



SNCU Quality of Care Index

Improving Quality of Care in Special Newborn Care Units

Special Newborn Care Units (SNCU) Quality of Care Index (SQCI) uses SNCU online data for improving quality of care for small and sick newborns in 29 SNCUs in the states of Jharkhand, Uttarakhand, Haryana, Punjab, Himachal Pradesh and Chhattisgarh.

BACKGROUND

India accounts for the largest number of newborn deaths worldwide, losing an estimated 700,000 newborns annually during or immediately after delivery. The Government of India has launched several initiatives to improve care around birth - LaQshya the labor room quality of care initiative and Facility Based Newborn Care (FBNC) are two programs that are directly impacting newborn survival. Under FBNC, more than 800 SNCUs at district level treat over a million small and sick newborns every year. Well defined operational guidelines led to a rapid expansion of SNCUs across the country. Operational SNCUs report every admission in detail to an online data portal - SNCU online.

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SNCU online includes demographic information, anthropometrics and vital statistics, admission criteria, treatment details, outcome status, bed occupancy etc. There has been a lack of tools and capacity to use this vast database for performance monitoring of SNCUs to ensure

quality of care (LSTM evaluation of FBNC in India 2019). Translating SNCU online to actionable data was a missing link that needed to be addressed immediately to capitalize on the investment of highly specialized care units for newborns. This is in line with WHO recommendation to strengthen

data for action for improving newborn care in developing countries.

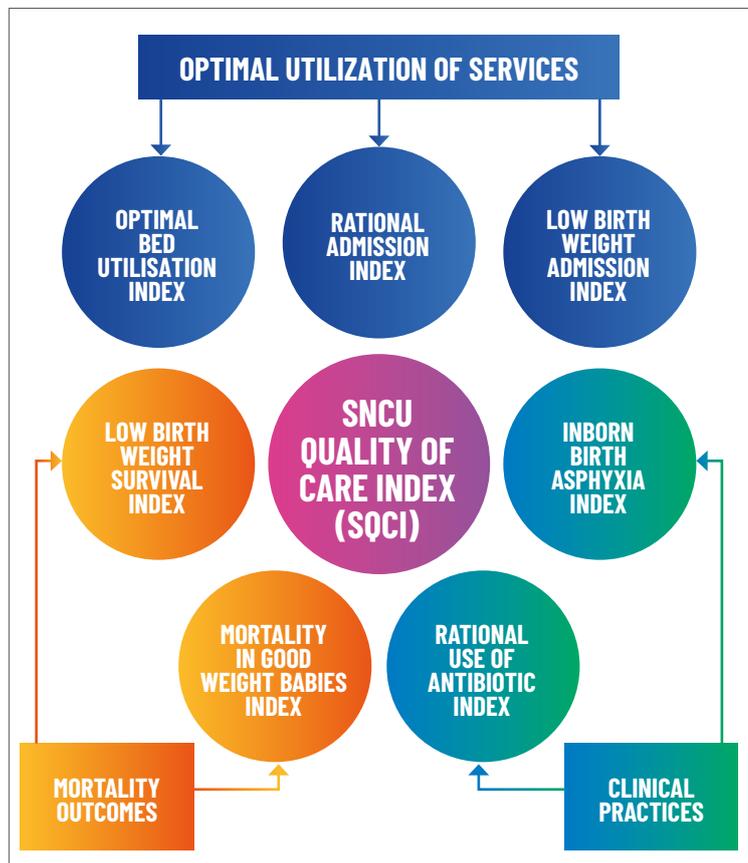


SNCU QUALITY OF CARE INDEX (SQCI)

SQCI was incorporated in the revised FBNC guidelines (2015) to facilitate data analysis and evidence-based recommendations for improving SNCUs. The SQCI tool is a novel approach for collating and analyzing existing data and presenting it as indicators and indices in an easy to interpret dashboard to aid decision making for quality improvement in critical newborn care. It triangulates data from service utilization, clinical practices and mortality outcome indicators to help identify issues and develop actionable solutions. However, the index had not been applied at scale and its usefulness as a performance management tool remained unproven.

Description of SQCI: The SQCI is a composite index of 7 indicators reflecting - optimal utilization of services (Rational admission, Optimal bed utilization, Low birth weight admission); Mortality-outcomes (Low birth weight survival, mortality in normal weight babies); Clinical practices indices (Inborn birth-asphyxia, rational use of antibiotics).

SQCI Indicators and Indices



Each indicator/index is assigned a score between 0.01 to 1 and graded Good (0.71 -1.0), Satisfactory (0.4 - 0.7) and Unsatisfactory (<0.4) based on global standards. The grades are presented on the dashboard in traffic signal color codes- green for good, orange for satisfactory and red for poor. The composite SQCI score is the geometric mean of the seven indices.

Performance Grading and Color Coding

PERFORMANCE GRADE	RANGE OF INDEX VALUES
Good	0.71 - 1.0
Satisfactory	0.4 - 0.7
Unsatisfactory	<0.4

Indicators and their Interpretation

INDEX	WHAT IT TELLS
Low Birth Weight Admission	Purpose for which SNCU was established.
Rational Admission	Whether unnecessary admissions
Optimal Bed Utilisation	Extent of services utilization
Inborn Birth Asphyxia	Are intra-partum care and newborn resuscitation practices adequate
Rational Use of Antibiotics	Are antimicrobials overused
Low Birth Weight Survival	Are optimal feeding/Kangaroo Mother Care (KMC)/infection prevention practices followed
Mortality in Good Weight Babies	Are standard practices and infection control being followed

THE INTERVENTION

The intervention consisted of applying the SQCI tool for tracking performance of SNCUs quarterly. The tool analyzed routine data from the SNCU online platform, to generate a color coded, easy to interpret performance dashboard. Project team identified index wise and facility wise gaps and bottlenecks and shared these with facility, district and block level managers for appropriate action. Over time state level Child Health and SNCU performance reviews started using SQCI for discussions to - highlight issues and utilize data for action planning across all SNCUs.

SQCI was launched in 6 states in 2019, *Vridhhi* project led the dashboard generation process till June 2020 and thereafter transition to respective states commenced.

Purpose & Scope of the Intervention: The purpose of the intervention was to demonstrate SQCI potential to improve performance of SNCUs and to institutionalize SQCI in the participating states.

A combination of state and district level support was used to implement the intervention in 29 SNCUs of Aspirational Districts in 6 states (14 SNCUs in Jharkhand, 10 in Chhattisgarh, 2 in Punjab and 1 each in Uttarakhand, Haryana and Himachal Pradesh). While in the districts the project extended facility level handholding support and facilitated decision taking and follow up, its state level support was more broad-based. At the state the SQCI was applied to all the 106 SNCUs in the 6 states for SQCI performance reviews.

Intervention Steps: The steps in the intervention included advocacy, dissemination of SQCI and follow up, and transitioning to state.

Advocacy: Advocacy started before the launch of the intervention and continued throughout the implementation period. It helped to overcome initial hesitance and resistance and ushered a culture of converting SNCU online into actionable data that could help to improve performance of SNCUs.



Capacity Building: There was a continuous process of orienting, demonstrating and training the state counterparts and officials.

- Initially state and district officials of all the six states were oriented on SQCI, its purpose and advantages over conventional SNCU data analytics.
- The state National Health Mission (NHM) monitoring and evaluation officials were given demonstration on calculating the SQCI at the end of each month and quarter.
- Continuous monitoring and hand holding for generating SQCI at district SNCU helped orient the Data Entry Operators (DEOs), SNCU staff and district officials on use and interpretation of the index.

Dissemination & Follow up: Every quarter the SQCI was generated and analysed. The identified issues and bottlenecks were disseminated to state and districts for corrective action. Additionally in Aspirational Districts project team visited facilities for follow up on action plans and help overcome specific bottlenecks.

SQCI Driven Changes: The project prepared SQCI for four quarters of financial year 2010-20 and regularly updated the state and district officials about the status of the SNCUs. The user-friendly and easy to interpret tool was accepted by all and in each state took decisions to improve the situation. SQCI based assessment has strengthened districts' advocacy for essential requirements, to improve functioning and quality of care of SNCUs, and helped them to mobilize resources for these.

SQCI DRIVEN ACTIONS

Equipment & Drugs Availability Improved in 10 SNCUs

Procured - KMC chairs, Television, Oxygen concentrators and Continuous positive airway pressure (C-PAP) machines; Installed inverter and solar backup

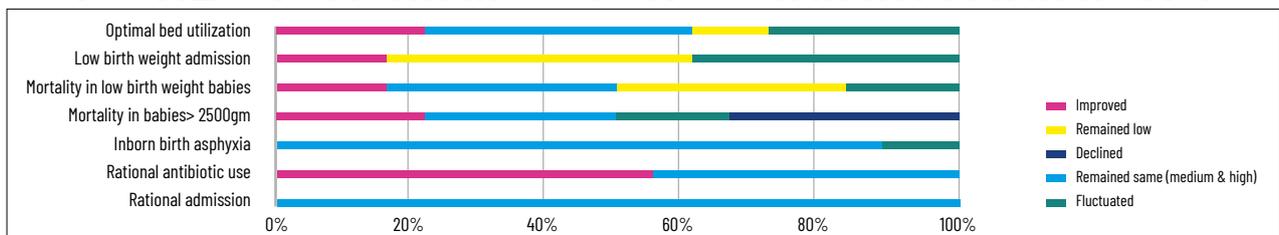
Human Resources Augmented - Pediatrician & Staff Nurse Posted in 5 SNCUs

Relocated staff; Mobilized funding through the PIP resources or alternate funding sources - (District mine fund) to accelerate recruitment

Need Based Training

- Asphyxia Management in 9 SNCUs; Sepsis management in 5 SNCUs; Regular KMC in 18 SNCUs
- Antenatal corticosteroids in 3 SNCUs
- Diagnostic lab facility improved in 3 SNCUs

OUTCOMES: Performance of SNCU on Individual Indicators



WAY FORWARD

Transition and scale up of SQCI have already begun in the project supported states, *Vridhhi* has supported training of key officials in non-Aspirational Districts and efforts will focus on institutionalizing the process. SQCI is already being implemented statewide in the project states, in the next step advocacy efforts are being intensified to scale up the process to other states.

Vridhhi: Scaling Up RMNCHA Interventions

USAID's flagship project *Vridhhi* is mandated to scale-up high-impact RMNCH+A interventions. As a technical partner it supports the Government of India and seven state governments of Jharkhand, Uttarakhand, Haryana, Himachal Pradesh, Punjab, Odisha and Chhattisgarh to achieve its objective. *Vridhhi* has designed multiple innovative approaches to address gaps in RMNCH+A continuum of care, generating implementation experience and learnings for contextual adaptation across the country. In an additional ten states of Madhya Pradesh, Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura it supports specific health systems strengthening initiatives for logistics management of the family planning program. Project interventions impact a population of 328 million across 15 states.