



RANCHI LOW BIRTH WEIGHT PROJECT

BASELINE STUDY FINDINGS-2

Nutritional status and behavioural practices among women

Nutrition is a basic determinant of health. Not only does it impact the health of a population, but poor nutritional status can also compromise the health of future generations. A chronically undernourished woman is more likely to give birth to an underweight baby thereby perpetuating the intergenerational cycle of malnutrition. This brief highlights the nutritional status of women in Ranchi district of Jharkhand. Indicators like Body Mass Index and anaemia status of women are presented. Information is also provided on prevalent cultural practices regarding diet, rest and workload during pregnancy.

Body Mass Index (BMI)

A BMI of less than 18.5 kg/m² signifies undernutrition. During household interviews of the baseline survey, information on height and weight was collected from 3338 women who had given birth in the past five years. Expectedly, ever married women in the age group of 15-19 years constitute the largest proportion (24%) of respondents having height below 145 cms. On an average, the BMI level of the respondent group in the surveyed blocks is 19 kg/m². Moreover, several respondents in the current study have BMI values as low as 11 kg/m². Women living in nuclear families, those belonging to high standard of living index (SLI) households and those of forward castes are likely to have higher BMI. Women of Muslim religion and 'other' religious groups have significantly higher BMI than Sarna and Hindu women. Older mothers are more likely to have BMI higher than 18.5 kg/m², though the variation is not significant. It has also been noted in the study area that lower parity women are more likely to have higher BMI than higher parity women. Further, women of the Sonhatu block are more likely to have low BMI than women of other blocks. None of the behavioural factors such as exposure to tobacco or the habit of consuming alcohol are found to be associated

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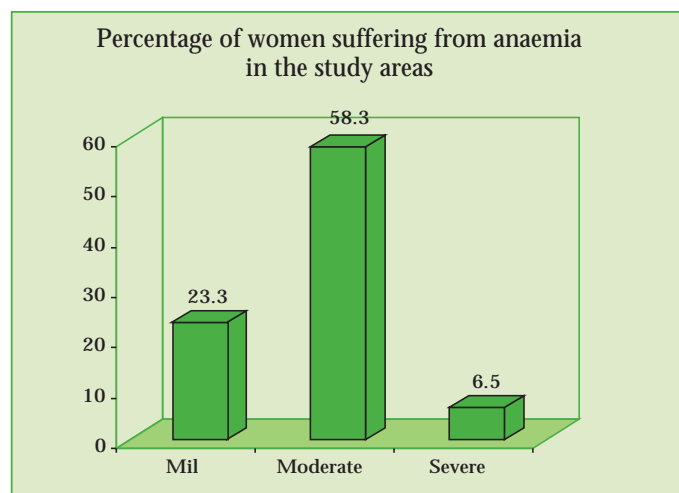
Krishi Gram Vikas Kendra
Social Initiatives Group, ICICI Bank
Child In Need Institute

The baseline survey of the Ranchi Low Birth Weight Project was carried out in 2004 and has collected information on maternal, child and young people's health. The survey forms part of a large, ongoing field trial to reduce incidence of low birth weight. Key baseline findings have been thematically organized and published in the form of a series.

with BMI. A possible reason is that BMI is a measure of past growth as well as current nutritional status and those who smoke or drink presumably began those behaviours after completing most of their growth.

Anaemia in Pregnancy

Iron deficiency anaemia is the most pervasive of all nutritional deficiencies among women in India, especially pregnant women. It has been seen that anaemia during pregnancy can increase the risk of low birth weight babies, premature births, poor foetal growth, maternal morbidity and mortality. Anaemia levels for pregnant women have been characterised as ‘mild’, ‘moderate’, and ‘severe’ based on the haemoglobin (Hb) levels in blood with mild anaemia referring to Hb level in the range 10.0-10.9 g/dl, moderate anaemia referring to Hb level in the range of 7.0-9.9 g/dl and severe anaemia referring to Hb levels below 7.0 g/dl. 88% of the women in the study area are anaemic, with the proportion of women suffering from ‘severe anaemia’ being 6.5%. Moderate form of anaemia (58.3%) is more widespread among the surveyed pregnant women in comparison to mild anaemia (23.3%). This is in contrast to the NFHS II survey result for undivided Bihar state which shows higher prevalence of mild anaemia (43%) as compared to the moderate form (19%). Block wise, the prevalence of any form of anaemia is highest in Angara (91.1%) followed by Silli and Sonahatu (about 88 percent for both the blocks). Anaemia is comparatively less widespread in Mandar though the percentage is still on the higher side (80.4%). Scheduled Tribes have higher anaemia prevalence (92%) compared to the Scheduled Castes (84.2%), Other Backward Classes (88.5%) and others (66%). About 90% of the respondents in the 30 years plus age group as also those from the Sarna community suffer from some form of anaemia.



Methodology

Data for this study was collected during January-July 2004 through Household and ANC surveys in 195 villages of Ranchi district. The study areas are Angara, Silli, Sonahatu and Mandar blocks covering 72 sub centre areas within Ranchi. The household survey was conducted among 3536 female respondents who had had a live birth in the preceding five years. It collected information on maternal and childcare behaviours. Information on feeding practices was collected on all surviving children under the age of five years. The ANC survey included all women in the 195 villages who were in the third trimester of pregnancy at the time of the survey. A total of 996 women were interviewed for the ANC survey. Information on nutrition, workload and rest during pregnancy was obtained from this survey. Focus Group Discussion (FGDs) have been used to supplement the quantitative information and were carried out with three groups – women below 30 years, women above the age of 30 and key informants like teachers, women of self-help groups, housewives, nurses, dais, health workers, students and registered medical practitioners. A total of 57 FGDs have been carried out.

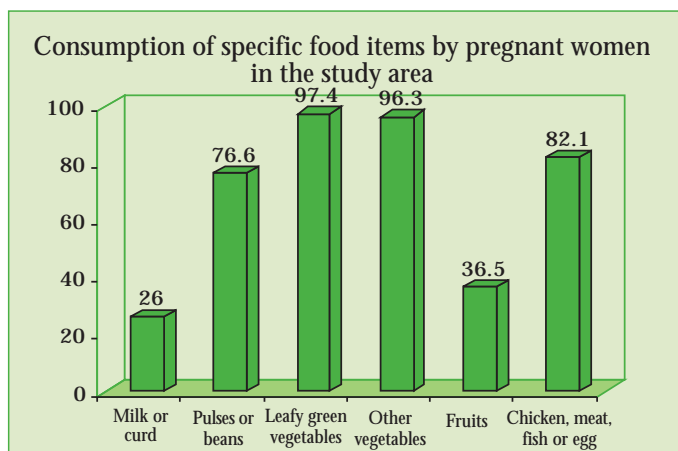
Interestingly, literate and working pregnant women are seen to be suffering more from low haemoglobin count while a smaller proportion of only high school educated women have this deficiency. The high incidence of anaemia among working pregnant women can possibly be due to the double burden of strenuous work and lack of proper rest and nutrition.

A positive relationship has been observed between higher parity and anaemia, i.e., higher parity mothers are significantly more likely to suffer from anaemia during pregnancy. Probability of being anaemic is more than ten percentage points higher among the mothers who have already given birth to three or more children than those women who are to give birth for the first time. Among socio-economic characteristics, women from wealthier and higher educated families and those belonging to forward castes are less likely to be anaemic than others. Expectant mothers belonging to either Sarna or Muslim religions are more likely to be anaemic than Hindu and women of ‘other’ religious groups.

Maternal nutrition

Qualitative data from the FGDs and data from a seven-day dietary recall survey of pregnant women were analysed in order to understand food practices during pregnancy. It is observed that in the study area, special food is rarely prepared exclusively for expectant mothers, though some well off families may provide nutritious food like fruits and milk for the pregnant women. The consumption of green leafy vegetables is high in the study area and across blocks, religions and SLI. Ninety seven percent of the women have reported consumption of green leafy vegetables in the week prior to the survey. On the contrary, consumption of milk and milk products is low, with only 26% of all women having reported consuming it in the week before the survey. There are significant variations though across age groups, religions, SLI and blocks. Overall, the dietary quality shows an improvement with the increase in SLI. For instance, there is significantly high consumption of fruits (65 per cent) in the high SLI group. Religion wise, on an average, the diet regime of the Christians is slightly better than that of the Hindus, Muslims and Sarnas. A higher proportion of the Christian pregnant women consume all essential food items like milk, green leafy vegetables, fruits, pulses, chicken and meat. The Sarna community reports low nutritional intake in general except for high consumption of green leafy vegetables. An interesting observation is that women in the 25-34 year age group have a comparatively poor diet regime as compared to the 15-24 year and 35-49 year age groups.

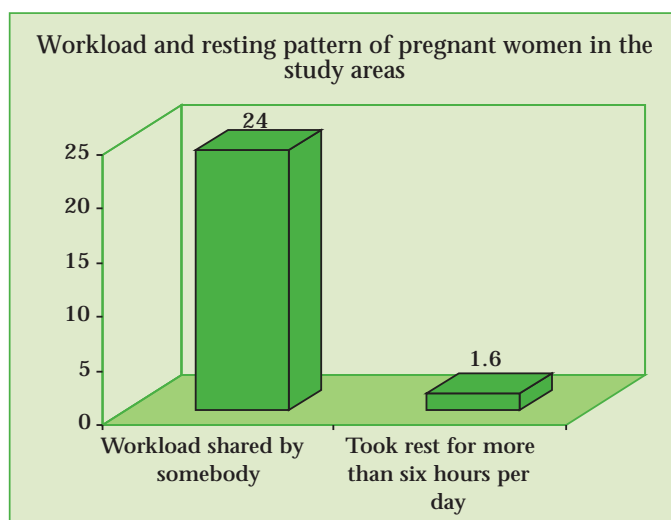
As part of the traditional practices during pregnancy, a custom called gaudbharai is observed wherein pregnant women receive delicacies from their natal homes during the fifth month of pregnancy or thereafter. During the event, delicacies made of milk, mutton, fruits, kheer (sweetened rice boiled in milk),



chicken, rice made of refined paddy etc., are sent for the expectant mother and are consumed by the women and members of her affinal family.

Workload during pregnancy

Studies show that inadequate rest and excessive workload during pregnancy can increase the chances of having low birth weight babies. In rural Jharkhand, women continue to bear the burden of household work during pregnancy. They perform heavy work like fetching water, collecting and carrying wood and sowing and harvesting in the farms. In addition, responsibilities like cooking, childcare and tending to cattle are routinely discharged. In families where other female members (e.g. the mother in law and/or sister in law) are staying with the pregnant woman, some assistance may be provided to her, especially during the advanced stages of pregnancy. Quantitative data show that on the whole, only 24% of the women had had their workload shared during pregnancy and a mere 1.6% reported taking rest for more than six hours in a day during pregnancy. Though the figures are low in general, nevertheless women's education, caste/tribe affiliation, SLI and block wise location account for significant differences therein.



Apart from the gendered division of labour, being active during pregnancy is believed to result in less painful labour and an easier delivery. It is commonly believed that rest and intake of nutritionally rich food leads to the healthy growth of the foetus that may necessitate institutional delivery and caesarean section. Such a prospect is unwelcome in communities that traditionally prefer home deliveries on account of cultural factors and systemic limitations.

ABOUT THE PROJECT PARTNERS

Krishi Gram Vikas Kendra is recognised by the Government of India as a mother NGO for the RCH programme in the state of Jharkhand. It has a strong history of working with local communities in Ranchi district. Child In Need Institute, a national NGO, has more than three decades of experience in the field of reproductive and child health. It has been working on a community-based life cycle-based approach to reduce low birth weight and malnutrition. Improving infant health at birth has been one of the key thrust areas of the Social Initiatives Group, ICICI Bank. It supports and funds development of promising models that address gaps in policies and programmes. These common interests have resulted in a tripartite collaboration for the action research project known more popularly as the Ranchi Low Birth Weight Project. The Department of Health, Medical Education and Family Welfare and the Department of Social Welfare, Government of Jharkhand, are closely involved in the project and have provided continued support.

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Contributors :
Dr. Subroto K Mondal
Mr. Kumar Premchand
Mrs. Tanvi Mishra
Dr. Manasee Mishra

For More Details Contact :
LCA Cell
Child In Need Institute
E-mail: lca@cinindia.org,
mertjhk@cinindia.org

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