

COMMENT



Acute care utilization disparities among publicly insured preterm infants

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In its 2003 landmark document *Unequal Treatment*, the Institutes of Medicine reported that racial and ethnic disparities in health care delivery and quality of care exist despite controlling for socioeconomic differences for persons of color, and further concluded that discrimination at the individual and patient-provider level involving bias, stereotyping and uncertainty in clinical communication and family-centered decision making have substantial impacts on such disparities.¹ Unfortunately, similar disparities and resultant variability in care delivery have also been demonstrated for preterm infants, a population that is already at high risk for vulnerability from a health standpoint. In addition, these disparities can be attributed to differential care based upon race and ethnicity, but are also further compounded by the care provided in low versus high quality neonatal intensive care unit (NICU) settings, defined by using hospital-level NICU quality measures, such as healthcare-associated bacterial or fungal infections, discharge on human breast milk, mortality during the birth hospitalization and growth velocity.^{2,3} Several community-level factors influence families receiving care at lower quality NICUs, including residential segregation, poverty, health care access, language barriers, and health insurance coverage. While there have been strides in recognition of racial and ethnic disparities in health care delivery, unfortunately, systemic racism within healthcare continues to serve as a primary barrier toward further progress.^{4–6} High-cost health care utilization, such as repeated emergency room visits by publicly insured patients has been well established, and further mirrors societal barriers to equitable access to care.⁷ Kuzniewicz et al. revealed in comparing emergency department (ED) utilization by moderate preterm, late preterm, and early term infants after discharge from NICU, there was no significant difference in emergency department utilization based upon gestational age, but there was increased ED use by Black and Hispanic infants.⁸

In this brief report by Karvonen et al., the authors studied whether publicly insured preterm infants have differential ED utilization based upon race and ethnicity. They defined acute care visits as ≥ 2 ED or other acute care visits in 1 year, and focused on publicly insured preterm infants, with gestational ages spanning 22–36 weeks gestation. Their results revealed the highest rates of acute care utilization amongst Black infants but also found that Black and Hispanic infants born <32 weeks had an increased likelihood of frequently accessing acute care visits compared to White infants. The authors concluded that further investigation

into NICU discharge processes and access to primary care was important in understanding potential reasons for such discrepancies in high-cost care utilization. Additionally, while Karvonen et al. restricted the study population to publicly insured infants, in hopes of controlling for social factors, they still found that Black and Hispanic infants had increased frequency in acute care utilization, potentially linked to inadequate access to primary care or increased severity of illness. In the context of the severity of illness, the span of vulnerability for preterm (whether early vs moderate vs late) varies greatly in terms of potential disease severity, especially for infants < 32 weeks. In addition, an association between Black and Hispanic infant acute care utilization tied to young maternal age and maternal education revealed an interesting discrepancy that was not further discussed. This finding is important to recognize, as it underscores the need for supportive and educational resources for young mothers of preterm infants. Finally, concepts of structural racism, community-level poverty, and social determinants of health and their potential impacts upon race and ethnic disparities in health care delivery utilization were briefly noted.

In reviewing complex upstream factors which impact access to care, especially for high-risk vulnerable populations such as preterm infants, and impacts of structural racism in healthcare, it is imperative that solutions based upon addressing these factors are evaluated. In 2018, Sigurdson et al. described that differential care based upon race and ethnicity toward families in NICUs was primarily based upon three factors that healthcare team members may engage: neglectful care, judgmental care, and systemic barriers to care, in addition to language barriers and privileged care. Neglectful care includes examples such as incomplete education or updates given by the health care team due to the need for interpretation services for limited English proficient families or insufficient time being spent with families deemed “difficult.” Judgmental care includes examples such as potential bias that health care staff may have toward working families who are not able to attend to a preterm infant’s bedside needs, and subsequent judgment or lack of interest placed upon these families. Systemic barriers to care further describes health care delivery systems not enveloping holistic care models including social determinants of health and accounting for health literacy in communication with families. Furthermore, there is evidence that limited English proficiency (LEP) families are found to have prolonged NICU discharges, and these populations often report

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feelings of discrimination and challenges in establishing trust with health care staff.⁹ Finally, priority treatment by families who have either social, economic, or racial privilege may be better connected to NICU staff or understand “how to get things done,” can further demonstrate disparities between families in NICU settings.

Addressing racial and ethnic disparities in post-NICU discharge acute care utilization for preterm infants is also likely related to the quality of NICU care delivered. Optimal NICU care delivery must integrate process improvement frameworks when reviewing health care delivery operations in low-quality NICU settings, including integration of equitable communication, standardization, teamwork, and family integration for all infants and families regardless of race, ethnicity, or payor status.¹⁰ Additionally, equitable family-centered care delivery is key in establishing trust and collaboration with between health care teams and families alike. Patel et al. reviewed racial and socioeconomic factors impacting breastfeeding rates in preterm infants, finding that Black mothers were significantly at increased risk of having very low birth weight preterm infants, more likely to be low income, single heads of households and have multiple children, leading to increased burden of breastfeeding.¹¹ In reviewing these systemic and societal challenges, can increased support and resources be offered by NICUs to support and encourage Black mothers to pursue breastfeeding as the optimal cost-effective nutrition for her infant? Gurley-Calvez et al. found that after the Affordable Care Act (ACA) was implemented in 2012, there has been an increase in exclusive breastfeeding duration by 21% among eligible populations, which shows legislative support in reducing barriers such as breastfeeding equipment allocation along with maternal supportive services such as mandatory pumping break times, allows for the reduction in breastfeeding disparities based upon payor.¹² Centers are starting to promote notable strengths-based supports, which not only recognize, but formulate care delivery based upon recognition of specific barriers and challenges families face in caring for their preterm infants, including education, effective communication, and promotion of family-centered care. Investing supports in modifiable factors affecting social isolation, decreasing financial burden, and aiding in enrollments into safety net resources help alleviate some of the many stressors families with preterm infants encounter.^{13–16} Furthermore, investments in maternal mental health, maternal education, family and community supports will help create protective factors impacting the life course trajectory for developing preterm infants alike. The PREEMIE Reauthorization Act of 2018 supports federal research to address causes of prematurity, however, perhaps framing a research focus within this legislation upon upstream factors such as maternal adverse life experiences and its’ impact on preterm delivery and care will influence a reduction in existing disparities faced by different racial and ethnic groups.

Finally, systemic racism is unfortunately pervasive within health care delivery, and is the cause of persistent health disparities in the United States. It is well past time that categorical efforts be made to begin to root necessary process improvement strategies into health care delivery models which enable equitable care. Through perspectives and witnessed accounts of racism in NICU settings over time, Adams et al. demonstrated that investing in a diverse workforce from physicians to staff and the creation of community representation is a necessary step in ultimately promoting equity in health care delivery. Integration of bias training is critical within graduate medical education and practicing clinician continuing medical education, along with efforts in implicit bias training across all staff involved in a patient’s care journey is critical. Weaving strategies to address

system racism into health care delivery, from aspects of quality improvement, evidence-based practice, business operations, and leadership is critical in chipping away at the years of systemic racism existing in health systems today. Advocating for policies that further integrate social determinants of health, antiracism, supportive public health efforts in eliminating poverty into quality improvement methodology in health care practice will help begin to promote equity in health care outcomes for our patients and families alike.

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COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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