

# Reducing the Burden of CKD among Latinx

## A Community-Based Approach

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### Introduction

Latinx communities comprise the largest ethnic/racial minority category in the United States, and, as a group, they have a disproportionately high burden of CKD and a faster progression to kidney failure compared with non-Latinx White individuals. These health disparities have been attributed to differences in clinical care and complex social challenges, which are largely modifiable. However, our health care system has been unsuccessful in addressing barriers to care for Latinx people, resulting in widening disparities in health outcomes, including those related to CKD. Culture- and language-concordant community-based approaches may reduce social challenges and the burden of CKD among Latinx individuals.

### Burden of CKD and Kidney Failure among Latinx Communities

Latinx communities in the United States are a heterogeneous ethnic group made up of individuals from a variety of cultures, racial/genetic backgrounds, socioeconomic levels, and countries of origin. The prevalence of CKD among Latinx individuals is similar to that among non-Latinx White individuals, but varies greatly across Latinx background groups, and has been increasing. In the Hispanic Community Health Study/Study of Latinos, which assessed a population-based cohort of >16,000 Hispanic/Latinx adults from 2008 to 2011, the age-adjusted prevalence of CKD was 14% overall, and ranged from 7% for Latina women with a South-American background to 17% for Latina women with a Puerto Rican background (1). Among Mexican Americans, who make up the largest Latinx group in the United States, the age-adjusted prevalence of CKD was 13%–15%. A recent study examining US temporal trends in CKD prevalence by race/ethnicity found that, although prevalence of stage 3 and stage 4 CKD has stabilized for non-Latinx groups over the past 2 decades, it has continued to increase among Mexican Americans (2).

Although Latinx and non-Latinx White individuals have a similar prevalence of CKD, progression to kidney failure appears to be faster, and the age- and sex-adjusted prevalence of kidney failure is 30% higher for Latinx individuals (3). Latinx patients with kidney

failure have lower access to care, including nutritional counseling, management of anemia, routine dialysis, and kidney transplantation (3). Lack of access to care is even more pronounced for individuals who are considered undocumented immigrants (4). Given the very high morbidity and mortality associated with kidney failure and the high cost of this condition to individuals, communities, and society, more efforts need to be focused on slowing the progression of CKD to kidney failure, particularly among Latinx people.

### Clinical Care and Social Factors Associated with CKD Progression in Latinx Individuals

Diabetes, the main cause of CKD and kidney failure among Latinx groups, currently affects 20% of US Latinx individuals, and it is expected to affect >50% of US Latinx individuals during their lifetimes. Diabetes-associated proteinuria is the main driver of CKD progression among Latinx people and the main determinant of ethnic disparities in progression to kidney failure. Type 2 diabetes, CKD, and progression to kidney failure can often be prevented through lifestyle changes and/or the use of certain medications. Progression of diabetic kidney disease can be prevented through control of blood glucose and hypertension and with the use of kidney-protective medications including angiotensin-converting enzyme inhibitors or angiotensin receptor blockers and, now, the newer sodium-glucose transport protein 2 inhibitors and glucagon-like peptide-1 receptor agonist classes of diabetes medications. However, Latinx individuals with CKD continue to have suboptimal control of diabetes and hypertension, low use of angiotensin-converting enzyme inhibitors/angiotensin receptor blockers, and low awareness of having CKD (1,5). In the Hispanic Community Health Study/Study of Latinos, only 18% of Latinx individuals with CKD were aware of having CKD.

A major contributing factor to our current health care system's inability to address disparities in kidney failure and other chronic diseases is lack of access to care. It is estimated that 40% of Latinx people living in the United States have no health insurance, and many others are underinsured and have large copays that limit their access to doctor's visits, medical tests, and treatments. Social factors—including poverty and

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economic instability, limited health literacy and English-language proficiency, lack of access to transportation, lack of childcare, and lack of paid time off—are additional barriers that prevent many Latinx people from accessing health care. Even when health care services are available to Latinx individuals, other factors—including low trust in the care provider and/or medical system, provider bias, communication barriers, and cultural differences—can result in inadequate care. Although health care-reform efforts are essential to increase access to care, and greater attention to health equity is needed within the health care system to improve care for Latinx and other underprivileged populations, we must also look outside of the health care system to identify community resources that can help support and sustain this work.

### Clinical-Community Partnerships to Reduce CKD Burden in Latinx Communities

Community-based culturally and linguistically tailored approaches may help address the health and social challenges of racial/ethnic minorities with diabetes and reduce the incidence of CKD and its progression to kidney failure. Community health worker programs are an evidence-based approach often managed by trusted community-based organizations alone, or in partnership with health care systems (6). Community health workers or “promotoras” are nonmedical individuals who share a similar background (*i.e.*, customs, values, culture) with program participants (6). Community health worker programs are offered in community locations (*e.g.*, churches, grocery stores, schools) and are focused on addressing community health priorities. Although community health worker programs do not provide health care *per se*, they can conduct clinical screening tests, refer to health care, provide health and disease-prevention education, encourage adherence to medications, and screen and refer to resources for social needs. By relying on evidence-based and culturally tailored interventions, community-based programs are able to provide essential services to individuals who may not have access to these services within the health care system.

Two evidence-based interventions that have been translated into successful community-based programs and could be tailored to address CKD disparities are the National Diabetes Prevention Program (NDPP) and the Diabetes Self-Management Education (DSME) program. The Centers for Disease Control and Prevention–championed NDPP, on the basis of a research trial demonstrating 58% decreased risk of type 2 diabetes among adults with prediabetes following a structured diet and exercise, has been disseminated nationwide (7,8). Community-based translations of the NDPP delivered by community health workers have been shown to be effective in decreasing risk for diabetes among underserved Latinx populations (9). DSME interventions teach basic diabetes self-management skills, and community health worker–led DSME programs have been proven to improve glycemic control in Latinx patients with type 2 diabetes (10). Although the NDPP and DSME are focused on the prevention of diabetes and the improvement of diabetic glycemic control, respectively, these two successful

community health worker–led programs could be tailored to also reduce the burden of CKD in the Latinx community. Community-based services to identify and treat CKD as early as possible could be most effectively carried out in conjunction with screening for prediabetes/diabetes through the NDPP, which has broad community reach. NDPP programs, offered in community settings by trusted community health workers, could greatly increase access to such screening services in Latinx and other underserved populations. CKD-specific elements that could be added to the NDPP include screening for proteinuria, screening for hypertension, and referral to health care for individuals with a positive screening test. Screening efforts should be paired with culturally appropriate health education to increase understanding of the disease and counsel on the importance of preventing its progression.

DSME programs are geared toward individuals with a diagnosis of diabetes, 20%–40% of whom are likely to also have CKD. This type of program could include more in-depth CKD education focused on increasing awareness of the importance of glucose and BP control in the prevention and management of CKD, promoting adherence to prescribed treatment regimens, and dispelling frequently held Latinx beliefs, (*e.g.*, metformin and insulin cause kidney failure or blindness). DSME programs could provide basic nutrition education and help individuals recognize and monitor intake of protein, salt, simple sugars, *etc.* For individuals with diabetes and hypertension, DSME programs could incorporate a home-BP monitoring program to encourage adherence to prescribed medications and adherence to diet and exercise recommendations.

Close collaboration of community-based NDPP and DSME programs with health care clinics could facilitate increased access to care, patient engagement, and adherence to recommended treatments. Additionally, health care clinics could support community health worker programs by providing basic training on group facilitation and coaching.

### Conclusions

Latinx individuals, particularly those of Mexican descent who make up a large majority of the Latinx population in the United States, are disproportionately burdened by CKD and kidney failure. CKD and progression to kidney failure are preventable through lifestyle changes and medications, yet our current health system has failed to stabilize the rising prevalence of CKD and kidney failure among US Latinx people with diabetes. Community-based community health worker programs have the potential to reduce the burden of CKD among Latinx individuals in a way that is trusted and that is culture and language concordant. Coordination of CKD preventive and clinical services through community-clinic partnerships should be prioritized for this and other socially marginalized communities.

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See related Perspectives, “Social Determinants of Health in People with Kidney Disease: An Introduction,” “The Pathogenesis of Race and Ethnic Disparities: Targets for Achieving Health Equity,” “Social Determinants of Kidney Health: Focus on Poverty,” “The Seen and the Unseen: Race and Social Inequities Affecting Kidney Care,” and “Personal Experiences of Patients in the Interaction of Culture and Kidney Disease,” on pages xxx–xxx, xxx–xxx, xxx–xxx, xxx–xxx and xxx–xxx and xxx–xxx, respectively.