

A study about child health status in India

¹ Dr. Paras Jain, ² Rachna Billaiya, ³ Jaya Khare

¹ Director Silicobyte KDC Katni Degree College, Katni, Madhya Pradesh, India

² Academic Head Silicobyte KDC Katni Degree College, Katni, Madhya Pradesh, India

³ HoD Biotech Silicobyte KDC Katni Degree College, Katni, Madhya Pradesh, India

Abstract

Child ill- health is a multifaceted problem which is directly linked to a large extent to mother's health conditions, safe delivery conditions, socio economic conditions of the family and the health care system. Over the time, the nation has implemented a number of child centric programmes, poor health status of women and children in terms of high mortality and morbidity was another health priority in this country. Health facilities like hospitals and health centers were established for providing Maternal and Child Health care through ante natal, intra natal and post-natal services. In addition, a number of special programmes and schemes like immunization against vaccine preventable diseases, nutrition interventions like iron and folic acid distribution and vitamin A supplementation, diarrhoeal disease control through Oral Rehydration Therapy (ORT), Acute Respiratory Infection (ARI) control programme etc. were implemented over the past. In order to, ensure maximum benefit from these programmes and to provide services in an integrated manner to these vulnerable groups strong monitoring system required.

Keywords: child health, Child il, Oral Rehydration Therapy, Acute Respiratory Infection

1. Introduction

It is globally accepted that investment in health care and human resource development is a pre requisite for any nation. Early childhood, that is the first five years constitutes the most crucial period in life, when the foundations are laid for cognitive, social and emotional language, physical/motor development and cumulative lifelong learning. The young child under 3 years is most vulnerable to the vicious cycles of malnutrition, disease/ infection and resultant disability all of which influence the present condition of a child at micro level and the future human resource development of the nation at the macro level.

India contributes to more than 20 per cent of the child deaths in the world. In India about 1.83 million children die annually before completing their fifth birthday, most of them due to preventable causes. The early neonatal mortality (within a week) contributes to about 50 per cent of total infant deaths declined by only 27 per cent. India has made significant gains in child survival in the age-group 1-4 years. The overall decline in child mortality was largely hindered by subdued progress in the area of neonatal deaths, especially within the first week of birth. This certainly raises concern on issues around reproductive health of mothers and early childhood care in terms of access, use and quality of the service delivery systems. India is a signatory to the Millennium Development Goals (MDGs). The fourth Millennium Development Goal is reduction of child mortality and the target for this is to reduce by two thirds, the mortality rate of children under five.

The problem has caught attention of policy makers and researchers for several decades. Although mortality rate among infant and under 5 children is declining over the years, there are some states where mortality rates are very high. Despite progress in health sector in the recent decades, precious young lives continue to be lost due to early childhood diseases, inadequate newborn care and childbirth related causes. The mortality status of children threats in

child health. The level of mortality is very high in the first few hours, days and weeks of life. The reasons for infant deaths at the earlier and later stages of infancy differ to a certain extent.

Out of the total deaths reported, 14.5% are infant deaths (less than 1 year), 3.9% are deaths of 1 - 4 years children and 2.7% deaths pertained to children of 5 -14 years. The child mortality scenario varies across the states. From moderate level of 2.8% in Kerala, 5.0% in Tamil Nadu to as high as 21.8% in Rajasthan, 21.2% in Uttar Pradesh, 20.4% in Madhya Pradesh. At the national level, the percentage share of infant deaths to total deaths in rural areas is 15.8%, whereas in urban areas, the same is 9.7%. Kerala has the lowest share of infant deaths 3% in rural and 2.3% in urban areas while 24.5 % in rural Rajasthan and 11.9% in urban part.

Early neonatal mortality

Early neonatal mortality rate (number of infant deaths less than seven days of life per thousand live births) is an important component of the infant mortality rate. At the national level, the early neo -natal mortality rate for the year 2010 has been estimated as 28 in rural areas to 15 in urban areas. Among the bigger States, Kerala (5) and Madhya Pradesh (34) are at the two extremes. The percentage of early neo - natal deaths to the total infant deaths during the year 2010, at the national level has been 53.9 and it varies from 54.6 in rural areas to 49.6 in urban areas. Among bigger States, the percentage of early neo natal deaths for total infant deaths varies from the lowest level of 38.7% in Kerala to the highest level of 69.4% in Jammu & Kashmir.

Neonatal Mortality

Neo- natal deaths refers to the deaths of infants less than 29 days of age. In 2010, the percentage of neo- natal deaths to total infant deaths was 69.3% at national level and varies

from 61.9% in urban areas to 70.6% in rural areas. Among the bigger States, Jammu & Kashmir (82.1%) registered the highest percentage of neonatal deaths to infant deaths and the lowest is in Kerala (53.2%). At national level, neonatal mortality rate (neo- natal deaths per thousand live births) is at 33 and ranges from 19 in urban areas to 36 in rural areas. Among bigger states, neo-natal mortality rate is highest in Madhya Pradesh (44) and lowest in Kerala (7). The rural – urban gap in neo natal mortality rate was highest in Andhra Pradesh and Assam (23 points) and lowest in Kerala (3 points).

Infant Mortality

Infant mortality is defined as the infant deaths (less than one year) per thousand live births. Among infants, the main causes of death are: Certain Conditions Originating in the Perinatal Period (P00-P96) (67.2%), Certain infectious and Parasitic diseases (8.3%), Diseases of the Respiratory System (7.7%), Congenial Malformations, Deformations & chromosomal Abnormalities (3.3%), Other causes (10.6%). In 2010, Infant mortality is found 47 at the national level, and varies from 51 in rural areas to 31 in urban areas.

Though, infant mortality is showing a declining trend over the years, the progress is slow. Infant mortality among female children is higher and declined for males from 78 in 1990 to 46 in 2010 and for females the decline was from 81 to 49 during this period. The per year decline in infant mortality rate was 1.6 points for both males and females and the percentage decline in female IMR is 39.5% and the percentage decline in male IMR is 41.02% during the last two decades. Female infants experienced a higher mortality rate than male infants.

Under Five Mortality

The Under-Five Mortality Rate is the probability of a child born in a specified year dying before reaching the age of five. Among children aged 0 to 5 years, the main causes of death are: Certain infectious and Parasitic Diseases (23.1%), Diseases of the Respiratory System (16.1%), Diseases of the Nervous System (12.1%), Diseases of the Circulatory System (7.9%), Injury, Poisoning etc (.9%), Other major causes (33.9 %). At national level, under five mortality rate has declined during the last decade. It is higher for females than males, this rate is 64 for females whereas 55 for males. At national level, under five mortality rate is estimated at 59 and it varies from 66 in rural areas to 38 in urban areas.

Mortality for Children age 5-14 years

Ages 5-14 is generally a period of lower mortality than at ages 0-4 years. The main leading causes of death at ages 5-14 are Certain Infectious and Parasitic Diseases (22.9%), Injury Poisoning and Certain Other consequences of External causes (12.5%), Diseases of the Nervous System (11.5%), Diseases of the Circulatory System (10.5%), Diseases of the Respiratory System (8.5%), Other Major groups (34.2%). At the national level, the death rate of 5-14 years age group is estimated to be 0.09%. In the urban areas lower death rate found (0.06%) as compared to that in rural areas (0.1%).

Factors which affect fetal and neonatal deaths are primarily endogenous, while those which affect post neonatal deaths

are primarily exogenous. The endogenous factors are related to the formation of the fetus in the womb and are therefore, mainly biological in nature. Among the biological factors affecting fetal and neonatal infant mortality rates the important ones are the age of the mother, birth order, period of spacing between births, prematurity, weight at birth, mothers health. Social, cultural, economic and environmental factors are also found to affect infant mortality. Post neonatal deaths are therefore mainly due to various causes, such as communicable diseases, both of the digestive systems, such as diarrhea and enteritis, and of the respiratory system, such as bronchitis and pneumonia, as well as faulty feeding practices, and poor hygiene. Immunization is important for good health of child. National Govt., State Govt. WHO are trying to bring awareness. There are many govt. organized programmes at every level to generate 100% immunized child. At national level, 61% of the children aged 12-23 months have received full immunization. The coverage of immunization was higher in urban areas (67.4%) compared to that in the rural areas (58.5%). It is a matter of concern that, nearly 8% children did not receive even a single vaccine. Nearly 62% of the male children aged 12-23 months have received full immunization, while among the females it was nearly 60%. Locality, gender, socio economic status of family influence awareness about child health.

2. Methodology

Data presented in this research is based on survey of health institutes. Data is tabulated and analysed. 8 data tables are prepared. Table-1 contains early neonatal mortality rate related data. Data related to mortality of neonatal mortality is presented in table-2. Mortality of child having 1 to 5 yr age related data is mentioned in table-3. Table-4 shows data regarding mortality rate of child with age 5 to 14 years. Table-5 and table-6 related data indicates immunization. Age wise vaccination percentage is presented in table-5 while impact of mother education on vaccination is depicted in table-6. Table-7 is related to effect of economic status of family on immunization%. Impact of locality and gender on immunization is presented in table-8.

3. Finding and Analysis

Table 1: Early Neonatal Mortality Rate

Year	Mortality %
2001	32
2002	30
2003	29
2004	28
2005	28
2006	27
2007	26
2008	26
2009	25
2010	24
2011	24
2012	23
2013	22
2014	21
2015	21

Table 2: Neonatal Mortality Rate

Year	Mortality %
2001	29
2002	28
2003	27
2004	27
2005	26
2006	25
2007	25
2008	24
2009	23
2010	23
2011	22
2012	21
2013	21
2014	20
2015	19

Table 3: Under Five Year Age Mortality Rate

Year	Mortality %
2001	28
2002	28
2003	27
2004	26
2005	24
2006	23
2007	23
2008	22
2009	22
2010	21
2011	20
2012	18
2013	18
2014	17
2015	16

Table 4: 6-14 Year Age Child Mortality Rate

Year	Infant mortality
2001	24
2002	24
2003	23
2004	23
2005	22
2006	21
2007	20
2008	20
2009	18
2010	17
2011	15
2012	14
2013	12
2014	12
2015	11

Table 5: Age-wise Vaccination Percentage

Age	% of vaccination
1 year	67.5
2 year	64.7
3 year	53.7
4 year	40.4

Table 6: Impact of Mother Education on Child Vaccination

Mother Education	% of vaccination
No education	45.3
5 yr education	55.4
6-8 yr education	64.9
9-10 yr education	70.6
11-12 yr education	74.1
more than 12 years	78.5

Table 7: Impact of Economic Status of Family on Child Vaccination

Economic Status of Family	% of vaccination
Annual Income less than 50 thousand	47
Annual Income less than 1 lakh	61
Annual Income less than 2 lakh	72
Annual Income less than 3 lakh	78
Annual Income more than 3 lakh	88

Table 8: Impact of Locality and Gender on Child Vaccination

Locality and Gender	% of vaccination
Rural Male	67
Rural Female	58
Urban Male	79
Urban Female	75

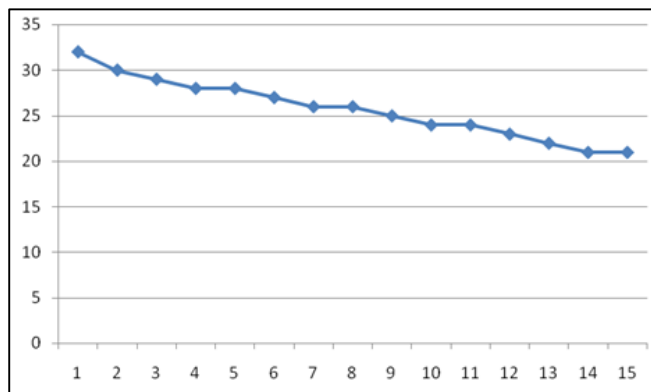


Fig 1: Early Neonatal Mortality Rate %

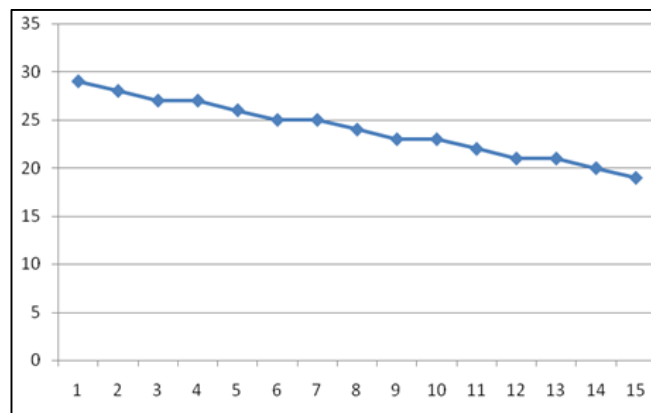


Fig 2: Neonatal Mortality Rate %

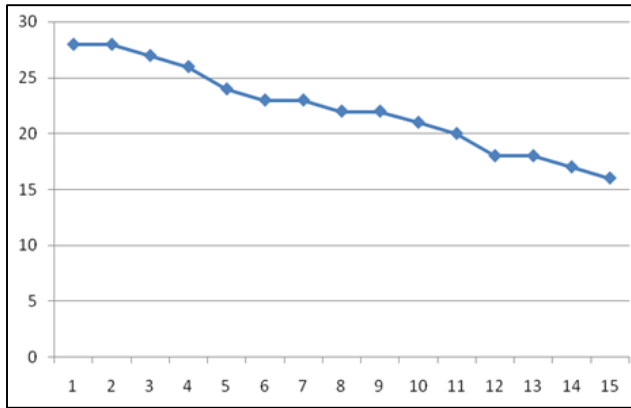


Fig 3: Under Five Year Age Mortality Rate %

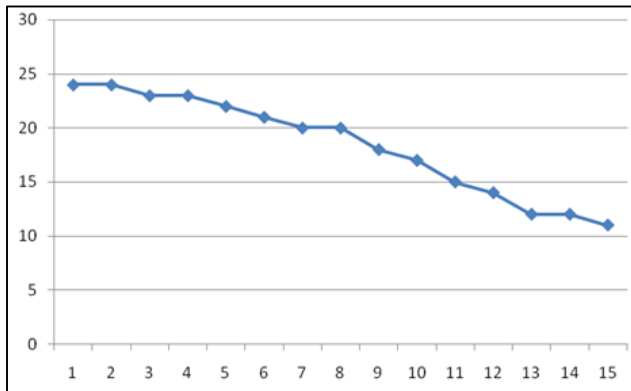


Fig 4: 6-14 Year Age Child Mortality Rate %

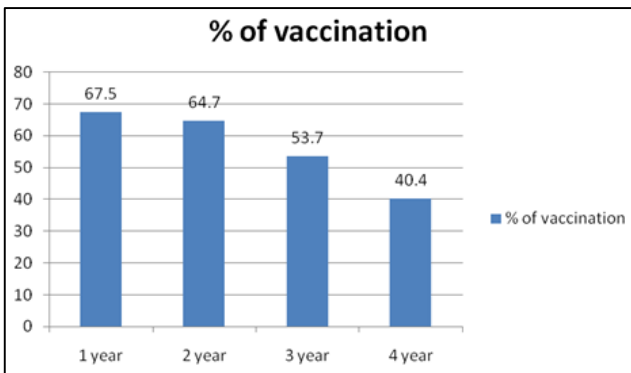


Fig 5: Agewise Child Vaccination Percentage

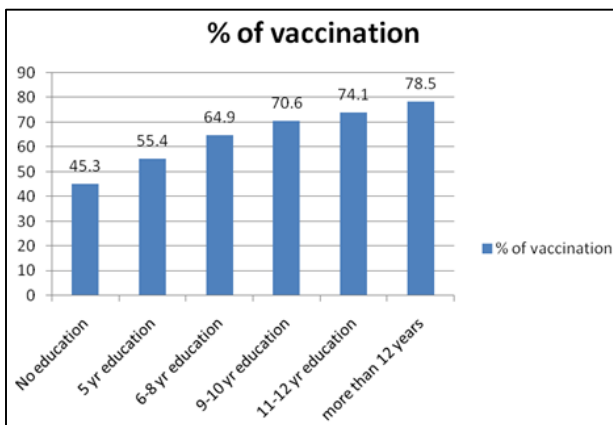


Fig 6: Impact of Mother Education on Child Vaccination

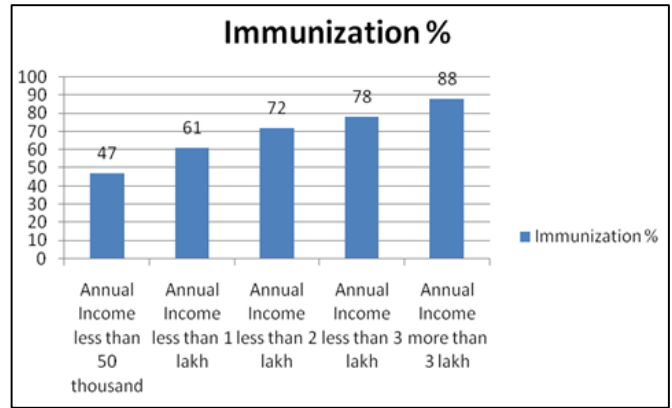


Fig 7: Impact of Economic Status of Family on Child Vaccination

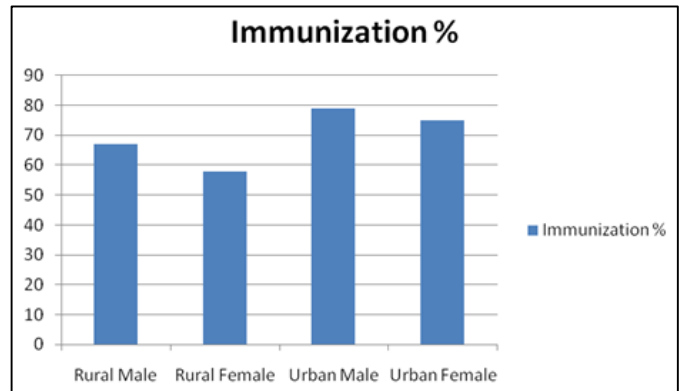


Fig 8: Impact of Locality and Gender on Child Vaccination

Early neonatal mortality rate is decreased from 32 % to 21% in last 15 years. Every year mortality rate is decreasing showing better health care. Neonatal mortality rate is decreasing rapidly showing health consciousness. In 2001 mortality rate was 29% while in 2015 it has downed to 19%. In the category of under 5 year child, mortality rate decreased 28% to 16% from 2001 to 2015. Year by year mortality rate is decreasing. Mortality rate is low for child of age 6 to 14 years. In 2001 mortality was 24% and decreased up to 11% in 2015.

Age wise vaccination data shows that 67.5 % children are immunized having 1 year age while immunization percentage is 64.7% for 2 year children. Decreasing with age only 53.7% children of 3 year age are vaccinated and for 4 year age, percentage of immunized children is 40.4%. Mother's education level influences their child health. Immunization related data shows that less % of children found as non-immunized with educated mothers. Only 45.3% mothers without education immunize their child while 55.4 % mothers having 5 year education vaccinate their child. As mother's education level increase child vaccination percentage also increases. In case of women having education more than 12 years, vaccinated child percentage is 78.5%.

As economic status of family increases vaccination % also increases. In families where annual income is less than 50 thousand vaccination percentage is only 47% while where annual income is more than 3 lakh 88% children are immunized. For rural female immunization is lower and for urban male it is highest.

4. Conclusion

In spite of the recent progress in health sector, as exhibited by the statistical indicators, the situation is not adequate to ensure a bright future to the children of India. Much remains to be done to guarantee better health conditions to the children. Mother's education also has a significant role in ensuring full immunization coverage to their children. The economic condition of the family has a direct and huge impact on status of immunization of the children. Locality and gender also influence child health.

5. References

1. www.unicef.org/sitan/files/SitAn_India_May_2011.pdf
The Situation of Children in India A Profile
2. www.indianpediatrics.net
3. mohfw.nic.in
4. www.commonhealth.in/neonatal-pdf
5. www.stjudechild.org
6. Children in India 2012- A Statistical Appraisal