



ASSESSMENT OF COVERAGE OF JANANI SISHU SURAKSHA KARYAKRAM IN WOMEN DELIVERED AND ADMITTED IN DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY, DR. B. R. AMBEDKAR MEMORIAL HOSPITAL, RAIPUR, CHHATTISGARH.

Dr. Mini Sharma

Associate Professor, Department of Community Medicine, Pt. J. N. M. Medical College, Raipur (Chhattisgarh).

Dr. Ravishankar Prasad Dewangan*

Post Graduate Scholar, Department of Community Medicine, Pt. J. N. M. Medical College, Raipur (Chhattisgarh). *Corresponding Author

ABSTRACT

Maternal and Child Health is a significant aspect for the development of any country for increasing equity and decreasing poverty. In order to solve economic, social and developmental challenges. Institutional deliveries in India increased substantially after launched of JSY and JSSK. However, 25% beneficiaries' women still hesitate to access health facilities for delivery due to out of pocket expenditure during stay at health facilities on drugs, diet, diagnosis and arrangement blood etc. Building on the progress of this safe motherhood scheme, Janani Sishu Suraksha Karyakram (JSSK) was launched to eliminate out-of-pocket expenses for both pregnant women and sick infants. **Objectives:** - 1. To assess the current status of coverage of Janani Sishu Suraksha Karyakram. 2. To estimate the out-of-pocket-expenditure during hospital stay in post-delivery period, if any. **Study Design** –Descriptive Cross-sectional study. **Study Tools**– Pre-designed, Semi-structured questionnaire. **Sample size**- 102 women, randomly selected from the Postnatal Ward. **Result**- All women (100%) delivered, received the benefits of direct benefits transfer (DBT) under JSSK, though majority of mothers incurred OOPE in arranging for blood, drugs, and transport. The median OOPE incurred during hospitalization was Rs. 250 per delivery, for essential diagnostics (Rs. 5000) by only 1% of the subjects, expenditure on blood was the next highest (Rs.1000), which was incurred by 25% of the subjects, for drugs it was Rs. 300, higher for C-section (60%) than normal delivery (57.4%), transport expenditure was 15.7% of the mothers for home to hospital and 9.8% mothers for hospital to home, The median OOPE was also higher in sick new-borns as compared to normal new-borns on drugs (Rs.445 and Rs.250 respectively) and Rs. 250 was incurred by 12% of the subjects in other expenses.

KEYWORDS : JSSK, OOPE, Beneficiaries.**INTRODUCTION:**

Maternal health is a significant aspect for the development of any country for increasing equity and reducing poverty. In order to resolve economic, social and developmental challenges, health of the mother is of vital importance. Financial risk safety is one of the key areas to achieve universal health coverage under the sustainable development goals.^[1] Out-of-pocket expenditure (OOPE) is a major public health contest and leads to poverty, impoverishment, and indebtedness of a family.^[2] According to World Bank, 'Out-of-pocket expenditure (OOPE)' is any direct expense by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary determined is to contribute to the rebuilding or enhancement of the health status of individuals or population groups.^[3] Out-Of-Pocket Expenditure (OOPE) in India is among the highest in the world. WHO reports that almost 86% of total healthcare expenditure in India involves OOPE incurred by households.^[4]

The Government of India has introduced various schemes to decrease the financial risk in maternal and child health care, including the two key components of the National Health Mission (NHM) - *Janani Suraksha Yojana* (JSY) and *Janani Sishu Suraksha Karyakram* (JSSK) - launched in India, including Chhattisgarh, in 2005 and 2011, respectively.^[5]

Institutional deliveries in India increased substantially after launched of *Janani Suraksha Yojana* (JSY). However, 25% beneficiaries' women still hesitate to access health facilities for delivery due to out of pocket expenditure during stay at health facilities on drugs, diet, and diagnosis and arrangement blood etc. Building on the progress of this safe motherhood scheme, *Janani Sishu Suraksha Karyakram* (JSSK) was launched to eliminate out-of-pocket expenses for both pregnant women and sick infants.^[6]

Aims And Objectives:

- 1) To assess the current status of coverage of Janani Sishu Suraksha Karyakram.
- 2) To estimate the out-of-pocket-expenditure during hospital stay in post-delivery period, if any.

MATERIALS AND METHODS:

- **Study Design** –Descriptive Cross-sectional study
- **Study Tools**–
 - 1) Pre-designed, Semi-structured questionnaire.
 - 2) Relevant records and reports like Mother and child protection card.

- 3) Laboratory investigation reports and prescription (if available).

- **Study Duration** – April 2021 – August 2021
- **Study Subjects** – Women delivered and admitted in Department of Obstetrics and Gynaecology.

Sample Size And Sampling Methods –

Sample size was calculated by using '2 Difference of Mean' method:

$$N = \frac{(Z_{\alpha} + Z_{\beta})^2 (\sigma_1 + \sigma_2)^2}{\Delta^2}$$

Where, with reference to [1] –

 Z_{α} = 95 % Confidence Interval (1.96) Z_{β} = 90 % Power of size (1.28) σ_1 = 501 Rs. OOPE for ANC period σ_2 = 311.5 Rs. OOPE for PNC period Δ = 285.5 Rs. Mean difference for ANC and PNC period

$$N = \frac{(1.96 + 1.28)^2 (501 + 311.5)^2}{(285.5)^2}$$

With 20% non-response rate,

$$N = 102$$

∴ 102 women who fit the inclusion criteria were randomly selected from the Postnatal Ward under Department of Obstetrics and Gynaecology.

Data Analysis:

The collected data were analyzed using Microsoft Excel version 2010 and continuous variables were represented in the form of Median and Range.

RESULTS:**Table No.1: Age-wise Distribution Of Study Subjects (n=102).**

Age (in yrs.)	Frequency	Percentage (%)
15-19	2	2
20-24	54	52.9
25-29	35	34.3
30-34	8	7.8
35-39	3	2.9
Total	102	100%

As shown in the Table no.1 majority of the subjects, 52.9 % belong to the age group of 20-24 years and least number of subjects, 2% are of the age 15-19 years.

Table No.2: Distribution Of Study Subjects According To Socio Economic Status*(n=102)

Socioeconomic status	Frequency	Percentage (%)
I (Upper class)	10	9.8
II (Upper middle class)	34	33.3
III (Middle class)	31	30.4
IV (Lower middle class)	16	15.7
V (Lower class)	11	10.8
Total	102	100%

*B.G. Prasad classification

The family of a fraction of one-third subjects that is 33% belong to class II, followed by 30.4% families belonging to class III, 15.7% families belonging to class IV, 10.8% families belonging to class V, and least families consisting of 9.8% fraction belong to class I.

Table No. 3: Distribution Of Study Subjects According To No. Of Days Of Stay In Hospital Post-delivery (n=102).

No. of days of stay in hospital post delivery	Frequency	Percentage (%)
1	12	11.8
2	18	17.6
3	29	28.4
4	37	36.3
5	5	4.9
>5	1	1.0
Total	102	100%

As shown in Table no.3 majority (64.7%) of the patients stayed in hospital for 3-4 days post-delivery, followed by 17.6% patients for 2 days; 11.8% patients for 1 day; and 4.9% patients for 5 days. Only 1 patient stayed for >5 days due to complications at incision site.

Table No.4: Distribution Of Study Subjects According To Knowledge About JSSK. (n=102).

Knowledge about JSSK		Frequency	Percentage (%)
Heard about JSSK (n=102)	Yes	16	15.7
	No	86	84.3
Source of information (n=16)	Mass media	1	6.2
	Family and friends	1	6.2
	Mitatin	14	87.5
	Other	0	0
Know about benefits of JSSK (n=16)	Yes	4	25.0
	No	12	75.0
Registered under JSSK, as per knowledge (n=16)	Yes	7	43.8
	No	9	56.2

According to Table no.4 only 15.7% of 102 study subjects had heard about JSSK. Out of them, 87.5 % had been informed by Mitatin and 6.2% had heard from Mass media and Family and friends, each. Only 25 % of them were aware of the benefits of JSSK. Majority of them (56.2%) did not know that they were registered under JSSK.

Table No.5: Distribution Of Study Subjects According To DBT (Direct Benefit Transfer) Coverage Of JSSK As (n=102)

Covered under JSSK(DBT)	Frequency	Percentage (%)
Yes	102	100
No	0	0
Total	102	100

As shown in Table no.5 all 100% of the study subjects were covered under JSSK as per DBT.

As shown in the Table no.6 none of the subjects under study had any OOPE in delivery. After delivery 14.7% of the subjects had an OOPE on drugs ranging from Rs.50-800 rupees and 1% of subjects had an OOPE of about Rs.5000 in essential diagnostics. Most of the subjects had no expenditure on diet during hospital stay while a small fraction of 1% of the subjects had an OOPE of Rs.140 on diet. All of the

subjects availed free meals from the hospital and 18% supplemented it with home food and 1% supplemented from outside. Among the subjects who required blood transfusion, 75% subjects had no expenditure while 25% of the subjects had a median OOPE of Rs.1000 for blood. 15.7% of the subjects had a median OOPE of Rs.300 in transportation from home to hospital while a majority of 84.3% of subjects did not have any expenditure on it. Also, 90.2% of subjects had no expenditure in going home from the hospital while 9.8% subjects had an OOPE ranging from Rs.50-3000. In cases which required referral 6.3% of the subjects had an OOPE of about Rs.450. 15.7% of subjects had incurred in informal payments ranging from Rs.100-600 and 11.8% of subjects had other expenses of the range from Rs.60-1000.

Table No. 6: OOPE Expenditure Of Beneficiary During Their Hospital Stay. (n=102)

Categories of Expenditure	No expenditure	No. of subjects who incurred OOPE	Range of OOPE (In Rs.)	Median OOPE (In Rs.)	Total Expenditure (in Rs.)
Delivery	102 (100%)	0	0	0	0
Drugs	87 (85.3%)	15 (14.7%)	50 - 800	300	4949
Essential diagnostics	101 (99%)	1 (1%)	-	5000	5000
Diet during hospital stay	101 (99%)	1 (1%)	-	140	140
Blood [n = 20]	15 (75%)	5 (25%)	500 - 2080	1000	5180
Transport (From home to hospital)	86 (84.3%)	16 (15.7%)	20 - 5000	300	12070
Transport (In case of referral) [n = 32]	30 (93.8%)	2 (6.3%)	200 - 700	450	900
Transport (From hospital to home)	92 (90.2%)	10 (9.8%)	50 - 3000	100	4350
Informal payments	86 (84.3%)	16 (15.7%)	100 - 600	500	6920
Other expenses	90 (88.2%)	12 (11.8%)	60 - 1000	250	4290

Table No.7: Distribution Of Study Subjects According To Total OOPE Incurred (n=66)

Range of OOPE(Rs.)	Frequency	Percentage (n=66)
50-500	27	40.90%
501-1000	23	34.80%
1001-1500	7	10.60%
1501-2000	3	4.50%
>2000	6	9.10%
Total	102	100%

As per table no.7 OOP expenditure was done by 64.7% of the 102 study subjects. The median OOPE was Rs.250 and Range was Rs.50 – 5700. Majority of them (i.e., 75.7%) incurred OOPE under Rs.1000. OOPE exceeded Rs. 2000 for 9.1% of subjects.

DISCUSSION:

Chandrakar et al. regarding coverage of JSSK in Chhattisgarh^[9] showed that in Dr. B.R. Ambedkar Memorial Hospital, Raipur, overall median OOPE during pregnancy was Rs.300. Nil OOPE incurred for admission, stay and investigation but median OOPE for transport, medicine, food, informal payments and blood transfusion was Rs. 200, Rs. 550, Rs. 60, Rs. 500 and Rs. 1050 respectively.

Total Median OOPE incurred by JSSK beneficiaries was highest among those who underwent C-section delivery (Rs.2300 per delivery). The findings of the current study are consistent with the previous study to some extent, but, transport expenses have almost doubled since the previous study. The difference in OOPE between JSSK beneficiaries who had normal delivery and those who delivered by C-section has significantly decreased in the current study, and the OOPE among those who underwent C-section delivery has impressively decreased to Rs. 600 per delivery from the previous study value.

Yangala et al. showed that coverage of JSSK in Chittoor is very high and all subjects are utilizing services under JSSK, but transportation entails high OOPE among subjects. The same trend is reported by our study in Chhattisgarh as well.

Chaudhary et al. reported that JSSK scheme has been underutilized in rural areas of Haryana as lack of facilities such as USG which favour OOPE. OOPE has been incurred by most of the subjects as facilities are lacking in peripheral areas and referral transport has been well received by the mothers but not by newborns. Our findings are not consistent with study and show an improvement in the overall coverage of the scheme.

Summary:

- The median OOPE incurred during hospitalization was Rs. 250 per delivery.
- Maximum median expenditure during and after delivery was for essential diagnostics for mother (Rs. 5000), but it was incurred by only 1% of the subjects.
- Median expenditure on blood for the mother was the next highest (Rs.1000), which was incurred by 25% of the subjects who required blood transfusion during delivery, i.e., 19.6% out of 102 subjects. This may be due to non-availability of required blood group or donor for exchange.
- Median expenditure on drugs for mother among all JSSK beneficiaries was Rs.300. The possible reason could be non-availability of medicine at hospital supply which compels beneficiaries to purchase it from market.
- Apart from the hospitalization, transport expenditure was also incurred by 15.7% of the mothers for home to hospital and 9.8% mothers for hospital to home. Out of 102 subjects, 31.4% had required referral services from peripheral centres to the tertiary care centre and out of them 6.3% mothers incurred OOPE. However, OOPE was incurred by those who did not call for service. The majority of mothers got transport benefits as per the guidelines of JSSK, and median expenditure incurred for transport among all JSSK beneficiaries was Rs. 300 for home to hospital, Rs.100 for hospital to home and Rs.450 in case of referral.
- The burden of OOPE by JSSK beneficiaries was only slightly higher for C-section (60%) than normal delivery (57.4%), and median OOPE was also comparable (Rs. 600 and Rs.560 respectively).
- All of the subjects availed free meals from the hospital. Only 18% subjects needed to supplement from home and 1% from outside. Average duration as well as median duration of hospital stay post-delivery was 3 days. This figure is lower than JSSK recommendations of 3 days for vaginal delivery and 7 days for C-section possibly due to non-availability of sufficient beds.
- A higher percentage of sick newborns incurred OOPE as compared to normal newborns in drugs and other expenses. The median OOPE was also higher in sick newborns as compared to normal newborns on drugs (Rs.445 and Rs.250 respectively) and other expenses (Rs.350 and Rs.320 respectively). Among other expenses, 100% of the OOPE was incurred due to Milk powder. Immunization and essential diagnostics were free for all newborns, and none of them needed referral services.

CONCLUSION:

The findings of this study show that there is full coverage of JSSK among the study subjects. Still, after 10 years of implementation, this program has not reached its desired objective of reducing the expenditure of pregnant females in public health facilities to zero. The major expenditure was contributed by blood, drugs and transport. Commodities such as pads for the mother and milk powder for infants contribute significantly to OOPE to those who required them. There was a lack of awareness about JSSK among the population, even among those who received its benefits.

Recommendations:

Government expenditure in Janani Sishu Suraksha Karyakram has to be increased to cover OOPE incurred by beneficiaries, especially in the areas of blood, drugs and transport. Strict supervision and periodic evaluation of the process of the scheme has to be done. Knowledge of JSSK among the antenatal population has to be increased by proper counselling by grass root level health care workers and Mass Media.

REFERENCES:

- 1) Goal 3, Department of Economic and Social Affairs [Internet] cited 2020 Jul 29.
- 2) Roy K., Howard DH. Equity in out-of-pocket payments for hospital care: Evidence from

India. *Health Policy*. 2007; 80:297–307.

- 3) WHO *Out-of-pocket payments, user fees and catastrophic expenditure*. WHO. World Health Organization; cited 2020 Jun 14.
- 4) WHO. *World health statistics report*. Geneva: World Health Organization; 2015.
- 5) Ministry of Health and Family Welfare (MoHFW) *Annual report to the people on health*. Ministry of Health and Family Welfare. New Delhi: Government of India; 2009.
- 6) Maternal Health Division. Ministry of Health and Family Welfare Government of India. Guidelines for Janani-Shishu Suraksha Karyakram (JSSK). India: New Delhi; 20.