Early evidence of racial inequities in kidney health frequently emerges in primary care settings. Despite this, the vast majority of attention to racial inequities in kidney health has been paid toward identifying and addressing inequities in late stages of kidney disease and specialty care, including a focus on racial inequities in the incidence of ESKD and inequities in utilization of, and access to, home therapies and kidney transplants. Although important, this nearly exclusive focus on racial inequities in late and end stage disease care detracts from efforts to identify, understand, and address the early contributing “root causes” for racial kidney health inequities, and it may impede efforts to meaningfully change their trajectory.

Multiple factors disproportionately disadvantage individuals who are racially minoritized with regard to health-promoting conditions (including social policies and systems, health care system processes, health care provider practice patterns, and patient attitudes or behaviors). In primary care, the focus of treatment is to prevent CKD incidence or slow its progression, primarily through the treatment of CKD risks. However, evidence suggests societal and health system policies that influence primary care, along with health care provider practices, may represent important potential contributors to racial inequities in kidney health.

For instance, a national study demonstrated that Black individuals were nearly 40% less likely than White individuals to receive recommended treatments for hypertension, one of the most commonly cited risk factors for ESKD—with racial differences in treatment predominately evident among Black individuals who were uninsured. Similarly, lack of access to a usual source of primary care explained up to 10% of the excess risk of CKD incidence among Black individuals, when compared with White individuals, in a longitudinal study. Studies have also demonstrated associations of structurally mediated social disadvantage (including poverty and poor food availability) with racial inequities in kidney health. However, socially disadvantaged individuals with CKD risks may face significant barriers to seeking and receiving primary care because of a lack of affordability, accessibility, or availability of primary care services. Beyond structural factors, evidence suggests that, despite their knowledge of the importance of CKD prevention efforts, primary care providers who often care for individuals who are socially disadvantaged and minoritized may have difficulties prioritizing CKD above multiple other health priorities they are tasked with managing for patients at risk of CKD, particularly those with multimorbidity. Primary care providers may also lack skills to communicate with patients about CKD risks and prevention. For instance, a study conducted in an urban primary care clinic demonstrated that communication about CKD between Black individuals who were disadvantaged and their primary care physicians was often very brief, contained highly technical jargon, and was lacking with regard to ensuring patients were adequately educated or had a clear understanding of their CKD risks. Accordingly, Black patients at risk of CKD incidence or progression receiving care in similar settings have reported low perceived susceptibility to CKD. Individuals who are minoritized and socially disadvantaged have also reported numerous multifaceted barriers to CKD treatment self-management, including a lack of understanding of treatments, inadequate social support, and financial (e.g., income and insurance) needs.

If we are sincere in our intent to eliminate racial inequities in kidney health, it is crucial that we target the compounded effects of societal, health system, health care provider, and patient-level contributors to racial inequities that emerge in primary care. A new era of studies that will generate the evidence needed to target mechanisms at each of these levels is needed (Table 1). For instance, studies should examine how policies directly targeted toward health and health care policies.
delivery (e.g., health insurance policies) and policies not directly targeted toward health and health care (e.g., policies to reduce the effects of poverty) can be leveraged to improve CKD prevention and treatment in primary care. Interventions to address contextual barriers that individuals face in their communities (e.g., living conditions, transportation to and from care, proximity and availability of care, and the presence of health-promoting environments) must also be studied. Studies should also identify innovative models that redesign primary care to improve the effectiveness in CKD prevention and treatment, including models that seek to extend the reach and influence of primary care services through the work of allied health professionals (e.g., social workers) and lay health professionals (e.g., community health workers or health navigators). Evidence-based best practices that will help primary health care practitioners prioritize CKD as an important contributor to poor health outcomes among individuals who are disadvantaged, particularly those with multiple CKD risk factors, are also needed. Finally, more research is needed to identify mechanisms to best support individual patients as they seek to overcome social, contextual, and health system barriers to care. These new investigations should be conducted with an eye toward sustained, real-world implementation and will, therefore, likely require new partnerships (e.g., with policy makers, community-based organizations, public health agencies) to maximize their relevance and effect.

As we embark on new work to address these and related questions, early evidence provides hope that innovative interventions targeting the upstream “root causes” of racial inequities could make a difference. For instance, a study among socially disadvantaged Black individuals at risk of CKD incidence or progression who received primary care in an urban clinic demonstrated substantial BP improvements when community health workers were incorporated into patients’ care.10 Similarly, a study that tar-

### Table 1. Example questions to be addressed to target multilevel influences on kidney health inequities in primary care

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<th>Level of Inquiry</th>
<th>Example Questions</th>
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| Policy: Studies of societal policies (e.g., health insurance, poverty reducing) | - How can societal policies (e.g., health insurance) be reconfigured to ensure patients’ access to kidney protective treatment is equitable?  
- How can policies ostensibly not directed at health care (e.g., support for child care through child tax credits or food subsidies) be leveraged to support individuals’ CKD prevention needs (e.g., capabilities to pay for prescribed medications)?  
- What mechanisms are needed to ensure individuals are able to physically access care (e.g., through transportation or extended clinic hours)?  
- What are the features of health-promoting environments (e.g., walkable neighborhoods, safe spaces for recreation, healthy food availability) that most support patients’ CKD management goals?  
- Are there innovative models of health care delivery that reach beyond traditional primary care practice models (e.g., by employing community health workers, navigators, social workers) that can help patients overcome structural barriers to CKD prevention and treatment?  
- How can multiple CKD-related specialty services be coordinated in primary care to improve outcomes, particularly for individuals who are disadvantaged and have greater needs for care coordination?  
- What are the best practices to help primary care providers prioritize CKD prevention and treatment among disadvantaged groups?  
- What training and/or infrastructure or tools are needed to improve CKD education about CKD risk for individuals who are disadvantaged?  
- Which strategies are most effective to help individuals overcome common contextual barriers to care?  
- What resources are needed (e.g., education or material) to help individuals who are disadvantaged achieve optimum self-management? |
| Community: Community contextual barriers (e.g., transportation, proximity of primary care, health-promoting environments) to primary care treatment and self-care | - What are the features of health-promoting environments (e.g., walkable neighborhoods, safe spaces for recreation, healthy food availability) that most support patients’ CKD management goals?  
- Are there innovative models of health care delivery that reach beyond traditional primary care practice models (e.g., by employing community health workers, navigators, social workers) that can help patients overcome structural barriers to CKD prevention and treatment?  
- How can multiple CKD-related specialty services be coordinated in primary care to improve outcomes, particularly for individuals who are disadvantaged and have greater needs for care coordination?  
- What are the best practices to help primary care providers prioritize CKD prevention and treatment among disadvantaged groups?  
- What training and/or infrastructure or tools are needed to improve CKD education about CKD risk for individuals who are disadvantaged?  
- Which strategies are most effective to help individuals overcome common contextual barriers to care?  
- What resources are needed (e.g., education or material) to help individuals who are disadvantaged achieve optimum self-management? |
| Health system structures: Innovative care models to extend the reach of primary care services (e.g., use of social workers, navigators) | - What are the features of health-promoting environments (e.g., walkable neighborhoods, safe spaces for recreation, healthy food availability) that most support patients’ CKD management goals?  
- Are there innovative models of health care delivery that reach beyond traditional primary care practice models (e.g., by employing community health workers, navigators, social workers) that can help patients overcome structural barriers to CKD prevention and treatment?  
- How can multiple CKD-related specialty services be coordinated in primary care to improve outcomes, particularly for individuals who are disadvantaged and have greater needs for care coordination?  
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- Which strategies are most effective to help individuals overcome common contextual barriers to care?  
- What resources are needed (e.g., education or material) to help individuals who are disadvantaged achieve optimum self-management? |
| Health care practitioners: Mechanisms to help primary care providers prioritize CKD prevention and care | - What are the features of health-promoting environments (e.g., walkable neighborhoods, safe spaces for recreation, healthy food availability) that most support patients’ CKD management goals?  
- Are there innovative models of health care delivery that reach beyond traditional primary care practice models (e.g., by employing community health workers, navigators, social workers) that can help patients overcome structural barriers to CKD prevention and treatment?  
- How can multiple CKD-related specialty services be coordinated in primary care to improve outcomes, particularly for individuals who are disadvantaged and have greater needs for care coordination?  
- What are the best practices to help primary care providers prioritize CKD prevention and treatment among disadvantaged groups?  
- What training and/or infrastructure or tools are needed to improve CKD education about CKD risk for individuals who are disadvantaged?  
- Which strategies are most effective to help individuals overcome common contextual barriers to care?  
- What resources are needed (e.g., education or material) to help individuals who are disadvantaged achieve optimum self-management? |
| Patients: Strategies to empower and support patients’ engagement in care and CKD self-management | - What are the features of health-promoting environments (e.g., walkable neighborhoods, safe spaces for recreation, healthy food availability) that most support patients’ CKD management goals?  
- Are there innovative models of health care delivery that reach beyond traditional primary care practice models (e.g., by employing community health workers, navigators, social workers) that can help patients overcome structural barriers to CKD prevention and treatment?  
- How can multiple CKD-related specialty services be coordinated in primary care to improve outcomes, particularly for individuals who are disadvantaged and have greater needs for care coordination?  
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- Which strategies are most effective to help individuals overcome common contextual barriers to care?  
- What resources are needed (e.g., education or material) to help individuals who are disadvantaged achieve optimum self-management? |

If we are to make meaningful progress toward kidney health equity, serious efforts to eliminate factors that promote inequities from their inception, including those that emerge in the context of primary care, will be required.
DISCLOSURES

L.E. Boulware reports serving as a scientific advisor for, or member of, the Association for Clinical and Translational Science, *JAMA* (on the editorial board), *Journal of the American Medical Association Network Online* (on the editorial board), and the Robert Wood Johnson Clinical Scholars National Advisory Committee; and receiving honoraria from Robert Wood Johnson Clinical Scholars Program and various universities for visiting professorships.

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AUTHOR CONTRIBUTIONS

L.E. Boulware conceptualized the study, wrote the original draft, and reviewed and edited the manuscript.

REFERENCES