

## EDITORIAL AND COMMENT

# Kidney Disease Mortality in the USA: a Call for Eliminating Inequities



Karen E. Lasser, MD, MPH<sup>1,2</sup>, Titilayo O. Ilori, MD, MSc<sup>3</sup>, and Julien J. Dedier, MD, MPH<sup>1</sup>

<sup>1</sup>Section of General Internal Medicine, Department of Medicine, Boston University School of Medicine and Boston Medical Center, Boston, MA, USA; <sup>2</sup>Department of Community Health Sciences, Boston University School of Public Health, Boston, MA, USA; <sup>3</sup>Section of Nephrology, Department of Medicine, Boston University School of Medicine and Boston Medical Center, Boston, MA, USA.

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In this issue, Benjamins and colleagues present striking results from an analysis of 2008–2018 National Vital Statistics System and American Community Survey data.<sup>1</sup> They found that the mortality rate from kidney disease among Black individuals was more than twice that among White individuals, and that there was considerable variability among urban centers. That the glaring disparity exists comes as no surprise. Benjamins et al. make an important contribution to the literature by providing mortality rates from kidney disease for the largest US cities. To date, such information has only been available at the national, state, and county levels. These findings may guide city health departments in their efforts to achieve health equity. Although their analysis does not assess for underlying factors that could explain the observed disparity, the authors offer potential causes for the disparity from the available research data.

As general internists (KEL and JJD) and a nephrologist (TI) at New England's largest safety-net hospital, we put our heads together to make sense of the data. We wondered, for example, why Nashville, TN, experienced a *decrease* in the Black:White mortality rate ratio. Tennessee did not expand Medicaid, which has been associated with improved health outcomes, and Nashville is a highly segregated city, which is associated with higher levels of mortality. Why did Boston (where we practice) emerge as one of the worst performing cities, with high mortality and high inequity? The uninsurance rate in MA is very low, at 2.9%.<sup>2</sup> Clearly, lack of insurance does not explain this disparity. Further, our prior work comparing hospital segregation in Boston vs. New York has shown that in Boston, health care is less segregated according to both race/ethnicity and insurance.<sup>3</sup> Yet, New York emerged as one of the best performing cities, with low mortality and low inequity.

Some of the answers may lie right before our eyes, with our patients. For example, one of our Black patients frequently misses dialysis because he needs to take care of his baby; his wife works and they have no childcare. As a result, he has had

frequent hospital admissions for fluid overload. Another Black patient, with a creatinine of 5, has missed several appointments for a kidney biopsy, which could have identified a treatable cause of her renal insufficiency. She has missed appointments, as she has needed to care for her nephew. On another occasion, “the Ride,” a MA transit program for people with disabilities, never arrived to pick her up.

Had these patients been White Bostonians, it is more likely that they would have had cash to pay for a taxi or funds to send their children to day care. Indeed, a 2015 study found the median net worth for White households in Greater Boston was a quarter million dollars. For Black families, it was only \$8.<sup>4</sup> As Benjamins et al. note, structural racism is the driving force behind these inequalities. Given the strong evidence that income inequality results in worse population health outcomes,<sup>5</sup> we were perplexed that the authors did not include socioeconomic measures in their analysis. The American Community Survey includes variables such as income inequality, unemployment rate, and median household income. It is likely the observed differences in mortality are strongly associated with income inequality.

In order to reduce disparities in mortality, cities need to implement policies to reduce income inequality. As physicians, we need to advocate for these policies. In June 2020, then mayor of Boston Marty Walsh signed an Executive Order declaring racism an Emergency and Public Health Crisis in the City of Boston. In response to the crisis, the city developed a “Boston Health Equity Now” plan that outlines detailed objectives and measurable goals where the City will focus on root causes of the inequities that cause disparities in health outcomes. One such goal is to decrease the wealth gap in Boston. Boston's plan also proposes free or subsidized childcare and strategies to eliminate food insecurity. Addressing social determinants of health and eliminating structural racism, as called for by Boston's plan, will be key to reducing inequities in kidney disease.

In the nearer term, how can physicians and health systems improve outcomes for Black patients with kidney disease? First, we can ensure that clinic policies and practices are neither racist nor perceived as racist by our Black patients. It is possible that Black patients could perceive common clinical inefficiencies such as long waiting times to see specialists and delayed return of test results as racist. Studies have shown that

Black patients' perceptions of racism are linked to poorer health outcomes, in part due to mistrust of clinicians and reduced engagement in care. Diversifying the work force may also engage Black patients in health care. Studies have shown that race concordance between patient and clinician promotes improved communication, which in turn may increase continuity of care.<sup>6</sup> Finally, it is essential that Black patients with chronic kidney disease receive evidence-based care to slow the progression of disease. Such care includes control of blood pressure and blood glucose, reduction of albuminuria, and counseling about healthy diet and exercise.

Eliminating race-based calculations of the estimated glomerular filtration rate may also help to improve outcomes for Black patients. As the authors suggest, and others have demonstrated, use of the race correction factor in glomerular filtration rate calculations may delay evaluation of kidney disease among Black patients.<sup>7</sup> With the recent recommendation by the joint American Society of Nephrology-National Kidney Foundation taskforce to eliminate race-based calculations of the estimated glomerular filtration rate, Black patients may receive earlier referrals for CKD treatment. As of February 2022, our hospital is in the process of adopting the new estimated glomerular filtration rate equation that estimates kidney function without a race variable. Other hospitals should follow suit.

Virtually all of our Black patients with end-stage renal disease currently undergo dialysis at for-profit dialysis centers. These centers are associated with a higher risk of mortality, relative to non-for-profit centers.<sup>8</sup> For-profit centers are likely under greater pressure to cut costs, at the expense of quality. A recent study<sup>9</sup> found patients from racial and ethnic minority groups are more likely to receive care at low-quality dialysis facilities, which are also associated with lower rates of placing patients on transplant waitlists. Including measures of for-profit dialysis center penetration in different cities would improve understanding of variability in mortality between cities.

Future studies will need to elucidate the reasons why certain cities have achieved low mortality and low inequity in kidney disease, harnessing the power of big data.<sup>10</sup> In the meantime, it

is incumbent upon us to implement and advocate for policies proven effective to improve racial justice and health equity.

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**Corresponding Author:** Karen E. Lasser, MD, MPH; Department of Community Health Sciences, Boston University School of Public Health, Boston, MA, USA (e-mail: Karen.Lasser@bmc.org).

**Declarations:**

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