

## ORIGINAL RESEARCH

# Evaluation of JSSK Programme in urban field practice area of Guru Gobind Singh Medical College, Faridkot

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### ABSTRACT

**Introduction:** For building healthy nation, the primary focus is given to promote and protect maternal health. Maternal health is intimately associated with the child care and child health. So, protection and promotion of the health of the mothers and children is of prime importance. Government of India has launched Janani Shishu Suraksha Karyakaram to reduce out-of-pocket expenditure in the utilization of antenatal care, institutional delivery, and post-natal and neonatal care. Hence, present study is carried to assess the service awareness, utilization and assess the satisfaction of beneficiaries regarding services under JSSK. **Material and Methods:** The study was conducted in urban area of district Faridkot among women who delivered within last 1 year. A total of 170 women was selected using simple random sampling. Data was collected using self-structured pre-tested and validated tool and analyzed using suitable statistical software. **Results:** Overall, 97.6% of the women were aware about the free and cashless delivery and utilized by 87.6% mothers. Almost 82.9% were aware about free transport facility and 72.5% of women had utilized free transport services. The benefits provided to pregnant women were found to be independently influenced by education of the respondents. **Conclusion:** The majority of beneficiary mothers were aware about free delivery care under JSSK. However, utilization of the benefits was not achieved universally among all the beneficiaries. Further efforts are needed to increase the overall awareness and utilization of various entitlements of JSSK among pregnant women and thus indirectly helping in reducing MMR and IMR. Interpersonal communication through frontline health workers played a prominent role in generating awareness.

**Keywords:** Urban field practice area, Janani Shishu Suraksha Karyakaram, Faridkot

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### INTRODUCTION

Maternal health is a key barometer of functional health system.<sup>1</sup> Maternal mortality in a region is a measure of the reproductive health of women in the area. Many women in reproductive age-span die due to complications during and following pregnancy and childbirth or abortion.<sup>2</sup>

In recent decades, the world has made significant progress reducing new born and maternal deaths. Between 1990 and 2020, the new born mortality rate was almost halved – from 37 to 17 deaths per 1,000 live births. From 2000 to 2017, the global maternal mortality rate fell by nearly 38 percent.<sup>3</sup> Yet, tragically, an estimated 810 women continue to die each day due to complications of pregnancy and childbirth - mostly from preventable or treatable

causes, such as infectious diseases and complications during or after pregnancy and childbirth.<sup>4</sup>

Uneven access to affordable, high-quality health care and services impedes many countries from improving maternal and new born survival and reducing stillbirths.<sup>3</sup> Government of India (GOI) has made significant progress in reducing the maternal mortality ratio (MMR) from 556 per lakh in 1990 to 113 per lakh live births in 2016-18 (a decline of 80%). It is heartening that the Maternal Mortality Ratio in India has declined over the years to 97 in 2018-20 from 103 in 2017-19.<sup>2</sup> India is currently on track to achieve the Sustainable Development Goal 3 (SDG 3) target of an MMR below 70 by 2030.<sup>5</sup> In Punjab, Maternal Mortality Ratio (Per 100000 Live Births) has been reduced from 192 in 2004 to 122 in 2016, now its further reduced to 105 in 2018-20.<sup>2</sup>

Both maternal and infant deaths could be reduced by ensuring timely access to quality services, both essential & emergency, in public health facilities without any burden of out-of-pocket expenses.<sup>6</sup>Government of India has launched Janani Shishu Suraksha Karyakaram (JSSK) on 1st June, 2011.<sup>7</sup>The major objective of the scheme was to reduce out-of-pocket expenditure in the utilisation of antenatal care, institutional delivery, and post-natal and neonatal care.<sup>8</sup>Hence, present study is carried to assess the service utilization and assess the satisfaction of beneficiaries regarding services under JSSK.

## MATERIAL AND METHODS

The present community based cross sectional study was conducted in urban field practice area of department of Community Medicine, Guru Gobind Singh Medical College & Hospital, Faridkot over a period of one year (May 2021-April 2022)among all the postnatal women who delivered within last 1 year. The sample size is decided taking into account the formula<sup>9</sup>,  $N = \frac{Z^2 P(1-P)}{d^2}$ . After review of literature, it was observed that prevalence of utilization for various components of services under JSSK scheme was variable ranging from 40-70% for various components<sup>10</sup>. Therefore, P= 55%, confidence limit of 95%, margin of sampling error 8%. Sample size came out to be, N=155. Assuming the non-response rate to be 10%, total study subjects included in the study was 170. Therefore, a total of 170 postnatal women (satisfying inclusion and exclusion criteria) formulated the sample size. Inclusion criteria consisted of beneficiaries of services under JSSK. Exclusion criteria comprised of beneficiaries who were not willing to participate, who had not delivered within last 1 year and who had still birth or abortion during last pregnancy. After obtaining approval from the research committee, ethical approval was obtained from the ethical committee of the institution.

The main tool of this research was a descriptive, detailed questionnaire which was made after in depth study of the whole JSSK services and entitlements and the (questionnaire) tool took nearly two months for preparation as it was pre-tested and modified several times till the full details of the entitlements and services were incorporated. Questions were added and modified based on the requirements. Only questions found relevant to the JSSK programme were maintained. The English version of the tool was

translated into Punjabi by the help of a language expert. The study tool includes self-designed pretested proforma for Baseline information about socio-demographic profile and knowledge assessment, checklist on service utilization, client satisfaction using Likert's rating scales.<sup>11</sup>The main purpose of pretesting the questionnaire was to ensure that the questions framed were clear and easily understood, and that maximum information could be elicited without leaving any important information related to the study.

Prior to commencement of study, line-list of total number of postnatal women who delivered within last 1 year was taken from four ANMs of UHTC which comes under the urban field practice area of department of Community Medicine, Guru Gobind Singh Medical College, Faridkot. After line- listing, unique identification number was allotted to each household with postnatal women, based on which the allocated sample size was randomly selected using computer generated random numbers from the prepared list.

Selected households were visited and informed written consent was taken from the respondent for participation in the study. Confidentiality was maintained at all levels. One to one interview of mother was held and relevant information about socio-demographic profile of the participant, assessment of knowledge and utilization of services under Janani Shishu Suraksha Karyakaram was collected using semi-structured questionnaire. If the selected participant failed to give her consent for participation in the study or the household was locked or selected participant was not present in the household at time of interview, immediate next participant in the line list was included in the study.

The data collected during the survey was coded and entered into Microsoft<sup>®</sup> Excel<sup>®</sup> spreadsheet. Analysis was done using SPSS<sup>®</sup> version 20.0 windows software program. Data was represented in the form of tables and graphs (whichever was appropriate) for easy interpretation. Descriptive statistics such as mean, standard deviation and Fisher's exact test was applied to show association between dependent and independent variable. Significance level was considered at p value <0.05. Binary logistic regression was used to find out association between socio-demographic variables education of the respondents and utilization of benefits provided for pregnant women.

## RESULTS

**Table 1: Distribution of subjects according to Age-group of the respondents**

Age group (in years)	Frequency (n= 170)	Percentage (%)
18-22	39	22.9
23-27	72	42.4
28-32	46	27.1
33-37	13	7.6
Mean±SD = 25.94±4.280		

As depicted in Table no. 1, the mean age of the population is 25.94 ( $\pm 4.280$ ). During the study it was observed that majority of subjects belonged to age group 23-27 years (42.4%).

**Table 2: Distribution of subjects according to education of the respondents**

Education	Frequency (n= 170)	Percentage (%)
Illiterate	13	7.6
Primary school certificate	50	29.4
Middle school certificate	49	28.9
High school certificate	38	22.4
Intermediate/ diploma	7	4.1
Graduate	13	7.6

Table no. 2 shows that out of total subjects, majority of the mothers under study were educated up to primary school (29.4%), followed by middle school (28.8%) and high school pass (22.4%). 13(7.6%) of mothers were illiterate.

**Table 3: Awareness and utilization of benefits provided for pregnant women under JSSK (n=170)**

Benefits	Awareness N (%)	Utilization N (%)
Free and zero expense Delivery and Caesarean Section	166 (97.6)	149 (87.6)
Free Drugs and Consumables	163 (95.9)	147 (86.5)
Free Essential Diagnostics	159 (93.5)	144 (84.7)
Free Diet during stay in the health institutions	164 (96.5)	142(83.5)
Free Provision of Blood	151 (88.8)	32 (18.8)
Free Transport from Home to Health Institutions	146 (85.9)	138 (81.2)
Free Transport between facilities in case of referral	139 (81.8)	97 (57.1)
Drop Back from Institutions to home	138 (81.2)	135 (79.4)
Exemption from all kinds of user Charges	137 (80.6)	127 (74.7)

Table no. 3 shows that among the study participants, 97.6% of the women were aware about the free and cashless delivery for normal and C-section deliveries and 87.6% of them utilized it, 95.9% of women were aware about free drugs and consumables and 86.5% of them utilized it, 93.5% were aware about free essential diagnostics and 84.7% of them utilized it, 96.5% of women were aware about free diet for mother during stay in the health institutions and 83.5% of them utilized it, 88.8% of women were aware about free blood transfusion provision in the

health institutions and 18.8% of them utilized it, 85.9% of women were aware about free transport from home to health Institutions and 81.2% of them utilized it, 81.8% of women were aware about free transport between facilities in case of referral and 57.1% of them utilized it, 75.3% of women were aware about free drop back services from institutions to home and 79.4% of them utilized it and 80.6% of women were aware about exemption from user charges and 74.7% of them utilized it.

**Table 4: Relationship between education of the respondents and awareness of benefits provided under JSSK**

	Illiterate	Primary school	Middle school	High school	Post high school diploma	Graduate		
YN	103	473	454	335	52	94	9.820	.052
YN	94	455	445	362	52	85	13.35	.011
YN	112	455	463	344	52	94	8.049	.109
YN	94	446	445	335	52	76	11.99	.022
YN	49	1238	841	731	07	112	4.289	.500
YN	94	428	418	344	52	76	9.560	.068
YN	103	3020	3019	1820	34	67	5.266	.386

YN	94	419	409	335	52	76	7.638	.153
YN	103	419	3613	299	43	76	5.725	.323

Table no. 4 shows that majority of the postnatal women who has education up to primary and middle school had utilized more of the benefits provided for pregnant women than those pregnant women who were illiterate, high school, post high school diploma

or graduate. Association between education of the pregnant women and utilization of free drugs and consumables for pregnant women and free diet for mother during stay in the health institutions was found to be statistically significant ( $p < 0.05$ )

**Figure 1: Distribution of subjects according to client satisfaction regarding services provided to pregnant women under JSSK**

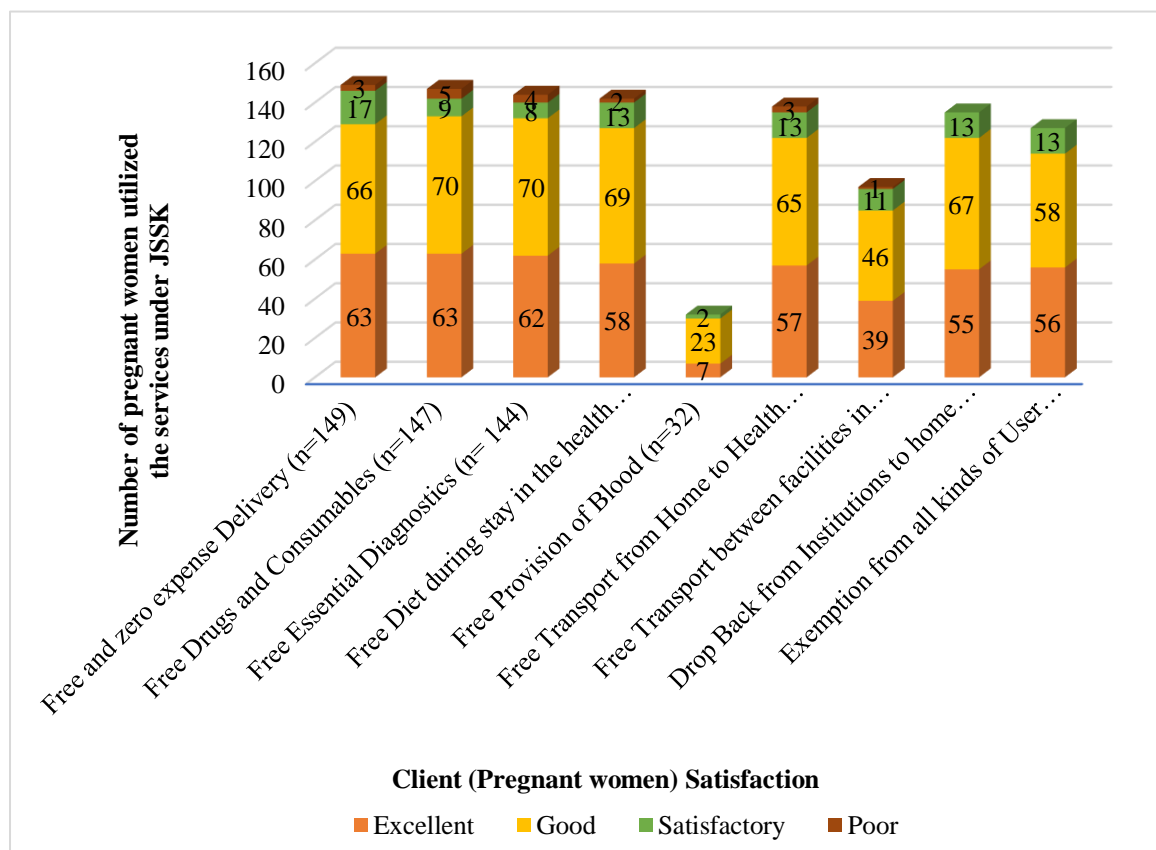


Figure no. 1 shows that as far as care of pregnant women is concerned, out of the services utilized by pregnant women, 63 (42.3%) and 66 (44.3%) of subjects rate free and zero expense delivery as excellent and good respectively. Similarly, 63 (42.9%) and 70 (47.6%) of subjects rate free drugs and consumables as excellent and good respectively. As far as free essential diagnostics and free diet are concerned, 62 (43.1%) and 58 (40.8%) respondents rate them as excellent respectively and 70 & 69

(48.6%) respondents rate them as good. As blood services was utilized by 32 women only, from them 23 (71.9) rate it as good. Most of the respondents i.e., 57 (41.3%), 39 (40.2%) and 55 (40.7%) rate transport services from home to institute, between facilities and from institute to home as excellent while 65 (47.1%), 46 (47.4%) and 67 (49.6%) rate them as good. For exemption from all kinds of user charges, most of the respondents i.e., 56 (44.1%) and 58 (45.7%) rate them as excellent and good respectively.

**Table 5: Binary logistic regression showing association between education of respondents and utilization of benefits provided for pregnant women (n= 170)**

Benefits	Illiterate	Primary school	Middle school	High school	Post high school diploma	Graduate
Free and zero expense Delivery and Caesarean Section						
Odd's ratio	.675	.144	.200	.341	.675	1
(95% CI*)	.118 - 3.873	.027 - .754	.042 - .952	.076 - 1.539	.120 - .6777	

P value*	.659	<b>.022</b>	<b>.043</b>	.162	.919	.124
Free Drugs and Consumables						
Odd's ratio	.711	.178	.182	.089	.640	1
(95% CI)	.140 – 3.606	.042 – .758	.043 - .776	.015 - .543	.088 – 4.655	
P value	.681	<b>.020</b>	<b>.021</b>	<b>.009</b>	.659	<b>.029</b>
Free Essential Diagnostics						
Odd's ratio	.409	.250	.147	.265	.900	1
(95% CI)	.060 – 2.769	.056 – 1.117	.028 - .771	.055 - 1 .271	.120 – 6.777	
P value	.360	.070	<b>.023</b>	.097	.919	.201
Free Diet during stay in the health institutions						
Odd's ratio	.519	.159	.133	.177	.467	1
(95% CI)	.104 – 2.581	.040 – .635	.032 - .554	.042 - .746	.065 – 3.344	
P value	.423	<b>.009</b>	<b>.006</b>	<b>.018</b>	.448	<b>.040</b>
Free Transport from Home to Health Institutions						
Odd's ratio	.519	.222	.228	.137	.467	1
(95% CI)	.104 – 2.581	.059 – .838	.060 - .859	.030 - .618	.065 – 3.344	
P value	.423	<b>.026</b>	<b>.029</b>	<b>.010</b>	.448	.106
Drop Back from Institutions to home						
Odd's ratio	.519	.256	.263	.177	.467	1
(95% CI)	.104 – 2.581	.069 – .947	.071 - .971	.042 - .746	.065 – 3.344	
P value	.423	<b>.041</b>	<b>.045</b>	<b>.018</b>	.448	.204
Exemption from all kinds of user Charges						
Odd's ratio	.350	.256	.421	.362	.875	1
(95% CI)	.065 – 1.895	.069 – .947	.119 – 1.487	.097 - 1.358	.137 – 5.576	
P value	.223	<b>.041</b>	.179	.132	.888	.782

\*p value <0.05 is significant, CI=confidence interval

Table no.5 shows that the benefits which are found to be independently influenced by education of the respondents were: free and zero expense delivery and caesarean section (primary school, middle school), free drugs and consumables (primary school, middle school, high school and graduate), free essential diagnostics (middle school), free diet during stay in

the health institutions (primary school, middle school, high school and graduate), free transport from home to health institutions (primary school, middle school and high school), drop back from institutions to home (primary school, middle school and high school) and exemption from all kinds of user charges (primary school).

### DISCUSSION

Developing countries today still face high maternal and infant mortality rates. Maternal and child mortality is expected to be reduced by promoting institutional deliveries. To address this issue, the Government of India launched JSSK in 2011.<sup>12</sup> The current study provides an insight regarding the utilization of different entitlements of JSSK in urban field practice area of department of Community Medicine, Guru Gobind Singh Medical College, Faridkot. In the present study, the age wise distribution shows that majority 72 (42.4%) belonged to age group of 23-27 years and 46 (27.1%) were in age group of 28-32 years. The mean age of the subjects was 25.94 ± 4.280 years. Kuruvilla A et al (2018) in their study among 270 postnatal women in urban Vadodara, Gujarat reported that 130 (47.3 %) of the mothers were in the age group of 20-24 years and 97 (36%) were in age group of 25-29 years.<sup>13</sup> Barua K

et al in 2016 showed that out of the 387 respondents, majority 142 (36.7%) were in the age group 20-24 years.<sup>14</sup>

In the present study, it was observed that majority of the study participants i.e., 13 (7.6%) were illiterate, 50 (29.4%) had completed primary education, 49 (28.9%) up to middle school education, 38 (22.4%) up to high school education, 7 (4.1%) up to intermediate/post high school diploma education and 13 (7.6%) of study participants had completed their graduate. In short, 92.4% of study participants were literate. Deshpande S in Marathwada, Maharashtra (2016) stated that around 96.2% were literate, out of which 70.30% women were educated up to middle and high school level.<sup>12</sup>

In our present study, 97.6% of the women were aware about the free and cashless deliveries. Kuruvilla A et al showed 84% of the women were aware about the free and cashless deliveries.<sup>13</sup> However, Chandrakar

A et al showed in their study that 35.80% of mothers were aware about free normal vaginal delivery and about free caesarean section.<sup>15</sup>In our present study, 87.6% delivered in government health facility and the rest of mothers delivered in private facility, 86.5% of women had taken free drugs and consumables from the hospital during antenatal, prenatal and postnatal period, 84.7% of women had utilized free essential diagnostics. Similarly, a study conducted by Tyagi U et al in Sirmaur district, Himachal Pradesh revealed that the proportion of mothers who received diagnostics, drugs and consumables were 96%, 86% and 64% respectively.<sup>10</sup>In our study, most of the respondents i.e., 57 (41.3%), 39 (40.2%) and 55 (40.7%) rate transport services from home to institute, between facilities and from institute to home as excellent while 65 (47.1%), 46 (47.4%) and 67 (49.6%) rate them as good. A study conducted by Kalla N in rural areas of western Rajasthan shows that only 36.7% of the respondents were satisfied with the location of the PHC/CHC/SC of their area. Only 33% respondents showed satisfaction with the availability of the mean of transportation to reach health centre. Only 33.3% respondents said that it is convenient for them to reach nearby health centre in case of emergency and for the ease of access to nearby health centres only 46.7% responded answered positive.<sup>16</sup>

## CONCLUSION

The current study results showed that the majority of beneficiary mothers were aware about free services under JSSK which was available in the public health facilities and had received it. However, utilization of the benefits was not achieved universally among all the mothers. Awareness at the community level should be enhanced through wider dissemination of IEC materials in local language, by undertaking awareness camps, during ANC check-up using print and electronic media and at the facility level by organizing workshops for all the health care professionals. It is critical that the public health facilities are adequately resourced for providing free, safe and quality health services.

## FINANCIAL SUPPORT

Not applicable

## CONFLICT OF INTEREST

There are no conflicts of interest.

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