

Improvement in the Quality of Reproductive Health Care Services: Analyses of RCH Intervention project in one of the backward states of India

By
P.K. Bhargava *
Ragni Bhargava**

Abstract

The main objective of the paper is to analyze the impact of RCH activities, undertaken during 2002-04 in 50 villages in one of the demographically backward state (Rajasthan) of India, on improvement in maternal and child health care services. Using Probability Proportional to Size Sampling (PPS) 250 target women (i.e.; pregnant women, lactating mothers and eligible couples) were selected from 10 villages for in-depth interview. In addition, information was collected from the major stakeholders on various aspects of the program management. Analyses indicate that ANC services and coverage found to be satisfactory but postnatal care was lacking. Women preferred home deliveries than in hospital due to various traditional, socio-cultural and economic factors. Colostrums feeding found almost universal. Complete immunization to children was quite low. There was unmet need for contraception but husband was the main decision maker for contraception. Knowledge about HIV/ AIDS found to be very poor. Such intervention model could be replicated in other villages too with necessary modifications to achieve the desirable goals of the RCH program.

Introduction

To ensure the health of the mother and child, the reproductive and child health program in India aims to provide pregnant women with at least three antenatal check-ups, two doses of tetanus toxoid vaccine and iron and folic acid supplementation during pregnancy for at least three months. In addition, the program encourages institutional deliveries or home deliveries attended by a trained medical professional, and three post natal visits. In order to improve the availability & quality of reproductive & child health services at the grass-roots level an intervention project for a period of two years covering 50 villages with a population of 50,000 was launched by Population Foundation of India in one of the demographically backward states – Rajasthan of India. Prior to inception of the intervention program, as per base line survey, it was observed that RCH services in the region were very poor. Most of the villages were underserved in terms of government health facilities and functionaries. About 97% of the deliveries take place at home by the untrained birth attendants (Dais) who significantly contributes to maternal and infant deaths in the villages. The CPR was less than 30% in the region. The IMR was 98 /1000 live births. The immunization coverage was also very poor (25%). Other diseases commonly prevalent in the region were tuberculosis, diarrhea, ARI, RTI etc. Through the intervention proposed under the project it was expected to substantial improvement with regard to the availability, acceptability and utilization of the RCH services within the community in the targeted villages.

*Director, Population Research Centre, Dharwad, India

** General Secretary, Population Action, Sustainable Development and Educational Research, Delhi, India

The intervention project was launched from March 2002 to February 2004. Various activities were organized during the period of two years. It includes identification, training and empowerment of local health practitioners, establishment of health centers, availability of the medicine kits, selection of local health service providers, promotion of safe deliveries through trained TBA, training of female health worker, promotion of self help groups (SHGs) in each of the villages, formation of village health committee, organization of health exhibitions, ANC checkup, FP services, awareness about RTI/STD/AIDS, intensive IEC activities for prevention of early marriage and conception, spacing of births, promotion of colostrums and exclusive breast feeding, supplementary nutrition after child is 4+ months, use of ORS, registration of births and deaths, immunization, net working and co-ordination with government departments etc.

Objectives of the study

The objective of the present paper is to examine through empirical evidences whether RCH intervention project has achieved its expected goals in terms of its efficiency, effectiveness and impact. Specific objectives of the paper are:

- (a) To analyzes the intervention strategies adopted to enhance the level of utilization and the quality of locally available RCH services;
- (b) to examine the impact of the intervention model in improving the level of ANC, natal and PNC and safe deliveries; colostrums feeding newborn; coverage of fully immunized children , rise in contraceptive prevalence rate, etc.; and
- (c) To suggest modification, if any, to improve the system for sustainability and its re applicability of such intervention project in other areas.

Data and Research Methodology

Sampling Design:

The study is based on the collection of primary data from 20% (10 villages out of the 50 target villages) where RCH intervention program was launched during 2002-04. The villages were selected through SRS. Then, from the selected 10 villages 250 target women (i.e.; pregnant women, lactating mothers and eligible couples) were selected using Probability Proportional to Size Sampling (PPS) for in-depth interview. In addition, information was also collected from the major stakeholders on various aspects of the program management.

Interview Schedule:

For collecting the information on various aspects of RCH interventions and its ultimate impact on the target beneficiaries' interview schedules were developed for the target women as well as for stakeholders.

Interview Schedule for Target Women: In selected 10 villages' in-depth interview of 250 target women (i.e.; pregnant women, lactating mothers, and eligible couples) was conducted. From the selected women in the sample information was also collected about their children of the ages less than 6 years on various health and immunization aspects. The final interview schedule developed covers the following aspects: (a) Background Characteristics; (b) Pregnancy History and Fertility; (c) Availability of Health Services; (d) IEC Activities; (e) Ante Natal, Natal and Post Natal Care; (f) Counseling During and After Pregnancy; (g) Delivery of Child; (h) Colostrums and Breast Feeding; (i) Nutrition and Health Education; (j) Child Immunization; (k) Knowledge, Attitude and Practice of Family Planning Methods; (l) Knowledge and Cure of Diseases including HIV/ AIDS, RTI, STI.

Interview Schedule for Stakeholders: In order to understand the program management of the RCH activities and its impact on target beneficiaries' interview schedules were constructed for officials and field functionaries who were working at the grass-root level. It helps to reveal stakeholders perception regarding RCH interventions, its benefits, logistics, barriers, advantages etc.

Focus Group Discussion: To collect qualitative information from the target beneficiaries on different aspects of the RCH program focus group discussions were conducted among the community and the homogenous groups. The main aim of the FGD was to understand their perception about sustainable and qualitative improvement of in health and nutrition status of pregnant and lactating women and their infants by increasing their access to health care services, health information provided at the grass-roots level.

Field operation conducted in 10 villages during March 2004 with the help of ten trained and experienced field investigators.

Findings

Demographic and Socio-economic Background

The present evaluation study of reproductive health program is based on the interviews conducted from 250 female respondents from 10 villages covered under the project. The age structure of the women covered under investigation seems to be fairly young as 66 percent of them belong to the age group 20-35 years. All the women were currently married living with their husbands. Majority of the women got married at pretty young age, that is, almost 72 percent women respondents were married before attaining the age 16 years and 25 percent of them were married between the ages 17-20 years. Among the males only 27 percent got married after attaining the legal age at marriage and the rest (73%) were married before the age of 21. The data on education show that

majority of the women (76%) interviewed is illiterate. This is followed by primary level (15.2 %) and middle level (6.4%) of education. Only 6 women are educated up to high school or above. In contrast, the husbands are better educated than their wives. One fourth of them have passed high school or above examination and approximately same proportion have passed middle school. Only 36 percent are illiterate while 14 percent have got education up to the primary level. A very significant proportion (three fourth) of the respondents are housewives while 21 percent are agricultural labor. Few of the respondents (2.8%) are found to be working as skilled labor. On the other side, mostly the husbands are cultivators (60%) followed by agricultural labors (24%), skilled labors (9%) and government service (7%) (Table1).

Number of Ever-born and Surviving Children

The data on number of children ever born and surviving shows a higher trend of fertility and mortality among the population under study and this shows that the population in this area is still passing through only the first phase of demographic transition (high mortality and high fertility). Almost one third of women (31%) had given birth to 8 or more children; and of these 10 percent of women gave birth to 12-13 children. However, not all of them are surviving children. It seems that there exists a very high infant and child mortality in the area. Nearly three fourth (78%) of the respondents have surviving children not more than 2 (Table 2). It would be interesting to find out causes of infant and child mortality in the area by conducting another research study. The data on the age structure of the women respondents show that there are only 12 percent of women whose age is between 40 and 50 years and only 15 percent of women are in the age group 35-39 years. This shows that even if all the women above age 35 gave birth to 8 or more children, there are 4 percent of women below age 35 who have given birth to 8 or more children. This is a very high fertility phenomenon in the area.

Maternal and Child health Care

The information were collected during the field work from both, the pregnant and the lactating mothers on ANC, Pregnancy, PNC, child immunization, colostrums feeding and breast feeding practices. Overall findings indicate that due to RCH intervention project the target women become well aware about registration during pregnancy and birth preparedness. ANC services and coverage found to be partially satisfactory but postnatal care was quite low. The proportion of women who received all the three check-ups was 41 percent followed by two check-ups (39%) and once (20%). All the women received their check-up services at the respective places where they had been registered. All 85 women had received vaccination for TT among which 84 percent of women had received two TT while 16 percent got immunized by 3 TT. All these women received these ANC services at the respective places of their registration. Three- fourth of these women received 100 IFA tablets while remaining one fourth did receive only 50 IFA tablets. A very high proportion (93%) did not receive any postnatal services in the area.(Table 3)

Place of Delivery

During the investigation the questions were also asked about the place of last delivery of the women who delivered a child during the project period. It was observed that in the project area the practice of institutional delivery is very low. Only eight percent of the women delivered the baby at a health centre while 92 percent deliveries occurred at home (Table 4). Pregnant women felt more comfortable for delivery at home as family members are available to take care of the newborn. According to them deliveries at hospital are expensive. The decision for the place of delivery was taken either by the head of the family or by any adult member in the house. Only 15 percent of the deliveries were attended by trained birth attendant (*dai*) while 19 percent were attended by ANM/ private doctors. 5 percent of the deliveries were attended untrained family members and thus percent of deliveries attended by untrained persons become 66 percent.

Post Natal Care of the Women who delivered a Child during the Project Period

The postnatal services are found to be very poor. This might be considered as a contributing factor for the low child survival. A detailed study is required to be conducted to find out the causes of very low infant and child survival. Only 7 percent of the women who had delivered a child during the project period had received postnatal services. A very high proportion (93%) did not receive any postnatal services in the area.

Co lustrum and Child Immunization

Colostrums feeding found almost universal. However, exclusive breast feeding not known to majority of the women. Immunization with TT, DPT, and OPV was above 70 percent. In case of measles and vitamin A, it was only 42 percent. However, complete immunization to children found quite low (25.3%). (Table 5 & 6)

Knowledge and Use of Contraception:

Knowledge about family planning methods was not universal for all methods and it was highest for female sterilization. CPR found to be satisfactory (76%) but it was only due to the tubectomy at higher parity. Most of the women use contraception after the birth of two or more children. Use of spacing method was extremely low. Non-availability of contraceptive methods was found most important reason for not using family planning.

Current Use of Family Planning Methods

The use of spacing methods of birth control has been found to be extremely low. 140 women out of total number of women interviewed were found sterilized by tubectomy while there were 11 women whose husbands have been sterilized. Out of 140 tubectomy cases, only 13 have got sterilized during the last two years i.e., the project duration. Most of the women interviewed have been found to be protecting the childbirth by using any modern method of family planning after the birth of two children. (Table 7)

Reasons for Non-use of Contraception

The present study made an effort to find out what are the reasons for those women who did not use any family planning method. The most commonly mentioned reason for not using any method of contraception is that the couple wanted to have a child (56%). Current pregnancy status was also reported by significant proportion (12%) of women. Similar number of women (12%) also reported that they have problems in using the method. The other frequently cited (20%) reasons for non-use of the method is the non availability of method to the client.(Table 8)

Recommendations:

Study suggests need for more training to local health practitioners on health care and prevention and control of other diseases. IEC activities should be increased. Midterm training to local health practitioners should be carried out periodically. Training to dais should be more frequent because mostly they are illiterate. Stakeholders should increase financial benefits to dais especially for each delivery. Immunization program should be enhanced. There was found to be unmet need for contraception by women but husband was the main decision maker for contraception. As such there is need to motivate male partner for acceptance of family planning methods. Such intervention model could be replicated in other villages too with necessary modifications to achieve the desirable goals of the RCH program.

References:

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Table 1 Background Characteristics

Current Age of the Respondents

Age Group	Number	Percent
15 – 19	17	6.80
20 – 24	60	24.00
25 – 29	53	21.20
30 – 34	52	20.80
35 – 39	37	14.80
40 – 44	27	10.80
45 – 49	4	1.60
Total	250	100.0

Age of the Respondents at the Time of Marriage

Age Group	Number	Percent
9 – 12	9	3.60
13 – 16	172	68.80
17 – 20	64	25.60
21+	5	2.00
Total	250	100.0

Education of the Respondents

Education	Number	Percent
Illiterate	190	76.00
Primary	38	15.20
Middle	16	6.40
High School	3	1.20
Intermediate	2	0.80
Graduate	1	0.40
Total	250	100.0

Occupation of the Respondents

Occupation	Number	Percent
Housewife	190	76.00
Agricultural Labour	53	21.20
Skilled Labour	7	2.80
Total	250	100.0

Table2 (a): Respondents by Number of Children Ever Born

Children Ever Born	Number	Percent
0	10	4.00
2 – 3	8	3.20
4 – 5	76	30.40
6 – 7	79	31.60
8 – 9	31	12.40
10-11	22	8.80
12 -13	24	9.60
Total	250	100.0

Table2 (b): Respondents by Number of Children Surviving

Number of Surviving Children	Number	Percent
0	53	21.20
1	74	29.60
2	67	26.80
3	36	14.40
4	12	4.80
5	5	2.00
6	1	0.40
7	1	0.40
8	1	0.40
Total	250	100.0

Table 3. Distribution of currently pregnant women Availing ANC Services

Registration during Current Pregnancy		
Yes	10	83.33
No	2	16.66
Total	12	100.0
Months of Registration during Current pregnancy (N= 10)		
3 rd Month	7	70.00
4 th Month	3	30.30
Total	10	100.0
Place of Registration		
Govt. Hospital	8	80.00
Swasthya sevika	2	20.00
Total	10	100.0
Help received from BCT People		
Yes	10	100.00
No	0	0.00
Total	10	100.0
Health Checkup during Current Pregnancy		
Yes	10	100.00
No	0	0.00
Total	10	100.0
Number of Checkups		
One Time	4	40.00
Two Times	2	20.00
Three Times	4	40.00
Total	10	100.0
Place of Check up		
Govt. Hospital	6	60.00
At Swasthya sevika's home	4	40.00
Total	10	100.0
TT received during Current Pregnancy		
Yes	10	100.00
No	0	0.00
Total	10	100.0
Number of TT		
One	4	40.00
Two	6	60.00
Total	10	100.0
Place of TT Vaccination		
Govt. Hospital	8	80.00
At Swasthya sevika's Home	2	20.00
Total	10	100.0
IFA Received During Current Pregnancy		
Yes	10	100.00
No	0	0.00
Total	10	100.0
Number of IFA Received		
50	4	40.00
100	6	60.00
Total	10	100.0

Table 4: Distribution of Eligible women who had delivered the child during the project period by Place of delivery

Place of Last Delivery		
	Number	Percent
At Home	87	91.60
Institutional	8	8.40
Total	95	100.0
Last Delivery Conducted by		
Untrained Dai	53	60.90
Trained Dai	13	14.90
ANM	11	12.60
Private Doctor	6	6.90
Family Members	4	4.60
Total	87	100.0
Checkup after the delivery		
Yes	7	7.40
No	88	92.60
Total	95	100.0

Table 5: Practice of Colostrums and Exclusive Breastfeeding

Colostrums feeding practices		
	Frequency	Percent
Yes	91	95.80
No	4	4.20
Total	95	100.0
Months of Exclusive Breastfeeding		
1	10	11.00
2	13	14.30
3	4	4.40
4	24	26.40
5	7	7.70
6	28	30.80
7	2	2.20
8	3	3.30
Total	91	100.0

Table 6 (a): Distribution of Infants (aged 0-11 months) born during the project period by Immunization Status

Immunization	Number N= 43		Proportion Immunized			Presence of project Staff (Percent) *		
	Yes	No	Yes	No		Yes	No	Total
BCG	41	2	95.30	4.70	100.00	87.80 (36)	12.20 (5)	100.00 (41)
DPT I	38	5	88.40	11.60	100.00	73.70 (28)	26.30 (10)	100.00 (38)
DPT II	38	5	88.40	11.60	100.00	68.40 (26)	31.60 (12)	100.00 (38)
DPT III	32	11	74.40	25.60	100.00	68.75 (22)	31.25 (10)	100.00 (32)
OPV I	38	5	88.40	11.60	100.00	73.70 (28)	26.30 (10)	100.00 (38)
OPV II	38	5	88.40	11.60	100.00	68.40 (26)	31.60 (12)	100.00 (38)
OPV III	32	11	74.40	25.60	100.00	68.75 (22)	31.25 (10)	100.00 (32)
Measles	18	25	41.90	58.10	100.00	61.10 (11)	38.90 (7)	100.00 (18)
Vit.A	18	25	41.90	58.10	100.00	61.10 (11)	38.90 (7)	100.00 (18)

* Among those who immunized

Table 6(b): Complete Immunization for 12-23, 24-35 and 36-47 and 48-59 months children

Immunization	Sample Size N=569		Proportion Immunized (Percent)			Presence of project Staff (Percent)*		
	Yes	No	Yes	No	Total	Yes	No	Total
BCG	213	356	37.40	62.60	100.00	31.90 (68)	68.10 (145)	100.00 (213)
DPT I	197	372	34.60	65.40	100.00	32.00 (63)	68.00 (134)	100.00 (197)
DPT II	189	380	33.20	66.80	100.00	32.30 (61)	67.70 (128)	100.00 (189)
DPT III	169	400	29.70	70.30	100.00	30.80 (52)	69.20 (117)	100.00 (169)
OPV I	197	372	34.60	65.40	100.00	32.00 (63)	68.00 (134)	100.00 (197)
OPV II	189	380	33.20	66.80	100.00	32.30 (61)	67.70 (128)	100.00 (189)
OPV III	169	400	29.70	70.30	100.00	30.80 (52)	69.20 (117)	100.00 (169)
Measles	106	463	18.60	81.40	100.00	29.20 (31)	70.80 (75)	100.00 (106)
Vit.A	106	463	18.60	81.40	100.00	29.20 (31)	70.80 (75)	100.00 (106)
**Comp. Imm. (12-23) N=95	29	66	30.52	69.48	100.00	23.0 (3)	25.7 (9)	25.0 (12)
**Comp. Imm. (24-35) N= 128	33	95	25.78	74.22	100.00	00.0 (0)	00.0 (0)	00.0 (0)
**Comp. Imm. (36-47) N= 157	39	118	24.84	75.16	100.00	00.0 (0)	00.0 (0)	00.0 (0)
**Comp. Imm. (48-59)N= 189	43	146	22.75	77.25	100.00	00.0 (0)	00.0 (0)	00.0 (0)

- Among those who immunized ** Among total number of children

Table 7: Distribution of eligible women currently using any modern method of contraception by specific method

	Condom N=197	Oral Pill N=214	Copper T N=167	Vasectomy N= 194	Tubectomy N= 236	Total
Ever Used	9	16	6	-----	-----	-----
Currently Using	6	9	2	11	140	168
CPR	2.4	3.6	0.08	4.4	56.0	67.2

Table 8: Reasons for Non-use of FP Methods

Reasons*	Percent
Want of Child	56.1 (46)
Pregnancy	12.2 (10)
Problem in use	12.2 (10)
Difficult to get the method	19.5 (16)

*Multiple responses