Case Study

Janani Express Yojana
Health Referral Transport Facility

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Researched and documented by

OneWorld Foundation India
EXECUTIVE SUMMARY

Madhya Pradesh (MP) is a ‘high focus state’ under India’s National Rural Health Mission (NRHM) that aims to improve India’s health situation with particular focus on maternal and child health. The infant and maternal mortality rate in MP has been amongst the highest in the country as a result of which schemes like the Janani Suraksha Yojana (JSY) under the NRHM for promoting safe institutional deliveries are of utmost importance in the state.

However, for JSY to produce results, it has to be accompanied by various supporting factors primary among which is an adequate referral transport service. Often women choose to deliver at home because of the unavailability of transport to take them to hospitals that are usually at a distance from their residence.

The Government of Madhya Pradesh is attempting to address this vital obstacle in the way of providing timely healthcare services to pregnant women and other select patients through its Janani Express Yojana- a scheme that provides 24*7 emergency transport services to rural patients.

Pregnant women, sick infants and BPL families can now call a call centre and request for a vehicle to take them to the hospital at crucial emergency moments and drop them back home after treatment. These call centres are located at all district hospitals in Bhopal and are run by operators who forward patients requests for transport to the drivers of ambulances that are usually stationed at government hospitals, community health centers (CHCs) and primary health centres (PHCs). The drivers then ensure that the patients are transported to the nearest medical facility on time.

Operational since 2006, JEY has significantly increased the rate of institutional delivery in M.P by providing transport services to expectant mothers and ensuring that they are given adequate care on time. One of the primary reasons behind JEY’s success is a tight monitoring mechanism through an offline software that stores all the details of beneficiaries like name, address, village, time of call, arrival time of ambulance, response time etc. The capturing of such data ensures that the driver does not waste time in between and reaches the patient on time. Such recording of data also makes it binding for call centre operators to respond to each and every call and be alert. This robust database also ensures that periodic reports can be sent to higher officials for their review and monitoring. Very soon, the offline software will be converted into a real time online monitoring system which will ensure regular monitoring by district and state officials.

In this manner, JEY is creating an access to timely healthcare for the rural citizens of M.P.
METHODOLOGY

Working with the objective of identifying best practices in governance in India for the purpose of further replication, the Governance Knowledge Centre (GKC) research team conducts extensive research to locate initiatives that contribute towards the betterment of public service delivery. The GKC team carried out thorough secondary research using credible web sources to establish the suitability of the Janani Express Yojana (JEY) in Madhya Pradesh (M.P) as a best practice. This research reflected the manner in which the JEY is providing timely referral transport services to pregnant women across 10 districts of the state and contributing towards the growth of institutional deliveries in these areas.

Having recognized JEY as a best practice, the next step was to identify the key stakeholders and schedule interviews with them to gain a deeper insight into the operation and impact of the initiative and to verify the information gathered through secondary research. For primary research, the GKC team conducted a semi-structured interview with the JEY team at the office of the National Rural Health Mission in Bhopal and also visited the District Hospital in Sehore to interact with the call centre operators and beneficiaries. This document has been compiled by putting together insights gathered during this field visit as well as the information collected through secondary research.

BACKGROUND

Amongst the predominant causes of maternal mortality is the delay incurred in providing pregnant mothers with appropriate and adequate medical care on time. In order to deal with this challenge the Government of India in 2005 launched the Janani Suraksha Yojana (JSY) under the National Rural Health Mission (NRHM). The JSY promotes institutional deliveries by providing cash incentives to pregnant women and encouraging them to use Government Hospitals, Primary Health Centres (PHC’s), Community Health Centres (CHC’s) or First Referral Units (FRU’s).

A key necessity in ensuring that rural women opt for institutional deliveries and leverage the benefits of JSY, is the availability of emergency transport facilities to transfer pregnant women on time to the nearest hospital for delivery. In rural areas, it often happens that pregnant women are unable to access adequate medical care at the time of delivery because of several reasons including absence of adequate number of hospitals and doctors in the area, availability of health facilities at long distances, poor socio-economic conditions and other such factors. As a result, families of the pregnant mothers often opt for unsupervised home deliveries which often result in complication in the mother and child’s heath.
Many state governments have set up complimentary services to enable rural pregnant women to access health services under the JSY and cater to their emergency needs without delay. The Government of Madhya Pradesh (M.P) - a state with poor rate of institutional delivery and high maternal mortality- launched a landmark initiative the Janani Express Yojana (JEY) in 2006, for providing a 24x7 transportation facility to expectant mothers for institutional delivery, sick infants and beneficiaries of the Deendayal Antodaya Upchar Yojana.¹

Prior to the JEY, M.P was running a state sponsored scheme to transport women for delivery under the JSY however this facility was only extended to APL families on the payment of a nominal fee for utilizing the service. With the JEY the referral transport facility has been extended free of cost to BPL families. The JEY was piloted in 2 blocks each from 10 districts of the state and today covers all 50 districts of the state.

24x7 call centres have been set up at the district hospitals to provide round-the-clock emergency transportation to beneficiaries under the JEY. When beneficiaries or their relatives contact the call centre, a vehicle is immediately sent to the address given. The vehicle is available at government hospitals, community health centers (CHCs) and primary health centres (PHCs). It is equipped with necessary facilities to transport the patient to the nearest hospital without delay.

**OBJECTIVE**

The Janani Express Yojana seeks to provide emergency transportation facility to expectant mothers, sick infants and BPL families so as to enable them to reach government medical institutions and avail adequate healthcare facilities on time.

**PROJECT DESIGN**

**KEY STAKEHOLDERS**

- District hospitals, Community Health Centers (CHCs) and Primary Health Centres (PHCs) where the vehicles are parked and patients are delivered adequate care.

¹ This scheme provides free treatment and investigation facilities to patients belonging to BPL families who are hospitalized in government hospitals.
• Call centre operators under the District health Societies who are responsible for attending to the calls made by patients, ensuring that a vehicle reaches them on time and maintaining records of patients, vehicles and drivers.

• Rural health workers like Accredited Social Health Workers (ASHAs), Auxiliary Nurse Midwives (ANMs) and Anganwadi Workers (AWs) who provide ground-level medical assistance to beneficiaries.

• UNICEF is providing technical and training support. It also funded the pilot of JEY until it was mainstreamed under the NRHM.

• Beneficiaries- pregnant women, sick infants and patients from BPL families
Process Flow

1. **Beneficiary** calls the call centre.
2. **Call Centre** fills patient details.
3. **Ambulance Driver** informs patient details.
4. **Call Centre** informs driver details.
5. **Ambulance Driver** transports patient to medical centre.
6. **Hospital** informs delivery details.
7. **Call Centre** fills delivery details.

**Figure 1:** Diagram depicting the operation of JEY
Source: OneWorld Foundation India
When the JEY was initially launched, the rural health workers were instructed to call the ambulance driver directly. However, this process proved to be inefficient because often the driver would make excuses of being tied up elsewhere. Therefore, there was a need to develop a tighter mechanism for implementing the JEY in a transparent manner. For this purpose, the call centre model was decided upon which requires beneficiaries to call on designated helpline numbers and put in their request for an ambulance to the call centre operator. Currently 48 districts have call centres, the remaining two districts are in the process of setting up these centres. Each call centre is manned by four computer operators who work for 24 * 7 on rotational basis. With the call centre model, the responsibility of ensuring timely provision of an ambulance to a patient rests with the call centre operator.

**Departure of vehicle**

On receiving an ambulance request call, the call centre operator manually enters patient details like name, address, phone number, rural health worker's name etc in the call centre register and eventually transfers these details to an offline computer software. Thereafter, the operator forwards the patient details to the driver of a vehicle which is stationed in closest proximity to the patient and records the time when the request was made to the driver. A particular vehicle is chosen by referring to a list of vehicles and their location that is available with the call centre operator. Each block has about two to three vehicles stationed for use under JEY. All together there are 792 vehicles catering to all the 313 blocks of the state.
When the driver of a vehicle (usually stationed at district hospitals, CHC’s, PHC’s) receives a request from a call centre, he records details like time of call, patient information, metre reading of vehicle and the time of departure to patients house in a log book. When the vehicle reaches the beneficiary’s location she is transported to the nearest medical facility; in complicated cases the patient is transferred to the district hospital on the advice of the rural health workers. Each vehicle has a first aid kit for use in case of an emergency. During the journey to the medical facility, health professionals use mobile phones to monitor the status of the patients and provide instructions if required.

**Arrival at the hospital and drop-back facility**

On arrival at the medical facility, the patient is handed over to the responsible health professional. The vehicle driver then records the time of departure from the beneficiary’s house as well as the arrival time at the hospital in his log book. These details are then intimated to the call centre operator who enters all the information on an offline computer software.

Not only are patients provided with free transportation up till the hospital, they are also given a drop back facility which they can utilize 48 hrs after their admission to the hospital anytime between 12 p.m. to 3 p.m.

**Awareness generation**

The transport facility provided under JEY is being increasingly used by beneficiaries. This is because they are aware about the existence of this free of cost referral transport service provided to them by the government. This awareness was largely generated by the rural health workers who are in direct contact with the beneficiaries. Various information, education and communication (IEC) tools like advertisements and posters have also been utilized to familiarize beneficiaries with their entitlements under JEY. Another major source of information for beneficiaries is the safe motherhood booklets provided to them by hospitals. These booklets carry a description of the JEY and the phone numbers of call centres.

**Training**

UNICEF has trained call centre operators on how to handle calls and deal with patients. Drivers and rural health workers have also been trained on handling patients, referring them and dealing with emergencies. A major section of the training focused on familiarizing call centre operators and drivers on how to record important information related to the patient and the provision of the transport facility which is a major component for facilitating the monitoring of the scheme.
Offline software has been developed by UNICEF for recording information at the call centre. Details like, name of beneficiary; address of beneficiary; caste; informer details; time of call; ambulance details; driver’s mobile numbers; ambulance departure time; ambulance arrival time; response time; place of delivery; are recorded in this software. The purpose of developing this software was to be able to trace the movement of the vehicle and capture any delays that could have been avoided. On similar lines, the robust data captured by the software also helps in monitoring the operation of the call centre and the efficiency of the call centre operator. On the basis of the details entered into the system, reports are generated and submitted to higher officials.

The software will go online very soon in order to ensure the real-time monitoring of JEY related data by higher officials at the district and state level.
MONITORING

The recording of each and every detail with regard to the vehicle and the time it takes to transport a patient facilitates tight monitoring of the implementation of JEY. The fact that both call centre operators and drivers are recording data in the software and log book respectively acts as a binding force on both sides to record the correct time and details, because any discrepancy can now be easily identified. Some vehicles are also installed with GPS devices to monitor and record their movement, which acts as a check on drivers. There are plans to install the GPS technology in all vehicles used for JEY.

The periodic reports generated through the offline software are shared with District and State officials who can monitor the progress of the scheme, understand its reach and impact and highlight areas that need to be worked upon. In this manner the database being maintained proves to be an effective management and monitoring tool.

FINANCIAL RESOURCES

The establishment and initial running costs for the pilot were paid by UNICEF. NRHM funds under JSY were utilized for scaling up the initiative to the entire state.

The JEY vehicles are hired from private operators through an open tender process at the district level. The government does not have to pay any cost for procuring the ambulance; only running costs that include the cost of diesel/petrol and the driver has to be covered. As per the guidelines of the Government of Madhya Pradesh, an upper limit of Rs. 20,000 is set per vehicle for a month. This upper limit is for covering a distance of up to 1500 km. For any additional km, Rs. 5 is paid to the contractor.

The initial cost of setting up a call centre was about Rs. 200,000 which includes cost of the room, furniture, telephone lines and computer. The running costs of a call centre is about 26,000 per month which mainly consists of the salaries paid to the call centre operators.
As for the helpline, it is a toll free number in most places with the exception of a few areas where because of the high rate of fake calls, mobile call rates are being charged from beneficiaries.

**IMPACT**

**Increased preference for institutional delivery**

Until 2005, the rate of institutional delivery was only 30%. Moreover, high rates of maternal mortality and neo-natal mortality forced the state government to adopt prompt measures. In 2005, the state introduced the Janani Suraksha Yojna (JSY). Efforts to strengthen maternal health care through JSY however, faced a major constrain in terms of effectively reaching out to pregnant mothers at the time of delivery. With the initiation of Janani Express Yojna (JEY), this challenge was addressed to a significant extent.

According to the state health officials, hospital births have soared since the round-the-clock free ambulance service under JEY was introduced. Presently, almost 792 mobile vans criss cross the state. As a result, the proportion of infants born in hospitals rather than at home has soared from 30% in 2005 to 81% in 2010.

**Institutional delivery growth rate**

Source: UNICEF Report on ‘Ensuring equitable access for safe Institutional child birth

![Graph showing institutional delivery growth rate](image-url)
Janani Express Yojna beneficiary growth chart
Source: UNICEF Report on ‘Ensuring equitable access for safe institutional child birth’

Free referral transport facility
Referral transport service is provided to the beneficiaries of JEY free of cost. This significantly benefits the poor and marginalised families in rural areas by improving their access to medical treatment. Moreover, free emergency transportation has facilitated to strengthen the demand for institutional delivery amongst a wide section of the population because of prompt and quality management of obstetric cases.

With almost 792 vehicles running under the scheme, new services have been included such as drop back facilities to ensure the optimum use of the transport system.

Prior to JEY, pregnant women living in remote areas were forced to access overcrowded public buses or tractors and bullock carts to reach a nearby health facility. With the initiation of the scheme, they can reach the hospital and return home in a safe and a comfortable manner.

A developing network of call centres
A fast growing chain of call centres support the effective operation of Janani Express Yojna at the local level.

Prior to the institution of call centres, emergency calls were directly made to the drivers of the vehicles. This however, created several problems for the beneficiaries. Patients and health workers would often find it difficult to track drivers. There were instances wherein drivers would refuse to attend a case by claiming to be far away from the location.
Families of pregnant women or health workers could now avoid such issues by directly contacting the call centre for a transport facility. Based on the details recorded, the operator connects to a vehicle located in close proximity to the patient and immediately directs the driver to the location.

The call centre facility has provided optimum and effective utilization of the transport system ensuring that pregnant mothers receive necessary care 24x7. This network covers 48 districts of the state of Madhya Pradesh.

**Advanced technological assistance to information management and monitoring**

With the growing demand for transport services, call centres have been provided advanced technological assistance to facilitate efficient and effective management of emergency calls. The operating systems at the call centres is supported by a user friendly software application that assist operators accurately record, maintain and manage necessary information including details about the patient, ambulance, driver, the response time, the outcome of the delivery, place of delivery and such others.

The database generated through the software facilitates to ensure effective monitoring and assessment of the scheme. Reports prepared with the help of the application also assist authorities to engage in corrective action, planning, and decision-making.

**CHALLENGES IN IMPLEMENTATION**

**Inadequate level of awareness and information about JEY**

One of the major challenges that limit the effective implementation of JEY is the level of awareness and basic information about the scheme and maternal care.

Interactions with concerned government authorities and field visits revealed that in several cases call centres receive information about an emergency case late and this makes it difficult for them to ensure transportation facility on time. This could be attributed to the lack of adequate information about appropriate medical care and attention that a pregnant women needs to ensure a healthy and safe delivery.

Moreover, inaccurate or limited information about the purpose of the JEY and the Emergency Management and Research Institute ambulances often leaves the beneficiaries confused, forcing them to contact the latter during emergencies.

These factors make it extremely challenging for JEY to assist its beneficiaries effectively.
Integration of primary care givers through effective monitoring

JEY depends upon the effective coordination amongst stakeholders at different levels including the beneficiaries, their families, drivers, call centres and the administrative apparatus supporting the scheme. Lack of effective communication and cooperation amongst the stakeholders and poor levels of monitoring can significantly restricts the benefits of JEY to percolate to the grassroot level.

Monitoring of ground level activities continues to remain challenging. Interactions with the call centre employees and the project coordinator on the field revealed that effective deployment of services depends largely on the motivation and attitude of field workers. There was an evident need to develop and improve monitoring mechanisms to ensure that the supply of services adequately match the rapid growth of JEY beneficiaries.

Infrastructural development

Equipping field level operations with a well-developed infrastructure surfaced as a major requirement during the field visits.

Despite the use of advanced software to manage and maintain information, call centre operators, on the receipt of emergency calls, had to manually enter the details in a logbook and then feed the information into the software. This made the process tedious and time consuming. Moreover, it also constrained to an extent the optimum utilization of the available technology.

In some cases, lack of connectivity, network disconnections, limited power supply and similar technical glitches affected the daily operations of the call centre causing critical loss.

Infrastructural and technical capacity of the call centre has to be developed to ensure that such constrains are addressed effectively.

Illequipped ambulances

Ambulances operating under JEY remain unequipped to handle emergency deliveries. There have been several instances when women had to deliver inside the ambulance. While it is ensured that a member of the patient’s family and a health worker is present in the ambulance, necessary medical aids were generally not made available in the vehicle.

In view of this challenge and avoid mishaps, efforts have been made to train drivers in basic medical care and place delivery kits in the ambulances.
Despite 792 vehicles being deployed under the scheme, vehicle shortage is often confronted as a challenge especially after the introduction of drop back facilities. With the increase in demand for JEY services, there is a need to effectively supply to this demand.

Developing primary health care facilities

Yet another supply side constrain that confronts the scheme is to ensure that pregnant mother receives proper medical care. Ensuring prompt access to medical service is important and has been achieved to a significant extent under JEY. However, it is equally important to ensure that adequate health facilities are available to meet her medical needs. Field visit to a district hospital in Sehore elevated some major concerns. There was an evident need to direct attention in developing these units into effective health facilities. Most of the primary health centres are unable to render adequate services because of the absence of well-trained staff, necessary medical equipments and basic infrastructure.

Field interactions revealed that most primary health centres were unequipped to attend complicated cases and therefore, in such instances a patient is rushed to a nearby district hospital. This delay in identifying the need of a patient and directing her to an appropriate medical facility can prove to be critical especially in cases of emergency.

Strengthening and expanding primary health facilities at the grassroots level is a pre-condition to ensure the overall wellbeing of the mother and her child.


ENHANCEMENTS

With the objective of intensifying the impact and effectiveness of JEY and mitigating the challenges confronting the scheme, NRHM is considering major enhancements the implementation level.

Integrated Referral Transport Service

The NHRM is planning to integrate referral transport services operating under different schemes into a common service facility. It aims at operating 101 ambulances under EMRI, 792 vehicles of JEY and almost 500 state government ambulances under a proposed integrated referral transport service. Citizens through a common toll free number would access its facilities easily.

The integration of transport facilities was intended with the aim of widening the coverage of prompt and safe transportation services to improve access to medical treatment in real time.
GPS enabled ambulances

In order to address the challenge of effective monitoring of drivers and their response to emergency calls, the NHRM has taken the decision to install the GPS navigation system in all ambulances. GPS enabled ambulances are already operating in three districts of the state.

Online Monitoring System

The NHRM in collaboration with UNICEF is building an Online Monitoring System to improve the monitoring and evaluation of the fleet operations under JEY at the state, district and local level. The basic design of the proposed Online Monitoring System is aimed at developing a single point of effective monitoring of the scheme and management of its local level operations. Most importantly, it will facilitate to make the administrative apparatus supporting JEY much more accountable and transparent.

CONCLUSION

Janani Express Yojna is an extension of the state government’s commitment to reverse the impact of maternal mortality in Madhya Pradesh. By increasing the demand for safe deliveries, the scheme has facilitated to bring essential medical services closer to the community especially the marginalized and rural sections of the population.

The documentation of JEY has elevated the role of ICT in improving the delivery of medical services in rural India. With advanced technological assistance, JEY manages to save the lives of thousands of women and infants every day. The rate of institutional deliveries has increased to an impressive 81% due to greater awareness about the benefits of institutional deliveries and the availability of prompt transport facilities.

However, access to a medical facility may not necessarily translate into adequate medical care. With very few health facilities in rural areas and in most cases unequipped in terms basic infrastructure and medical expertise, there is an evident need to improve primary health care facilities, as these are in most cases the first and sometimes the only referral point of seeking medical care.

Until this need remains unaddressed, initiatives such as JEY despite its successes will prove to remain inadequate.

Research was carried out by OneWorld Foundation India (OWFI), Governance Knowledge Centre (GKC) team. Documentation was created by Research Analyst, Sapna Kedia & Research Associate, Annie Vincent

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REFERENCES


Semi-structured interviews were conducted with the JEY team at the NRHM office in Bhopal, call centre operators and beneficiaries at the District Hospital, Sehore.
APPENDIX A – INTERVIEW QUESTIONNAIRE

Background

1. Prior to the introduction of the Janani Express Yojana (JEY), what were the problems in providing required health care facilities to pregnant women on time? How were these problems being addressed?

2. How many districts of M.P does JEY cover?

Program Design

Stakeholders

3. Apart from the beneficiaries, the key stakeholders in the project are the district hospitals, CHCs, PHCs and the rural health workers. What are their roles and responsibilities?

4. Are there any other stakeholders? If yes, please explain their roles and responsibilities.

Process flow

5. JSY provides 24*7 transportation facilities to pregnant women, sick infants and patients from BPL families. For this purpose, call centres have been set-up in district hospitals.
   a) How many such call centres have been set-up?
   b) Who operates these call centres? Have they been given any training under the scheme?
   c) What is the helpline number? Are users charged a fee for calling on this number?
   d) Please provide a process flow of the call centre operations.

6. The vehicles that are sent to beneficiaries are equipped with basic facilities and staff to assist the patient.
   a) What are the equipments installed in the Janani Express vehicles?
   b) What is the area-wise distribution of these vehicles? How many villages does a single vehicle cover?
   c) Where are the vehicles stationed?
   d) How many staffs are there per vehicle? Are they trained health professionals?

Awareness Generation

7. How was awareness generated among beneficiaries about the transportation facility that JEY provides them with? How have they responded to the introduction of JEY?
8. Who is responsible to ensure that all calls made to the helpline number are responded to and the vehicles are dispatched on time?

Financial costs
9. What was the cost of developing the infrastructure (ambulances and call centre) for JEY? How were the funds procured? Please provide a breakdown of the major heads of expenditure.
10. What is the average daily operational cost for a single vehicle under JEY?

Impact and Potential

Achievements
11. What have been the major achievements of JEY?
12. How has JEY impacted (a) beneficiaries, and (b) the rate of institutional deliveries among women in the target areas?

Challenges
13. What are the major challenges faced in the implementation of JEY? How were/are they being overcome?

Enhancements
14. What are the major enhancements planned for the future?
15. Since JSY is a national level scheme, have any other states shown interest in replicating JEY for facilitating the smooth implementation of JSY?
16. What do you think are the necessary preconditions for the success of an initiative like JEY?
17. Please provide the following data:
   - Number of districts that JEY covers
   - Data to show increase in institutional deliveries as a result of JEY
   - Pictures