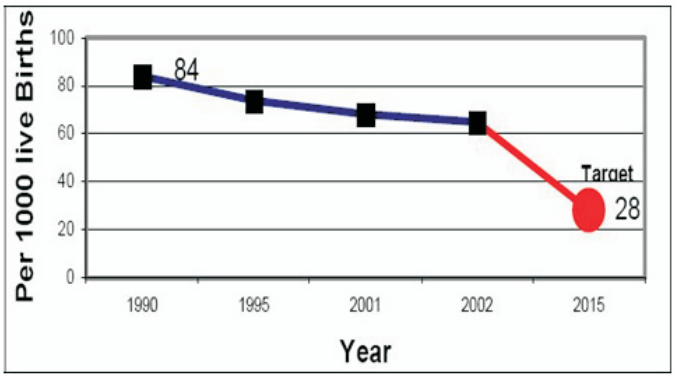
KEY WORDS: Mortality, Health, Infants, Social and Economic Status, Policies

INTRODUCTION:

In India, 2.1 million children die before their fifth birthday. Half of these children die even before they are 28 days old, accounting for one-fourth global infant deaths. Of the 9.7 million child deaths worldwide annually, one-third occur in India. Suresh Sharma (2008) the statistics are equally shocking among neonates children new born to a maximum age of 28 days old. While around 4 million children die within the first 28 days of life across the planet every year, India records around one million of these cases. Among the reasons cited for the poor state of infant and child health in India are inadequate neonatal care, insufficient breastfeeding, malnutrition, low immunity and high incidence of communicable diseases. Breastfeeding a baby within an hour of birth is said to markedly increase its change of survival since breast milk contains vital nutrients and antibodies that enhance a baby's immunity. Benefits accrue to the mother, too for breastfeeding helps her uterus contract post-delivery and burn calories and fat accumulated during pregnancy. It also releases beneficial hormones into the mother's baby. Of the 19 million infants in the developing world who have low birth (less than 2,500 gram), 8.3 million are in India. This means that approximately 43 per cent of all the world's infants who are born with a low birth weight are born in India.

In India, approximately 1.72 million children die each year before reaching their first birthday. Infant mortality has declined significantly in India from 129 in 1970 to 68 in the year 2000 (Fig. 1). Though, the Infant Mortality Rate (IMR) is decreasing at an annual rate of 2.11 per cent from the early seventies, the decadal rate (compounded annually) is decreasing at a slower rate when compared between 1981-91 and 1991- 2001. The slow pace of education in the IMR is a major worry for the country's development. To that extent its performance when compared to other Southeast and East Asian countries is poor. While the expected fall in IMR is at 47 based on the current rate, it is still above the millennium development goal of 28 per 1000 live births by 2015.

Figure 1: Infant Mortality Rate (IMR)



Source: Source: World Bank 2015.

India is demographically a very diverse country. India is administrativelydivided into 28 states and 7 union territories. The states are further dividedinto 593 districts for political and judicial purposes. There are variations inbasic demographic indicators not only across states but districts also. Atone end of the spectrum, Kerala has demographic features which are similarto those of middle income countries like Bulgaria, Russia and Ukraine: lifeexpectancy at birth is 72 years, infant mortality rate is 12 per thousand livebirths, total fertility rate is 1.8 births per women and ratio of females to malesin the population is well above unity (1.04). At the other end we have thelarge north Indian states which _nd themselves in the same league as someof the least developed countries for the same indicators. In Uttar Pradesh,infant mortality rate is 72, life expectancy at birth is 61, total fertility rateis 5.1 and female-male ratio is (0.8), lower than that of any country in theworld Murthi&Guio (1995). In the state of Arunachal Pradesh, there exista districts such as East Kameng which has an IMR of 158, as well as districtslike East Siang where the IMR is only 64.

India is not only described by heterogeneity across states but also by largedemographic variations within states (across districts). While a number ofstudies have looked at the correlates of infant mortality, most of them haveexclusively concerned themselves with estimating the mean effect on infantmortality of variables such as mother's education, child's sex, urbanizationlevel and birth order etc. Such estimates miss an important point for policy makers: exogenous variables and policy interventions may affect infantmortality differentially at different points in the conditional distribution. Forexample, while the effect of electrification may not influence infant mortality\on average", it might play an important role in the case of infants at the bottom of the conditional mortality distribution (i.e. infants at highest riskof mortality).

Mortality Development Indicators

Table No. 1: Mortality Development Indicators in India, World, Low Income and Middle Income

	Life Expectancy at Birth		Neonatal Mortality Rate		Infant Mortality Rate		Under-five Mortality Rate				Adult Mortality Rate	
	Years		Per 1,000 live births		Per 1,000 live births		Total Per 1,000 live births		Male Per 1,000 live births	Female Per 1,000 Live Births	Male Per 1,000 live Births	Female Per 1,000 Live Births
	1990	2013	1990	2015	1990	2015	1990	2015	2015	2015	2008-13	2008-13
India	59	66	57	28	88	38	126	48	46	49	236	156
World	66	71	36	19	63	32	91	43	44	41	193	136
Low Income	50	59	49	27	113	53	187	76	81	71	300	260
Middle Income	64	70	39	20	64	31	90	41	42	39	187	127

Source: World Bank Group 2015.

Notes and Definitions of the above Tables

• Life Expectancy at Birth: Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.

• Neonatal Mortality Rate: Neonatal mortality rate is the number of neonates dying before reaching 28 days of age, per 1,000 live births in a given year.
• Infant Mortality Rate: Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year.
• Under-five Mortality Rate: Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.
• Adult Mortality Rate: Adult mortality rate is the probability of dying between the ages of 15 and 60--that is, the probability of a 15-year-old dying before reaching age 60, if subject to current age-specific mortality rates between those ages.

Table No. 2: Adolescent fertility rate (births per 1,000 women ages 15-19) (Adolescent fertility rate is the number of births per 1,000 women ages 15-19)

	2010	2011	2012	2013	2014
World	47	46	46	45	45
India	36	33	30	28	26

Source: Health Nutrition and Population Statistics. Click on a metadata icon for original source information to be used for citation & World Bank Group.

Reproductive health is a state of physical and mental well-being in relation to the reproductive system and its functions and processes. Means of achieving reproductive health include education and services during pregnancy and childbirth, safe and effective contraception, and prevention and treatment of sexually transmitted diseases. Complications of pregnancy and childbirth are the leading cause of death and disability among women of reproductive age in developing countries. Adolescent fertility rates are based on data on registered live births from vital registration systems or, in the absence of such systems, from censuses or sample surveys. The estimated rates are generally considered reliable measures of fertility in the recent past. Where no empirical information on age-specific fertility rates is available, a model is used to estimate the share of births to adolescents. For countries without vital registration systems fertility rates are generally based on extrapolations from trends observed in censuses or surveys from earlier years.

Table No. 3: Mortality rate, infant (per 1,000 live births)

Year	2010	2011	2012	2013	2014
World	38	36	35	34	33
India	46	44	43	41	39

Source: Health Nutrition and Population Statistics. Click on a metadata icon for original source information to be used for citation & World Bank Group.

The main sources of mortality data are vital registration systems and direct or indirect estimates based on sample surveys or censuses. A complete vital registration system - covering at least 90 percent of vital events in the population - is the best source of age-specific mortality data. Estimates of neonatal, infant, and under-five mortality tend to vary by source and method for a given time and place. Years for available estimates also vary by country, making comparison across countries and over time difficult.

The method uses statistical models to obtain a best estimate trend line by fitting a country-specific local regression model of mortality rates against their reference dates. Neonatal, infant, and

under-five mortality rates are higher for boys than for girls in countries in which parental gender preferences are insignificant. Under-five mortality rates capture the effect of gender discrimination better than neonatal and infant mortality rates do. Where female child mortality is higher, girls probably have unequal access to resources. Neonatal, infant, and child mortality rates are higher for boys than for girls in countries in which parental gender preferences are insignificant. Under five and child mortality rates capture the effect of gender discrimination better than neonatal and infant mortality rates do, as malnutrition and medical interventions are more important in this age group.

Review of Literature

Sahu et al (2015) Social and economic development of a nation is often reflected by the existing infant and child mortality rates. India has made significant strides in reducing both infant mortality (40/1000 live births) and under-five mortality (52/1000 live births) but has been unable to achieve the Millennium Development Goal (MDG) by 2015. Infant mortality is defined as the probability of dying before the first birthday and child mortality of the probability of dying between the first and fifth birthday.Studies conducted globally and in India suggest associations of sex of the child, mother's exposure to mass media, use of clean cooking fuel, access to a toilet facility, improved/safe drinking water facility, mother's religion and ethnicity, income of the household, birth order, mother's age at birth, birth intervals, availability of professional antenatal and delivery care, full immunization of children, mother's education, and urban-rural residence with infant and child mortality.

In the American Indian Infant Mortality Review Project (2007-2008) a 2007 national study of American Indian birth outcomes reinforces our project's findings about SIDS and other post neonatal deaths, especially injury deaths. The study found American Indians are not a homogeneous population nationally with south and northeast American Indian women having more preterm and low birth weight babies than the reference group of non-Hispanic whites. In the Midwest, the study's findings were similar to those of this project with post neonatal mortality as the time frame for most deaths and risk factors such as smoking, alcohol use, and delayed prenatal care contributing to the deaths in addition to young maternal age and socioeconomic disparities.

The report indicated that other factors may be more important than sleep position for American Indian babies and suggested that bedding and smoking should be investigated in future research.

In 2013, the US infant mortality rate (IMR) ranked 51st internationally, comparable to Croatia, despite an almost three-fold difference in GDP per capita(Croatia's IMR; 2013). One way to quantify the magnitude of this infant mortality disadvantage is to consider that the US IMR is about 3 deaths per 1000 greater than in Scandinavian countries.

Aggregating 4 million annual US births and taking a standard value of life estimate of US$7 million (Viscusi and Aldy, 2003) suggests that reducing the US IMR to that of Scandinavian countries would be worth on the order of US$84 billion annually. By this metric, it would be worth it" to spend up to $21,000 on each live birth to lower the infant mortality risk to the level in Scandinavia.

Public Health and Mortality Trends

In recent years, efforts have increasingly focused on examining the larger social, economic and environmental context of infant mortality, and on engaging communities in public health problem solving. One such venue, Fetal and Infant Mortality Review (FIMR), is a process used to determine the community-level factors associated with individual cases of fetal and infant death. FIMR goes beyond biomedical causes to place infant mortality in the larger context of systems factors, with the ultimate

goals of improving community resources and health service delivery systems for women, infants, and families. FIMR can thus be seen as a vehicle for implementing the public health functions of assessment, quality assurance, and policy development at the community level.

The death of an infant can be viewed as a sentinel event that is a measure of a community's overall social and economic well-being. FIMR information complements local population-based fetal and infant mortality data. It identifies critical community strengths and weaknesses as well as unique health/social issues associated with poor outcomes.

The FIMR process brings a multi-disciplinary community team together to review de-identified infant and fetal deaths. Composed of health, social service and other experts, the FIMR case review team examines the case summary, identifies issues and makes recommendations for community change, if appropriate. Community leaders representing government, consumers, key institutions, and health and human services organizations serve on the community action team, which takes recommendations to action. This team reviews recommendations, prioritizes identified issues, and designs and implements interventions that may improve outcomes for future families.The FIMR process can best be described as a "cycle of improvement." The cycle is supported throughout with data gathering and problem solving by members of the community. As new policies, practices, and/or programs to effect improvements in the community systems are put in place, data are continually gathered and new cases reviewed to identify emerging or persistent problems.

May Lynn et al. (2006) Infant mortality rates (IMR) are a useful measure to compare the health of populations worldwide and within individual geographic areas or populations. In the developed world, IMR has decreased dramatically in the past 100 years. Much of this change has been due to clean water, sewer systems, and vaccination programs, which have resulted in very large reductions in infant and childhood mortality from infectious illness.IMR is often increased in minority populations. In the United States, rates are increased in both African Americans and Native Americans compared to the U.S. Several previous reports have documented increased IMR among Native Americans. For the period from 1996 to 1998, the U.SAll Races IMR was 7.2 and the All Indian Health Service (IHS) IMR for Indian infants was 8.9 after adjustment for racial misclassification on death certificates.

Infant Mortality Rate in India

Infant mortality rate (IMR) is the number of newborns dying under a year of age divided by the number of live births during the year times 1000. The infant mortality rate is also called the infant death rate. It is the number of deaths that occur in the first year of life for 1000 live births. In past times, infant mortality claimed a considerable percentage of children born, but the rates have significantly declined in the West in modern times, mainly due to improvements in basic health care, though high technology. Infant mortality rate is commonly included as a part of standard of living evaluations in economics.

Comparing infant mortality rates

The infant mortality rate correlates very strongly with and is among the best predictors of state failure. IMR is also a useful indicator of a country's level of health or development, and is a component of the physical quality of life index. But the method of calculating IMR often varies widely between countries based on the way they define a live birth and how many premature infants are born in the country.The World Health Organization (WHO) defines a live birth as any born human being who demonstrates independent signs of life, including breathing, voluntary muscle movement, or heartbeat. Many countries, however, including certain European states and Japan, only count as live births cases where an infant breathes at birth, which makes their reported IMR numbers somewhat

lower and raises their rates of perinatal mortality.

Global infant mortality trends

For the world, and for both Less Developed Countries (LDCs) and More Developed Countries (MDCs), IMR declined significantly between 1960 and 2001. World infant mortality rate declined from 126 in 1960 to 57 in 2001.The Infant Mortality Rate for Less Developed Countries (91) was about 10 times as large as it was for More Developed Countries. For Least Developed Countries, the Infant Mortality Rate is 17 times as high as it is for More Developed Countries.

What Are The Main Causes

Some of the most common reasons for infant mortality is due to Low Birth Weight, include respiratory distress syndrome, which may involve atelectasis (collapsed Lungs), hypoxemia (low oxygen absorption), and high carbon dioxide levels. Sudden Infant Death Syndrome (SIDS), and lack of the essentials of life, i.e., adequate food, warmth, shelter, and water, all contribute to infant mortality. In a typical population, the mortality rate is higher among male infants than female infants, mainly because male births are also higher.The greatest risk factors for LBWs include smoking while pregnant, and teen pregnancies. More than 12% of smokers give birth to LBW babies, and LBW is the primary cause of neonatal infant mortality.

Other reasons for Infant Mortality Rate:

Infanticide, child abuse, child abandonment, and neglect may also contribute to infant mortality.

Related statistical categories:

- Prenatal mortality only includes deaths between the foetal viability (22 weeks gestation) and the end of the 7th day after delivery.
- Neonatal mortality only includes deaths in the first 28 days of life.
- Postneonatal mortality only includes deaths after 28 days of life but before one year.
- Child mortality includes deaths within the first five years after birth.

Prevention of Infant Mortality

As part of its broader efforts to reduce infant mortality, the Department of Health and Human Services (HHS) agencies support a wide range of outreach and education efforts aimed at reducing behavior that increases the risks of infant mortality. These efforts include:Folic acid campaign; "Back to Sleep" campaign; By Reducing mother-to-child HIV transmission; By Providing Maternal and Child Health Services (MCH).

PTI (2015) In spite of significant reduction in 'extreme poverty', infant and maternal mortality, and near universal enrolment in primary education, Delhi has failed to meet few parameters set by the Millennium Development Goals, although it is "on track" to achieve them shortly.The under-5 child mortality rate during 1992 was 83.1 in Delhi which fell to 28 in 2012, while infant mortality rate was recorded at 25 in 2012 in comparison to 36 in 1998."Both of these targets of reducing child mortality rate are likely to be achieved by 2015," the report said.However, the city will miss the 100% target rate set for the proportion of 1-year olds to be immunised against measles. "...likely achievement by the year 2015 will be 89.05%," it said.In the field of maternal health, which is the fifth MDG, the report says that the proportion of births attended by skilled health personnel in Delhi during 2012 was 84.7%, out of which 81.4% were institutional births, which is expected to go up to 86.4% by 2015.

It claimed success in combating HIV/AIDS, Malaria, and other diseases in recent years. Tuberculosis prevalence rate has been reduced to 67.7 per one lakh population in 2010 as opposed to 284.5 in 2004.In ensuring environmental sustainability, it said that Delhi has appreciably widened the forest and tree cover in the city from 1.5% to 20% in 2011. "Percentage of households with sustainable access to an improved water source in Delhi as per 2011 census is 81.3%, which was 75.3% in 2001. 89.6% households had the sanitation facility in 2011 in comparison to 78% in 2001. The percentage of slum households in 2001 was 16.3 which come to 11.3 in 2011 census." Poverty, infant mortality reduces in Delhi, other Millennium Development goals not achieved.

Average infant mortality falls by 30% over a decade

The overall drop in infant mortality seems to suggest that welfare measures are working. But at 50 live births per 1,000, it's still too high to meet the MDG target of 28. Recent data from the latest Sample Registration System (SRS) report released by the census office in New Delhi shows that the infant mortality rate in India has declined by 30% over the past 10 years.The average infant mortality rate for the whole country was 50 per 1,000 live births in 2009.Infant mortality is an important indicator of the health status of people in a country, and of the quality of health services provided. India's figures have been among the worst in the world. Unicef reported in 2010 that around 5,000 children under the age of 5 die every day in India; nearly half of all children in India are malnourished.The new data therefore comes as a pleasant surprise, though it is still much higher than the MDG target of 28 per 1,000 live births by 2015.The most significant improvements have occurred in the states of Tamil Nadu, where IMR has been cut by 46%, West Bengal which cut its IMR by 37%, and Maharashtra which saw a 35% decline in IMR. Orissa, with a poor IMR of 65, has nevertheless improved its IMR by 33%; Karnataka has seen a 29% improvement. Kerala continues to be the best performing state with an IMR of just 12.

Delhi is the only major state that has seen a worsening of IMR, particularly in rural areas. This is attributed to large settlements of slum-dwellers in the rural periphery of Delhi and the consequent lack of civic amenities and poor living conditions.The worst states are Rajasthan (IMR: 59), Assam (61), Uttar Pradesh (63), Orissa (65), and Madhya Pradesh (67). Poverty is a major determinant of health, and poverty alleviation schemes like the National Rural Employment Guarantee Scheme (NREGS), better health delivery schemes and systems such as the JananiSurakshaYojana that encourage institutional deliveries, and better civic amenities, particularly clean drinking water, are believed to be behind the improved figures.Tamil Nadu has benefited from its better healthcare delivery system reaching down to the grassroots, as has Maharashtra. West Bengal has not done well in implementing the National Rural Health Mission; its success is being attributed to a strong panchayat system. There is also greater access to hospitals in West Bengal. Seventy-nine per cent of all hospitalisation cases in rural areas were dealt with at government hospitals in rural Bengal -- that's miles above the all-India average of 42%. The state also rarely reports female infanticide, and the infant mortality rate between boys and girls is the same, at 33.

The all-India IMR by sex is 49 for males and 52 for females. The widest disparities are in Jammu and Kashmir (41 males and 51 females), Haryana (48 males and 53 females), Maharashtra (28 males and 33 females), and Assam (58 males and 64 females). Bihar, like West Bengal, has a figure of 52 males and females; Meghalaya too has the same, at 59.

Improved civic amenities have also impacted favourably on health in West Bengal. Between 2002 and 2008, households with an improved source of drinking water increased from a mere 25% to 91%, according to the third District-Level Household and Facility Survey (DLHS-3) conducted by the Ministry of Health. Since waterborne diseases are one of the biggest killers for babies, this factor likely

helped bring down the infant mortality rate.

The Sample Registration System (SRS) is a large-scale demographic survey for providing reliable annual estimates of birth rate, death rate and other fertility and morality indicators at the national and sub-national levels. The SRS sample is replaced every 10 years based on the latest census frame.

Gender Disparity across social groups and Birth Order

Suresh Sharma (2008) in this study has revealed that much has been written about sex differentials in infant mortality in India. India is said to be one of the few countries in the world where females have a higher infant mortality rate than males. The NFHS-2 data do not show a significant disparity in average male and female infant mortality rates, but this in itself is evidence of parental discrimination against female infants, as one would expect the infant mortality rate for males to be well above that for females in a non-discriminatory environment.

In India, social groups, such as scheduled castes (SCs), scheduled tribes (STs), and other backward castes (OBCs), have been historically under-privileged, and tend to have poorer socioeconomic indicators than the general population. The NFHS-2 data indicate that these groups have higher infant mortality rates than the general population, although there are differences among these groups as well (Table 7). Of the three groups, STs have the highest infant mortality, followed by SCs. Although SC/STs in the poor states have the highest absolute IMRs of any group in the country, the relative position of SC/STs vis-à- vis the non-SC/ST/OBC groups is worse in the non-poor states relative to the poor states. For instance, in the poor states, STs have an IMR that is 54 per cent greater than that of forward castes, but this differential is only about 37 per cent in the non-poor states. As is widely observed in many countries (including India), mother's schooling is strongly associated with infant mortality.

Causes of Child Mortality

It is estimated that under-nutrition and anemia are contributory factors in over 50 per cent of under-five deaths in the country. Malnutrition is an area to be tackled as studies have revealed a synergy between malnutrition and mortality. The major causes of infant mortality continue to be pre-maturity birth and low birth weight, poor intra-partum and newborn care, diarrhoeal diseases, acute respiratory infections and other infections.

Neonatal mortality

Neonatal mortality accounts for more than two-thirds of Infant Mortality Rate in India. Over the last decade, post-neonatal mortality has declined much faster than neonatal mortality. This is mainly due to increased programme interventions focused on post neonatal care such as immunization, management of diarrhoea and ARI, etc. Policies and programmes should an emphasis on interventions in perinatal and neonatal mortality. Antenatal care, safe delivery and quality of new born care are key requirements for reduction of all types of mortality.

Gender Disparity

There are gender differences in IMR and under five mortality rates. Though there is no biological reason for a higher mortality rate in females in the age group 0-4 years, it is the presence of social causes that adversely affect the mortality rate of girls, and this needs to be tackled. Girls have a higher mortality rate than boys during the post-neonatal period to five years. The risk of mortality is higher among girls than boys as their malnutrition levels are higher.

Urban-Rural Bias

Bridging the gap between urban and rural child mortality rates and immunization over age is another challenge to be tackled. There is a large urban-rural disparity in the infant, under-five mortality rates and immunization coverage for measles. One of the reasons is the lack of accessibility to services either by remoteness of the location and higher proportion of disadvantaged groups. Providing adequate services to specific vulnerable groups and those in the remote areas is the key to bring down the gap.

CONCLUSION

Some of the recommendations to reduce infant death and stillbirth require the establishment of private and public partnerships to affect change and encourage action. The recommendations are:

1. Improve women's health and quality of care across the life span
2. Improve comprehensive reproductive health services for all girls and boys, women and men of reproductive age
3. Promote, educate and support Safe Sleep
4. Support and promote men's health and fatherhood issues across the life span
5. Understand and work to eliminate racism and improve the social, economic, educational and environmental determinants of health.

The lessons learned for child survival in India is the need for state stratified strategies and the adoption of multisectoral approaches to achieve greater impact and accelerate progress towards the health MDGs. Policy options for child survival are; to strategize by state and area. States with high U5MRs and slow decline need to strengthen the health systems, prioritize essential elements of child health and nutrition services (high impact interventions) and develop and expand community participation for the prevention and treatment of childhood illnesses (care seeking, compliance and preventive practices at the household level); to adopt a multisectoral approach, the study "Reducing child mortality in India in the new millennium" suggested that for India to pick up and continue its earlier successful record in child survival, a multi-prong approach would be an important option. A multisectoral approach would include female education and nutrition, increasing the use of health services during pregnancy and delivery, eliminating the gender gap in child health services and improving nutrition throughout the lifecycle.

REFERENCES:

1. American Indian Infant Mortality Review Project, Minnesota 2005-2007.
2. American Indian Infant Mortality Review Project Minnesota 2005-2007 Summer 2008.
3. Bhaumik S. (2013). Child mortality: will India achieve the 2015 target? BMJ 2013; 346: f1502.
4. DamodarSahu, Saritha Nair, Lucky Singh, B.K. Gulati & Arvind Pandey (2015). Levels, trends & predictors of infant & child mortality among Scheduled Tribes in rural India, Indian J Med. Res, May 2015, p. 709.
5. Claeson M, Bos ER, Mawji T, Pathmanathan I. (2000)Reducing ChildMortality in India in the new millennium. Bull World Health Organ; 78: 1192-9.
6. CIA, (2013). Croatia's IMR in 2013 was 5.96, relative to 5.9 in the US; GDP per capita was $18,100 in Croatia and $50,100 in the US.
7. FIMR (2015). Retrieved from http://www.jhsph.edu/research/centers-and-institutes/womens-and-childrens-health-policy-center/publications/FIMRBrief2pager.pdf (Accessed on 12th September, 2015).

8. May Lynn Eagle Staff, R N, Marilyn G Klug, Larry Burd (2006). 'Infant Mortality Reviews in the Aberdeen Area of the Indian Health Service: Strategies and Outcomes,' Public Health Rep. 2006 Mar-Apr; 121(2), Association of Schools of Public Health, pp. 140–148.
9. Ram F, Mohanty SK, Ram U. (2009). Progress and prospects of millennium development goals in India. Mumbai: International Institute for Population Sciences.
10. Registrar General of India. SRS Bull 2014; 49: 1-3.
11. ShrutiKapoor (2010). Infant Mortality Rates in India: District Level Variations and Correlations, May 22, Riverside, UC.
12. Suresh Sharma (2008). 'Childhood Mortality and Health in India,' Working Paper Series No. E/292/2008, Institute of Economic Growth, University of Delhi Enclave North Campus, Delhi.
13. Viscusi, Kip and Joseph Aldy, (2013). The value of a statistical life: A critical review of market estimates throughout the world," Journal of Risk and Uncertainty, 27 (1), 5{76}.