



SAFE CARE SAVING LIVES

*Saving Mothers and Babies in
Andhra Pradesh and Telangana*



About ACCESS Health International

ACCESS Health International works in low and middle income countries to improve maternal and child health. Our primary focus is on reducing infant, child, and maternal mortality. We identify successful programs in rural and urban settings and work with care providers to understand and document best practices. We take that knowledge and adapt to fit the work of other public and private providers, helping them improve their programs and quality of care.

We promote collaboration among research institutions, policymakers, healthcare providers, health insurance suppliers, and other payers of care to bring good practices to scale. This approach improves the quality of maternal and child care and creates lasting institutional change within the healthcare system.

Website: www.accessh.org/maternal-child-health/

Program Partners

Aarogyasri HealthCare Trust, Telangana
Dr. NTR Vaidya Seva Scheme, Andhra Pradesh
Department of Health and Family Welfare, Government of Telangana
Department of Health and Family Welfare, Andhra Pradesh

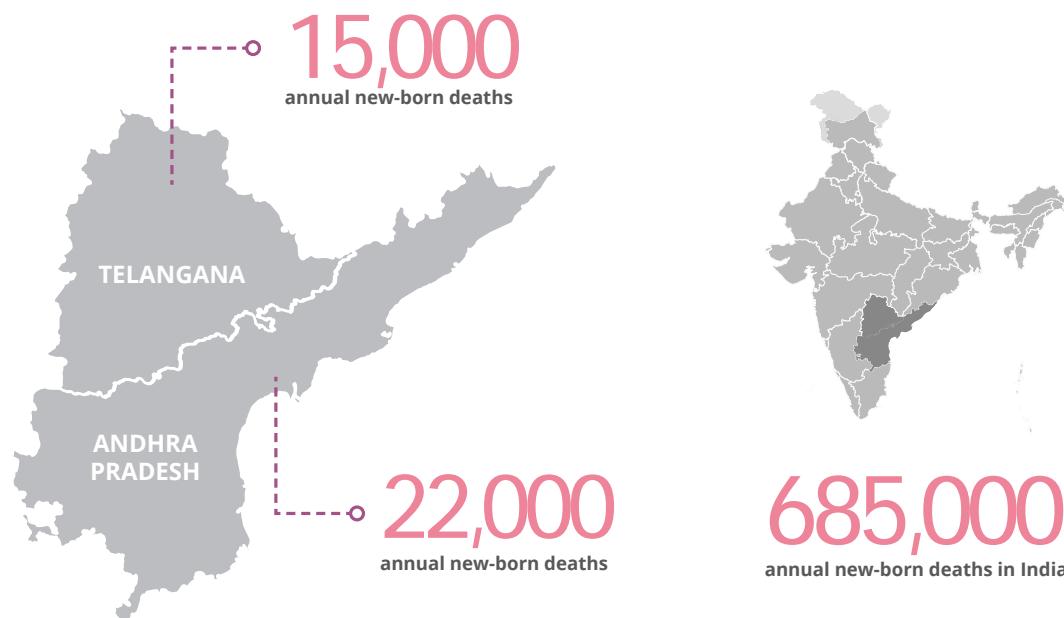
The Safe Care, Saving Lives program is funded by the Children's Investment Fund Foundation.

SAFE CARE

SAVING LIVES

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BACKGROUND



In 2014, Andhra Pradesh bifurcated into two states: Andhra Pradesh and Telangana. Andhra Pradesh now has a population of 49 million, with roughly 860,000 new births each year. Telangana has a population of 35 million and a birth cohort of more than 600,000.

While both states have performed well on some health indicators, they both face significant challenges in newborn care.

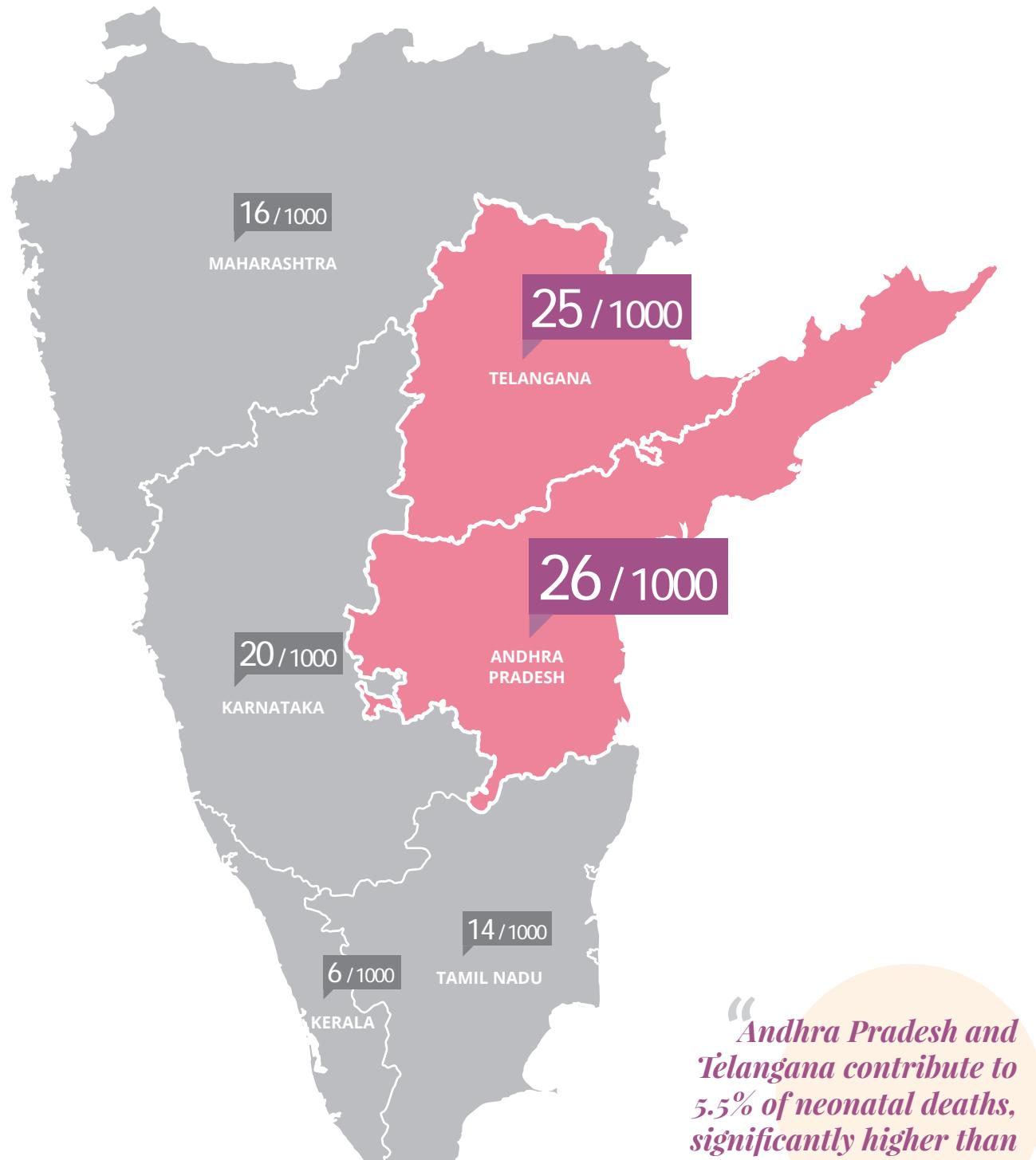
Neonatal mortality in Andhra Pradesh is twenty six per thousand live births which, translates to more than twenty two thousand newborn deaths annually. In Telangana, the rate is twenty five per thousand live births, with approximately fifteen thousand annual newborn deaths. The neonatal mortality rates of both states are significantly higher than neighboring states.

In addition, both states have dismally low rates of early initiation of breastfeeding, a key component to improve a newborn's health. Caesarean deliveries are also on the rise, in both public and private sector clinics: forty percent of newborns are delivered by caesarean sections in Andhra Pradesh and thirty eight percent in Telangana as per NFHS report.

Both states have an important advantage, however. Both have innovative and state funded insurance programs that allow individuals to seek care in either public or private hospitals. The two insurance programs, *Dr. NTR Vaidya Seva* and *Aarogyasri Health Care*, ensure access to treatment for serious and life threatening illnesses for more than eighty percent of the population.

Figure 1

**Neonatal mortality across neighboring states,
rate per thousand live births (SRS 2014)**



*“Andhra Pradesh and
Telangana contribute to
5.5% of neonatal deaths,
significantly higher than
neighboring states.”*

INCEPTION

15 %
↓

Project aims to reduce perinatal and neonatal mortality over a 4 year period.

While the government of India has worked hard to increase access to healthcare across the country, these efforts have not led to comparable declines in neonatal and maternal mortality, missing the Millennium Development goals for MMR and U5MR by a whisker.

With an aim to understand the bottlenecks in reducing neonatal mortality in erstwhile Andhra Pradesh, the Department of Health and Family Welfare commissioned an assessment of Facility based newborn care with focus on Special Newborn Care Units study which was led by UNICEF Hyderabad Office and ACCESS Health participated in the study. It included an assessment of fourteen newborn care units in the public sector and was instrumental in bringing a renewed focus on facility based newborn care. The critical recommendations of the report included increasing the number of SNCUs, human resources, equipment and focusing on improving quality and processes in these special newborn care units.

On the basis of these recommendations, ACCESS Health designed the Safe Care, Saving Lives program. The program was based on the collaborative Breakthrough Series Model approach pioneered by the Institute for Healthcare Improvement. ACCESS Health International and the public health insurance program in Andhra Pradesh, Aarogyasri Health Care Trust, launched the quality improvement program together. The program goal is to reduce

85

Special new born care units and neonatal intensive care units covered by Safe Care, Saving Lives program.

the neonatal and perinatal mortality rate by fifteen percent over a four year period (2014–2018) through quality improvement. The program now covers eighty five special newborn care units and neonatal intensive care units in public and private healthcare facilities in Telangana and Andhra Pradesh. The healthcare facilities were selected because they are all empaneled with the public health insurance programs in the two states.

By working closely with the public health insurance providers, Safe Care, Saving Lives is able to create lasting institutional change, improving the quality of care across the entire healthcare market and strengthening the government's leading role in ongoing quality improvement.

THE UNIQUENESS OF THE SAFE CARE SAVING LIVES PROGRAM – QUALITY IMPROVEMENT COLLABORATIVE

1. **Engagement** with public and private sector newborn care units (Approximately 70 percent of the institutional deliveries happened in the private sector in Telangana).
2. Engagement and **ownership** of the Government led social health insurance provider – **Aarogyasri Trust**.
3. **Scale** – All public sector newborn care units in the state and majority of the private sector newborn care units empanelled with the Trust thus covering more than 80 percent of the facility based newborn care in the state.

OBJECTIVES



Identify the leading causes of morbidity and mortality in delivery rooms, special newborn care units, and neonatal intensive care units;



Implement strategies to tackle the causes of morbidity and mortality, improving the quality of obstetric and newborn care services;

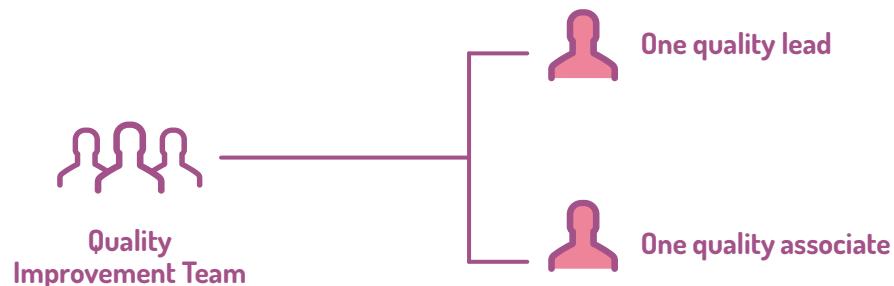


Establish quality care collaboratives across participating health facilities and strengthen state and district Quality Assurance Units under the Indian National Health Mission;



Build the evidence base to ensure further scale up of the program and to positively influence local, national, and global policies to improve the quality of neonatal care.

METHODOLOGY



ACCESS Health International has a team of advisors trained in quality improvement. The advisors are divided into teams, with one quality lead and one to two quality associates which support three to five hospitals.

These advisors help facilities adopt a set of clinical practices compiled by ACCESS Health as part of a Quality Improvement Kit. The practices included in the kit were derived from the work of Neonatal Intensive Care Units (NICU) and Maternal and Neonatal Health Safety Collaboratives around the world and also from practices identified through literature review and expert recommendations. These practices are called Potentially Better Practices, as they have the potential to improve neonatal outcomes in Special Newborn Care Units. This Quality Improvement Kit is a dynamic document and tool that is reviewed at regular intervals and adapted as necessary, based on new evidence and experiences.

The existing set of Potentially Better Practices address the three important causes of neonatal mortality: sepsis, birth asphyxia, and complications due to premature birth.

The Institute for Healthcare Improvement's Model for Improvement is used as the framework for Quality Improvement. Its key elements include:

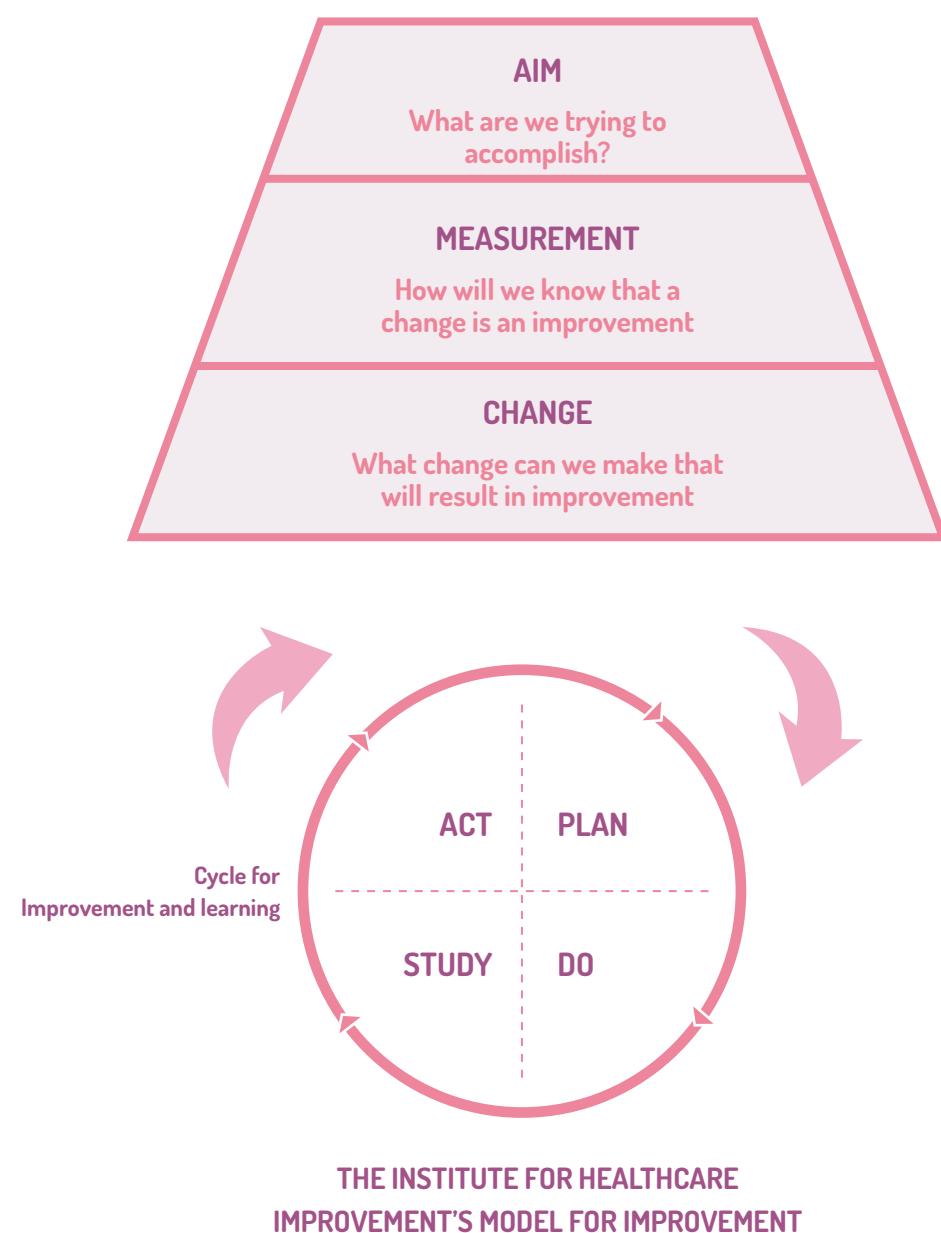
- 1 Identification of the aim
- 2 Development of measures and metrics for improvement
- 3 Identification of changes or change ideas
- 4 A process for ongoing improvements using the Plan-Do-Study-Act (PDSA) cycle



We developed a Quality Improvement Kit for Safe Care, Saving Lives based on a set of evidence based clinical practices that have the potential to improve the outcomes of neonatal care.

Figure 2

The Institute for Healthcare Improvement's Model for Improvement



The improvement methodology is based on three questions: What are we trying to improve? How do we know that improvement is happening? What should we do differently for improvement to happen? It was developed by Associates in Process Improvement, building on the work of W. E. Deming and Walter Shewhart.

Our hospital abandoned the old practice of handwashing in disinfectant solution by raising awareness about the risk of sepsis. We also installed a new wash basin with functional elbow taps, a soap dispenser, and sterilized paper towels.

With the support of ACCESS Health and the Safe Care, Saving Lives team we also organized a training session with an expert on hand hygiene and other clinical procedures.

Dr. Anil

Mamatha Medical College, Khammam

Before



After





Safe Care, Saving Lives program teams help facility staff understand and use the Model for Improvement to identify opportunities for improvement, then test change ideas using the Plan-Do-Study-Act cycle, collecting and analyzing data to measure results and improvements. Facilities link their actions with outcomes, and are taught to understand the efficiency of their actions. They develop simple systems to collect linked data, and quickly analyze that data to see if their actions are producing the desired results. By doing the data analysis themselves, the facilities are able to quickly modify and adjust their processes to improve outcomes on a real time basis.

The facilities learn to understand the differences between Quality Assurance – where the actual performance is measured, compared with standards, and the identified differences worked upon – and Quality Improvement and Continuous Quality



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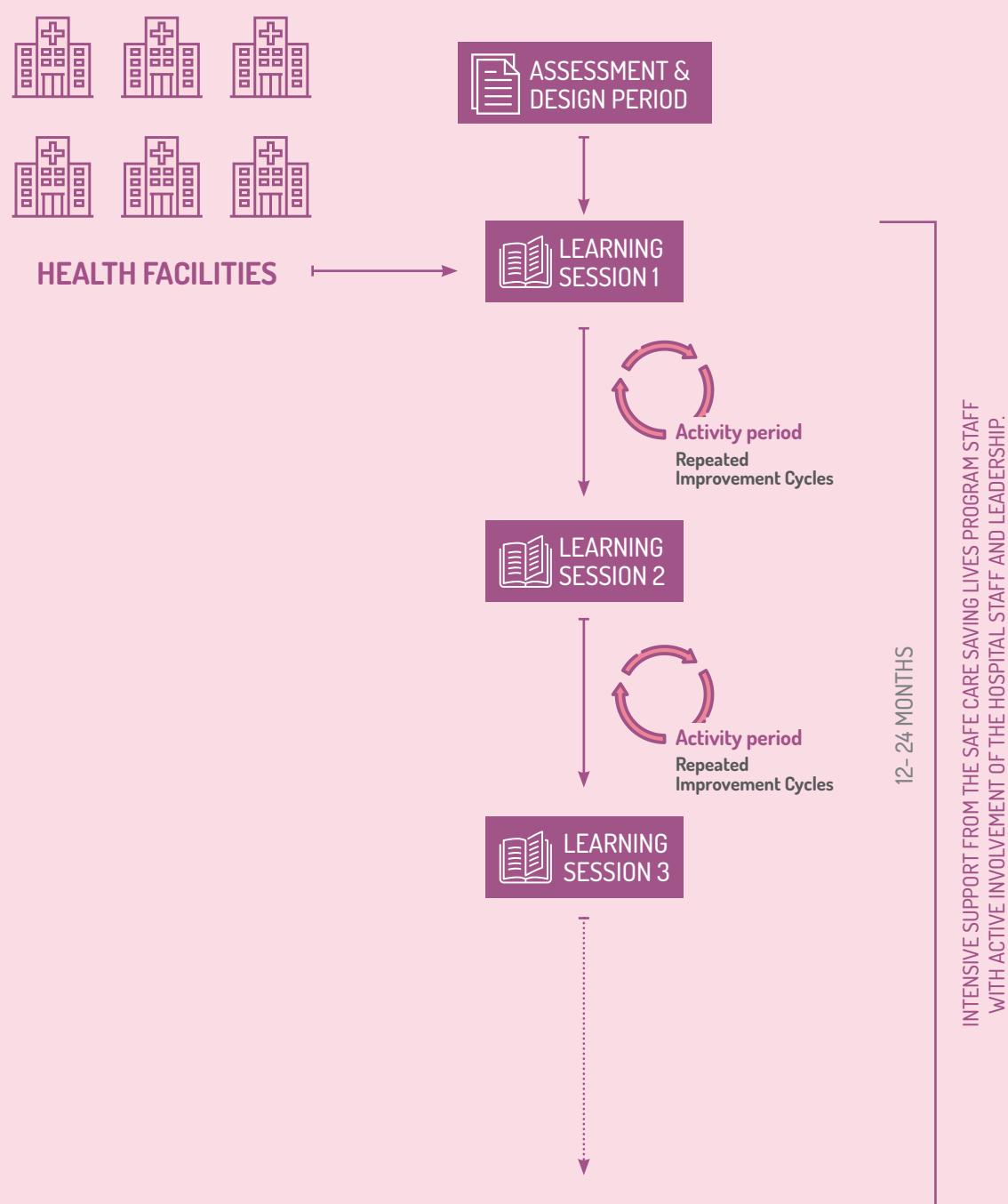
Improvement, where facilities are always trying to improve their performance. The methodology prioritizes systemic issues, which are more important in influencing how individuals work since individuals work within the limitations of their hospital system. If the system is more efficient, every individual will be contributing to the efficiency.

Figure 3

The flow of activities during the Quality Improvement work in Health Facilities



Figure 4
Collaborative model



EARLY RESULTS & NEXT STEPS

The first phase of Safe Care, Saving Lives began in November 2014. During this first phase, Safe Care, Saving Lives launched its quality improvement work in twenty five of the eighty five facilities that are part of the program (fifteen in Telangana and ten in Andhra Pradesh). The majority of the twenty five Wave I facilities have adopted on average three potentially better practices across the three focus areas (sepsis, birth asphyxia, and prematurity).

Different facilities have tested different system and have implemented changes with varying degrees of success in bringing mortality and morbidity down. Thanks to the collaborative approach of Safe Care, Saving Lives, facilities regularly share their successes and failures with each other in learning sessions that are organized every four to six months. During this knowledge exchange, facilities learn about successful practices developed in other facilities and are able to consider adopting them in their own facility.

The successful ideas are also compiled in a “change package” which can be shared with facilities at a much larger scale. Newer facilities learn from existing facilities and adopt successful changes much faster. By making the system itself more efficient, the program helps to create large scale improvements.

Under Safe Care, Saving Lives, ACCESS Health International is also supporting Telangana and Andhra Pradesh in scaling up the quality standards in public health facilities through actively supporting the State and District Quality Assurance Committees. These committees, created under National Health Mission, bring the quality mandates for different government health programs under one umbrella. They are responsible for obtaining accreditation of facilities under National Quality Assurance Standards. The Safe Care, Saving Lives team is also working in close coordination with the district and State Quality Assurance Units to ensure the sustainability of the Quality Improvement Initiative after the program ends in late 2018.

ACCESS Health International has set up a Quality Improvement Cell in the Aarogyasri Healthcare Trust to ensure improved patient outcomes, increased system performance and optimal cost efficiency in all empanelled hospitals. The Quality Improvement Cell will develop a grading system for hospitals and work towards introducing a performance based differential incentives and award systems.

SAFE CARE, SAVING LIVES

SUCCESS STORIES

0

79.5%
↓

cases of septic arthritis per month in February 2016, down from five cases per month in January 2015. Septic arthritis cases were reduced thanks to efforts to segregate elective cannulations from emergency cannulations, ensure Aseptic Non Touch Technique for intravenous cannulations and stop deep vein perforations.

District Hospital
Nandyal, Andhra Pradesh

decrease in cases of birth asphyxia, from 13.2 percent in October 2015 to 2.7 percent in November 2016. Cases were reduced by improved identification of high risk deliveries in the labor room and ensuring skilled hospital staff members were available during delivery.

General Hospital
Guntur, Andhra Pradesh

58%
↓

65%
↓

decrease in cases of birth asphyxia, from 11.9 percent in February 2016 to 4.9 percent in January 2017. Cases were reduced by better identifying high risk deliveries in the labor room and ensuring skilled hospital staff members were available.

District Hospital
Machilipatnam, Andhra Pradesh

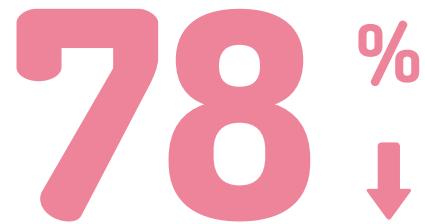
Incidence of Sepsis came down from 29 percent in January 2015 to 10 percent in September 2016 through adherence to hand hygiene, aseptic non-touch technique during intravenous cannulations in the special newborn care unit and labour rooms and appropriate use of sterile gloves during per vaginal examination in the labour room.

District Hospital
Khammam, Telangana



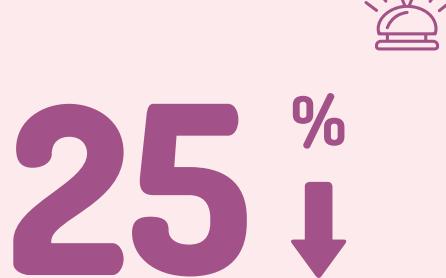
Early initiation of breast feeding within one hour increased from 8 percent in March 2016 to 82 percent in November 2016. The labour room staff ensures that the initiation of breastfeeding happens in the labour room itself by putting the baby on the breast while the mother is still on the labour table.

Niloufer Hospital
Hyderabad, Telangana



decrease in use of antibiotics through adoption of antibiotic stewardship policy and reduction in sepsis rate by 46 percent from March 2015 to December 2016.

District Hospital
Sangareddy, Telangana



CASE STUDY: RINGING THE BELL IN TELANGANA

When babies are deprived of oxygen during birth for an extended period of time, it can lead to long term disabilities including seizures, cerebral palsy, and neuro-developmental delays. The QI Team identified a lack of communication between staff in the delivery room and those in the Special Newborn Care Unit.

The hospital strung a bell between the delivery room and the Special Newborn Care Unit. When there was a high risk delivery and nurses in the delivery room felt that special unit personnel would be needed, the delivery room staff rang the bell and additional nurses from the Special Newborn Care Unit would rush in. Since the bell was introduced, there has been more than a 25% percent reduction in asphyxia related admissions.

District Hospital
Nalgonda, Telangana

SUSTAINABILITY & SCALABILITY

Through the Quality Improvement Cell in the Aarogyasri Health Care Trust, Safe Care Saving Lives project plans to work towards consolidating the gains made in Quality Improvement in maternal and newborn care and take these learning to other specialities.

Safe Care Saving Lives is working towards Supporting the Aarogyasri Health Care Trust to introduce a tiered accreditation system with incentives for facilities adopting continuous quality improvement.

SCSL is Incorporating the Quality Improvement methodology in the Quality Assurance training of the health staff in the State and district Quality Assurance units.

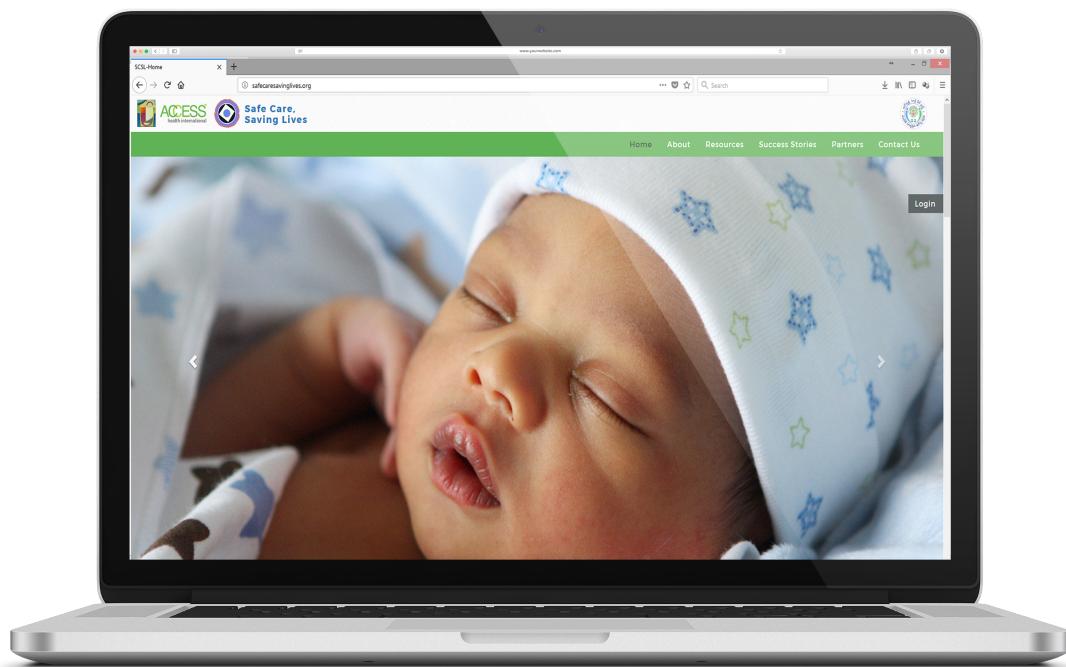
ACCESS Health along with UNICEF is supporting the Commissioner Health and Family Welfare, Government of Telangana in standardizing 300 plus high load delivery rooms which involves restructuring and renovation as per the national

guidelines and ensuring availability of equipment and trained human resources to deliver high quality and respectful care to mothers and newborns. The Government is investing more than 2 million US dollars for the first two phases which includes 180 delivery points out of the planned 300 plus. ACCESS Health supported the Government of Telangana in developing an IT application for the standardization of labour rooms. The application is now live and can be accessed at <http://slr.telangana.gov.in>. The Ministry of Health has appreciated the platform and we are exploring opportunities to use this platform for the LaQshya program. LaQshya is an initiative of National Health Mission, Government of India, which focuses on improving the quality of care in labour rooms across the country.

At the national level as a part of the Global network for Quality Improvement in Maternal and Newborn Health, SCSL is engaging with partners at the National Level in developing the “Quality Improvement framework for Maternal and Newborn Health.

We have developed an IT Platform for the Safe Care Saving Lives Program that enables facilities to capture the quality improvement data and visualise it for improvement. This platform can be linked to the existing online SNCU system in future to ensure smooth exchange of data for Quality Improvement.





SMALL CHANGES CAN MAKE BIG DIFFERENCES

Over the last 30 months, each hospital team implemented changes to address three principal causes of newborn mortality: neonatal sepsis, birth asphyxia, and complications from premature birth.

The changes included simple ideas, such as introducing a stamp to track all high risk women in labor, installing a bell and light to call neonatal resuscitationists from

the intensive care unit to the labor room, developing prepackaged kits for intravenous line insertions, creating a schedule of hand washing every two hours to improve hand hygiene in the Neonatal Critical Care Unit, moving elective peripheral intravenous line changes to late afternoons to improve compliance with the Aseptic Nontouch Technique, and several others.



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