

## Original research article

**Study of Utilization of Health Services During Antenatal, Intranatal & Postnatal Period in Urban Slums of Purnea****Shaan Ahmed<sup>1</sup>, Abdur Rahman Al Adil<sup>2</sup>, Kumar Himanshu<sup>3</sup>, Abhay Kumar<sup>4</sup>, Purnendu Kumar Singh<sup>5</sup>**<sup>1</sup>Tutor, Department of Community Medicine, G.M.C.H. Purnea<sup>2</sup>Tutor, Department of Community Medicine, G.M.C.H. Purnea<sup>3</sup>Tutor, Department of Community Medicine, G.M.C.H. Purnea<sup>4</sup>Assistant Prof. Department of Community Medicine, G.M.C.H. Purnea<sup>5</sup>Prof. & Head, Department of Community Medicine, K.M.C.H. Katihar**Corresponding Author: Abdur Rahman Al Adil****Abstract**

**Background:** Utilization of Mother and Child Health service is a concept of expressing the extent of interaction between the service and the beneficiaries for whom it is intended. It will depict the health infrastructure and services given to them.

**Material and Methods:** A cross sectional study was conducted in the urban slums of Purnea, Bihar. among 300 post natal mothers. Data was collected from mothers using a pre-tested, semi-structured questionnaire. Study period 15 Jan 2022 To 15 Feb 2023

**Conclusion:** There is poor utilization of maternal services and decreased awareness about early registration, postnatal visit, decreased acceptance of IFA tablets and postpartum contraception. While all the mothers said they had increased the food intake during postnatal period particularly after the puerperium period. And the type of food consumed more during pregnancy and lactation was fruits, fish, milk etc.

**Keywords:** MCH; ANC; PNC; Family Planning Purnea.

**Introduction**

Mothers and children in any community constitute a vulnerable or special risk group. The risk is connected with child bearing in the case of women; and growth, development and survival in the case of infants and children. Whereas 50% of all deaths in the developed world are occurring among people above the age of 70, the same proportion of deaths are occurring among children during the first five years of life in the developing world. Global observations show that, in developed regions maternal mortality ratio averages at 13 per 100000 live births; in developing regions the figure are 440 for the same number of live births<sup>1</sup>. The tenth revision of the International Classification of Diseases [ICD-10] defines a maternal death as a "death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"<sup>2</sup>. About 30 millions of pregnancies per year in India, 27 million deliveries take place per year; in this around 16% are home deliveries and 77,000 maternal deaths per year, due to the development of complications of pregnancy<sup>3</sup>. The urban population in India is one of the largest in the world. In a report issued on 3 September 2010, the Committee on Slum Statistics/Census projected that India's slum population in 2011 would be 93.06 million; more than 23%

higher than the 75.06 million originally estimated by the 2001 Census. Among the urban poor only 44 % of deliveries are institutional as compared to the urban average of 67.5%.<sup>5</sup> Despite the supposed proximity of the urban poor to urban health facilities their access to them is severely restricted<sup>4</sup>. This is on account of their being “crowded out” because of the inadequacy of the urban public health delivery system. Ineffective outreach and weak referral system also limits the access of urban poor to health care services. Further, the lack of standards and norms for the urban health delivery system, when contrasted with the rural network, makes the urban poor more vulnerable and worse off than their rural counterpart<sup>6</sup>. This situation is further worsened by the fact that a large number of urban poor are living in slums that have an “illegal status”. The “illegal status” compromises the entitlement of the slum dweller to basic services. Slum populations, obviously, „face greater health hazards due to overcrowding, poor sanitation, and lack of access to safe drinking water and environmental pollution. In spite of launching new programmes by Government of India, significant reduction in maternal mortality rate and infant mortality rate has not occurred<sup>7</sup>. The reasons could be non-utilization of services by the people due to ignorance, illiteracy, customs, lack of transport, hostile behavior of health personnel. In fixing the community needs and actions to meet the performance under RCH programme, constant guidelines are required for improvement in the quality of services. These guidelines can be formulated periodically after the assessment of service utilization by beneficiaries. Utilization of RCH services is a concept of expressing the extent of interaction between the service and the beneficiaries for whom it is intended. This is an important determinant of maternal and child morbidity and mortality and also about the awareness of family planning methods among urban slum people<sup>8</sup>.

### **Objectives**

To know the Knowledge & practice of family planning among post-natal mothers. To know the Knowledge & practice regarding additional nutritional requirement during antenatal & postnatal period among study population.

### **Material and methods**

This is Cross sectional study was conducted in the urban slums of Purnea, Bihar. among 300 postnatal mothers. Data was collected from mothers using a pre-tested, semi-structured questionnaire, Postnatal mothers aged 15 – 44 years residing in the study area. Study Period 15 Jan 2022 To 15 Feb 2023. Based on the previous studies the prevalence of complete utilization of maternal and child health care services during antenatal, natal and postnatal period is 40%. At 5% significance with 15% allowable error, sample size is calculated to be of 300 using the formula  $n = Z^2 pq / L^2$

### **INCLUSION CRITERIA**

Postnatal mothers who were residing in the urban slums during their antenatal period and who were in their 3rd month of postnatal period. (Maximum 2 months“ time was given for completion of two postnatal visits)

### **EXCLUSION CRITERIA**

Post-natal mothers not willing to participate and not available at the time of study.

There are 36 declared/notified slums in Purnea with population of 63,039. The population of each slum ranged between 150 and 6500. To represent the different geographical and socio-cultural characteristics, the city was divided into 4 quadrants by using map issued from Purnea City Corporation.

## Results

**Table 1: Distribution of postnatal mothers studied at urban slums of Purnea by age**

Age (years)	Number	Percentage
≤ 19	114	38
20-24	<b>139</b>	<b>46</b>
25-29	39	13
30-34	8	3
Total	300	100

Most of the mothers in the study population were in the age group of 20-24 years (46%), followed by <19 years (38%). Mean age was  $21.6 \pm 3.1$  years.

The study observed that 12% of mothers among the study population had education upto high school, 36% upto primary, 18% upto higher primary and 34% were illiterate. Whereas only 39% of their husbands had education upto high school, 8% upto higher primary, majority that is 45% had education upto primary and 34% were illiterate. None were graduates among both wife and husband.

**Table 2: Distribution of husbands" according to type of occupation**

Type of occupation	Number	Percentage
Un-skilled	<b>209</b>	<b>69.7</b>
Skilled	91	30.3
Total	300	100

In our study majority (69.7%) of the husbands" were involved in unskilled type of occupation like vegetable vendor, coolie, shop assistant. 30.3% were involved in skilled occupation as tailor, auto-driver, mason etc.

**Table 3: Distribution of mothers to time of antenatal registration**

Time of antenatal registration	Number	Percentage
1 <sup>st</sup> trimester	<b>267</b>	<b>93</b>
2 <sup>nd</sup> trimester	12	4
3 <sup>rd</sup> trimester	08	3
<b>Total</b>	<b>287</b>	<b>100</b>

Present study observed that 85.7% of postnatal mothers have registered during their pregnancy and among those who have registered, 60.3% had done so in the 1<sup>st</sup> trimester. The major reasons for not registering in the 1<sup>st</sup> trimester were that, 72% felt it was not needed 15% said because of objection by family members and 11% didn't get time for registration.

Majority that is 96.7% utilized maternal services at government facilities and 2.7% utilized private facilities for delivery. Doctors were the main providers of maternal services in all the hospitals followed by nurses. Among those who had utilized ANC services in private health care facility 87.3% (55) opted for government facility for due to financial constraints. In present study majority (26.7%) of the mothers gave the reason for lack of early registration or no registration as financial constraints followed by 24% as not being aware of the need for early registration. For incomplete or nil consumption of IFA tablets, majority (52.9%) of the mothers gave side-effects as the reason. 68.7% of the mothers told reason for lack of postnatal visits as felt not needed as they were healthy. In our study majority of the mothers (47.3%) said food intake during antenatal period should be more, 18% of them said fruits,

17% said fish or chicken as they are good for the brain development of the fetus, 15% said milk and milk products as they increase the weight of both the baby and mother, 16% told green leafy vegetables, 14% said cereals and pulses and 20% of the mothers weren't sure what type of food to be consumed more. In our study, factors like mothers who were literate, had children  $\leq 2$ , married for  $< 5$  years and who had utilized ANC services adequately were found to be significantly associated with additional food consumption during pregnancy.

All the 300 mothers said that food intake should be increased during lactation as lactating mother needs extra energy to feed the baby and also for better milk production. Milk, butter milk, chicken, bitter melon and ladyfinger were consumed more to increase milk production. Consumption of sweet dishes containing Jaggery during puerperium was believed to prevent postnatal morbidity and also to clear the uterus of any retained bits of placenta.

### Discussion

In present study majority of the study population were Hindus (56%) which was less than Agarwal P (61%) and Padam S (79.6%). The present study observed that 66% of the mothers and 92% of their husbands were literate which was higher compared to DLHS 3 stated 40.8% of mothers and 51.2% of their husbands were literate. In the present study majority of the mothers (74%) were housewives and 23% of them were working either as coolie/maid servants, beedis/agarbathi makers or as a vegetable vendor which was similar to Venkatesh RR et al<sup>9</sup> where majority (88%) were housewives and 12% were working as coolies/maid servants and others were making beedi at home. In present study majority (74%) of the mothers belonged to Class V and 26% of them belonged to Class IV (according to modified B G Prasad socio-economic classification). Similar observations regarding socio economic status were made by Dinesh K<sup>10</sup> where 61% belonged to Class V and 39% belonged to Class IV. The study shows 49% of teenage pregnancy ( $\leq 19$  years) among study population which was more than DLHS III (10.7 %). Majority (63.3 %) of the mothers in our study had 1 child and 20% of the mothers had  $\geq 3$  children which were less compared to Gupta K where the proportion of mothers with  $\geq 3$  children was 26.1 %. The study revealed 69% of the mothers in the study area had utilized the services completely during antenatal, natal and postnatal period which was more than Ranganath T S et al (40.9%). In present study majority that is 96.7% utilized maternal services at government facilities which was more than Paras A (76%), Hazarika I (83%), Ranganath TS (85%) and Gupta RK<sup>11</sup> (88%). In present study 60.3% had registered during their pregnancy in the 1<sup>st</sup> trimester which was similar to Gupta K (59.5%), higher than Metgud C S (30%) and DLHS – 3 (45%). According to DLHS IV (2012-13), in district majority of women in reproductive age group were currently using female sterilization (66.2%). In present study desire to have a male/2<sup>nd</sup> child was the major reason for not using any type of contraception by mothers (58.4%) followed by resistance from family members (35.6%) and 19.2% gave lack of knowledge as the reason for not using the contraception. In a similar study conducted Ghosh S in urban slums of Kolkata stated that in more than half of the families among study population the couple themselves made decisions on family planning issues (53.5%) and mother-in-laws were the decision makers in 6.8% of the population<sup>12</sup>. In present study majority of mothers received knowledge of family planning methods from health personnel (77%), Family and friends (18%) and media (5%).

majority of the study population received the knowledge from family members (40%), In a similar study conducted by Ghosh S<sup>13</sup> in urban slums of Kolkata stated that majority of the study population received the knowledge from family members (40%), T.V (38%) and friends (27%). In our study majority of the mothers (47%) said nutritional requirements during pregnancy and lactation is more compared to non-pregnant status and 23% consumed

less food compared to their non-pregnant state<sup>14</sup>. Majority of the mothers (47.3%) told raw chilies, potatoes, brinjal, sweet potato, papaya, egg, chicken should be restrained during pregnancy as it was believed to cause “vayu” In a study conducted by Ankita Parmar about taboos and misconceptions associated with pregnancy among rural women of Surendra nagar district, most common food avoided were papaya (53.5%), citrus food (24.7%) and groundnut (13.6%)<sup>15</sup>. Reasons for not consuming such food were abortion, and placental disruption. In our study among the mothers (47.3%) who said food intake during pregnancy should be more, 18% of them said fruits should be consumed more, 17% said fish or chicken, 15% said milk and milk products, 16% told green leafy vegetables, 14% said cereals and pulses and 20% of the mothers weren’t sure what type of food to be consumed more. All the 300 mothers said that food intake should be increased during lactation<sup>16</sup>. A study conducted by Nilofer Sultan Ali in Karachi about mothers’ beliefs and practices regarding food restrictions during pregnancy and lactation, 12% of the respondent mothers believed in restricting some food item during pregnancy and about 25% during lactation<sup>17</sup>.

### Conclusion

The present study observed that socio-cultural and behavioral factors like education of parents, occupation, and number of living children, religion, and type of family affect the utilization of maternal services. In spite of being aware, the practice of family planning was very low among post-partum mothers. Majority wanted to post pone for the purpose of 2<sup>nd</sup> /male child. While all the mothers said they had increased the food intake during postnatal period particularly after the puerperium period. And the type of food consumed more during pregnancy and lactation was fruits, fish, milk etc.

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