# Supporting Acute Neonatal & Paediatric Care Quality in Nepal:

An RCPCH Global Initiative

#### **Abstract**

The RCPCH Global Health programme has been working for over 20 years in many middle- and low-income countries to help improve the quality of child health worldwide. In 2021, RCPCH Global launched a new programme in Nepal working in partnership with Nepal Paediatric Society (NEPAS) the Nepal Ministry of Health and United Nations International Children's Emergency Fund (UNICEF). This report outlines the component of the programs and highlights the success in improving neonatal and paediatric emergency care.

### **Keywords**

Paediatric emergency care; Low and middle income countries, UNICEF, RCPCH

## Background

The RCPCH Global Health programme has been working for over 20 years in many middle- and low-income countries to help improve the quality of child health worldwide (1). In 2021, RCPCH Global launched a new programme in Nepal working in partnership with Nepal Paediatric Society (NEPAS) the Nepal Ministry of Health and United Nations International Children's Emergency Fund (UNICEF). The pilot location of this programme was in the Madesh Pradesh province. (2)

Over the last twenty years, the rate of institutional delivery has risen from 9% (1995) to 57% (2016). More than a third of neonatal deaths in Nepal occur within the first 24 hours. Complementary programmes, like the Safe Delivery Incentives Programme (2006), have aimed to increase appropriate referral, care-seeking for high-risk pregnancies, improved delivery outcomes, and management of major newborn risks such as severe bacterial infection and asphyxia. Madesh Pradesh has high under 5 mortality rates of 27.2 per 1000 live births.

RCPCH Global has had significant previous success through following a common pattern for their interventions in similar low resource settings, Rwanda, Myanmar and Sierra Leone. This Fiona Mcquaige<sup>1</sup> & Arvind Shah<sup>2</sup>

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RCPCH Global health programme has demonstrated through training and quality improvement processes the critical goal of measurable improvement in neonatal and pediatrics mortality can be achieved. In Rwanda, neonatal mortality as a proportion of newborn admissions across 12 hospitals targeted by the programme fell from 11.8% (2017) to 7.8% (2022), a reduction of 34%, faster than in comparable non-programme facilities. (3)

In Sierra Leone, the national program based around Emergency Triage, Assessment and Treatment plus (ETAT+) has strengthened the critical paediatric care across government regional and district hospital evidenced by a fall in paediatric mortality as proportion of admissions fell from around 14.5% to <9%.[4]

# The Nepal Programme

The Nepal programme's design was based upon previous and existing successful RCPCH Global programme structures. It involved two complementary streams:

- A Joint collaborative expert group of RCPCH-NEPAS Senior Pediatricians working together to develop National Nepali Paediatric guidelines based on the key epidemiology, causes of morbidity and mortality in the province 2. The Team identified common cause of death through the date over period of year, produced 12 evidence-based guidelines on topics like malnutrition, snake bite, sepsis etc in traffic light format after numerous zoom meetings over period of 6 months.
- 2 Improving clinical care in Government tertiary, second and primary hospitals through an 'on the ground' programme of continuous quality improvement. This work was a joint endeavour between RCPCH global links mentors and in-hospital health workers to ensure the programme's long-term sustainability.

The heart of the programme was the work of Nepal 4 Global Link Mentor (2 Paediatric Doctor and nurse pairs) are always present. These committed individuals complete long term placements of 6 months -1 year. This long-term commitment is essential to both allow for relationship building with local health care workers, to develop an understand of the health care culture and practices and effect real change.

The Global Link Mentor role is multifaceted but can be generally split into two:

- 1. Teaching and training The WHO accredited Emergency triage, Assessment and Treatment plus (ETAT+) intensive programme was redesigned into a modular based weekly teaching programme. Nepali Doctors and nurses were trained to deliver this course. The teaching style of the course was a combination of simulation scenarios of paediatric emergencies, workshops on important clinical skills and lectures to provide essential background knowledge. The goal of this teaching programme was to embed medical education into common paediatric emergencies in each hospital site, to ensure all members of the clinical team; nurses, doctors and allied health care professionals, had equal access to training and were not disenfranchised.
- 2. Hospital-based quality improvements -Based around 10 focus areas Quality Improvement (QI) work is ongoing in 12 government hospitals in Madhesh Pradesh. The GLMs supported and guided the doctor and nurse champion pairs (employed by the programme) in each of the 12 government hospitals in identifying, designing and implementing hospital improvement plans based on QI was a relatively a new concept in this environment, therefore clear and consistent support and guidance was very much required. Supporting the communication and network

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building amongst these hospitals in their QI work is the development of 4 monthly quality support team (QST) visits and cluster meetings.

QST visits allowed doctors and nurses to visit other hospitals in the programme and thereby learn and guide each other in a non-judgemental peer support approach. Cluster meetings were small conferences where each hospital could showcase their improvement work in poster presentations along with being an opportunity for networking and group guidance along health care themes.

#### Current progress 2 YEARS on

The outcomes of this initiative were presented to NEPAS conference in Kathmandu, Nepal in June 2022. The UNICEF team were pleased with the outcomes and have extended the funding until 2024, and extended to another province of Nepal. Evidence based guidelines approved for use by MOH, NEPAS were distributed throughout the country including digitally (App).

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