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# Janani Suraksha Yojana in Kashmir Valley: A Binary Logistic Regression Analysis

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#### Abstract

Janani Suraksha Yojana (JSY) is a maternal care Initiative that stimulates institutional delivery by offering monetary rewards to mothers who give birth to their children under the medical facility. Studying a community's usage patterns and perceptions of a specific health programme is crucial for determining the program's success or failure. The study aimed to analyse the impact of educational status, economic status, level of awareness and age of the respondent on the institutional deliveries in the district Srinagar in J&K. The different estimation techniques, like the Chi-square test, Logistic regression model and Descriptive analysis, were used in the study to attain the objectives. The association between full immunisation, PNC Checkups, government institutional deliveries, financial assistance, and level awareness was checked by Pearson Chi-Square Value, and the results were found to be significant among all the variables. By the findings of the logistic regression model, all socioeconomic variables are statistically significant at a level of 5%. The economic status, level of awareness, and age of respondents positively impact the institutional deliveries except for education status, which is negatively related to the dependent variable. The study suggests that the government should focus on increasing the gross enrollment ratio of women in higher education. Moreover, policymakers should expand the JSY reimbursement to include non-medical costs associated with maternity care, and appropriate measures should be taken to curb non-medical or indirect expenditures in public health facilities.

*Keywords:* health status, JSY, institutional deliveries; child immunization; PNC checkup; financial assistance; binary logistic regression

#### Introduction

The prime goal for India's public health is to strengthen mothers' wellbeing. Maternity services must be used by mothers to improve maternal health. Notably, for disadvantaged populations, the cost of pregnancy is frequently a financial burden. India introduced a conditional maternity benefit transfer plan in 2005 to encourage women to use facilities. (Saradiya & Aditya, 2018). Programs for conditional cash transfers (CCTs) are becoming more and more common in developing nations (World Bank, 2015). CCT programs offer monetary transfers to households in exchange for adhering to a set of pre-established conditions intended to enlarge the use of health and educational services to reduce short-term and intergenerational poverty (Diwan et al., 2012). CCTs, which frequently concentrate on the underprivileged, may assist in reducing disparities in service access and health and educational results. Since its introduction in 2005, Janani Suraksha Yojana (JSY), one of the substantial cash transfer world, Programmes in the has considerable attracted attention (Kumar et al., 2015; Diwan et al., 2012). Pregnant women in India are given financial incentives by JSY in order to persuade them to give birth at public hospitals under free medical facilities. When analysing the Program's efficacy, policymakers in India should consider its benefits. However, other countries with poor institutional delivery rates and reproductive inadequate health outcomes should also take note of India's experience.

Article 25 of the 1948 Universal Declaration of Human Rights states, "Prevention and promotion of health is one of the basic human rights." (1). Fortunately, maternal health issues have remained at the forefront of international and national health policies in recent years. The emphasis on achieving "*Good health and wellbeing*" in *sustainable development goal* 3 emphasised developing good health (Lim et al., 2010; Pal et al., 2012). The main issue with primary health centres is that they focus more

on curative healthcare and ignore preventive aspects (Khursheed, H., 2017). India's government emphasises encouraging institutional deliveries to improve maternal survival, which was also emphasised in the MDGs (Desai et al.,2016; Maharjan & Joshi, 2011). In Hindi, Janani means Suraksha mother. selfmeans keeping, and Yojana means scheme (Diwan et al., 2012). Mother Protection is the basic definition of Janani Suraksha Yojana, established as part of India's National Rural Health Mission (NRHM) on April 12, 2005. This study aimed to assess the impact of JSY on institutional births, maternal illness, and mortality and to highlight any difficulties with the program's implementation (Misra et al.,2014; Mukherjee & Singh, 2018).

The main objectives of JSY were to reduce newborn and death rates by encouraging institutional delivery and giving institutional care special priority for women, especially those from BPL families below the poverty line (Dandona et al., 2010). The objective could be achieved if they receive monetary payments during institutional births and prenatal and postnatal care. (K. Gupta1. et al.,2012; Rahmana & Pallikadavath. 2018). Based on the pre-programme level of institutional performance, the Programme separates states into high-performing (HPS) and lowperforming (LPS) groups. The amount of financial aid is determined by how well the state does, regardless of whether it is rural or urban. Since the implementation of the JSY, the worst-performing state has been Madhya Pradesh in the Janani Suraksha Yojana. The first formal examination statistical of JSY's effects on the whole nation of India was carried out by Lim et al. (2010). Prior analyses had been more descriptive (Grahacharva & Ralte, 2008), geographically constrained (UNFPA - India, 2009; Sharma et al., 2009), or had only taken a small number of outcomes into account (Satapathy, 2009). The JSY initiative had substantial, favourable effects on institutional deliveries. antenatal care, and skilled birth attendance (Lim et al., 2010). Even more convincing, they discovered a modest but statistically significant maternal and neonatal mortality decline in two of their analytic methodologies.

## Health Scenario in Jammu & Kashmir

With 13.6 million people, the Jammu and Kashmir (J & K) UT represents 1% of the nation's population. Despite numerous obstacles like financial resources, poor road connectivity, low pressure of the private sector, and also making it accessible and affordable to all, especially to the under-served and under-privileged segments of the population, the UT government has implemented several programs in the health sector to give its citizens with high-quality healthcare facilities (Jan et al., 2014). This is because it recognises the significance of health for the economy's overall growth. The UT of Jammu and Kashmir comprises 20 districts, viz., ten districts in Kashmir Region and ten districts in Jammu

Regarding Region. the public expenditure on health, health expenditure as a percentage of GSDP has increased. The 20 districts that comprise the Jammu and Kashmir Union Territory are divided equally between the Kashmir and Jammu comprising regions, each ten districts. Health expenditure as a percentage of total expenditure has also surged from 5.38% in 2011-12 to 5.95% in 2015-16. The current public health expenditure per cent of GDP is 2.1, the highest compared to our national level of 1.0 in 2019 (RBI, 2019). Infant Mortality Rate (IMR) successfully decreased by 8 points in the UT of Jammu and Kashmir, from 34 in 2015 to 23 in 2020. The total fertility rate (TFR), which was 1.7 in 2015 but was only 1.6 in 2016, has decreased. The neonatal also Mortality Rate (NMR) decreased from 26 in 2014 to 20 in 2015. There are currently 5534 health institutions in the state, 4433 of which are government and 1101 private. The number of beds in tertiary care hospitals has climbed to 5083, and the number in secondary care hospitals has increased to 9339. Compared to the WHO recommendation of 1:000, the UT of J&K has a doctor-patient ratio of 1:1658. As part of the National Health Mission. which is flagship а health Programme, maternal initiatives like Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK) were put in place with the main goal of reducing infant and mother mortality rates by promoting institutional deliveries. The infant mortality rate has considerably fallen from 45 in 2005–2006 to 32 in 2015–2016, according to data from the National Family Health Survey (NFHS–4).

#### **Review of Literature**

The Janani Suraksha Yojana (JSY) scheme is a demand-driven initiative by the Indian government to decrease maternal deaths bv providing financial incentives to women to give birth in hospitals (Misra et al., 2014; Carvalho & Rokick, 2019). Many studies have been conducted on this topic, and it has been found that under JSY, Cash transfers have positively impacted the deliveries among women (Randive et al., 2013; Misra et al., 2014; Carvalho & Rokicki. 2019: De & Timilsina. 2020). Numerous studies indicate that JSY's impact on institutional delivery rates in India has led to an increase in JSY beneficiaries and institutional delivery rates, which has led to a significant decline in infant mortality rates (Gupta et al., 2012). Many studies have been conducted in the UT of Jammu and Kashmir, such as in the Budgam district by Qurat-ul-Ain (2010). According to the latest data, only 10.6% of new mothers had a prenatal examination, whereas 97% received the checkup at a hospital, 89% of births took place in hospitals, and 10.6% of women gave birth at home. Jan et al. (2014) conducted a primary study in the Ganderbal district of Kashmir Valley, and the revealed 90% results that of respondents have heard about JSY while 48.75% have heard about JSY from ASHA, 93.75% know that only money is given for institutional

delivery. Dar and Bhat (2018)conducted a study where they utilised various factors to investigate the reduction of IMR, such as per capita income (PCI), the proportion of deliveries. institutional female literacy rate. the percentage of women attending complete antenatal clinics (ANC), and the proportion of households with access to sanitation. Sabitri conducted research in 2019 healthcare regarding maternal services and socioeconomic differences in India before and after the national rural health mission. Using the Logit Model, the study found that maternal care services varied by the mother's education level, social group, age, and income. In their study, Meh et al. (2022) conducted a cross-sectional survey at the national level to examine trends in the maternal mortality ratio from 1997 to 2020. According to the findings, India's MMR decreased by almost 70% between 1997 and 2020.

#### **Objectives of the Study**

Taking into account the literature review, the study is based on the following goals:

- i. To know the socioeconomic background of respondents.
- ii. To increase respondents' awareness of the JSY scheme.
- iii. To find the association between Child Immunisation, PNC checkups, and Financial Assistance under the JSY Scheme.
- iv. To find the impact of socioeconomic determinants

on government institutional deliveries

## **Database and Methodology**

The study aimed to evaluate how well the Janani Suraksha Yoiana promoted institutional delivery and its impact on beneficiaries in the Srinagar district. The study consists of four medical zones and one block: Batmaloo Zone, S.R. Gunj Zone, Khanyar Zone, Zadibal Zone and Hazratbal Block. The research relies on primary data sources. A primary survey collected the data using a wellsemi-structured designed. questionnaire based on the study's objectives. Data was collected for the study by using a purposive stratified cum random sampling technique to conduct a field survey. The female whose beneficiaries deliveries occurred during 2019-20 in different government hospitals in the Srinagar district were purposively selected. A total of 90 samples were collected from the field. Keeping the study's objectives. the current research employs various statistical tools and econometrics techniques to analyse the data using SPSS-20 and Excel software.

## **Descriptive Statistics**

Table 1 presents the age-wise breakdown of the sampled respondents. The sample respondents were categorised into five age groups, and the frequencies and percentages were calculated from the collected data.

The table reveals that 50.0% of respondents fell in the age group of 26-30 years, 27.8% were in the age group range of 31-35 years, and 17.8% were in the age group of 21-25 years. The data also reveals that just 3.3% of all responses were within the 36–40 age group. It was found that only 1.1% of the respondents were found to be in the age group of 41-45. The mean age was 29 years, and the minimum and maximum ages of the respondents were 21 and 41 years.

#### Table 1

#### Age of the Respondents

| 0 0           | 1                        |            |
|---------------|--------------------------|------------|
| Age           | Number of<br>Respondents | Percentage |
| 21-25<br>year | 16                       | 17.8       |
| 26-30<br>year | 45                       | 50.0       |
| 31-35<br>year | 25                       | 27.8       |
| 36-40<br>year | 3                        | 3.3        |
| 41-45         | 1                        | 1.1        |
| Total         | 90                       | 100.0      |
| Source: F     | ield Survey 2022         | )          |

Source: Field Survey, 2022

#### Table 2

Educational Status Among Women Respondents

| Responden    |               |              |
|--------------|---------------|--------------|
| Education    | Number o      | f Percentage |
| Level        | Respondents   |              |
| Illiterate   | 10            | 11.1         |
| Up to        | 13            | 14.4         |
| Primary      |               |              |
| 1            | 14            | 15.6         |
| Middle       |               |              |
| Secondary    | 16            | 17.8         |
| Higher       | 20            | 22.2         |
| Secondary    |               |              |
| Graduation   | 15            | 16.7         |
| Post-        | 2             | 2.2          |
| graduation   |               |              |
| and higher   |               |              |
| Total        | 90            | 100          |
| Source: Fiel | d Survey 2022 |              |

#### Source: Field Survey,2022

It is evident from Table 2 that a maximum number of respondents, i.e. 22.2%, have received education up to higher secondary level (12<sup>th</sup>

Standard), 16.7% have received education up to graduation level, 17.8% have received education up to secondary level (10<sup>th</sup> Standard). 15.6% have received education upto (8<sup>th</sup> Standard). middle 11.1% respondents were illiterate and only 2.2% were qualifying post-graduation higher. The minimum and or maximum years of schooling were found to be 0 and 25 years, respectively. It was also found that the mean years of schooling was approximately four years.

# Economic Status of the Respondents

Table 3 shows economic status; the respondents were classified based on the type of ration cards they had. Household (PHH), Priority Antvodava Anna Yojana (AAY), Below Poverty Line (BPL) and Above Poverty Line (APL). Later, it was seen that the AAY and PHH categories had very low frequencies, and therefore, these two were clubbed into the BPL category. In this study, BPL includes the AAY and PHH categories. The distribution of respondents in terms of their economic status is given as:

## Table 3

Economic Status

| Category | Number of respondents | Percentage |
|----------|-----------------------|------------|
| BPL      | 32                    | 35.6       |
| APL      | 58                    | 64.4       |
| Total    | 90                    | 100.0      |

Source: Field Survey,2022

The Table demonstrates that 64.4% of respondents fall in the APL category, and 35.6% fall in the BPL

category. The above data reveals that most sampled respondents had a good economic status.

#### Awareness of Respondents About JSY

Knowledge is one of the most important factors in determining how well and for whom a Programme works. More people are taking advantage of a programme as a direct result of increased education about the field in which it operates. Table 4 summarises the statistics received from the respondents regarding their knowledge of the JSY scheme, the time they became aware of it, and their level of awareness about the scheme.

The data suggests a relatively high level of awareness about the Janani Suraksha Yojana (JSY) among the surveyed population. Approximately 84.44% of the respondents indicated that they are aware of JSY. This indicates the scheme has significant attention or publicity among the surveyed group. However, a portion (15.56%) of the population remains unaware of the scheme, which might suggest further dissemination of information or outreach efforts to ensure broader awareness and potential participation in the program. This highlights a potential requirement for additional efforts in spreading information or initiatives outreach enhance to awareness and encourage broader participation in the program.

Regarding the sources of information for awareness about the Janani Suraksha Yojana (JSY). The majority of respondents (78.96%), a total of 60, were informed about JSY ASHAs, indicating through the significant role these health workers play in disseminating information about healthcare programs. A smaller proportion of respondents (14.47%) information received from ANMs/AWWs, suggesting another important channel for spreading awareness within the community. Only (6.57%) awareness is through government publicity, electronic media, or print media as their source of information, indicating a potential improvement in reaching a wider audience through these channels. The absence of doctors as a source of information suggests a potential gap in utilising healthcare professionals for awareness campaigns related to JSY. There might be opportunities to involve doctors more actively in disseminating information about such government schemes.

## Table 4

Awareness of Respondents About JSY

| Heard about JSY                                      | Number of Respondents | %age       |
|--|-----------------------|------------|
| No   | 14                    | 15.56      |
| Yes  | 76                    | 84.44      |
| Total  | 90                    | 100.00     |
| Source of Information                                |                       |            |
| Doctor   | 0                     | 0          |
| ANM/AWW  | 11                    | 14.47      |
| ASHA   | 60                    | 78.96      |
| Govt. Publicity/Electronic media/Print media         | 05                    | 6.57       |
| Total  | 76                    | 100.00     |
| When   | No. of Respondents    | Percentage |
| Before Marriage                                      | 4                     | 5.8        |
| Before Pregnancy                                     | 5                     | 6.7        |
| During Pregnancy                                     | 64                    | 84.3       |
| After Delivery                                       | 3                     | 3.2        |
| Total  | 76                    | 100.00     |
| What   | No. of Respondents    | Percentage |
| All components                                       | 59                    | 77.9       |
| Financial assistance                                 | 11                    | 14.4       |
| Financial assistance and free institutional delivery | 6                     | 7.7        |
| Total  | 76                    | 100.00     |

Source: Field Survey,2022

The data shows that the highest percentage of respondents (84.3%) became aware of JSY during their pregnancy, indicating that this period is crucial for disseminating information about the scheme. This suggests that educating women about JSY is particularly effective during pregnancy, possibly through

visits antenatal care or other healthcare interactions. A smaller percentage of respondents became aware of JSY before marriage (5.8%) before pregnancy (6.7%). or indicating that there is some before awareness even these significant life events occur. Interestingly, a few respondents

(3.2%) became aware of JSY after delivery, suggesting that there may still be opportunities to reach women with information about the scheme during the Postnatal period. Overall, the results indicate that efforts to raise awareness about JSY are most effective during pregnancy. However, there may be additional opportunities to reach women before marriage, pregnancy, and delivery to ensure broader awareness and potential participation in the scheme.

The majority of respondents (77.9%) were aware of all components of the JSY scheme, like financial assistance, free institutional postnatal care delivery, (PNC), antenatal care (ANC), free transport, and free medicine, indicating a comprehensive understanding among the respondents. Α smaller proportion of respondents were aware only of the financial assistance component (14.4%), suggesting that some women were less informed about the broader aspects of the scheme beyond financial support. A minority of respondents (7.7%) were aware of financial assistance and free institutional delivery components, indicating that some women have partial knowledge of the scheme. Overall, while most respondents demonstrated awareness of all components of the JSY scheme, some individuals mav benefit from additional information or education about the various components, particularly those beyond financial assistance. This highlights the comprehensive importance of awareness campaigns to ensure a clear understanding of the benefits and provisions offered by the JSY scheme.

While many respondents are familiar with JSY, there are still gaps, particularly in reaching individuals unfamiliar with its benefits. Increasing outreach, effectively using healthcare staff, and executing comprehensive awareness efforts are critical. These initiatives are critical increasing engagement to and improving mother and child health outcomes through JSY.

**Ho** There is no significant association between full immunisation, PNC checkups, child immunisation, and financial assistance.

To determine the relationship among the respondents regarding the JSY scheme, the study used the crosstabulation technique in SPSS 20. They are given in Table 5. Pearson Chi-Square (<u>x</u>2) measures the strength of association between the two variables. Degrees of Freedom (DOF) indicates the number of independent variables available to estimate a statistic. Asym. Sig (2sided) is the significance level, or pvalue, associated with the Chi-Square statistic. It indicates the probability of observing the data if there is no association between true the variables.

#### Association Between the Socioeconomic Indicators and Awareness of the Respondents

Table 5 shows the results of the crosstabulation awareness of the respondents:

## Table 5

Association Between the Socioeconomic Indicators and Awareness of the Respondents

| Variables   | Pearson<br>Chi-Square<br>(χ2) | DOF | Asym.<br>sided) | Sig | (2- |
|---|-------------------------------|-----|-----------------|-----|-----|
| Full child immunisation and PNC checkup             | 2.893 <sup>a</sup>            | 1   | 0.089           |     |     |
| Govt. institutional delivery * financial assistance | 90.000 <sup>a</sup>           | 1   | .000            |     |     |
| Full ANC Checkup * Full child immunisation          | 5.586ª                        | 1   | .018            |     |     |
| Level of awareness * PNC checkup                    | 3.473 <sup>a</sup>            | 1   | .062            |     |     |
| Age of Marriage * Education                         | 82.524ª                       | 90  | .700            |     |     |
| Awareness * age of Respondents                      | 18.418 <sup>a</sup>           | 18  | .428            |     |     |

Authors Calculation using SPSS-20

The p-value of 0.089 suggests an 8.9% probability of observing the association between "Full child immunisation" and "PNC checkup" by chance alone, assuming there is no association between true the variables. Since the p-value is greater than the significance level of 0.05, we fail to reject the null hypothesis. Therefore, based on these results, we do not have enough evidence to conclude that there is a statistically significant association between "Full child immunisation" and "PNC checkup". The results align with (Misra et al.,2014; Dandona et al., 2010). The Pearson Chi-Square value vielded a substantial association between "Govt. institutional delivery" and "financial assistance" with a high Chi-Square value of 90.000ª and a significant p-value of .000. This indicates relationship а strong financial between receiving assistance and opting for government institutional delivery for childbirth. The results imply that financial support may significantly influence individuals' decisions regarding the

place of delivery, potentially promoting safer childbirth practices through government healthcare facilities. The association between "Full ANC Checkup" and "Full child immunisation" with a Chi-Square value of 5.586<sup>a</sup> and a p-value of .018 suggests that individuals who receive comprehensive antenatal care checkups are more likely to ensure full immunisation for their children. highlight The findings the importance of prenatal healthcare in promoting child health and vaccination adherence among parents. The results align with those of Rahman and Pallikadavath (2018).

The Pearson Chi-Square test indicates a moderate association between "Level of awareness" and "PNC checkup" with a Chi-Square value of 3.473<sup>a</sup> and a p-value of .062. This suggests a potential relationship between awareness levels and utilisation of postnatal care checkups, although it does reach not conventional statistical significance. Further investigation mav be warranted to elucidate the nature of this association and its implications for healthcare access and awareness campaigns. The Chi-Square value of 82.524<sup>a</sup> for the association between "Age of Marriage" and "Education," with a large degree of freedom (90) and a non-significant p-value of .700. This indicates that there is likely no significant association between age of marriage and education level in the population. The studied results suggest that education level may not significantly influence the age at which individuals get married within this context. The Pearson Chi-Square moderate test demonstrates а association between "Awareness" and "Age of Respondents," with a Chi-Square value of 18.418<sup>a</sup> and a nonsignificant p-value of .428. This suggests that there is likely no significant relationship between awareness levels and the age of respondents in the studied population. The findings imply that age may not substantially influence respondents' awareness levels. Therefore, it can be inferred from the above table that all the female respondents are fully aware of JSY, irrespective of age. Moreover, it can be inferred from the table that financial assistance is important in promoting institutional deliveries.

The findings of Table 5 suggest targeting interventions to improve healthcare access among demographics with lower utilisation rates. Enhancing prenatal care services and expanding financial assistance programs can promote child health. Policymakers should consider policy changes to mitigate socioeconomic disparities in healthcare while further access. is needed for research а comprehensive understanding of healthcare utilisation dynamics.

#### **Binary Logistic Regression**

The binary logistic regression model was used to analyse the effect of socioeconomic characteristics on the Number of institutional deliveries using the SPSS-20 software. A binary logistic regression equation was used, and several institutional deliveries were taken as the dependent variable. The explanatory variables were the respondent's educational status, economic status, level of awareness, and age. Mathematically:

 $\mu_0 + \mu_1 \, X_1 + \, \mu_2 \, \, X_2 + \, \, \mu_3 \, \, X_3 + \, \, \mu_4 \, \, X_4$ 

The logistic regression variable is binary, assuming 0 or 1. Therefore, Xneeds to be transformed to use the regression process. The logit transformation gives the following:

 $l_n \left(\frac{P}{1-P}\right) = \mu_0 + \mu_1 X_1 + \mu_2 X_2 + \mu_3 X_3 + \mu_4 X_4$ 

where  $\alpha_0$  is the slope coefficient,  $\mu_1, \mu_2, \mu_3$  and  $\mu_4$  are the slope coefficient,  $X_1, X_2, X_3$  and  $X_4$  are the explanatory coefficients, p is the probability of happening an event, and 1-p is the probability of not happening an event,  $\frac{P}{1-P}$  is the odds ratio, the probabilities of the event are given by the following logistic regression equation:

$$E(P_i) = \left(\frac{\mu_0 + \mu_i X_i}{1 + \exp^{\mu_0 + \mu_i}}\right) \quad 0 < P < 1$$

The parameter estimates in logistic regression cannot be estimated through Ordinary Least Squares (OLS) because the linearity assumption is violated. Therefore, we use the maximum likelihood estimation (MLE) method for parameter estimation.

**Null Hypothesis:** There is no difference between any of the explanatory factors of slope coefficients. i.e.  $\mu_1 = \mu_2 = \mu_3 = \mu_4 = 0$ . The binary model logistic regression findings are as follows:

## Table 6

Dependent variable encoding (Government institutional Delivery)

| Original Name | Binary Value |  |  |
|---------------|--------------|--|--|
| No            | 0            |  |  |
| Yes           | 1            |  |  |

## Table 7

#### Coefficients of Omnibus Tests

| Chi-square<br>value | DOF | Significance |
|---------------------|-----|--------------|
| 11.400              | 4   | .022         |
| 11.400              | 4   | .022         |
| 11.400              | 4   | .022         |

Table 7 portrays the highly significant coefficients of the model. The chi-square statistic for Step (11.400) was found statistically significant at the 5% significance level with the 4 degrees of freedom, indicating that the model's predictive power improved significantly over Step 0.

The -2 log-likelihood was used to fit evaluate the model's overall (47.115a). The result of -2 loglikelihood implies that the predictors are more accurate than the null model in predicting the model. The value of Cox and Snell R<sup>2</sup> was equal to .119, and the value of Nagelkerke R<sup>2</sup> was .249. It can be concluded from these two measures that the model can explain 11% to 25% of the variation Government in institutional Delivery. However, in logistic regression, the value of R-Square does not make much sense.

In order to estimate the binary logistic regression model, the number of institutional deliveries was taken to be the binary dependent variable and educational status (years of schooling), economic status, Level of awareness and age of respondents were the explanatory variables. Education and economic status were continuous variables, and economic status was categorical.

Table 8 shows that all the coefficients are significant at a 5% significance level except that of awareness. The coefficients of EDU are -.509, which signifies that as the year of schooling increases, institutional deliveries in government hospitals will decrease. The results align with those of Sharma et al. (2018).

## Table 8

#### Model Summary

| -2 Log              | Cox &                | Nagelkerke     |
|---------------------|----------------------|----------------|
| likelihood          | Snell R <sup>2</sup> | R <sup>2</sup> |
| 47.115 <sup>a</sup> | .119                 | .249           |

#### **The Estimated Model**

**W** 111 1 1 **D** 

|                        | В      | S-<br>Error | Wald<br>test | DOF | Sig-<br>Value | Exp(B) |
|------------------------|--------|-------------|--------------|-----|---------------|--------|
| Educational status     | 509    | .299        | 2.908        | 1   | .088          | .601   |
| Economic status        | 1.559  | .888        | 3.085        | 1   | .079          | 4.754  |
| Level of awareness (1) | 1.000  | 1.268       | .623         | 1   | .430          | 2.719  |
| Age of the respondent  | .261   | .125        | 4.386        | 1   | .036          | 1.298  |
| Constant               | -3.915 | 3.611       | 1.176        | 1   | .278          | .020   |

The coefficient of economic status is 1.559, which signifies that it positively impacts institutional deliveries. The slope coefficient of awareness is 1.00, which shows us that as the value of awareness improves, the number of institutional deliveries increases. The age of the respondents positively impacts the number of institutional deliveries as its elasticity coefficient is .261, which indicates that as the age of the respondents increases, the level of institutional deliveries increases by 1%.

#### Conclusion

The current research work was an attempt to examine the performance of the Janani Suraksha Yojana in promoting institutional deliveries and its impact on beneficiaries. The study also tried to assess whether the educational status, economic status, level of awareness, and age of the respondents had any impact on the level of institutional deliveries in the district of Srinagar. The results are highly significant and positive with the number of institutional deliveries except that of the level of education, which shows a negative association with the level of institutional deliveries at а 10% level of significance as the level of education increases by 1% the level of institutional deliveries decrease by 1%. The reason might be that most women dislike pursuing higher studies because of family burdens. As we saw, only 2.2% of the respondents received graduation degrees. Only 75.3% of women were aware of the JSY scheme. and 21.5% were unaware. The data show that 84.3% of women become aware during pregnancy. Therefore, women must made more aware of be this Programme. Programs at all levels should be conducted in schools. colleges, and villages to create awareness among women about utilising the JSY Programme's benefits.

Moreover, the number of Government institutional deliveries and financial assistance has a very high association as the level of financial assistance increases. The number of institutional deliveries increases was checked using the Pearson chi-square value. The research demonstrates that JSY financial support has a strong favourable association between education level and the probability of full immunisation received by the

newborn child. This study found a positive association that when a mother's education level rises, she becomes more aware the of significance of child immunisation for children and ensures that. In addition to better healthcare delivery through institutional change, there is a need to devote more resources to the health sector, such as increasing public health expenditure as a proportion of GDP and the number of doctors and nurses. The health sector must devote more resources to improving healthcare delivery and institutional changes. Additionally, future research should focus on exploring the long-term impacts of JSY, examining its sustainability, and identifying strategies to overcome maternal barriers to healthcare access in the region. The study underscores the importance of targeted interventions and policy initiatives in advancing maternal health and achieving sustainable development goals conflictin affected regions like Kashmir.

## Recommendation in Kashmir Perspective

Since the JSY program is based on cash incentives, the number of institutional deliveries has increased and reduced the cost of delivery at public health hospitals for those in need. The program aims to lower maternal and infant mortality, which can be achieved by providing women with high-quality delivery and child mortality care in public health facilities. As a result, the shortages in the supply side, which can take many different forms and include shortages

of medicines, skilled labour, and supplies, must be imperatively addressed. The government should take various steps to increase public awareness related to the JSY Programme. There is a need to level up the health infrastructure facilities in healthcare centres in order to reduce the overcrowding in primary, secondary and tertiary care hospitals. Peripheral health workers like ANMs and ASHAs should be regularly trained, motivated and monitored to provide antenatal care, delivery care and postnatal services in the district so that more and more women can go to hospitals for delivery. This study concluded that JSY, created by the of government India. shows enormous potential and hope for the underprivileged, helping undeserving inhabitants of rural regions. There is no question that Jammu and Kashmir cannot reduce its infant and maternal mortality rates to the levels required by the Millennium Development Goals and the Sustainable Development Goals. This could be achieved when the government increases public awareness related to the benefits of JSY through government publicity, electronic media, and print media. conducting Moreover. ongoing independent monitoring and assessments is crucial to determine its impact on the scheme.

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