IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 15, Issue 1 Ver. I (Jan. 2016), PP 78-84
www.iosrjournals.org

Utilization of Antenatal Services among Mothers in Urban Slums of Kurnool City

Dr. T. Srigouri[1], Dr T. Nagaraju[2], Dr G. Vijaya Vishnu[3]
1. Assistant professor, dept of community medicine, Santhiram Medical College, Nandyal
2. Assistant professor, dept of Anaesthesia, Santhiram Medical College, Nandyal
3. Post Graduate, dept of community medicine, Santhiram Medical College, Nandyal

Abstract:
Introduction: *Antenatal care is named as one of the four pillars initiatives of the Safe Motherhood Initiative. While many of routine antenatal care procedure have little effect on maternal mortality and morbidity, some of these have been ascertained as beneficial.*
Aims And Objectives*: To assess the utilization of antenatal services by mothers in Urban Slums Of Kurnool City, To determine the factors influencing it.*
Materials And Methods*: It is a Descriptive Cross-sectional study conducted in all notified urban slums of Kurnool townwith a population 1,18,587. Method of data collection and source of data: All the antenatal mothers in the study location were identified through a network of Anganwadi workers and Health workers. Tools used were Interview proforma administered to the antenatal mothers, Stethoscope, Torch, B.P apparatus, Weighing machine, Diet sheet for calculation of dietary intake using 24 hour recall method, MS Excel and Epi-info 3.5.3.*
Results*: Out of 270 mothers under study, majority 163(60.4%) were in the age group of 21-25 years, 183(67.77%) of the mothers were literates. Majority 206 (76.3%) of the mothers were house wives. Majority of them belonged to upper and lower middle class.*
Discussion*: In this study, most 229(84.8%) of the mothers had their first antenatal visit immediately following the missed period .182(67.4%) mothers had antenatal check-ups at Anganwadi centres while . 259 (95.9%) of mothers had complete immunization and only 11 (4.1%) had incomplete T.T. immunization, 237(87.8%) had consumed ≥100tablets. 33 mothers who had taken <100 IFA tablets, 24(69.70%) were literates and 10 (30.30%) were Illiterate. Among 237 mothers who had taken ≥100 IFA tablets 180(75.94%) were house wives and 57 (24.06%) were working mothers. This difference was not significant (x2=0.1291 p>0.05).*
Conclusions*: In our study, the utilization of antenatal services was good. In comparison with previous studies it is seen that the utilization of antenatal services has improved over the years.*

I. Introduction:

Global commitment for reducing maternal and child mortality has been reaffirmed by the governments through the Millennium declaration in September, 2000. The targets for MDG 4 and MDG 5 are to reduce under-five mortality by two thirds and the maternal mortality ratio by three quarters between 1990-2015 [1.] Now there is a need to understand the mother and child issues more thoroughly so as to attain the said goals

The Maternal Mortality Ratio (MMR) in developing countries is estimated at 440/100,000 live births with 46 countries having an MMR greater than 500/100,000 live births.[2] Maternal deaths are those that occur during pregnancy, labour/delivery and in the postpartum period up to 42 days, from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy. [3] The Maternal mortality rate In India is 254 per 1,00,000 live births and in Andhra Pradesh it is 154 per 1,00,000(2004-06).[4] The important causes of maternal deaths in India according to 2001-2003 SRS survey are haemorrhage-38%, sepsis-11%,Hypertensive disorders-5%,Obstructed labour-5%,Other conditions (Anaemia) - 34%

Even today antenatal services are not being utilized completely due to various reasons. In 2010, in urban areas 93.8% mothers had minimum of 3 antenatal visits compared to slums where only 61.9% were registered. Still about half (51.7%) of the deliveries took place at home followed by govt. health facility (28.4%) and only 19.8% of the deliveries took place at private health facility.[5]

II. Components Of Antenatal Care

Important elements of antenatal care include the provision of iron supplementation for pregnant mothers, two doses of Tetanus Toxoid vaccine and a drug to get rid of intestinal worms. The provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia forms an integral part of the safe

motherhood services offered as part of the Reproductive and Child Health Programme in India. The programme recommendation is that women consume 100 tablets of iron and folic acid during pregnancy.[6]Only 65 percent of mothers received IFA supplements for their most recent birth. IFA coverage is also lower in rural areas (61 percent) than in urban areas (76percent).Overall, only 23 percent of women consumed IFA for at least 90 days. This percentage is Universally low among all groups of women except women who have completed 12 years of education or more (56 percent) and women in households in the highest wealth quintile (49 percent)Seventy-six percent of mothers received two or more tetanus toxoid injections during pregnancy for their most recent birth. Another 2 percent received one tetanus toxoid injection during the most recent pregnancy and one or more TT injections in the three years preceding the most recent pregnancy. The proportion of mothers receiving two or more tetanus toxoid injections during pregnancy for the most recent birth is substantially lower than the national average among older mothers, mothers of higher-order births (six or more), mothers with no education, scheduled tribe mothers, and mothers in households in the lowest wealth quintile.[6]

In 2009, 82% Women received two tetanus injections during pregnancy while 86.2% received iron and folic acid tablets and 11.5% consumed them. 76.6% mothers received at least one antenatal check-up, only 40.1% mothers received the recommended three or more check-ups. Despite physical proximity of health facilities, 72% deliveries were conducted at home, of which 66.5% deliveries were conducted by trained birth attendants. Seventy Percent women had identified a birth attendant during pregnancy and 76.9% women saved some money to incur delivery related cost.[7]

The National Population Policy adopted by the government of India in 2000 reiterates the government's commitment to safe motherhood programmes within the wider context of reproductive health (Ministry of Health and Family Welfare, 2000).

Several of the national socio demographic goals for 2010 specified by the policy pertain to safe motherhood. For 2010, the goals are that 80 percent of all deliveries should take place in institutions, 100 percent of deliveries should be attended by trained personnel, and the maternal mortality ratio should be reduced to a level below 100 per 100,000 live births.[8]

National Rural Health Mission (NRHM) aims at improving health care delivery across rural India. The mission, initially proposed for 7 years (2005-2012), is run by the Ministry of Health. The scheme proposes a number of new mechanisms for health care delivery including training local residents as Accredited Social Health Activists (ASHA) and the JananiSurakshaYojana (motherhood protection program).[9]

Thus to further consolidate our steps towards the attainment of the committed goals there is a need to understand the health needs of mother and child in various contexts. Hence the present study aims to study the utilization of antenatal services viz. antenatal check-ups, nutrition,iron and folic acid supplements, tetanus toxoid injections, health care seeking behavioretcso as to reduce maternal mortality and morbidity and also improve neonatal survivaland decrease morbidity and mortality in this area.

Aims and Objectives:

1. To assess the utilization of antenatal services by mothers in Urban Slums Of Kurnool City
2. To determine the factors influencing it.

III. Material And Methods

It is a Descriptive Cross-sectional study conducted in all notified urban slums of Kurnool town with a population 1,18,587.Following the pilot studyin October 2011, interview proforma was modified and finalized. Data collection was done for six months(December 2011 to May 2012).Data was analyzed to obtain preliminary results. Based on the preliminary findings questionnaire was developed for qualitative data collection with both antenatal mothers and health care providers.

Total no of mothers interviewed were 270

Method of data collection and source of data:

All the antenatal mothers in the study location were identified through a network of Anganwadi workers and Health workers.Tools used were Interview proforma administered to the antenatal mothers, Stethoscope, Torch**,** B.P apparatus, Weighing machine, Diet sheet for calculation of dietary intake using 24 hour recall method

The pre-designed and pre-tested interview proforma was administered to the antenatal mothers followed by clinical examination.The Socio-economic status of the family under study was assessed by using the Modified B.G.Prasad classification. Mothers' dietary intake was assessed by semi-quantitative analysis based on 24 hours recall. The calorie and protein intake was calculated using the values given in diet chart.

Maternal morbidity was measured by the mothers' responses to a list of possible health problems, expressed in lay terms. Thus the morbidity reported represents the mothers' perceptions of their own symptoms

and their babies. Open questions were used to enlist other problems, which had not been included in the list. These responses were post coded and entered in a computer for analysis.

Data was entered in the Microsoft excel sheet and double checked for errors.The data was analyzed using MS Excel and Epi-info 3.5.3for percentages, chi-square test respectively. Ethical clearance was obtained from the Ethical committee of Kurnool medical college. Thepurpose of the study was explained to all study subjects in their own language and Informed consent was taken from them. They were free to participate in the study and withdraw from it, any time with their voluntary will.

IV. Observations And Results

Socio-demographic profile of the study population:

Out of 270 mothers under study, majority 163(60.4%) were in the age group of 21-25 years followed by 49(18.14%) in 26-30years, 47(17.4%) in 18-20 years and 11(4.07%) in above 30years. Majority 183(67.77%) of the mothers were literates while 87(32.2%) were Illiterates. Among literates 39(14.4%) had primary education, 32(11.8%) secondary education, 60(22.2%) higher secondary education followed by 52 (19.25%) Graduation and Post graduation. Majority 206 (76.3%) of the mothers were house wives while 19(7%) were un-skilled workers i.e. labourers, maids etc., 35 (13%) were semi-skilled and 10(3.7%) were skilled workers.Majority of them belonged to upper and lower middle class i.e. 156(57.8%) belonged to social class-IV, followed by 58(21.4%) to class-III, 51(18.9%) to class-V and only 5(1.9%) to class II&I.(Table 1)

Table 1. Socio-demographic profile of the study population

	Number (270)	**Percentage**
Age distribution (years)		
18-20	**47**	**17.4**
21-25	**163**	**60.4**
26-30	**49**	**18.14**
>30	**11**	**4.07**
Literacy status		
Illiterates	**87**	**32.2**
Primary education	**39**	**14.4**
Secondary education	**32**	**11.8**
Higher secondary education	**60**	**22.2**
Graduate and Post graduate		
Occupation	**52**	**19.4**
Housewives		
Unskilled workers	**206**	**76.3**
Semi-skilled workers	**19**	**7.0**
Others	**35**	**13.0**
Socio-economic status	**10**	**3.7**
Upper class and Upper-middle class (I & II)	**5**	**1.9**
Middle middle (III)		
Lower middle (IV)	**58**	**21.4**
Lower class (V)	**156**	**57.8**
	51	**18.9**

Socio demographic factors	**IFA tablets(%) <100 n=33(12.22%)**	**IFA tablets (%) ≥100 n=237(87.7%)**	**χ2- value & P value**
Education			
Illiterate	10(30.30%)	77(32.5%)	χ2- value = 0.0634 P >0.05(NS)
primary education	3(9.09%)	36(15.18%)	
secondary education	3(9.09%)	29(12.23%)	
higher secondary	10(30.30%)	50(21.09%)	
Others	7(21.21%)	45(19%)	
Occupation			
House wives	26(78.8%)	180(76%)	χ2- value = 0.1841 P>0.05(NS)
Unskilled workers	4(12.12%)	15(6.32%)	
Semiskilled workers	1(3.03%)	34(14.34%)	
Others	2(6.06%)	8(3.4%)	
Socio economic status			
Upper class and Upper middle class(I&II)		1(0.42%)	χ2- value = 0.0000215 P <0.001 (S)
Middle middle class (III)	4(12.12%)	50(21.1%)	
Lower middle class (IV)	8(24.24%)	143(60.33%)	
Lower class (V)	13(39.4%)	43(18.14%)	

	8(24.24%)		

Table.2: Distribution of mothers according relationship between IFA tablets consumption and socio demographic data:

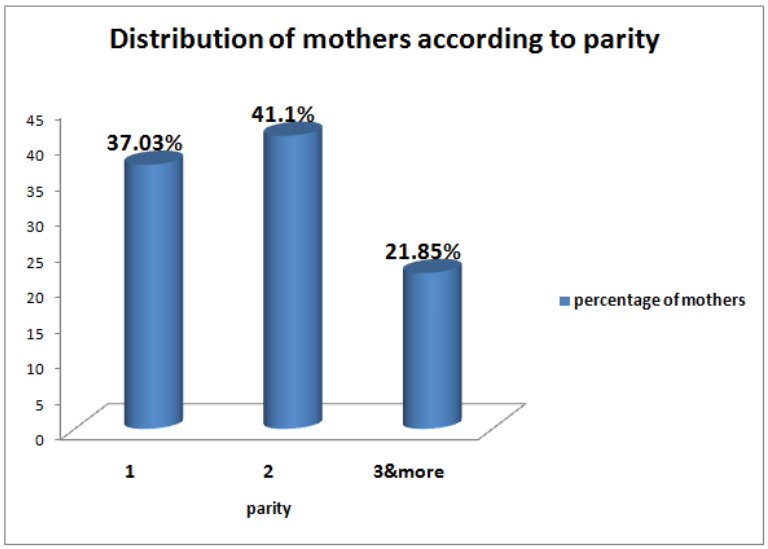
Antenatal Profile

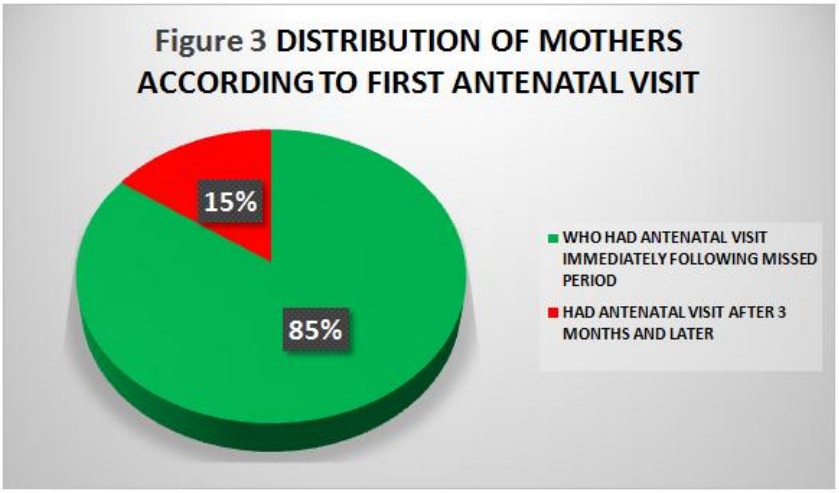
According to parity, 100(37.03%) mothers were pregnant with the first child, 111(41.1%) with second child while remaining 59(21.85%) with third or more shown in fig-1.Out of 270 mothers, majority of mothers (93.3%) had >3 antenatal visits while 13(4.81%) had 3 antenatal visits and only 5(1.9%) mothers had <3 antenatal visits, which is quite a good report shown in table 3.The first antenatal visit is suggested to be immediately following the missed period. In this study, most 229(84.8%) of the mothers had their first antenatal visit immediately following the missed period and remaining 31(15.2%) after three months and later shown in figure 3. Figure 2 showingmajority 259 (95.9%) of mothers had complete immunization and only11 (4.1%) had incomplete T.T. immunization. Reasons for incomplete T.T immunization were found to be either negligence or inaccessibility.In table 4 showing majority of themothers 237(87.8%) had consumed ≥100tablets while 33(12.2%) women had consumed <100 tablets.In figure 4 According to the place of antenatal care, out of 270 mothers, 182(67.4%)mothers had antenatal check-ups at Anganwadicentres while 58(21.5%) at Government general hospital and remaining 30(11.1%) at Private Hospital.

Table.3: Distribution of mothers according to antenatal visits.

Antenatal Visits	**No of Mothers (%)**
<3	5(1.9%)
3	13(4.81%)
>3	252(93.3%)
Total	**270(100%)**

Figure. 1 Distribution of mothers according to parity.





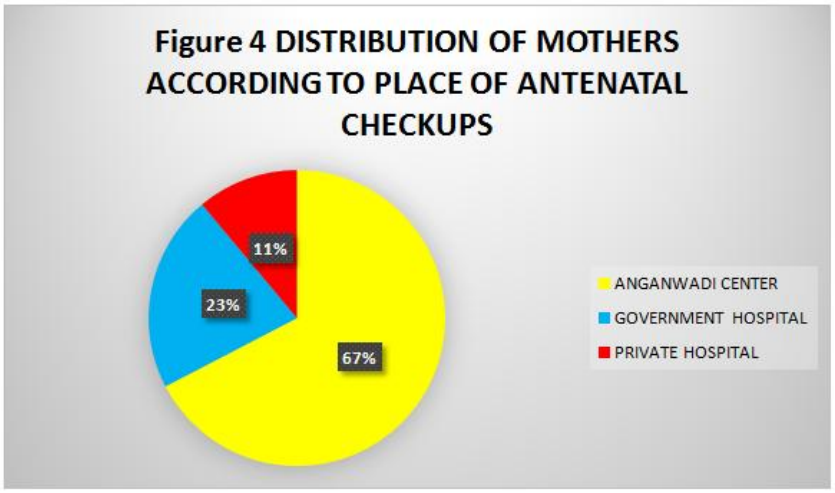


Figure.2: Distribution of mothers according to T.T. Immunisation.

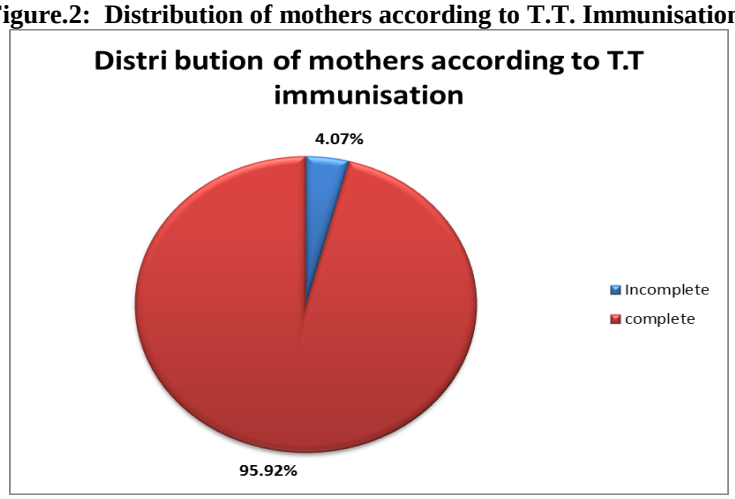


Table.4: Distribution of mothers according to Iron Folic acid tablets consumption.

No of Iron Folic acid tablets	No of Mothers (%)
<100	33(12.2%)
≥100	237(87.8%)
Total	**270(100%)**

In our study, out of 33 mothers who had taken <100 IFA tablets, 24(69.70%) were literates and 10 (30.30%) were Illiterate. Among 237 mothers who hadtaken ≥100 IFA tablets. 77(32.49%) were Illiterates.160

(67.51%) were Literate. This difference was not significant. Out of 33 mothers who had taken <100 IFA tablets, 12(36.36%) belonged to upper and middle class and 21(63.64%) belonged to lower class. Among 237 mothers who had taken ≥100 IFA tablets, 51(21.52%) were of upper and middle classes while 186 (78.48%) was in the lower class. This difference was not significant. Out of 33 mothers who had taken <100 IFA tablets, 26(78.8%) were house wives and 7(21.2%) wereworking mothers. Among 237 mothers who had taken ≥100 IFA tablets 180(75.94%) were house wives and 57 (24.06%) were working mothers. This difference was significant. (Table 2)

V. Discussion

In this study, out of 270 mothers, majority of mothers (93.3%) had >3 antenatal visits while 13(4.81%) had 3 antenatal visits and only 5(1.9%) mothers had <3 antenatal visits which is more than results found in urban slums of Ganda community where in 41.93% mothers had got at least 3-4 recommended ANC check-ups.[10]In a study by Dr.Sidharth Agarwal in slums of Indore76.6% mothers received at least one antenatal check-up, only 40.1% mothers received the recommended three or more check-ups.[11]

In this study, most 229(84.8%) of the mothers had their first antenatal visit immediately following the missed period and remaining 31(15.2%) after three months and later while in a study conducted by Neelima Thakur, ArunKumar[10] in urban slums of Ganda community, majority (77.5%) of the mothers had gone for ANC check-ups during delivery.Roumi Deb[12] found that antenatal care situation is quite discouraging in their study population. Though more than eighty percent received their antenatal check-up but most of them received their first antenatal check in the fifth month of their pregnancy. Further, various socio-economic and cultural factors are influencing the acceptance of antenatal care in this community.

In this study, 182(67.4%)mothers had antenatal check-ups at Anganwadicentres while 58(21.5%) at Government general hospital and remaining 30(11.1%) at Private Hospital which is in contrast with the results of Neelima Thakur, Arun Kumar[10] in which majority (75.80%) of mothers received ANC check-ups from private medical institutes in urban slums of Ganda community .

Majority 259 (95.9%) of mothers had complete immunization and only 11 (4.1%) had incomplete T.T. immunization which is a better report compared to a study by Dr.Sidharth Agarwal[11] in slums of Indore which revealed 82% Women received two tetanus injections during pregnancy.In our study majority of themothers 237(87.8%) had consumed ≥100tablets while 33(12.2%) women had consumed <100 tablets.Neelima Thakur, Arun Kumar [10] in their study found that Very few (29.03%) completed the prescribed course of IFA tablets. Reasons cited by mothers for not consuming appropriate number of IFA tablets were foul smell, tablets were hot and lead to diarrhoea, feeling nausea after eating tablets. In a study by Dr.Sidharth Agarwal[11]in slums of Indore 86.2% received iron and Folic acid tablets and only 11.5% consumed them.

In a similar study by M. Athar Ansari and Z. Khan et al[13] there were 154 currently pregnant women (CPW) and 248 recently delivered women (RDW), of which a majority of CPW (72.1%) and RDW (59.7%) did not have any ANC check-up. 65.1% of CPW and 40.0% of RDW had their first ANC check up in the first trimester. Majority of CPW (53.9%) did not receive any TT Vaccination. On the contrary, most of the RDW (73.0%) had two doses of TT vaccination. Similarly, large number of the CPW (75.3%) and 52.4% of RDW did not receive iron folic acid (IFA) tablets.

Anita Gupta,PragtiChhabra,ATKannan,Gayatri Sharma[14]et al in their study found that majority (92%) of the women received ANC during pregnancy and 76.5% of the respondents in the study had three or more ANC visits which is comparable to our study. Women having lower education and those belonging to lower income groups were more likely to have less than three visits as compared to women with higher education and high income groups ($p<0.05$. About 16.7% of women had not taken iron and folic acid (IFA) tablets while 52.4 % had taken more than 50 tablets during pregnancy. IFA tablets intake was more likely in women married at later age and those with a longer duration of stay in the area ($p<0.05$). About half (51%) of the study subjects had institutional deliveries while 49% had home deliveries. Women married early were more likely to have home deliveries than women married after 18 yrs. Institutional deliveries increased with the education of the respondents. The antenatal utilization was good in the study population, while delivery care utilization was poor.

In a study by Sonia puri et al [15]it was observed that, in urban areas 93.8% mothers had minimum of 3 antenatal visits compared to slums where only 61.9% were registered. Immunization by tetanus toxoid was 90% in urban and 70% in slums. 86.7% mothers in urban area and 44.2% in slum area took iron supplementation (minimum for 3 months). Proportion of mothers who delivered at full term was similar in urban and slum area.

In our study, out of 33 mothers who had taken <100 IFA tablets, 24(69.70%) were literates and 10 (30.30%) were Illiterate. Among 237 mothers who hadtaken ≥100 IFA tablets. 77(32.49%) were Illiterates.160 (67.51%) were Literate. This difference was not significant ($x^2=0.0634$ $p>0.05$). Out of 33 mothers who had taken <100 IFA tablets, 12(36.36%) belonged to upper and middle class and 21(63.64%) belonged to lower class. Among 237 mothers who had taken ≥100 IFA tablets, 51(21.52%) were of upper and middle classes while 186 (78.48%) was in the lower class. This difference was not significant ($x^2=3.5686$ $p>0.05$). Out of 33 mothers

who had taken <100 IFA tablets, 26(78.8%) were house wives and 7(21.2%) were working mothers. Among 237 mothers who had taken ≥100 IFA tablets 180(75.94%) were house wives and 57 (24.06%) were working mothers. This difference was significant(x^2=0.0000251 p<0.001). (Table 2)

VI. Conclusions

In our study, the utilization of antenatal services was good.In comparison with previous studies it is seen that the utilization of antenatal services has improved over the years.

References:

[1]. http://www.un.org/millenniumgoals/index.html Powered by Joomla! Generated: 5 November, 2012, 17:24.
[2]. Women of our world. Population Reference Bureau, February 2005
[3]. 5. X.F. Li et al., "The Postpartum Period: The Key to Maternal Mortality," International Journal of Gynaecology and Obstetrics 54 (1996): 1-10.
[4]. Park K. Park's Textbook of Preventive and Social Medicine. 21sted, Jabalpur: M/s BanarasidasBhanot Publisher; 2011. p.517.
[5]. Pratibha Gupta, VK Srivastava, Vishwajeet Kumar, Savita Jain, Jamal Masood, Naim Ahmad, and JP Srivastava "Newborn Care Practices in Urban Slums of Lucknow City, UP" Indian J Community Med. 2010 January; 35(1): 82–85.
[6]. NHFS-3 survey page no-192 to 222.
[7]. Dr.Sidharth Agarwal., " Maternal and Newborn Care Practices Among the Urban Poor in Indore"06.06.2009.
[8]. NPP
[9]. NRHM
[10]. Neelima Thakur, Arun Kumar in their study titled "A Study on Delivery and Newborn Care Practices in Urban Slums of Ganda Community Antrocom" Online Journal of Anthropology 2012, vol. 8. n. 1 – ISSN 1973 – 2880.
[11]. Dr.Sidharth Agarwal., " Maternal and Newborn Care Practices Among the Urban Poor in Indore"06.06.2009.
[12]. Roumi Deb "Utilization of Services Related to Safe Motherhood among the Tribal Population of East Khasi Hills (Meghalaya)": An Overview Ethno-Med., 2(2): 137-141 (2008).
[13]. M. Athar Ansari and Z. Khan et al in their study titled "Antenatal care services in rural areas of Aligarh, India: A cross-sectional study" Journal of Public Health and Epidemiology Vol. 3(5), pp. 210-216, May 2011.
[14]. Anita Gupta,PragtiChhabra,ATKannan,Gayatri Sharma "Determinants of utilization pattern of antenatal and delivery services in an urbanized village of east Delhi "Indian J. Prev. Soc. Med. Vol. 41 No.3 and 4, 2010
[15]. Puri, V. Bhatia, M. Sharma, H. M. Swami & C. Magnet: "Comparison of Prevalent Newborn Rearing Practices, In Urban and Slum Population Of Chandigarh, Ut, India". The Internet Journal of Paediatrics and Neonatology 2008; 9(1):25-27.