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A STUDY OF ASSESSMENT OF MATERNAL HEALTH SERVICE UTILIZATION IN RURAL AREA OF SURAT DISTRICT BY MULTI INDICATOR CLUSTER SURVEY

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ABSTRACT

Introduction: Multi Indicator Cluster Survey (MICS) method is popular for assessment of health service coverage.

Aims and objectives: To know utilization of health care services among women who delivered in last year (2010-11).

Methodology: Cluster sampling methodology was used to select 30 clusters. In each cluster minimum 8 women who delivered in last year were interviewed for maternal health service utilization indicators like ANC services, Intra natal services and PNC services.

Result: 96.35% women received at least ANC services. Approximately one out of five deliveries was home deliveries and rate of caesarean section was 12.8%. Approximately half of women were visited for post natal care by government health providers.

Conclusion: Iron folic acid consumption and promotion of institutional delivery were key issues. Quality of maternal health care services remains an issue and should be strengthened to improve maternal indicators.

Key Words: Antenatal care, Maternal health, Service utilization.

INTRODUCTION

The Multi Indicator Cluster Survey (MICS) was originally developed in response to the World Summit for Children to measure progress towards an internationally agreed set of mid-decade goals.¹The MICS technique proposed by the World Health Organization (WHO) with 15 or 30 clusters is a popular method for rapid assessment of health service coverage and their impact evaluation. Since long the MICS has enabled to produce statistically sound and comparable estimates of a range of indicators especially in the areas Maternal and Child Health (MCH) care. MICS findings have been used extensively as a basis for policy decisions, programme interventions and for the purpose of influencing public opinion on the situation of

children and women. The basic idea of this survey is to analyse the present situation of maternal health service utilization. Because of increased accessibility of health care services in both urban and rural areas, an increase was expected in the utilization of the services; however, studies reveal low utilization of health care services including maternal health care services by different segments of the society.²

METHODOLOGY

Surat District is situated in the south geographical region of the Gujarat state and having population of 4.99 million (as per census 2001). The rural population of the district Surat is 19, 99,357 (10, 26,584 males and 9, 72,772 females). Surat

district is having 9 blocks. There are total 1278 villages in Surat rural.

Sampling Method and procedure

30 cluster sampling method (which was evolved for immunization coverage evaluation) was adopted. This method is based on Probability Proportional to Size (PPS) for cluster selection.³ The sampling unit was the village for the survey. The list of villages of Surat district with their population was availed from Jilla Panchayat, Surat. Cumulative population was calculated and this cumulative population will be divided by 30 to get Cluster Interval (CI). Random number was selected from random table to select the first Cluster (village). With the help of cluster interval and random number the remaining clusters were selected. Thus these selected clusters were the representative of the rural district situation for the maternal health indicators. Urban areas of Surat district were excluded from sample selection. Study was conducted during year February-March 2011 where data of last year (2010-11) were taken.

Data Collection

In each cluster, team of 4 members was formed to do data collection. Each cluster was divided in to arbitrary equal quadrants considering the natural boundaries to get better representation of cluster. The first house was selected randomly with the help of last digit of the currency note. Then data collection was done on house to house basis till the desired sample size was achieved. House to house data collection was continued till 2 children of age 12-23 and 2 women who delivered in last year were surveyed in each quadrant. So at the end of each cluster, 8 children of 12-23 months whose mother was respondent and 8 women who delivered in last year was surveyed. The standard pre designed semi-structured Performa was used for the survey. The Performa was piloted and revised before the actual survey was taken up. One day training with field piloting of questionnaire was organized for all investigators to maintain uniformity of data collection. Data were entered in computers using Microsoft Excel Software. The analysis of data was carried out with the help of Microsoft Excel and Epi. Info software.

Composition of team

Each team comprised of one Assistant Professor or Post MD Tutor as supervisor of team and three field investigators (Tutor / Resident doctors) for data collection.

Filled proforma were cross checked by supervisors at field level and necessary corrective measures were taken at field level to maintain the quality of data.

RESULT

Total 30 clusters were covered as per decided in methodology. Average family size was found 5.4. Total 274 women in 1750 houses were interviewed in total of 30 clusters.

Ante Natal Care (ANC)

Out of 274 women who delivered in last one year, 10 women had not received any ante natal care. Out of 264(96.35%) who received ante natal care 85.7% received it for three or more times while 10.9% received it for two times and 3.4% received it for a single time during their pregnancy. 47.6% women went to government facilities for ANC check up while 42.3% had used private health facilities. 5.5% women used Trust hospitals for ANC checkups. 4.6% used more than one facility for receiving ANC. In 62.9% cases check up was conducted by doctor and in 35.5% cases by Auxiliary Nurse Midwife (ANM)/Nurse/Lady Health Visitor (LHV). Blood Pressure was ever measured in 93.6%. Abdominal examination was performed on 91.3% women. Out of total 274 women, 93.8% received TT injection (2 TT for first pregnancy and booster for second). 4.0% women denied that they had not received injection TT during their pregnancy and 2.2% women were not able to recall. 16.3% women received only one dose of TT while 83.7% received complete two dose of TT or booster TT.

Out of Total 274 women 94.2% (258) had received Iron/Folic Acid (FA) tablet ever during their pregnancy. From these 5.0% had received less than 30 tablets, 12.8% had received 30-59 tablets, 16.7% received 60-89 tablets while only 65.5% had received 90 or more tablets of iron-folic acid. Only 58.5% women took 90 or more tablets of iron folic acid. [Table 1]

Janani Suraksha Yojana (JSY)

National Maternity Benefit scheme has been modified into a new scheme called Janani Suraksha Yojana, which was launched on 12th April 2005 with the objective of reducing maternal and infant mortality by promoting institutional deliveries⁴

Table 1: Iron Folic acid tablet consumption by women delivered in last one year

No of tablets	Women who had received Iron- Folic Acid tablets (N= 258) (%)	Women who had consumed Iron - Folic Acid tablets (N= 258) (%)
<30	13 (5)	20 (7.8)
30-59	33 (12.8)	37 (14.3)
60-89	43 (16.7)	50 (19.4)
90 or more	169 (65.5)	151 (58.5)

Out of 274 women who delivered in last one year, 176 belonged to Below Poverty Line (BPL) families. Out of those 176, only 75 (42.6%) got benefits of JSY while majority 57.4% women in spite of from BPL families did not get JSY benefits for the one or the other reason.

Intranatal Care

Out of total 274 women delivered in last year, 212 (77.3%) deliveries were institutional while 22.7% deliveries were conducted at home. Normal deliveries were in 87.2% women while 1.8% deliveries were conducted by Caesarean section. [Table 2]

Table 2: Intra natal service used by women delivered in last one year

	Women(%)
Place of Delivery (N=274)	
Government Hospital(other than PHC)	55 (20.1%)
Private Hospital	127 (46.3%)
Trust/ Non Govt. Organization hospital	22 (8.0%)
Primary Health Centres (PHCs)	8 (2.9%)
Home	62 (22.7%)
Type of delivery (N=274)	
Normal Vaginal Delivery	239 (87.2%)
Caesarean Section	35 (12.8%)
Mode of travel(N=212)	
108 service	69(32.6%)
Hired vehicle	62 (29.2%)
Personal vehicle	71 (33.5%)
Other	10 (4.7%)
Accompanied by(N=212)	
Accredited Social Health Activist (ASHA)	13 (6.1%)
Auxiliary Nurse Midwife (ANM)	4 (1.9%)
Anganwadi Worker (AWW)	10 (4.7%)
No one	185 (87.3%)

Out of 212 institutional deliveries, when inquired it was found that in 12.3% deliveries hospital stay was for less than one day while in 48.1% it was for 24-48 hrs. 37.7% stayed in hospital for 2-7 days while 1.9% stayed for more than 7 days.

Post Natal Care:

Out of 274 women who delivered in last one year in 50.7%, post natal visits(PNC) was made by

AWW/ASHA/FHW at home, Out of these in 31.6% only one visit was done, in 39.6% cases two PNC visits were done. Three or more visits were made in only 6.5% of cases. 56.1% new born was examined on the same day while 23% was examined in 2-3 days.15.1% new born were examined in 4-7 days while 5.8% were examine after 7 days of their birth.

DISCUSSION

Quality antenatal checkups for pregnant women as per guidelines are prerequisite for a healthy mother and baby. In this study, we found that during ANC, blood pressure was measured in 93.6% women and abdominal examination was performed in 91.3% women, while in National Family and Health Survey (NFHS) 3 in Gujarat blood pressure was measured in 73.1% women and abdominal examination was performed in 81.7% women during ANC checkups which is low as compared to this study.⁵ Percentage delivery by caesarean section was 8.9% and in rural area it was just 5.5% in NFHS 3 in Gujarat while in this study it was high (12.8%).⁴ 47% and 42.2% deliveries were conducted at home in Gujarat as per NFHS 3 and District Level Household and Facility Survey respectively. The rate of home delivery was 22.7% in this study which is low compared to state.^{5,6} In this study 42.6% BPL beneficiaries got JSY benefits while in a study by Stephen S Lim et al found that from less than 5% to 44% of women giving birth receiving cash payments from JSY.⁷ Availability and accessibility of health services are now not the issue of concern. It is the low service utilization in Surat district which was demonstrated by poor utilization of ANC services. i.e. 90 or more iron folic acid consumption by only 58.5% of women. In spite of availability of JSY and Chiranjeevi Yojana (CY) in Gujarat which promote institutional deliveries, 22.2% deliveries conducted at home was also suggest low utilization of services.⁸ Results from the survey indicate that only 48% of the newborns received any PNC check-up within 24 hours of birth.⁹ Similarly, in this study, it was found that 50.7%, post natal

visits (PNC) was made by AWW/ASHA/FHW at home. Measures should be directed to utilize all available health services to improve the maternal health. Intensive Information, Education and Communication (IEC) activities and .behaviour change is required for maximum utilization of maternal health services. For making maternal health better and to reduce reproductive loos it is must to ensure utilization of health services which are available.

CONCLUSION

In spite of availability and accessibility of maternal health services in Surat district, utilization of few components like iron folic acid consumption and promotion of institutional delivery still remain key issues. Though maternal health care services are utilized, its quality should be strengthened to improve maternal indicators in the district. Post Natal Care (PNC) should be strengthened in the district.

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