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Creating an Optimal Environment for Quality Healthcare for Individuals, Families, and Communities

Addressing Health-Related Social Needs of Patients With Kidney Disease

Advancing Health Equity in the Kidney Community

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Learning Objectives

- Explore current patterns in equity, health-related social needs (HRSNs), and geographic disparities among communities served by over 7,000 dialysis facilities nationwide
- Identify strategies to address HRSNs of patients with end-stage renal disease (ESRD), specifically activities to improve transportation equity

AGENDA

- Learning Objectives
- Exploratory Study of HRSN Rates for Patients With End Stage Renal Disease
- Meeting Transportation Needs for Patients on Dialysis
- Discussion and Q&A

HRSN, Health-Related Social Needs

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Exploratory Study of HRSN Rates for Patients With ESRD

Background

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Defining HRSNs

- HRSNs are individual-level, adverse social conditions that can negatively affect a person's health or healthcare[1]
  - Identifying and addressing HRSNs can improve health and reduce healthcare spending
  - HRSNs differ from social determinants of health, which are structural and contextual factors that shape everyone's lives for better or worse
  - Some prefer term "social risk factors" or "SRFs"
- Recent literature highlights HRSN-related factors, such as food deserts or unemployment, that contribute to ESRD progression and faster or involuntary discharge from dialysis facilities[2, 3]
- 2024 final rule defined two new measures related to screening for social drivers of health in ESRD QIP[4]

Five Core Domains

- Housing instability
- Food insecurity
- Transportation problems
- Utility help needs
- Interpersonal safety

Example Supplemental Domains

- Financial strain
- Employment
- Family and community support
- Education
- Mental health

QIP, Quality Incentive Program

Highlights of Dialysis Facilities' HRSN-related Processes

- In early 2023, the ESRD QIP monitoring and evaluation team spoke with handful of dialysis facilities' social workers and administrators to begin learning about processes for HRSN screening and referring
- Screening mostly occurs during **one-on-one conversations** between dialysis patients and facility social workers. If used screening tools, social workers looked to the following:
  - PHQ-2 and PHQ-9 depression screening
  - USDA food insecurity questionnaire
  - Kidney Disease Quality of Life questionnaire to initiate discussions around specific HRSNs
- **Challenge of open concept layout** in most dialysis units allows other patients to overhear important conversations. Solutions used by facilities include:
  - Offer to call the patient at home after their dialysis session
  - Patients complete a written questionnaire about personal information for the social worker to follow up on later
  - Suggest conversation with the patient before or after treatment in a private office (if available)
- Social workers noted the following **most frequently reported HRSNs**: transportation issues, housing instability, financial strain, mental health concerns

PHQ, Patient Health Questionnaire. USDA, United States Department of Agriculture.

Study Goals and Approach

- Goals in this study exploring health equity data for patients with ESRD
  1. Use available HRSN data source(s) to understand the patterns of disparities
  2. Enhance analyses of ESRD QIP by incorporating HRSN data, as appropriate, to support CMS in developing and implementing policies to address patients' needs

- Approach combines multiple datasets
  - Claims for patients with ESRD treated by over 7,000 QIP-eligible dialysis facilities nationwide, including demographic data, facility characteristics, and Z codes
  - Publicly available data sources reflecting community-level factors, such as Area Deprivation Index (ADI) and severe housing problems

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Exploratory Study of HRSN Rates for Patients With ESRD

Overview of data availability

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HRSN Data Exploration: Z Codes for Patient-Level Data

- CMS began accepting SDoH Z codes (ICD-10-CM Z55-Z65) as diagnoses on traditional Medicare claims beginning in 2015 and created educational tools encouraging reporting among healthcare providers[5]
- Among the Medicare fee-for-service beneficiaries with ESRD who had Z codes on any claim in 2022
  - Only about 0.3 percent (*N* = 35,066) of their Medicare claims included SDoH Z codes
  - Roughly 5 percent had at least one SDoH Z code reported on a Medicare claim (up from 4.3 percent in 2021)
  - SDoH Z codes most commonly reported correspond to housing, social support, and living environment

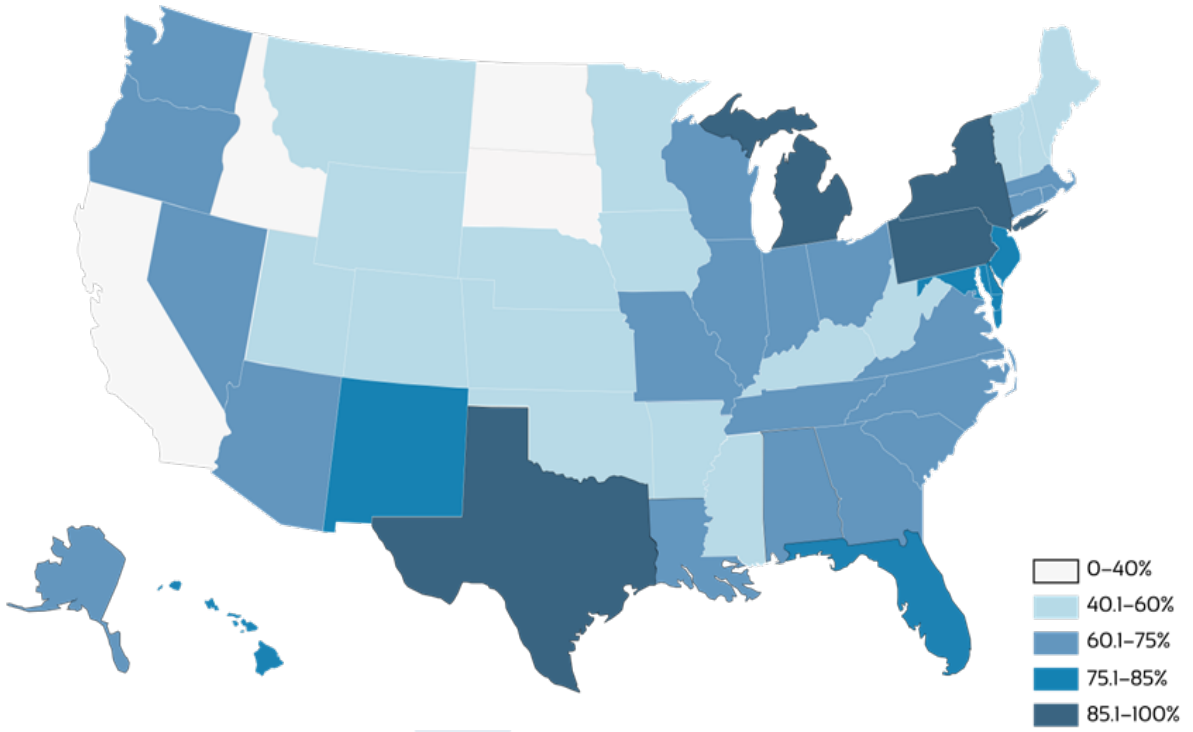
HRSN Data Exploration: Community-Level Data Sources

Data Source	Measure Name	Measure Definition
Small Area Income and Poverty Estimates, U.S. Census Bureau	Poverty	Percentage of population in poverty
Map the Meal Gap, Feeding America	Food Insecurity	Percentage of population that lacks adequate access to food
Local Area Unemployment Statistics, Bureau of Labor Statistics	Unemployment	Percentage of population aged 16 and older unemployed but seeking work
Comprehensive Housing Affordability Strategy data, U.S. Department of Housing and Urban Development	Severe Housing Problems	Percentage of households with at least one of the following housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities
American Community Survey, 5-year estimates, U.S. Census Bureau	Without High School Degree	Percentage of adults aged 25 and over without a high school diploma or equivalent
American Community Survey, 5-year estimates, U.S. Census Bureau	Public Transportation	Percentage of the workforce that uses public transportation to commute to work
American Community Survey, 5-year estimates, U.S. Census Bureau	Area Deprivation Index	Composite index of variables spanning the domains of education, income/employment, housing, and household characteristics

County-Level HRSN Data Can Be Used to Represent Most Patients With ESRD

- Nationally, **78.3 percent** of patients with ESRD receive dialysis in their county of residence or an adjacent county
- Some states have more patients traveling for dialysis care
  - Rural states have a lower percentage of patients who receive dialysis within their home county (e.g., Indiana and North Dakota)
  - Including adjacent counties greatly affects estimates in states with small counties (e.g., Georgia and Virginia)

Percentage of ESRD Patients Receiving Dialysis in County of Residence or Adjacent County



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Exploratory Study of HRSN Rates for Patients With ESRD

Results

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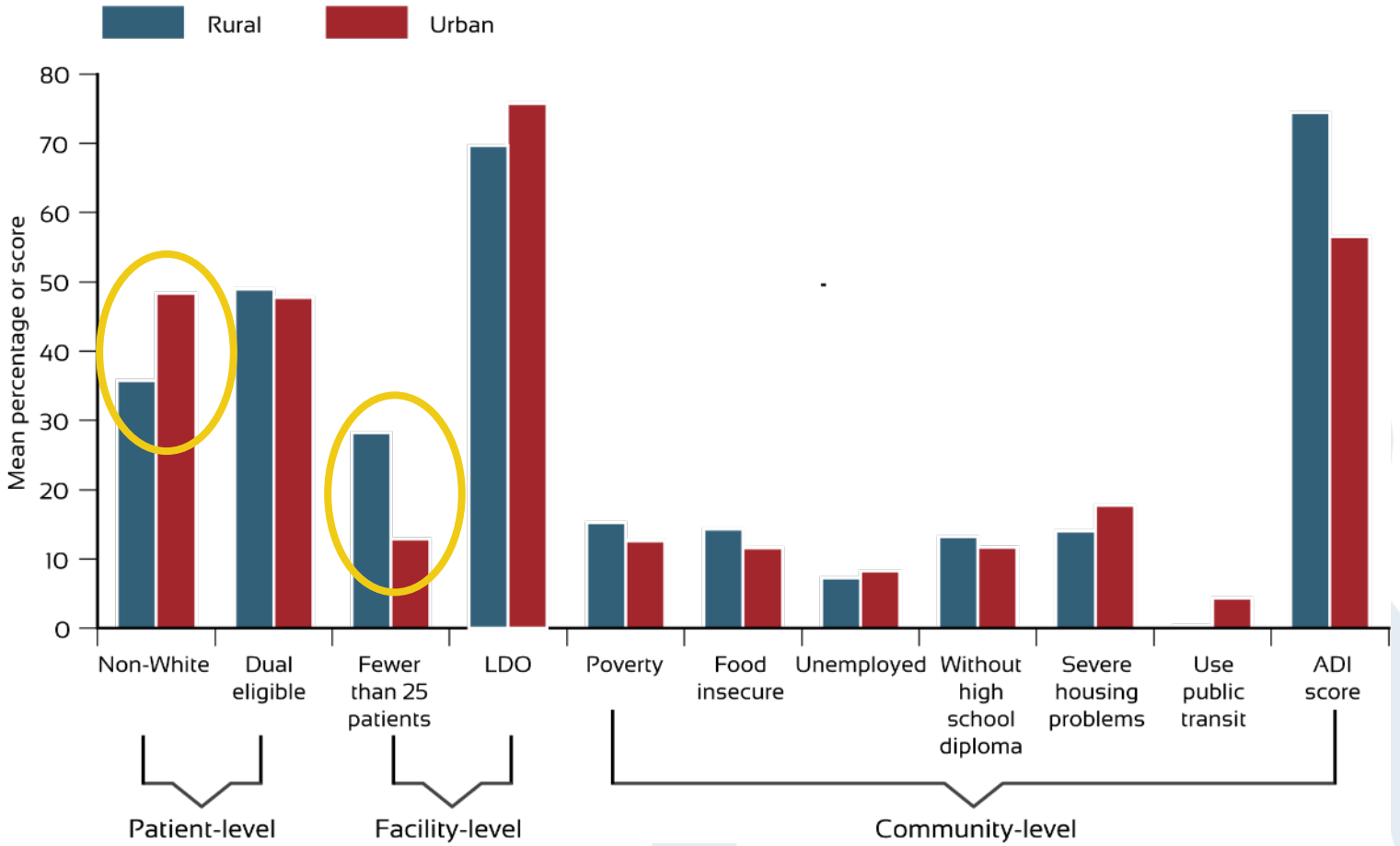
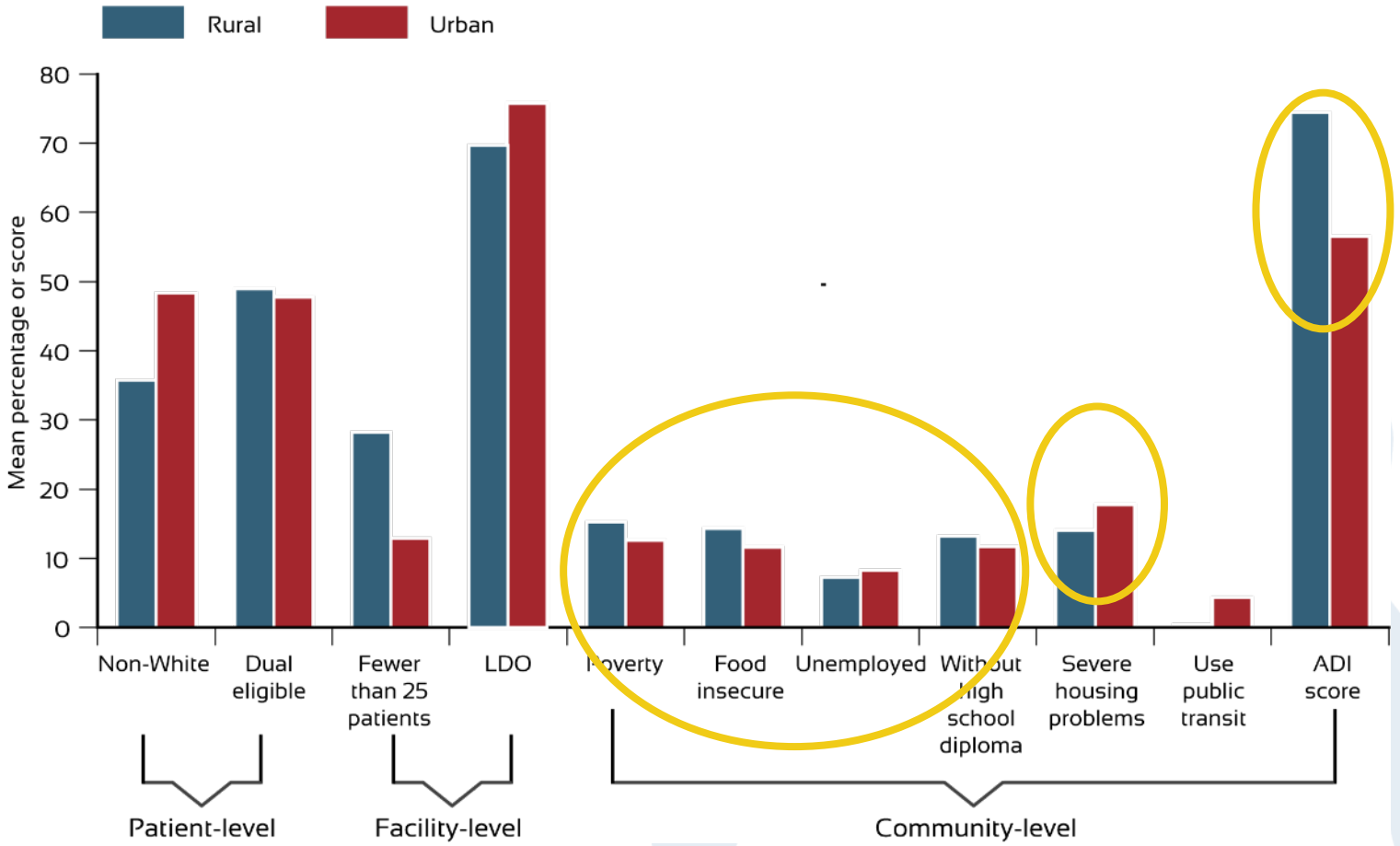
Geographic Disparities Focusing on Patient- and Facility-Level Data

- Facilities in rural counties serve fewer non-White patients than facilities in urban counties (36% versus 48% of patients)
- Facilities in rural counties more likely to serve fewer than 25 patients than urban counties (28% versus 13%)



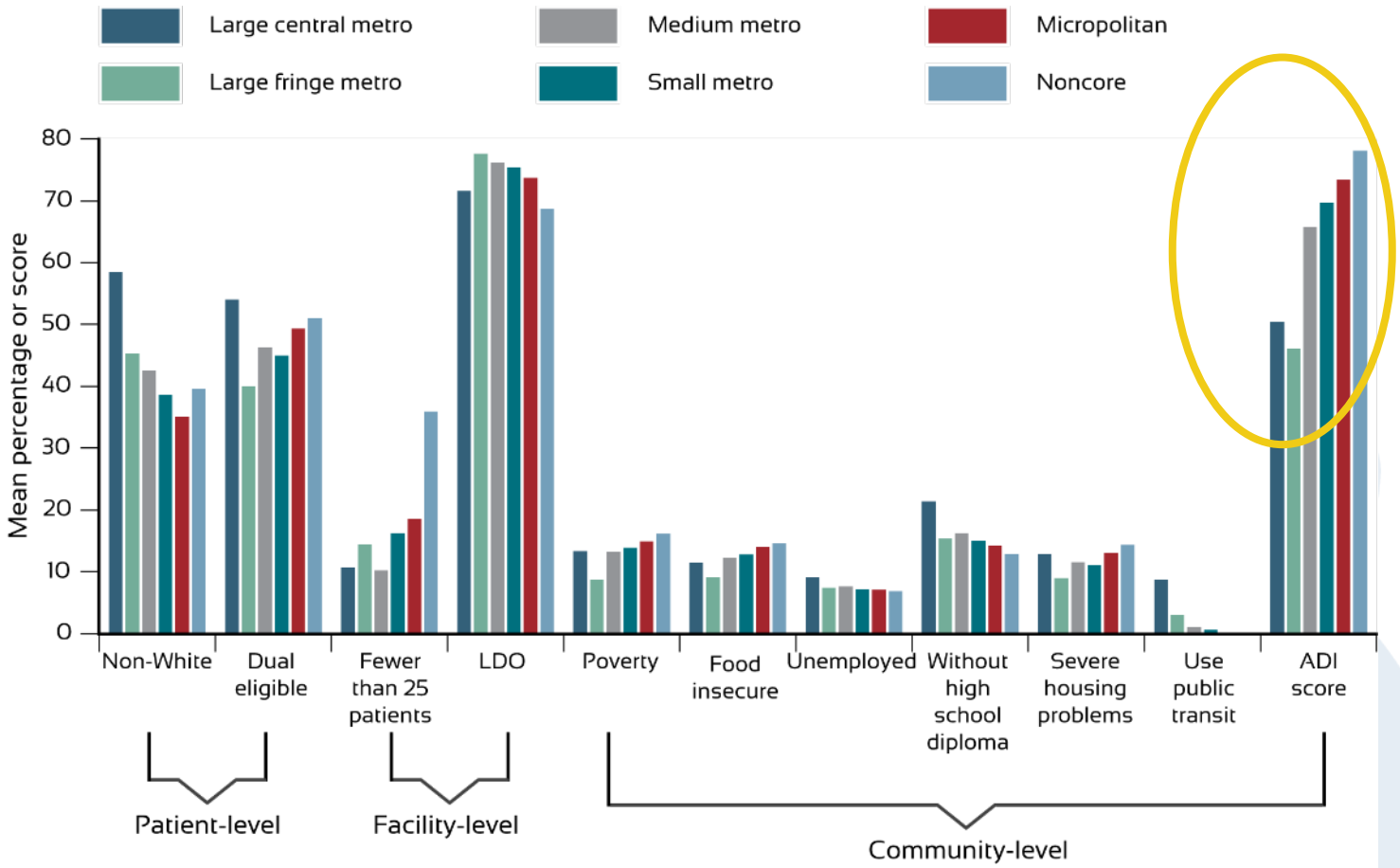
Geographic Disparities Focusing on Community-Level Data

- Facilities in rural counties are in communities with higher rates of poverty, food insecurity, and without high school graduation
- Facilities in rural counties are in more deprived census block groups using ADI score
- Urban facilities have higher rates of severe housing problems
- Public transit appears not to be meaningful measure of HRSN challenges nationwide



Partitioned Urbanicity Data Provides More Nuanced Pattern of Disparities

- Concentration of facilities in RUCA urban settings (87% of QIP-eligible facilities)
- NCHS urbanicity offers more nuanced understanding
  - Increasing HRSN trends in more rural areas (e.g., poverty, food insecurity, ADI score)
  - Different pattern in Large Central Metro areas for most characteristics (e.g., severe housing problems, food insecurity, ADI)



Conclusions

- Analysis sheds light on the inequities of patients seeking dialysis care using community-level data on poverty, food insecurity, unemployment, and the ADI
- NCHS provides more insightful trends than RUCA urban/rural dichotomous categorization
- As compared with dialysis facilities in urban communities, facilities in rural communities face higher ADI and higher rates of food insecurity, poverty, and unemployment
  - Given most facilities are in urban ZIP Codes, urban subcategories show trends in HRSNs across the spectrum of big cities to midsized suburbs
  - This nuanced approach to studying urbanization can support policy design to address regional patient needs

Implications

- Until use of Z codes grows, we look to other datasets to measure core HRSN domains: transportation accessibility, interpersonal safety, and housing quality
  - Dialysis facilities' social workers emphasized transportation as the most common HRSN among patients with ESRD
  - Housing concerns likely influence patients' decisions on in-center versus home dialysis

- Data on severe housing problems (e.g., rent related to income) and transportation barriers (e.g., car ownership) have different associations in urban and rural areas
  - Possible alternative to measure transportation limitation might be a calculation of distance traveled from home to facility

References

1. Centers for Medicare & Medicaid Services. (2023). *A guide to using the Accountable Health Communities Health-Related Social Needs Screening Tool*. https://www.cms.gov/priorities/innovation/media/document/ahcm-screeningtool-companion
2. Crews, D. C., Patzer, R. E., Cervantes, L. Knight, R., Purnell, T. S., Powe, N. R. Edwards, D. P., & Norris, K. C. (2022). Designing interventions addressing structural racism to reduce kidney health disparities: A report from a National Institute of Diabetes and Digestive and Kidney Diseases Workshop. *Journal of the American Society of Nephrology, 33*(12), 2141–2152. https://doi.org/10.1681/asn.2022080890
3. 88 F.R. 76344 (proposed November 6, 2023) (to be codified at 42 C.F.R. Parts 413 and 512). https://www.federalregister.gov/d/2023-23915
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5. Office of Minority Health. (n.d.). *Improving the collection of social determinants of health (SDOH) data with ICD-10-CM Z codes*. Centers for Medicare & Medicaid Services. https://www.cms.gov/files/document/cms-2023-omh-z-code-resource.pdf

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Meeting Transportation Needs for Patients on Dialysis

Barriers and Strategies

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Transportation Barriers to Healthcare Access (1 of 6)

Transportation Infrastructure

- Limited routes available
- Overcrowding on trains/buses
- Roads/transport stations/vehicles in disrepair
- Public safety issues

Source: Dillahunt et al., 2018. https://pubmed.ncbi.nlm.nih.gov/34543291/; Labban et al., 2023 https://pubmed.ncbi.nlm.nih.gov/37498602/

Transportation Barriers to Healthcare Access (2 of 6)

Transportation Costs

- High cost of fares
- Personal vehicle expenses (inability to purchase cars and insurance)
- Credit/debit cards required for ride services (Uber/Lyft)

Source: Wolfe et al., 2020. https://pubmed.ncbi.nlm.nih.gov/32298170/; Cochran et al., 2022 https://pubmed.ncbi.nlm.nih.gov/36127650/; Dabelko-Schoeny et al., 2021. https://www.sciencedirect.com/science/article/pii/S2214140520301985; Smith et al., 2023. https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2023/rwjf473069

Transportation Barriers to Healthcare Access (3 of 6)

Vehicle Access

- Lack of a personal vehicle
- Lack of access to a vehicle through friends or family
- Limited wheelchair-accessible vehicles
- Challenges when rideshare services only communicate via smartphone

Source: Cochran et al., 2022 https://pubmed.ncbi.nlm.nih.gov/36127650/; Smith et al., 2023. https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2023/rwjf473069;

Transportation Barriers to Healthcare Access (4 of 6)

Distance and Time Burden

- Long travel distances and lengthy wait times
- Erroneous or inconvenient time schedules
- Drivers are late or no show

Source: RHI hub., 2019. https://www.ruralhealthinfo.org/toolkits/transportation/1/needs-in-rural; Wolfe et al., 2020. https://pubmed.ncbi.nlm.nih.gov/32298170/; Dabelko-Schoeny et al., 2021. https://www.sciencedirect.com/science/article/pii/S2214140520301985

Transportation Barriers to Healthcare Access (5 of 6)

Funding and Labor

- Budget cuts resulting in bus/train shortages and routes removed
- Lack of adequate transit in underserved areas
- Driver shortage
- Lack of understanding of patient populations or needs

Source: Kar et al., 2022.
https://www.sciencedirect.com/science/article/pii/S1361920922002619

Transportation Barriers to Healthcare Access (6 of 6)

Language and Communication

- Lack of information in patients' preferred languages
- Suboptimal communication between staff and transportation providers

Source: Dabelko-Schoeny et al., 2021.
https://www.sciencedirect.com/science/article/pii/S2214140520301985

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Meeting Transportation Needs for Patients on Dialysis

Strategies to address unmet transportation needs

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Reasons Why We Need to Support Staff Training on Addressing HRSNs

- Staff feel overwhelmed to address patients' unmet HRSNs
- Patients' HRSNs are not being met
- Strategies to address patients' HRSNs are not being implemented consistently and universally

Source: Novick et a., 2024. https://pubmed.ncbi.nlm.nih.gov/38218454/

1. Screen for Patients' Unmet Needs to Identify Transportation Challenges

- Providers can use the Accountable Health Communities HRSNs Screening Tool[1] and PRAPARE[2] to tailor strategies to the specific needs of the individual.
- Approaches include:
  - Asking questions, such as "Has lack of reliable transportation kept you from medical appointments, meetings, work, or getting things needed for daily living?"
  - Understanding how the patient gets to the treatment and whether there are any short-term or long-term difficulties.

[1] The Accountable Health Communities Health-Related Social Needs (HRSNs) Screening Tool https://www.cms.gov/priorities/innovation/files/worksheets/ahcm-screeningtool.pdf

[2] The Protocolas for Responding to and Assess Patient's' Assets, Risks and Experience (PRAPARE) Screening Tool PRAPARE-English.pdf

2. Identify Travel Assistance Programs

- Check local city/county/state office, Area Agency on Aging and Disability, and statewide/regional transportation brokers to identify programs.
- Check community-based organizations offering volunteer-assisted transportation programs[1].
- Check insurance to determine eligibility of transportation coverage (e.g., Medicare Advantage, Medicaid)

[1] Tennessee Commission on Aging & Disability MyRide TN

3. Connect Patients With Transportation Services

- Provide a list of transportation programs to patients.
- Assist with navigating program applications and sign-ups.
  - Social workers, care coordinators, or community health workers may help patients with applications/screening questionnaires, such as Medicaid Non-Emergency Medical Transportation[1] and Americans with Disability Act (ADA) paratransit services.

[1] Non-Emergency Medical Transportation | CMS

4. Promote Culturally and Linguistically Appropriate Services (CLAS)

- Provide transit information in patients' preferred languages.
- Communicate verbally to individuals with low literacy about transit and changes in information.
- Communicate with transportation service providers about the needs of ESRD patients, such as individuals with cognitive declines, limited English proficiency, or low literacy.

5. Other Strategies to Consider for Ensuring Transportation Services Are Equitable and Accessible

- Use scan cards and vouchers to reduce cash transactions during rides.
- Use a travel companion or attendant.
- Coordinate schedules so that the individual consistently has the same driver.
- Consider enabling a GPS tracker on an electronic device or placing an ID card to prevent emergencies.
- Offer driver trainings on the needs of individuals with ESRD to transportation services.

Source: National Aging and Disability Transportation Center. 2023. Transportation Access for LGBTQ+ Individuals. PowerPoint Presentation (nadtc.org)

Rural Transportation Best Practice

Mountain Empire Older Citizens (MEOC) Transit

Big Stone Gap, Virginia

- Comprised of 1,389 square miles, uniformly rural, with small towns separated by mountain ranges.
- Most service area is medically underserved, including healthcare professional shortage regions.
- Free to people of all ages with 24-hour notice.
- Expanded service[1] to focus on the needs of persons with chronic care needs, including individuals receiving dialysis.

Source: [1] Transit – Mountain Empire Older Citizens, Inc. (meoc.org)

Creative Strategies to Increase Patients' Access to Care

Ride Connection

Portland, Oregon

- Provides deviated route services and off-route pickup/drop off.
- Serves the most vulnerable population.
- Provides transit information in 6 languages.
- Provides free community buses.
- Ride Connection and its partner agencies provide rides for any purpose, including access to riders' essential needs.

Source: Ride Connection, Portland Ride Services | Door-to-Door | Ride Connection

Summary of Key Strategies to Improve Transportation Equity for Individuals with Kidney Failure

- Consistently screen patients' HRSNs.
- Identify local transit resources available for patients.
- Assist patients to obtain transportation services.
- Provide tailored support to meet patients' unique needs.
- Establish effective communication with transportation partners.

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Q&A

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