Maternal Health Financing – Issues and Options

A Study of *Chiranjeevi Yojana* in Gujarat[1]

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Summary
Government of Gujarat announced a "Chiranjeevi Yojana" in April 2005 to improve access to institutional delivery and at the same time provide financial protection to poor families in Gujarat. The scheme covers below poverty line (BPL) families who are generally under-represented, have limited access to institutional facilities and may experience economic and social hardships due to complications during delivery.

The average distance travelled by families to reach public health facilities is high and ranges from 8 to 10 kms. Given the availability of private providers it is imperative to include the private providers in delivery of services to improve the access and thereby improving the institutional delivery rate. This scheme covers the BPL families by making their utilisation of private facility a cash-less event and also covers direct and indirect out-of-pocket costs such as travel and cost of accompanying person.

The scheme is implemented by empanelling private medical practitioners to provide maternity health services in remote areas which record the highest infant and maternal mortality and thereby improve the institutional delivery rate in Gujarat. The scheme was finally launched as a one year pilot project in December 2005 in five districts viz., Banaskantha, Dahod, Kutch, Panchmahal, and Sabarkantha covering all BPL families. The private empanelled providers are reimbursed on capitation payment basis according to which they are reimbursed at a fixed rate for deliveries carried out by them. The payments are made for a batch of 100 deliveries. This is expected to take care of case-mix differences (i.e., normal or complicated deliveries) and help the providers to keep the costs below the reimbursed amounts. The scheme uses a voucher type of system or BPL cards to target the BPL families.

The contribution of this scheme at district level has been in identification and referral of delivery cases among BPL families to private providers, follow-up of delivery cases and their risk status, ensuring the service provision, and protecting the most vulnerable (BPL) families from adverse financial burden. The mapping exercise carried out by the district health officials identified the private providers providing maternity services in five districts. A detailed survey of providers and their infrastructure facilities was carried out in one district to assess the service provision conditions. Meetings, interviews and consultations were held with these providers and professional bodies such as FOGSI and SEWA Rural to discuss the package of maternity services and cost of providing these services. Based on this a package of institutional delivery was finalised at Rs. 179,000 for 100 deliveries including both normal and complications. Each empanelled provider is given up-

front advance of Rs. 20,000 to start providing services. The delay in payments has been found critical impediment in participation of private providers in any scheme.

Five districts covered by this scheme have population of about 10.5 million of which 43 per cent are below poverty line having about 110,000 deliveries per annum. The scheme during first year of its implementation has covered 31,641 deliveries including 2518 complicated cases and 1502 LSCS.

Of the total 217 providers in these districts 133 (61 per cent) have been empanelled in this scheme. The average number of deliveries carried out by these providers has been 238 deliveries.

The scheme shows that by providing financial protection through 100% subsidy of delivery cost of BPL families through involving private provider has potential to increase the institutional delivery rate and reduce the MMR and IMR substantially among the most vulnerable groups of population. During first 10 months of scheme implementation, no maternal deaths and 13 infant deaths were reported in the pilot districts. As per MMR and IMR, 70 – 80 mothers and 350 – 450 infants would have died in the districts. During this period, institutional deliveries in the five districts have increased from 38 per cent to 59 per cent. Due to packaging of services in the scheme, unwanted caesarean operations among the BPL expectant mothers has reduced from 15 per cent to 4.7 per cent. This scheme has increased the access to institutional facilities for maternity care. The cost of seeking delivery in private facilities by BPL families is high. This scheme covers both direct and indirect cost (for example travel and cost of accompanying person). The financial burden in case of complications can be catastrophic for BPL families which this scheme covers.

The objective of this paper is to describe the process and development of this scheme and discuss pathways of creating and strengthening capacity in health system to implement this scheme. The paper also discusses performance of this scheme and finds whether the scheme has been successful in providing access to BPL families for institutional delivery and thereby providing financial protection to these families. We also discuss the challenges and key issues in up-scaling this scheme further.

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I Introduction

Government of Gujarat announced a "Chiranjeevi Yojana" in April 2005 to improve access to institutional delivery and at the same time provide financial protection to poor families in Gujarat. The scheme was implemented in five most vulnerable districts covering below poverty line (BPL) families who are generally under-represented, have limited access to institutional facilities and may experience economic and social hardships due to complications during delivery. This initiative involves the private practitioners in service delivery in remote areas of Gujarat. The district health officials assume greater responsibility in implementing this scheme and facilitate the involvement of private providers in delivery of maternity care. By increasing the institutional delivery the scheme aims to achieve safe delivery and lower infant mortality rates. The scheme covers the below poverty line (BPL) families by making their utilisation of private facilities a cash-less event and also covers direct and indirect out-of-pocket costs such as travel and cost of accompanying person. The private empanelled providers are reimbursed on capitation payment basis according to which they are reimbursed at a fixed rate for each delivery carried out by them. Each enrolled private doctor is given a sum of Rs. 20,000 as deposit in advance to conduct the deliveries and meet the other expenses. This is expected to take care of case-mix differences (i.e., normal or complicated deliveries) and help the providers to keep the costs below the reimbursed amounts. The scheme uses a voucher type of system or BPL cards to target the BPL facilities. With the BPL cards, the families can visit any of the empanelled private nursing home or private hospital for maternity services (normal or caesarean) and are not required to pay any fee. The benefits package also includes free medicines after delivery and transport reimbursement to the family.

The objective of this paper is to describe the process and development of this scheme and discuss pathways of creating and strengthening capacity in health system to implement this scheme. The paper also discusses performance of this scheme and finds whether the scheme has been successful in providing access to BPL families for institutional delivery and thereby providing financial protection to these families. We also discuss the challenges and key issues in up-scaling this scheme further.

II Maternal Mortality Scenario

India is committed to MDG and the vision set for 2010 is to (a) reduce MMR from 389 in 1998 to 100 per 100,000 live births by 2010, (b) reduce IMR from 60 to 30 by 2010, and (c) stabilise population by reducing TFR from 3.0 to 2.1 by 2010. The low penetration of institutional delivery remains a key challenge in brining these changes. Death of the mother during the process of giving birth continues to be one of the major health challenges in developing economies (see Exhibit 1).

Nearly 65 per cent of estimated 30 million deliveries in India occur at home and in inappropriately equipped health facilities. For this and other reasons India adds whopping 25.7 per cent to the burden of maternal deaths in the world. Maternal mortality ratio (MMR) in India remains high at an average of 389 deaths per 100,000 live births. Infant Mortality Rate (IMR) in the country is 63 per 1000 live births. Further 73.3 per cent of the deaths occur in their neo-natal period (0 to 28 days).

Haemorrhage, sepsis, obstructed labour, toxaemia, anemia, and unsafe abortions are the major causes of maternal deaths.

It is well documented that social norms and a range of cultural factors influence the decision on childbirth and childcare practices. For example, in rural areas home delivery is preferred to institutional deliveries and pregnancy is looked upon as a condition that does not require medical attention[6]. Decision to seek medical advice during delivery is delayed by the family and these result in maternal mortality. Most of these maternal deaths in India could be prevented by timely availability of healthcare facilities for women. The experiences as in Sri Lanka and Tamil Nadu suggest that that increase in skilled birth attendants during delivery resulted in concurrent reduction in MMR. However, simply improving access to trained health attendant during delivery can not ensure reduction in maternal mortality[7]. This has to be backed up by provision for Emergency Obstetric Care (EmOC) facility to save the lives of women who develop complications during delivery or pregnancy. Due to the lack of qualified staff in government health centre, EmOC services are not adequate. For example, 65 per cent of MD (Gynaecologist) position is vacant in CHC and 30 per cent post is vacant in the District Hospitals of Gujarat. Also there is an acute shortage of Paediatricians (67 per cent vacancy) in the district hospitals[8]. Non-availability of anaesthetist and restrictive practices about anaesthesia in the country also limits access[9]. There are also problems of access to health care facilities in tribal areas of Gujarat. Most of these places are not having adequate health facilities and even if the health facility exists, availability of doctors at the health centre remains uncertain.

The presence of private sector providers is quite significant in Gujarat. The state has an estimated 17738 registered doctors (with 2000 gynaecologist) of which 3/4th are working in private health facilities[10]. However, cost for accessing care in private sector deters the poor from seeking care during delivery. The women particularly belonging to BPL may not have adequate financial resources to utilise private medical services. Appropriate financing mechanisms to finance the health

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[6] Jeffery, Patricia, Roger Jeffery and Andrew Lyon (1988). Labour Pains and Labour Power: Women and Childbearing in India, London: Zed Books Ltd.

[7] Hay, M. Cameron. (1999). Dying Mothers: Maternal Mortality in Rural Indonesia. *Medical Anthropology*. Vol. 18, pp.243-279.

[8] http://www.gujhealth.gov.in/job/rural_hlth.htm as accessed on 12 May 2006.

[9] Mavalankar DV (2001). Policy Barriers Preventing Access to Emergency Obstetric Care in Rural India. W.P. No. 2001-11-02, IIM Ahmedabad.

[10] Bhat Ramesh, Verma BB and Reuban E. (2001). An Empirical Analysis of District Hospitals and Grant-in-aid Hospitals in Gujarat State of India.

care in general are not available. One way of addressing financial barrier to care is through effective health insurance coverage for the poor. Certain not-for-profit organisations provide health insurance cover to its members like (Vimo SEWA) and their families. Vimo SEWA covers a total of 139,752 members in Gujarat. However, a comprehensive system of health insurance to cover all (particularly poor) in Gujarat is not available. Reducing maternal mortality and promoting institutional deliveries is a multi-faced task which involves improving the health service delivery, demand generation in the community, promoting community awareness and sensitisation about preventive measures, timely identification of early symptoms and referral. From a systems perspective, there is a need to strengthen the PHC and EmOC facilities. A primary health care centre needs to be supported by secondary and tertiary level health services providing EmOC. The current public health system, however, faces many challenges of not being able to address the needs of community in an effective manner, inadequate funding and lack of accountability and responsiveness and incongruence between available funding and commitment. Attempts to address some of these issues have not produced satisfactory results.

Given the significant presence of private sector providers and since a large number of people utilise private sector services, public-private partnerships is considered one of the ways to address the problem. Several options have evolved over time for fostering effective public private partnership. These include contracting-out and contracting-in of health services, joint venture, involvement of professional association, involvement of corporate sector, involvement of NGO, social marketing, social franchising, voucher system, promoting grant-in-aid institutions etc.

III Demand Side Financing and Voucher

The present system of public health provision is tax financed and governed by norms set by government. It is observed that the system is not been able to address the issue of targeting the poor and vulnerable communities. It does not provide choice to users and has inadequate linkages between payments to providers and performance. Considering this it is opined that the health system should be made more responsive to community demand in order to ensure that the poorest and vulnerable section of the community gets the maximum benefit from the public funded health system. The concept of demand side financing as an alternate option has assumed considerable significance in recent times. Demand side financing places purchasing power into the hands of consumers to spend on specific services.

Developing insurance mechanism is one important such initiative. Government of Gujarat explored the idea of developing and implementing maternity insurance scheme to cover the BPL families. Broad guidelines for designing and developing proposals on a maternity insurance scheme included (a) covering treatments in designated public and private institutions on a cashless basis, (b) sum assured would account for compensations in case of maternal death, (c) including transport allowance and incentive to TBAs, (d) inclusion of pre-existing conditions like hypertension and complications (arising from abortions), (e) a sum

of Rs.10,000 was assured in the baby's name in case of maternal death. Insurance providers showed interest in offering this insurance. However, linking and developing linkages with the private institutions and providers remained an important constraint. The institutional mechanisms to ensure this were not readily available. Also, it was envisaged that NGOs could handle IEC activities, developing awareness, develop linkages with private providers and ensure quality of care, and monitor the scheme. However, owing to the limited capacities and resources, inadequate technical capacity and scale of operations, it was not feasible to implement large scale insurance scheme. Moreover, insurance companies were also sceptic in taking up a stand alone maternity insurance scheme, as envisaged by the government. Realising the constraints, DoHFW decided to explore an option of voucher scheme.

Vouchers are often the vehicle for transferring the purchasing power defined as "a subsidy that grants limited purchasing power to an individual to choose among a restricted set of goods and services"[11]. One option of targeting subsidy to the BPL population is by distributing voucher which can be redeemed against set services.

The voucher system has a potential to reach out to the vulnerable groups in order to improve health indicators. However, its success hinges on developing appropriate service package. In order to reduce maternal mortality, voucher can target the service component of increasing institutional delivery among the tribal and poor population. Similarly transport voucher can be provided to reduce transportation time in reaching the maternity home on time for delivery[12]. In India SEWA Mandir in Rajasthan uses the vouchers for delivering maternal and child health services. In Kolkata, Child in Need Institute (CINI) was using a competitive referral voucher for the slum population for two years. In Bangladesh, demand side financing in the form of voucher was successfully used for Female Secondary School Assistance Project (FSSAP) with an attempt to provide monetary incentives for girls to reduce the direct cost of schooling and to encourage participation in a developing country. The project provided stipends to girls enrolled at secondary schools, who met the eligibility criteria.

IV Policy Context

The voucher scheme envisages involving private service providers to improve access to care. Policy context and past initiatives in involving private sector would be important factors affecting the implementation of the scheme. Other imperatives are availability and acceptability of these providers. As discussed 3/4th of private providers in Gujarat are working in private sector. Several studies on health-seeking behaviour indicate that about 80 per cent of the utilisation of ambulatory services takes place in the private sector, accounting for three-fourths of the total health expenditure. Most of these expenditures are out-of-pocket costs and therefore would be having negative impact on net worth of BPL families.

[11] Random House Dictionary of the English Language, second edition, New York, Random House 1987 quoted in (Steuerle, 2000).

[12] Bhatia MR, Yesudian CAK, Gorter A., Thankappan KR (2006). Demand Side Financing for Reproductive and Child Health Services in India. *Economic and Political Weekly*. January 21, 2006.

Policy context in Gujarat has encouraged the involvement of private providers in provision of health care services. Over the years the Department of Health and Family Welfare, Government of Gujarat has implemented a number of initiatives to foster public-private partnership to address some of the key public health issues. Some of these initiatives are as follows:

- Involving private sector in construction of PHCs and for this 39 PHCs from 12 districts have been identified.
- Five Community Health Centres (CHCs) and one PHC in Chansad are being run by community based organisations.
- Gujarat has significant presence of NGOs and out of 1500 registered NGOs 400 NGOs are working in health and allied activities. The state Government provides active support to these institutions. With assistance in RCH programme, a Mother NGO scheme was introduced to build technical skill of smaller NGOs in RCH services.
- A 30 bed government hospital at Shamalaji is managed by an NGO for last two and a half years.
- There are about 93 grant-in-aid health facilities having total bed capacity of around 4027. The budget for grant-in-aid institutions in the state is about 17 per cent of total budget for hospitals and dispensaries and about 2.5 per cent of total health and family welfare budget of the state.
- Against the national average of 400 cataract operations per one lakh population, Gujarat has led the country by performing 941 cataract operations in 2004-05. Gujarat does the largest number of cataract surgery in the country and 80 per cent of this work is done by the private sector. Approximately 174 NGOs are working with the Government in Blindness Control programme.
- 547 private Gynaecologist provide voluntary services to antenatal mothers on 9th of every month, under "Vande Mataram Yojna". Institutional delivery rate in the state is 57 per cent[13].

V Chiranjeevi Yojana

Chiranjeevi Yojana was initiated with the objective to encourage private practitioners to provide maternity services in remote areas which record the highest infant and maternal mortality rates in the state. Under the scheme, the government would enter into a contract with the private provider to cater to the obstetric and maternity health needs of the BPL mothers. The scheme has been launched as a one year pilot project in five districts of Gujarat: Banaskantha, Dahod, Kutch, Panchmahal and Sabarkantha. These districts have performed poorly in terms of institutional delivery and sex ratio. Deliveries in government institutions were also poor in these districts. According to facility survey conducted under RCH II, at least two of the districts do not have essential obstetric care services. A brief description of the districts in terms of socio-economic and health indicators is provided in Table 1.

[13] Last four points have been quoted from Gujarat Government publication "Healthy Society, Healthy Gujarat"

The private empanelled providers under the scheme are reimbursed on capitation payment basis according to which they are reimbursed at a fixed rate for each delivery carried out by them. Families which have BPL card or which have been certified by designated village leader can avail this facility.

In implementing the Chiranjeevi Yojana, the role of district health official has shifted from regulatory and service provision to that of facilitator and organiser of services. District health officials in the scheme have assumed higher responsibilities and involvement in planning and selection of private providers in their districts. Management of Chiranjeevi Yojana lay in the hands of the public sector with district health authorities being the coordinating and monitoring authority. It was a challenge to develop the district management capacity to implement this scheme. The broad structure for Chiranjeevi scheme administration is provided in Figure 1.

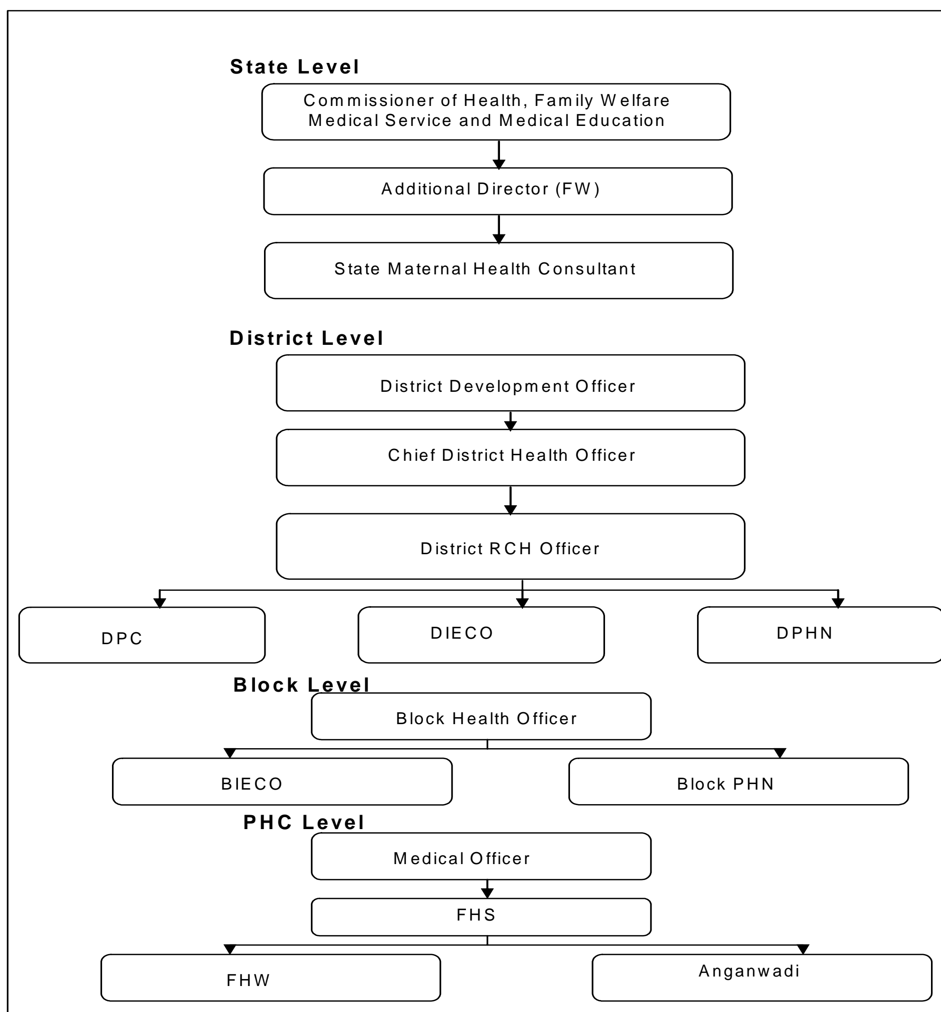


Figure 1: Administrative Structure

Roles and Responsibilities: In order to implement Chiranjeevi scheme, several officers and staff from the government health machinery have joined hands. Their roles and responsibilities are discussed below:

State Level

- Under the guidance of Commissioner of Health, Additional Director (Family Welfare) and State Maternal Health Consultant have over all responsibility for planning, implementation and monitoring of Chiranjeevi Yojana in the state.

District Level

- District Development officer as chair person of executive committee, district RCH society, is responsible for overall implementation of the scheme in the district.
- Chief District Health Officer (CDHO) is responsible for identification and enrolment of the Gynaecologist, orientation about the scheme and coordination.
- The RCH Officer (RCHO) and District Project Coordinator (DPC) are responsible for payment to the Chiranjeevi doctors and report collection. While RCHO looks after the technical aspect of scheme implementation, DPC looks after the management of the scheme.
- District IEC Officer (DIECO) is responsible for IEC activity related to the scheme in the district.
- District Public Health Nurse (PHN) will monitor the technical part of the scheme.

Block Level

- Block health officers are responsible for: (a) report collection from Chiranjeevi doctors, (b) bill collection from Chiranjeevi doctors and forwarding it to the district RCH society, and (c) overall supervision of the scheme in the block.
- Block IEC officer for IEC activities related to the scheme in the block.
- MOPHC looks after overall supervision of the scheme in the PHC area.
- FHW and AWW are responsible for: (a) identification of ANC cases to be registered under the scheme as beneficiaries, (b) explanation of the scheme to BPL ANC, (c) preparation of birth micro plan, (d) help in getting BPL certificate, (e) selection of nearest Chiranjeevi doctor for the identified case, (f) if possible accompany the case to the doctors for delivery, (g) follow up of the case after the delivery in her PNC visit for care of Mother and new born.

VI Costing of Package

Under the Chiranjeevi Yojana BPL mothers receive the cash-less maternity service. The government has contracted out services to private gynaecologists. To develop the costing of the services, the government obtained quotations from the Federation of Obstetric and Gynaecological Societies of India (FOGSI) representatives of the state to arrive at a uniform fee that could be charged for normal as well as the complicated cases to design the package for 100 deliveries. For cost calculation, a sum of Rs. 800 was fixed for normal deliveries and Rs. 5000 for the caesareans. Service charges were fixed keeping in mind the national average of complicated cases per 100 deliveries. 15 per cent of the deliveries were expected to be complicated cases. This figure includes 7 per cent for caesareans and the 8 per cent other complications such as blood transfusion, eclampsia and

other complicated cases. Charges for pre-delivery consultation, sonography, transport and Dai were also included to arrive at the final sum of Rs. 179,000 per 100 deliveries. In case the private practitioner was delivering in a public facility, the provider was reimbursed for his services, along with the Dai charges and the transport expenses. This was set as Rs. 65,900 for 100 deliveries. Break up of cost calculation is provided in Table 2. For every delivery, the doctor is required to reimburse Rs. 200 as transport cost to the patient and Rs. 50 to the attendant accompanying the patient.

VII Scheme Implementation

The scheme was implemented in five districts of Gujarat: Banaskantha, Dahod, Kutch, Panchmahal, and Sabarkantha. Out of the five districts, first four districts were visited to have an idea of the experience in implementation of Chiranjeevi Yojana. A note on the study methodology is provided in Exhibit 2. District-wise experience in implementation of the scheme is discussed through a matrix in Exhibit 3. The matrix is worked out to give an idea of the inputs, process and outcome of each implementation stages in the scheme. Implementation of the scheme involved 7 key steps:

- Targeting
- Awareness generation
- Community Involvement
- Provider Selection
- Contracting out
- Contract Management
- Scheme Monitoring

Targeting: It was the responsibility of the respective PHCs to make a list of the beneficiaries according to their expected dates of deliveries (EDDs). The women were also individually contacted by the FHWs and given a briefing on the list of empanelled hospitals and practitioners. They were asked to carry their BPL/Chiranjeevi card at the time of delivery to avail the free services. Only in Panchmahal district, Chiranjeevi Card was introduced. For rest of the districts, BPL card was used. In case the family did not have a BPL card, they were asked to get an authorisation letter from the village talati and sarpanch or the municipal corporation for urban slums.

Awareness Generation: Information of service provided and demand generation among the target group was identified as critical factor.

> *"Without significant efforts to spread awareness, the success of any project is very difficult. We took out a procession through all the talukas, with a lot of pomp and show, in which I was accompanied by the RCHO, Sarpanch, Community Leaders and villagers."* Dr. Itare, CDHO Panchmahal.

Gram Sabhas were a medium to inform people about the scheme and involve panchayats, community leaders, ANMs and other health volunteers on a common platform. In Dahod organised community involvement programme added an

element of ownership to the programme. Pamphlets were printed and distributed in Gujarati.

> *"The awareness about the Chiranjeevi Yojana is good among the community. When the service is free, the message spreads really fast by word of mouth"* MO, Sampa PHC, Godhra

Wall paintings were also made at the PHCs to spread awareness. The FHWs informed the villagers about the scheme for "free delivery" and also told them the complete address of the private practitioners closest to their villages and who were registered under the scheme. The husband was asked to carry the BPL card with him to avail free care.

Community Involvement: Local leaders, sarpanch, dais, female health workers (FHW) were extensively involved in the scheme. Sabarkantha involved all village development functionaries, teachers, talatis, anganwadi workers (AWW), Gram Sewaks, Panchayat members and village health committees. In Panchmahal, the Sarpanch is provided the right to authorise families not having BPL card as being BPL. In addition Dahod involved Mother NGOs to spread awareness in the scheme.

Provider Selection: Meetings with the private providers of the 5 pilot districts were held at the respective Zila Panchayats. It was convened by the District Development Officer (DDO) and the Chief District Health Officer (CDHO). The doctors were given a brief introduction to the scheme. Facility surveys of the interested private providers was planned to be carried out to ascertain their eligibility to join the scheme. The survey was expected to collect information about the infrastructure, logistics, bed strength, floor space, history of normal and complicated deliveries and any maternal deaths. However, only in Panchmahal district the survey was conducted. The form was developed by the CDHO and his team. Following this a Memorandum of Understanding (MoU) was signed between the CDHO and the doctors who volunteered to render their services. The MoU expects the doctors to display a board outside their hospital stating:

> *"This hospital is supported by the district RCH society, for providing free delivery and emergency obstetric care to BPL families."*

An advance of Rs. 20,000 was given to the Gynaecologists to commence deliveries. Doctors were asked to maintain a separate file of the Chiranjeevi patients, reimburse Rs. 200 to the family to compensate for expenses incurred on transport and Rs. 50 as an honorarium to the attendant. The name and address of the hospital is given to the PHC and the FHWs for referrals and a complete record of each doctor's performance is maintained at the district headquarters.

In Chiranjeevi scheme, state government contracts the services of private providers for providing delivery and emergency obstetric care services to BPL beneficiaries in exchange of a fixed price. A Memorandum of Understanding (MoU), clearly stating the roles and responsibilities of the provider, is signed between the Private Gynaecologist and CDHO of the district to give free services

to BPL families. The name and address of the hospital is given to the PHC and the FHWs for referrals and a complete record of each Doctors performance is maintained with the CDHO. Routine problems or query by the empanelled doctors were sorted out in the Block Health Officers (BHO) office. Doctors were asked to maintain a separate record of all BPL patients delivered in the nursing home.

Contract Management: Weekly delivery records are collected by the Block Health Officers (BHO) from the Private Doctors for record keeping and monitoring. These are submitted to the local Zilla Panchayat.

In Dahod and Banaskantha District Project Management Unit (DPMU) developed the monitoring formats whereas in rest of the districts the formats were designed at the Zilla Panchayat. BHO goes to the field to randomly check on the beneficiaries, to ensure the delivery was truly 'cashless' and to keep a check on the quality of service. Grievance from the private practitioners relating to payment of delivery or patients not getting their identification card is addressed by the BHO. The interaction between different stakeholders is depicted in Figure 2.

BPL women in the districts are identified by ANM/FHW and are given an application form for registering in the scheme. The field workers also note the certification available to the women to avail services under the scheme. In absence of BPL card, authorisation by local recognised members is also considered. At the time of delivery, the women is referred to the nearest empanelled doctors, gets the delivery done free of charge, receive her requisite payment and sign on necessary documents. The doctor in turn is required to submit all the documents along with the bill, delivery records to the local BHO, who in turn scrutinise the bills and submit it to CDHO. CDHO approves payments which get finally released by the District RCH Society.

A weekly meeting is convened by all the district functionaries at various levels to discuss the progress. Depending on the performance of the doctor, i.e. the number of deliveries conducted, reimbursements to the private providers are made by the district through the BHO. A monthly report is sent by the district to the state for review and feedback. However, there is no concrete system to check for "Quality of Care" in the scheme except for the random visits by the BHO.

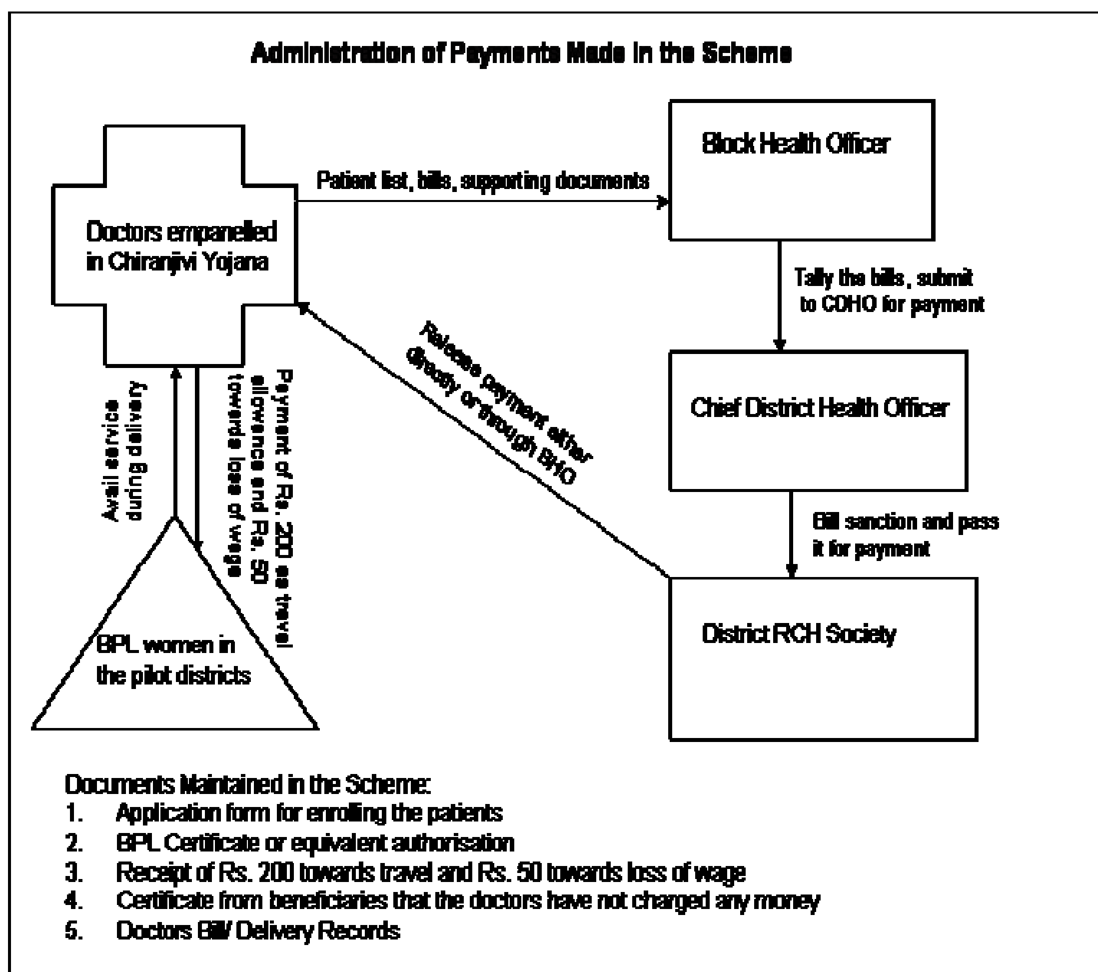


Figure 2

Scheme Monitoring: A broad monitoring format is designed based on suggestions from the district to monitor the scheme performance. District Project Management Unit (DPMU) compiles the information provided by the various formats. The monitoring format broadly takes care of the following items:

- A record of the private practitioners enrolled in various talukas of the district
- Taluka-wise number of normal and caesarean deliveries performed per doctor
- District wise break-up of delivery statistics
- Date of delivery and discharge of the patient
- Details of outcome of the delivery
- Maternal or infant deaths per taluka
- Number of still births in the district
- Record of patients coming with a BPL card/ authorisation slip and whether Rs. 250 was received by the beneficiaries

A compilation of the details of the delivery and patient record is done only at the BHO or at the Zila Panchayat. All empanelled doctors maintain the case file of each of the beneficiary.

VIII Competency required in implementation

In *Chiranjeevi Yojana* district health officials have assumed the role of facilitator and organiser of health services. This is seen as major departure from their existing role. There are also other aspects of the programme which focus on decentralisation. For example, monitoring and implementation of the scheme is delegated to the district and block health office level. This section discusses some of the key challenges in implementing the scheme.

Competencies: The scheme development and implementation was done at four levels. Officials at various levels played roles which were inter-linked and over-lapping. This required considerable degree of coordination and planning. There was a strong willingness at the top-level of health system in the state to address the issue of maternal and infant mortality and increase institutional delivery in the state. Non-feasibility of implementing the insurance scheme for covering maternity risk in the state forced the department to think differently. Ability of the key actors of the state to involve diverse stakeholders in finding solution to the problem and generating ideas through discussion have been a turning point in the process of scheme design. While the department was involved in conceptualisation of the scheme design and giving the broad policy direction, scheme implementation, targeting and monitoring was delegated to the officials at district, block and PHC level. The following diagram depicts involvement at different level of authority in the scheme (dark shade to no shade signifies high involvement to no involvement).

Level / Tasks	State	District	Block	PHC/FHW	Village
Conceptualisation					
Targeting					
Awareness Generation					
Provider Selection					
Contract Management					
Scheme Monitoring					
Note: Dark shade to no shade signifies high involvement to less involvement					

Implementation of the scheme involves competencies required at each level of scheme implementation. This relates to reaching the target group, awareness generation, provider selection, contract management and scheme monitoring. Managing such inter-linked role and role as facilitator of service delivery require health officials to assume new competencies and skills. Facilitative roles in health sector calls for coordination skills, communication skills and stakeholder sensitivity[14]. Table 3 shows the matrix which helps us to understand the roles and responsibilities required at each level of scheme implementation. The matrix

[14] Bhat, Ramesh and Maheshwari SK (2005). Human resource issues and its implications for health sector reforms. *Journal of Health Management*, 7, 1(2005), pp 1-39.

depicts the nature of activities involved in different levels of scheme implementation along with the key competencies involved. Competencies here are adopted from UNIDO competency model[15]. Three competencies were described in the model: managerial competencies, generic competencies and functional competencies. However, in the actual scenario we observed a degree of overlap between managerial and generic competencies; hence these two were clubbed under managerial competencies.

Managerial Competencies: Competencies which are considered essential for staff with managerial or supervisory responsibility in any service or programme area.

Technical/Functional Competencies: Specific competencies which are considered essential to perform any job in the organisation within a defined technical and financial area of work.

However, the model discussed above does not recognise creativity and strong commitment to the cause as important attributes in transforming the health sector. Based on the model and experiences from field, a list of dimensions suited under each competency is mentioned in the matrix given in Table 3.

The Department of Health and Family Welfare has played the most critical role in conceptualisation and designing of the scheme. It organised a series of meetings with different stakeholders. The fee structure for various maternity services and complication cases were obtained from NGOs and professional bodies like FOGSI and SEWA Rural. IIM Ahmedabad assisted in formulating the package of service and costing issue. The department formulated the operational plan for implementation and preparing the district health officers in implementation of the scheme. During the scheme implementation also the department has played critical role in monitoring the performance of the scheme.

The implementation of the scheme is in infancy stage and needs considerable effort in designing the systems for implementing this scheme during its continuity and up-scaling effort. *Inter alia*, the system development should include strengthening of competencies at the district level in tracking quality of care, demand generation, supervision skills, checking for frauds and timely action in case of defaulters. Moreover ability to attract and motivate service provider is going to be important. The implementation should also focus on examining the skills and competencies of the service provider enrolled in the scheme and developing appropriate protocols. However, the experience so far suggests that the doctors enrolled in the scheme are technically competent to handle emergencies related to delivery.

[15] UNIDO Competencies. Strengthening Organisational Core Values and Managerial Capabilities. Accessible at www.unido.org/userfiles/timminsk/UNIDO-CompetencyModel-Part1.pdf

District and Zilla Panchayat played the key role in scheme implementation. This has been in terms of designing of the Chiranjeevi Card, facility survey for selection of private providers, authorising panchayats and talatis to issue letter in case of patients do not have BPL card and releasing payments on time to the private providers. The system required to have a strong leadership quality to spearhead the programme. Among the pilot districts, Panchmahal under the strong leadership and involvement of Chief District Health Officer has led other districts by exhibiting highest number of deliveries in the scheme till date. Moreover, it was the only district that could formulate Chiranjeevi Card and enrolled private providers through a systematic survey.

The Block level officials on their part were mainly responsible for carrying out demand generation activities, selection and monitoring the private providers for delivery records and quality of care. The core competencies required for these jobs were communication skills, selection skills and monitoring skills. In the current circumstances, there is a scope for improving the monitoring skills of the block health officials. Quality control mechanism in the scheme has not yet been institutionalised. This is mostly in the form of random checks by the block health officials. Moreover, monitoring format varies across district. While the authority of designing monitoring format has been delegated at the Zilla Panchayat level, the system suffered from adequate competency and uniformity in the system.

IX Performance

The scheme started functioning since December 2005. The five districts covered by this scheme have population of about 10.5 million of which 43 per cent are below poverty line having about 110,000 deliveries per annum. The scheme during first year of its implementation has covered 31,641 deliveries including 2518 complicated cases and 1502 LSCS. Of the total 217 providers in these districts 133 (61 per cent) have been empanelled in this scheme. The average number of deliveries carried out by these providers has been 238 deliveries. During first 10 months of scheme implementation, no maternal deaths and 13 infant deaths were reported in the pilot districts. As per trend of MMR and IMR of the districts, 70 – 80 mothers and 350 – 450 infants would have died in the districts. During this period, institutional deliveries in the five districts have increased from 38 per cent to 59 per cent (see Table 4). Due to packaging of services in the scheme, unwanted caesarean operations among the BPL expectant mothers has reduced from 15 per cent to 4.7 per cent. In order to understand the early trends of impact of Chiranjeevi scheme an analysis of the proportion of deliveries occurring at home and at institutional set up was conducted with data from Banaskantha district (see Figure 3). The result indicates a steady decline in home delivery since December 2005.

There were apprehensions that deliveries earlier occurring in government institutions were now getting shifted to private providers enrolled under Chiranjivi scheme. Figure 4(a) and 4(b) depicts the trend in institutional deliveries and attempts to understand the impact of the scheme on change in institutional deliveries in the state over a four year period. Figure 4(a) shows a 6 per cent point increase in institutional

delivery during 2004-05 and 2005-06 as against a mere 2 per cent point increase in the preceding 3 years. Figure 4(b) does not provide any evidence of decline in delivery in government institutions during the reference period. The data do not provide any evidence to the apprehension that that patients who were earlier going to a government institution for delivery now prefer to get delivery done from a private set up.

Figure 3

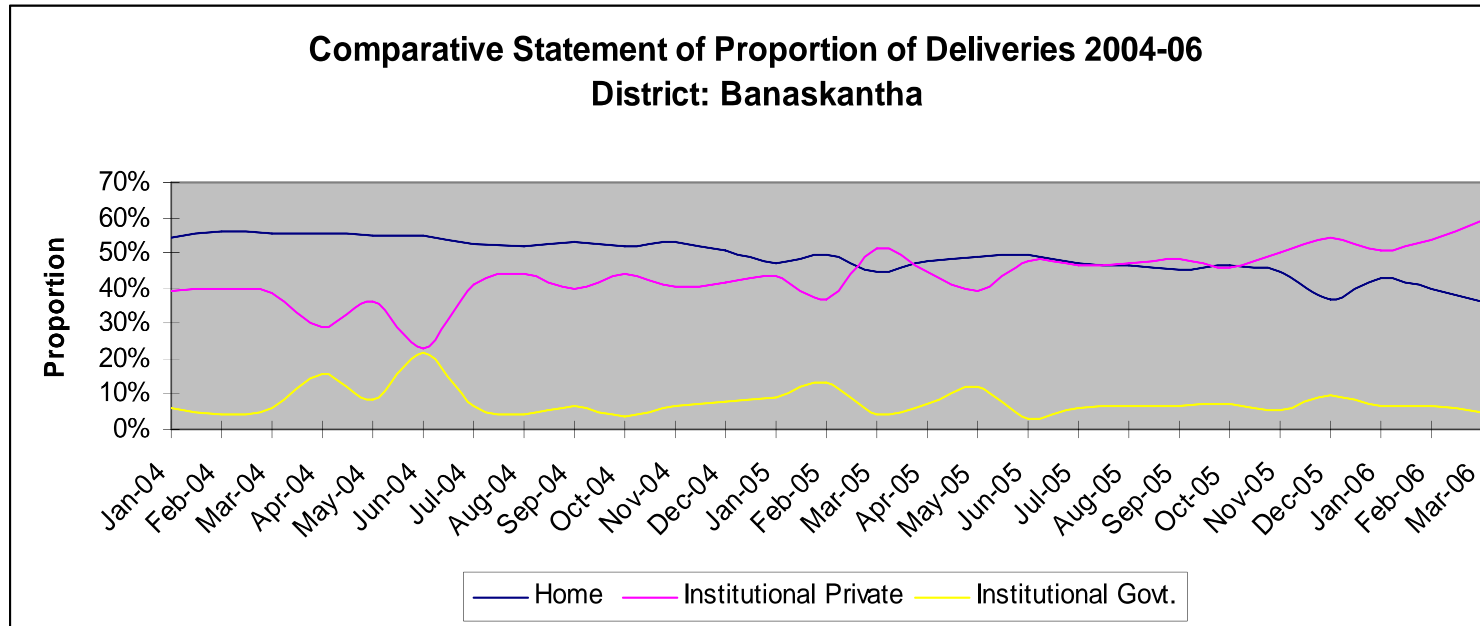


Figure 4 (a): Trend in Institutional and Home Deliveries in the State (2002-06)

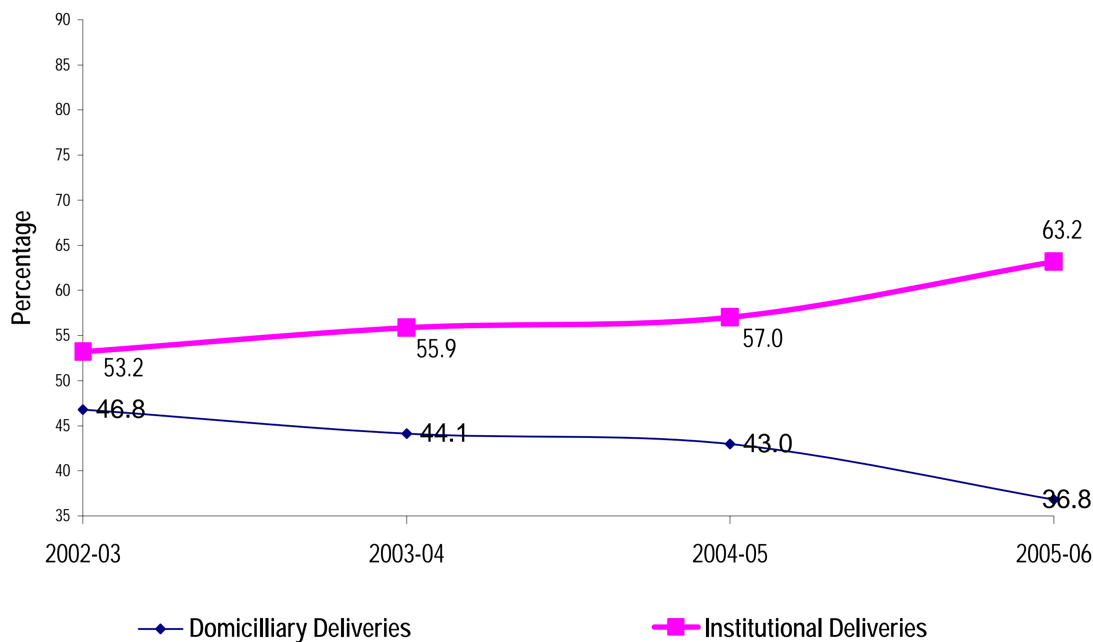
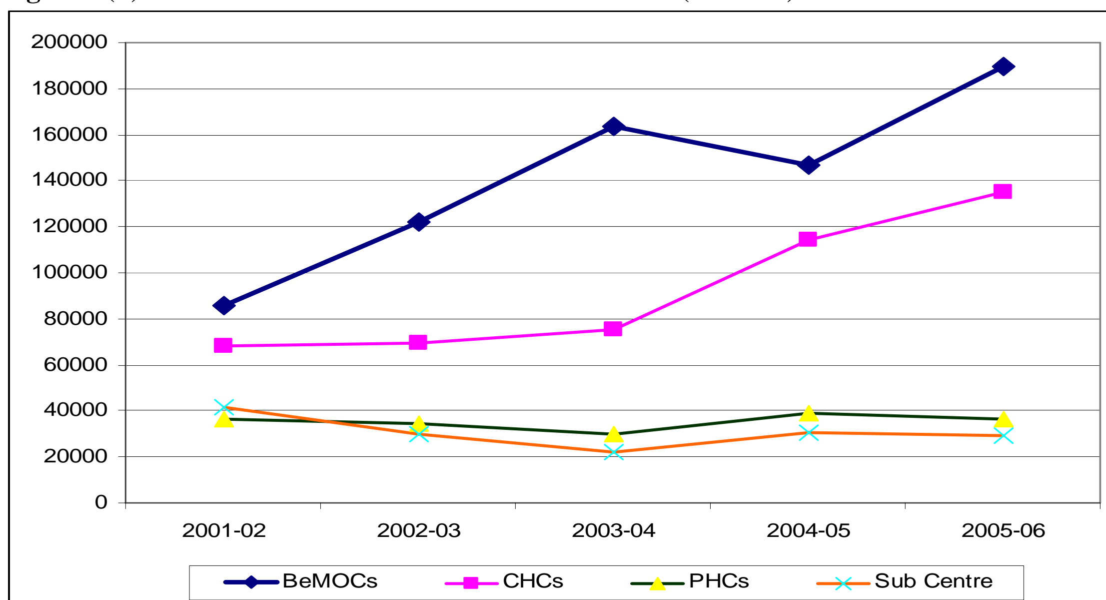


Figure 4(b): Effect on Deliveries in Public Institutions (2002-06)



Source: Statistics from Department of Health & Family Welfare, Government of Gujarat.

Increased Awareness: The scheme has increased the utilisation of services by the beneficiaries in a very short span of its implementation. A majority of the private doctors claim an increase in their clientele.

> "*I have experienced a 30 per cent increase in my clientele since I joined the scheme. Last year in February, I performed only around 80 delivery cases. This year I have already crossed 100 deliveries.*" Private Practitioner, Kalol Taluka-Panchmahal District

However, the increased awareness proves disadvantageous in some areas. According to CDHO, Dahod:

> *"Some doctors are complaining that the patients who undergo normal delivery are demanding back the money they have saved."*

Increase in Health Seeking Behaviour: Chiranjeevi Yojana addressed the delays in seeking care during delivery. By empanelling around 73 per cent of trained gynaecologist in the pilot districts and linking payment to number of deliveries, availability of trained doctors to conduct delivery has been ensured. It has improved the health seeking behaviour of the population by increasing the awareness and improved coverage of antenatal care services. The travel reimbursement addressed a common problem of financial and geographical inaccessibility to reach the health facility and seek prompt care. The scheme made the private providers work on the concept of economies of scale with an inbuilt mechanism to discourage unnecessary caesarean section during delivery.

Competitive Voucher Scheme: The patient has the discretion to choose any empanelled private provider to get the delivery done. This has instilled a sense of competition among the gynaecologists and makes them more accountable. Attempts to extract extra payment are also reduced to the bare minimum as it is now important to win the loyalty of the beneficiary for sustained revenue in the long run.

X Key Challenges in Up-scaling

Chiranjeevi scheme implemented by Government of Gujarat on a pilot basis in 5 districts has put the purchasing power in the hands of the BPL population. This scheme has increased the access to institutional facilities for maternity care. The cost of seeking delivery in private facilities by BPL families is high. This scheme covers both direct and indirect cost (for example travel and cost of accompanying person). The financial burden in case of complications can be catastrophic for BPL families which this scheme covers. However, up-scalability of the scheme will need to address some of the challenges:

Inadequate awareness among private practitioners: The private practitioners empanelled in the scheme stated lack of awareness about some of the scheme details. While costing package of service for Chiranjeevi scheme, service charges were fixed keeping in mind the national average of complicated cases per 100 deliveries

However, the concept of ‘100 delivery’ package was not clear to the private practitioners. They still use the measurement of their profit on per delivery basis and this leads to lot of discomfort among the providers.

> “*We did not know that the fee of the anaesthetists and paediatrician, and also the medicines were included in the free delivery. We would not have agreed to such a package*.” Private Practitioner, Palanpur, Banaskantha.

None of the private providers were aware of the fact that one pre-delivery visit and an investigation is part of the Chiranjeevi package. Many private practitioners indicated reconsidering re-enrolling in the scheme. These concerns need to be addressed.

Inadequacy of targeting instrument: The scheme allows a letter of authorisation from the local Panchayat in case of no BPL/Chiranjeevi card. Monitoring system of the scheme does not have any in-built mechanism to check BPL cards or letter of authorisation. Although the current case did not gather systematic data on misuse of the scheme, anecdotal evidence and complaints from private providers have indicated misuse of the scheme on a number of occasions.

> “*People we know who own cars and carry mobiles are now coming with the BPL cards. They have a card that belongs to their grandfathers. We have no choice but to provide them the service free of cost. A re-screening of the BPL cards is important to ensure the services reach the poorest of the poor*.” Private Practitioner, Kalol Taluka, Panchmahal

Shortage of medical specialist: Gujarat has 65 per cent vacancy for the post of a MD (Gynaecologist) in CHC and 30 per cent vacancy in the District Hospitals. There is an acute shortage of Paediatricians in the state district hospitals (67 per cent vacancy). Unavailability of anaesthetist and restrictive practices about anaesthesia limits access during emergency surgical procedure.

> “*We must try to have a gynaecologist in every taluka. Complications arise when the patients first go to Santrampur – where there is no Doctor, then Lunawada- where there is no anaesthetist. He would have to be called from Godhra. As the patient cannot waste any time she is sent to Godhra. Here the woman arrives as a complicated case*” Private Practitioner, Godhra

> *”When a complicated case comes to me in the night, and I know the anaesthetist will take time coming from a distance of 15 kms, why should I take the risk of getting the patient admitted in my nursing home. I would prefer referring her to a public facility instead. I take the risk and do not even get duly rewarded for it. I pay for the Paediatrician, Anaesthetist and extra medicines. This is not a fair deal. The government could give separate fees to these consultants.”* Private Practitioner, Halol Taluka- Panch Mahal

Addressing high rate of caesarean: One of the pilot districts, Dahod, shows an exceptionally high rate of caesarean section. It equals 18 per cent of the total number of deliveries conducted in the district. Some of the probable reasons for this are:

- Lack of specialists: The beneficiaries have to travel long distances to avail the services of a gynaecologist. Also due to lack of awareness they go to the local quacks or experiment with traditional dais. When they eventually reach the facility, the case would have become complicated
- High rate of fertility in the region: The District Implementation Plan shows a total fertility rate of 5.63 at Dahod as against 2.8 for the state of Gujarat. When a delivery of a higher birth order is taking place, there is a higher probability of it turning complicated.

Monitoring quality of care: Although Chiranjeevi scheme has devised an elaborate monitoring mechanism, the scheme still lacks adequate quality control measures which may be crucial in up-scaling the scheme. Some mechanism to have quality control in delivering of care could be: (a) District Project Coordinators can be made directly responsible for quality monitoring in the scheme and checking for malpractices among the private practitioners, and (b) components of antenatal and post-natal visits should be added in the Chiranjeevi vouchers and they can be made as separate fold in the voucher card. For example, the voucher card can have three ANC check-up and similar for PNC visit. Payment mechanism may be linked to the number of ANC and PNC visit by the doctor. Alternately an incentive linked coupon for ANC and PNC (tried by Seva Mandir in Udaipur) can be issued to the TBA/ANM/FHW in the area.

XI Conclusion

The pilot phase of the scheme has provided a number of insights in implementing the scheme. These would be useful in up-scaling the scheme. Using learning from the existing pilot scheme, future expansion of the scheme should consider following issues:

- Explicitly include post-partum care and care of new-born baby in the delivery package.
- Overall the costing guidelines need to be reviewed in view of the transportation cost in rural areas and cost associated with handling complicated cases. Costing of services is likely to vary from urban setting to rural setting. It might be prudent to decentralise decision on costing the package to district level authority to formulate context based costing guidelines.
- The scheme should introduce some sort of standard operating protocol for uniformity of communication at district/block level health officials and private providers enrolled in the scheme.
- Components of antenatal and post-natal visits should be added in the Chiranjivi vouchers and they can be made as separate fold in the voucher card.

- Memorandum of Association in the scheme should explicitly state details of elements covered/not covered in the scheme.
- District Project Coordinators can be made directly responsible for quality monitoring in the scheme and reporting negligence and fraud.
- Village leaders/PRI can be encouraged to promote the scheme at the meeting of gram sabha.

While implementing any new measures during up scaling of the scheme, care has to be taken that the measures does not hinder the local practices and customs. The department on its part should ensure development of various competencies at the district level in tracking quality of care, demand generation, supervision skills, checking for frauds and timely action in case of defaulters. Moreover ability to attract and motivate effective service provider in the system is going to play the most crucial role in success of the scheme. Understanding the behaviour of service provider and service receiver will be another key determinant factor for the success of the scheme.

The scheme should also carry out operational research in testing out some key assumptions on which this scheme is based. For example, the financial package for this scheme is based on several assumptions. Two key assumptions are related to the probability of delivery status (probability of occurrence of normal, caesarian and complicated cases) and the cost of providing services. These assumptions have significant implications for the long-term sustenance of the scheme and its up-scaling. The departure from assumed probabilities about delivery status, the distribution of cases among providers and the actual cost experience would have significant implications for private provider incentives. Some of these key issues are as follows:

First, the scheme contacts out private providers for 100 deliveries. Given the utilisation of institutional facilities for deliveries and probability of delivery status (normal, caesarean and other complications), is the batch size of 100 deliveries an optimum size from provider view point?

Second, the number of providers contacted out has implications for the distribution of cases across providers. Given the population of the district and number of deliveries which are likely to occur, what is optimal number of providers who should be contracted out for delivery services? What should be the geographic distribution of these providers?

Third, the distribution of risk cases is not likely to get distributed as per assumed probabilities. What are the implications of asymmetric distribution of risk cases of deliveries among providers? Given the distribution of cases among providers, is there a need for intervention at any stage to reduce the asymmetry in risk cases across the providers? At what level this intervention should be done?

While up-scaling this scheme these concerns needs to be addressed. It is important that the government of Gujarat develops appropriate institutional mechanism having adequate capacities to address the issues related to involving non-state providers in

achieving public health objectives, ensure successful implementation of the scheme, proper design and monitoring of quality and ensuring poor are really protected from huge financial burden. The scheme piloted in Gujarat opens up a huge learning opportunity for countries with large presence of private medical practitioners in involving private sector towards achieving public health goals.

Table 1: Social and Health Situation of the Districts

Year 2004	Kutch	Banaskantha	Sabarkantha	Panchmahal	Dahod	Gujarat	India
Population in thousand	1690	2678	2189	2139	1757	53796	1027281
Sex Ratio	887	801	797	882	926	835	933
Density (per sq. km)	NA	233	282	388	449	258	
% of BPL Population	46	65	30	46	23	43	
% of urban population	NA	11.00	10.89	12.51	9.56	37.67	
Literacy Rate	NA	51.26	67.32	61.50	45.65	69.97	
% main workers		33.17	31.74	30.46	30.36	33.66	
% marginal workers		10.45	13.41	17.83	19.47	8.43	
% total workers		43.62	45.15	48.29	49.83	42.10	
Road Length per sq km	12	34	60	26		38	
Total Fertility Rate	2.9	2.9	2.25	2.6	5.63	2.8	2.9
Girls married below age 18 (%)	20.2	37	29.7	37.5	32.3	24.6	
Full ANC	16.0	8.4	23.0	22.7	12.8	25.8	
Institutional Delivery (%)	37	52	62	40	45. 51	46	
Delivery in Govt. Institution (%)	14.0	8.8	8.6	5.2	12.9	12.7	18.7
Delivery at Home (%)	59.5	46.0	36.9	59.5	51.3	47.5	59.0
Attended by Skilled Person (%)	51.5	60.7	72.3	47.1	49.6	62.1	47.6
Birth Order 3+ (%)	47.3	55.4	40.3	41.1	56.5	38.1	42.0
PHC with adequate infrastructure (%)	100	97.5	83.6	64.8	70	89	31.8
PHC with adequate staffs (%)	90	97.5	74.5	61.4	100	76.3	43.6
PHC with adequate supplies (%)	93.3	85.0	3.6	2.3	83.3	83.4	39.9
PHC with adequate equipments (%)	83.3	92.5	81.8	76.1	73.3	80.6	41.3
Essential Obstetric Kit	83.3	67.5	0.0	0.0	80	71.3	32.2
Population served per allopathic medical institution	23482	31682	22402	22251	23701	29045	

Source: District Level Household & Facility Survey on RCH (Round 2, 2002-04), India and Statistical Abstract of Gujarat State 2002, Government of Gujarat.

Table 2: Service Charges for Chiranjeevi Yojana

	Delivery in a Private Nursing Home			Delivery in a Public Institution		
Procedure	**Cases per 100 cases**	**Cost per procedure** (Rs.)	**Total** (Rs.)	**Cases Per 100 cases**	**Cost per procedure** (Rs.)	**Total** (Rs.)
Normal Delivery	85	800	68,000	85	200	17000
Complications						
Eclampsia		1000			300	
Forceps/ Vaccum/ Breech	3	1000	3000	3	300	900
Episiotomy		800			300	
Septicemia	2	3000	6000	2	300	600
Blood Transfusion	3	1000	3000	3	300	900
Caesarean (7%)	7	5000	35000	7	1000	7000
Pre delivery visit	100	100	10000	100	100	10000
Investigation	100	50	5000	100	50	5000
Sonography	30	150	4500	30	150	4500
NICU Support	10	1000	10000			
Food	100	100	10000			
Dai	100	50	5000			
Transport	100	200	20000	100	200	20000
Total			**179500**			**65900**

Table 3: Matrix of competencies

Implementation Issues	Activities	Competencies Required	Adequacy	Initiative to enhance competencies
Conceptuali-sation	• Learning from published experience/reports • Ascertaining and internalising the maternal and child health situation and capacity in the health system of Gujarat • Understanding the behaviour of service provider and service receiver • Consultation with stakeholders • Data collection and costing the package • Designing the scheme and formulation of GR	Managerial Competencies • Strategic orientation • Creativity • Analytical skill • Consultative Skill • Community Orientation • Commitment • Financial Management Skills	 Moderate Moderate Moderate High Moderate Moderate Moderate	Training programme of state and district health officials on management aspects of health programme.
Reaching the Target Group	• Identify target group • Mechanism to target the group • Certification of BPL process	Managerial Competencies • Programme Execution • System Orientation • Commitment	 Moderate High Moderate	Training and regular meeting between district and state health officials.
Awareness Generation	• Develop message to be communicated • Identify the medium • Communicating the message	Managerial Competencies • Communication skills • Sensitive to local customs • Programme Execution	 Moderate Moderate Moderate	Workshop with district level members of FOGSI to enrol private doctors in the panel. Developed organising skills to mobilise communities through mass campaign like Chiranjeevi Rath and one-to-one visits.
Provider Selection	• Listing eligible provider • Survey to ascertain their infrastructure and willingness • Meeting with the provider • MoU with the providers for empanelment	Managerial Competencies • Programme Execution • Commitment • HR Planning & Management • Negotiation Skills • Interpersonal Skills • Ability to attract & motivate effective service providers Functional Competencies • Availability of skilled personnel in	 High Moderate Low Low Low Moderate	Creating data base of providers Developing criterion for provider selection Training and regular meeting between district and state health officials

Implementation Issues	Activities	Competencies Required	Adequacy	Initiative to enhance competencies
		the field		
Contract Management	· Developing the MoU and various clauses defining contractual relationship · Agreement and signing of contract with the private provider · Setting and defining payment schedule to ensure timely settlement of bills	Managerial Competencies · Strategic Orientation · Involvement and Motivation · Analytical (financial and legal) Skills · Negotiation Skills · Supervision Skills · Commitment	 Low Moderate Low Low Low Moderate	Routine training and meeting with district health officials Capacity development of district health officials for analysing the reports and taking necessary actions.
Scheme Monitoring	· Selecting indicators · Identifying data source · Routine collection · Analysis	Managerial Competencies · Supervision and Monitoring · Analytical Skills · Reporting Process · Commitment	 Low Low Low Moderate	Capacity development of district level officials for collection of vital information from the field and analysing the reports for management decisions. Improved MIS system in the state with support from management consultants.

Note: Adequacy level for different competency level were marked in a three point scale from Low to High. Low: inadequate, Moderate: acceptable and High: very good.
Variation in competencies across different hierarchy in the system is mentioned through a preceding matrix on the section "competencies".

Table 4: Chiranjeevi Report for 11 months ending November 2006

Districts	Banaskantha	Dahod	Kutch	Panchmahal	Sabarkantha	Total
Deliveries under Chiranjeevi Yojana	5945	6750	3912	10450	4584	31641
% age against BPL Deliveries workload for 11 months	24	23	23	54	43	34
Total Specialist in the District	50	18	47	29	73	217
Enlisted under Chiranjeevi Scheme	58	15	21	29	10	133
Average deliveries per provider	103	450	186	360	458	238
Normal Delivery	90%	79%	74%	95%	89%	87%
LSCS	5%	4%	5%	3%	10%	5%
Complicated	5%	17%	21%	2%	1%	8%

Exhibit 1: Maternal Health Scenario

Around 30 million women in India experience pregnancy and 27 million live births occur every year. Nearly 65 percent of these births occur at home and in inappropriately equipped health facilities. Statistics indicate that over 100,000 maternal deaths and one million new-born deaths occur each year. India carries the highest burden of maternal deaths, 25.7 per cent of the world's, by any country. Maternal mortality ratio (MMR) in India remains high at an average of 389 deaths per 100,000 live births. Infant Mortality Rate (IMR) in the country is 63 per 1000 live births. It is interesting to note that 73.3 per cent of the deaths occur in the first one week of birth. [16]

Haemorrhage and sepsis account for almost 40 per cent of maternal deaths. Other causes of death during pregnancy, childbirth and the postpartum period were obstructed labour, toxaemia and unsafe abortion. In addition, some 20 per cent of maternal deaths were attributed to indirect causes such as anemia. From the onset of complication to death, the period could range anything between two hours (in case of postpartum haemorrhage) to six days (in sepsis). Most of these maternal deaths in India could be prevented by timely availability of healthcare facilities for women.

Gujarat exhibits an above average performance in socio-economic indicators. 37 per cent of the state resides in urban areas compared to the national average of only 28 percent. Gujarat enjoys a good literacy rate of almost 70 per cent. The state records a per capita income of Rs. 27,000 as compared to India's average of Rs. 21,000.[17] In spite of such a performance, the state features poorly in terms of its maternal and child health indicators. Infant Mortality Rate is 57 as against the national average of 63 per one thousand live births. A phenomenal 64 per cent of the infants die in the first week of birth.[18] Unfortunately, the institutional delivery in the state records just over 50 percent, while in rural areas it is only 21 per cent. The state has set a target to achieve 80 per cent institutional delivery by 2010. Total population of the state in Below Poverty Line (BPL) category was estimated at 70 lakh. Significant proportion of BPL population belongs to tribal community. Tribal community in the state historically have higher Total Fertility Rate (TFR: 5) and are more prone to complications during delivery.

Indicators	Gujarat (2003)	India (2003)	State Vision 2010
MMR (per 1,00,000)	389	446	200
IMR (per 1000)	57	63	30

[16] MOHFW 2003, Government of India
[17] Department of Health and Family Welfare, Govt. of Gujarat, Census 2001
[18] Department of Health and Family Welfare, Govt. of Gujarat, SRS 2003

Exhibit 2: A Note on the Study Methodology

Chiranjeevi project is being piloted in only 5 districts in the state of Gujarat. Primary data was collected from a total of 12 talukas from 4 districts (listed below). Secondary data has been collected and studied for all five pilot districts. The respondents were interviewed at the specified locations (talukas) in each district. The talukas were chosen considering their differences in demographic and cultural profiles. The study has analysed records up to March 2006.

Surveyed Districts and Talukas

District	Taluka
Panchmahal	Godhra
	Halol
	Kalol
Dahod	Dahod
	Devgarh Baria
	Zalod
Sabarkantha	Himatnagar
	Khedbrahma
	Bhiloda
Banaskantha	Palanpur
	Wav
	Tharad

Target Group
The study tried to understand and assess the perspective of the service providers in the government as well as the private sector, considering their different roles.

- Chief District Health Officers (CDHOs) from four districts were interviewed.

- One enrolled private practitioner was chosen from each of the 12 talukas surveyed randomly over 4 districts. A total of 12 private gynaecologists were interviewed.

- Nine beneficiaries were interviewed per district at the rate of three beneficiaries per private practitioner interviewed. A total of 36 beneficiaries were interviewed.

Exhibit 3: Matrix of Chiranjeevi Project

	Panchmahal	Dahod	Sabarkantha	Banaskantha
Targeting: BPL mothers and their neonates in the 5 pilot districts				
Efforts for preparation **(Inputs)**	Chiranjeevi Card (CC) proposed to be given to all expectant mothers.	No concept of Chiranjeevi card. BPL cards are used.	No concept of Chiranjeevi card. BPL cards used.	No concept of Chiranjeevi card. BPL cards used.
How was it done? **(Process)**	CDHO and team designed it and got it printed	Sarpanch and Talati asked to issue authorization letters to BPL families when they ask for it	Sarpanch and Talati asked to issue authorization letters to BPL families when they ask for it	Sarpanch and Talati asked to issue authorization letters to BPL families when they ask for it
Result-**Output/Outcome**	CC was distributed to expectant BPL women in a function held on the immunization day in Feb.'06	Importance of BPL card emphasized. But Doctors complained of misuse of BPL cards.	Importance of BPL card emphasized. But Doctors complained of misuse of BPL cards.	Importance of BPL card emphasized. But Doctors complained of misuse of BPL cards.
Awareness generation: Informing the entire target population of the district about the benefits and process of Chiranjeevi scheme				
Efforts for preparation **(Inputs)**	Public announcement through the **Gram Sabha** meetings, Press release, Pamphlets (Gujarati);and broadcast on TV, Radio and through loudspeakers.	**Gram Sabha** Announcement; **TV and Radio** Broadcast; **Chiranjeevi Rath** prepared, budget approved and route finalised.	Gram Sabha Announcement, Media Publicity-TV, Radio, local Newspapers	Gram Sabha Announcement, Media Publicity-TV, Radio, local Newspapers

	Panchmahal	Dahod	Sabarkantha	Banaskantha
How was it done? **(Process)**	**Procession** was taken out along with the CDHO, RCHO, BHOs, Panchayat members and other community leaders. **Pamphlets** distributed all over the district, especially at BHOs, announced through **Loudspeakers**, and **Media** publicity. **FHWs** went house to house to explain the scheme to expectant mothers.	In Gram Sabhas, BHVs announced the purpose of the CY and the benefits the villagers could avail. The Chiranjeevi Rath was a big van with huge boards on three sides, elaborately describing the benefits of the scheme, and also emphasising ANC visits and sterilization. A troupe of young folk artists especially hired for the purpose, enacted plays in the local dialect. The synergetic effect of the written and verbal information about the yojana and the doctors involved, led in speedy dissemination.	Meeting of all BHOs and MOs at the ZP was held. Detailed information was provided. Then in Gram Sabhas the villagers and the community leaders were informed about the scheme.	Meetings were held of all the govt. officials at the Zila Panchayat and also at the BHOs to inform the community as well as to increase accountability amongst the staff.
Result-**Output/Outcome**	All 11 Talukas were informed about the C.Y	The houses close to the road and in accessible regions were all informed. Tribal living in inaccessible terrain remained uninformed.	Current level of awareness about CY is high among providers.	Community are aware of the scheme.
Community Involvement: All members of the talukas be accountable and share responsibility of the program				

	Panchmahal	Dahod	Sabarkantha	Banaskantha
Efforts for preparation **(Inputs)**	Sarpanch, local leaders, Female Health Workers, Dais, and local people of the villages.	MOPHC, PHNs, FHWs, BHVs were all asked to inform villagers about the scheme.	All village development functionaries, teachers, talatis, AWWs, Gram Sewaks, Panchayat members, VHCs were involved.	The community leaders, panchayat members, sarpanch, talatis, FHWs, Gram Sewaks were involved.
How was it done? **(Process)**	The **Sarpanch** is bestowed the right to authorize families as being BPL or not in absence of the card. **FHW** speaks personally to all expectant mothers and gives them the Chiranjeevi card and encourages ANC before delivery. Each **woman** is asked to share this information with her neighbours and friends.	Same as Panch Mahal. Additionally, panchayat members were called at the BHO to involve them in the scheme and seek their cooperation; Also FPAI, MNGO was involved to spread awareness.	Same as PM. Meetings were organized at the BH Offices.	Same as PM.
Result-**Output/Outcome**	Current level of community involvement is not very clear	Current level of community involvement is not very clear	Current level of community involvement is not very clear	Current level of community involvement is not very clear
Provider Selection: Process adopted to select private practitioners to provide care				
Efforts for preparation **(Inputs)**	Facility Survey form is designed by CDHO and team. Doctors called for a meeting at the Zilla Panchayat (ZP)	Meeting of all private gynaecologists organized by the CDHO and DDO.	Meeting of all private gynaecologists organized by the CDHO and RCHO.	Meeting of all private gynaecologists organized by the CDHO and DDO.

	Panchmahal	Dahod	Sabarkantha	Banaskantha
How was it done? **(Process)**	BHO surveys the hospital/Nursing Home facilities& prepares a report. ZP reviews & documents it. Doctors were informed about the 'Terms & Conditions' through the MoU.	Doctors were informed about the CY and the package they would receive.	Doctors were informed about the CY and the package they would receive.	Doctors Were informed about the CY and the package they would receive.
Result-**Output/Outcome**	A Private Dr. who is interested in joining the scheme gets a facility survey done by the BHO of his taluka	Within a month 14 doctors out of 16 present in the district volunteered.	Interested doctors enrolled into the scheme.	Interested doctors enrolled into the scheme.
Contracting out: State Govt contracts the services of private providers in their own nursing homes, in exchange of a fixed price				
Efforts for preparation **(Inputs)**	MoU, clearly stating the roles and responsibility of the provider is signed between the Private Gynaecologist and CDHO of the district to give free services to BPL families. An advance of Rs.20,000 is given to the doctor.	MoU, clearly stating the roles and responsibility of the provider is signed between the Private Gynaecologist and CDHO of the district to give free services to BPL families. An advance of Rs.20,000 is given to the doctor.	MoU, clearly stating the roles and responsibility of the provider is signed between the Private Gynaecologist and CDHO of the district to give free services to BPL families. An advance of Rs.20,000 is given to the doctor.	MoU, clearly stating the roles and responsibility of the provider is signed between the Private Gynaecologist and CDHO of the district to give free services to BPL families. An advance of Rs.20,000 is given to the doctor.

	Panchmahal	Dahod	Sabarkantha	Banaskantha
How was it done? **(Process)**	After the BHO has verified the facilities available at the nursing home,and they seem satisfactory to provide EmOC facilities, a MoU is signed and the advance of Rs.20,000 is given to the Doctor.The name and address of the hospital is given to the PHC and the FHWs for referrals and a complete record of each Dr's performance is maintained with the CDHO.	MoU was signed between CDHO and Private doctor. An advance of Rs. 20,000 was given to the doctor. He was asked to correspond witht the BHO of his taluka incase of any problems. Doctors were asked to maintain a separate record of all BPL patients delivered in the nursing home.	Same as Dahod	Same as Dahod
Result-**Output/Outcome**	No. of Private providers enrolled= 27 ***MoU valid till 31st March 2006**	No. of private providers enrolled= **18** *(of which 14 were from Dahod and 4 from Panchmahal)	No. of Private providers enrolled=46 (as on Apr 7,2006)	No. of Private providers enrolled=38 (as on Apr 1,2006)
Contract Management: Monitoring and payment mechanism				
Efforts for preparation **(Inputs)**	Various monitoring formats were designed at the Zilla Panchayat. Weekly delivery records were collected from Private Doctors for monitoring and record keeping.	Monitoring formats were developed by the **District Project management Unit (DPMU**). These are given to the BHO and the doctors to maintain records and report.	Various monitoring formats were designed at the ZP. Weekly delivery records were collected from Private Doctors for monitoring and record keeping.	Monitoring formats were developed by the **District Project management Unit (DPMU**). These are given to the BHO and the doctors to maintain records and report.

	Panchmahal	Dahod	Sabarkantha	Banaskantha
How was it done? **(Process)**	The BHO/V collects delivery records on first and last Thursdays of the month and submits to the ZP. On Friday, a random check is made on the beneficiaries by the BHO and records submitted at ZP. Finally, on Saturday, a meeting is held at the ZP to discuss the implementation of the C.Y. On Monday, payment-in cheque, is made to the Doctors for the deliveries conducted. A payment schedule is maintained to keep track of the payments made.	Telephonically information collected on performance of each doctor weekly. And monthly the records are collected from the doctors for entry at the ZP. Doctors are reimbursed time to time, according to the no. of deliveries performed. A verification of the records is done before reimbursement. Monthly report is also sent to Gandhinagar. A clear system to check the 'quality of care' has not been defined yet.	The BHO sends an officer weekly to collect details of deliveries conducted and the beneficiaries. These details are taken to the ZP for updation by the BHO himself. Doctors are reimbursed time to time, according to the no. of deliveries performed. A verification of the records is done before reimbursement.	Regular (fortnightly) meetings of the BHOs are held at the ZP. Issues hindering smooth functioning of the scheme are discussed with the CDHO, RCHO and DPMU. They telephonically update the district of the progress of performance in the CY. Monthly report is also sent to Gandhinagar. A clear system to check the 'quality of care' has not been defined yet.
Result-**Output/Outcome**	A performance based method of payment has been adopted. This creates competition and encourages the private providers to conduct deliveries of the BPLs.	A performance based method of payment has been adopted.	A performance based method of payment has been adopted.	A performance based method of payment has been adopted.
Utilization of services: Increase in the number of BPL women who delivered in the enrolled nursing homes.				

	Panchmahal	Dahod	Sabarkantha	Banaskantha
Efforts for preparation **(Inputs)**	Monetary benefits to attendants who accompany the patient and reimbursement of travel, decreases the hesitation to avail institutional care & increase economic accessibility. Each *taluka* has atleast 3 to 4 Drs. to increase geographical accessibility.	Lack of Gynaecologists in the district. Efforts were made to enrol all of them. A random check by the BHOs & complaints from the beneficiaries were encouraged to keep a check on malpractices by doctors.	Benefits are given to attendants and travel is reimbursed to the BPL family. SK has the highest number of gynaecologists among the pilots. It ranks the second highest among the total deliveries conducted within CY.	The BHOs,FHWs and District staff were all well aware of the performance of the CY. Meetings held to clarify the purpose of the scheme has resulted in self motivation of the staff. Regular reminders are given to beneficiaries who are due to deliver within a month or two.
How was it done? **(Process)**	Rs. 500 given to mother to compensate for loss of wages (under the JSY) when visited by FHWs at the time of followup. Private doctor gives Rs. 200 as travel allowance to JSY, Rs. 50 given to compensate for attendant's loss of wages along with a free delivery (medicine charges included)	Payments were made promptly to doctors to ensure enthusiasm to continue with the scheme. The meeting of all doctors were called and the doctors against whom there were complaints were given a strict warning. One was infact withdrawn from enrolment.	Private doctors gives Rs. 200 as travel allowance to JSY, Rs. 50 given to compensate for attendant's loss of wages along with a free delivery (medicine charges included). Regular reminders are given to beneficiaries who are due to deliver within a month or two.	Same as SK. Additionally, RCH camps are organized to strengthen ANC and PNC in the district. On the weekly immunization days, after 2 pm, the pregnant women are called for an ANC check-up. The Female Health Supervisor (FHS), Female Health Workers (FHWs) and the Medical Officers of PHCs (MOs) work collectively to gather expectant women for a complete ANC check-up

	Panchmahal	Dahod	Sabarkantha	Banaskantha
Result-**Output/Outcome**	No. of deliveries conducted in the District= 1294: C=30, N=1264; Still Births= 6 (as on Mar 2,2006)	This created a slight fear among the private providers. No. of deliveries conducted=1177, C=251,N=926; Still birth=14 (as on Mar 22,2006)	No. of deliveries conducted=2027, C=189,N=1838; Still birth=not recorded (as on Apr 7,2006)	No. of deliveries conducted=1436, C=94,N=1342; Still birth=8 (as on Apr 1,2006)