

STUDY ON
ANTENATAL CARE PRACTICES
OF PREGNANT WOMEN
IN SLUMS OF BHUBANESWAR

A Report

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1. INTRODUCTION

Antenatal care is the care of women during pregnancy. The primary aim of antenatal care is to achieve at the end of a pregnancy a healthy mother and a healthy baby. Ideally this care should begin soon after conception and continue throughout pregnancy. In some countries, notification of pregnancy is required to bring the mother in the prevention care cycle as early as possible.

The objectives of antenatal care are:

- To promote, Protect and maintain the health of mother during pregnancy.
- To detect high-risk cases and give them special attention.
- To foresee complications and prevent them.
- To remove anxiety and dread associated with delivery.
- To reduce maternal and infant mortality and morbidity.
- To teach the mother elements of child care, nutrition, personal hygiene, and environmental sanitation.
- To sensitise the mother to the need for family planning including advice to cases seeking medical termination of pregnancy.
- To attend to the under fives accompanying the mother.

Ideally the mother should attend the antenatal clinic once a month during the first 7 months and twice a month during the next two months and thereafter once a week if everything is normal. A major component of antenatal care is antenatal or prenatal advice. The mother is more receptive to advice concerning herself and her body at this time than at other times. The advice should be on diet, personal hygiene, warning signs, childcare and family planning.

Antenatal record is prepared at the first examination. It is generally made of thick paper to facilitate filling. It contains a registration number, identifying data, previous health history, and main health events. Maintenance of records is essential for improvement in antenatal care in future. Home visiting is the backbone of all MCH services. Even if the expectant mother is attending the antenatal clinic regularly, it is suggested that health worker female or public health nurse must pay her at least one home visit.

The nutritional status of a woman during pregnancy is related to the birth weight of her child. Energy, fatty acids, and micro nutrient deficiencies in women either before conception or very early in pregnancy have all been implicated in causing low birth weight. Most low birth weight (less than 2500

grams) in developing countries is due to intrauterine growth retardation (IUGR) which is caused predominantly by maternal malnutrition, either before conception or during pregnancy. The effects of malnutrition during childhood or adolescence and during pregnancy probably have an additive negative impact on birth weight.

In developing countries, many women are short and underweight and the number of low birth weight babies is particularly high. LBW babies have less chance of survival; when they do survive, they are more prone to disease, growth retardation and impaired mental development. A good start in life is important and maternal nutritional status during pregnancy has repeatedly been demonstrated to be associated with pregnancy outcomes for the infant (Kramer, M. S. (1987). Determinants of Low Birth Weight: Methodological Assessment and Meta-Analysis. Bulletin of the World Health Organisation, 65 (5), 663-737).

The most sensitive measure of acute nutritional stresses during pregnancy is indeed maternal weight gain. There is strong epidemiological-evidence of an association between maternal weight gain during pregnancy and LBW/IUGR, especially in undernourished women i.e. those who begin pregnancy in a nutritionally disadvantaged state. Women are at the greatest risk of having LBW infant if low pre-pregnancy weight and low weight gain during pregnancy are combined.

During pregnancy, the foetus is solely dependent on maternal intake and nutritional stores, mostly fat, for its energy. Poor maternal nutrition during pregnancy in turn implies a risk of poor nutritional availability to the foetus. So the KAP of pregnant women relating to food intake and antenatal care in hole is of considerable importance.

A pregnant lady's nutritional status can thus be measured by Height, Weight and mid upper arm circumference and relationships among these. The age of pregnant women and its relations with the above indicators is also an important indicator. The Bhubaneswar Municipal Corporation area comprises 18,606 households with a total population of 73,926. Their living condition is considered to be very adverse. Considering this OVHA planned to take up this study on "antenatal care practices of pregnant women" in different slums of Bhubaneswar. For this we have selected seven slums of Bhubaneswar. We have tried to measure both Anthropometry and KAP of pregnant women in this study.

2. OBJECTIVES:

- To assess the antenatal care practices of pregnant women in the study area.
- To assess the nutritional status of pregnant women in the study area.
- To assess the KAP of pregnant women of the study area.
- To give suitable recommendations (if any) in this regard.

3. METHODOLOGY:

OVHA prepared a Schedule of Enquiry for the study after thorough discussion among the study team members keeping mind the objectives of the study.

The pattern of schedule was as follows: Quantitative – Age, Height, Weight and mid upper arm circumference of pregnant women and Qualitative – Knowledge, Attitude and Practice of the pregnant women

The schedule was then duly pre tested by administering the same to few respondents in the Bapujinagar slum and some necessary changes were made.

Then we selected 8 field investigators for the study. For this we contacted different educational institutions and referred the application bank of OVHA. After selection we imparted one-day intensive training for the field investigators. In this training a briefing on the questionnaire was followed by question answer session. In the post lunch session a demonstration was done on how to measure the length and weight of the child.

Then we selected seven slums of Bhubaneswar namely Nilakant hanagar, Baiababa Basti, Mancheswar Basti, Niladri Vihar Basti, Salia Sahi, Science Park Basti and Trinath Basti for data collection activity. We then planned for the field data collection activity in the selected slums of Bhubaneswar. The data collection activity took fifteen days. After scrutinisation the schedules the data from the schedules are then lifted to a master sheet from where the necessary tables are formed and analysis is carried out.

The following socio-demographic, economic variables were included: Age, Age at Marriage, Religion, Caste, Education, Annual Income and Family Size.

The following obstetric information was obtained: Gestational Age (Duration of pregnancy), gravida, para and living.

The nutritional measurements done were as follows: Height, Weight and Arm Circumference.

Maternal nutritional status was assessed using anthropometric measurements like height, weight and mid upper arm circumference. The measurements were taken using standard equipment. Through out the survey the same height measuring rods, weighing scales and measuring tapes were used.

Height of the pregnant women was measured using a height rod. The subjects were made to stand erect, barefooted on a level floor with the feet running parallel to each other. After making the subject stand in the position described, the field worker moves to the right side of the subject and places the height-measuring rod at the back of the subject in the median sagittal plane of the subject. The height measuring rod has a movable calibrated scale with the flap at the tip. After placing the rod in the appropriate position the field worker moves the scale upside and then places the flap on the vertex of the head. After following all these steps the height was recorded to the nearest centimetre.

Weight of the pregnant woman was measured with the help of a weighing scale measuring up to a maximum of 125 kg with increments of 100 gram. The scales were initially calibrated against standard weights. Before each measurement, they were adjusted to read 0.0 kg to ensure accuracy. With slippers removed the pregnant women were asked to stand erect in the centre of the scale. Care was taken to ensure that the pregnant women did not bend to look at the values as this may cause error.

Mid upper arm circumference of all mothers was measured with help of the tape, which gives values in centimetres. Values up to one tenth of a centimetre were recorded. The measurement was taken on the left hand. A point was located at half way between the posterior tip of the acromion process and the olecranon process. With the arm hanging loosely by the side, the tape was placed around the arm at the midpoint. Care was taken to ensure that there was complete contact of the tape without compressing the underlying fat. The circumference was measured horizontally to the closest 0.1 cm.

The Knowledge, Attitude and practice of pregnant women on Antenatal care practices were obtained through the interview schedule. The field workers were instructed not to rush through the question, rather to provide adequate time for the pregnant women to understand and respond. These questions were asked in a number of ways and sometimes they were prompted.

Review was held after each day of data collection to make sure that there was uniformity among the data collectors. Office editing ensured completion and accuracy of data by cross checking the answers provided. The first process of data analysis was editing of survey schedules. Field editing was done on completion of each day's data collection. The supervisor did editing of completed schedules. The next step was followed was coding of data. This was done by using a coding key that is provided in the end of this report for reference. Percentages were calculated for the variables. Means and standard deviations were calculated whenever appropriate.

4. STUDY AREA:

The total study area taken for this study comprises of seven slums of Bhubaneswar City area namely Nilakanthanagar, Baiababa Basti, Mancheswar Basti, Niladri Vihar Basti, Salia Sahi, Science Park Basti and Trinath Basti.

5. THE STUDY TEAM

Consultants:

Mr. Khyamakar Swain, Vice-President, OVHA
Mr. Ajay Tripathy, Executive Director, OVHA
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Principal Investigator:

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Mr. Debiprasad Mishra

6. TABULATIONS

The study findings are given in a tabular form, which are self-explanatory.

Table 1:

Age of Pregnant Women in Years	Number	Percentage
<18	4	2.08
18-23	79	41.15
24-28	81	42.19
29 and above	28	14.58
Total	192	100

This table shows the age wise division of the pregnant women interviewed. Here we find that the age of pregnant women interviewed is mostly between 18-28 years (83.34%). We could find 2.08% (4) pregnant women below the age of 18. The pregnant women of age of 29 years and above are also comparatively less i.e. 14.58% (28 pregnant women).

Table 2:

Education of Pregnant Women	Number	Percentage
No Education	113	58.85
1-5 standard	29	15.10
6-8 standard	19	9.9
9-10 standard	26	13.54
11 standard and above	5	2.61
Total	192	100

This table shows the educational status of pregnant women interviewed during the study. Not surprisingly we found 58.85% of them having no education. 15.10% and 9.9% have education up to 5th standard and 6-8 standard respectively. Only 13.54% have education 9-10 standard. A very low percentage of 2.61% have education above 11 standard. This shows the educational status of these pregnant women is very low. This could have resulted in poor KAP of those pregnant women about antenatal care practices and hence could have resulted in poor nutritional status.

Table 3:

Religion of Pregnant Women	Number	Percentage
Hindu	186	96.88
Muslim	4	2.08
Christian	2	1.04
Others	-	-
Total	192	100

This table shows the religion of the pregnant women interviewed. 96.88% are found to be Hindus followed by 2.08% Muslims and 1.04% Christians. The study subjects are thus are predominantly Hindu by religion.

Table 4:

Caste of Pregnant Women	Number	Percentage
SC	37	19.27
ST	52	27.08
OBC	41	21.36
GEN	62	32.29
Total	192	100

This table represents the caste of the pregnant women interviewed. We found out that 19.27% are SC, 27.08% are ST, 21.36% are OBC and 32.29% are of General caste.

Table 5:

Gravida of Pregnant Women	Number	Percentage
1	48	25.00
2	59	30.73
3	45	23.44
4 and above	40	20.83
Total	192	100

This table represents the Gravida of pregnant women. We found that 25% have Gravida 1, 30.73% have Gravida 2. 23.44% have Gravida 3 and 20.83% have Gravida 4 and above. This shows there is practice of being pregnant for more than 2 times in 44.27% cases. Even in other cases where the Gravida is 1 or 2 there is still change to be pregnant in future.

Table 6:

Para of Pregnant Women	Number	Percentage
0	52	27.08
1	56	29.17
2	47	24.48
3	13	6.77
4 and above	24	12.5
Total	192	100

This table represents the number of times a pregnant woman has delivered. We have found that 27.08% have para 0 i.e. this is their first pregnancy. 29.17% have para 1, 24.48% have para 2, 6.77 have para 3 and 12.5% have para 4 and above.

Table 7:

Living of Pregnant Women	Number	Per cent age
0	60	31.25
1	62	32.29
2	45	23.44
3 and above	25	13.02
Total	192	100

This table represents the living value of pregnant women interviewed. This means the number of children of the pregnant women now living. We found that living is 0 for 31.25% cases, 1 for 32.29% cases, 2 for 23.44% cases and 3 and above for 13.02% cases.

Table 8:

Annual Family Income in Rs.	Number	Per cent age
Up to 11,000	14	7.29
11,001 – 40,000	177	92.19
40,001 and above	1	0.52
Total	192	100

This annual family income is below Rs. 11,000 in 7.29% cases and is between Rs. 11,001 to Rs. 40,000 in 92.19% cases. It is above 40,000 in 0.52% cases. So the percentage of pregnant women living below poverty line is 7.29%.

Table 9:

Family size	Number	Per cent age
1-5	162	84.38
6-10	29	15.10
11+	1	0.52
Total	192	100

We found family size of 1-5 in 84.38% cases followed by 6-10 15.10% cases and only one family the family size is 11 and above.

Table 10:

Age at marriage of Pregnant Women in Years	Number	Per cent age
<18	77	40.1
18-23	105	54.69
24-28	9	4.69
29 and above	1	0.52
Total	192	100

The age at marriage of pregnant women is below 18 in 40.1% cases followed by 18-23 in 54.69% cases. The age at marriage of 24-28 is 4.69% and that of 29 and above is 0.52% i.e. only one respondent whose age at marriage is 29 and above.

Table 11:

Duration of Pregnancy	Number	Per cent age
1 st Trimester	27	14.06
2 nd Trimester	79	41.15
3 rd Trimester	86	44.79
Total	192	100

This table shows the duration of pregnancy (Gestational Age) of the pregnant women interviewed. We came across 27 pregnant women in their first trimester of pregnancy, 79 pregnant women in their second trimester of pregnancy and 86 in their third trimester of pregnancy. The percentages were 14.06, 41.15 and 44.79 for 1st, 2nd and 3rd trimester of pregnancy respectively.

Table 12:

Weight of Pregnant Women in Kg	Number	Percentage
37.9 and below	10	5.21
38-39.9	8	4.17
40-44.9	46	23.96
45+	128	66.66
Total	192	100

The weight of pregnant women is shown in this table. We found 10 pregnant women (5.21%) under the weight 38-kg, 8 women (4.17%) between 38-39.9 kg, 46 women (23.96%) between 40-44.9 kg and 128 women (66.66%) above the weight of 45 kg. It was thus found that 33.34% of women are under the weight of 45 kg, which can be considered as low weight. Among the women of low weight some have very low weight which is evident from the table.

Table 13:

Height of Pregnant Women in cm	Number	Percentage
144.9 and below	40	20.83
145-149.9	65	33.86
150 and above	87	45.31
Total	192	100

This table shows the height of pregnant women in the study area. We found 40 pregnant women with height below 145 cm, 65 pregnant women with height between 145-149.9 cm and 87 pregnant women with height above 150 cm. The percentage of pregnant women with height below 150 cm is 54.69 (105 pregnant women out of 192) that are considered as low height. Among these low height pregnant women 20.83% (40 pregnant women) have very low height.

Table 14:

Arm circumference of pregnant women in cm	Number	Percentage
22.9 and below	55	28.65
23.0 and above	137	71.35
Total	192	100

This table shows the arm circumference of the pregnant women surveyed in the study area. 28.65% (55 pregnant women) have low arm circumference (below 23 cm) and 71.35% (137 pregnant women) do not have low arm circumference (above 23 cm).

Table 15:

Body Mass Index (BMI) of Pregnant Women	Number	Percentage
<16.00	6	3.13
16.01-17.00	7	3.65
17.01-18.50	17	8.85
18.51-20.00	32	16.67
20.01-25.00	122	63.54
25.01-30.00	8	4.16
Total	192	100

The table shows the Body Mass Index (BMI) of the pregnant women surveyed. We found that 67.7% (130 pregnant women) do not have low Body Mass Index and rest 32.3% (60 pregnant women) has low BMI. According to BMI we can classify 6 women as Chronic Energy Deficiency (CED) Grade III, 7 women as CED Grade II and 17 women as CED Grade I. Again 32 women can be classified as low weight and normal, 122 women are normal and 8 women are Obese Grade I. We cannot find pregnant women of Obese Grade II classifications (BMI >30)

Table 16:

Variables	Mean	SD
Height in cm	149.52	6.71
Weight in kg	47.06	5.82
Arm Circumference in cm	23.77	2.15

This table shows the Mean and Standard Deviation (SD) of the height, weight and arm circumference of pregnant women in the study area. The Mean Height is found to be 149.52 cm with a standard deviation of 6.71 cm. Similarly the Mean and SD for weight is 47.06 kg and 5.82 kg respectively. The Mean and SD for Arm circumference is 23.77 cm and 2.15 cm respectively. Good thing is that the mean Weight and AC are above 45kg and 23.00 cm respectively. But the mean height is less than 150 cm.

Table 17:

Variables	Mean	SD
Age of pregnant women in year	24.30	4.25
Age at marriage of pregnant women in years	18.41	2.74

The mean age of the pregnant women interviewed is 24.30 years with a standard deviation of 4.25 years. The Mean age at marriage is 18.41 years with a standard deviation of 2.74 years.

Table 18:

Variables	Mean	SD
Gravida	2.63	1.57
Para	1.56	1.51
Living	1.24	1.12

The Mean Gravida is 2.63 with a standard deviation of 1.57. The mean Para is 1.56 with a standard deviation of 1.51. The mean living is 1.24 with a standard deviation of 1.12. Here it is noteworthy that the difference between the Mean Gravida & Mean Para is more than one, which indicates that death of foetus, is high between Gravida & Para periods.

Table 19:

Age at marriage	BMI →	<16.00	16.01-17.00	17.01-18.50	18.51-20.00	20.01-25.00	25.01-30.00	Total
<18		1	2	3	11	55	5	77
%		0.52	1.04	1.56	5.73	28.65	2.60	40.01
18-23		4	5	11	20	62	3	105
%		2.08	2.61	5.73	10.42	32.29	1.56	54.69
24-28		1	0	2	1	5	0	9
%		0.52	0.00	1.04	0.52	2.61	0.00	4.69
29 and above		0	0	1	0	0	0	1
%		0.00	0.00	0.52	0.00	0.00	0.00	0.52
Total		6	7	17	32	122	8	192
%		3.13	3.65	8.85	16.66	63.54	4.17	100.00

This table shows the current BMI against the Age at Marriage of the pregnant women. Among 6 pregnant women with <16.00 BMI, 1 is below the age at marriage of 18 years, 4 pregnant women are of age at marriage between 18-23 years and 1 is between age at marriage of 24-28 years. Among 7 pregnant women with 16.01-17.00 BMI, 2 are below the age at marriage of 18 years and 4 are of age at marriage between 18-23 years. Among 17 pregnant women with 17.01-18.50 BMI, 3 are below the age at marriage of 18 years, 11 pregnant women are of age at marriage between 18-23 years, 2 are between age at marriage of 24-28 years and 1 is of age at marriage of 29 years and above. Among 32 pregnant women with 18.51-20.00 BMI, 11 are below the age at marriage of 18 years, 20 pregnant women are of age at marriage between 18-23 years and 1 is between age at marriage of 24-28 years. Among 122 pregnant women with 20.01-25.00 BMI, 55 are below the age at marriage of 18 years, 62 pregnant women are of age at marriage between 18-23 years and 5 are between age at marriage of 24-28 years. Among 8 pregnant women with 25.01-30.00 BMI, 5 are below the age at marriage of 18 years, and 3 pregnant women are of age at marriage between 18-23 years.

Table 20:

Age of pregnant women	BMI →	<16.00	16.01-17.00	17.01-18.50	18.51-20.00	20.01-25.00	25.01-30.00	Total
<18		0	0	0	0	3	1	4
%		0.00	0.00	0.00	0.00	1.56	0.52	2.08
18-23		0	1	4	14	57	3	79
%		0.00	0.52	2.09	7.29	29.69	1.56	41.15
24-28		3	4	9	15	47	3	81
%		1.56	2.09	4.64	7.81	24.48	1.56	42.19
29 and above		3	2	4	3	15	1	28
%		1.56	1.04	2.09	1.56	7.81	0.52	14.58
Total		6	7	17	32	122	8	192
%		3.13	3.65	8.85	16.66	63.54	4.17	100.00

This table shows the current BMI against the Age of the pregnant women. Among 6 pregnant women with <16.00 BMI, 3 each are between age of 24-28 years and 29 years and above. Among 7 pregnant women with 16.01-17.00 BMI, 1 is of age between 18-23 years, 4 are between 24-28 years and 2 are of 29 years and above. Among 17 pregnant women with 17.01-18.50 BMI, 4 pregnant women are of age between 18-23 years, 9 are between age of 24-28 years and 4 are of age of 29 years and above. Among 32 pregnant women with 18.51-20.00 BMI, 14 pregnant women are of age between 18-23 years and 15 are between age of 24-28 years and 3 are of age of 29 years and above. Among 122 pregnant women with 20.01-25.00 BMI, 3 are below the age of 18 years, 47 pregnant women are of age between 18-23 years, 57 are between age of 24-28 years and 15 are of age 29 years and above. Among 8 pregnant women with 25.01-30.00 BMI, 1 is below the age of 18 years, 3 pregnant women are of age between 18-23 years, 3 are between age of 24-28 years and 1 is of age 29 years and above.

Table 21:

Gravida	BMI →	<16.00	16.01-17.00	17.01-18.50	18.51-20.00	20.01-25.00	25.01-30.00	Total
1		0	1	4	11	29	3	48
%		0.00	0.52	2.08	5.73	15.1	1.56	25.00
2		1	1	5	9	43	0	59
%		0.52	0.52	2.61	4.69	22.4	0.00	30.73
3		1	2	5	7	27	3	45
%		0.52	1.04	2.61	3.65	14.06	1.56	23.44
4 and above		4	3	3	5	23	2	40
%		2.08	1.56	1.56	2.61	11.98	1.04	20.83
Total		6	7	17	32	122	8	192
%		3.13	3.65	8.85	16.66	63.54	4.17	100.00

This table shows the BMI against the Gravida of pregnant women. Among 6 pregnant women with Gravida <16.00, 1 have Gravida 2, 1 have Gravida 3 and 4 have Gravida 4 and above. Among 7 pregnant women with Gravida 16.01-17.00, 1 have Gravida 1, 1 have Gravida 2, 2 have Gravida 3 and 3 have Gravida 4 and above. Among 17 pregnant women with Gravida 17.01-18.50, 4 have Gravida 1, 5 have Gravida 2, 5 have Gravida 3 and 3 have Gravida 4 and above. Among 32 pregnant women with Gravida 18.51-20.00, 11 have Gravida 1, 9 have Gravida 2, 7 have Gravida 3 and 5 have Gravida 4 and above. Among 122 pregnant women with Gravida 20.01-25.00, 29 have Gravida 1, 43 have Gravida 2, 27 have Gravida 3 and 23 have Gravida 4 and above. Among 8 pregnant women with Gravida 25.00-30.00, 3 have Gravida 1, 3 have Gravida 3 and 2 have Gravida 4 and above.

Table 22:

Age at marriage	AC →	22.9 and below	%	23.0 and above	%	Total	%
<18		19	9.9	58	30.21	77	40.01
18-23		31	16.15	74	38.54	105	54.69
24-28		4	2.08	5	2.6	9	4.69
29 and above		1	0.52	0	0.00	1	0.52
Total		55	28.65	137	71.35	192	100.00

This table is a cross table of Age at marriage with current mid upper arm circumference (in short we shall call it as AC). Among 55 pregnant women with AC 22.9 and below, 19 are <18 age at marriage, 31 are 18-23 age at marriage, 4 are 24-28 age at marriage and 1 is 29 and above age at marriage. Among 137 pregnant women with AC 23.0 and above, 58 are <18 age at marriage, 74 are 18-23 age at marriage and 5 are 24-28 age at marriage.

Table 23:

Age of pregnant women	AC →	22.9 and below	%	23.0 and above	%	Total	%
<18		0	0.00	4	2.08	4	2.08
18-23		20	10.42	59	30.73	79	41.15
24-28		23	11.98	58	30.21	81	42.19
29 and above		12	6.25	16	8.33	28	14.58
Total		55	28.65	137	71.35	192	100.00

This table is a cross table of current Age of pregnant women with AC. Among 55 pregnant women with AC 22.9 and below, 20 are 18-23 years of age, 23 are 24-28 years of age and 12 are 29 and above years of age. Among 137 pregnant women with AC 23.0 and above, 4 are <18 years of age, 59 are 18-23 years of age, 58 are 24-28 years of age and 16 are of age 29 years and above.

Table 24:

Gravida	AC →	22.9 and below	%	23.0 and above	%	Total	%
1		15	7.81	33	17.19	48	25.00
2		13	6.77	46	23.96	59	30.73
3		14	7.29	31	16.15	45	23.44
4 and above		13	6.77	27	14.06	40	20.83
Total		55	28.65	137	71.35	192	100.00

This is a cross table of AC and Gravida of pregnant women. Among pregnant women with AC 22.9 and below, 15 have Gravida 1, 13 have Gravida 2, 14 have Gravida 3 and 13 have Gravida 4 and above. Similarly among pregnant women with AC 23.0 and above, 33 have Gravida 1, 46 have Gravida 2, 31 have Gravida 3 and 27 have Gravida 4 and above.

Table 25: Have you done registration of your pregnancy?

Registration Done	Number	%
Yes	27	14.06
No	165	85.94
Total	192	100.00

Among the pregnant women we found that 85.94% (165 pregnant women) have not registered their pregnancy. So the percentage of registering pregnancies among the subjects of the study area is very low (14.06%).

Table 26: Do you know registration should be done before second missed period.

Variable	Number	%
Yes	19	9.9
No	173	90.1
Total	192	100.00

The knowledge that registration should be done before the second missed period, is known to only 9.9% pregnant women which is very low. 90.1% of pregnant women has no knowledge about the above fact. If this result is compared with the previous table we can see that more percentage of pregnant women do registration than the percentage of women who knows that registration should be done before the second missed period.

Table 27: What examinations were conducted at first visit?

Variable	Number	%
Weight	1	0.52
Blood pressure	25	13.02
Blood ESR	0	0.00
Haemoglobin test	18	9.38
Urine examinations	28	14.58
Stool examinations	7	3.65
VDRL test	15	7.81
No visit	152	79.17
Total	192	100.00

When asked about what examinations should be conducted during the first visit to the antenatal care centre, we found the following answers. 152 women (79.17%) said that they have not visited centre for check ups. 28 (14.58%) said that Urine examination was conducted. 25 (13.02%) said that Blood Pressure was taken. All other examinations such as Weight, Blood ESR, Haemoglobin test, Stool examinations and VDRL test etc were conducted in case of less than 10% pregnant women in their check ups. The pregnant women might not know about some the tests. This may be the reason for the low percentages in this table. We know from table 25 that 27 pregnant women have done registration. But according to this table 40 pregnant women have done check ups. This discrepancy may be that they do these check ups where the registration of pregnancy is not done. For example when a pregnant woman visits a doctor at his/ her home the registration is not simultaneously done.

Table 28: Do you feel weight , blood test and urine tests are essential?

Variables	Number	%
Weight	58	30.21
Blood test	73	38.02
Urine test	54	28.13
Above three are not essential	17	8.85
DK	101	52.60
Total	192	100.00

When we asked about some of the common tests are essential or not, we received the following result. High percentage of pregnant women 52.60% said that they do not know the answer. 8.85% felt that the tests are not essential. 30.21% said that Weight measurement is essential. 38.02% felt that Blood test is essential. 28.13% felt that Urine test is essential. The above three percentages of pregnant women who felt that the tests of Weight, Blood and Urine are essential are very low.

Table 29: How many check ups you have done so far?

Check ups	Number	%
0	152	79.17
1	40	20.83
2	23	11.98
3 and above	11	5.73
Total	192	100.00

When we asked that how many check ups you have done so far, we received the following answers. 152 pregnant women (79.17%) have done no check ups. 1, 2 and 3 & above check ups are done by 20.83%, 11.98% and 5.73% women respectively. These percentages of check ups are very low. The fact here remains that there are some pregnant women who have done no check ups or have done less number of check ups may do so in future because we have interviewed them when they are still pregnant.

Table 30: At least how many antenatal check ups should be done?

Number of antenatal check ups	Number	%
1	2	1.04
2	10	5.21
3 and above	31	16.15
DK	149	77.6
Total	192	100.00

When we asked about how many antenatal check-ups should be done, we found the following answers. 149 pregnant women (77.6%) said that they do not know the answer. 3 and above antenatal check ups was suggested by 31 pregnant women (16.15%) which is very low. 2 and 10 pregnant women suggested 1 and 2 antenatal check ups respectively.

Table 31: How many doses of TT need to be taken during pregnancy?

Number of doses	Number	%
1	1	0.52
2	26	13.54
3 and above	40	20.83
DK	125	65.1
Total	192	100.00

When we asked about the number of doses of TT needs to be taken, we found that 125 pregnant women (65.1%) said that they do not know the answer. 3 and above TTs was suggested by 40 pregnant women. But 1 or 2 doses of TT is suggested by very low percentage of women i.e. 0.52% and 13.54% pregnant women respectively which is close to the right answer depending upon the Gravida Number.

Table 32: When the TTs should be taken?

Time of taking TT	Number	%
Right Answer	26	38.8
Wrong Answer	38	56.72
DK	3	4.48
Total	67	100.00

When we asked about when the TTs should be taken, we found 56.72% wrong answer and 38.8% right answer and 4.48% did not know the answer. The right answer of this question is as follows. If the mother was not immunised earlier, 2 doses of TT should be given – the first dose at 16-20 weeks and the second dose at 20-24 weeks of pregnancy. The minimum interval between the 2 doses should be one month. The second dose should preferably be given one month before the expected date of delivery. However, no pregnant women should be denied even one dose of TT if she is seen late in pregnancy. For a woman who has been immunised earlier, one booster dose will be sufficient. When such a booster has been given, it will provide necessary cover for subsequent pregnancies, during the next 5 years. It is advised not to inject TT at every successive pregnancy because of the risk of hyperimmunisation and side effects. Considering the above the right dose and wrong dose is determined to construct this table.

Table 33: Have you taken any TT?

Variables	Number	%
Yes	75	39.06
No	117	60.94
Total	192	100.00

We found that 75 pregnant women (39.06%) have taken TT, which is very low. This does not mean that they will receive right dose of TT. The percentage of women who have not received any TT is 60.94%, which is very high. But some these women still have time to take TT.

Table 34: When you have taken these TT(s)?

Variables	Number	%
Right Dose	54	72.00
Wrong Dose	21	28.00
Total	75	100.00

Among the persons who have taken TTs we found that 54 of them (72%) have taken the right dose and 21 of them (28%) have taken wrong dose. The right dose and wrong dose is determined according to the description of right dose given in table 32. The percentage of right dose is very low.

Table 35: Why TT is given?

Variables	Number	%
Prevent Tetanus	7	3.65
Wrong Answer	31	16.15
DK	154	80.2
Total	192	100.00

When we asked about why TT is given, we came across the following answers. 80.2% said that they do not know the answer. Only 3.65 said that it is given to prevent tetanus, which is the right answer. 16.15% gave wrong answers. The percentage of pregnant women who gave right answer is very low.

Table 36: How many IFA tablets you have consumed during pregnancy?

Variables	Number	%
1-30	36	18.75
31-60	16	8.34
61-90	3	1.56
91-120	0	0.00
121 and above	1	0.52
Not consumed	110	57.29
Not applicable	26	13.54
Total	192	100.00

When we asked about how many IFA tablets the pregnant women have consumed during pregnancy, we found the following answers. 18.75% said that they have consumed 1-30 tablets. 8.34% said that they have consumed 31-60 tablets, 1.56% said that they have consumed 61-90 tablets and 1 said that she had consumed 121 and above tablets. 57.29% have not consumed any tablets. 13.54% of them are in not applicable group as they are in early state of pregnancy and they may consume IFA in future. No body said that she had consumed 91-120 tablets. Here it should be kept in mind that the women who had consumed fewer tablets might consume more in future. This IFA consumption pattern shows that the IFA consumption is very low among the study subjects.

Table 37: Why IFA tablets are consumed during pregnancy?

Variables	Number	%
For preventing anaemia	19	9.9
Wrong answer	12	6.25
DK	161	83.85
Total	192	100.00

When we asked why IFA tablets are consumed during pregnancy, we got the following answers. Only 9.9% said that it is consumed for preventing anaemia. 6.25% gave wrong answer and rest 83.85% did not know the answer.

Table 38: Do you know anaemia is harmful for both pregnant women and baby?

Variables	Number	%
Yes	24	12.50
No	13	6.77
DK	155	80.73
Total	192	100.00

When we asked do you know anaemia is harmful for both pregnant women and baby, we received the following answer. 12.50% said 'yes' and 6.77% said 'no'. the rest 80.73% said that they do not know the answer.

Table 39: Do you take extra amount of food during pregnancy?

Variables	Number	%
Yes	31	16.15
No	161	83.85
Total	192	100.00

16.15% of the study subjects said that they need extra amount of food during pregnancy while 83.85% said that they do not need extra amount of food during pregnancy.

Table 40: Do you feel that extra amount of food during pregnancy will cause difficult delivery?

Variables	Number	%
Yes	24	12.50
No	110	57.29
DK	58	30.21
Total	192	100.00

When asked whether that extra amount of food during pregnancy will cause difficult delivery, 12.50% said 'yes' and 57.59% said 'no'. 30.21% said that they do not know the answer.

Table 41: How your husband helps during pregnancy period?

Variables	Number	%
Help in home work	111	57.81
Help in marketing	27	14.06
Others	42	21.88
No help	80	41.67
Total	192	100.00

It is interesting to note here that 57.81% husband help their pregnant wife in homework. 14.06% and 21.88% husband help in marketing and other work respectively. 41.67% do not help in any of the above ways.

Table 42: Do you think the following conditions require emergency treatment?

Variables	Number	%
Bleeding per vagina	80	41.67
Head reeling	81	42.19
Swelling of feet	82	42.71
Severe vomiting	76	38.58
Convulsions	76	38.58
DK	98	51.04
Total	192	100.00

We have given some danger signs and asked whether these conditions require emergency treatment. We received the following answers. Between 38-43% pregnant women thought that the conditions like, bleeding per vagina, head reeling, swelling of feet, severe vomiting and convulsions require emergency treatment. 51.04% said that they don't know the answer.

Table 43: Is rest during pregnancy important?

Variables	Number	%
Yes	140	72.92
No	50	26.04
DK	2	1.04
Total	192	100.00

72.92% thought that rest during pregnancy is important and 26.04% said that it is not important. 1.04% did not know the answer.

Table 44: Do you think that the pregnant women should not do heavy work in last trimester of pregnancy?

Variables	Number	%
Yes	81	42.19
No	69	35.94
DK	42	21.87
Total	192	100.00

We asked about whether pregnant women should or should not do heavy work during pregnancy. 42.19% study subjects thought that pregnant women should not do heavy work in last trimester of pregnancy. 35.94% thought the opposite. 21.87% did not know the answer.

Table 45: Did FHW/ ANM visit your house during pregnancy?

Variables	Number	%
Yes	0	0.00
No	192	100.00
Total	192	100.00

None of the study subjects reported that FHW/ ANM visited their house during pregnancy.

Table 46: Do you prefer home delivery or institutional delivery?

Variables	Number	%
Home delivery	139	72.4
Institutional delivery	53	27.6
Total	192	100.00

While enquiring about the preference of home delivery/ institutional delivery, we gathered that 72.4% pregnant women preferred home delivery and rest 27.6% preferred institutional delivery.

Table 47: Why do you prefer the above?

Variables	Number	%
Less expenditure	1	0.52
Safe delivery	53	27.6
Lack of money	92	47.92
No need for institution for safe delivery	25	13.02
Religious beliefs	3	1.56
Fearing medical	18	9.38
Total	192	100.00

While enquiring about why their preference is so, we gathered that there are different causes for preferring home delivery like less expenditure (0.52%), lack of money (47.92%), No need for institution (13.02%), Religious beliefs (1.56%) and fearing medical (9.38%). Among the 53 pregnant women who preferred Institutional delivery, all stated the reason as follows: The delivery is safe if done in the institutionally. This is 27.6% of the total number of pregnant women interviewed. All the percentages are being calculated from total 192 respondents.

Table 48: What type of food pregnant women should consume?

Variables	Number	%
Rice	127	66.15
Dal	127	66.15
Vegetables	123	64.06
Meat, fish and eggs	72	37.5
Milk	53	27.6
Other	37	19.27
DK	65	33.85
Total	192	100.00

While enquiring about what type of food a pregnant lady should consume, we gathered that 66.15% each said Rice and Dal, 64.06% said vegetables, 37.5% said meat, fish and eggs, 27.6% said milk and 19.27% told about other miscellaneous foods. 33.85% said they do not know the answer.

Table 49: Did you specially avoid eating any type of food during pregnancy?

Variables	Number	%
Masala food	1	0.52
Chilli	16	8.33
Bitter food	27	14.06
Salty dry fish	26	13.54
Do not avoid anything	136	70.83
Others	5	2.6
Total	192	100.00

We found that pregnant women in the study areas are avoiding some foods during pregnancy. 1 (0.52%) pregnant woman was found to be avoiding Masala Food, 16 (8.33%) are avoiding Chilli food, 27 (14.06%) are avoiding Salty Dry Fish. 136 (70.83%) are not avoiding anything. 5 (2.6%) are avoiding other types of foods.

Table 50: How do you look after your personal hygiene during pregnancy?

Variables	Number	%
Clothes cleaning	166	86.46
Home cleaning	120	62.5
Cleanliness in food preparation	105	54.69
Bathing daily	101	52.6
Others	20	10.42
No hygiene measures	10	5.21
Total	192	100.00

The pregnant women are found to be taking care of their personal hygiene in many ways. 166 (86.46%) pregnant women were wearing cleaned clothes, 120 (62.5%) are cleaning the home, 105 (54.69%) are observing cleanliness in food preparation, 101 (52.6%) practice daily bathing, 20 (10.42%) are observing other miscellaneous personal hygiene measures and 10 (5.21%) are found to be not practising any personal hygiene measures.

Table 51: What methods would you like to adopt to prevent pregnancy?

Variables	Number	%
Vasectomy	0	0.00
Tubectomy	52	27.08
Copper T	3	1.56
Oral Pills	16	8.33
Condom	2	1.04
Natural Method	5	2.61
Do not like anything	8	4.17
DK	106	55.21
Total	192	100.00

For preventing pregnancy the study subjects are interested to adopt the following methods. No body mentioned vasectomy as the choice. 52 (27.08%) preferred Tubectomy, 3 (1.56%) preferred Copper T, 16 (8.33%) preferred Oral Pills, 2 (1.04%) preferred Condom, 5 (2.61%) preferred Natural method, 8 (4.17%) do not like any method and 106 (55.21%) said they don't know the answer.

Table 52: How many children do you think are ideal for family?

Variables	Number	%
1	6	3.13
2	121	63.02
3	49	25.52
4 and above	15	7.81
DK	1	0.52
Total	192	100.00

When enquired, 6 (3.13%) Study subjects thought that 1 child is ideal for family, 121 (63.02%) thought that 2 children are ideal, 49 (25.52%) thought that 3 child are ideal, 15 (7.81%) thought that 4 and above child are ideal for family. One study subject declined doesn't know the answer.

Table 53: Do your religious belief bar you from practising the family planning methods?

Variables	Number	%
Yes	4	2.08
No	188	97.92
Total	192	100.00

When enquired 4 (2.08%) study subjects said that their religious beliefs bar them from practising the family planning methods. Others (97.92%) said that it does not bar them from practising family planning methods.

Table 54: What are the types of family planning practices you are aware about?

Variables	Number	%
Vasectomy	0	0.00
Tubectomy	56	29.17
Copper T	4	2.08
Oral Pills	30	15.63
Condom	0	0.00
Natural Method	6	3.13
Do not aware about anything	2	1.04
DK	109	56.77
Aware about all types	8	4.17
Total	192	100.00

When enquired about what family planning methods the study subjects are aware about we received the following answers. Tubectomy is known to 56 (29.17%) subjects, Copper T is known to 4 (2.08%), Oral Pills is known to 30 (15.63%), Natural method is known to 6 (3.13%), 2 study subjects are not aware about any method and 8 study subjects are aware about all types of family planning methods. 109 (56.77%) said that they do not know the answer.

7. LIMITATIONS OF THE STUDY

During this survey we have certain limitations, which may have affected the study results. These limitations were as follows.

- All the pregnant women at random of the study area are chosen as the study subjects which was not appropriate to assess the antenatal care practices of the pregnant women in the study area. Instead all those who were in the 9th month of their pregnancy in the entire study area would have constituted an ideal sample. This would have given a real picture of ANC practices of the study subjects. This could have affected the study results.
- As the sample size is small, it may have affected the study results.
- All though utmost care has been taken to collect accurate and authentic data, some amount of interviewer bias, respondent bias and memory or recall bias can not be ruled out. This may have affected the study results.

8. SUMMARY OF FINDINGS

Most situational analysis come up against many difficulties, how one can possibly summarise the conditions and context of the lives of pregnant women in the study area of such size and with wide differences make it a difficult task. Thus whenever we present statistics we have tried to portray the range of diversity taking a holistic view to analysis. In order to prepare a subjective yet objective analysis we have chosen a middle path.

The following are the important findings of the study.

The age of pregnant women interviewed is mostly between 18-28 years (83.34%). We could found 2.08% (4) pregnant women below the age of 18. The pregnant women above age of 28 are also very less i.e. 14.58%.

Not surprisingly we found 58.85% of them having no education. 15.10% and 9.9% have education up to 5th standard and 6-8 standard respectively. Only 13.54% have education 9-10 standard. A very low percentage of 2.61% have education above 11 standard. This shows the educational status of these pregnant women is very low. This could have resulted in poor KAP of those pregnant women about antenatal care practices and hence could have resulted in poor nutritional status.

Among the pregnant women interviewed, 96.88% are found to be Hindus followed by 2.08% Muslims and 1.04% Christians. The study subjects are thus

are predominantly Hindu by religion. We found out that 19.27% of the pregnant women are SC, 27.08% are ST, 21.36% are OBC and 32.29% are of General caste.

We found that 25% have Gravida 1, 30.73% have Gravida 2. 23.44% have Gravida 3 and 20.83% have Gravida 4 and above. This shows there is practice of being pregnant for more than 2 times in 44.27% cases. Even in other cases where the Gravida is 1 or 2 there is still change to be pregnant in future.

We have found that 27.08% have para 0 i.e. this is their first pregnancy. 29.17% have para 1, 24.48% have para 2, 6.77 have para 3 and 12.5% have para 4 and above.

Living means the number of children of the pregnant women now living. We found that living is 0 for 31.25% cases, 1 for 32.29% cases, 2 for 23.44 cases and 3 and above for 13.02% cases.

This annual family income is below Rs. 11,000 in 7.29% cases and is between Rs. 11,001 to Rs. 40,000 in 92.19% cases. It is above 40,000 in 0.52% cases. So the percentage of pregnant women living below poverty line is 7.29%.

We found family size of 1-5 in 84.38% cases followed by 6-10 15.10% cases and only one family the family size is 11 and above.

The age at marriage of pregnant women is below 18 in 40.1% cases followed by 18-23 in 54.69% cases. The age at marriage of 24-28 is 4.69% and that of 29 and above is 0.52% i.e. only one respondent whose age at marriage is 29 and above.

We came across 27 pregnant women in their first trimester of pregnancy, 79 pregnant women in their second trimester of pregnancy and 86 in their third trimester of pregnancy. The percentages were 14.06, 41.15 and 44.79 for 1st, 2nd and 3rd trimester of pregnancy respectively.

We found 10 pregnant women (5.21%) under the weight 38-kg, 8 women (4.17%) between 38-39.9 kg, 46 women (23.96%) between 40-44.9 kg and 128 women (66.66%) above the weight of 45 kg. It was thus found that 33.34% of women are under the weight of 45 kg, which can be considered as low weight. Among the women of low weight some have very low weight which is evident from the table.

We found 40 pregnant women with height below 145 cm, 65 pregnant women with height between 145-149.9 cm and 87 pregnant women with height above 150 cm. The percentage of pregnant women with height below 150 cm is 54.69 (105 pregnant women out of 192) that are considered as low height. Among these low height pregnant women 20.83% (40 pregnant women) have very low height. 28.65% (55 pregnant women) have low arm circumference (below 23 cm) and 71.35% (137 pregnant women) do not have low arm circumference (above 23 cm). We found that 67.7% (130 pregnant women) do not have low Body Mass Index and rest 32.3% (60 pregnant women) has low BMI. According to BMI we can classify 6 women as Chronic Energy Deficiency (CED) Grade III, 7 women as CED Grade II and 17 women as CED Grade I. Again 32 women can be classified as low weight and normal, 122 women are normal and 8 women are Obese Grade I. We cannot find pregnant women of Obese Grade II classifications (BMI >30)

The Mean Height is found to be 149.52 cm with a standard deviation of 6.71 cm. Similarly the Mean and SD for weight is 47.06 kg and 5.82 kg respectively. The Mean and SD for Arm circumference is 23.77 cm and 2.15 cm respectively. Good thing is that the mean Weight and AC are above 45kg and 23.00 cm respectively. But the mean height is less than 150 cm.

The mean age of the pregnant women interviewed is 24.30 years with a standard deviation of 4.25 years. The Mean age at marriage is 18.41 years with a standard deviation of 2.74 years.

The Mean Gravida is 2.63 with a standard deviation of 1.57. The mean Para is 1.56 with a standard deviation of 1.51. The mean living is 1.24 with a standard deviation of 1.12. Here it is noteworthy that the difference between the Mean Gravida & Mean Para is more than one, which indicates that death of foetus, is high between Gravida & Para periods.

Among 6 pregnant women with <16.00 BMI, 1 is below the age at marriage of 18 years, 4 pregnant women are of age at marriage between 18-23 years and 1 is between age at marriage of 24-28 years. Among 7 pregnant women with 16.01-17.00 BMI, 2 are below the age at marriage of 18 years and 4 are of age at marriage between 18-23 years. Among 17 pregnant women with 17.01-18.50 BMI, 3 are below the age at marriage of 18 years, 11 pregnant women are of age at marriage between 18-23 years, 2 are between age at marriage of 24-28 years and 1 is of age at marriage of 29 years and above. Among 32 pregnant women with 18.51-20.00 BMI, 11 are below the age at marriage of 18 years, 20 pregnant women are of age at marriage between 18-23 years and 1 is between age at marriage of 24-28 years. Among 122 pregnant women with 20.01-25.00

BMI , 55 are below the age at marriage of 18 years, 62 pregnant women are of age at marriage between 18-23 years and 5 are between age at marriage of 24-28 years. Among 8 pregnant women with 25.01-30.00 BMI , 5 are below the age at marriage of 18 years, and 3 pregnant women are of age at marriage between 18-23 years.

Among 6 pregnant women with <16.00 BMI , 3 each are between age of 24-28 years and 29 years and above. Among 7 pregnant women with 16.01-17.00 BMI , 1 is of age between 18-23 years, 4 are between 24-28 years and 2 are of 29 years and above. Among 17 pregnant women with 17.01-18.50 BMI , 4 pregnant women are of age between 18-23 years, 9 are between age of 24-28 years and 4 are of age of 29 years and above. Among 32 pregnant women with 18.51-20.00 BMI , 14 pregnant women are of age between 18-23 years and 15 are between age of 24-28 years and 3 are of age of 29 years and above. Among 122 pregnant women with 20.01-25.00 BMI , 3 are below the age of 18 years, 47 pregnant women are of age between 18-23 years, 57 are between age of 24-28 years and 15 are of age 29 years and above. Among 8 pregnant women with 25.01-30.00 BMI , 1 is below the age of 18 years, 3 pregnant women are of age between 18-23 years, 3 are between age of 24-28 years and 1 is of age 29 years and above.

Among 6 pregnant women with Gravida <16.00, 1 have Gravida 2, 1 have Gravida 3 and 4 have Gravida 4 and above. Among 7 pregnant women with Gravida 16.01-17.00, 1 have Gravida 1, 1 have Gravida 2, 2 have Gravida 3 and 3 have Gravida 4 and above. Among 17 pregnant women with Gravida 17.01-18.50, 4 have Gravida 1, 5 have Gravida 2, 5 have Gravida 3 and 3 have Gravida 4 and above. Among 32 pregnant women with Gravida 18.51-20.00, 11 have Gravida 1, 9 have Gravida 2, 7 have Gravida 3 and 5 have Gravida 4 and above. Among 122 pregnant women with Gravida 20.01-25.00, 29 have Gravida 1, 43 have Gravida 2, 27 have Gravida 3 and 23 have Gravida 4 and above. Among 8 pregnant women with Gravida 25.00-30.00, 3 have Gravida 1, 3 have Gravida 3 and 2 have Gravida 4 and above.

Among 55 pregnant women with AC 22.9 and below, 19 are <18 age at marriage, 31 are 18-23 age at marriage, 4 are 24-28 age at marriage and 1 is 29 and above age at marriage. Among 137 pregnant women with AC 23.0 and above, 58 are <18 age at marriage, 74 are 18-23 age at marriage and 5 are 24-28 age at marriage.

Among 55 pregnant women with AC 22.9 and below, 20 are 18-23 years of age, 23 are 24-28 years of age and 12 are 29 and above years of age. Among 137 pregnant women with AC 23.0 and above, 4 are <18 years of age, 59 are 18-23 years of age, 58 are 24-28 years of age and 16 are of age 29 years and above.

Among pregnant women with AC 22.9 and below, 15 have Gravida 1, 13 have Gravida 2, 14 have Gravida 3 and 13 have Gravida 4 and above. Similarly among pregnant women with AC 23.0 and above, 33 have Gravida 1, 46 have Gravida 2, 31 have Gravida 3 and 27 have Gravida 4 and above.

Among the pregnant women we found that 85.94% (165 pregnant women) have not registered their pregnancy. So the percentage of registering pregnancies among the subjects of the study area is very low (14.06%).

The knowledge that registration should be done before the second missed period, is known to only 9.9% pregnant women which is very low. 90.1% of pregnant women has no knowledge about the above fact. If this result is compared with the previous table we can see that more percentage of pregnant women do registration than the percentage of women who knows that registration should be done before the second missed period.

When asked about what examinations should be conducted during the first visit to the antenatal care centre, we found the following answers. 152 women (79.17%) said that they have not visited centre for check ups. 28 (14.58%) said that Urine examination was conducted. 25 (13.02%) said that Blood Pressure was taken. All other examinations such as Weight, Blood ESR, Haemoglobin test, Stool examinations and VDRL test etc were conducted in case of less than 10% pregnant women in their check ups. The pregnant women might not know about some the tests. This may be the reason for the low percentages in this table. We know from table 25 that 27 pregnant women have done registration. But according to this table 40 pregnant women have done check ups. This discrepancy may be that they do these check ups where the registration of pregnancy is not done. For example when a pregnant woman visits a doctor at his/her home the registration is not simultaneously done.

When we asked about some of the common tests are essential or not, we received the following result. High percentage of pregnant women 52.60% said that they do not know the answer. 8.85% felt that the tests are not essential. 30.21% said that Weight measurement is essential. 38.02% felt that Blood test is essential. 28.13% felt that Urine test is essential. The above three percentages of pregnant women who felt that the tests of Weight, Blood and Urine are essential are very low.

When we asked that how many check ups you have done so far, we received the following answers. 152 pregnant women (79.17%) have done no check ups. 1, 2 and 3 & above check ups are done by 20.83%, 11.98% and 5.73% women

respectively. These percentages of check ups are very low. The fact here remains that there are some pregnant women who have done no check ups or have done less number of check ups may do so in future because we have interviewed them when they are still pregnant.

When we asked about how many antenatal check-ups should be done, we found the following answers. 149 pregnant women (77.6%) said that they do not know the answer. 3 and above antenatal check ups was suggested by 31 pregnant women (16.15%) which is very low. 2 and 10 pregnant women suggested 1 and 2 antenatal check ups respectively.

When we asked about the number of doses of TT needs to be taken, we found that 125 pregnant women (65.1%) said that they do not know the answer. 3 and above TTs was suggested by 40 pregnant women. But 1 or 2 doses of TT is suggested by very low percentage of women i.e. 0.52% and 13.54% pregnant women respectively which is close to the right answer depending upon the Gravida Number.

When we asked about when the TTs should be taken, we found 56.72% wrong answer and 38.8% right answer and 4.48% did not know the answer. The right answer of this question is as follows. If the mother was not immunised earlier, 2 doses of TT should be given – the first dose at 16-20 weeks and the second dose at 20-24 weeks of pregnancy. The minimum interval between the 2 doses should be one month. The second dose should preferably be given one month before the expected date of delivery. However, no pregnant women should be denied even one dose of TT if she is seen late in pregnancy. For a woman who has been immunised earlier, one booster dose will be sufficient. When such a booster has been given, it will provide necessary cover for subsequent pregnancies, during the next 5 years. It is advised not to inject TT at every successive pregnancy because of the risk of hyperimmunisation and side effects. Considering the above the right dose and wrong dose is determined to construct this table.

We found that 75 pregnant women (39.06%) have taken TT, which is very low. This does not mean that they will receive right dose of TT. The percentage of women who have not received any TT is 60.94%, which is very high. But some these women still have time to take TT.

Among the persons who have taken TTs we found that 54 of them (72%) have taken the right dose and 21 of them (28%) have taken wrong dose. The right

dose and wrong dose is determined according to the description of right dose given in table 32. The percentage of right dose is very low.

When we asked about why TT is given, we came across the following answers. 80.2% said that they do not know the answer. Only 3.65 said that it is given to prevent tetanus, which is the right answer. 16.15% gave wrong answers. The percentage of pregnant women who gave right answer is very low.

When we asked about how many IFA tablets the pregnant women have consumed during pregnancy, we found the following answers. 18.75% said that they have consumed 1-30 tablets. 8.34% said that they have consumed 31-60 tablets, 1.56% said that they have consumed 61-90 tablets and 1 said that she had consumed 121 and above tablets. 57.29% have not consumed any tablets. 13.54% of them are in not applicable group as they are in early state of pregnancy and they may consume IFA in future. No body said that she had consumed 91-120 tablets. Here it should be kept in mind that the women who had consumed fewer tablets might consume more in future. This IFA consumption pattern shows that the IFA consumption is very low among the study subjects.

When we asked why IFA tablets are consumed during pregnancy, we got the following answers. Only 9.9% said that it is consumed for preventing anaemia. 6.25% gave wrong answer and rest 83.85% did not know the answer.

When we asked do you know anaemia is harmful for both pregnant women and baby, we received the following answer. 12.50% said 'yes' and 6.77% said 'no'. The rest 80.73% said that they do not know the answer. 16.15% of the study subjects said that they need extra amount of food during pregnancy while 83.85% said that they do not need extra amount of food during pregnancy.

When asked whether that extra amount of food during pregnancy will cause difficult delivery, 12.50% said 'yes' and 57.59% said 'no'. 30.21% said that they do not know the answer.

It is interesting to note here that 57.81% husband help their pregnant wife in homework. 14.06% and 21.88% husband help in marketing and other work respectively. 41.67% do not help in any of the above ways.

Between 38-43% pregnant women thought that the conditions like, bleeding per vagina, head reeling, swelling of feet, severe vomiting and convulsions require emergency treatment. 51.04% said that they don't know the answer.

While enquiring about the preference of home delivery/ institutional delivery, we gathered that 72.4% pregnant women preferred home delivery and rest 27.6% preferred institutional delivery.

While enquiring about why their preference is so, we gathered that there are different causes for preferring home delivery like less expenditure (0.52%), lack of money (47.92%), No need for institution (13.02%), Religious beliefs (1.56%) and fearing medical (9.38%). Among the 53 pregnant women who preferred Institutional delivery, all stated the reason as follows: The delivery is safe if done in the institutionally. This is 27.6% of the total number of pregnant women interviewed.

While enquiring about what type of food a pregnant lady should consume, we gathered that 66.15% each said Rice and Dal, 64.06% said vegetables, 37.5% said meat, fish and eggs, 27.6% said milk and 19.27% told about other miscellaneous foods. 33.85% said they do not know the answer.

We found that pregnant women in the study areas are avoiding some foods during pregnancy. 1 (0.52%) pregnant woman was found to be avoiding Masala Food, 16 (8.33%) are avoiding Chilli food, 27 (14.06%) are avoiding Salty Dry Fish. 136 (70.83%) are not avoiding anything. 5 (2.6%) are avoiding other types of foods.

The pregnant women are found to be taking care of their personal hygiene in many ways. 166 (86.46%) pregnant women were wearing cleaned clothes, 120 (62.5%) are cleaning the home, 105 (54.69%) are observing cleanliness in food preparation, 101 (52.6%) practice daily bathing, 20 (10.42%) are observing other miscellaneous personal hygiene measures and 10 (5.21%) are found to be not practising any personal hygiene measures.

For preventing pregnancy the study subjects are interested to adopt the following methods. No body mentioned vasectomy as the choice. 52 (27.08%) preferred Tubectomy, 3 (1.56%) preferred Copper T, 16 (8.33%) preferred Oral Pills, 2 (1.04%) preferred Condom, 5 (2.61%) preferred Natural method, 8 (4.17%) do not like any method and 106 (55.21%) said they don't know the answer.

When enquired, 6 (3.13%) Study subjects thought that 1 child is ideal for family, 121 (63.02%) thought that 2 children are ideal, 49 (25.52%) thought that 3 child are ideal, 15 (7.81%) thought that 4 and above child are ideal for family. One study subject declined doesn't know the answer.

When enquired 4 (2.08%) study subjects said that their religious beliefs bar them from practising the family planning methods. Others (97.92%) said that it does not bar them from practising family planning methods.

Tubectomy is known to 56 (29.17%) subjects, Copper T is known to 4 (2.08%), Oral Pills is known to 30 (15.63%), Natural method is known to 6 (3.13%), 2 study subjects are not aware about any method and 8 study subjects are aware about all types of family planning methods. 109 (56.77%) said that they do not know the answer.

So it can be concluded that the antenatal care practices of pregnant women in the area is very poor. The nutritional status of pregnant women in the study area is also poor. The antenatal care practices must have some impact on the nutritional status of the pregnant women in the area.

9. RECOMMENDATIONS

Based on the above findings the study wishes to recommend the following measures to improve the nutritional status of pregnant women and improvement in the antenatal care services for the pregnant women in the study area.

- The educational status of the pregnant women in the study area is very poor. It needs to be improved. For this Adult education methodology can be adopted. Side by side the primary education should be strengthened so that the future pregnant women (now adolescent and child) can be educated.
- As the Gravida is found to be very high, it is recommended that family planning to be promoted so that two/one child norm is practised. The different family planning methods should be taught to them so that they can choose the one, which is convenient to them.
- Over all development measures especially income generating activities should be promoted to improve financial status of the population of the area.
- Proper counselling on demerits of early marriage should be done to check early marriage.
- As the nutritional status of the pregnant is low it is recommended that nutritional supplements for pregnant women should be provided.
- As the KAP of pregnant women on different aspects of antenatal care is low, it is recommended that the women especially the pregnant women and adolescents should be taught about the elements of child-care, nutrition, personal hygiene, and environmental sanitation.

- The women, especially pregnant women and adolescents should be taught about the importance of early registration and antenatal check ups. They also should be taught about the tests to be done during pregnancy and some danger signs during pregnancy, which require emergency treatment.
- They should also be given proper antenatal care. TT should be given in time and IFA tablets consumption should be promoted during pregnancy which will prevent them from Tetanus and Anaemia respectively.
- The family members should be taught to give extra amount of food to women during pregnancy. The women should not do heavy work during pregnancy. The husband and other family members should help the pregnant women in home and other work.
- The importance of institutional delivery should be taught to the study subjects and their families, which will help in safe delivery.
- The Antenatal care services should be implemented properly in the study area.

In addition to this the following measures of antenatal care are recommended.

- Promote, protect and maintain the health of mother during pregnancy.
- Detect high-risk cases and give them special attention.
- Forsee complications and prevent them.
- Remove anxiety and dread associated with delivery.
- Reduce maternal and infant mortality and morbidity.
- Teach the mother elements of child-care, nutrition, personal hygiene, and environmental sanitation.
- Sensitise the mother to the need for family planning including advice to cases seeking medical termination of pregnancy.
- Attend to the under fives accompanying the mother.

It is necessary to compare the study findings with the findings of a study in a control area, which can provide vital information regarding nutritional status of pregnant women in the area and about the antenatal care practices in the area. Such a study is highly recommended.

In such studies in future it is recommended that a sample of women in their third trimester of pregnancy who would have enough time and practice the antenatal care. It would be even better, if the study subjects were the pregnant women who were in their 9th month of pregnancy.

10. COPY OF SCHEDULE USED

STUDY ON ANTENATAL CARE PRACTICES OF PREGNANT WOMAN IN SLUMS OF BHUBANESWAR

SCHEDULE OF ENQUIRY

Schedule No.:

Name of the Slum:

Name of the pregnant woman	Age	Edu'n	Relg'n	Caste	Gravida-para-living			Annual family Income	Family size

- Age at marriage:
- Duration of Pregnancy:
- Weight (in kg):
- Height (in Cm):
- Mid upper arm circumference (in cm):

KAPOF PREGNANT WOMAN:

- Did you register your pregnancy at the nearest health centre? If yes, when?
- Do you know registration should be done before second missed period?
- What examinations were conducted at first visit?
- Do you feel that weight, blood pressure, haemoglobin estimation and urine test are essential?
- Weight
- Blood Pressure
- Haemoglobin estimation
- Urine Test
- How many check ups have been done so far?

- At least how many antenatal check ups should be done?
- How many doses of TT need to be taken during pregnancy and when?
- Have you taken any TT and when?
- Why TT is given?
- How many IFA tablets you have consumed during pregnancy?
- Why IFA tablets are consumed during delivery?
- Do you know anaemia is harmful for both pregnant woman and baby?
- Do you take extra amount of food during pregnancy?
- Do you feel that extra amount of food during pregnancy will cause difficult delivery?
- How does your husband help during pregnancy period?
- Do you think the following conditions require emergency treatment?
 - Bleeding per vagina
 - Head reeling
 - Swelling of feet
 - Severe vomiting
 - Convulsions
- Is rest during pregnancy important?
- If yes, do you know the cause?
- Do you think that the pregnant women should not do heavy work in last trimester of pregnancy?
- Did FHW/ ANM visit your house during pregnancy?
- What do you prefer: Home delivery or Institutional delivery and why?

- What type of food a pregnant lady should consume?
- Did you specifically avoid eating any type of food during pregnancy?
- How do you look after your personal hygiene during pregnancy?
- What method would you like to adopt to prevent pregnancy?
- How many children do you think are ideal for the family?
- Do your religious beliefs bar you from practising the family planning methods?
- What are the types of family planning practices you are aware about?

Name and Signature of the Investigator:

Date:

11. CODEING KEY

Schedule No:	Actual		1 – 3
Age:	Actual		4
Education:	No education	- 1	5
	1 – 5 th class	- 2	
	6 – 8 th class	- 3	
	9 – 10 th class	- 4	
	11 th and above	- 5	
Religion:	Hindu	- 1	6
	Muslim	- 2	
	Christian	- 3	
	Others	- 4	
Caste:	SC	- 1	7
	ST	- 2	
	OBC	- 3	
	General	- 4	
Gravida:	1	- A	8
	2	- B	
	3	- C	
	4 and above	- D	
Para:	0	- A	9
	1	- B	
	2	- C	
	3	- D	
	4 and above	- E	
Living:	0	- A	10
	1	- B	
	2	- C	
	3 and above	- D	
Annual income:	Up to 11,000	- 1	11
	11,000– 40,000	- 2	
	40,000 above	- 3	

Family Size:	1 – 5	- 1	12
	6 – 10	- 2	
	11 +	- 3	
Age at marriage:	Actual		13
Duration of pregnancy:	Actual		14
Weight (in Kg):	Actual		15
Height (in cm) :	Actual		16
Mid upper arm circumference (in cm)	Actual		17
Registration done:	Yes	- 1	18
	No	- 2	
If yes, when?	2 months and below	- 1	19
	3 – 5 months	- 2	
	6 and above	- 3	
Know registration should be done before 2 nd missed period			
	Yes	- 1	20
	No	- 2	
What examinations were conducted at first visit?			
	Weight	- 1	21–28
	Blood pressure	- 2	
	Blood ESR	- 3	
	Haemoglobin	- 4	
	Urine test	- 5	
	Stool	- 6	
	VDARL	- 7	
	No examination	- 8	

Do you feel weight; blood pressure, haemoglobin estimation and urine test are essential:

Weight	- 1	29 –33
Blood test	- 2	
Urine test	- 3	
Not essential	- 4	
Don't know	- 5	

How many check-ups have been done so far :

0	- A	34
1	- B	
2	- C	
3 and above	- D	
Not applicable	- E	

At least how many antenatal check-ups should be done:

0	- A	35
1	- B	
2	- C	
3 and above	- D	
Don't know	- E	

How many doses TT need to be taken during pregnancy:

One dose	- 1	36
Two doses	- 2	
Three and above	- 3	
Don't know	- 4	

When?	4 –9 months	- 1	37
	Wrong answer	- 2	
	Don't know	- 3	

Have you taken any TT:	Yes	- 1	38
	No	- 2	

When?	Right dose	- 1	39
	Wrong dose	- 2	

Why TT is given:

Prevent Tetanus	- 1	40
Wrong answer	- 2	
Don't know	- 3	

How many IFA tablets you have consumed during pregnancy:

1-30	- 1	41
31- 60	- 2	
61- 90	- 3	
91- 120	- 4	
121 and above	- 5	
Not consumed	- 6	
Not applicable	- 7	

Why IFA tablets are consumed during pregnancy:

For prevent anaemia	- 1	42
Wrong answer	- 2	
Don't know	- 3	

Do you know anaemia is harmful for both pregnant women and baby:

Yes	- 1	43
No	- 2	
Don't know	- 3	

Do you take extra amount of food during pregnancy:

Yes	- 1	44
No	- 2	

Do you feel that extra amount of food during pregnancy will cause difficult delivery:

Yes	- 1	45
No	- 2	
Can't say	- 3	

How does your husband help during pregnancy period:

Help in home work	- 1	46 – 49
Help in marketing	- 2	
Ot hers	- 3	
No help	- 4	

Do you think the following conditions require emergency treatment:

Bleeding per vagina-	1	50 –55
Head reeling	- 2	
Swelling of feet	- 3	
Severe vomiting	- 4	
Convulsions	- 5	
Can't say	- 6	

Is rest during pregnancy important?

Yes	- 1	56
No	- 2	
Don't know	- 3	

Do you think that the pregnant woman should not do heavy work in last trimester of pregnancy:

Yes	- 1	57
No	- 2	
Don't know	- 3	

If yes, do you know the cause:

Accident	- 1	58 – 64
Disease	- 2	
Hard labour	- 3	
Weakness	- 4	
Family planning	- 5	
Don't know	- 6	
Not applicable	- 7	

Did FHW/ ANM visit your house during pregnancy:

Yes	- 1	65
No	- 2	

What do you prefer

Home delivery	- 1	66
Institutional delivery	- 2	

Why?

Less expenditure	- 1	67 – 70
Safe delivery	- 2	
Lack of money	- 3	
No need for institution	- 4	
Religious Belief	- 5	
Fearing institution	- 6	

What type of food a pregnant lady should consume

Rice	- 1	71 – 77
Dal	- 2	
Vegetable	- 3	
Meat, fish, eggs	- 4	
Milk	- 5	
Others	- 6	
Don't know	- 7	

Did you specifically avoid eating any type of food during pregnancy?

Masala food	- 1	78 – 82
Chilli	- 2	
Bitter Food	- 3	
Salty Dry Fish	- 4	
Do not avoid anything	- 5	
Others	- 6	

Do your religious belief bar you from practising the family planning methods:

Yes	- 1	83
No	- 2	

How do you look after your personal hygiene during pregnancy:

Clot hes cleaning	- 1	84 – 89
Home cleaning	- 2	
I n f o o d p r e p a r e	- 3	
Bat hing	- 4	
Ot her s	- 5	
Not t a k e n h y g i e n e	- 6	

What method would you like to adopt to prevent pregnancy:

Vasect omy	- 1	90
Tubect omy	- 2	
Cooper T	- 3	
Or al pills	- 4	
Condom	- 5	
Nat u r a l m e t h o d	- 6	
A n y o t h e r s	- 7	
D o n o t l i k e a n y t h i n g	- 8	
C a n ' t s a y	- 9	

How many children do you think are ideal for the pregnancy:

1	- A	91
2	- B	
3	- C	
4 and above	- D	
C a n ' t S a y	- E	

What are the types of family planning practices you are aware about :

Vasect omy	- 1	92
Tubect omy	- 2	
Cooper T	- 3	
Or al pills	- 4	
Condom	- 5	
Nat u r a l m e t h o d	- 6	
A n y o t h e r s	- 7	
D o n o t i t	- 8	
D o n ' t k n o w	- 9	
A l l t y p e s	- 10	