

Access and Utilization of Janani Shishu Suraksha Karyakram (JSSK) Services: Identifying Solutions to Barriers through Positive Deviance Model

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Abstract

Due to pregnancy related complications 67000 women die every year in India. Approximately 13 lakhs infants die within one year of birth, in these 9 lakhs die within 4 weeks of born i.e., 2/3rd of the infant deaths, 75% die within first week (most of them are in first two days). To reduce these death rates government of India introduced a program called Janani Shishu Suraksha Karyakram (JSSK). The main aim of this program to provide, free transportation to pregnant women, infants, sick neonates to access to public health care centres. With the launch of JSSK institutional deliveries increased significantly, still 25% pregnant women hesitate to access these services. In this research article, implementation JSSK services in Chhattisgarh state have been studied. Only 40% of the people in Chhattisgarh are utilizing JSSK services, this is very least utilization as compared to national utilization. In this paper, we described positive deviance model to develop access of JSSK services. In this model Focus Group Discussion (FGD) and In-depth Interview (IDI) were used to know about JSSK services. In this paper we proposed new methodologies and key changes that should do with immediate effect in JSSK services. The primary objectives of this paper are

1. To identify best practices and evolve strategies to assure complete free services to all pregnant women and sick neonates accessing public health institute pocket expenditure
2. To identify and disseminate the best implementation practices of service providers in terms of the decision making, planning, effective communication, effective monitoring, incentives (financial and non-financial incentives) and grievance redressal.

Keywords: Focus Group Discussion (FGD) • In-Depth Interview (IDI) • Janani Shishu Suraksha Karyakram (JSSK) • Mitani • Positive Deviance Model (PDM)

Introduction

The Janani Shishu Suraksha Karyakram (JSSK), introduced by the Ministry of Health & Family Welfare, is an initiative to assure free services to all pregnant women and sick neonates accessing public health facilities. The JSSK entitles all pregnant women delivering in public health facilities absolutely free and no-expense delivery including C-Section and free transport from their place of residence and the return journey after discharge from the hospital. The JSSK extends similar entitlements to all sick neonates accessing public health facilities for health care till 30 days after birth. The JSSK has been launched in the State of Chhattisgarh with effect from 15th August, 2011. As per census 2011, the total population of Chhattisgarh is 2.55 crores, in this 78% lives in rural area, the maternity mortal rate 221/100000 and infant mortality rate is 43/1000, which is very high as compare to other state in country. Though JSSK led to a significant increase in the institutional deliveries even in low performing states like Chhattisgarh, there are identified barriers which hinder its effective

implementation. The major barriers include difficult accessibility to the hospital, higher OPE, unavailability of transport services & health personnel, medicines, diagnostics and diet provisions. These bottlenecks are further compounded by low level of knowledge, awareness, and utilization by the community.

Positive deviance method used to address some problems in JSSK services. The complete services of JSSK are shown in Figure 1. The possible barriers for the system are delayed fund flow, low quality and quantity of food, door delivery of drugs, issue with lab logistics, lack of awareness on transportation facility, unavailability of blood banks and informal behaviour of health staff. In this context, the present study or survey was conducted to proper utilization of JSSK services in Chhattisgarh state for every aspect by using FGD and IDIs.

Background

Many case studies conducted in West Bengal, Delhi and Himachal Pradesh have proposed many developments in JSSK services and highlighted problems faced by beneficiaries. As per Mondal J [1] his team conducted survey in rural Bankura district, West Bengal state and given a cost estimation model as non-parametric bivariate analysis was performed to examine the difference in median cost. Goyal, Priya Singh, and Abhay Mudey [2], described about cross sectional study conducted in Wardha District, Maharashtra and maternity data collected between the dates from September 2012 to August 2013. They analysed the collected data with SYSTAT 12.0 version and made conclusion that JSSK services started in Maharashtra in 2011, even though most of them not utilizing the services. In Prinja S, et al study [3], authors

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had analysed the cost of a publicly financed and managed referral transport service model in three districts of Haryana State, and to assess its cost and technical efficiency. Data Envelopment Analysis (DEA) technique used made efficient scale of ambulance services and how many kilometres travelled analysed using quadratic regression equation. Vishal Dineshkumar Soni [4] described about how maternity reports can be updated using IoT technology, by considering more security issues and botnet attacks were considered for long performance in the system. Sharma S, and Bothra M [5], conducted survey in Delhi and described about repercussion of out of packet expenditure incurred by beneficiaries and pattern of spending on various components at aggregated and disaggregated level. Schooley J, and Morales L [6] described about positive deviance/ hearth methodology in social and behaviour change. Data collected from Guatemala, Indonesia and discussed about culture context in the design and implementation positive deviance model in affecting social and behaviour change. Giving nutrient food to children is the biggest challenge. The formative qualitative research was designed and analysed for nutrition-related behaviour change in the northern province of Vietnam [7]. Cyber security is an important issue in Artificial intelligence [8], in which Vishal Dineshkumar Soni described about main survey on the fraud transaction and applied positive deviance model for the analysis for gather information. Marsh DR, et al. [9], described about pilot-test proposed a conceptual framework for household new-born care, suggested tools and methods for information gathering, identified PD (positive deviance)s in two settings of different risk, galvanized SC staff to the potential of the approach, mobilized communities for better new-born health, and drafted a new-born PD training curriculum. There are studies showing direct and indirect costs involving drugs and diagnostics, transport and food contributed to major chunk of OP [10].

Methodology

Institutional Review Board, School of Public Health, SRM University discussed and the Ethical Review Committee approved the project. Positive Deviance Model identifies positive factors influencing awareness, availability, and utilization of JSSK. We utilized the standard positive deviant methodology of Defining, Determining and Discovering. "Defining" involved listing and assessing JSSK utilization related problems, perceived and experienced causes, challenges and constraints, common practices, and outcomes. "Determining", involved listing the positively deviant community members /

health system stakeholders. These positive deviant behaviour or strategies identified are passed through a conceptual "accessibility sieve" which consider those behaviours/strategies accessible to all are kept. The rest of the behaviours or strategies are true but not accessible to all and are discarded. These identified positive behaviours/strategies are validated through FGDs and IDs.

Positive deviant model provides opportunity for group comparison between JSSK implementers (positive deviants) and non-implementers. While non-implementers provide the barriers, challenges & obstacles on JSSK is not being implemented the positive deviant group provides the solutions to those very barriers, challenges and obstacles.

Data Collection and Management

Data collection of JSSK services in Chhattisgarh state made available by using maximum variation sampling method was based on three stage sampling strategy. In First stage Identifying most difficult PHCs/HSCs based on physical accessibility related to natural and manmade infrastructure and HR issues. After selecting PHCs (Primary Health Centre) grading those HC done in second stage and select one PHC/CHC from bottom of the list and made RCH (Reproductive Child Health) indicators. In step three from selected PHC, identify home deliveries and institutional deliveries.

In Data collection used multistage samplings for the selection of sites were Natural / Environmental and man-made factors while which were affected utilization of the institutional deliveries were considered for selection of sample.

The reasons for home deliveries are broadly classified into two types natural handicap, manmade handicap reasons. Hilly areas, forest areas and unavailability of roads comes under natural handicap reasons where unavailability of HSC building, ANM vacancies, Maoist effected areas, no Mitanni's comes under Man made handicaps.

Data analysed based on selected PHCs. Table 1 shows PHC wise the factors which affect the lack of institutional deliveries. Similarly, Table 2 shows the index values for PHC based on selected factors in four districts of Chhattisgarh.

Table 1. Selected factors and its weight for each PHC in the selected district.

| Selected Factors | Weight |
|--|--------|
| Percentage of SC without building | 14 |
| Availability of Ambulance in PHC | 19 |
| Location of PHC (Hill/ Forest) | 15 |
| Percentage of SC cut off by rivers /canals | 17 |
| Percentage of SC with ANM Vacancy | 23 |
| Percentage of SC with poor mobile network | 12 |
| Total Score | 100 |

Table 2. Index values for selected PHCs.

| District | PHC name | Index value |
|-----------|--------------|-------------|
| Bijapur | PHC Pamed | 86.79 |
| Bijapur | PHC Kosalnar | 76.71 |
| Bijapur | PHC Charpal | 73.27 |
| Durg | Nagpura | 43.22 |
| Durg | Kohaka | 41.76 |
| Durg | Jewara | 36.81 |
| Kondagaon | Bayanar | 78.97 |
| Kondagaon | Eragaon | 74.57 |
| Kondagaon | Kongud | 68.43 |
| Mungeli | Ramhepur | 53.44 |
| Mungeli | Lalpur Thana | 53.44 |

Note: In the below analysis Naxals affected area and availability of Mitanins were excluded. Among all the components within JSSK, it was institutional delivery that was the most challenging to access from the community point of view. On the other hand, from the service provider perspective, it was ensuring availability of food and medicines at the time of delivery that was challenging. Surveys conducted in four districts of Chhattisgarh, in those 12 PHCs are selected. Table 3 shows community positive deviants, service providers and non JSSK users report

Findings and Analysis

The findings have been organised as per the various components of JSSK and themes related to barriers and solutions from positive deviants have been presented under each component.

Awareness

Most of the women in Chhattisgarh do not have the awareness and services of the JSSK services. These services include immunization during pregnancy, institutional delivery, immediate breastfeeding to the infant, diet post-delivery, and transportation for delivery. So, it is reported that the financial needs for pregnant women are not reached them, Mitanin who was the crucial link and was the only source of information on JSSK entitlements.

Transportation

Inaccessibility is one of the main structural barriers for the transportation of pregnant women, though Gov. has established 108 ambulance systems "Mahatari Express". But these services were not functional in the selected PHC areas as they were largely hilly areas, disconnected by rivers and other manmade disturbances. Therefore, the only way families overcame these odds was by actually carrying the pregnant woman on a cot and transporting her to government health facility. In another case, a pregnant woman had walked the non- motorable distance and then accessed private transport to reach hospital. In another case, the woman was transported on a motorbike to reach hospital. Figure 2 shows pregnant women transporting through cycle to HC, whereas Figure 3 shows motor bike ambulance which is best suited for hilly areas.



Figure 2. Pregnant women transporting through cycle to Health centre.



Figure 3. Motor cycle ambulance.

Table 3. Survey in PHC for institutional deliveries.

| Variables | Community positive deviants | Service providers | Non users JSSK | Total |
|------------------------|-----------------------------|-------------------|----------------|-------|
| Focus Group Discussion | 4 | 4 | 2 | 0 |
| In depth Interviews | 12 | 6 | 12 | 0 |
| Case studies | 4 | 4 | 4 | 2 |
| Total | 20 | 14 | 18 | 2 |

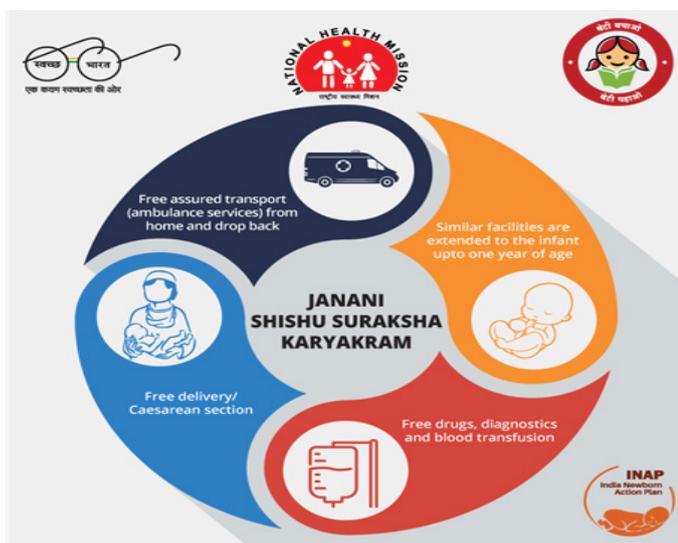


Figure 1. JSSK services.

These strategies largely indicated the willingness, struggle and grit of women and their families in remote areas to access institutional deliveries. Birth waiting facilities are facilities where women from remote regions with poor geographical access come much ahead of their expected delivery date and access health facilities closer to the delivery date. Woman and Child development department in collaboration with health department has identified such facilities called "Sakhi Kendra". These facilities were originally meant for women in distress and are staffed with a counsellor and administrative staff. These have been expanded to include pregnant women and are provide food and other amenities along with a family free of cost. Such birth waiting facilities have been set up in every district by the WCD department and are funded by the collectorate office. These facilities have extended their services as birth waiting spaces for pregnant women.

Food

Providing food during stay at the facility for delivery was also a challenge. But there were service provider PDs who had managed to overcome these challenges. Under JSSK scheme for each pregnant woman 100₹ budget is giving to contractors for food supply, many of them are not coming forward, recently government recently increased the food budget to 160₹ it was yet to be implemented on the ground. On the other hand, it was observed that guidelines related to food were not being adhered to in PHCs. For example, eggs were missing from the meals.

Instead the patient had to incur out of pocket expenditure for buying protein formula powder which is neither rational nor prescribed under the guidelines.

Health facilities

In most of the cases the SC building was not available or had become dysfunctional or damaged. In Mungeli PHC area, in many villages a section within the school and panchayat building were converted into delivery centres. It was advocacy and lobbying by the Health system district intersectoral meeting, at collector, the panchayath and school building or any other like community halls or Govt buildings are requested to covert to delivery points.

Medicines

Drugs are supposed to be provided free at the PHC and SCs during delivery. But delayed indent, delayed delivery of drugs, difficulties in procurement at the PHC or CHC level have been disrupting this component of JSSK. Importantly no local purchasing at the PHC/CHC level is allowed and there was no service provider PD observed related to ensuring availability of medicines. On the other hand, irrational prescription of protein powder against the JSSK guidelines was observed contributing to OOP expenses.

Diagnostics

Most of the diagnostics services are concentrated at district hospital and there is a big gap in provision of diagnostic services at PHCs. And no service provider PD was observed related to diagnostics.

Other barriers

While financial incentives are not part of JSSK, poor disbursement of JSY incentives had led to a trust deficit. Similarly, non-functional equipment and non-availability of specialists at the district hospital also led to poor referral outcomes which in turn fuelled the trust deficit about the government health system. Delivery services are totally free in all government facilities. But in some government facilities women's smart cards under government insurance schemes were being swiped to collect Rs.30000 under these schemes. This corrupt practice was exposing women to exploitation in private sector and increasing their OOP expenses.

Conclusion and Recommendations

An important learning from the community PD strategies in this study is that women are willing to seek institutional deliveries and will make all possible desperate attempts to seek the same within their meagre resources. But we also find that the health system continues to lack the capacity to respond to such demands. Case studies of different scenarios were added to Appendix A and B.

We found that PD as a concept was useful to some extent in the present study. While several strategies were identified among community PD, one could not convert them all into program strategies. Similarly, there were very few service providers PD which in itself is a reflection of the severe constraints within the health system that de-motivates and by that prevents any „positive

deviance“ in the first place. But PD approach in the study allowed the focus to stay on solutions instead of barriers and problems which in turn helped to identify crucial community PD strategies that can be converted into program strategies. But on the other hand, there were no real insights into solutions from the service provider PD because the system at every level does not adhere even to minimum requirements under JSSK.

Therefore, PD approach was not a useful approach to arrive at solutions within the system. For example, most of the PHCs are functioning like SHC due to lack of staff. Most of CHCs are functioning like PHC due to lack specialists. Women are unable to stay for days in 24 × 7 PHCs due to vacancies of ANMs. Caesarean section is not being conducted in CHCs due to lack of gynaecologists. NICU is dysfunctional and paediatrician is not posted in a district hospital to provide care for sick new-borns.

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