Improving Quality of Care Can Mitigate Persistent Disparities

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Outcomes for preterm infants treated in NICUs have improved in the last 25 years but progress has been unequal.[1] Persistent racial and ethnic disparities exist in this vulnerable population.[2] Although disparities are rooted in a complex set of causes, there is increasing recognition that differential quality of care is a contributing factor.[3–5] Minority infants are more likely to receive care at poor-quality NICUs[5,6] and more likely to receive worse care than white infants within a NICU.[3] African American and Hispanic infants are at particular risk. Eliminating deficits in the quality of care for minority infants requires a granular understanding of differences in care across different racial and ethnic groups.

In this issue of *Pediatrics*, Boghossian et al[7] evaluate racial and ethnic differences over time in care practices for 215 000 infants born at 22 through 29 weeks' gestation between January 2006 and December 2017 at US centers of the Vermont Oxford Network, a voluntary network of NICUs focused on quality improvement (QI). This study has several strengths: a national data set drawn from 789 NICUs representing 88% of all US births at 22 to 29 weeks' gestation and attention to a continuum of care practices from obstetric care to delivery room and NICU care. Results over the 12-year time frame examined offer a mixed picture. The good news is that disparities have narrowed over time for some care practices and outcomes. Compared with white infants, African American infants experienced faster improvements in mortality, hypothermia on admission, necrotizing enterocolitis, and late-onset sepsis. Hispanic infants experienced faster improvements in mortality, respiratory distress syndrome, and pneumothorax. However, mortality and several morbidities remained elevated, especially for African American infants.

Where does this study fit in the landscape of neonatal disparities research? There is an urgent need to shift efforts from documenting disparities to identifying and implementing effective solutions. Boghossian et al[7] offer several pointers for disparity solutions. First, even as we are increasingly conscious of the origin of disparities in adverse social conditions,[8] high-quality clinical care remains critical for improving outcomes among minority preterm infants. We have made some progress in reducing the quality deficit, but hidden in the averaged improvements may be substantial regional[5] and unit-level variation[3] where minority infants risk receiving worse care. NICUs that predominantly serve minority populations are important targets for improvement efforts. Second, the authors of this study set the stage for asking more focused questions: Why have disparities narrowed for some outcomes and not for others? For specific individual outcomes, what processes of care contribute to disparity creation and how? What is the role of the care delivery structure and the way families are engaged in the NICU in creating disparities? Third, the study suggests a need for research that

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illuminates the drivers of disparities and quality measures to monitor such drivers for improvement activities. To illustrate, Parker et al[9] recently evaluated hospital practices in the use of mother's milk in a large cohort of preterm infants in Massachusetts across different racial and ethnic groups. The authors found that initiation rates of mother's milk did not vary by race, but substantial disparities emerged after 1 month of the birth hospitalization. Understanding the timing of disparity and its drivers will provide granular information for future improvement efforts.

The mechanisms of disparity creation are twofold: differential underlying risk status and differential access to effective interventions.[10] The underlying risk status of preterm infants may be the result of factors outside the purview of the NICU. However, unequal access to high-quality NICU care is amenable to change. As we see from Boghossian et al[7] and the broader literature,[11] QI has the potential to ameliorate this disadvantage.[12,13] When devising solutions, we need to consider why NICUs that predominantly serve minority populations appear to provide worse care[5] and why, by some measures, minority infants appear to receive worse care within a NICU.[14] Additionally, we need targeted efforts implemented in partnership with disadvantaged families to address specific drivers of disparity within and across units. QI efforts also need to be supported by disparity-sensitive measures of quality, including measures related to family engagement. In a previous study, we showed that many disparities are created through deficits in family-centered care, with infants becoming second victims of such shortcomings.[15] Although family-centered neonatal care is readily accepted and innovative models are being evaluated with success,[16] implementation varies.[17] Existing assessment tools and inventories[18,19] are based on surveys, making them impractical for monitoring and improvement at a population level. Ongoing measurement and feedback are critical for NICUs to engage minority families and improve family-centered care.[20]

Disparities in care and outcomes for infants exist in many aspects of perinatal care. Boghossian et al[7] show us that improvements have occurred in many aspects but work remains in many others. Efforts to address disparities also need to account for structural and interpersonal racism in the health care delivery system. QI provides a powerful tool to address disparities.

ABBREVIATION

QI: quality improvement

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