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Housing: A Critical Contributor to Kidney Disease Disparities

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Housing: A Critical Contributor to Kidney Disease Disparities

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Housing is a critical determinant of health, and with the nationwide shortage of affordable housing, job loss and wage stagnation that were exacerbated during the COVID-19 pandemic, those affected by kidney disease have compounded risk for consequences.[1] The housing shortage particularly impacts people who have incomes that are at or below the federal poverty level and minoritized populations due to decades of racist housing policies and lending practices.[2] Kidney disease disproportionately affects the same populations; compared to people who are white, the incidence of kidney failure is over 3-fold higher for people who are Black, and individuals living in areas where more than 1 in 5 households have incomes below the federal poverty level are 25% more likely to develop kidney failure than individuals not living in those neighborhoods.[3] Although the exact prevalence of unstable housing among people with kidney disease is unknown, housing has become an issue that demands the attention of the kidney community.

Compared to housed populations, individuals experiencing homelessness face higher mortality, higher acute care utilization, and higher rates of suicide, unintentional injuries, infectious diseases, mental health problems, substance misuse and abuse.[1] Those with kidney disease are already at increased risk for these comorbid circumstances. Housing insecurity is defined as having high housing costs or living in overcrowded or unsafe living conditions.[2] People experiencing housing insecurity are 3 times more likely to develop albuminuria, 60% more likely to postpone needed medical care and less likely to achieve kidney protective measures such as control of diabetes and hypertension.[4-6]

Among people with kidney disease, housing issues may contribute to worse outcomes by promoting progression to kidney failure and introducing barriers to healthy behaviors and medical care.[4-7] For example, people with chronic kidney disease (CKD) experiencing homelessness are 30% more likely to develop kidney failure or die than people CKD who are stably housed.[7] Advanced kidney disease in turn increases vulnerability to unstable housing,

since many who are already experiencing financial resource strain may suddenly be unable to work and pay for rising housing costs.

A lack of housing likely results in people on dialysis or with kidney transplants being unable to store or manage complicated medication regimens. A lack of a permanent address may result in a discontinuation of benefits or insurance. People on dialysis experiencing unstable housing might not be able to follow dietary restrictions due to lack of control over available food, and miss dialysis sessions due to frequent moves and difficulty securing regular transportation. Housing could significantly impede the proposed End Stage Renal Disease Treatment Choice (ETC) payment model, a national effort to increase kidney transplantation and use of home dialysis modalities, since these treatments are not feasible when someone is experiencing unstable housing.[8]

Addressing housing with advocacy and program development may narrow socioeconomic disparities in kidney disease, as has been accomplished in other public health sectors such as infectious diseases. Stable housing has the potential to increase use of home dialysis modalities or transplantation among patients who are low-income experiencing unstable housing, which in turn could improve quality of life and mortality.[9] Housing interventions, such as permanent supportive housing, have been used for decades for individuals experiencing chronic homelessness with disabling conditions, such as HIV and mental health problems, and should be expanded for people with kidney disease. Permanent supportive housing, which combines housing with services ranging from medical and mental health care to case management,[10] has been shown to keep people housed longer, decrease acute care utilization, and increase outpatient utilization.[9]

Additional housing interventions include hospital investments in rental assistance, tiny home communities, rental assistance in the form of housing vouchers for people who are extremely low income, and the conversion of hotels into transitional housing facilities, among

others.[1] The kidney community should advocate for the prioritization of our patients among existing programs. The success of such potential programs depends on the collaboration of the housing sector with the kidney community, who should have input on intervention design to ensure they meet the unique needs of kidney patients. For example, many housing interventions involve shared restroom facilities, which are not conducive to home dialysis modalities.

The proposed ETC payment model must address individuals who receive dialysis and are experiencing housing issues. For example, the first model of the ETC proposed excluding potential beneficiaries who were experiencing unstable housing.[8] The Health Equity Incentive announced by Centers for Medicare & Medicaid Services in Fall of 2021 sought to rectify this issue though an improved system for low-income Medicaid eligible beneficiaries referred for home dialysis and transplantation.[8] However, novel solutions, such as partnerships between dialysis organizations and housing programs to combine a home with home dialysis modalities, are crucial to consider to adequately care for this population.

Effectively addressing housing as a determinant of kidney health requires an understanding of the prevalence of housing issues among people with kidney disease, and how to effectively intervene and measure intervention impact on disparities – all of which depend on an advancement of housing research. Housing status is not currently tracked among people with kidney disease, and the addition of housing questions to Centers for Medicare & Medicaid Services 2728 forms would enable estimates of nation-wide prevalence and tracking within the United States Renal Data System. Existing housing screening questions need to be validated, particularly among non-English speaking populations.[1] Data from housing interventions and health care systems are usually not linked, preventing assessment of the impact of housing interventions on health outcomes and medical expenditures. Linkage of housing and health

databases is essential to facilitate understanding of the best way to intervene and associated costs.

Increased awareness and sensitivity of housing issues among health care staff is not only needed but may improve patient care. Individuals experiencing unstable housing are frequently dismissed and labeled as non-adherent, when instead the inability to meet certain metrics, such as dialysis attendance, could be used as an opportunity to probe about unstable housing and other social challenges. A better understanding and improved awareness of housing circumstances would also facilitate needed social work referrals and connection with local resources. It is critical that care plans for individuals experiencing unstable housing accommodate their ability to take and store medications, access recommended food and refrigeration, access toilet facilities, and address life-threatening challenges like exposure to temperature extremes and physical safety. People experiencing unstable housing repeatedly face systemic racism, discrimination, social isolation, demoralization, mental health problems and violence, and may not view medical facilities as safe. Awareness of these issues among health care staff can facilitate rapport and promote patient engagement.

Stable housing is a basic human right that is tightly connected to health and outcomes among people with kidney disease. Low-income and historically minoritized populations are at increased risk for unstable housing and being unhoused with kidney disease compromises care and increases risk for worse outcomes. Advocacy to prioritize individuals with kidney disease among existing housing interventions, and interventions specifically designed for people with kidney disease should be considered. More research is needed to facilitate better understanding of the prevalence of unstable housing and the best way to intervene.

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AUTHOR CONTRIBUTIONS

Tessa Novick: Conceptualization, Writing – original draft, Writing – review & editing

Mukta Baweja: Conceptualization, Writing – review & editing

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