

Access to Primary Care Provider Among End-Stage Renal Disease Patients

Influence of the Social Determinants of Health on Access to Healthcare Services

Primary care providers (PCPs) are needed in several areas of care for chronic kidney disease (CKD) populations, including helping to identify and manage patients at risk for CKD before diagnosis is established.⁽¹⁾ PCPs perform screening for CKD and are vital in the care of patients with early stages of CKD. A previous study reported that rural dialysis patients have less pre-End-Stage Renal Disease (ESRD) dietary care compared to urban patients.⁽²⁾ A national analysis documented that the average state-level probability of having received nephrologist care was 28.8%, and concluded that patients were more likely to receive pre-dialysis nephrologist care in state with higher socioeconomic status.⁽³⁾ This report investigated access to primary care providers among ESRD patients, and compared disadvantage areas to identify gaps in care access.

Data Source

Data were obtained from the Federal Communications Commission⁽⁴⁾ and linked with ESRD patient records via FIPS codes. There was a total of 347,637 matched patient records.

Urban-Rural Difference

Access to primary care provider is significantly higher among ESRD patients in urban areas compared to those in rural areas.

On a per capita basis, there were about 70 primary care providers per 100,000 persons nationally. Among ESRD patients living in urban areas, there was an average 75 PCPs per 100,000 persons, compared to that of 49 PCPs in rural areas.

Higher percent of ESRD patients in rural areas were living in high poverty neighborhoods, compared to patients living in urban areas. 15.0% of ESRD patients live in rural areas (n = 52,275). Among this population, 37.2% lived in areas with greater than 20 percent poverty, whereas 14.3% of urban ESRD patients lived in high poverty counties.

Table 1. Number of Primary Care Provider Per Capita among ESRD Patients, 2022

	Primary Care Provider Per 100,000 persons	Percent of ESRD patients
<i>Urban-Rural</i>		
Urban	75	85.0%
Rural	49	15.0%
<i>Socioeconomic Status</i>		
County with ≥ 20% poverty	62	17.8%
Rural ≥ 20% poverty	46	5.6%
Urban ≥ 20% poverty	68	12.2%
Persistent Poverty Counties	53	10.0%
Least deprived neighborhoods	88	18.5%

Poverty and Access to Care

The number of primary care providers serving ESRD patients is lower in counties of high poverty.

17.8% ESRD patients reside in counties with more than 20 percent of poverty (n = 61,907). Among these patients, there is an average of 62 PCPs per 100,000 persons, 68 PCPs in the urban most deprived area, 46 PCPs in rural areas with more than 20 percent poverty.

10.0% of ESRD patients live in counties of persistent poverty (defined as 20 percent or more of their populations living in poverty over the 30-year period using 1980, 1990, and

2000 decennial census data, and American Community Survey 5-year estimates for 2007-11, 2015-19).⁽⁵⁾ A United States Department of Agriculture study identified 310 counties – 10 percent of all counties, as high and persistent level of poverty in 2019 (86 percent, 216 counties of these were rural).⁽⁶⁾

In contrast, there were 88 PCPs per 100,000 persons among ESRD patients in the top ten percent least deprived areas, almost twice of that among the most disadvantaged rural areas. Figure 1 shows the number of PCPs per 100,000 populations per capita by urban-rural location and poverty level.

Considerations

For ESRD patients, healthcare resources such as availability and accessibility in primary care providers, are influenced by geographic and socioeconomic factors. ESRD patients living in rural areas with high poverty as well as in persistent poverty counties, need additional resources and support. Once CKD patients advanced to ESRD, study reported that most nephrologists spend a significant portion (30% to 35%) of their time caring for dialysis patients, and 90% report providing primary care to dialysis patients.⁽⁷⁾ To address health inequities experienced by ESRD community, collaborative efforts and

effective strategies to enhance access to care should be considered.

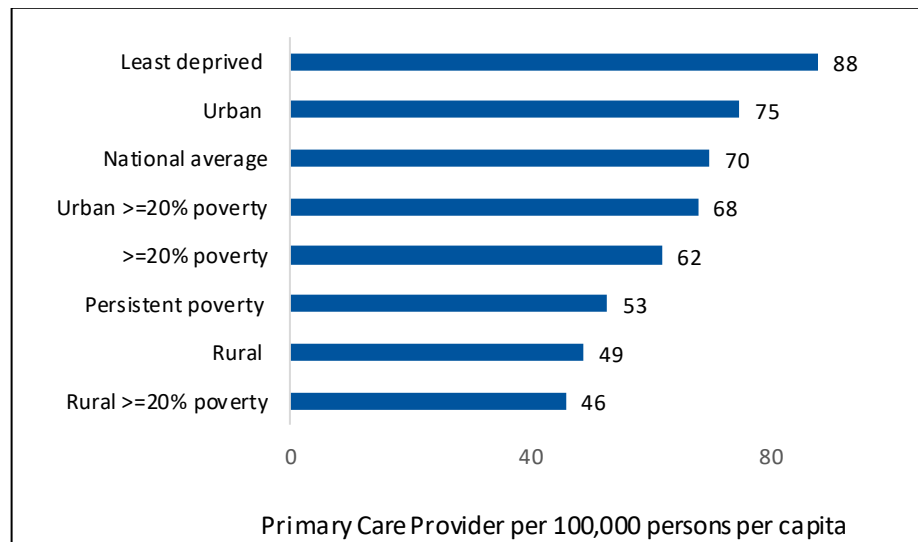


Figure 1. Number of primary care provider among ESRD patients is lowest among rural areas with high poverty, whereas patients in urban areas have higher access to primary care than those in rural areas. *Note.* These categories are not mutually exclusive but showcase how geographic and socioeconomic status impact access to PCPs.

References

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