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## **Performance of national rural health mission among women and children in East Godavari district of Andhra Pradesh**

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### **Abstract**

The study was focused on the impact of National Rural Health Mission (2005-2012) on rural women in East Godavari district of Andhra Pradesh. The study was covered in two divisions viz., Kakinada and Rampachodavaram. From each division 80 eligible women respondents were selected for the study. The main objective of the paper is to analyse the pre- and post-natal care and child rearing practices among women in the study area. Three-fourths of the women have received 6-10 times of ante-natal check-ups in the study area. More than half of the eligible women in Kakinada go to the Government hospitals and it is only 15 percent in Rampachodavaram. About 45 percent of deliveries took place at private hospitals in Kakinada. Surprisingly home deliveries are reported more among women in Rampachodavaram (84%). The children in Rampachodavaram division ranking relatively less in the coverage of vaccinations compared to Kakinada division. The study suggests that the participation levels of the public institutions like CHCs, PHCs, and Sub-Centres have to be increased further in the implementation of NRHM and improving the quality of these institutions and this leads to effective functioning of health care delivery system in rural areas and more particularly interior tribal villages.

**Keywords:** national rural health mission, women and children, East Godavari

### **Introduction**

Public health care system in rural areas in many States and regions is in shambles. Extreme inequalities and disparities persist both in terms of access to health care as well as health outcomes. This large disparity across India places the burden on the poor, especially women, Schedule Castes and Scheduled Tribe. One of the objectives of 11<sup>th</sup> Five Year Plan is to achieve good health for people, especially the poor and the underprivileged. Importance will be given to reducing disparities in health across regions and communities by ensuring access to affordable health care. Universal screening of pregnant women using appropriate Ante-Natal Care (ANC) is essential for the detection of problems and risk during pregnancy for referral to appropriate hospital for treatment.

Reproductive health of the women means that they have the ability to reproduce and to regulate their fertility; and are able to undergo pregnancy and child birth safely. Government of India initiated Reproductive and Child Health Programme in 1997, which aim to meet the reproductive health needs of women. Government is engaged in the task of promoting reproductive health of women. The momentum achieved in implementing the programme is remarkable but it has become significant to know the avenues where the programme is lacking, issues that should be emphasized in Reproductive Health Care and the critical areas that needed to be addressed.

The National Rural Health Mission (2005-2012) was launched by the Government of India (GoI) in 2005-06 to provide effective health care to rural population in the country with special focus on states which have poor health outcomes and inadequate public health infrastructure and manpower. The primary focus of the mission is to improve access of rural people, especially women and children to equitable and affordable primary health care. The main goal of NRHM is to reduce Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) by promoting newborn care, immunization, ante-natal care, institutional delivery and post-partum care.

## Review of literature

Ramchandrudu G (1996) has observed from NFHS data in Indian society, two thirds of women are illiterate and the age at marriage is 15 years, the scope of high risk pregnancies is maximum. In Andhra Pradesh nearly 88 percent of the pregnant women are receiving ante-natal care either at home or in a hospital. This is significantly. Higher than Uttar Pradesh State. In which only 45 percent are receiving such care. However, it is lower than that of Kerala State (98%) and Tamil Nadu (94%). In Andhra Pradesh two - Thirds of deliveries are conducted at home. No doubt, the government is taking steps to utilise the service of Dais by giving them special training, but Institutional delivery is the safest one in Uttar Pradesh 88 percent of deliveries are conducted at home when compared to 11 percent in Kerala and 35 percent in Tamil Nadu.

Shireen J Jejeebhoy (1997) <sup>[2]</sup> study addressing women's reproductive health needs Priorities for the Family Welfare Programmes' noted that population dynamics, quality of life and women's status are closely interrelated argues strongly for a fresh look at India's population Programme. Strategies to broaden the narrow focus of services, and more important, to put women's reproductive health services and information needs in the forefront are urgently required. What are the gaps in women' reproductive health care, what are the constraints women face in accessing quality health care.

Kumar R (1997) <sup>[3]</sup> in his study six hundred married women of 15-45 years age group were interviewed in 4 villages of the district Ambala in Haryana. Impact of Health Centre (HC) availability on the knowledge, opinion and practices related to maternity care and pregnancy outcome was assessed after adjusting the effect of socio-economic status. Except 17 women (2.8%), everyone knew at least one correct purpose of Ante-natal Care (ANC) and 98.2 percent women had contacted health staff for ANC. However, knowledge of the respondents about the components of ANC was found to be poor in study villages. Traditional Birth Attendants (TBAs) conducted delivery in 76.1 percent cases in Sub-Centre (SC), 75.6 percent in villages without a HC compared to 49.8 percent in Primary Health Centre (PHC) village. However, preference for TBAs in PHC village was 14.9 percent, in SC village 33.5 percent, and in villages without HC 36.3 percent. Among respondents having better awareness about ANC components, preference and utilisation of modern delivery attendants was found to be higher. For maternity illnesses, consultation rate of government functionaries was 67.9 percent in PHC village, 52.2 percent in SC village and 55.8 percent in villages without a HC. Perinatal mortality rate of 76.0/1000 births in villages without HC was not significantly different from the rate of 87.4/1000 in SC village but rate of 38.9/1000 in the PHC village was significantly lower. Awareness and availability of modern maternity services were found to have significant influence on the health seeking behaviour and pregnancy outcome.

Sharad Kumar Singh, *et al.* (2012) <sup>[4]</sup> study envisaged providing affordable and quality health care to the poorest households in the remotest regions of the country. This mission has encouraged changes in the pattern of place of delivery. Innovations under NRHM like Janani Surakhsha Yojana (Maternity Security Scheme), Accredited Social Health Activists (ASHA), Delivery Huts, 24x7 Primary Health Centres and Community Health Centres, and Medical Obstetric Care in First Referral Units have paved the way for increased utilization of health institutions for child birth. The

association of increase in hospital deliveries with decline in the prenatal mortality rate in rural India after the launch of NRHM in 2005 was assessed using the Sample Registration System reports. Relatively increase in hospital deliveries was 57 percent from year 2005 to 2008 but relative decline in the PNMRR was only 2.5 percent in the rural areas of Indian states. Hence, quality of care at the time of childbirth needs to be assessed.

## Objectives of the study

- ✓ To analyse the socio- economic features of women sample respondents in Rampachodavaram and Kakinada divisions
- ✓ To examine pre- and -post natal check-ups among women respondent in the study area.
- ✓ To find out child rearing practices among women respondents in the study area
- ✓ To suggest policy measures for improving the rural health services in order to improve the health status of women in the rural areas.

## Methodology

East Godavari is one of the highly developed districts in Andhra Pradesh and is the first district that achieved demographic transition of low birth and death rates. East Godavari District has been chosen for intensive study purposively. The rationale for selecting this particular District is that East Godavari District in Andhra Pradesh is one of the developed districts and NRHM is being implemented since 2006. The study proposes to analyse the impact of NRHM on reproductive health indicators of rural eligible women (15-49) in the two sample divisions in the District. The study is selected two divisions namely Rampachodavaram and Kakinada in East Godavari district and from each division 80 eligible women respondents with the help of the stratified random sampling technique to give due representation to different strata of the society. By selecting 20 eligible women respondents from each Sub-Centre. The total Sub-Centres are eight, four in each division. Thus, 160 eligible women respondents have been covered for intensive Study. Information was collected through a pre-structured questionnaire from all the eligible women sample respondents in the study area. The reference period of the study is 2009-12.

East Godavari District has five revenue divisions viz., Rampachodavaram, Amalapuram, Kakinada, Peddapuram and Rajahmundry. Among these five divisions, the study was selected two divisions i.e., Rampachodavaram and Kakinada divisions. The former represents tribal area and the latter consists of non-tribal area.

## Findings of the study Socio-Economic and Demographic Features

Socio-economic features of the sample respondents includes caste, age, literacy status, type of house, type of fuel used, source of drinking water etc., are presented in Table-1. Almost all the eligible women respondents belongs to Scheduled Tribes in Rampachodavaram division while in Kakinada division, backward classes (41%) are dominant followed by other caste (31%) and Scheduled Caste (28%).

On whole majority of the eligible women respondents are in the age group of 15-24 years (51.2%) and 42.5 percent in the age group of 25-34 in the study area. Across division -wise, the highest percentage of eligible women in the age group of 15-24 are in Kakinada (61.2%) and it is 41.2 percent in Rampachodavaram division. This shows that the eligible

women are younger in Kakinada compared to Rampachodavaram division.

More than 81 percent of eligible women are literate in Kakinada while it is only 34 percent in Rampachodavaram. In Rampachodavaram division two-third of women are illiterates (66.2%). Housing is one of the critical variables which improve the status of a household. The division-wise analysis shows that in Rampachodavaram 80 percent of the households are living in Kutcha houses because of their backwardness and only 20 percent in semi-pucca and no single household in pucca house. In Kakinada division, 37.5 percent households are living in semi-pucca houses, 35 percent are living in pucca houses and the remaining 27.5 percent are living in kutcha houses.

**Table 1:** Socio-Economic Features of Women Respondents in the Study Area

Item	Rampachodavaram		Kakinada		Total	
	No	%	No	%	No	%
<b>Caste Group</b>						
Schedule Caste	-		22	27.5	22	13.8
Schedule Tribe	80	100	-		80	50
Backward Classes	-		33	41.2	33	20.6
Other Caste	-		25	31.3	25	15.6
<b>Age Group</b>						
15-24	33	41.2	49	61.2	82	51.2
25-34	37	46.3	31	38.8	68	42.5
35-49	10	12.5	-		10	6.3
<b>Literacy Status</b>						
Literate	27	33.8	65	81.2	92	57.5
Illiterate	53	66.2	15	18.8	68	42.5
<b>Type of House</b>						
Kutcha	64	80	22	27.5	86	53.8
Semi-Pucca	16	20	30	37.5	46	28.8
Pucca	-		28	35	28	17.4
<b>Source of Drinking Water</b>						
Piped water	22	27.5	46	57.5	68	42.5
Dug well	2	2.5	-		2	1.2
Protected well	1	1.3	-		1	0.6
Unprotected well	-		21	26.2	21	13.1
Water from Spring	55	68.7	-		55	34.4
Mineral Water	-		13	16.2	13	8.1
<b>Toilet Facility</b>						
Yes	1	1.2	50	62.5	51	31.9
No	79	98.8	30	37.5	109	68.1
<b>Type of Cooking Fuel Used</b>						
LPG/natural gas	-		47	58.8	47	29.4
Fire Wood	80	100	33	41.2	113	70.6
Separate Kitchen Room	51	63.8	77	96.2	128	80.0
Electricity (yes)	62	77.5	80	100	142	88.8
Own Land (in acres)	76	95.0	45	56.3	121	75.6

Source: Field Survey

Electricity is an important ingredient of modern living. Electricity is necessary to obtain necessities, comfort and luxuries. For necessary purpose people use electrical bulbs, for comfort people use fans and for luxury people use TV, refrigerator, AC etc., which are run by electricity. For many people, life may come to standstill without electricity. Rampachodavaram division 77.5 having electricity facility, Kakinada cent percent of the sample households are having electricity facility in the study area. About 23 percent sample households still do not have electricity facility in Tribal areas. It is observed that 95 percent of the households are having own land in Rampachodavaram while it is

56.3 percent in Kakinada.

**Ante-Natal Check-ups**

The knowledge about last pregnancy of the sample women shows that most of the women in two selected revenue divisions of East Godavari district reported that they came to know about their pregnancy within three months of conceiving and very few came to know after completion of three months of pregnancy. These details are shown in Table-2. Majority of the sample households depend on spring water (69%) and 28 percent them used piped water for drinking purpose in Rampachodavaram whereas 58 percent depend on piped water, 16 percent used mineral water and 26 percent of households used unprotected well water for drinking purposes in Kakinada division. Overall 32 percent of the households possess toilet facility in study area. In Rampachodavaram division almost all the households do not have any toilet facility and Kakinada division 63 percent of the households having toilet facility.

Availability of modern fuel is another important indicator determining the levels of living conditions of the people. The clean fuels make cooking easy and free the women from the drudgery of cooking. On the other hand, cooking with firewood causes indoor air pollution and causes several diseases like Astama, TB, eye irritation, chronic bronchitis etc. In Rampachodavaram division cent percent households are depending on firewood for cooking purpose. On the other hand, in Kakinada division nearly 60 percent of the households are using modern fuel for cooking purpose. Availability of separate room for kitchen also is an important indicator that determines the level of living conditions of the people. In Rampachodavaram 64 percent and 96.2 percent in Kakinada division are having a separate room for kitchen. The data reveal that above three-fourths of the women have received 6-10 times of ante-natal checkups (64.4%) while a significant number of women received 1-5 times of ante-natal checkups (30%) in the study area. In Rampachodavaram division, 52.50 percent of women have received 1-5 times of ante-natal checkups and 47.5 percent have received 6-10 times of ante-natal checkups and it is 7.5 and 81.2 percent in Kakinada division.

**Table 2:** Number of Ante-natal Checkups by the Sample Respondents in the Study Area

Ante-natal Checkup	Rampachodavaram		Kakinada		Total	
	No	%	No	%	No	%
<b>Receive first ante-natal checkup</b>						
Within Three Months of Pregnancy	31	38.8	62	77.5	93	58.1
After Three Months of Pregnancy	49	61.2	18	22.5	67	41.9
<b>Number of times of ante-natal care received</b>						
1-5	42	52.5	6	7.5	48	30.0
6-10	38	47.5	65	81.2	103	64.4
10 above	-	-	9	11.2	9	5.6

Source: As ex ante

**Ante-Natal Care**

In ante-natal care the pregnant women undergo through different kinds of checkup like weight, height, blood pressure, blood, urine, abdomen, breast examined, sonogram or ultrasound, delivery date, delivery advice, nutrition advice, etc. these detail are presented in Table-3.

**Table 3:** Ante-Natal Care by the Sample Respondents in the Study Area

Ante-Natal Care	Rampachodavaram		Kakinada		Total	
	No	%	No	%	No	%
Weight	64	80	80	100	144	90.0
Height	64	80	80	100	144	90.0
Blood Pressure	41	51.2	80	100	121	75.6
Blood	42	52.5	80	100	122	76.2
Urine	37	46.2	80	100	117	73.1
Abdomen	28	35	80	100	102	63.7
Breast Examined	15	18.8	80	100	95	59.4
Sonogram or Ultrasound	5	6.2	77	96.2	82	52.5
Delivery Date	35	43.8	80	100	115	71.9
Delivery Advice	50	62.5	80	100	130	81.2
Nutrition Advice	60	75	80	100	140	87.5

Source: As ex ante

In Kakinada division almost all the pregnant women have received all the checkups under ante-natal care, but in the case of Rampachodavaram division 80 percent of the women checkup their weight and height, a majority group of women got delivery advice and nutrition advice, above 50 percent checkups their blood pressure and blood test, and the remaining checkups are done to a limited number of women in Rampachodavaram. Very few of the women in this division have gone through breast examination and ultrasound tests. The study observed that there is need to create awareness levels among tribal women in these important aspects during their pregnancy.

#### Iron and Folic Acid (IFA) Tablets/ Bottles

Information was elicited from the eligible women on Iron and Folic Acid Tablets/ Bottles Received in the study area are shown in Table-4. Majority of the eligible women in two selected divisions of East Godavari district have received 61-100 IFA tablets/bottles during their pregnancy(79%) in the study area, while 94 percent in Kakinada and 65 percent of pregnant women in Rampachodavaram were received those tablets. It also observed from the table that a majority group of women in Kakinada have received 1-5 bottles of IFA syrup during their pregnancy period, but 92.5 percent of women in Rampachodavaram division did not received any IFA syrups. The data indicates that a higher number of pregnant women have received the highest number of IFA bottles/tablets and syrup in Kakinada division. Almost all the women respondents received tetanus injection during the period of pregnancy in the study area.

**Table 4:** Iron and Folic Acid Tablets/ Bottles Received by the Sample Respondents

IFA Tablets/ Bottles	Rampachodavaram		Kakinada		Total	
	No	%	No	%	No	%
<b>Receive IFA Tablets</b>						
None	1	1.2	-	-	1	0.6
1-30	5	6.3	-	-	5	3.1
31-60	22	27.5	5	6.2	27	16.9
61-100	52	65	75	93.8	127	79.4
<b>IFA Syrup</b>						
None	74	92.5	32	40	106	66.2
1-5 bottles	6	7.5	48	60	54	33.7
Tetanus Injections	80	100	80	100	160	100

Source: As ex ante

#### Place of Last Delivery

Information was collected from the eligible women on the place of delivery. The place delivery includes Government hospitals, private hospitals and at home. It can be observed that nearly 44 percent of last deliveries took place at their homes and 33 percent in the Government hospitals and only 23 percent took place in the private hospitals in the study area. In case of divisions, more than half of the eligible women in Kakinada go to the Government hospitals while it is only 15 percent in Rampachodavaram. Surprisingly home deliveries are reported more among women in Rampachodavaram (84%) where as it almost negligible in Kakinada (4%). About 45 percent of deliveries took place at private hospitals of women in Kakinada. Rampachodavaram division is belongs to tribal area where the medical and hospital facilities are less. Such that, many of them prefer deliveries at their own houses with the help of relatives, friends, ANMs and health workers who are available them.

#### Check-ups of Child within 24 hours of Birth

After the delivery of every child the baby has to undergo check-ups within 24 hours. Otherwise the baby may be infected with virus or some complicated problems may arise. Hence, in this connection an attempt has been made here to know about how many women responded for new born babies carried out check-ups within 24 hours of birth. The study found that overall 69 percent of women respondents expressed that the new born babies are check-ups within 24 hours of their birth in the study area. Women in Kakinada (96%) division the new born babies took for check-ups within 24 hours of birth where as in Rampachodavaram division it is accounted for only 43 percent it's because most of the deliveries in this division took place at their homes.

#### Type of Vaccinations

Immunisation is a simple and effective way of protecting children from serious diseases. It not only helps to protect individuals, but also protects the broader community by minimizing the spread of diseases. Vaccines work by triggering the immune system to fight against certain diseases. There are various vaccinations presently available to immunise the children immediately after their birth. Some of these vaccines are Bacilli Chalmette Guerin (BCG), Polio-0, Diphtheria-Pertussis-Tetanus (DPT)-1, 2, and 3, Polio-1,2, and 3, Measles, Vitamin-A etc., details of vaccination given to the new born babies in the study area are presented in Table-5.

**Table 5:** Distribution of Sample Respondents by Type of Vaccination

Vaccination	Rampachodavaram		Kakinada		Total	
	No	%	No	%	No	%
BCG	74	97.4	80	100	154	96.2
Polio-0	74	97.4	80	100	154	96.2
DPT-1	65	85.5	76	95	141	88.1
DPT-2	63	82.9	73	91.2	136	85.0
DPT-3	46	60.5	65	81.2	111	69.9
Polio-1	65	85.5	76	95.0	141	88.1
Polio-2	63	82.9	73	91.2	136	85.1
Polio-3	46	60.5	65	81.2	111	69.9
Measles	44	57.9	46	57.5	90	56.2
Vitamin-A	42	55.3	39	48.8	81	50.6

Source: As ex ante

Most of the newly born babies have been given BCG (96%) and Polio-0 (96%) vaccination in the study area. Regarding DPT-1, and Polio-1, 96 percent of the children are covered each while the doses like 2 and 3 have not been equally vaccinated. Measles and Vitamin-A vaccines are given only to 56 and 51 percent of children respectively. Across divisions, there are wide variations in different vaccinations, a significant number of children have given almost all vaccinations except measles and vitamin –A Kakinada division compared to Rampachodavaram division. The data clearly reveals that the children in Rampachodavaram division ranking relatively less in the coverage of vaccinations.

### **Conclusion**

To sum up, majority of the eligible women respondents are in the age group of 15-24 years in the study area. More than 3/4<sup>th</sup> of eligible women are literate in Kakinada while it is only 34 percent in Rampachodavaram. About 69 percent of households depend on spring water and only 28 percent used piped water for drinking purpose in Rampachodavaram where as 74 percent using protected water in Kakinada. In Rampachodavaram division cent percent households have used firewood and about 60 percent using modern fuel for cooking purpose in Kakinada. Three-fourths of the women have received 6-10 times of ante-natal checkups in the study area. More than half of the eligible women in Kakinada go to the Government hospitals and 45 percent of deliveries took place at private hospitals in Kakinada. Surprisingly home deliveries are reported more among women in Rampachodavaram (84%). The children in Rampachodavaram division ranking relatively less in the coverage of vaccinations compared to Kakinada division. Based on the field observation, the study suggests that the participation levels of the public institutions like CHCs, PHCs, and Sub-Centers have to be increased further in the implementation of NRHM and improving the quality of these institutions and this leads to effective functioning of health care delivery system in rural areas and more particularly interior villages. Proper information is required whenever medical camps are conducted. According to field observation, this is a major setback in the rural areas. Therefore, there is a need to spread through Information, Education and Communication (IEC), wall posters, TVs, screens in the interior tribal villages.

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