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PATTERN OF INFANT MORTALITY IN KOLHAPUR DISTRICT

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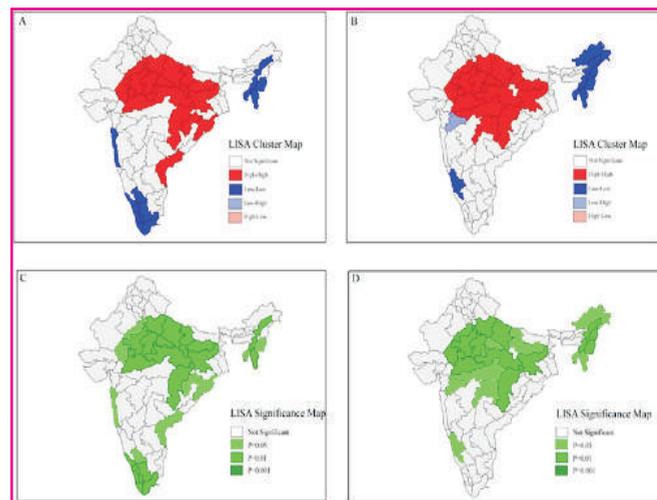
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ABSTRACT

Infant mortality rate (IMR) is one of the important indicators of the regional development. It has declined by 70 per cent from 139 in 1972 to 42 in 2012 in India. But there is great variation of IMR from state level to tehsil level with respect to income groups, rural-urban areas and gender. This pattern reflected the causes behind it, such as health or medical facility, quality of life and socio-economic development of the society. Taking into consideration objective of the paper to understand the pattern of infant mortality rate in Kolhapur district and male-female disparity of IMR and its causes. The data of IMR was collected from the



Socio-Economic Abstract of Kolhapur District and government hospitals. The variation of IMR calculated by employing standard deviation and disparity index of Kundu and Rao, in comparison India and Maharashtra, Karvir tehsil in Kolhapur district is identified with IMR but in his remaining 11 tehsils of the district which having less than 10 IMR. Due to sex determination in the recent of the female IMR was found high in Karvir. It is concluded that due to economic and educational progress, people get more unauthorized sex detection that is why there is high female IMR in Kolhapur district as compared to Maharashtra and India.

KEY WORDS: Infant mortality rate (IMR), quality of life and socio-economic development, Sample Researches Survey (SRS).

INTRODUCTION :

Infant mortality rate is one of the important indicators of the regional development. Infant mortality rate (IMR) is the number of infants (less than one year) deaths per 1000 of livebirths in a year. It is considered as one of the most sensitive indicators, which affect not only of the health or medical facility but also the socio-economic development of the society and quality of life. Estimations of IMR at national level and major state level of India has provided by Sample Researches Survey (SRS) annually. National Rural Health Mission (NRHM-2005 to 2012) has provided data and related information on infant mortality rate. India observed a declining trend in the infant mortality rate over the last four decades. Infant mortality rate has declined by 70 per cent from 139 in 1972 to 42 in 2012. It shows that a consistent decreasing IMR about 42 per cent from the year

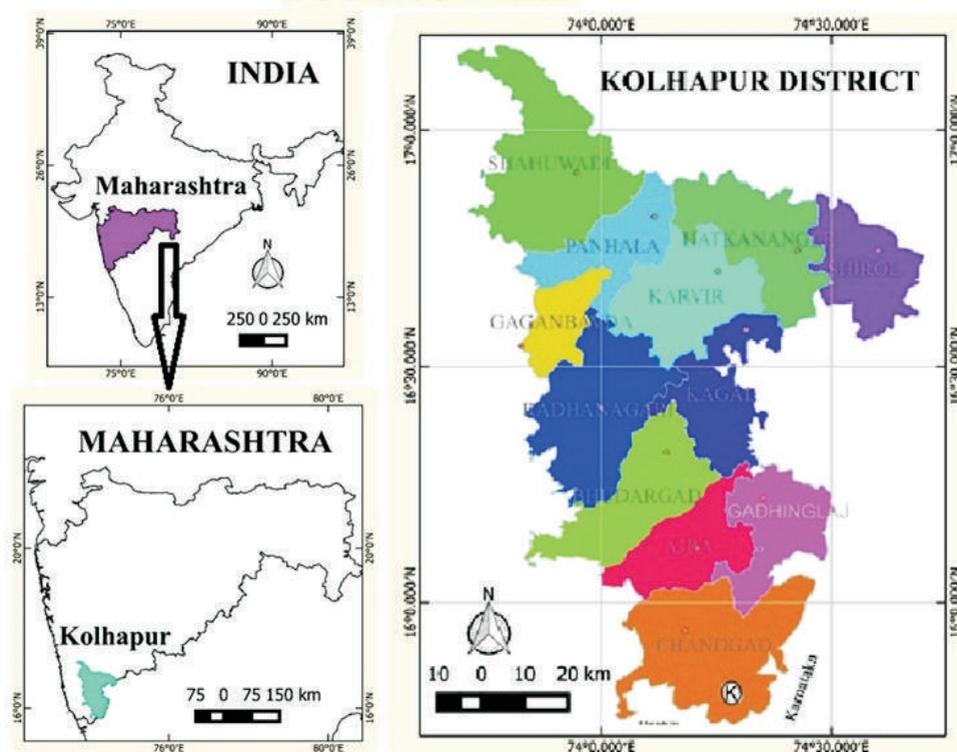
1998-2012.

It is observed that the gender-wise figures of IMR are higher for female infants than that of male infants. On the national level, the IMR for female was 44 and 41 of male in 2012. It indicates that the preference of the society for male child and consequent attention given to their day to day care, nutrition and medical care and other facilities for the male infants. The IMR for male infant was 57, while it was 64 for female infant in 2003. Though the state of Maharashtra recorded the IMR only 24 in 2013, it varied in rural and as well as urban areas. The variation of IMR is found from state to tehsil level with respect to income groups, rural-urban areas and gender. Hence, there is a need of deep and critical study of IMR indicators for the study area. Taking into consideration the paper is objective to understand pattern of infant mortality rate in Kolhapur district and male-female disparity of IMR and causes behind the same.

STUDY AREA

The Kolhapur district is located in the southernmost part of Maharashtra state and has latitudinal extent of 15° 43' North to 17° 10' North and longitudinal extent of 73° 40' East to 74° 42' East with an area of 7,747 sq. km and population of 38, 74,015 as per the 2011 census (Gazetteers, of Kolhapur District, 1999). The area undertaken for the present study is Kolhapur district which comprises twelve tehsils viz. (1) Shahuwadi (2) Panhala (3) Hatkanangle (4) Shirol (5) Karvir (6) Gaganbavda (7) Radhanagari (8) Kagal (9) Bhudargad (10) Ajra (11) Gadhinglaj and (12) Chandgad.

LOCATION MAP



LITERATURE REVIEW

National level study shows that IMR is lower in the southern states of Kerala, Tamil Nadu, Karnataka and Maharashtra due to the increase in female literacy, medical attendance at birth, accessibility of primary health care centres and nutrition augmentation programs for the mothers and children. They helped in lowering the IMR. In general, there was the higher rate of IMR recorded in rural areas, but it was poor in urban areas (Mishra, 2007). The health of child or number of live births is closely related with literacy of mother, family income source and access to health services. Infant death taking place before birth is called as anti-natal mortality. Those

occurring soon between four weeks to 12 months births are called as neo-natal mortality rate.

IMR is frequently used and valid for comparison among places for the following reason, such as age specific mortality, sex specific mortality and improvement health condition of people (Meade et. al, 2010). According to Misra (2007), the IMR is a basic index of the human development in any region and it also agrees that infants of well-nourished and healthy mothers have a better chance of survival than those of under-nourished and sick mothers (Misra, 1970). However, according to Sydenstricker E. (1937), it is difficult to come to the conclusion that the major determinant to the mortality of the infants over one months of age is complex of environmental conditions among which the economic status of family is a dominant factor. According to Medical Report (2007), it is found that the total medically certified deaths around 1/10 has been reported for the infant mortality (children who could not complete their first birthday).

The gender disparity in child mortality due to preference for son in India, but Dr. Gupta said that the UNICEF has been working towards improving access to the care of girl child supporting national effort (<https://genus.springeropen.com>. 14 July 2016). It is seen that the low and middle income countries go through epidemiological transition and improve hygiene, nutrition, health policies, and infrastructure, due to impressive reduction of overall infant mortality (Jain, 2013/<https://scholar.google.com>, co. in) According to Sai et al. (2013), in rural areas mothers and grand-mothers do not have proper knowledge regarding the breast feeding to reduce their mortality rate, due to infants. The higher infant mortality is found where the children of mother with no formal education than those whose mothers have secondary or higher education (Gemerli, et. al. 2004). It means that higher level of mother's education lessor is the IMR.

INFANT MORTALITY INDICATORS

Infant Mortality Rate

Infant Mortality Rate (IMR) means the number of infant deaths per 1000 live births in a year, (Census of India 2001-11).

$$IMR = \frac{\text{No. of infant deaths during the year}}{\text{No. of live births during the year}} * 1000$$

Neo-natal Mortality

The neo-natal mortality rate is defined as the number of infant deaths of less than 29 days per 1000 live births during the year. The neo-natal mortality rate in India is the highest which is a question mark on the quality of health and neo-natal care. Despite a decline in infant mortality rate, Neo-natal rate is more or less static.

$$NMR = \frac{\text{No. of infant deaths aged within 28 days}}{\text{No. of live births during the year}} * 1000$$

Pre/early neo-natal Mortality Rate

WHO has defined the pre-natal mortality rate as the " number of still births and deaths in the first week of life per 1000 live births is called as pre-natal mortality rate."

$$PNMR = \frac{\text{No. of deaths less than 7 days}}{\text{No. of livebirths during a year}} * 1000$$

Late neo-natal Mortality Rate

Late neo-natal Mortality is defined as the number of infant deaths in 07 to 28 days per 1000 live births during a year is known as late neo-natal mortality rate.

$$LNMR = \frac{\text{No. of deaths within 7 to 28 days}}{\text{No. of live births during a year}} * 1000$$

Post neo-natal Mortality Rate

Post neo-natal mortality rate means the number of infant deaths from 29 days to less than 1 year per

1000 live birth during a year is called as post neo-natal mortality rate.

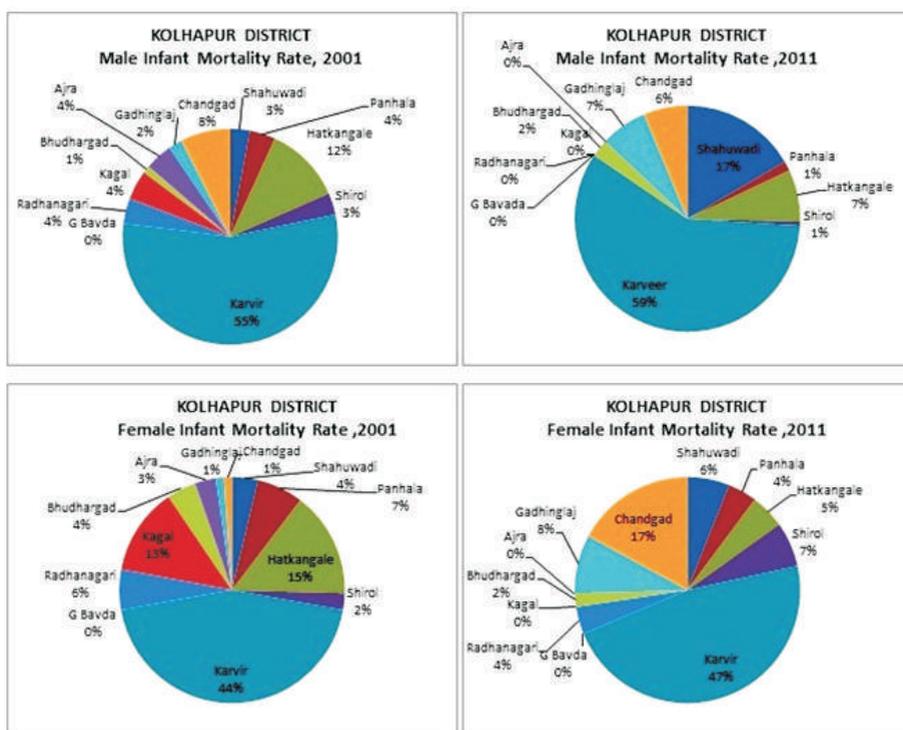
$$PNMR = \frac{\text{No. of deaths within 29 days to 1 year}}{\text{No. of live births during a year}} * 1000$$

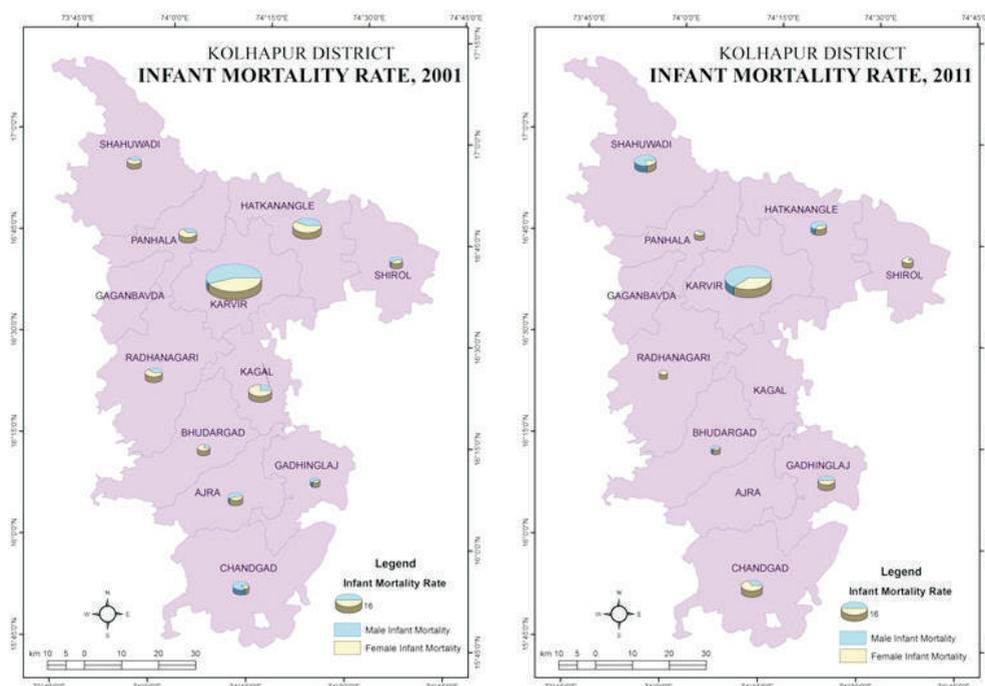
RESULT AND ANALYSIS

Infant mortality rate of Maharashtra state recorded in 2001 was only 13.1 whereas that of Kolhapur district was slightly higher than the state i.e. 14.68. The district IMR of the year 2001 is unevenly distributed among twelve tehsils of Kolhapur district. Besides the Karvir tehsil, all the tehsils in Kolhapur district recorded IMR less than 10. The IMR of the Karvir tehsil is the highest as compared to the other tehsils of Kolhapur district. The Karvir tehsil IMR was 35.83 in the year 2001, while the Gadhinglaj tehsil recorded the lowest 1.16 IMR.

Table 1 Distribution of Infant Mortality Pattern in Kolhapur District, 2001-2011

Sr. No.	Tehsil	Total Infant Death Rate					
		2001			2011		
		Male	Female	Total	Male	Female	Total
1	Shahuwadi	2.07	2.66	2.33	9.13	2.55	6.03
2	Panhala	2.72	4.78	3.55	0.75	1.75	1.21
3	Hatkanangale	8.17	10.81	9.29	4.08	2.07	3.13
4	Shirol	2.29	1.7	2.03	0.33	2.72	1.44
5	Karvir	38.89	31.81	35.83	32.16	19.86	26.47
6	Gaganbavda	0	0	0	0	0	0
7	Radhanagari	2.66	4.14	3.32	0	1.66	0.77
8	Kagal	3.15	9	3.38	0	0	0
9	Bhudargad	0.75	2.99	1.71	1.37	0.82	1.12
10	Ajra	2.94	2.18	2.58	0	0	0
11	Gadhinglaj	1.44	0.83	1.16	3.69	3.53	3.57
12	Chandgad	5.27	0.82	3.15	3.46	7.19	5.29
	Mean	5.8625	5.976667	5.6941667	4.580833	3.5125	4.085833
	S.D.	10.61616	8.770265	9.7535928	9.098434	5.5202192	7.339831
	District	14.48	9.93	14.68	14.95	9.5	12.41
	State	7.29	5.77	13.1	11.59	10.82	11.23





The comparative analysis of the gender-wise IMR figures of India, Maharashtra and Kolhapur district revealed that IMR is higher for female infants vis-à-vis male infants. Due to economic and educational progress, people get more unauthorized sex detection that is why there is high female IMR in Kolhapur district as compared to Maharashtra and India. It was observed that the figures of Karvir, Ajra, Gadhinglaj and Chandgad tehsils, the IMR of male was greater than the female. In the other 9 tehsils, the preference is given for male child and consequently attention is given to their day to day care, nutrition and medical care and other facilities. The difference between the male and female infant mortality rate is accentuated in the recent years particularly from 2001 to 2011. Infant Mortality Rate of Maharashtra state and Kolhapur district slightly decreased in the last decade (2001-2011). The IMR of Kolhapur district declined from 14.86 to 12.41. The tehsil-wise figures of IMR in Kolhapur district are very random in nature. The Karvir tehsil recorded the highest IMR in year 2011, i.e. 26.47. Whereas the Radhanagari tehsil recorded the lowest 0.77 IMR in year 2011. Due to compulsory ban regarding sex detection.

Male-Female Disparity of Infant Mortality

The comparison of total Infant Mortality Rate of year 2001 and 2011, it is observe that the IMR has been reducing. The IMR of Maharashtra state recorded in 2001 was 13.1, which was decreased by 2.27 and recorded 12.41 in 2011. Whereas in 2001, the Karvir tehsil of Kolhapur district recorded the highest IMR that is 35.83, was also decreased by 9.36 and recorded 26.47 in 2011. According to Zakir Husain (2010), the disparity usually refers to differences in the outcome under consideration (wages, mortality rates, educational attainments, or any such indicator). Generally, these disparities may be the result of differences in socio-economic characteristics. Never the less, the differences in infant mortality rate is occurred due to socio-cultural forces, unfair treatment from the family or society. Kundu and Rao used in 1985 disparity index for district level analysis of demographic attributes of India.

Kundu’s and Rao’s, Disparity Index

$$DI = \log(X2/X1) + \log(200-X1)/200 - X2 - I$$

Where,

DI= Disparity Index

X2 = It is considered Male Infant Mortality Rate during the year

X1 = It is considered Female Infant Mortality Rate during the year

Table 2 Male-Female Disparity of Infant Mortality Rate in Kolhapur District, 2001-2011

Sr. No.	Tehsil	Male/Female Infant Mortality Rate					
		2001			2011		
		Male	Female	Disparity Index	Male	Female	Disparity Index
1	Shahuwadi	3	8	-4.6016	3	2	-1.3921
2	Panhala	5	1	-2.4346	6	2	-4.0910
3	Hatkanangale	62	26	-70.6208	60	12	-62.2151
4	Shirol	7	1	-4.2885	4	7	-4.9841
5	Karvir	444	422	-625.0730	276	224	-370.9560
6	Gaganbavda	0	0	0	0	0	0
7	Radhanagari	4	0	0	5	1	-2.4346
8	Kagal	6	2	-4.0910	4	1	-1.5315
9	Bhudargad	1	2	0.1308	3	2	-1.3921
10	Ajra	3	0	0	2	0	0
11	Gadhinglaj	4	9	-5.9624	2	8	-3.7777
12	Chandgad	7	2	-5.0241	1	4	-1.0394
	District	546	473	-749.1968	366	263	-477.8521

Source: Socio-Economic Abstract of Kolhapur District, 2001 & 2011

The male and female disparity of infant varies throughout the district. According to Kundu's Index, the lowest disparity of the male-female infant mortality was observed in Karvir tehsil in 2001 and 2011 of the Kolhapur district. The highest disparity was observed at the Panhala tehsil in 2001 and in Shahuwadi tehsil in 2011.

In the year 2001, the tehsils like Gaganbavda, Radhanagari and Ajra recorded no gender disparity. The same tehsils also recorded equality in 2011. At district level, the gender disparity of infant mortality was observed, which denoted there were no ample medical facilities throughout the district and social mind-set of the people still gave preference to the male infant. According to Deshmukh (2006), high female infant mortality had recorded in the region where there was the high income of family, high medical and technological facility and high literacy.

Rural-Urban Infant Mortality Pattern

Table 3 Kolhapur District Rural-Urban Infant Mortality Pattern, 2001-2011

Sr. No.	Tehsil	2001						2011					
		Rural			Urban			Rural			Urban		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	Shahuwadi	3	2.68	3.46	0	0	0	6.03	9.13	2.55	0	0	0
2	Panhala	3.62	2.77	4.86	0	0	0	1.22	0.75	1.77	0	0	0
3	Hatkanangale	2.54	2.64	2.4	12.16	10.52	14.42	0.28	0.53	0	4.31	5.57	2.93
4	Shirol	3.15	5.49	0.81	1.25	0	2.86	1.44	0.33	2.72	0	0	0
5	Karvir	1.6	1.38	1.91	40.67	44.34	35.89	0.83	1.52	0	29.28	35.62	21.95
6	Gaganbavda		0	0	0	0	0	0	0	0	0	0	0
7	Radhanagari	3.32	2.66	4.14	0	0	0	0.77	0	1.66	0	0	0
8	Kagal	3.69	6.39	5.77	0	0	0	0	0	0	0	0	0
9	Bhudargad	1.71	0.75	2.99	0	0	0	1.37	1.37	0.82	0	0	0
10	Ajra	3.46	3.92	2.94	0	0	0	0	0	0	0	0	0
11	Gadhinglaj	2.1	2.7	1.45	0	0	0	0	0	0	5.16	5.17	5.15
12	Chandgad	3.15	5.27	0.82	0	0	0	5.29	3.46	7.19	0	0	0
	District	2.92	3.13	2.66	23.95	24.98	22.56	1.97	1.85	2.11	17.42	21.23	13.06
	State	7.75	7.65	2.88	17.39	17.97	16.7	5.21	5.11	5.32	14.6	15.28	13.82

Source: Socio-Economic Abstract of Kolhapur District, 2001 & 2011

Generally, the rural area has high IMR than the urban area, due to less medical facilities, illiteracy, poor road network and low economic power. But Kolhapur district displayed the contradictory figures than the state of Maharashtra. In the year 2001 and 2011, the rural infant mortality rate was higher than the urban. The analysis depicts that the concentration of the medical facility at the urban area, the people's migration for the medical facility and in event of the infant death, it occurs at the urban centres.

The study illustrates that there is gender disparity in IMR within Kolhapur district. In developing rural area IMR of the female infant is greater than the male infant. In the year 2001, the Kolhapur district displays the different scenario from the Maharashtra state. i.e. the female IMR is less than the male IMR. The rural areas like Shirol, Kagal, Ajra and Gadhinglaj tehsils show the male infant mortality is greater than female infant. Such a gender disparity indicates that the tehsils have high literacy, economic power and medical facilities. The urban centres like Ichalkaranji and Pethvadgaon in the Hatkanagle tehsil displayed that the female infant mortality rate is higher than male IMR during the year 2001.

In 2011, IMR in rural areas was 1.97 which was in fact, very less than the urban areas (14.6) of the Kolhapur district. These figures show the contradictory condition regarding the different facilities which are related to the IMR. At the tehsil level, there is also variation in rural and the urban areas in IMR.

Table 4 Kolhapur District Age & Sex Specific Infant Mortality Rate, 2001-2011

Sr. No.	Tehsil	Age & Sex Specific Infant Mortality Rate per 1000 Live Birth											
		2001						2011					
		0-7 Days		8-28 Days		29 Days to 1 Year		0-7 Days		8-28 Days		29 Days to 1 Year	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	Shahuwadi	2	1	0	1	1	1	4	2	0	0	4	0
2	Panhala	1	2	3	3	1	1	1	1	0	1	0	0
3	Hatkanangale	23	12	18	17	21	31	12	4	8	3	6	5
4	Shirol	3	2	2	1	2	1	1	3	0	0	0	4
5	Karvir	228	107	108	81	104	86	204	92	95	78	123	54
6	Gaganbavda	0	0	0	0	0	0	0	0	0	0	0	0
7	Radhanagari	2	3	1	1	1	1	0	1	0	0	0	0
8	Kagal	1	1	3	1	2	2	2	0	0	0	0	1
9	Bhudargad	1	2	0	1	0	0	2	1	0	1	0	0
10	Ajara	2	0	0	1	1	1	0	0	0	0	0	0
11	Gadhinglaj	1	1	1	1	2	0	4	3	2	2	3	3
12	Chandgad	3	0	2	0	2	1	1	3	1	0	0	1
13	District	267	131	138	108	137	125	231	110	106	85	136	68

Source: Socio-Economic Abstract of Kolhapur District, 2001-2011

IMR in 2011 as compared to 2001. The infant mortality in 2001 at district level was 937 while in 2011, it has declined to 736. The tehsil level analysis shows the variation in IMR. The Karvir tehsil has recorded the highest IMR in both the decades among the twelve tehsils in the study area. Due to child care facilities available in Karvir tehsil and another reason is behind the high IMR in Karvir, the critical delivery patient and abnormal baby cases in rural areas, patients go to Kolhapur in specialized hospital. The IMR for male is observed greater in the period of the 0 to 7 days, 8 to 28 days and 29 to 1 year i.e. IMR. The periodical comparison of IMR shows deviation. Major Cities' infant mortality rate of the calculated by per 1000 live birth

Table 5 Infant Mortality Rate in Major Cities of Kolhapur District, 2001-11

Sr. No.	Area	Infant Mortality Rate in Major Cities per 1000 Live Birth					
		2001			2011		
		Total	Male	Female	Total	Male	Female
1	Kolhapur City	41.2	44.92	36.35	43.54	49.45	36.11
2	Ichalkaranji City	15.65	13.53	18.56	14.5	12.29	17.96
3	Kolhapur District	14.68	15.48	9.93	11.93	14.48	9.03
4	State Total	13.07	7.29	5.77	11.23	11.59	10.82

Source: Socio-economic Abstract of Kolhapur District, 2001-2011

Decreasing trend in IMR of Kolhapur



Causes of IMR

The leading causes of IMR are birth asphyxia, Pneumonia, diarrhea, malaria, measles and malnutrition etc. It is also caused by many factors, such as mother’s level of education, environmental, political and medical infrastructure, access to clean drinking water, etc. ([https://en.m.wikipedia.org.>wiki > infant....2016](https://en.m.wikipedia.org/wiki/infant....2016)).

Suggestions to Control and Prevention of IMR

Control and prevention of IMR is important issues of Govt. as well as individual in any region of the world (<https://www.womenandchildrenfirst.org.UK.7....>) are as under.

1. Care during pregnancy period.
2. Safe feeding practices.
3. Immediate attendant to breathing, warmth, hygienic card and skin care.
4. Safe delivery by a skilled birth attendant.

CONCLUSION

In last two decades IMR of Kolhapur district shows tehsil level variation with respect to income groups, rural-urban areas and gender. The infant mortality rate of urban area is more than the rural area of Kolhapur district. The urban entity in the Kolhapur city recorded the highest infant mortality of a district in 2001 and 2011. It is the necessity to make provision of better medical facilities to rural areas. In 2011, the decrease in infant mortality rate from 2001; this denotes the improvement in social awareness, literacy, economic ability and medical facility to a certain extent.

REFERENCES

1. Census of India, (2001): Series-28, Maharashtra, District Census Handbook of Kolhapur, Publishing of the Indian Administrative Services, Directed of Census Operations, Maharashtra, Mumbai pp 23-25.
2. Census of India, (2011): Administrative Atlas Maharashtra, Publishing of the Indian Administrative Services, Directed of Census Operations, Maharashtra, Mumbai, Vol. 11, Pp 757-780.

3. Gemperli et.al (2004): 'Spatial Patterns of Infant Mortality in Mali: The Effect of Malaria, Endemicity, American, Journal of Epidemiology, Vol. 159, No. 1, pp.64–72
4. Gupta, A. K. (2014): 'Spatial Clustering and Risk Factors of Infant Mortality District Level Assessment of High Focus status in India, Publisher, Genus, Springer Open Journal of Population Sciences, 14, July 2014, ([https://genus.springeropen.com. 14, July 2014](https://genus.springeropen.com.14,July2014)).
5. [https://www.womenandchildrenfirst.org.UK. 7...](https://www.womenandchildrenfirst.org.UK.7...)
6. <https://en.m.wikipedia.org.>wiki>Infant....16>
7. Infant and Child Mortality of India, Level, Trend and Determinants (2012) UNICEF National Institute of Medical Statistics, New Delhi, India.
8. Jain, N, and et al. (2013): Infant Child Mortality in India: rends in inequalities across economic groups, Journal of the International Institute for Population Sciences, Mumbai, India. Vol. 30, pp. 347-365/<https:scholar.google.co.in>.
9. Kundu and Rao (1985): Cited in Snehsangwan, Randhir Singh Sangwan Rural-urban Divide: Changing Spatial Pattern of Social Variables Concept Publication Company, New Delhi. p.29.
10. Meade, et. al. (2010): Medical Geography-3rd ED. A Division of Guilford Publication, Inc. New York, p. 22.
11. Medical Report (2007): Report on Medical Certificate of Cause of Death, Publisher, Office of Registrar General Census Commissioner, India. Ministry of Home Affairs, New Delhi, p.51.
12. Misra R. P. (1970): Medical Geography of India, National Book Trust of India, New Delhi, p. 22.
13. Misra, R. P. (2007): Geography of Health, A Treatise on Geography of Life and Death in India, Published and Printed by Concept Publishing Company, A/15-16, Commercial Block, Mohan Garden, New Delhi -110059(India) p. 161.
14. Sai, V. P. and others (2016): Nutritional Status and Infant Mortality Rate in Saiha District, Mizoram, Publication Journal of Current Science, India, Vol. 110.No 12, pp.2280.
15. Sample Research Survey (2005 to 2012): National Rural Health Mission, Govt. of India, New Delhi.
16. Zakir, Husain (2010): Gender Disparities in Completing School Education in India Analyzing Regional Variations, Munich Personal, Re per Archive, Paper No. 25748, posted 11. October 2010 02:49 UTC <http://mpra.ub.uni-muenchen.de/25748/>.

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