DAKSHATA: A STRATEGIC INTERVENTION TO IMPROVE QUALITY OF CARE DURING AND AROUND CHILDBIRTH

IMPROVED MONITORING AND ACCOUNTABILITY

(4/4)

The Government of India developed a comprehensive intervention package, based on Safe Childbirth Checklist (SCC) to define the framework of action , and approaches such as the use of clinical standards, clinical skills standardisation training, post-training mentorship and support, and data for decision making and improvement as the main pillar of this initiative.

Winning Strategy: Government ownership and commitment-ensured the program's scale-up.

- Competent, skilled and confident providers at high delivery load facilities.
- Ensuring the availability of essential resources at point of care.
- Creating an enabling labour room environment.
- Periodically assessing the providers' adherence to evidence-based practices.
- Streamlining data recording and reporting processes.

WINNING STRATEGIES

Government ownership and commitment: was critical in ensuring the program's scale-up.

Systematic mentorship strategy: resulted in continuous quality improvement.

Utilising data for decision-making: resulted in effective program implementation and review.

Holistic health systems strengthening approach: resulted in facility readiness in terms of infrastructure, logistics, and accountability.

PROGRAM IMPACT

Maternal Mortality Rate (MMR) reduced by 22points (186 in 2015-17 to 164 in 2016-18) in Rajasthan – **Highest decline in India** (SRS Bulletin 2015-17 & 2016-18)

11% reduction in facility-based **stillbirths and early new born deaths**[#]

Still birth rate decreased from 16 to 6 per 1000 live births in Rajasthan, while from 11 to 4 per 1000 live births in Andhra Pradesh[$]

Clients at intervention facilities received, on an average, **12** more practices than control sites*

Providers at intervention facilities were able to adhere to all the key evidence-based practices during 75% deliveries in Rajasthan; 70% deliveries in Andhra Pradesh[$]

[#] Varghese et al. Does the safe childbirth checklist (SCC) program save new born lives? Evidence from a realistic quasi-experimental study, Rajasthan, India. Maternal Health Neonatology Perinatology. 2019 Mar 1; 5:3. doi: 10.1186/s40748-019-0098-4.

*Kumar et al. Effectiveness of the WHO SCC on improving adherence to essential practices during childbirth, in resource constrained settings. BMC Pregnancy Childbirth. 2016 Nov 8;16(1):345. doi: 10.1186/s12884-016-1139-x.

[$]External Evaluation of Dakshata (PHFI)

DAKSHATA HAD FOUR MAJOR COMPONENTS

Focussed and customised training for capacity development.

Strategy for transfer of learning through structured mentoring and support visits (MSV).

Resource availability to ensure adherence to evidence-based practices.

Improved monitoring and accountability through data.

IMPROVED MONITORING AND ACCOUNTABILITY THROUGH DATA

One of the key activities under the Dakshata program was to improve accountability of healthcare providers by strengthening record keeping and reporting. The program also promoted the usage of data for improved decision-making, and action and through the use of digital health interventions.

1. IMPROVED MONITORING MECHANISMS TO STRENGTHEN DATA REPORTING AND SYSTEMS ACCOUNTABILITY

a. Standardising data recording templates – Birthing registers and client case records

- Dakshata supported intervention facilities in standardising recording templates (case sheets) as per Government of India's (GoI) recommendations for client case records and birthing registers in the facilities and labour room MIS for reporting at all levels.

b. Strengthened monitoring of dashboards with key indicators

- Dakshata also promoted regular monitoring of key indicators and dashboards generated through GoI's MIS at various administrative levels, by officials at facility, district and state levels for ensuring accountability of the system and monitoring adherence to life-saving practices during childbirth.
- Dakshata mentors were trained to support the facility in-charge in understanding dashboard indicators and taking corrective actions based on those indicators.

c. District and facility level factsheet

- A monthly feedback mechanism in the form of a visual factsheet was developed for internal program monitoring, and for government advocacy.
- This feedback included an activity update and a focused dashboard of key program outcomes, such as resource availability, adherence to practices, and labour room standards.
- Facilities were ranked on the basis of a composite index of these indicators.
- On a monthly basis, the team shared briefers explaining the status of the Dakshata program and activities with the respective state governments, and a consolidated factsheet to GoI.

Image 1: Visual factsheets from the district and facility level

2. PERFORMANCE AUDIT OF FACILITIES THROUGH PERIODIC ASSESSMENTS (PA)

- Conducted by the program team to assess adherence to life-saving practices during childbirth at the facility, at regular intervals (usually every three months).
- Other than resource availability checklist and labour room standards, the PA contains 19 standards focusing on quality of care in the intrapartum and immediate postpartum period. Each standard contains a set of practices that was needed to be followed. Each practice can be confirmed by verification criteria (VCs) which the assessor triangulates by either directly observing interactions with clients or through demonstration on models.

- They can also triangulate through case records, providers' interviews, mothers' interviews, and physical verification of the instrument(s)/equipment.
- The PA is a powerful performance audit tool to track the progress of the program in facilities. Some PA findings are also useful in the dashboard indicators. Findings on resource availability and labour room standards help the state officials in planning for resources as a part of their state PIP.

Dakshata conducted 1450 PAs across intervention facilities in Rajasthan over the course of the program. In Andhra Pradesh, the first round of PAs were conducted in 39 facilities from April to June 2018 and the second round of PAs were conducted in 24 facilities from December to February 2019.

3. INDIVIDUAL PROVIDER COMPETENCY THROUGH PERIODIC ASSESSMENT OF COMPETENCY AND KNOWLEDGE (PACK)

Dakshata program's design was focussed on ensuring facility-level accountability and assessing facility-level performance; however, there was a need to assess the skills of individual providers periodically to increase their accountability.

- Periodic Assessment of Competency and Knowledge (PACK) was conceptualised as a mechanism to track, improve and sustain the competency and knowledge of providers for key practices.
- Methodology:
  - Conducted by Dakshata program team for all providers posted in the labour room and postnatal ward using a pre-defined methodology: Objective Structured Clinical Evaluation (OSCE) and case studies, on following the ten essential practices after completion of the structured five-visit MSVs at a facility.

On admission abdominal examination
Per vaginal examination
Active management of third stage of labour (AMTSL)
New-born resuscitation (NBR)
Infection Prevention-Hand Hygiene Practice
Plotting of partograph and decision making
Management of pre-eclampsia/eclampsia
Management of postpartum haemorrhage
Management of preterm labour
PNC monitoring and counselling

  - Based on the assessment, providers were classified as follows:
    - Competent: Any provider who scored 80% or more in a particular skill was considered 'competent' for that particular skill. Such providers were to be assessed every six months.
    - Incompetent: Providers who scored less than 80% were considered 'incompetent' for that particular skill. These providers were to be subjected to another additional assessment on a quarterly basis.
      - Incompetent providers who failed to show improvements in two consecutive onsite visits, after support, were recommended for district level re-sensitisation.
  - Based on assessment of results, the improvement plans were developed for addressing the needs of providers with poor competency. The remaining providers were to be assessed after six months, in the next round of PACK.

Jhpiego Program Officers assessed the competencies of 409 providers posted in labour rooms and post-natal wards of 62 high volume Dakshata facilities. Total 111 (27%) providers demonstrated full competency in all targeted 10 practices. Adherence to individual practices ranged from 55% to new-born resuscitation to 92% for PNC counselling. Total 348 (85%) and 309 (76%) providers demonstrated competency for AMTSL and management of severe pre-eclampsia and eclampsia, respectively. Some of the other practices like partograph plotting and per-abdominal examination demonstrated competency level of ~60%. Practices which did not show immediate results or difficult to practice depicted poor competency status.

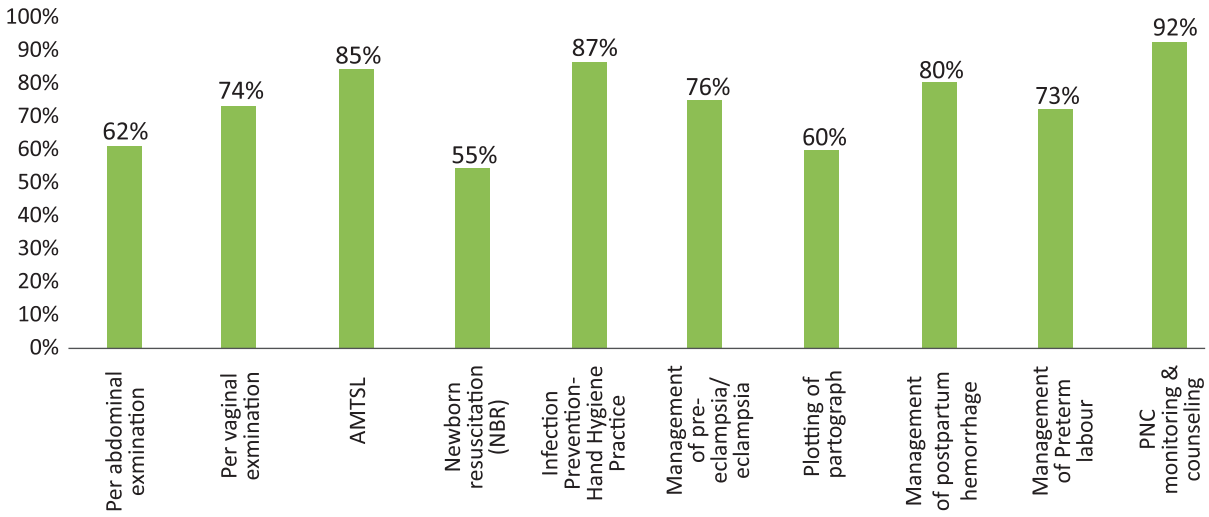


Image 2: Status of Periodic Assessment of Competency and Knowledge

4. CLIENT FEEDBACK

Client feedback was an important indicator to gauge the quality of services rendered to a pregnant woman coming to labour rooms of public health facilities and ensuring accountability of health systems. To understand client perspectives on practice-related service delivery and quality, a feedback mechanism in the form of 'client feedback' was initiated under Dakshata program in the state of Rajasthan.

- Pre-defined questionnaire with seven questions on facility upkeep, service delivery and quality of services, was used to collect information from clients.
- Participants were postnatal mothers present at the facility, who agreed to participate in feedback process.
- Collected by the Dakshata program team.
- Post successful testing and based on feedback from the Government of Rajasthan, the format was modified to include four additional questions and incorporated as a module in the Dakshata Mentor's App.

In total, feedback from 1080 clients from 23 districts was collected through the paper-based format and the mentor's application from April'19 to December'20. Cleanliness at facility was reported to be good by 77% clients, while 95% said that a companion was present with them during delivery. Breastfeeding was initiated within one-hour of deliveries for 86% clients. 37% clients were counselled on danger signs for mother and baby at the time of discharge, while 80% were satisfied with the behaviour of health workers and/or staff nurses.

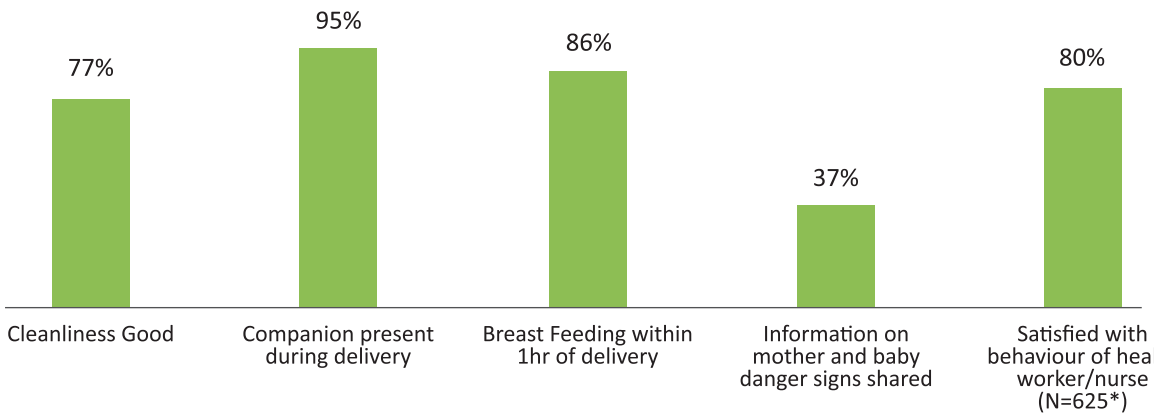
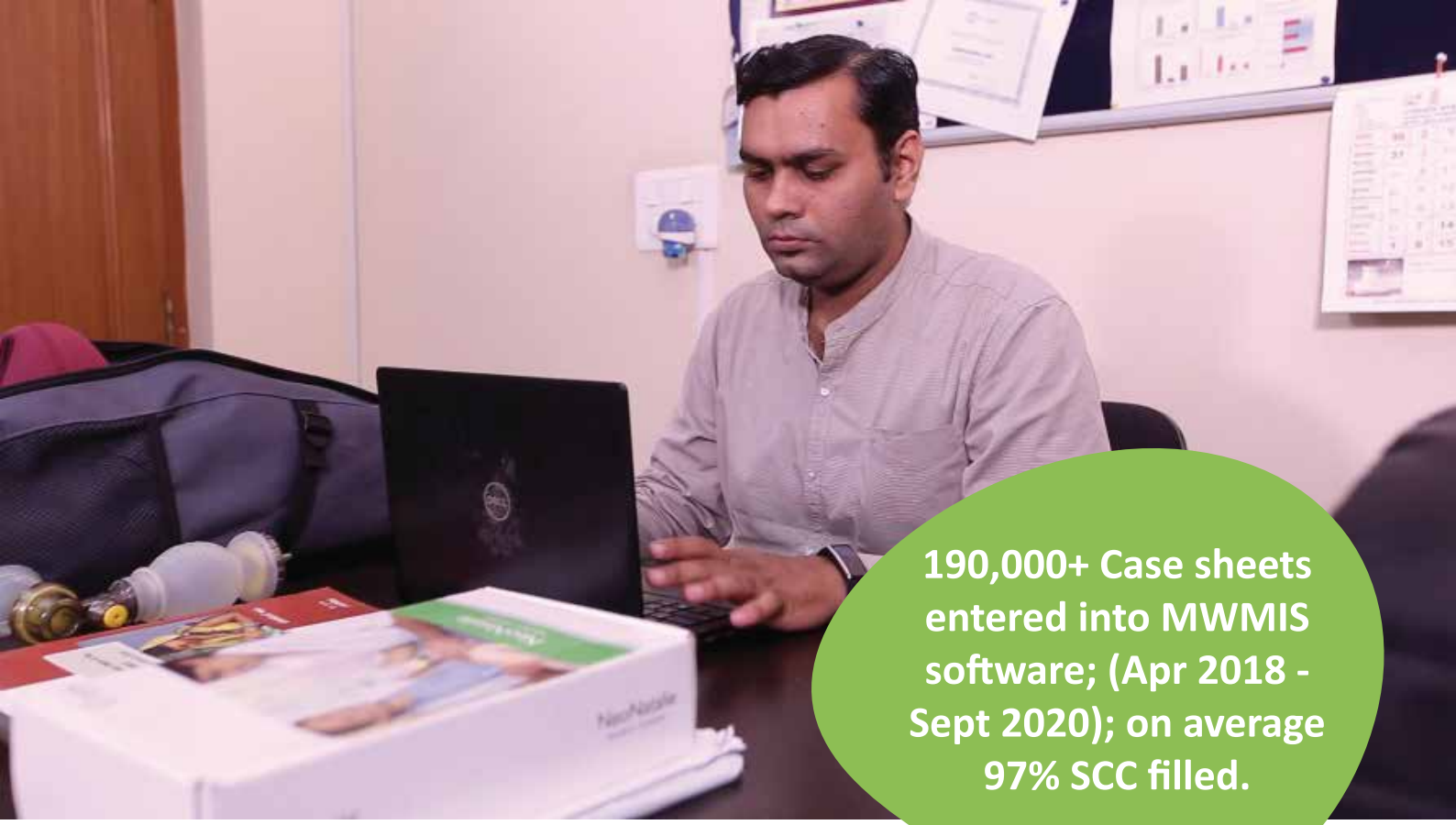


Image 3: Graphical Representation of Client Feedback



190,000+ Case sheets entered into MWMIS software; (Apr 2018 - Sept 2020); on average 97% SCC filled.

5. DIGITAL INNOVATIONS

a. Maternity Wing Management Information System (MWMIS) Software

Standardising data reporting from all delivery points and mechanisms for analysis were seen as major challenges during the program implementation. Under the guidance of the Ministry of Health, GoI, Jhpiego developed and implemented a digital platform Maternity Wing Management Information System (MWMIS) for capturing key information from standardised labour room case sheets for automated analysis and reporting at various levels.

- This allowed for digitisation of labour room case sheets and inbuilt dashboard to monitor practices, improve accountability and facilitate corrective actions.
- It also enabled tracking and reviewing services provided during childbirth at public health facilities and utilised this data for decision-making and continuous quality improvement.
- MWMIS also standardised data recording, with WHO's SCC integrated into client case records and all critical data elements were captured.
- The MWMIS design simulated the structure and appearance of the case sheets to facilitate easy data entry, and had in-built data validation and checks to avoid data entry errors.
- Post entry of case-sheet data into MWMIS software, the data was auto-coded, analysed and a dashboard of key indicators was generated on the home page.
- It had a user-friendly format with inbuilt data validation checks.
- Its inbuilt analytics and dashboards allowed for real-time decision making at all levels.

- MWMIS enabled monitoring of provider practices at labour room for improving facility level accountability and planning of corrective actions.
- Also, facility, district and state level dashboards were developed for key process and outcome indicators of the Dakshata program.
- Measures to ensure uptake of the digital intervention
  - Hands-on training of Data Entry Operators
  - Institutionalised mechanism for regular review of MWMIS dashboard and fill rate during district and state level review meetings
  - Monetary incentive by the state government for the entry of each case sheet, on the basis of entry of identified 40 necessary indicators

b. Customised android-based application for real-time monitoring of labour rooms (LR): Dakshata Mentor Android Application

The Dakshata Mentor Application, an android based application with web-based dashboard, was developed by Jhpiego on behalf of the Government of India to streamline the processes of data collection, reporting, management and review by mentors, for ensuring facilitated actions for quality improvement in labour rooms. It was envisaged to strengthen facility-level mentoring and monitoring of labour rooms by listing out the priority areas of improvement; measures to be taken to build up the capacity of the service providers; and ensuring a constant mentoring mechanism for provision of quality intra-natal and immediate post-partum care. It is a user-friendly data collection tool with provision for both online and offline data entry; inbuilt analytics; and generation of visit report with GPS stamping.

- Real time monitoring of labour rooms and real time reporting of facility performance, by mentors and dashboard review by supervisors for ensuring facilitated actions for quality improvement.
- Android-based mobile application and web-based dashboard.
- One-stop solution for mentors
- Facility assessment on resource, practices, LR environment, provider competency and client satisfaction
- In-built facility level report, work plans, and track visits
- The dashboard enables state and district officials to monitor facility performance on evidence-based practices.

- Composite index developed to rank facilities on the basis of resource availability, LR environment and adherence to practices
- 900+ users registered; 6000+ mentoring visits reported
- Review of mentoring visits data generated through the application done during district health society meetings and the state level VC.
- Sustainability and Scale-up of the Dakshata Mentor App
  - Govt of Rajasthan hosted the application on the server and mentors are using it.
  - The Dakshata Mentor App was upgraded to cater to national mentors for documenting their visits to medical colleges and public health facilities by incorporating the facility masters of all states as per the RCH database. Provision was also made to add additional facilities as per the requirements of national and state governments.
  - A detailed user manual with instructions of the roles and responsibilities of various levels of users as well as all the aspects of the application has been developed to facilitate the national rollout.
  - Security audit was done to ensure its handover to a government-owned server platform for hosting and maintenance.
  - Dakshata Mentor App to be integrated into GOI's existing GUNAK application system and the process for integration is underway. GUNAK application consists of preloaded digital checklists for other GoI public health quality assurance (QA) programs such as, LaQshya, Kayakalp & National Quality Assurance Standards (NQAS). These QA programs currently focus on overall facility infrastructure and service delivery standards.

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Ministry of Health & Family Welfare
Government of India

Room No. 348; 'A' Wing, Nirman Bhavan, New Delhi-110011

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