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To understand the IMR in district hospitals: A comparative assessment

Santanu Panda[1], Sanchita Mishra[2]
[1] Guest faculty, Dept. of Anthropology, Sukumar Sengupta Mahavidyalaya, Keshpur, West Bengal, India
[2] M.Sc. Vidyasagar Institute of Health, Midnapore, West Bengal, India

Abstract
In this paper we have made and attempt to find out the reason behind the child mortality and rate of mortality in which district. The Infant Mortality Rate (the probability of not surviving by age one) is one of the sensitive indicators of development. Reduction of IMR has been accorded high priority in improving the health situation of the population. Infant mortality rate is most essential component of health indicator, It is a major determinant of life expectancy at birth, the IMR is sensitive to levels and changes in socio-economic conditions of a population. The main objective of the paper is to know the actual scenario children death between two backward districts of West Bengal. This data is secondary in nature, the hospital authority given us this data only last one year. The parameter was sex wise child death, cause of death, birth weight, place of birth, age wise death in two districts hospital. Findings of the study is instructional delivery is one of the most important reason; institutional delivery is very poor in Jhargram. Birth weight is another important phenomenon of IMR. Most of the infant death in two districts has been found due to preterm and / or LBW/ELBW. Severe birth asphyxia is the vital cause has been found in both district as death reason which is 80.86% and 77 % respectively. (224)

Keywords: IMR, mortality, LBW, Asphyxia, Jhargram, West Bengal

Introduction
In this paper we have made and attempt to find out the reason behind the child mortality and rate of mortality in which district. The data has been collected from the superintendent of two districts as soft copy and the data last one year.

Concept of Mortality
The Infant Mortality Rate (the probability of not surviving by age one) is one of the sensitive indicators of development. It is one of the key indicators from the programme point of view. Reduction of IMR has been accorded high priority in improving the health situation of the population. The National Population Policy, 2000 aims at a reduction of IMR to less than 30 by 2010. The Millennium Declaration aims to reduce infant mortality by two thirds from its current level. A reduction in the IMR depends on both exogenous and endogenous factors such as medical assistance at delivery, nutritional level, and health of mother as well as care during and after delivery.
India contributes about 20 % of births worldwide and has the highest proportion of children younger than 5 years. The objectives of the National Rural Health Mission are to achieve reduction in the infant mortality rate (IMR) to 30/1,000 live births and reduction in the MMR to 100/100,000 live births. Global progress toward MDG 4 and 5 depends significantly on the improvement in the maternal and child health indicators in India, and maternal nutrition is one of the indicators for improving the maternal and child health care.

Mortality
Crude and under five mortality rates are considered key indi cators to monitor and evaluate the severity of a crisis or disa ster situation.
"Mortality rates are the most specific indicators of the health status of emergency affected populations" (CDC 1992) [12]
"The daily CMR is the most specific and useful health indic ator to monitor in a disaster situation" (The Sphere Project 2004) [13]. "Mortality is the prime indicator by which to measure the impact of a crisis, the magnitude of needs and t he adequacy of humanitarian response" (Checchi and Robert s 2005).

- Crude and 0.5 death rates are key indicators to monitor and evaluate the severity of a crisis or disaster situation and should remain indicators within the IPC.
  They are of particular relevance in the emergency phase s to detect rapid changes in severity of crisis.
- Excess mortality should be included if accurate baseline mortality rates are available, as they are a good indicato r of the impact of an emergency in particular in protracted emergencies where the number of excess deaths increases with increased duration.
  Excess mortality should be reportedby age, because if excess mortality is higher in older children, this has major implications for emergency response. Excess mortality is an indicator of the impact of an emergency and as it's a direct count of the dying athreshold is not needed, rather it indicates the absoluteseverity of a crisis.
- IMR and U5MR are not appropriate for use in the emer gency phases of the IPC as the estimates cover the past 5 years and are centred about 2.5 years in the past.
  Trends can however be monitored if prospective surveil lance systems are present, and this should be encourage d by the IPC. Until such systems are available, it is not possible to suggest what levels of change might be dete cted between phases 1 and 2.

Maternal and child nutrition

There is sufficient evidence of maternal nutritional interventions in improving maternal health and birth outcomes, and these interventions are maternal supplementation of balanced energy and proteins, iron, folate, calcium, other micronutrients, iodination of salt, maternal deworming in pregnancy, and intermittent preventive treatment for malaria. Similarly, effective interventions in newborn babies are promotion of breast feeding and vitamin A supplementation. In infants and children, the efficacious interventions for improved outcomes include promotion of breast feeding; behavioral change counseling for improved complementary feeding; iron fortification and supplementation programs; zinc supplementation and deforming; vitamin A fortification or supplementation; universal salt iodination; treatment of severe acute malnutrition; hand washing or maintenance of hygiene; and insecticide-treated bed nets [6]. Improving nutrition during pregnancy is critical not only to reduce the incidence of low birth weight, but to improve long-term childhood development. Even temporary interruptions to a family's food supply can have lasting effects on a child's growth and development. The Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition, adopted by the World Health Assembly in 2012, includes a range of global targets for mothers and children. Estimates of IMR can be derived directly as well as indirectly. The direct estimates are usually based on the number of infant deaths reported during the last one year per 1000 live births. The civil registration system as well as the SRS adopts this technique for providing the estimates. However, for some cases, the reference period is also taken as three years. Besides, the following indirect methods are used in providing the estimates of IMR. 1) Estimation of Infant Mortality from information on Children Ever Born and Children surviving 2) Estimation of IMR based on Regression Methods 3) Estimation of IMR from the Birth History of women In the present exercise we have used the Reproductive and Child Health Data (District Level Household Survey) for estimation of IMR at the district level. For the first time the RCH, Round II collected the data on birth history of women at the district level. About 1100 households were covered in each district using systematic random sampling. The present exercise uses direct calculation of mortality measures based on the birth history. Keeping the limitations in mind we are careful in providing the estimates. The estimates are not given for those districts where the sample size is small or the data quality is believed not to be good. Moreover, we have taken the estimates in last 0-4 years preceding the survey. As a result the chance of error will be minimized. It may further be mentioned that the RCH, Round II covered two phases. It may be mentioned that the first estimates of IMR for half the districts under Round II were carried out by the RCH team (Ram *et al*). We have utilized these estimates. The state level estimates and estimates of India are based on half of the districts selected under RCH. However for Phase II we have provided the estimates using the same technique.

Classification of Districts on Infant Mortality Rate, according to 2011Census

On the basis of estimates of IMR, we have classified the districts of India into three broad categories, namely, low with IMR of less than 30, medium with IMR between 33 and 66 and high with IMR 67 or more. The names of such districts for each of the major states are shown below. The rational of this classification is the target of the National Population Policy (2010) and the national average. The implication is that the districts with higher level of IMR may be prioritized.

State	Low	Medium	High
West Bengal	Kolkatta, Barddhaman, Dakshina Dinajpur	North 24 Parganas, Birbhum, Paschim Medinipur, PurbaMedinipur Haora, Nadia, Puruliya, Bankura, Darjiling, Koach Bihar, South 24 Parganas, Hugli.	Uttar Dinajpur, Murshidabad, Jalpaiguri, Maldah.

The major nutritional disorders are deficiencies of iron, vitamin A and iodine. Micronutrient deficiencies influence child survival and the health and development of surviving children, including cognitive development. Although potentially cost effective and affordable interventions are available, existing food supplementation and micronutrient programmes in India have not achieved significant reductions in nutritional deficiencies at state or national levels, a factor contributing to the slowing decline of childhood mortality rates. The problems that beset micronutrient programmes include shortages in supplies, logistical difficulties and the lack of community motivation and education. These shortcomings need to be addressed in order for these programmes to be scaled up and sustained [8]. Low birth weight is a key predictor of malnutrition and an important determinant of child mortality. National efforts have been made to collect representative estimates of birth weights from institutional and community deliveries, but the findings vary greatly. In a study of fifteen centers across India, the National Neonatology Forum found a prevalence of low birth weight of 33%, of which 32% were premature births. The 1992–93 NFHS found that small birth size aproxy for birth weight carries a risk of infant death 2.5 times higher than the risk for average or large birth size [9].

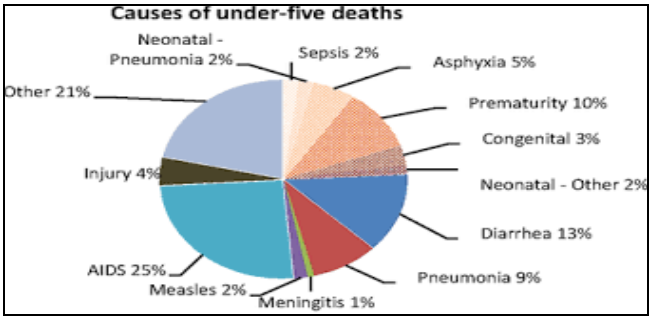

Fig 1

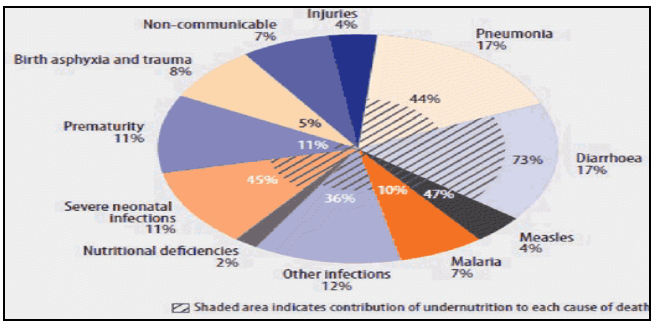

Fig 2: Percentage wise distribution of specific preseason of child mortality

Measure of death rates
- Crude Death Rates Š
- Age-Specific Death Rates Š
- Life Table Estimates

Life expectancy
Survivorship (by age) Š
- Cause-Specific Death Rates Š
- Special Indicators

Infant and maternal mortality rates
Why Infant Mortality Rates is important as determinant of health indicator
- The IMR is a good indicator of the overall health status of a population
- ŠIt is a major determinant of life expectancy at birth
- ŠThe IMR is sensitive to levels and changes in socio-economic conditions of a population

Literature review
Literature review is the root of any scientific research and review. The literature have own confidence to support any empirical study which has some descriptive and or statistical aspect. The literature review has been search through internet, pub med, J. store, journals, magazines and books.
Prevalence of low anthropometric status is most useful in id entifying the malnourished and those with increased risk of dying and other undesirable functional outcomes associated with malnutrition. At best these cut off's "represent a purely statistical separation of malnourished from normal" (WHO 1986).
"At worst, they ignore the growth failure thatis found amon g children whose nutritional status is above the cut- off in a population where there is a high prevalence of either wasting or stunting, and the entire height or weight distribution has shifted downwards" (p181 WHO, 1995) [15].
There are a number of examples where "during periods of starvation or infectious disease, the increased prevalence of low WFH is associated with a downward shift of the weight for height distribution" (WHO 1995) [15]. Young and Jaspars (1995) [16] showed that in Darfur during a perio of food insecurity, the entire frequency distribution for vulnerable communities shifted to the left, and that the distribution shifted back to the right in a relatively short time as food security improved.
The mean and associated standard deviation is statistically more powerful than prevalence rates because they are based on all the population data, not just the small number below t he cut- off.
A small change in the population as a whole is easier to dete ct statistically, and may be more revealing than a change in the prevalence of the malnourished. It also allows direct comparisons of different populations (Waterlow 1992) [17].
Marked reductions in childhood deaths occurred during the second half of the 20th century. Globally, the median under-five mortality rate declined from around 150 per 1000 live births in the 1950s to around 40 per 1000 in the 1990s. The rate of decline in childhood mortality is a key issue of concern to development agencies and the global public health community. Good vital registration offers the best means of monitoring the progress of countries in reducing premature deaths, particularly child deaths. In many developing countries, however, progress in this field can be expected to remain modest because of the cost of maintaining and improving systems for the registration of births and deaths. Nevertheless, the extensive population survey programmes that were established over the last few decades, combined with sample registration and censuses, yield valuable information on child mortality. These data sources, appropriately checked for implausible observations, are now sufficiently common in developing countries to permit levels and trends in child mortality to be estimated with some confidence [21].
A international level study done by L J Bamford, *et al* in the year 2018 on "Child mortality in South Africa: Fewer deaths, but better data are needed" the study revealed that Under-5 mortality rates in South Africa have fallen substantially in the past decade, and the SDG target of an under-5 mortality rate of less than 25 per 1 000 live births by 2030 is achievable. However, this will require ongoing declines in deaths from diarrhoea, pneumonia and HIV, as well as declines in deaths during the newborn period, and from emerging prominent causes of death (violence and injury, congenital disorders and non-communicable disorders). More attention will also need to be paid to understanding and addressing the high number of child deaths which occur outside of the healthcare system. The country is not yet able to rely on VR data to generate under-5 mortality rates (without adjustment). While UN and RMS estimates allow us to track under-5 mortality at a national level, the accuracy and completeness of existing information systems, especially the VR system, will need to be improved to ensure that accurate data are available at provincial and district levels [22].
An international study also done by Neha Bairoliya, Gunther Fink on 'Causes of death and infant mortality rates among full-term births in the United States between 2010 and 2012: An observational study" in 2018, this study revealed that More than 7,000 full-term infants die in the US each year. The results presented in this paper suggest that a substantial share of these deaths may be preventable. Potential improvements seem particularly large for SUDI, where very low rates have been achieved in a few states while average mortality rates remain high in most other areas. Given the high mortality burden due to SIDS and suffocation, policy efforts to promote compliance with recommended sleeping arrangements could be an effective first step in this direction [25].

Objective of the study
The objectives of the research are to treat as fundamental aspect of any research. So, to conduct any research at first formulate objectives on the basis of objectives research will gone to find out fruitful result in social science research. So, to completion this project work the following objectives are given bellow:
1. To find out the actual scenario of infant death in the two district Hospitals
2. To find out the reseason behind the specific death
3. Finally, a comparative account has been made to know IMR between two district hospitals.

Method and Materials
Methodology is the systematic theoretical analysis of methods applied to the field study. It is procedure to conduct certain research work in a community. Research methodology as a matter of fact, includes everything

concerning the research. It involves two important and relative parts: firstly, research methods or field techniques and secondly, forms of thought, which includes research design, selection of suitable approaches, formulation of hypotheses, aims and objective and other related dynamic categories as well.

The data has been collected for the period of two month and the source of data two district Hospital. This data is a secondary in nature. At first I have wrote a letter to the Superintendent through my respected Principal of the Jhargram and Paschim Medinipur District Hospital. I have collected last one year infant and/or child death in then two district hospital. I went two district hospitals and met superintendent only six times. This project work includes sex wise children, sex wise birth weight, sex and age group wise death, cause of death and place of birth with socio economic & demographic characteristic in nature.

Brief description of the district Paschim (west) Medinipur

The undivided Medinipur was the largest district (22º57'10" N to 21º36'35" N & 88º12'40" E to 86º33'50"E) in West Bengal and according to the Census 1991, covered an area of 9786.00 sq. km. with a total population of 83, 49,890. Medinipur has chequered annals since ancient times. The district was named after the author of a book Medinikosha. The Chinese traveler Fa-hien & Huen Tsang visited the riverine part Tamralipta (modern Tamluk) that rose to the pinnacle of prosperity during the 5th-7th century AD in 1783. Medinipur town became the Headquarters of the district Medinipur which became famous during the struggle of independence against the British Raj. The district had 7 sub-divisions, 46 police stations, 54 development blocks, a zillaparishad (the highest tier of the elected local self-government) and 518 gram Panchayats (the lowest tier of the elected local self-government). On 1st January 2002, the district was divided into two parts Paschim (West) Medinipur and Purba (East) Medinipur.

Paschim Midnapore district is situated in South-Western side of West Bengal. It is bounded by Bankura and Purulia district in the north; Mayurbhanj and Balasore district of Orissa in the south; Hooghly and Purba Midnapore district in east and Singbhum district of Jharkhand and Purulia district of West Bengal in the west. (District Statistical Handbook 2006: 1)

According to District Statistical Handbook 2006, there are 4671 Primary schools, 136 Middle schools, 384 High schools, 243 Higher Secondary schools, 18 general colleges and one University (Vidyasagar University) in the district. According to the Census of 2001, seventy percent of the total population of the Paschim Medinipur district was found to be literate.

The district has a population of 59, 13,457 according to Census 2011 [males 3,007,885 (50.86%) and females 29, 05,572 (49.14%)]. Population density of the district is 631 persons per square km. Sex ratio 966. The Census 2011 reported total scheduled tribe population as 8, 80,015. If child sex ratio data of Paschim Medinipur district is considered, figure is 962 girls per 1000 boys. Child population in the age 0-6 is 616,836 in rural areas of which males were 314,452 and females were 302,384. The child population comprises 11.90 % of total rural population of Paschim Medinipur district. Literacy rate in rural areas of Paschim Medinipur district is 78 % as per census data 2011. Gender wise, male and female literacy stood at 85.26 and 70.50 percent respectively. In Paschim Medinipur District the percentage of Main Workers to Total Workers has dropped from 68.8 in 2001 Census to 60.2 in 2011 Census similar to the State where the percentage 78.1 in 2001 Census dips into 73.9 in 2011 Census. Cultivators and Agricultural Labourers constitute the main work force of the District. They are 22.8% and 44.0% of the Total Workers respectively. All details regarding West Midnapore District have been processed by us after receiving from Govt. of India. Human Development Index (HDI) is 0.62. (http://www.census2011.co.in/census/district/18-paschim-medinipur.html).

Jhargram District

Jhargram is located at 22.45° N 86.98° E. It has an average elevation of 81 meters (265 feet). The Jhargram subdivision of Paschim Medinipur district in West Bengal is mainly a forest-covered area and the majority of the people belong to various scheduled tribes, viz. Santal, Munda, Lodha, Kora, Bhumij etc. This subdivision belongs to rainfed area. The average annual rainfall in this subdivision is 1463 mm. Forest resource collection; daily wage labour, seasonal migration and agricultural work are the main means of livelihoods of the poor in this area. It consists of Jhargram municipality and eight community development blocks, which are Binpur–I, Binpur–II, Jamboni, Jhargram, Gopiballavpur–I, Gopiballavpur–II, Nayagram and Sankrail. The eight blocks contain 79 gram panchayats. The subdivision has its headquarters at Jhargram. There is no urban area under these eight blocks. Beyond the Gangetic plains of Bengal, Jhargram offers the most exotic beauties of undulating topography culminating in hill ranges of Belpahari, Kankrajhor in the North to the peaceful beauties of meandering Subarnarekha River in the South. Jhargram is the paradise of nature lovers with abundant forests of Sal and Mahua trees as well as wild fauna like elephant, deer and a variety of birds. The ancient temples, royal palaces, folk tunes and rhythms of tribal dance and music make it all the more attractive destination of tourists who love to discover the unknown and unaffected beauties of nature.

Findings of the study

This study has been conducted on the basis of secondary data to understand the child mortality between two backward districts of West Bengal. The parameter was sex wise child death, cause of death, birth weight, place of birth, age wise death in two districts. From the secondary source or those data given by the district superintendent office, the data shows that last one year 754 children death has been found. Interestingly, male child death is higher position between two districts (59.55 %). But the secondary data also shows that most of the children death was found in Paschim Medinipur district (76.39 % out of total population). When we come into the sex wise variation male child is higher than female child. (Table 1 Fig. 1). The institutional delivery has been found in very poor situation Jhargram district (3.93 %) where as in Madinipur the institutional delivery is better (52.78%). The data shows that in the Jhargram district in most of the cases the birth place is out of Government hospital i.e. either home or private clinic/ nursing home. In this reason IMR is increased day by day, a recent study done by Neha Bairoliya at United States the study revealed that institutional delivery is the key factor to

reduce infant mortality. In the present study revealed that home delivery is higher than the institutional delivery (Fig. 2 & 3).

Birth weight is the most important indicator to reduce IMR in our rural areas. So, the present study revealed that pre-term and/or Low-Birth-Weight (LBW) which was below 2.5 kg is higher than the above 2.5 kg baby in both districts. Interestingly LBW has been found among male child between two districts which are 63.04 % and 68.07% respectively (fig. 6).

Age of death of children is also important parameter to understand IMR in our rural areas. From the one year data of two district shows that most of the infant death was occur before seven (7) days of birth. In this case the Medinipur hospital record is higher position than Jhargram Hospital record which is 80.90 % and 48.87% respectively. All of the death has been found before one year in Medinipur hospital record data, <7 days 80.90 %, 7-28 days 10.43% and 29 days to 1 year 8.68 % out 576 death in Medinipur Hospital record. But in Jhargram district the age wise distribution of death are <7 days 48.87 %, 7-28 days 37.07 %, 29 days to 1 year 10.67 % % and I to 5 years 3.37 % out 178 death within one year. (fig. 7 & 8)

According to a study, Neonatal and Under-5 mortality rates vary from region to region in India. India made a steady decline in under-5 child mortality from 2001 to 2012. The variation in child mortality rates within the country could be due to differences in economic status, literacy, nutritional status, gender bias and other factors. (Bhan, 2013)

In a study conducted in Africa, it was found that birth order, interval and region were the most important contributors for overall inequality in under-5 mortality. They observed a significant wealth related inequality in five countries: Egypt, Nigeria, Madagascar, Congo and Sao Tome. (Malderen *et al*, 2013)

Despite some progress made in recent years, infant mortality rates in the US continue to be high compared to other high-income countries. According to the latest estimates, the US currently ranks 44th among 199 countries of all income levels, with an infant mortality rate of 5.6 deaths per 1,000 live births in 2015, about 3 times the rate observed for countries at the very top of the ranking [26]. in a recent study of Neha Bairoliya at United States has been found that identify the real cause of infant or child is highly important to reduce IMR in UK [25]. Most interesting phenomenon of the study is cause of death. I have fond 10 type of cause in Jhargam and 12 types of cause in Medinipur Hospital record. The data shows that most of the infant death in two district due to preterm and / or LBW/ELBW.

Severe birth asphyxia is the vital cause has been found in both district as death reason which is 80.86% and 77 % respectively. According to the sex most of the death has been found among the male child in both district hospital. (fig. 9, 10) Improving nutrition during pregnancy is critical not only to reduce the incidence of low birth weight, but to improve long-term childhood development. Even temporary interruptions to a family's food supply can have lasting effects on a child's growth and development. The Comprehensive Implementation Plan on Maternal, Infant, and Young Child Nutrition, adopted by the World Health Assembly in 2012. More than 7,000 full-term infants die in the US each year. The results presented in this paper suggest that a substantial share of these deaths may be preventable. Potential improvements seem particularly large for SUDI, where very low rates have been achieved in a few states while average mortality rates remain high in most other areas. Given the high mortality burden due to SIDS and suffocation, policy efforts to promote compliance with recommended sleeping arrangements could be an effective first step in this direction [25].

Table 1: Sex wise children in two districts

	Jhargram	Medinipur	Total
Male	92(51.69)	357(61.98)	449 (59.55)
Female	86(48.31)	219(38.02)	305 (40.45)
Total	178 (23.61)	576 (76.39)	754

() Represents the percentages

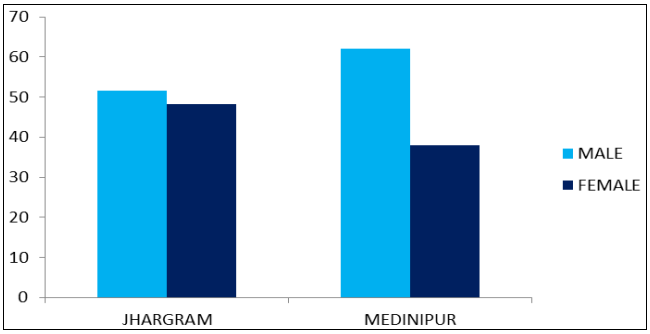

Fig 1: Sex wise population of two district

Table 2: Sex wise place of birth in Jhargram

Jhargram	Male	Female	Total
Inborhn	4(4.35)	3(3.49)	07 (3.93)
Outborn	88(95.65)	83(96.51)	171(96.06)
Total	92(51.68)	86(48.31)	178

() Represents the percentages

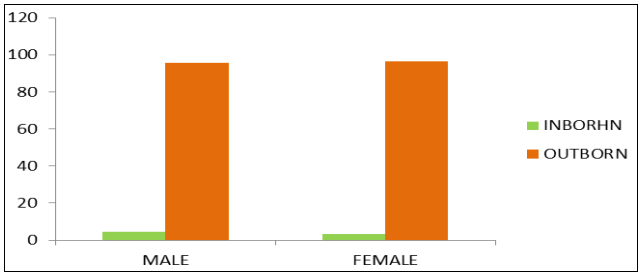

Fig 2: Place of birth in Jhargram

Table 3: Sex wise place of birth in Paschim Medinipur

Medinipur	Male	Female	Total
Inborn	210(58.82)	94(42.92)	304 (52.78)
Outborn	147(41.18)	125(57.08)	272 (47.22)
Total	357(61.98)	219(38.02)	576

() Represents the percentages

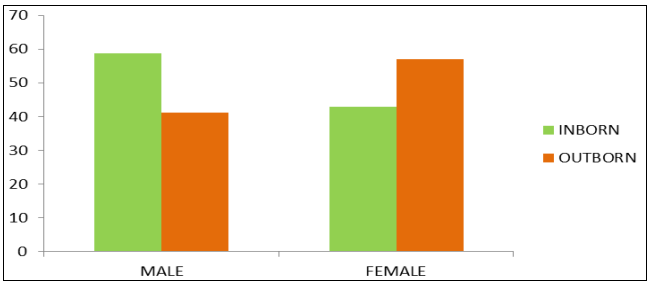

Fig 3: Place of birth in Medinipur

Table 4: Sex wise birth weight in Jhargram

Jhargram	Male	Female	Total
<2.5	58(63.04)	56(65.12)	114(64.04)
2.5>	34(36.96)	30(34.88)	64(35.95)
Total	92(51.68)	86(48.31)	178

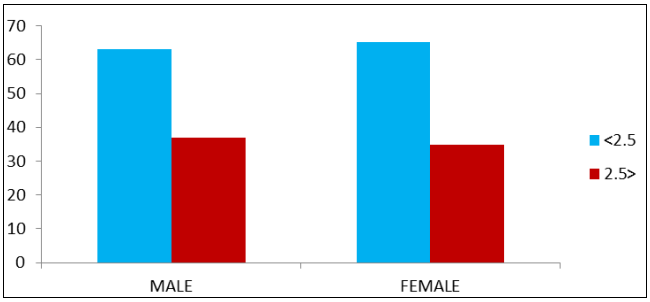

Fig 4: Sex wise birth weight in Jhargram district

Table 5: Sex wise birth weight in Medinipur

Medinipure	Male	Female	Total
<2.5	243(68.07)	154(70.32)	397(68.92)
2.5>	114(31.93)	65(29.68)	179(31.07)
Total	357(61.97)	219(38.02)	576

() Represents the percentages

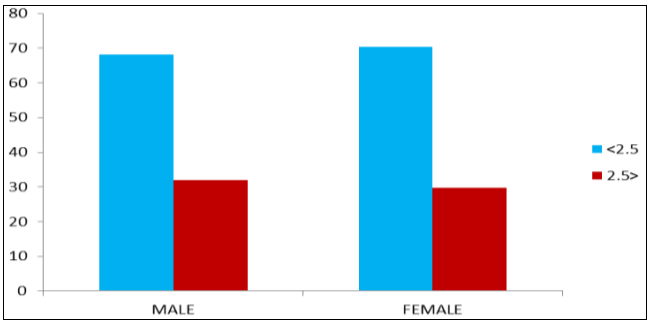

Fig 5: Sex wise birth weight in Medinipur district

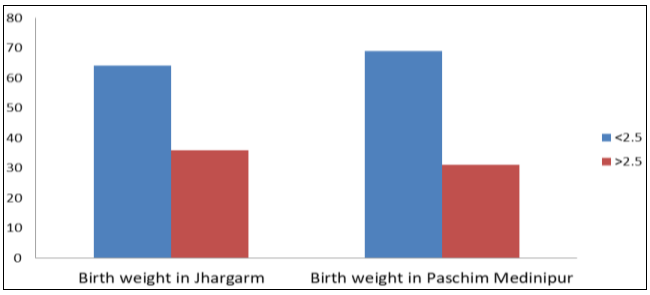

Fig 6: Comparative scenario on birth weight

Table 6: Sex wise age of death in Jhargram Hospital

Medinipur	Male	Female	Total
<7 days	294(82.35)	172(78.54)	466 (80.90)
7 to28 days	39(10.92)	21(9.59)	60(10.42)
29 to1 yr	24(6.72)	26(11.87)	50(8.68)
1 to 5 yr	0	0	
Total	357 (61.97)	219 (38.02)	576

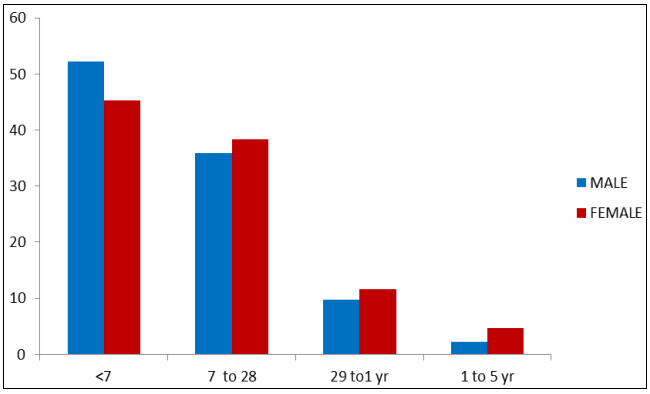

Fig 7: Sex wise children death within 5 years in Jhargram district

Table 7: Sex and year wise death in Paschim Medinipur

Jhargram	Male	Female	Total
<7 days	48(52.17)	39(45.35)	87(48.87)
7 to 28 days	33(35.87)	33(38.37)	66(37.07)
29 to1 yr	9(9.78)	10(11.63)	19(10.67)
1 to 5 yr	2(2.17)	4(4.65)	6(3.37)
Total	92(51.68)	86(48.31)	178

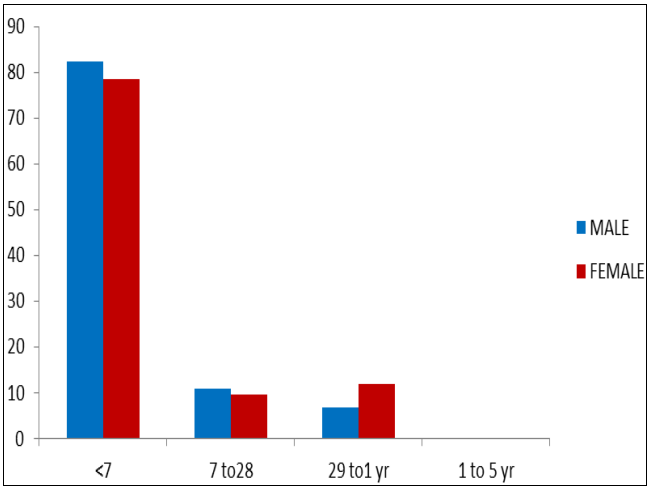

Fig 8: Sex & age wise children death within 5 years in Midnapore

Table 8: Sex cause wise percentages of child death in Jhargram district

Name of the Disease In Jhargram	Male	%	Female	%
Preterm, VLBW, RDS	36	39.13	36	41.86
Septicemia with meningitis	8	8.69	10	11.63
Severe birth asphyxia	34	36.95	26	30.23
Severe pneumonia	1	1.09	3	3.49
VLBW baby with congenit	2	2.17	3	3.49
very severe pneumonia down syndrome	3	3.26	3	3.49
Thelasemiamejor with severe with heart failure	3	3.26	4	4.65
Acute meningocephalitis	1	1.09	0	0
Snake bite	0	0	1	1.16
Respiratory distress	4	4.35	0	0
Total	92	100	86	100

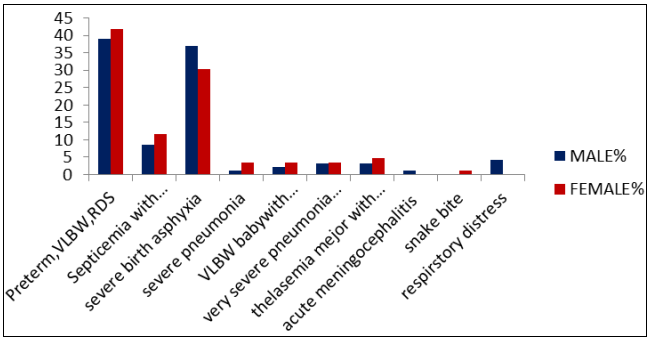

Fig 9: Sex wise cause of childern death in Jhargram

Table 9: Sex & cause wise percentages child death in Paschim Medinipur district

Name of the Diseases in Medinipur	Male	Female	Male (%)	Female%
Birth asphyxia	91	53	25.49	24.2
severe birth asphycxia	30	17	8.4	7.76
sepsis, prematurity ELBW	54	22	15.13	10.05
sepsis, shock	8	6	2.24	2.74
Extream premature, extream LBW	9	3	2.52	1.37
Severe pneumonia with septicemia	27	26	7.56	11.87
respiratory distress	32	19	8.96	8.67
cardiac arrest	7	6	1.96	2.74
Extreami immaturity, ELBW	18	14	5.04	6.39
Neonatal sepsis	24	21	6.72	9.58
congenital heart diseases	3	0	0.84	0
preterm, VLBW	54	32	15.13	14.61
Total	357	219	100.	100

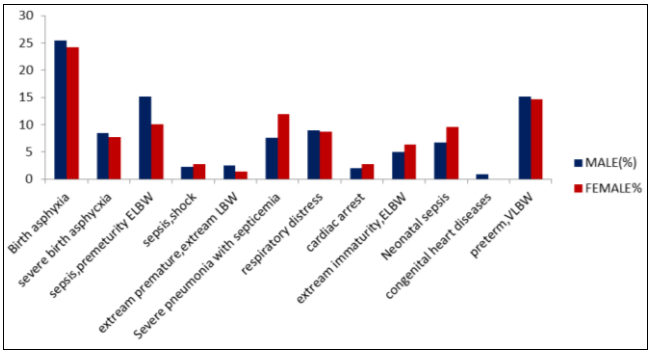

Fig 10: Sex wise cause of death in Midnapore

Conclusion

It is conclude that child mortality is a burning issue in India. In this study I have found most of the infant death due to pre-term or LBW in both districts. Institutional delivery is one of the vital issues for IMR. This scenario also found in both districts. Most of the age of death is found below <7 days of birth in both hospital. All of the death has been found before one year in Medinipur hospital, but in Jhargram age of death distributed up to 5 years. Most of the birth weight in two districts in both sexes is below 2.5 kg, it is most significant indicator of IMR.

More than 7,000 full-term infants die in the US each year. Low birth weight is a key predictor of malnutrition and an important determinant of child mortality. National efforts have been made to collect representative estimates of birth weights from institutional and community deliveries, but the findings vary greatly. In a study of fifteen centers across India, the National Neonatology Forum found a prevalence of low birth weight of 33%, of which 32% were premature births. It is very clear that the both district data shows that birth place is out of Government hospital. So, in conclusion birth weight and institutional delivery are the most important factor for reduce IMR.

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