

Where Child and Neonatal Care is Headed in 2025: Lessons from a Year of Respiratory and Vector-Borne Surges

Akshay Jadhav^{1*}, Pandurang Tukaram Jadhav², Prajakta Balasaheb Deshmukh³ and Darshana Kartik Jadhav⁴

¹Medical Council Number: KMC95007, Karnataka Medical Council and Consultant Pediatrician and Pediatric Intensivist, Cloudnine Hospital, Electronic City, Bengaluru and Clinical Director, RTWO Healthcare Solutions LLP, Bengaluru, India

²Medical Council Number: KMC20640, Karnataka Medical College and Professor and Head of the Department, Obstetrics and Gynecology, Al-Ameen Medical College and Hospital, Vijayapura, Karnataka, India

³Assistant Professor, Lecturer, D Y Patil University - School of Medicine, Navi Mumbai, Maharashtra, India 400706

⁴Registrar, Rainbow Children's Hospital, Hyderabad

***Corresponding Author:** Akshay P Jadhav, Medical Council Number: KMC95007, Karnataka Medical Council and Consultant Pediatrician and Pediatric Intensivist, Cloudnine Hospital, Electronic City, Bengaluru and Clinical Director, RTWO Healthcare Solutions LLP, Bengaluru, India.

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The past 12-18 months have been a stress test for child health systems worldwide. Influenza and RSV resurged in waves, measles and dengue re-emerged at scale, and climate-sensitive infections continued to push pediatric services to the brink. For India-mid-monsoon as this June issue goes to press-the headlines translate into very practical bedside decisions: when to immunize, how to triage, and where to invest in neonatal quality of care. This editorial distills what's new, what's surging this season, and what to prioritize now.

Respiratory viruses: sharper tools, uneven uptake

Influenza: Globally, influenza activity in 2025 has shown regional heterogeneity, with elevated positivity persisting across parts of South-East Asia and Southern Asia-relevant for India's monsoon-season peaks-while the Northern Hemisphere trends down after an early-2025 crest. A(H3N2) has predominated across much of Asia, with co-circulation of A(H1N1)pdm09 in South-East Asia.

The human cost of complacency is stark. The United States recorded 266 pediatric influenza deaths in the 2024-25 season-its highest on record-a sobering proxy for what unchecked circulation can do in any setting with gaps in vaccination and early antivirals.

For India, timing still matters as much as coverage. Evidence from the National Influenza Centre supports bimodal seasonality: many western and northern cities peak in July-September (monsoon), while temperate regions peak in winter-implying April vaccination for monsoon-peaking cities and September-October for winter-peaking zones. Clinic workflows and procurement should mirror this geography.

RSV: The biggest structural shift in infant RSV prevention arrived with two complementary tools: (1) a maternal RSV vaccine (RSVpreF; Abrysvo) in late pregnancy, and (2) nirsevimab, a long-acting monoclonal antibody given to infants at birth or before discharge. WHO's 2025 position paper, based on SAGE recommendations (Sept 2024), endorses both strategies for global adoption-maternal vaccine during the third trimester and nirsevimab for newborns ahead of the season. The policy signal is clear: make "RSV protection at birth" routine.

Real-world effectiveness has tracked well with trials: multi-network analyses show >80-90% effectiveness of nirsevimab against RSV-related hospitalization in the first season, with protection lasting about five months (a typical RSV season).

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Action for India in June-September: Map your catchment's RSV seasonality, build joint OB-Pediatrics pathways (antenatal counseling, birth-dose nirsevimab where available), and ensure rapid diagnostics for mixed viral seasons-WHO reports co-circulation patterns and low but persistent SARS-CoV-2 positivity in parts of South-East Asia.

Vaccine-preventable disease backslides: Measles is the sentinel

Measles: Our most sensitive indicator of immunization system integrity-has resurged across multiple regions. WHO has repeatedly warned of large, multi-country outbreaks tied to post-pandemic immunity gaps; the implication for India is straightforward: close coverage gaps, intensify school-entry checks, and pair outbreak response immunization with stronger cold-chain and micro-planning.

Vector-borne pressure: dengue's record years and the pediatric lens

Dengue set new global records in 2024 (over 13 million cases in the Americas alone), and high transmission has spilled into 2025. India's own numbers climbed in 2024 ($\approx 233,000$ cases reported nationally), with urban density, water-logging and waste-management gaps as drivers. For pediatricians, the seasonal signal is loudest now during the monsoon. Expect a higher proportion of warning-sign dengue in school-age children and adolescents, and plan for day-care observation bays to decompress pediatric wards.

At system level, couple Aedes control (weekly source reduction, container management around schools) with triage algorithms that privilege early hematocrit/platelet trend monitoring over single-timepoint counts.

Neonatal care: Evidence-based basics, delivered reliably

The most transformative neonatal advance of the past few years is not a gadget-it's immediate, continuous Kangaroo Mother Care (iKMC) for small and preterm babies. The multicountry iKMC trial (including Indian sites) showed a 25% relative reduction in 28-day mortality when skin-to-skin contact starts immediately after birth instead of waiting for "stabilization" WHO now recommends iKMC as routine for eligible infants, with protocols and job-aids available. This is the rare intervention that is high-impact, low-cost, and scalable-and it belongs in every labor room and SNCU.

India's LaQshya quality-improvement program has expanded respectful, protocolized intrapartum and immediate newborn care; evaluations show promise but also uneven implementation-precisely where district mentorship and audit-feedback can close the gap. Align LaQshya metrics with iKMC coverage, human-milk use, early-breastfeeding rates, and neonatal sepsis bundles to turn policy into survival.

Practical priorities for June-September (India) and beyond

1. **Right-time influenza vaccination:** For monsoon-peaking geographies, complete pediatric influenza vaccination by April-May; for winter-peaking zones, schedule September-October. Stock oseltamivir and train on early initiation for high-risk children.
2. **Make RSV birth-protection a default:**
 - Antenatal counseling for maternal RSV vaccination in the third trimester (where available).
 - Nirsevimab as a birth-dose before discharge for all infants (or prioritized cohorts where supply/approval limits exist). Build EMR prompts and day-of-birth checklists.
3. **Dengue surge playbook for pediatrics:**
 - Convert outpatient areas into day-care observation for fluid titration.
 - Use serial hematocrit and focused ultrasound for plasma-leak assessment; avoid unnecessary transfusions.

- Coordinate with city authorities and schools on weekly source reduction messaging during the monsoon.
4. **Zero-tolerance for measles immunity gaps:** Rapid catch-up for defaulters; integrate school-based checks and outreach with digital line-lists.
 5. **Neonatal “no-excuses” bundle:**
 - Immediate KMC with mother (or surrogate) from birth for eligible LBW/preterm infants.
 - Mother’s own milk or donor human milk when needed; early breastfeeding.
 - Infection-prevention micro-bundles (hand hygiene, device care) and early-onset sepsis rational antibiotics aligned to local antibiograms.
 - LaQshya + WHO QoC standards embedded in ward dashboards, reviewed weekly.
 6. **Surge-aware diagnostics:** Keep multiplex RT-PCR access (Flu/RSV/SARS-CoV-2) for severe cases and neonates; regional bulletins show co-circulation patterns that justify targeted testing and cohorting.

The bigger picture: Resilience is the new metric

What unites these threats is predictable unpredictability. Seasons are shifting, co-infections are common, and immunity gaps widen quickly when routine services wobble. Pediatric and neonatal programs that outperformed peers in 2024-25 share three traits:

1. Proactive seasonality planning (right-time vaccination, staffing, and supplies).
2. Birth-platform opportunism (RSV protection, early breastfeeding, iKMC before discharge).
3. Relentless quality loops (LaQshya/WHO standards tied to real-time data and bedside coaching).

If we normalize these behaviors, the next “bad season” becomes just another well-managed quarter [1-9].

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