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Innovation in neonatology

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In the Lancet Child & Adolescent Health Commission on the future of neonatology[1] Daniele De Luca and colleagues present a robust vision for research, partnerships, and care. However, to achieve more equitable outcomes for all newborns, especially those born preterm, in-depth focus on the social determinants of health is essential.[2]

Globally, preterm birth remains a leading risk factor for neonatal and postneonatal mortality and morbidity,[3] and is a leading cause of population-level disability. These outcomes are influenced by other factors apart from clinical care. For example, family education, access to health services, breastfeeding support, smoking cessation, illness recognition, vaccination uptake, and maternal mental health play crucial roles before, during, and after the neonatal period.

A future-facing neonatology agenda should include a clear neonatal public health strategy, underpinned by research, funding, and multisectoral partnerships aimed at mitigating the effect of social determinants of health. In settings where structural change is slow, empowering families to adopt health-promoting behaviours is important. Families with a history of preterm birth face increased risk of recurrence. Supporting behavioural changes during and after pregnancy could yield cascading benefits across subsequent pregnancies, with the index parent sharing their learning with extended family members who might be pregnant or have a new baby, and to other members of the family who look after their baby, such as grandparents and caregivers, so that the grandparents and caregivers behaviours also change (eg, not smoking around the baby, safe sleep practices, etc). Although the Commission acknowledges these factors, they merit deeper exploration across diverse community and health system contexts.

This perspective aligns with the Commission's emphasis on longitudinal partnerships in care, particularly during transition beyond the neonatal period. Such partnerships should begin earlier, starting with antenatal and community engagement, and extend into neonatal care. Families with preterm births often miss antenatal public health messaging due to early delivery and lose out on community midwifery support due to prolonged hospitalisation. Parents need neonatal teams to bridge these gaps, offering structured public health support for vulnerable families during this critical period.[4] How best to codevelop, deliver, and sustain this work requires dedicated study, funding, and partnerships.

In parallel, the development of inclusive, equity-driven digital health ecosystems is promising. Codeveloped platforms delivering perinatal and infant health messaging can bridge access gaps if they are affordable, culturally adapted, acceptable, and embedded in services. Although generalised models will not work in these populations,[5] technologies are available that could create personalised approaches to neonatal care for all, with particular focus on those most underserved. Neonatal care could be a beacon of public health innovation. A vision of neonatology for every baby, regardless of circumstance, is a must. But, to deliver better neonatal care, we need to embrace change.

Competing Interests

TP was chief investigator for NIHR funded OPTIPREM (15/70/104); visiting lecturer for De Montford University; and is Equality, Diversity and Inclusivity Lead for the British Association of Perinatal Medicine. KL has a neonatal advisory role (non-remunerated) on the International Federation of Gynaecology and Obstetrics Preterm Birth Committee. MT and TP received funding from the University of Wolverhampton to explore digital tools to support parents of babies born too early. All other authors declare no competing interests.

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