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Disparities in Neonatal Intensive Care: Context Matters

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Medical innovation in the care of premature and high-risk newborns has contributed to substantial declines in infant mortality in the United States over the past several decades; however, racial and ethnic disparities, particularly for African American and American Indian and/or Alaskan native infants persist.[1,2] For many, it has been assumed that care in the NICU is consistently of high quality and is delivered equitably.[3] In this issue of *Pediatrics*, researchers challenge the long-held assumption that NICU care is the great equalizer for improving infant health.

In a systematic review of the literature on various components of NICU care, Sigurdson et al[4] assessed publications for racial and/or ethnic disparities in structural (eg, setting), process (eg, patient referral), and outcome (morbidity and mortality) quality measures. In general, the authors found differential receipt of or access to various aspects of care. Infants born to African American mothers are more likely to be delivered in hospitals that are of poorer quality, that serve a higher proportion of African American infants, and that experience significantly higher patient-to-nurse ratios. Disparities in process measures included lower rates of high-risk early-intervention referral and differential reports in receipt of compassionate and respectful parental communication. The introduction of new interventions, such as surfactant use, was more rapidly diffused among white infants, increasing the gap in infant survival rates. Outcome quality measures were also generally poorer among African American infants and were influenced by pathways of care (eg, timely transplant). Yet these findings are not surprising given that clinical care operates in a social context of structural racism and implicit bias.[5] In fact, many of these same disparities are echoed in the delivery of maternal care.[6]

The evidence in this review supports the idea that these disparities are amenable to quality-improvement efforts. Some studies revealed that when care is received in facilities with comparable levels of care and quality, infant survival for those of color is equal to that for

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white infants, and in some cases is higher.[4] A few key actions may advance the improvement of NICU care for all infants, including for traditionally vulnerable groups.

ACTIONS

1. Dispel the myths of an inherent advantage by African American premature infants. The perception that an individual infant may have an advantage of survival on the basis of population measures does a disservice to that individual patient and may bias the care delivered.

2. Approach quality improvement with a lens toward health equity. The Institute of Medicine, in its 2001 report, *The 1st Annual Crossing the Quality Chasm Summit: A Focus on Communities*, described 6 aims for quality improvement, including care that is equitable.[7] Communities and health systems can commit to the highest standard of care for all patients, ensuring that minority-serving hospitals are included in quality-improvement initiatives such as state perinatal quality collaboratives. Requiring all hospitals in a state to participate in these initiatives is a strategy for equitable diffusion. Patient and family engagement in quality improvement can help strengthen implementation with community voices and lived experience.[8]

3. Identify measures that provide a better understanding of both the type and quality of care. This means including measures such as timing of effective interventions (eg, time to surfactant use), parental satisfaction, and comprehension of care. Comparisons within and among facilities can inform targets and best practices for improving quality of care.

4. To reduce infant mortality and disparities, ensure that all infants receive care in risk-appropriate facilities.[9] This includes perinatal regionalization and referral plans for neonatal levels of care to ensure that infants receive care in the setting best suited to address their needs.

5. Research can be used to identify the drivers of disparities, as well as solutions, to ensure health equity. Work by Callaghan et al[1] revealed that 70% of the reduction in infant mortality was due to improvements in gestational age–specific survival rates and that 30% was due to reductions in preterm birth rates. Moreover, the relative contribution of improved gestational age–specific survival was not as great for Hispanic and non-Hispanic African American women as it was for non-Hispanic white women. This suggests that to the degree that improvements in care were important, these improvements were not realized by all. Continued research will identify opportunities for change and improvement.

It is important to consider the implementation of quality-improvement efforts to ensure that they do not increase disparities.[10] Stratification of outcomes by race and/or ethnicity or other demographic factors is important to demonstrate improvements among groups at the highest risk for poor outcomes. Quality improvement for adult patient care has revealed, when implemented with a specific eye on “closing the gap,” that disparities can be reduced.[11,12]

We owe the infants of this country consistent high-quality care, no matter their skin color, and this article documents that there is work to be done.

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