Chapter VII Women and children

Any discussion on the unequal achievement on human development indicators between women and men has to be in relation to the opportunities women get in different spheres of life. How many women are able to read and write compared to men? What is the probability of a girl child to drop out of school? How difficult is it for a pregnant mother to access the necessary ante-natal care? Do women and men have equal access to the different segments of the labour market? This can go on. While some of these questions can be answered with the available data, albeit imperfectly, some others can hardly be answered for lack of reliable data.

7.1 Sex Ratio, female literacy and girls' enrolment in schools

According to the Census 2001 data, the overall sex ratio in Birbhum district was 950 females per thousand males, which was above the West Bengal average of 934. Historically, Birbhum was one of the few districts with sex ratios favourable to females in the beginning of the 20th Century.[1] Data from 1901 Census to 1931 Census show Birbhum having sex ratios exceeding 1000 females per thousand males. In fact, Birbhum is among the few West Bengal districts that started with better sex ratios at the beginning of the 20th century. The sex ratios of Birbhum and West Bengal are presented in Figure 7.1. Between 1991 and 2001, sex ratio marginally improved from 946 and 950. The large rural-urban gap in sex ratio which was found in 1991 has totally disappeared in 2001. This happened apparently because of large improvements in sex ratios achieved in almost all urban areas.

Though the overall sex ratio has not come down in Birbhum between 1991 and 2001, in some blocks the sex ratio has decreased. These blocks are Nalhati-I, Murarai-I, Suri-I, Khoyrasole, Bolpur-Sriniketan and Labhpur. It is also a matter of concern that the sex ratio in 0-6 population has come down not only in some blocks (Murarai-I, Mayureswar-II, Dubrajpur and Bolpur Sriniketan), but also in municipalities like Rampurhat and Bolpur.

[1] The districts of Bankura, Birbhum and Murshidabad show favourable sex ratios for first three decades of the beginning of the 20th Century.

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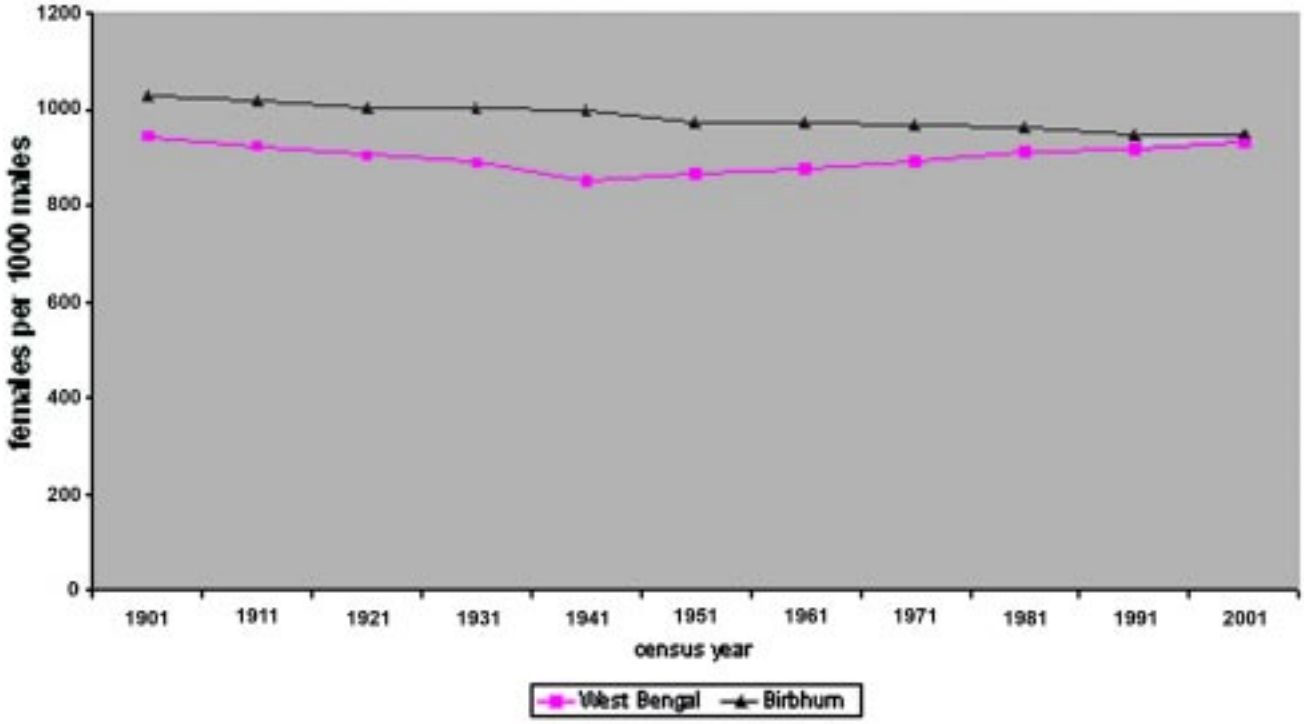
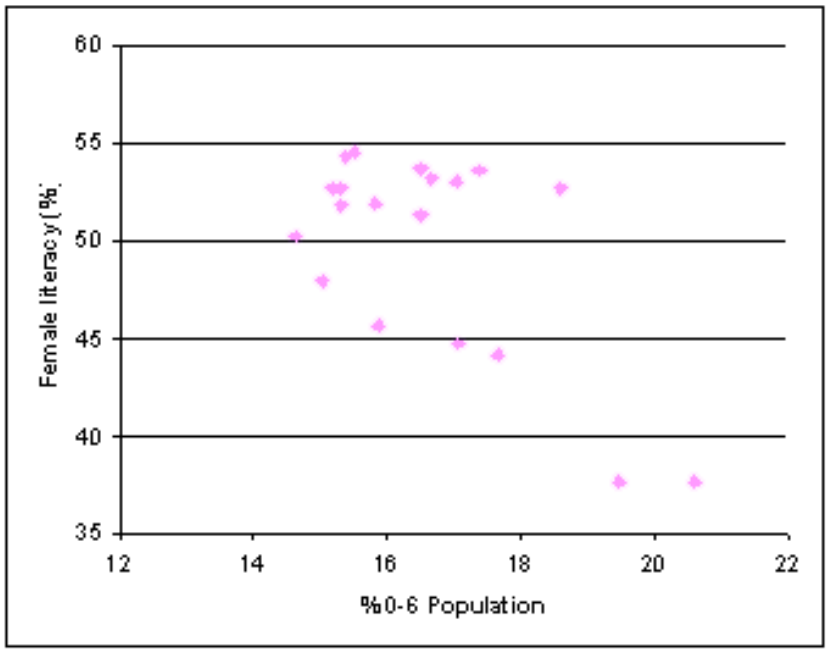
Figure 7.1: Sex ratio in West Bengal and Birbhum (1901-2001



In Chapters II and III we discussed the unequal levels of achievement by men and women on various indicators of education and health. We noted that the male-female gap in literacy in the district is slightly wider than that in West Bengal as a whole. The gap is more in rural areas than in urban areas. And since Birbhum has very low level of urbanization, the overall male-female gap in literacy carries an overwhelming weight of the larger gap in rural areas. However, what is more important is that between 1991 and 2001 female literacy rates increased more than male literacy in all the blocks indicating that the male-female gap in literacy has been coming down throughout the district. Yet, substantial gap still exists.

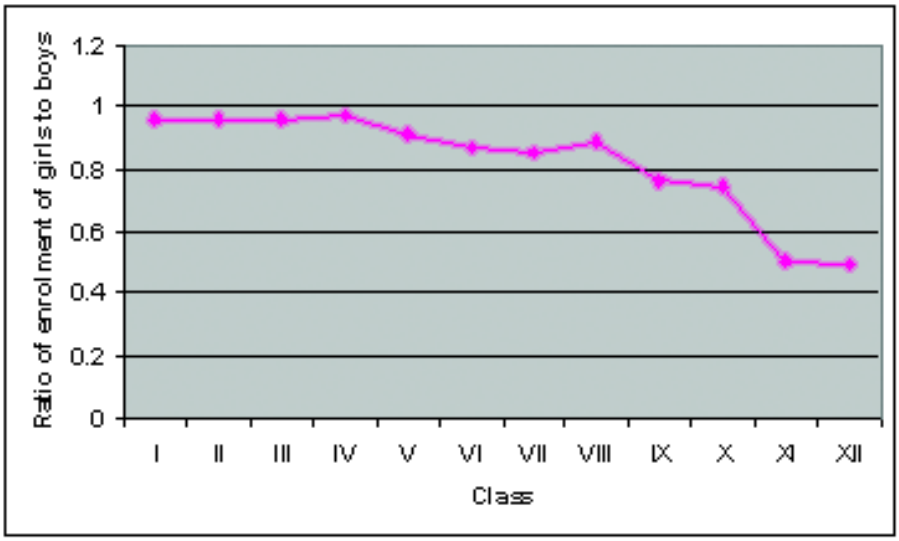
It is now well-known that there is a strong correlation between female literacy and various other indicators of social development. In particular, evidence shows that female literacy has a positive influence on fertility. We do not have available data on total fertility rate across blocks. But we can use the percentage of children age 0-6 in total population as a proxy for fertility. We plot these figures against female literacy for blocks (Figure 7.2) and find a good negative correlation between the two (the correlation coefficient being – 0.66).

Figure 7.2: Correlation between female literacy and percentage of population age 0-6, 2001



A remarkable achievement in the sphere of education in the recent years is that at least at the primary and upper primary level there is not much difference between the enrolment ratios for girls and boys. However, beyond the upper primary level the difference starts showing up sharply (Figure 7.3).

Figure 7.3: Ratio of enrolment of girls to boys in Classes I to XII, 2006



7.2 Women's work participation

Women's participation in the labor force has long been central to research on gender inequalities. Much of this research has sought to find out how and to what extent labor force participation contributes to women's empowerment and well-being and reduction of gender inequalities. Scholars on gender inequality tend to emphasize the importance of women's economic role in determining their position in other spheres, from household bargaining to representation in state governance. Empirical research has found that women's labor force participation is associated with less bias against the girl child within the family, reduced mortality and better health for girl children, and with more say in some areas of household decision making. Of course, many conditions may limit the liberating impacts of work outside the household (e.g., who controls the income from such work), and, even in the best of circumstances, outside work usually implies a dual burden for wives and mothers. Nevertheless, it is less often asserted that women's labor force participation sometimes may actually restrain women's progress toward more equality. More women's labor force participation under economic stress may lead to girls being withdrawn from school and put to work such as domestic chores and sibling care; the frequency of girls' work may restrict their schooling, which widens the gender gap in basic education. None of these linkages is inevitable, though. Nevertheless, the general pattern across India provides a cautionary message and reminds us of the multidimensionality of gender stratification.

Understanding the multidimensionality of gender stratification also helps us think about other gendered consequences of women's labor force participation. While the frequency of women's work may increase girls' economic value, which has positive benefits for their survival, girls' economic value may also increase their parents' incentives to keep them out of school to maximize their immediate economic returns. Each dimension of gender inequality requires careful scrutiny.

In Birbhum the work participation rate for women is very low compared to men. While the share of male workers in total male population is 54 per cent, that of female workers is only 20 per cent (2001 Census). However, the female work participation rate has increased from 13 per cent in 1991 to 20 per cent in 2001. From the increasing trend in work participation by women it is not clear whether the women view their engagement in income earning activities as a liberating opportunity or something that had to be undertaken on being forced by economic circumstances. Therefore we

need to examine closely which factors have had influence on women's participation in the workforce. One way to go about it is to further analyse the composition of the work force and try to understand the changes from different angles.

Table 7.1 Work participation by women across blocks and municipalities in Birbhum, 1991 and 2001

Blocks and municipalities	Main+Marginal		Main	
	1991	2001	1991	2001
MURARAI - I	7.72	15.01	3.88	5.51
MURARAI - II	6.35	13.08	3.17	6.07
NALHATI - I	8.96	17.46	4.65	5.97
NALHATI - II	5.84	13.89	2.58	4.66
RAMPURHAT - I	20.36	30.22	13.30	13.18
RAMPURHAT - II	8.79	15.29	3.15	6.18
MAYURESWAR - I	14.16	21.55	9.66	8.93
MAYURESWAR - II	7.21	17.11	5.28	8.46
Md. BAZAR	21.51	20.78	15.66	8.29
RAJNAGAR	21.41	34.15	14.83	11.00
SURI - I	15.40	28.43	9.17	11.42
SURI - II	19.59	40.41	11.38	8.23
SAINTHIA	18.11	20.72	12.17	7.16
LABHPUR	6.60	14.24	4.31	5.86
NANOOR	6.68	16.33	4.03	8.22
BOLPUR-SRINIKETAN	21.01	29.00	16.40	13.46
ILLAMBAZAR	13.56	18.42	8.64	7.23
DUBRAJPUR	22.38	24.03	12.09	9.65
KHOYRASOL	14.81	15.69	7.39	3.55
Rural Birbhum	**13.35**	**20.35**	**8.27**	**7.95**
RAMPURHAT M	5.00	8.68	4.68	6.97
SAINTHIA M	5.60	11.22	5.47	9.11
SURI M	5.93	12.21	5.79	10.02
DUBRAJPUR M	10.68	15.51	8.04	10.22
BOLPUR M	7.06	13.71	6.17	10.78
Urban Birbhum	**6.52**	**12.20**	**5.84**	**9.45**
Birbhum	**12.75**	**19.65**	**8.05**	**8.08**

What is to be noted is that, in Birbhum, increasing work participation by women between 1991 and 2001 was associated with increasing share of marginal workers in total work force. By census definition marginal workers are those who do not work for major part of the year which could either be due to lack of opportunity or other reasons. Higher work participation by women indicates that more women are engaged in income earning activities inside or outside the household, which is likely to have positive impact on their families' well-being. Although the decennial growth rate of the female workers between two census years is 81 per cent, the number of main workers increased by a modest 14 per cent, while the number of marginal workers increased by a hopping 189 per cent). As a result, the share of female marginal workers in total female workers increased from 38 per cent in 1991 to 61 per cent in 2001.

There is a rural-urban gap in female work participation. While in rural areas work participation rate is 20.35 per cent, in urban areas it is 12.2 per cent. What is to be noted is that while the percentage of female main workers in total female population increased in urban areas it actually decreased in rural areas (Table 7.1). If we further look into the distribution of workers into broad occupational categories, we find that between 1991 and 2001, the total number of female cultivators increased from 29175 to 30030 (2.9 per cent increase), but the number of female agricultural labourer increased from 90467 to 135855 (50.2 per cent increase) (Figure 7.4). This is enough to establish that a large number of women who are joining the work force are not doing it out of choice. They are rather compelled by economic circumstances to accept the drudgery of working in the field.

Figure 7.4 Number of female workers in different categories (in thousand) in Birbhum

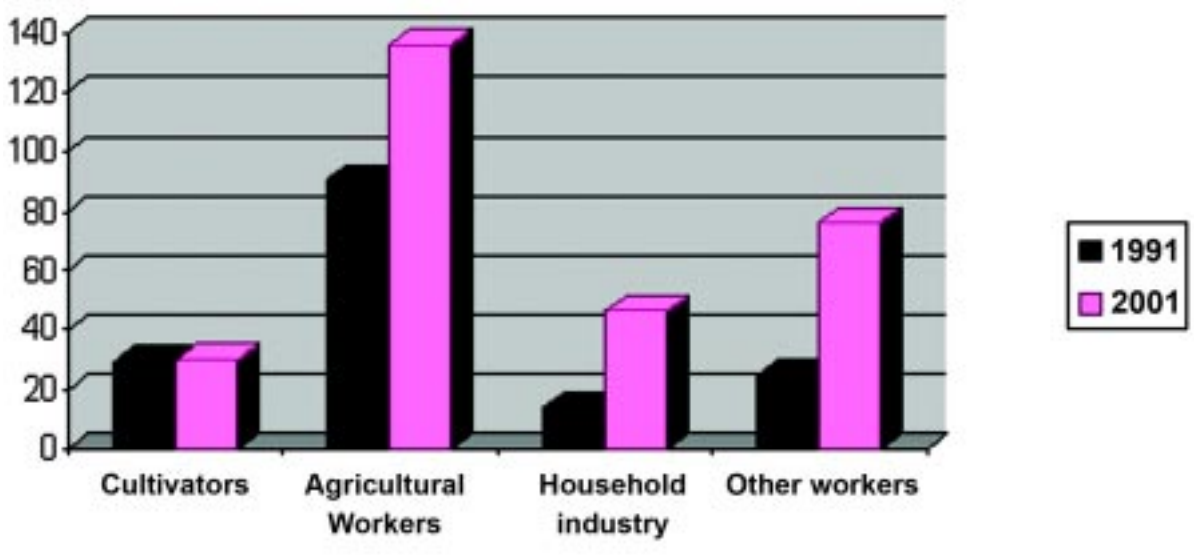


Table 7.2: Share of women in total work force, marginal workers and agricultural labourers

Block	Percentage share of women in total work force		Percentage share of women in agriculture labourers	
	1991	2001	1991	2001
MURARAI – I	13	22	5	19
MURARAI - II	11	20	1	7
NALHATI – I	15	24	14	32
NALHATI – II	10	20	4	14
RAMPURHAT - I	26	33	30	46
RAMPURHAT - II	14	21	6	17
MAYURESWAR - I	20	27	27	35
MAYURESWAR - II	11	22	18	31
MOHAMMAD BAZAR	28	27	32	42
RAJNAGAR	28	37	33	50
SURI – I	22	32	22	50
SURI – II	25	40	27	46
SAINTHIA	24	27	30	39
LABHPUR	10	20	13	23
NANOOR	11	22	12	26
BOLPUR-SRINIKETAN	27	32	34	41
ILLAMBAZAR	19	24	25	33
DUBRAJPUR	28	29	29	40
KHOYRASOLE	21	22	22	29

Source: Calculated from Census 1991 and 2001 data

This pattern of employment is not surprising given the level of human capital that women have had the opportunity to acquire. Table 7.3 presents the distribution of educational achievement among males and females in the age group 20-59 years, according to Census 2001.

Table 7.3 Distribution of education level among population in the age group 20-59 in Birbhum, 2001

	TOTAL	MALE	FEMALE
Illiterate	43.32	32.22	54.95
Literate	56.68	67.78	45.05
Without Educational level	1.42	1.78	1.04
Below Primary	15.78	16.97	14.53
Primary	12.15	12.83	11.44
Middle	11.96	14.34	9.46
Matric/Secondary	7.24	9.51	4.86
Higher Secondary	3.13	4.57	1.63
Non technical Diploma	0.01	0.02	0.00
Technical diploma	0.16	0.30	0.02
Graduate and above	4.76	7.36	2.05
Unclassified	0.07	0.11	0.02

There is a wide gap between males and females in educational attainment at all levels, and the gap widens as they progress towards higher levels of education. We focus on 20-59 age-group as it is considered the relevant age group for workers who, under ideal conditions, would have 15 years of education – sufficient to acquire the minimum level of human capital to enter the skilled labour market. It is remarkable how the gap increases beyond the primary level. The first two rows divide the population into literate and illiterate. The total literate population is then subdivided into different categories according to different levels of educational attainment. Clearly there is not much male-female gap for primary and below primary. Among the total female population about 26 percent have either completed primary education or literate but could not complete primary education. The corresponding percentage for males is around 29. But from the middle school level the gap further widens. While 7.36 per cent of the males in the age group 20-59 have graduate or post-graduate degree, only 2.05 per cent of the females in the same group have such degrees.

What the above analysis shows is that the large gap between males and females in educational attainment severely constrains women's opportunities in the skilled labour market and they end up in the unskilled market which is overwhelmingly agricultural work in Birbhum. In the absence of adequate work opportunities, it has been envisaged at the policy level that formation of self-help groups would help women to engage in income-earning activities on their own.

Table 7.4 Number of Self-Help Groups and percentage of women's groups in blocks of Birbhum

Name of the Block	No. of SHGs	No. of women SHGs	% of Women SHGs
Suri-I	580	443	76.38
Suri-II	672	295	43.9
Sainthia	758	521	68.73
Md. Bazar	757	517	68.3
Rajnagar	703	418	59.46
Khayrashole	829	471	56.82
Dubrajpur	569	240	42.18
Illambazr	846	468	55.32
Bolpur-Sriniketan	828	598	72.22
Nanoor	717	576	80.33
Labpur	1034	594	57.45
Mayureswar-I	706	342	48.44
Mayureswar-II	728	386	53.02
Rampurhat-I	676	417	61.69
Rampurhat-II	530	233	43.96
Nalhati-I	922	572	62.04
Nalhati-II	402	156	38.81
Murarai-I	750	488	65.07
Murarai-II	796	652	81.91
Total	**13803**	**8387**	**60.76**

About fourteen thousand SHGs have so far been formed in Birbhum, and about 61 per cent of them are women's groups. In a good number of blocks less than half of all SHGs are women groups. This is a bit surprising, given the fact that most of the self-help groups elsewhere in the country are women's groups.

7.3 Maternal and child health indicators

Low mean age at marriage is one of the many factors contributing adverse maternal and child health outcomes since babies born to the young mothers are more likely to be premature, have low birth weights, and suffer from complications at the time of delivery. This enhances gynaecological and obstetric morbidity, even chances of maternal death. The DLHS-RCH, 2003-04, data show that (Table 7.5) in Birbhum the mean age at marriage among girls is 17.6, which is lower than the state average of 18.6. The percentage of girls married below the legal age at marriage is about 60 per cent, which is significantly higher than the state average of 45.4 per cent.

It has also been observed from the same data source that though more than 91 per cent of expectant mothers had any antenatal check-up, the percentage declined sharply to 63 per cent for 3 or more antenatal check-ups. In case of West Bengal as a whole similar pattern of decline has been observed. Iron and folic acid (IFA) tablets are regarded as one of the important components of micro-nutrients during pregnancy. In Birbhum, the percentage of pregnant women who had received IFA is substantially lower (13 per cent) than the state average (19 per cent), even though neither can be considered as satisfactory. Only about 11 per cent of expectant mothers in the district received full antenatal care that comprises at least three ANC visits, at least one dose of tetanus injection and taking 100 or more IFA tablets, which is a little less than the state average of 13.4. About 46 per cent of pregnant mothers used public sector health facility to obtain ANC, and about 48 per cent of total deliveries were conducted in institutions in the district. It is worth noting that among these delivery cases, about 40 per cent have been conducted in two sub-divisional hospitals at Bolpur and Rampurhat and the district hospitals at Suri. As far as safe delivery (either institutional delivery or home delivery attended by trained medical or para-medical personnel) is concerned, about 53 per cent of deliveries can be regarded as safe and there is no significant difference with the state-level average.

Table 7.5: Maternal and child health indicators for Birbhum vis-à-vis West Bengal, 2003-04

	Birbhum	West Bengal
% of girls married under 18 years of age	59.8	45.4
5 of pregnant women received at least 3 ANC	63.0	64.6
% of pregnant women received 2 doses of TT	77.2	80.0
% of pregnant women received 100 IFA	12.9	18.9
% of pregnant women received full ANC	10.8	13.4
% of safe delivery	52.8	54.1
% of institutional delivery	48.1	46.3
% of children aged 12-35 months fully immunised	43.2	54.4
% of mothers aware of diarrhoea	88.2	79.5
% of mothers used ORS during diarrhoea	49.2	34.8

Source: DLHS-RCH, 2003-04

The percentage of children who received full immunization can be considered as a useful indicator to judge the status of child health. It has been found that only about 43 per cent of children age 12-35 months received all the required doses of complete immunization, which is considerably lower compared to West Bengal as a whole (more than 54 per cent). On this, among all the districts of West Bengal, Birbhum stands at third from the bottom. The low coverage of complete immunization may primarily be attributed to the low coverage of measles vaccination (only about 51.4 per cent of children have been covered by measles vaccine). The drop-outs from DPT3 and Polio3 are also higher compared to most of the other districts of the state. It is also worth mentioning that more than 10 per cent of children have not been covered by any sort of vaccine. The percentages of mothers who are aware of diarrhea and the use of ORS during diarrhea are significantly high, about 90 per cent and more than 49 per cent respectively, and substantially higher than the state average.

7.4 Low birth weight, infant deaths, child immunization and maternal care

Infant mortality has been recognized as an important summary indicator of the quality of health care as well as the overall socio-economic development in a country or region. Although remarkable decline in the infant and child mortality was observed in India till the mid-1990s, the rate of decline has been quite slow since then. Further decline in infant mortality will depend on reductions in neonatal

mortality since more than 60 percent of infant deaths occur during the first month after birth. Estimate from the Sample Registration System (SRS) reveals that in recent periods 38 babies out of 1000 live births did not survive till one year of birth in West Bengal with substantial rural-urban difference (SRS Bulletin, October 2007).

No dependable estimate of infant and child mortality is possible at the district level, let alone the block level, for lack of adequate data (sample size). Information on infant deaths in some form is being kept only in the recent years by the Health Department and the Public Health Cell of the district. The data are full of inconsistencies. Also, the infant and child deaths occurred in the private health care institutions are not available. Data are also not available for those who do not come to any institution for the treatment of their sick babies. Nevertheless, in what follows we make an attempt to come up with some numbers which may partially represent the current scenario.

During the recent years the number of neonatal deaths per 1000 live births in Birbhum district seems lower compared to the all-India average. During 2006-07 and 2007-08 (up to Dec, 07), less than 15 babies per 1000 live births did not complete the first month of their lives. This is far from uniform across blocks and sub-divisions. During 2006-07, the neonatal deaths were the highest in Bolpur P.P. Unit followed by Suri P.P. Unit, Bolpur BPHC, Mallarpur BPHC, Barachaturi BPHC and Sultanpur BPHC. It was the lowest in P.P. Unit Rampurhat followed by Lohapur BPHC and Dubrajpur RH. During the current year, the scenario does not change much.

As far as the infant deaths per 1000 live births are concern, it follows almost a similar pattern as seen in case of neonatal death. The exception is Illambazar BPHC, where infant deaths per 1000 live births are substantially higher than district average. Unlike neonatal deaths, the infant deaths are also somewhat higher in Mallarpur BPHC than Bolpur BPHC. From the data, neither the child deaths per 1000 live births can be computed (since data on live births are not available for the entire period) nor can any conclusive statement regarding child death be made. It can be said that the number of child deaths is higher in Suri District Hospital than other public institutions. Possibly this is due to the fact that being the highest level referral unit in the district, a child is usually brought to the hospital when she/he is already in a critical stage.

Very recently, the Department of Health and Family Welfare has initiated social audit of infant and maternal deaths in the district. Out of 281 infant deaths occurred between January and July 2007 in various BPHCs and RHs, 209 were audited. In most of the cases, the causes of deaths are found to be birth asphyxia and low birth weight followed by respiratory tract infection.

Data for the occurrence of still birth are not available for all the reporting units in the district. Also, since the number of still births being small, rates based on number of such births are found to be often unreliable. From the available data (not given in the table), it can be observed that occurrence of still births was remarkably higher in Sainthia, Murarai-II, Bolpur-Sriniketan and Mayureshwar-I blocks than in the rest. Personal communication from CMOH, Birbhum, reveals that in the case of non-institutional delivery, especially when the delivery is conducted by quacks, arbitrary application of oxytocine injections to the labouring mothers accelerates delivery process which ultimately results in still birth in most cases.

Table 7.6: Neonatal and infant deaths per 1,000 live-births and number of child deaths by reporting units in Birbhum during April 2006 –December 2007.

Sl.No	Name of the Unit	April2006-March07				April 2007-Dec2007			
		Total number of live births	Neonatal deaths/1000 live births	Infant deaths/1000 live births	Number of deaths of children aged 1-5 Year	Total number of live births	Neonatal deaths/1000 live births	Infant deaths/1000 live births	Number of deaths of children aged 1-5 Year
1	P.P UNIT RAMPURHAT	7061	0.6	1.8	4	5911	4.1	5.2	7
2	CHAKMONDOLA BPHC	2314	12.5	19.4	6	1441	25.7	30.5	20
3	BOSWA BPHC	2784	9.3	15.1	16	1881	15.4	21.3	8
4	NALHATI BPHC	3782	4.0	5.0	0	4141	1.7	3.4	1
5	LOHAPUR BPHC	2217	1.8	2.3	0	1607	1.2	3.1	2
6	MURARAI RH	4805	3.5	5.2	16	3961	5.6	7.3	14
7	PAIKAR BPHC	4265	14.5	17.8	23	2805	3.9	7.1	23
8	MALLARPUR BPHC	2096	20.5	33.4	13	1470	14.3	19.7	7
9	SATPALSA BPHC	1859	5.4	5.9	3	917	5.5	16.4	4
10	P.P UNIT SURI	8736	35.9	41.1	74	5844	45.2	54.4	39
11	BARACHATURI BPHC	1022	18.6	28.4	2	581	20.7	46.5	14
12	SULTANPUR BPHC	1080	17.6	24.1	5	656	9.1	10.7	0
13	NAKRAKONDA BPHC	1928	6.7	13.5	5	1286	7.0	10.1	2
14	DUBRAJPUR RH	3384	3.3	4.7	3	2602	1.9	3.1	0
15	RAJNAGAR BPHC	1396	15.0	17.9	10	913	24.1	31.8	1
16	MD. BAZAR BPHC	2337	13.7	20.5	17	1618	13.6	17.3	4
17	SAINTHIA RH	2444	11.5	18.4	11	1904	21.0	26.8	15
18	P.P UNIT BOLPUR	4053	39.7	46.6	21	3356	31.6	34.6	4
19	BOLPUR BPHC	2951	21.7	28.8	23	2050	16.6	22.4	13
20	NANOOR BPHC	2907	7.6	12.4	5	2124	7.1	10.8	11
21	LABPUR RH	2676	13.5	18.3	2	1870	5.9	7.5	3
22	ILLAMBAZAR BPHC	2634	15.9	27.7	13	1832	6.0	13.1	2
	DISTRICT TOTAL	*68731*	14.4	19.1	272	50770	14.1	18.3	194

Source: Calculated from the data provided by the CMOH, Birbhum

Sick Newborn Care Unit in Suri Sadar Hospital

It is well-known that further reduction in infant mortality in India would primarily depend upon the decline in neonatal mortality since more than 60 per cent of infant deaths occur in the first month of birth. It is also an established fact about 20 per cent of newborn babies requires special care for survival and it is this 20 per cent which accounts for the majority of deaths.

With the goal of reducing neonatal mortality, the *Neonatal Special Care Unit* in Suri District Hospital was established on 23 February 2006 with an initial expenditure of Rs 80 Lakhs. This is the second unit of its kind in West Bengal after the first was set up earlier in Purulia. Dr. AK Singh, Dr. Amitava Sen and Dr. Dilip Mahalanabis – three very eminent personalities in the area of health and health care were instrumental in setting up the unit in Purulia and in Suri, the district headquarter of Birbhum. Recently, this model of Neonatal Special Care Units has been praised and recognized by the United Nations as a model to be followed by other Indian states.

The important components of care are: training to help personnel in the art of newborn care, basic care of all newborn babies, specialized medicine care for sick newborn, high risk follow up and saving newborn irrespective of socio-economic identity. A team of trained doctors and nurses are managing the Sick Newborn Services 24 hours a day with the state of the art services and equipments. This 20-bed unit built over a space of more than 1800 sq.feet, has been planned with special care, keeping in mind the ambient temperature, sound and specified intensity of light.

The unit not only caters to the newborn of Birbhum but also to others from the neighbouring districts and the adjacent State of Jharkhand. Data from March 2006 to December 2006 show that altogether 278 newborns, about 70 per cent of whom were males, were admitted in this unit for treatment having wide range of problems such as birth asphyxia, severe respiratory distress, preterm delivery with LBW, septicemia, physiological jaundice, convulsion etc. Sometimes a combination of the problems has also been found. Out of 278 newborns, 50 newborns could not survive. The common causes of death were found to be birth asphyxia, preterm delivery with LBW, septicemia and severe respiratory distress. The duration of stay in this unit varied from 6 minutes to 109 days. Between January and December 2007, 186 newborns were admitted. Among 186 babies 72 per cent were males. Similar range of problems was found in them. Among the 186 newborns, 35 could not survive and in most of the cases the causes of death were as stated earlier. It can be noted that during 2007, the number of babies who were not discharged by the authority but released without permission is significantly higher than during the previous year cause of which need to be investigated by the authority.

7

Infant deaths and causes of infant deaths as obtained from CHCMI

Community Health Care Management Initiative (CHCMI) has recently been introduced by the Panchayat & Rural Development Department of the Government of West Bengal by involving the *Panchayeti Raj Institutions* (PRIs) and self-help groups in strengthening rural health care system and data collection and management. The data obtained from that source given by the *Panchayat Samity* of the respective blocks reveals that between September 2006 and August 2007, the number of infant deaths per 1000 live births was just above 17 in rural Birbhum. This seems an underestimation as we know that the infant mortality rate for West Bengal as a whole is now 38. The infant deaths per 1000 live births were substantially higher in Suri-I, Rajnagar and Labhpur blocks compared to the other blocks, whereas they were comparatively low in Nalhati-I and II, Murarai-I and in Dubrajpur. About 35 per cent of infant deaths occurred due to either diarrhea or respiratory tract infections, which are the two major killer diseases among infants and children all over the world.

It must be pointed out that though the data provided by the Health Department and CHCMI are not strictly comparable due to varying reference period, a careful look into the data reveals that there are inconsistencies between these two data sets that need to be corrected. CHCMI is a well thought out initiative taken up by the Department of Panchayats & Rural Development of the Government of West Bengal. But to achieve better delivery in the rural areas, convergence among the Panchayats & Rural Development Department, general administration, District ICDS Cell and the Health Department is essential.

Incidence of low birth weight

According to the World Health Organization (WHO), low birth weight (LBW) babies are those whose weight at the time of birth is less than 2.5 Kilograms. The chances of survival for the low birth weight babies are less than those of the mature babies. As found earlier from the recently initiated *Social Audit* system, low birth weight babies are more likely to die within infancy.

Table 7.7: Incidence of Low Birth Weight (LBW) by reporting units in Birbhum during April-March 2006-07

Sl. No.	Name of the Reporting Units	Total No. of Live Birth	Number of Babies with Birth Weight <2.5Kgs	Percentages of LBW Babies
1	*P.P UNIT RAMPURHAT**	2399	1016	42.4
2	*CHAKMONDOLA BPHC*	2314	101	4.4
3	*BOSWA BPHC*	2784	270	9.7
4	*NALHATI BPHC*	3782	470	12.4
5	*LOHAPUR BPHC*	2217	86	3.9
6	*MURARAI RH*	4805	289	6.0
7	*PAIKAR BPHC*	4265	277	6.5
8	*MALLARPUR BPHC*	2096	596	28.4
9	*SATPALSA BPHC*	1859	48	2.6
10	*P.P UNIT SURI**	2845	1304	45.8
11	*BARACHATURI BPHC*	1022	27	2.6
12	*SULTANPUR BPHC*	1080	87	8.1
13	*NAKRAKONDA BPHC*	1928	176	9.1
14	*DUBRAJPUR RH*	3384	400	11.8
15	*RAJNAGAR BPHC*	1396	238	17.0
16	*MD. BAZAR BPHC*	2337	233	10.0
17	*SAINTHIA RH*	2444	206	8.4
18	*P.P UNIT BOLPUR**	1332	144	10.8
19	*BOLPUR BPHC*	2951	216	7.3
20	*NANOOR BPHC*	2907	232	8.0
21	*LABPUR RH*	2676	259	9.7
22	*ILLAMBAZAR BPHC*	2634	265	10.1
	DISTRICT TOTAL	*55457*	6940	12.5

*Note: * Data for the PP Units of Sadar and SDHs are from January'07 to July'07*
Source: Calculated from data provided by Office of the CMOH, Birbhum

From the data of 2006-07, it has been observed that the babies born with LBW were notably high in number in the P.P. Units of Suri and Rampurhat. This may be due to the fact that being the higher

level referral unit within the district, most of the high risk pregnancies which are complicated in nature and have a higher chance of LBW are handled in these P.P. Units. It is also considerably higher in Mallarpur BPHC followed by Rajnagar and Nalhati BPHC compared to other reporting units. Data from the CHCMI reveals that nearly 70 per cent of the babies were weighed at the time of birth varying from around 96 percent in Suri-I to 41 per cent in Murarai-II. Other blocks where less than 6 out of 10 babies were weighed at the time of birth are Suri-II, Rajnagar, Khayrasole, Nanoor and Murarai-I. In other cases and also for the babies born outside institutional set up are simply not weighed at birth.

Child immunization

Child vaccination for the preventable diseases has been recognized as an important indicator of the efficacy of the health care delivery system in a country or region. Typically, the field level staff of the health department fix a *target* of immunization based upon the expected number of births that could take place during a year in his/her jurisdiction from the eligible couple's register and also through community involvement. The field worker then tries to measure *achievement* in immunizing those expected number of babies. Since the fixing of target is based on 'expected' number and not on the 'actual' number of live births, the *achievement* can exceed *target*. From the data provided by the office of CMOH in Birbhum, it can be observed that BCG, which is administered generally within the first week of birth had the highest percentage of coverage during the last two years, ranging from about 93 per cent at Paikar BPHC to more than 200 per cent at Rampurhat PP Unit during 2005-06 and more than 80 per cent in Sainthia RH to more than 205 per cent in Rampurhat PP Unit during 2006-07. In between BCG and measles (administered after 9 months of age), a considerable number of dropouts can be observed for both the years. The dropouts are especially high for the PP Units located at the sub-division and at the district headquarter. This dropout during the process of immunization affects the progress of full-immunization. It is worth mentioning that in the case of institutional delivery BCG and Polio1 are given generally within 3 days of child birth and thus coverage of these two vaccines is high. But subsequent immunizations may or may not be obtained from the same source. Again, many expectant mothers go to their maternal home around the time of pregnancy and delivery but usually return to their marital home before the process of immunization is completed.

For this reason, some of the babies might have migrated to other places after obtaining some of the immunization shots.

In spite of these caveats, the progress of complete immunization based on the *target and achievement* is remarkable in the district. The *achievement* regarding complete immunization has been more than 90 percent in both the years 2005-06 and 2006-07. Notable progress has been seen with respect to full immunization for Nalhati, Murarai and Paikar BPHC. Though the data for 2007-08 are not available for the complete financial year, immunization figures up to December 2007 suggest that the progress is quite unsatisfactory during the current year.

Table 7.8: Achievements of target in child immunization by reporting units in Birbhum district

	BCG			O.P.V			DPT			Measles			Fully Immunized		
Name of Unit	**2005-2006**	**2006-2007**	**2007-2008**	**2005-2006**	**2006-2007**	**2007-2008**	**2005-2006**	**2006-2007**	**2007-2008**	**2005-2006**	**2006-2007**	**2007-2008**	**2005-2006**	**2006-2007**	**2007-2008**
P.P UNIT RAMPURHAT	203.1	205.3	241.1	110.2	97.6	57.6	109.4	97.6	66.1	97.5	81.9	56.6	97.5	81.9	56.6
CHAKMONDOLA BPHC	99.0	96.8	62.4	94.2	92.5	49.4	93.4	93.7	61.3	91.1	89.6	61.3	89.8	89.4	61.3
BOSWA BPHC	98.9	109.7	67.5	93.6	100.2	49.8	90.0	100.7	62.6	92.6	102.7	63.4	92.6	100.7	62.4
NALHATI BPHC	107.4	108.3	68.1	101.5	104.5	64.2	97.3	103.7	66.7	97.7	103.1	66.1	97.7	97.0	64.0
LOHAPUR BPHC	104.6	120.8	72.8	96.1	114.3	69.5	93.6	105.9	72.8	91.3	111.9	73.3	91.2	111.7	73.4
MURARAI BPHC	106.2	119.8	58.5	89.2	105.8	46.1	88.5	106.0	54.0	87.4	105.6	55.1	74.6	100.0	54.6
PAIKAR BPHC	92.9	108.3	60.9	77.1	97.8	47.1	76.9	99.4	59.4	73.3	94.9	58.3	70.4	92.3	55.5
MALLARPUR BPHC	104.4	104.5	77.6	103.2	104.6	52.5	101.5	102.0	75.4	98.6	98.1	72.6	98.6	96.1	69.2
SATPALSA BPHC	111.2	98.8	65.4	110.6	97.2	58.8	110.1	97.5	62.8	105.9	95.3	63.1	105.9	95.3	61.2
P.P UNIT SURI	133.0	133.1	120.1	104.5	69.6	56.7	104.5	69.6	56.7	78.4	48.6	40.5	78.4	48.6	40.5
BARACHATURI BPHC	97.6	108.5	84.1	95.3	102.8	63.7	95.1	103.5	69.9	90.7	96.3	66.9	90.7	95.7	65.4
SULTANPUR BPHC	88.9	111.6	62.4	79.3	105.1	58.6	80.2	104.9	59.2	78.0	100.3	59.5	78.7	101.3	59.5
NAKRAKONDA BPHC	106.4	104.8	68.2	106.7	105.6	60.2	106.6	105.6	65.3	99.3	101.9	64.0	97.7	101.6	61.4
DUBRAJPUR RH	100.1	100.7	61.8	93.0	86.4	45.3	93.6	86.6	54.8	95.3	83.3	47.5	95.3	83.8	47.5
RAJNAGAR BPHC	116.4	116.3	71.6	108.4	105.3	60.8	107.0	105.7	73.2	96.1	98.1	73.7	94.3	98.0	71.6
MD. BAZAR BPHC	96.4	111.1	56.1	93.0	99.5	50.5	93.5	99.5	54.8	92.7	98.9	57.4	92.5	98.9	55.1
SAINTHIA RH	108.3	81.0	55.7	96.9	78.4	47.4	96.4	76.3	51.6	91.6	69.2	50.0	90.6	68.7	47.8
P.P UNIT BOLPUR	162.5	148.1	147.4	101.5	57.5	72.9	102.0	57.9	72.9	101.1	41.3	60.0	101.1	41.3	60.0
BOLPUR BPHC	99.3	115.4	73.6	98.2	107.0	57.3	99.0	106.6	78.8	94.9	103.8	74.2	94.9	103.8	66.0
NANOOR BPHC	113.8	114.7	70.4	105.5	109.5	49.4	106.4	112.3	65.0	105.9	106.3	69.2	105.9	106.3	64.5
LABPUR RH	102.3	108.9	72.9	98.8	101.0	54.8	98.6	102.6	70.5	95.8	100.0	69.3	95.8	100.0	69.0
ILLAMBAZAR BPHC	96.9	100.9	61.1	88.4	89.4	38.6	88.0	90.2	53.2	83.3	85.9	55.0	82.7	84.6	54.0
District	106.5	110.8	71.3	96.3	97.3	53.3	95.6	97.3	62.9	92.5	93.1	61.6	91.2	91.9	59.7

Note: 2007-08 implies up to December 2007. Source: Office of the CMOH, Birbhum

When Community Needs Assessment Approach (CNAA) was introduced during the late nineties under Reproductive and Child Health (RCH) programme, which also covered child immunization programme, two basic and most significant initiatives were taken: (a) Decentralized Participatory Planning, and (b) Bottom-up approach for programme implementation, dispensing with the decades-old target-oriented approach for implementing reproductive and child health programmes. The basic idea was not to provide any target from the top to the field level workers but the target would be arrived at through a participatory process by involving local people. With help of the local people, the ANM of the sub-centre would count the number of children in a particular age group to be immunized in the next year, and so on. The data provided by the Health Department of Birbhum district reveals that in practice CNAA remains a myth. For example, during 2007-08 (though the year is not yet over), as mentioned earlier that the PP Unit of Rampurhat has already reached more than 240 per cent *achievement* against the *target* regarding immunization of BCG, which is incongruous with the target. For most of the immunizations, there is a large difference between target and achievement, which reinforces the observation that CNAA is largely incomplete and the calculation of *targets* is primarily an ad-hoc and arbitrary affair where the ANM possibly comes up with *target* figures based on her performance during the previous year.

In the national surveys such as National Family Health Survey (NFHS), District Level Household Survey (DLHS) etc., complete immunization coverage, which consists of one dose of BCG, three doses of polio (OPV), three doses of DPT and one dose of measles, is estimated for the children aged 12-35 months. From the given data set, it is not possible to see the progress of full immunization between 2005-06 and 2006-07 since the data set only provide total number of live births in a financial year but do not provide the number of live births by month of birth on the one hand and arbitrarily fixed *target* of immunization and its *achievement* on the other. For instance, a baby born in January, 2006 would partially be immunized within March, 2006 but completely immunized by December, 2006 or January 2007. Thus, although the baby was born in the financial year 2005-06, immunization would

complete in the financial year 2006-07. For this reason, the aforementioned progress of *achievement* of full immunization against *target* is not sufficient to measure the *actual* progress of full immunization in precise manner among children of 12-35 months of age in the district.

From the above discussion some important aspects regarding child immunization have emerged: the need for maintaining 'eligible couple register' in a proper way, target fixing should be based on the precise calculation of the number of births that could take place in a year given the number of eligible couples, involving local level people to make CNAA feasible, building up a demographic surveillance system (DSS) to keep track of month-wise data of live birth and subsequent routine immunization process of every child through unique identification to understand the progress of complete immunization. To accomplish them, streamlining of the present system is called for. In any plan for offering immunization services, the precise calculation of target age group is a primary responsibility. Otherwise, there may be under-achievement hidden under the façade of so-called 'over-achievement'.

Maternal health care

It is now well recognized that utilization of maternal health care services has a very important role to play in the improvement of women's reproductive health and child health outcomes in developing countries. Traditionally, maternal care was provided by members of the family. With the spread of the modern health care system, professional antenatal and delivery care began to be obtained from the public and private medical institutions. However, there are some constraints in obtaining such services like the fees required to be paid, distance to the health facility, inconvenience of hours of operation, perceived cost and opportunity cost to utilize such services, and lack of awareness about the need for such services. In India, Government hospitals and primary health centres provide maternal health care services free of cost. Besides, paramedical professionals provide maternal services in the rural areas.

Maternal health care services comprise ante-natal care (ANC), delivery care and post-natal care (PNC). ANC services include an early registration of pregnancy (ANC registration), ANC check-ups by health care providers, administration of two doses of tetanus toxoid injection and, distribution of

100 iron and folic acid (IFA) tablets. Delivery care primarily focuses on institutional delivery or delivery by trained health professionals, or trained *dai* using appropriate delivery kits in case of home delivery. PNC centres upon at least a check-up within 42 days of termination of pregnancy so that any post-delivery complication can be detected early and treated subsequently to arrest various kinds of maternal morbidity and mortality.

From the data (Table 7.9) on ANC in the district it can be inferred that ANC services have been increasing their reach in the recent years in the district as a whole. For instance, at least 3 antenatal check-ups of the expectant mothers have increased by nearly 10 percentage points between 2005-06 and 2006-07. IFA tablets given in the year 2005-06 exceeded 100 percent possibly due to some pregnant women receiving 100 IFA tablets more than once. Without any surveillance system, block-wise progress of ANC services over the years may not be worth estimating since customarily a large number of women after registering for ANC and seeking some of the ANC services go to their maternal home for delivery where they might obtain the rest of the ANC services.

Table 7.9: Antenatal and delivery care services in public health care system in Birbhum district in 2005-06, 2006-07 and 2007-08 (Up to December 2007)

	2005-06	2006-07	2007-08 (Up to Dec, 07)
Total no. registered for ANC	81293	78844	62323
% of women who received 3 ANC to total registered	58.3	68.5	65.8
% received 100IFA to total registered	105.3	87.1	76.3
% received two TT to total registered	78.2	77.0	86.0
Total deliveries conducted	68603	69825	51533
% Institutional delivery	44.8	51.0	52.6

Source: Calculated from the data provide by Office of the CMOH, Birbhum

Institutional delivery is regarded as the most significant component of maternal health care since it is positively associated with maternal and neonatal survival. From the data it can be observed that the percentage of institutional delivery has been increasing in the district with substantial inter-block

variations (Table 7.10). Nearly 60 per cent of total institutional deliveries take place in the District and Sub-divisional hospitals. This implies that the percentage of institutional delivery is substantially low in the block level health care institutions. The percentage of institutional delivery is less for those blocks which are in physical proximity with district and sub-divisional hospitals. This is the case especially for Suri-I and Rampurhat-I and II. Except Murarai-I, the blocks where crude birth rate is higher – such as Nalhati-I and II – than other blocks, the percentage of institutional delivery is substantially low. This relationship provides some basis for the hypothesis that institutional delivery is positively related to infant and child survival and in turn would eventually bring down the birth rate as security motive for child survival decreases. The other blocks where significant number of home deliveries takes place are Khoyrasole and Md. Bazar as inferred from the same table. The plausible causes may be relative inaccessibility of the health care institutions and high concentration of population belonging to the marginalized sections of the society in these blocks.

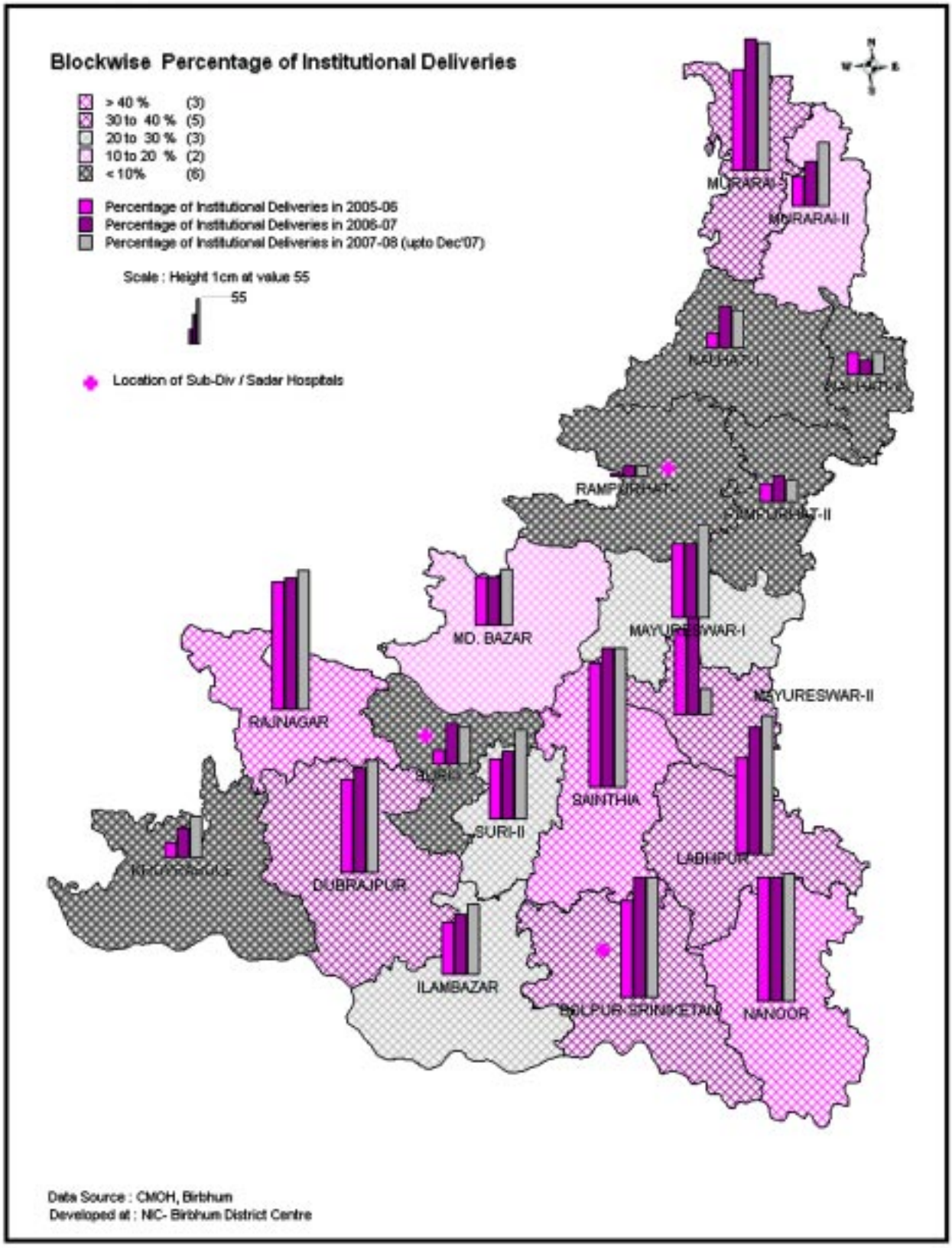
Data from CHCMI (not shown in the Table), which have been compiled by the Panchayat Samitis of respective blocks, reveal that about 35 per cent deliveries have been conducted in the block-level public health care institutions during September 2006 to August 2007 varying from only about 7 per cent in Nalhati-II to about 56 per cent in Sainthia. Other blocks where institutional deliveries are abysmally low are Khoyrasole, Murarai-II, Md. Bazar and Rampurhat-I. These are in the same line as observed from the data provided by the Health Department.

Table 7.10: Percentage of institutional deliveries by reporting units in Birbhum

Sl.No	Name of The Reporting Units	2005 - 2006		2006 - 2007		2007 – 2008 (Up to Dec 07)	
		Total Delivery	% of Institutional Delivery	Total Delivery	% of Institutional Delivery	Total Delivery	% of Institutional Delivery
1	Suri-I	1052	5.4	1028	15.2	585	14.0
2	Suri-II	934	23.4	1093	26.0	661	34.2
3	Khoyrasole	1879	5.7	1935	11.3	1292	15.4
4	Dubrajpur	3206	35.7	3395	40.9	2621	44.0
5	Rajnagar	1491	49.3	1420	50.6	926	53.9
6	Md. Bazar	2577	18.5	2348	18.5	1637	21.4
7	Sainthia	2730	48.0	2493	54.0	1940	53.8
8	Bolpur	2845	37.1	2990	45.7	1904	46.6
9	Nanoor	2711	48.1	2912	48.2	2150	48.8
10	Labhpur	2543	37.9	2707	49.6	1883	54.1
11	Illambazar	2498	20.6	2655	23.8	1841	27.5
12	Rampurhat-I	2235	1.5	2340	3.7	1460	4.7
13	Rampurhat-II	2783	7.3	2797	10.4	1888	8.7
14	Nalhati-I	5158	5.3	3782	15.3	4142	14.6
15	Nalhati-II	2272	8.8	2228	6.1	1613	8.7
16	Murarai-I	4957	38.8	4827	51.2	3950	49.7
17	Murarai-II	4211	11.5	4308	17.0	2817	25.0
18	Mayureswar-I	2253	29.5	2131	29.5	1491	35.6
19	Mayureswar-II	1804	33.9	1878	46.0	921	9.6
20	P.P. Unit Suri	7802	100.0	9070	100.0	6100	100.0
21	P.P. Unit Bolpur	3894	100.0	4196	100.0	3627	100.0
22	P.P. Unit Rampurhat	6768	100.0	7292	100.0	6084	100.0
23	**District total**	**68603**	**44.8**	**69825**	**51.0**	**51533**	**52.6**

Source: Office of the CMOH, Birbhum

Figure 7.5: Percentage of Institutional Deliveries in blocks of Birbhum



However, since institutional facilities in the highly populated blocks are inadequate for conducting large number of deliveries that takes place annually, immediate expansion of public health care system is necessary in those blocks on the one hand and conducting deliveries by trained professionals or trained *dais* at the headquarter sub-centre on the other in order to enhance safe delivery in these blocks.

Data on the total number of pregnancies in a year are not available from CMOH office. For this reason, percentage of pregnancies that have not been registered for ANC cannot be calculated. The data on utilization of PNC services are also not available. But it is one of the important components of maternal health care services, which emphasizes detection and treatment of any post-delivery complication, RTI/STI etc. Like in India and West Bengal as a whole, utilization of PNC services is believed to be low in Birbhum. From the way the data are being kept and maintained, it seems that ANC, delivery care, child immunization and other maternal and child health services i.e. the whole cycle of RCH services are separate compartments and have no relation with one another. For instance, from the given data set one can not calculate out of those who have availed (or not availed) ANC services how many did not deliver in healthcare institutions. The data on Tetanus Toxoid injection is kept as *target* and *achieved* – in the same manner as seen in the case of child immunization. Numerous examples of this kind can be cited. All these discrepancies and non-availability of various important data on maternal and child health services reiterate the need for building up a sound demographic surveillance system on the one hand and accountability of the Health Department to provide services and to maintain data in proper way, on the other.

Integrated Child Development Services in Birbhum

The Integrated Child Development Services (ICDS) provide services through its network of Anganwadi Centres (AWC) with the objectives of improving nutritional and health status of pregnant mothers and children (0-6 years age group) and reducing school dropout. The activities of the AWCs include supplementary nutrition programme, pre-school education, immunization, mothers' meeting and weighing of children. The objective of pre-school education (provided to the children in the age group

3-6 years) is to strengthen psychological, physical and social development of children and to develop school going habits among the children in order to reduce school dropout in future.

There are 3805 AWCs operational across 19 blocks of Birbhum. Except in one block (Nalhati-I)[2], all AWCs are run by the government. Since there is no reliable estimate of the target number of children that a block-level project of ICDS or an AWC is supposed to cover, one is compelled to use the number of children in the age group 0-6 year as given by Census 2001. The average population of children of age group 0-6 years covered per AWC is about 120 in Birbhum district as a whole (Table 7.11). Since the number of children belonging to the age group 0-6 years has increased after the last Census (2001), the actual number of average children covered per AWC will be higher than what is presented in the Table. It is expected that the quality of service is adversely affected when an AWC has to provide services to a large number of children and pregnant mothers. Table 7.12 shows that there are six blocks where the average number of children covered per AWC is more than 140. These blocks are Bolpur-Sriniketan (178), Dubrajpur (170), Illambazar (141), Khoyrasole (144), Sainthia (141) and Suri-II (150).

In Birbhum, the percentage of AWCs that function in their own buildings is rather low. Having its own building is crucial for an AWC as it helps unsure smooth and continuous service to children and pregnant mothers. In Birbhum as a whole only 14 per cent of the AWCs operate in their own buildings. There are 9 blocks where the percentage of AWC running in their own buildings is less than 10 (Table 7.11). These blocks are Mayureswar I (4 per cent), Mayureswar II (6 per cent), Murarai I (4 per cent), Murarai II (1 per cent), Nalhati I (4 per cent), Nalhati II (3 per cent), Rampurhat I (3 per cent), Rampurhat II (5 per cent) and Suri II (6 per cent). Rajnagar has got remarkable distinction of having run 63 percent of the AWCs in own building.

As far as providing the very basic facilities like drinking water and sanitation at AWCs are concerned, the record is rather unimpressive. The percentages of AWCs having drinking water and sanitation facilities are 28 and 5 respectively. Although in seven blocks the percentage of AWCs having

[2] ICDS Project in Nalhati I block is run by an NGO.

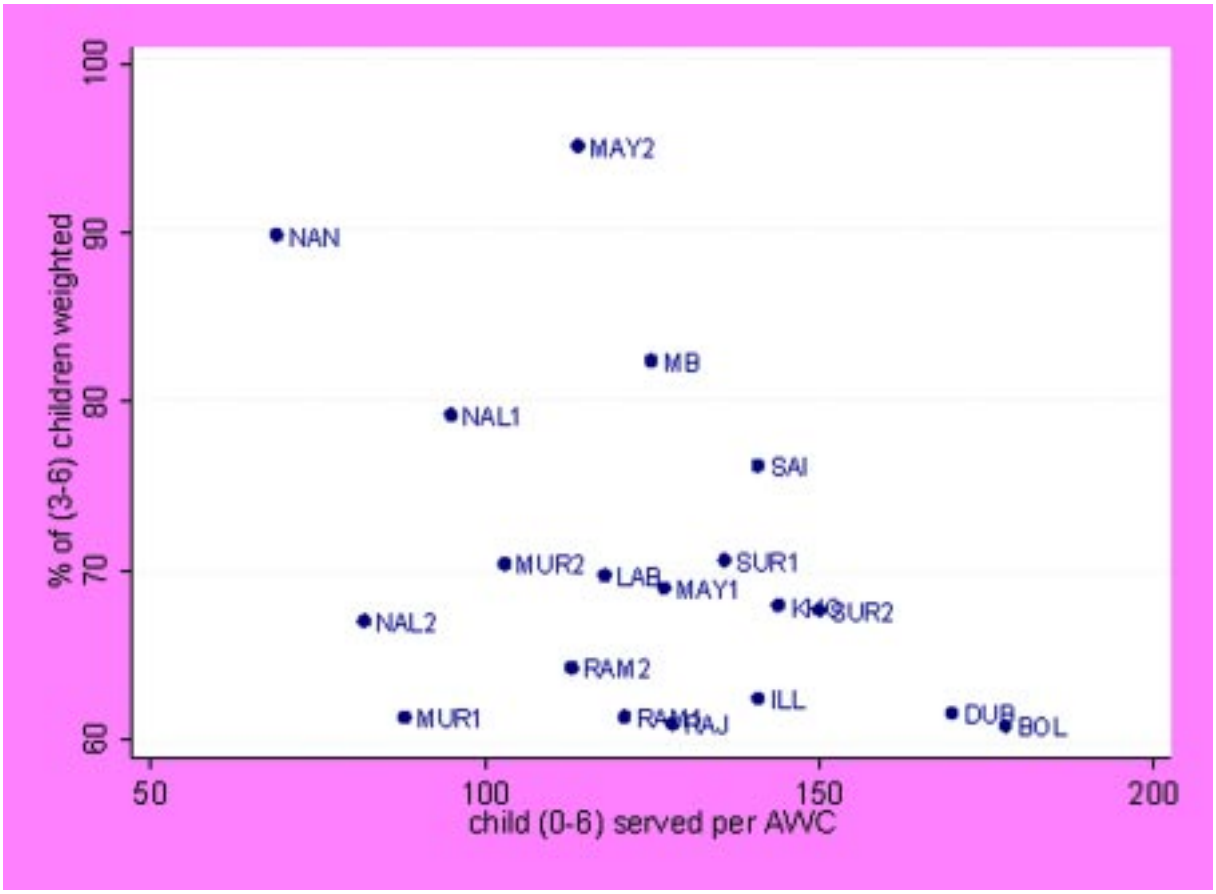
drinking facility is higher than 50, there are four blocks where none of the AWC has any drinking water facility. These blocks are Khoyrasole, Murarai-I, Murarai-II and Nalhati. All these four blocks are backward blocks in terms of higher concentration of socio-economically disadvantaged population. Data on toilet or sanitation facilities at AWC reveal similar shocking stories. Out of 19 blocks, in 12 blocks none of the AWCs is having sanitary facility (Table 7.12). Out of the remaining 7 blocks, 4 blocks have less than 5 per cent of its AWCs having sanitation facility.

Based on the four indicators mentioned above, we have constructed an ICDS infrastructure (composite) index at the block level (see Appendix). The blocks are then ranked according to their values of composite index (see Table 7.13). Rajnagar is on the top of the list, followed by Nanoor, Illambazar and Bolpur. The bottom five blocks are Murarai II, Saithia, Khoyrasole, Nalhati I and Murarai II. We have observed elsewhere that Murarai I and II, Nalhati I are among the backward blocks of Birbhum in terms of concentration of socio-economically disadvantaged population.

Monitoring the health status of children, identifying the malnourished children and providing supplementary nutrition to the needy children and pregnant mothers are among the major responsibilities of AWCs. Since the number of Anganwadi worker and helpers are more or less same across the AWCs, the quantity and quality of service delivered by a AWC definitely gets affected where it has to serve higher number of children and pregnant mothers. For example, simple service like weighing of children (which is probably the first step of monitoring the health status of the children) may get affected if there are higher number of children than what can be managed at a AWC given the human resource (i.e. anganwadi worker and helper) and other complementary inputs. The available data also confirms our apprehension. Data show that about 70-72 per cent of the children were weighed at the AWCs (Table 7.12), which is almost 30 per cent lower than the full coverage. If we plot the percentage of weighed children (age group 3-6 years) against child population per AWC, we find a clear negative relationship (Figure 7.6).[3]

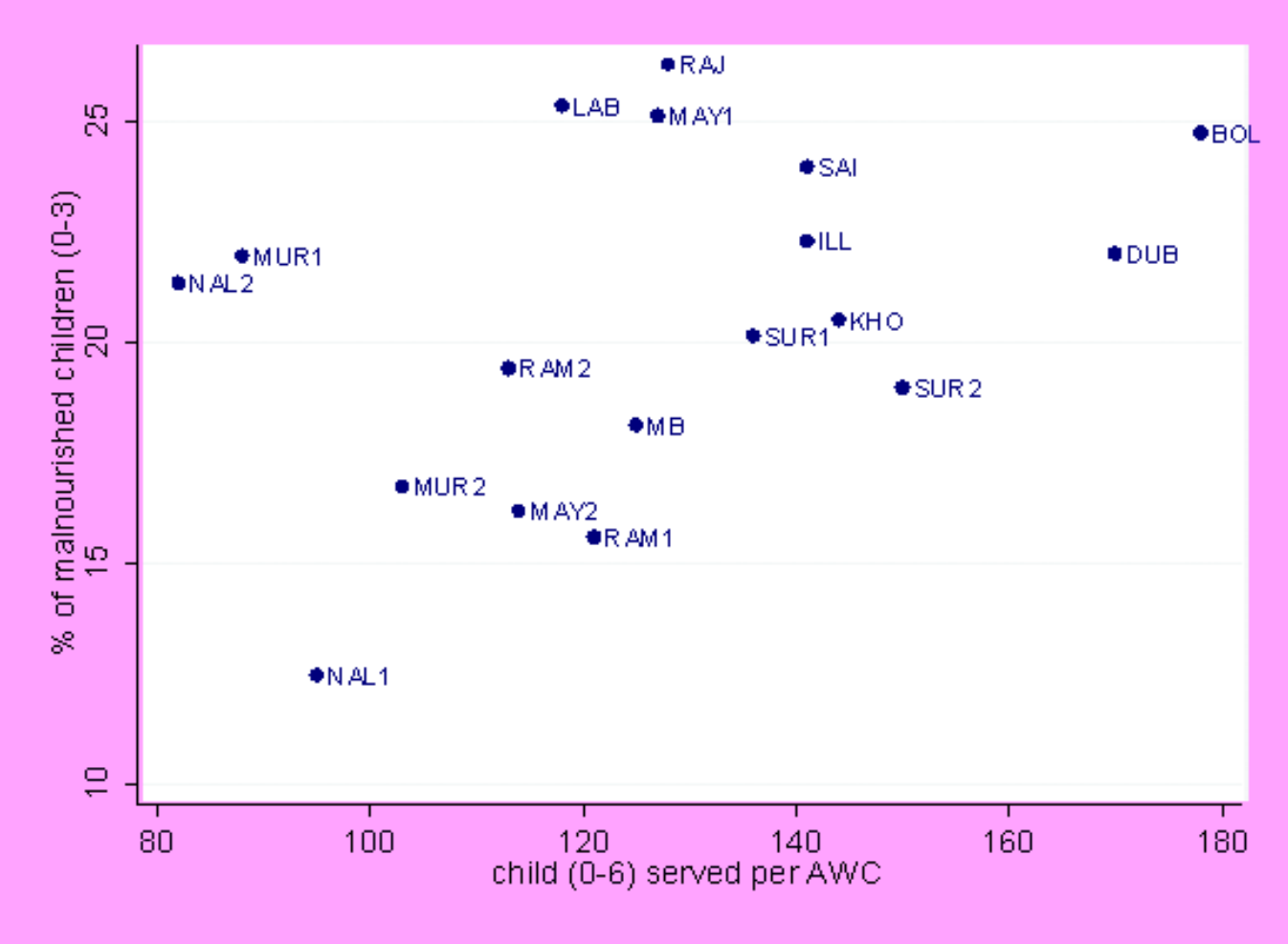
[3] Similar negative relationship is also observed between percentage of children (0-3 years) weighed and child population covered per AWC, except few blocks.

Figure 7.6: Scatter showing relationship between percentage of children weighed and child population served per AWC.



The percentage of moderately or severely malnourished children, which is considered as a strong indicator of children's health status is presented in Table 7.13 for all the blocks of Birbhum. The table shows that about one-fifth of the children in Birbhum are malnourished (moderately or severely), 0-3 years group showing marginally higher level of malnourishment than the 3-6 years group. Nanoor block needs special attention in this context as almost one-third of Nanoor's children are malnourished. Our graphical exploration again points out the important fact that adequate number of AWC is crucial in improving the outcome indicators. If we exclude Nanoor, the child population covered per AWC and percentage of malnourished children show a clear negative relationship (Figure 7.7).

Figure 7.7: Scatter showing the relationship between child population served per AWC and percentage of malnourished children (0-3 years)



In order to monitor and improve the health status of children and women in a more effective way, steps have been initiated under the Community Health Care Management Initiative to bring about effective coordination between ICDS and other government department (such as Health), PRIs and NGOs with a view to deliver better services to improve the health status of mothers and children. Apart from that, various other initiatives have been taken from time to time to improve the quality and coverage of ICDS (see Box 1).

Table 7.11: Some indicators on AWCs across blocks of Birbhum

Name of the ICDS project	No of AWCs operational	Child population served per AWC*	AWCs running in own building (%)	AWCs with drinking water facility (%)	AWCs with toilet/sanitation facility (%)
Bolpur-Sriniketan	230	178	26	70	3
Dubrajpur	200	170	16	69	0
Illambazar	176	141	19	4	69
Khoyrasole	135	144	16	0	0
Labpur	211	118	19	19	0
Mayureswar-I	190	127	4	51	23
Mayureswar-II	138	114	6	62	0
Md. Bazar	279	125	20	3	0
Murarai-I	179	88	4	0	0
Murarai-II	203	103	1	0	0
Nalhati-I	257	95	4	0	0
Nalhati-II	139	82	3	60	2
Nanoor	243	69	30	11	0
Rajnagar	107	128	63	9	21
Rampurhat-I	223	121	3	43	0
Rampurhat-II	209	113	5	74	0
Sainthia	372	141	11	3	0
Suri-I	160	136	23	36	1
Suri-II	154	150	6	58	1
Birbhum	**3805**	**120**	**14**	**28**	**5**

Note: *0-6 child population pertaining to the census year 2001.

Source: ICDS Cell, Birbhum District, Census 2001

Table 7.12: Composite index of ICDS Infrastructure and ranking of projects block

Block	Child served per AWC*	AWC in own building	AWC having drinking water facility	AWC having toilet	Composite Index	Rank
Weightage	***20%***	***40%***	***20%***	***20%***		
Rajnagar	0.4587	1.0000	0.1216	0.3043	0.5769	1
Nanoor	1.0000	0.4677	0.1486	0.0000	0.4168	2
Illambazar	0.3394	0.2903	0.0541	1.0000	0.3948	3
Bolpur Sriniketan	0.0000	0.4032	0.9459	0.0435	0.3592	4
Nalhati II	0.8807	0.0323	0.8108	0.0290	0.3570	5
Rampurhat II	0.5963	0.0645	1.0000	0.0000	0.3451	6
Suri I	0.3853	0.3548	0.4865	0.0145	0.3192	7
Mayureswar I	0.4679	0.0484	0.6892	0.3333	0.3174	8
Mayureswar II	0.5872	0.0806	0.8378	0.0000	0.3173	9
Dubrajpur	0.0734	0.2419	0.9324	0.0000	0.2979	10
Labpur	0.5505	0.2903	0.2568	0.0000	0.2776	11
Suri II	0.2569	0.0806	0.7838	0.0145	0.2433	12

Rampurhat I	0.5229	0.0323	0.5811	0.0000	0.2337	13
Md Bazar	0.4862	0.3065	0.0405	0.0000	0.2279	14
Murarai I	0.8257	0.0484	0.0000	0.0000	0.1845	15
Nalhati I	0.7615	0.0484	0.0000	0.0000	0.1716	16
Khoyrasole	0.3119	0.2419	0.0000	0.0000	0.1592	17
Saithia	0.3394	0.1613	0.0405	0.0000	0.1405	18
Murarai II	0.6881	0.0000	0.0000	0.0000	0.1376	19

Note: *0-6 child population pertaining to the census year 2001.

Source: ICDS Cell, Birbhum District, Census 2001

Table 7.13: Project block-wise percentage of weighed and malnourished children

Projects (block wise)	Children weighed (%)		Moderately and severely malnourished children (%)	
	0 – 3 years	3 – 6 years	0 – 3 years	3 – 6 years
Bolpur-Sriniketan	64	61	25	22
Dubrajpur	66	62	22	22
Illambazar	65	63	22	18
Khoyrasole	77	68	21	25
Labpur	61	70	25	24
Mayureswar - I	79	69	25	19
Mayureswar - II	83	95	16	13
Md. Bazar	85	82	18	18
Murarai - I	62	61	22	22
Murarai - II	72	71	17	15
Nalhati - I	72	79	12	11
Nalhati - II	62	67	21	20
Nanoor	90	90	33	33
Rajnagar	62	61	26	26
Rampurhat - I	78	62	16	15
Rampurhat - II	64	64	19	18
Sainthia	76	76	24	22
Suri - I	71	71	20	21
Suri - II	68	68	19	15
Birbhum	**72**	**70**	**21**	**20**

Source: ICDS Cell, Birbhum District

Box 1: Some initiatives

Development Activities (nfrastructure Development)

- 128 Anganwadi Centres have been constructed under **RIDF** VIII and 26 are under construction. Steps have been taken up for construction for another 87 Anganwadi Centres. Total 64 AW centres have also been taken up for construction under **RSVY**.
- All CDPOs, Supervisors and AWWs are provided training phase by phase through **UDISHA**. Continuous capacity building support has been provided to the CDPOs, Supervisors and Anganwadi workers on Essential New Born Care, Essential Nutrition Action and Food Commodity Management in collaboration with CARE India, West Bengal.
- Each Anganwadi worker is nurturing at least two Self-Help groups to empower them socially and economically.

Future Important Action Plan

- Positive Deviance have been launched in Md. Bazar & Murarai I as Pilot. All the ICDS projects/ Panchayats will be covered under PD phase by phase to combat malnutrition of 1st grade to 4th grade children.
- 1000 special Mother's Meeting and Health camps are organized in 1000 backward villages/Anganwadi Centres to up grade health status of comparatively backward areas within March 2006.
- 80,000 adolescent girls will be provided training and IFA tablets through ANM / AWWs to address to problems of malnutrition and to overcome the crisis of adolescent stages within March2006 under RCH.
- Decentralized Information Management Initiatives (D.I.M.I) has been introduced in Illambazar & Rampurhat I as pilot. It will cover all 19 ICDS projects/Panchayat/Health with a view to have well-knit vibrant information system which is very much needed for the planning of all social and developmental activities.
- One hand book for AWWs for conducting the mothers meeting effectively is under preparation. It will help Health, ICDS, Panchayat and NGOs to disseminate knowledge to the actual beneficiaries.

CARE and ICDS

- Integrated Nutrition and Health Project has been launched with the support of CARE in the eleven blocks of Birbhum where 1498 Anganwadi Centres are covered. The main objective of this project has been to further strengthen the ICDS to reduce malnutrition and infant mortality at the community level.

Source: Official website of the District ICDS Cell (http://birbhum.gov.in/ICDS/icds.htm)

Appendix

For the construction of ICDS infrastructure index we have considered four indicators at the block level: (i) average number of children covered per AWC; (ii) percentage of AWCs having own building; (iii) percentage of AWC having drinking water facility; and (iv) percentage of AWC having toilet or sanitation facility. Each of these indicators was normalised using the formula: (value – minimum value)/

(maximum value – minimum value). Finally, the normalised values of these four indicators were added up by giving appropriate weightage to each of them. Since having own building seems to be the most important factor for a AWC's smooth and continuous service, we have given 40 per cent weightage to this indicator and the rest three indicators were given equal weightage of 20 per cent each.