

# Keeping Rural Infants Alive: Combatting Structural Inequities

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Rural infants are less likely than urban infants to celebrate their first birthday. This tragic fact motivated Dr Deborah Ehrenthal et al<sup>1</sup> to employ a social ecological framework to assess predictors of rural–urban disparities in infant mortality. Published in this issue of *Pediatrics*, their analysis revealed a stark reality in rural America. Infants living in rural, micropolitan counties (places where there is a town of at least 10 000 but not more than 50 000 people) had 26% higher chances of death before age 1, and those in noncore counties (less populated, more remote rural areas with no town with a population greater than 10 000) had a 32% higher chance of infant mortality, compared with urban counties. Dr Ehrenthal et al<sup>1</sup> examined what explained these differences and found that it was not individual risk behaviors or health systems factors (although both of these differed across the rural–urban continuum) but rather a broad measure of community socioeconomic advantage that best explained these disparities.

The structural injustices that shape individual risk and access to the health care system and the forces that underpin the social determinants of health are to blame for the excess of rural lives cut short before they begin. Given the attention to health care access, including both rural hospital closures and individual risk factors prevalent in rural communities (eg, substance use and smoking), it may be somewhat surprising that neither independently explained rural infant mortality risk.<sup>2–4</sup> The new research by

Ehrenthal et al<sup>1</sup> implies that clinical and policy attention should not amplify harmful mother-blame narratives or focus on narrow investments in particular health technologies but rather on combatting structural urbanism and structural racism.<sup>5</sup>

Investments, policies, and resource allocation within the current public health and health care delivery systems disadvantage rural communities; this is called structural urbanism.<sup>6</sup> It is the core injustice underlying infant mortality disparities across geography, and it intersects with other forms of injustice.

Among rural communities, some face greater mortality risk than others. For example, rural counties where a majority of residents are Black or Indigenous have the highest rates of premature death, compared with rural counties that are majority white as well as urban counties with a majority of Black or Indigenous residents.<sup>7</sup> These same majority Black or Indigenous rural communities appear to be hardest hit by the coronavirus disease pandemic.<sup>8,9</sup> These patterns likely play out across the life span, starting with infancy, and reflect the effects of structural racism, the policy-driven inequitable allocation of resources and opportunities based on race affecting health outcomes.<sup>10</sup> Although authors of the current study did not explicitly address racial equity in the context of infant mortality, it is an important topic for future study, given racialized mortality patterns among rural adults.

Ehrenthal et al<sup>1</sup> acknowledge important limitations of their study,

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including reliance on a blunt, county-based measure of rurality, which masks important nuance in demographics, geography, and culture of diverse rural places.<sup>11</sup> Additionally, they note limitations of available data. One serious drawback is the lack of specific results as they apply to American Indian and Alaska Native (or Indigenous) infants. Nearly 40% of Indigenous people are rural residents, a higher proportion than for any other racial or ethnic group.<sup>12</sup> Data on adult mortality and on maternal morbidity and mortality reveal heightened risk among Indigenous people generally, and among rural Indigenous people specifically.<sup>7,13-15</sup> Rural tribal communities are among the most challenged by the socioeconomic factors that were shown to be predictive of infant mortality in this analysis. Future research on infant mortality in rural communities would benefit from an explicit focus on race, and especially on rural Black and Indigenous infants and the communities where they reside.

The findings from this analysis imply that a new clinical and policy approach is needed to close the rural-urban gap in infant mortality. What is needed is structural investment to counter the forces of urbanism by creating rural-relevant policies. First, infant deaths need to be counted and carefully reviewed; second, infant health should be addressed in the context of pregnancy and the health of pregnant people through a focus on maternity care access and quality; finally, investment in evidence-based programs like nurse home visiting and community-based infrastructure, from schools to broadband to food access to recreation to social support, could help.<sup>16</sup> Infant health and health

across the life span is generated by communities, not solely by hospitals, clinics, or doctors. With this study, Ehrenthal et al<sup>1</sup> indicate the need for investments of resources and opportunities for our youngest rural residents to ensure they reach their first birthday and thrive for years beyond.

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