

Evaluation of the Janani Suraksha Yojana (JSY) and Universal immunization programme (UIP) in two eastern Districts of Maharashtra



Medical Science

KEYWORDS : Janani suraksha yojana (JSY), Universal immunization programme (UIP), evaluation, urban, rural, tribal

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ABSTRACT

JSY, a scheme launched by Government of India in 2005 to increase institutional deliveries thereby reducing the burden of maternal and infant mortality is in the stage of evaluation.

Objectives:

To evaluate the performance of the Janani Suraksha Yojana (JSY) and Universal immunization programme (UIP) in Nagpur and Bhandara districts of Maharashtra.

Methods:

It was a cross-sectional study conducted in two eastern districts [A & B] of Maharashtra during July- September 2010 among JSY beneficiaries (delivered in 2009) and children born in calendar year 2008 by stratified random sampling in five stratas viz. Tribal, Non tribal, Council, Urban- slum and Urban non-slum.

Results:

More women from rural area (85.29%) were actually benefitted by scheme than women in urban area (46.96%) which was statistically significant ($\chi^2 = 13.73, df = 1, P = 0.0002$).

District RCH officers and MO-CHCs/PHCs rated the scheme satisfactory. Private practitioners were unaware of the scheme and only 1-2% of them were running the scheme successfully.

Introduction:

It is the right of every woman and child to have a healthy life, which begins with the start of pregnancy. Globally all counties are striving to reduce most potential indicators of maternal and child health, Maternal and Infant mortality rates (MMR, IMR). Millennium Development Goals number five aims at reduction of MMR by three quarter globally and to less than 100 by 2012 in India. To accelerate this, Government of India launched an ambitious scheme called Janani Suraksha Yojana (JSY) on 11th April 2005 under the flagship of National Rural Health Mission (NRHM) to reduce MMR and neonatal mortality, by promoting institutional deliveries for which financial incentives are provided to mothers delivering in the health facilities. It falls under umbrella of NRHM & covers all pregnant women belonging to households of below poverty line (BPL) category and scheduled caste/tribe; above 19 years of age; up to two live-births. As per NFHS-3, only 58% children are fully immunized in India.

JSY beneficiary was defined as woman of BPL/SC/ST category, aged more than 19 years, delivered in the calendar year 2009 and having 1st or 2nd live birth. Under the scheme eligible woman for normal institutional delivery should receive incentives of Rs.700 in rural area and Rs. 600 in urban area, Rs 1400 for operational delivery within 7 days of delivery.

Fully immunized child was defined as one who has received one dose of BCG, DPT 3 doses, OPV 4 doses, 1 dose of measles and 3 doses of Hepatitis B4,5. Partially immunized child was one who has not received any one/more vaccine. Unimmunized child was the one who has not received any vaccine. With this background, the evaluation was done with the following specific objectives:

- To estimate the actual number of JSY beneficiaries in both districts of Maharashtra
- To determine the factors affecting the implementation of the scheme.
- To know the involvement of private institutions in the scheme.
- To find out the gaps/deficiencies and suggest ways for improving the scheme.

Materials and Methods:

A cross-sectional study was conducted in eastern districts A &

B of Maharashtra during August- September 2010 among JSY beneficiaries and children born in calendar year 2008.

Sample size was calculated based on CBR in BPL families as 4 – 5.

Crude Birth Rate (CBR) = 20

CBR for 1st or 2nd order birth = 15

CBR in BPL families = 4 – 5

Attribute	Rural		Council [C]	Corporation		Total
	Tribal [T]	Non-tribal [NT]		Slum [S]	Non-slum [NS]	
Population (%)	15	13	12	20	40	100
Required sample (No of households)	360	312	288	480	960	2400

Sample size: $4pq/l2 = 11,067 \approx 12000$.

Assuming average family size of 5, households to be surveyed in both the districts in various stratas were 2400 as follows.

For sampling purpose districts were divided into 5 strata.

For random sampling, list of villages of each strata was prepared. A village was selected from each strata randomly. The village was covered in the survey until required sample was collected.

If required sample was not covered, the next village was selected to complete the sample. JSY beneficiary was identified and was interviewed. Children born in 2008 were assessed for immunization coverage. District Reproductive and child health (RCH) officer, Medical officers of Community Health Centers (CHCs)-Primary Health Centers (PHCs) and private practitioners of respective districts were interviewed as per the pre-designed proforma.

Statistical tests:

Percentages were calculated. Chi-square test was computed by

means of a statistical software package EPI Info, version 6.0.

Results:

Table 1 shows performance of JSY scheme and UIP in A district of Maharashtra. Out of 130 women delivered in year 2009, 53 were eligible and 30(57%) received full JSY benefit of which 53% received benefit within 7 days, 96% were institutional deliveries, 81.48% children were fully immunized.

Table 1: A district's profile.

No.	Attribute	Rural		Council	Corporation		Total
		Tribal	Non-tribal		Slum	Non-slum	
1.	No. of households covered	360	312	288	480	960	2400
2.	No. of women delivered in the calendar year 2009	17	12	27	34	40	130
3.	No. of women eligible for JSY benefit	13	4	10	12	14	53 (40.8)
4.	No. of women received full JSY benefit	12	2	6	8	2	30 (57)
5.	No. of women who did not receive any JSY benefit	1	2	4	4	12	23 (43)
6.	No. of women delivered in the calendar year 2008	12	32	12	31	51	138
7.	No. of children investigated for immunisation status	12	31	12	31	49	135
8.	No. of children fully immunised	11	20	12	27	40	110(81)

Figures in parentheses indicate percentages.

Table 2 shows performance of JSY scheme and UIP in B district of Maharashtra. Out of 109 women delivered in calendar year 2009, 47 were eligible and only 30(64%) received full benefit of which 53% received benefit in 7 days, 87% deliveries were institutional, and 84% children were fully immunized.

Table 2: B District's profile.

No.	Attribute	Rural		Council	Corporation		Total
		Non-Tribal1*	Non-tribal2*		Slum	Non-slum	
1	No. of households covered	360	312	288	480	960	2400
2	No. of women delivered in the calendar year 2009	13	11	23	24	38	109
3	No. of women eligible for JSY benefit	8	9	11	12	7	47 (43.1)
4	No. of women received full JSY benefit	8	7	8	6	1	30 (64)
5	No. of women who did not receive any JSY benefit	0	2	3	6	6	17 (36)

6	No. of women delivered in the calendar year 2008	12	19	18	28	39	116
7	No. of children investigated for immunisation status	12	16	18	28	39	113
8	No. of children fully immunised	10	11	12	35	35	95(84)

*No tribal stratas in B, hence both NT stratas were taken. Figures in parentheses indicate percentages.

When we compared performance of JSY scheme in urban and rural areas of both the districts, more women from rural area (85.29%) actually benefitted than women in urban area (46.96%). This difference was statistically significant ($\chi^2=13.73$, $df=1$, $P=0.0002$).

Table 3 shows population strata-wise performance of UIP in both the districts of Maharashtra. In A district, all the children from council were fully immunized followed by 91.67% from tribal, 87.10% from urban slum and 81.63% from urban non slum area. Poorest performance was in non tribal rural area (64.52%). Population strata-wise performance of UIP in B district of Maharashtra showed that most of the children from urban slum (96.4%) were fully immunized followed by 89.7% from non slum, 83.3% from tribal area and 68.75% from non tribal area. Poorest performance was from council area (66.67%). In Nagpur district; 81.48% and in Bhandara district; 84% children were fully immunized.

Table -3: District-wise Immunization status of children.

District	Immunization status	Rural*		Council	Corporation		Total
		Tribal	Non tribal		Slum	Non slum	
A	No. of fully immunized children	11	20	12	27	40	110 (81.48)
	No. of partially immunized children	01	11	nil	04	09	25 (18.5)
	No. of children investigated for immunization	12	31	12	31	49	135
B	No. of fully immunized children	10	11	12	27	35	95 (84)
	No. of partially immunized children	02	05	06	01	04	18 (16)
	No. of children investigated for immunization	12	16	18	28	39	113

*In B district, both rural stratas were non-tribals. (Figures in parentheses indicate percentages.)

About 26-27% of beneficiaries of both the districts faced difficulty in obtaining JSY benefit. Main difficulties were with obtaining BPL card, obtaining caste certificate, misplacement of documents, non-co-operation by facility staff, and demand of cuts by facility staff, delay in fund transfer etc.

Table 4 shows that most of beneficiaries thought that scheme was for prevention of maternal deaths, 67% knew about scheme, 87% from A & 78% from B felt that the amount is inadequate and should be raised to Rs.1000.

Table 4: Perception of beneficiaries about JSY Scheme

Attribute	Districts	
	A	B
% Beneficiaries heard about JSY	86	75
% Beneficiaries, Information recieved by	Media and health staff-62	Health staff -73

% Beneficiaries for Purpose of JSY	Prevention of maternal death -84	Safe institutional delivery -77
% Beneficiaries, aware of benefit	67	67
% Beneficiaries inadequate amount	87	78
% Beneficiaries Faced difficulty in obtaining benefit	26	27

District RCH officers and MO PHCs of both districts rated JSY scheme satisfactory. Challenges perceived by them in implementation of JSY were lack of awareness in the community, delayed funds transfer, no involvement of private practitioners. No dependence on BPL cards and regular availability of funds were identified as areas for improvement by them.

Hardly 35%- 40% private practitioners heard about JSY and 10%-20% knew correct purpose, beneficiaries, & benefits of the scheme. Only 1-2% were running scheme successfully.

Discussion

When the present study results were compared to other surveys conducted in India and Maharashtra, in performance of JSY scheme and UIP following differences were found.

Performance of JSY scheme in terms of institutional deliveries (>85%) and UIP in terms of % of fully immunized children (>80%) in the two eastern districts of Maharashtra was better when compared with reports of DLHF-3^{7,8} and NFHS-3^{9,10} for India and state of Maharashtra. However receipt of cash benefit was less than study done by UNFPA2. This was mainly because more women in the present study faced difficulties like difficulties in obtaining BPL card, obtaining caste certificate, documents misplaced, and non-co-operation by facility staff as well as demand of cuts by them especially in the urban-slum⁷.

Comparison of present study findings with other studies:

Study factor	Present study (2010)		DLHF-3 (2007-08)		NFHS-3 (2005-06)		UNFPA study (2008)
	A	B	India	Maharashtra	India	Maharashtra	
% of children fully immunized	81	84	54	69.1	43.5	58.8	-
% of Institutional delivery	96	87	47	63.6	40.8	66.1	54.9
% of women receiving cash benefit	57	64	13.3	8.3	-	-	76.2
% of women aware of scheme	86	75	-	-	-	-	81
% of women faced difficulty in obtaining benefit	26	27	-	-	-	-	5-27

In the present study, challenges faced by district RCH officers and MO- PHCs were lack of awareness in the community, non in-

volvement of private practitioners, and delay in fund transfers.

The study recommends, knowledge gap between programme managers and community as well as Private Practitioners should be reduced. There should be regular monitoring of the scheme, periodic training of the all the health care workers including private practitioners^{13,14,15}. There should be continuous supply of funds, and community awareness regarding availability of Grievance Cell to look into their complaints and difficulties^{16,17}.

There is a need to appreciate importance of the scheme by programme managers and they shouldn't just see their role as mere distributors of the monetary benefits to the beneficiaries. There is an urgent need to focus on urban poor who contributes more than 25% population^{17,18}.

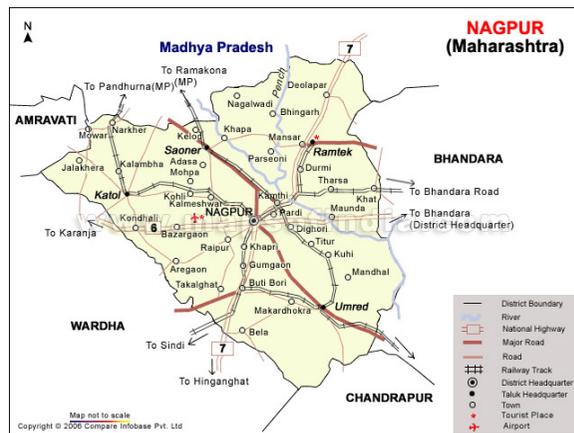


Fig : 1 Study area of A District.

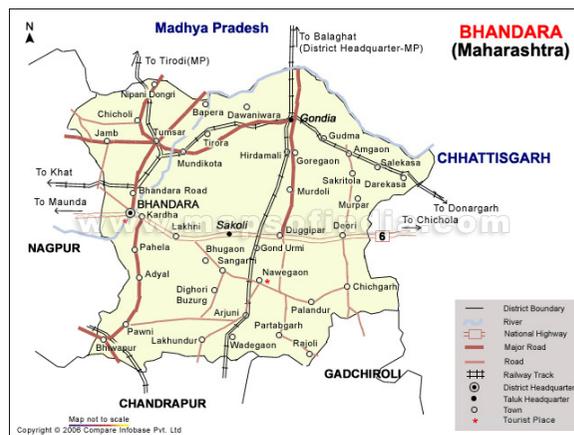


Fig : 2 Study area of B District.

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