



Infant Mortality Trends in Andhra Pradesh: A Regional Disparity Analysis in India

¹Dr. SK. Karimulla

Assistant Professor in Economics

²M. Srinivasa Rao

Lecturer in Commerce

^{1&2}Dr. LHR Government Degree College, Mylavaram, NTR District, Andhra Pradesh.

Abstract

Infant mortality is a key indicator of the health status in India. If it is decreasing trend of IMR indicates that good sign of the health status or increasing trend shows vulnerability conditions in health of the children's so there is positive correlation between economic growth and health status in relation to decreasing the infant mortality rate. (Adler et al., 1994, Ettner, 1996, Adams et al., 2003) The Infant mortality Rate is defined as the number of deaths of children under one year of age expressed per 1000 live birth. The IMR is a public health indicator of a complex societal problem it is determined by many factors such as poverty, literacy particularly women literacy, urban and rural area, economic status of the family and environment. The trend of infant mortality is continuously declining in the economic development. The infant mortality rate has been decreasing. at global scenario the infant mortality rate has decreased from an estimated rate of 65 deaths per 1000 live births in 1990 to 29 deaths per 1000 live births in 2018 again in 2022 it is 21 death per 1000. The Annual infant deaths have declined from 8.7 million in 1990 to 4.0 million in 2018 where as in 2022 it is 3.2 millions deaths. India IMR has significantly declined over the last two decades. In 2010, the infant mortality rate was estimated to be 49 per 1,000 live births. The under-five mortality rate for the country was 113 per 1,000 live births in 1994 whereas in 2022 it reduced to 26 per 1,000 live births. However advances in declining the infant mortality rate there are still 4000 infant deaths per day from largely preventable causes. The study of this paper found that in 2022 The IMR rate in Andhra Pradesh was 22 death per 1000 live birth it is significantly decrease Infant Mortality Rate in Andhra Pradesh from the previous years but when compare with southern states still Andhra Pradesh is highest infant deaths among the southern states such as Kerala is 5.2 in Tamil Nadu 21 Karnataka 19 Telangana 21 but it is lower than all India average.

Key words: Infant Mortality Rate (IMR), Health care system women literacy, Socio Economic Conditions

Review of Literature

The present study based on certain previous studies which are focused on infant mortality rate and health status of the children's and what are major factor determined high IMR and IMR trends and its disparities among the different regions in India for this we have identified few studies which are relevant for identifying the research gap from the following studies like **Mirigesh and Lakxmikant Dwidhi** (2019) In their paper analyses the pattern and trends in the infant mortality rate under the age of 5 in India (1992- 2016) comparison between good performing and poor performing states in India the trend shows that in overall trend in infant mortality is on declining in India, however the study found that the improvement of IMR are not similarly distributed among the states there is huge variation between high performance states and poor performance of the state. **Suresh Sharma** (2008) in his Paper "Childhood Mortality and Health in India" is to examine the determinates of the childhood mortality and Child health in India the factors explain different performance. **Amul Patel and Pradeep Kumar** (2013) In their article "Infant Deaths – data Disparities and use of Ante, Intra and post natal services utilization : An Experience from Tribal areas of Gujarat" to examine the reasons for variation of infant deaths depends upon care during the infancy and service utilization during antenatal and intra natal period, further on their study the results found that a total of 48 infant deaths were recorded in which 29.2 percent mother received full ante natal care (ANC) and 60.4 percent delivered at home 39.6 percent mother did not breast feeding and 35.4 percent gave lacteal feeding. **Uttam Kumar Sikdar**

and Mithun Singha Roy et al (2015) In their article “Interstate Disparities in Infant Mortality Rates and their Major Determinants in India : Study based on latest Census 2011” reveals that the 27 States out of 30 states in India have taken as a cross sectional data units in which the Infant Mortality Rate disparities among the states are causes of socio economic factors are major determinants of IMR further the female literacy rate and state domestic product at constant price are major statistically significant for varying the IMR and its declined. **Anil Shetty and Shraddhas shetty et al (2014)** In their Paper “The Impact of female literacy on Infant Mortality Rate in Indian states “ They have taken 28 states for studying relationship between female literacy and IMR for this they have collected 4 past census data. The study results found that there is inverse relationship between female literacy and infant mortality rate if more literacy rate states are front runner of declining the IMR

Objectives

The main objectives of this paper is examine Infant Mortality Rate trends and a regional disparities in India consist with specific objectives is as follows

1. To study the trends in Infant Mortality Rate (IMR) in India and Andhra Pradesh
2. To make comparative study in Infant Mortality Rate (IMR) between Andhra Pradesh and other states in India particularly southern states

Methodology

The Paper analyses growth trends of Infant Mortality Rate in Andhra Pradesh : A Regional disparities analysis in India, for analyses of this paper the secondary data have been collected for the period 2010 - 2022 from the different sources namely National Rural Health Mission (NRHM), National Family Health Survey Report (NHFS), Statistical Hand book of Andhra Pradesh, Reports from the Registrar General India and National Health Profiles – 2022, Census reports and other sources from Journals, Magazine and websites. For studying the trends in infant mortality rate the appropriate statistical techniques are used such as Compound Annual growth rate (CGR) and percentages and trend line graphs.

table:01 disparities of infant mortality rate in selected countries in world

S.NO	COUNTRY	INFANTN MORTALITY RATE (1000 Per Live birth)	
		1995	2022
1	India	88.4	34.6
2	China	42.2	8.5
3	Pakistan	106.2	64.2
4	Sri Lanka	17.9	8.2
5	United Kingdom	7.8	3.6
6	United States	9.1	5.3

Sources: World Development Indicators 2022, World Bank

In the above table :01 reveals that Infant Mortality Rate of the developed countries in the world indicates that health status of the countries children's data shows that better health conditions where as developing countries lower level of health status of their children's . IMR in USA 9.1 in 1995 to 5.3 in 2022, United Kingdom 7.8 in 1995 to 3.6, where as India 88.4 in 1995 to 34.6 in 2022, China 42.2 in 1995 to 8.5 in 2022, Pakistan 106.2 in 1995 to 64.2 in 2022 and Sri Lanka 17.9 in 1995 to 8.2 in 2022 based on the data it is clearly depicted that developed countries have better health facilities as they spent more investment on health to its GDP where as developing countries their expenditure on health is very low percentage in GDP it requires more investment for better health care in under developed countries

table:02 trends of infant mortality in india & andhra pradesh during 2010 to 2022

YEAR	India			Andhra Pradesh		
	Total	Rural	Urban	Total	Rural	Urban
2010	49	51	31	48	54.3	34.7
2011	48	48	29	46	53	33
2012	47	46	28	44	52	31
2013	45	44	27	42	52	29
2014	39	43	26	41	51	28
2015	37	41	25	36	50	27
2016	34	38	23	33	48	26
2017	33	37	22	32	47	25

2018	32	36	22.5	28	36	23
2019	30	35	21	26	34	21
2020	28	34	21	24	28	19
2021	27	33	20	23	25	16
2022	26	32	19	22	23	13

Source: Sample Registration system

The table reveals that the trend of rural and urban infant mortality rate in India as well as Andhra Pradesh during 2010 to 2022 is continuously decreasing trend in 2010 the IMR rate is 49 it is declined to 26 in the year 2022. The Rural and urban infant mortality is also decreasing trend in India. Rural infant mortality rate 51 urban is 31, in Andhra Pradesh rural and urban infant mortality 54 and 34 in 2010 it is decreasing to 32 and 19 in rural and urban in India where as in Andhra Pradesh it is 23 in rural and 13 in urban by 2022.

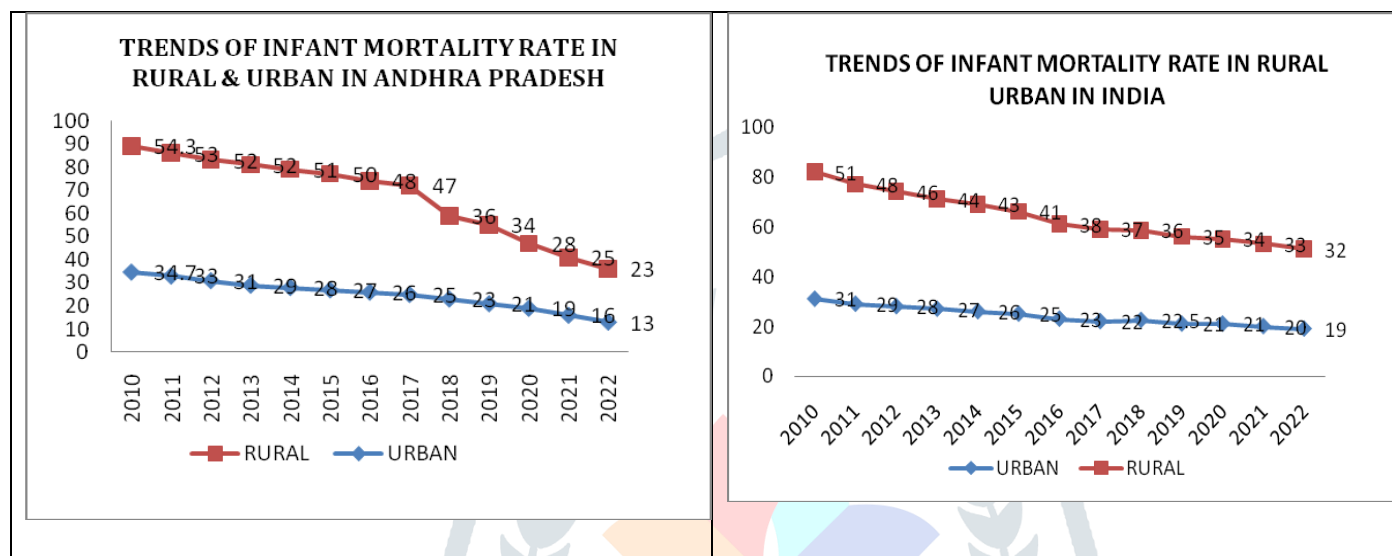


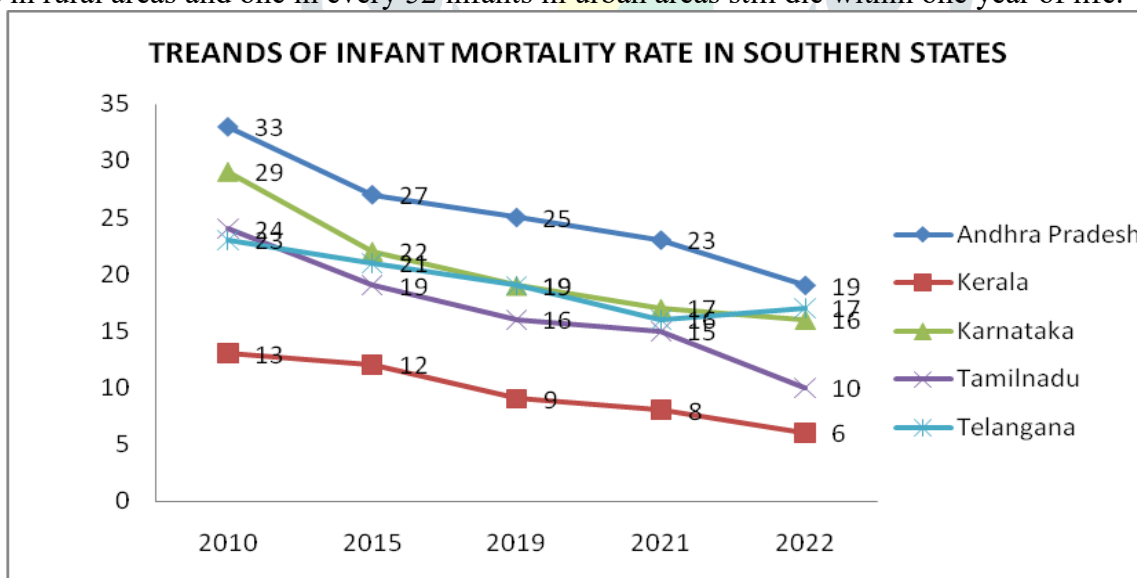
table:03 key indicator of infant mortality rate (imr) disparities in india

S.No	Region wise	S.No	States	2010	2015	2019	2022
1	North India	1	Haryana	48	36	27	23
		2	Himachal Pradesh	40	28	17	16
		3	Punjab	34	23	19	17
		4	Rajasthan	55	43	35	32
		5	Uttarnchal	38	34	27	24
		Average IMR for North		43	32.8	25	22.4
2	Central India	1	Chattisgarh	51	41	40	38
		2	Madya Pradesh	62	50	46	42
		3	Uttar Pradesh	61	46	41	37
		Average IMR for Central		58	45.6	42.3	39
3	East India	1	Bihar	48	42	29	27
		2	Jharkhand	42	32	27	25
		3	Orissa	61	46	38	36
		4	West Bengal	31	26	20	19
		Average IMR East India		45.5	36.5	28.5	26.7
4	North East India	1	Arunachal Pradesh	31	30	29	27
		2	Assam	58	47	40	38
		3	Manipur	14	12	10	9
		4	Meghalaya	55	42	33	28
		5	Mizoram	37	32	28	26
		6	Nagaland	23	19	17	16
		7	Sikiim	30	22	19	18
		8	Tripura	27	20	21	20

		Average IMR for NE India		34.3	28	24.6	22.8
5	West India	1	Goa	10	9	8	8
		2	Gujarat	44	33	25	23
		3	Maharashtra	28	21	17	16
		Average IMR West India		27.3	21	16.6	15.6
6	South India	1	Andhra Pradesh	33	27	25	19
		2	Karnataka	29	22	19	16
		3	Kerala	13	12	9	6
		4	Tamil Nadu	24	19	16	10
		5	Telangana state	23	21	19	17
		Average IMR South India		24.4	20.2	17.6	13.6
		All India Level		49	37	30	26

Source: Sample Registration System (SRS) of Registrar General of India

The table shows that disparities of Infant mortality among region wise in India clearly found that the average Infant mortality rate of north India is 43 in 2010 it is reduced to 23 in 2022 other regions such as Central India 58 to 39, East India 45.5 to 26.7. West India 28 to 16 where as South India 24.4 to 13.6 the average Infant mortality rate is declined in all the regions during the 2010 to 2022 but when comparison made among the region's the highest infant mortality rate in central India it includes Chattisgarh, Madhya Pradesh and Uttar Pradesh are less health indicator followed by east India (Bihar, Jharkhand, Orissa and west Bengal). The lowest Infant Mortality Rate in South India (Kerala, Tamilnadu, Karnataka, Andhra Pradesh and Telagana) next lowest average Infant mortality rate is west India (Goa, Gujarat and Maharashtra) This two regions are less than the national average of Infant Mortality rate in India. Central India and east India these regions are more than the national average of Infant mortality rate reveals that The Infant Mortality Rate (IMR) has also registered 2-point decline to 28 in 2020 from 30 in 2019 at the National level. The maximum IMR has been observed in Madhya Pradesh (43) and the minimum in Kerala (6). IMR for the country has come down to 28 in 2020 from 30 in 2019, a decline of 2 points over last 5 years and an annual average decline of about 1.8 points. The corresponding decline in rural IMR has been to the tune of 10 points (41 in 2015 to 31 in 2020) against a decline of 6 points in urban IMR (25 in 2015 to 19 in 2020). Both the gender have shown decline in the period 2015-20. Despite this decline, one in every 35 infants at the National level, one in every 32 infants in rural areas and one in every 52 infants in urban areas still die within one year of life.



Conclusion

The study of this paper Infant Mortality Rate trends in Andhra Pradesh: A Regional disparities analysis in India” results are found that there is significant disparities among the states in India during the period 2010 to 2022 particularly Madhya Pradesh, Chattisgarh, Bihar and Uttar Pradesh are highest Infant Mortality Rates states in India where as southern states are lowest infant Mortality rates then other regions in India. However the declining of the IMR rate in southern States Andhra Pradesh relatively higher infant mortality rates among these states even Telangana state better Performed in health indicator based on this analysis there is proper strategies are required for reducing infant Mortality.

Suggestion

- More public health care expenditure is required from their GDP
- Improving Literacy level among in rural and urban areas particularly women education
- To strengthen public healthcare system instead of Private healthcare system
- Accessibility of free and quality health facilities are available in the backward regions
- Effective Government Policies are needed for achieving equality of health of children's
- Government should prioritize child health and nutritional support to children's and mother
- To develop community participation in the prevention of communicable diseases and illness of the children's
- To Promote the Institutional delivery instead of traditional deliveries

Reference

- [1]. Sample Registration System of Register General of India, Bulletin May, 2022
- [2]. Mrigesh and Laxmi kant Dwivedi (2019) , BMJ Open Access Journal-2019 March (3) Volume :9 Issue:3
- [3]. UK Sikdar and MS Roy et al (2015) IOSR Journal of Humanities and Social Science Volume 20, Issue 8, Ver I(Aug -2015) PP 11 -16.
- [4]. Amul patel and Pradeep Kumar (2013) Indian Journal of Community Medicine -2013 July –Sep 38(3) : PP : 152 -156
- [5]. Anil Shetty and Shraddhas shetty (2014) Curr Pediatric Res: 2014, 18 (I): 49-2
- [6]. Ministry of Health & family welfare (MoHFW)
- [7]. National family health Survey Report (NHFS)
- [8]. Hand book of Statistics an Indian states (rbi.org.in)

