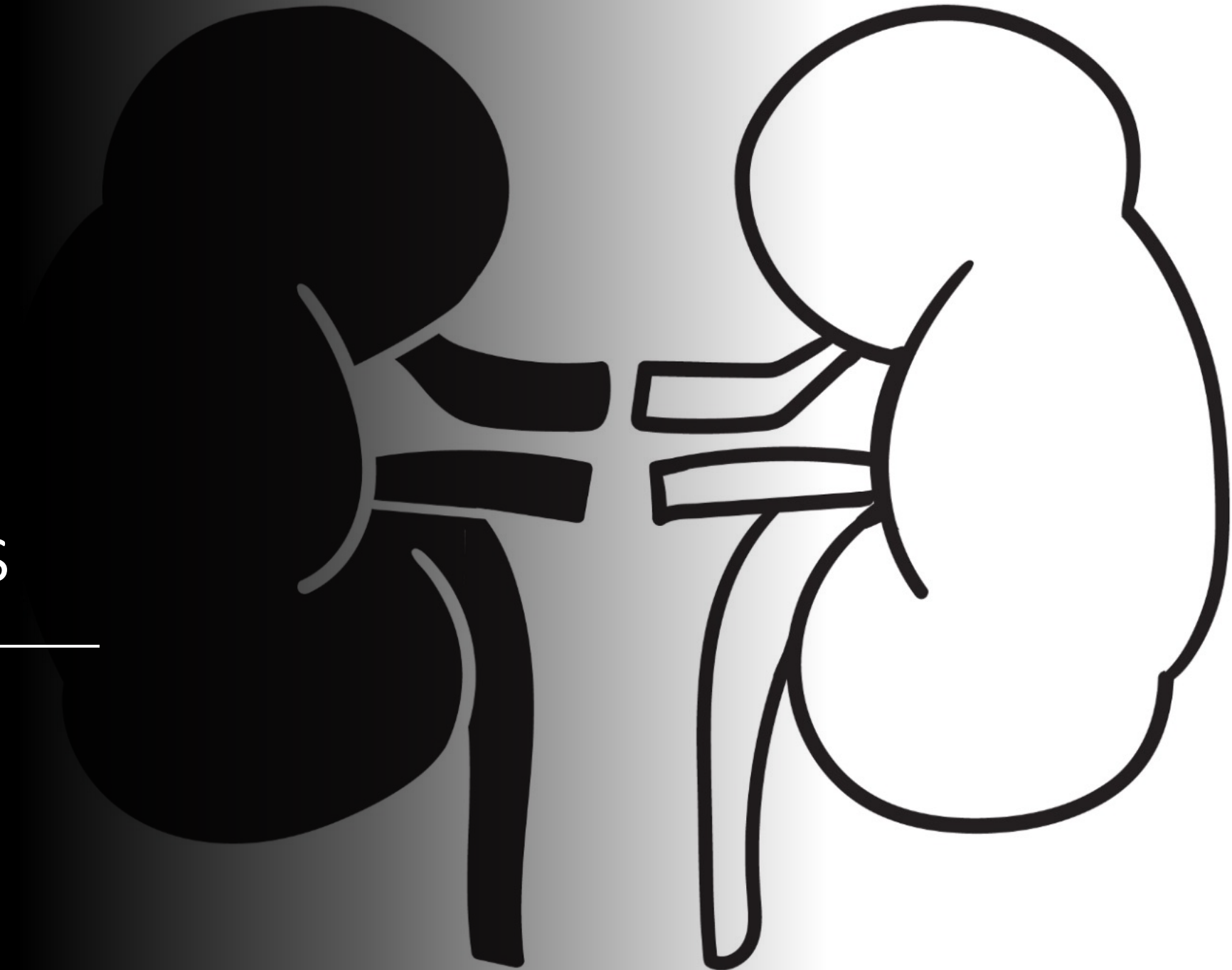




# Racial and ethnic disparities in home dialysis

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Katherine Rizzolo, MD  
University of Colorado



No financial disclosures



# Why go home?



## Higher quality of life

Scheduling flexibility  
Fewer food restrictions



## Lower symptom burden

Preservation of residual kidney  
function



## Lower medication burden

# Patient preference: what is important?



Flexibility of schedule



Convenience of performing dialysis at home



Option of doing dialysis at home while sleeping

**ADVANCING AMERICAN**

**Kidney Health**

# Advancing American Kidney Health Initiative

**Reduce risk of kidney failure**

**Improve access to and quality of  
person-centered treatments for  
kidney failure**

**Increase access to  
kidney transplants**

By 2030, ↓ new ESKD pts by 25%

By 2025, 80% new pts with  
home dialysis or transplant

By 2030, double number of  
kidneys available for transplant

**Improve identification of  
populations at risk and in  
early stages of kidney disease**

**Improve care coordination and  
education for safer transition to  
treatment for kidney failure**

**Increase deceased donor organ  
recovery and reduce discards**

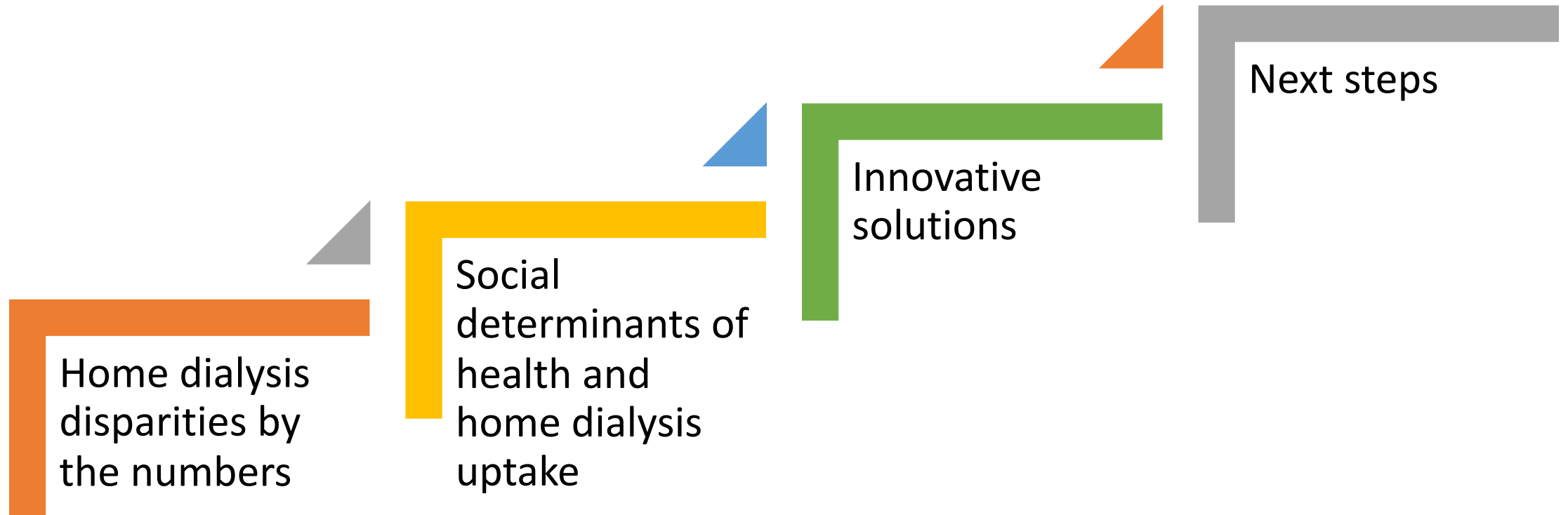
**Encourage adoption of treatments  
to retard or stop kidney disease  
progression**

**Introduce new value-based  
payment models that better  
align incentives**

**Reduce disincentives to living  
organ donation and provide  
financial incentives**

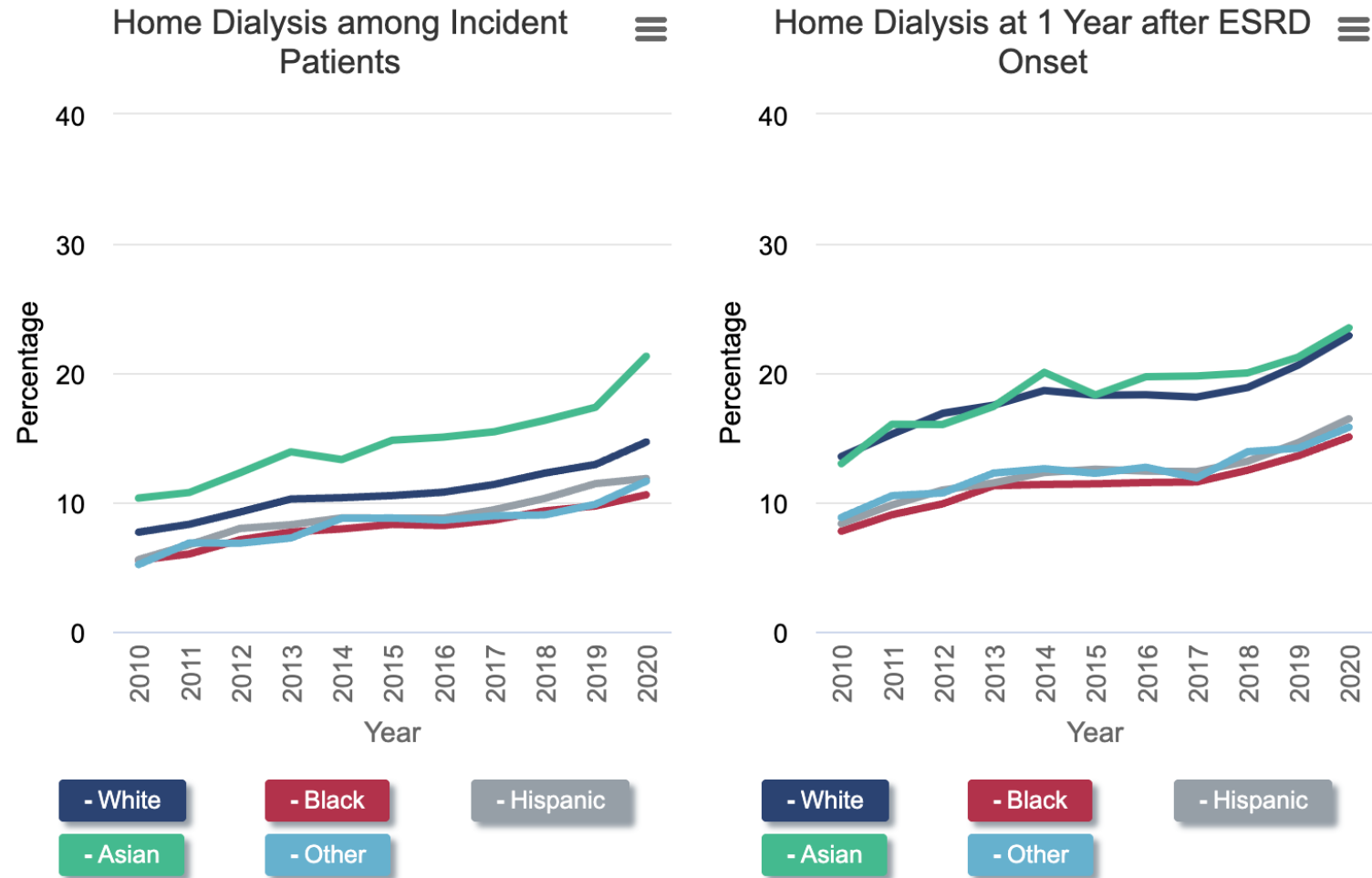
**Catalyze the development of  
the artificial kidney**

# Outline



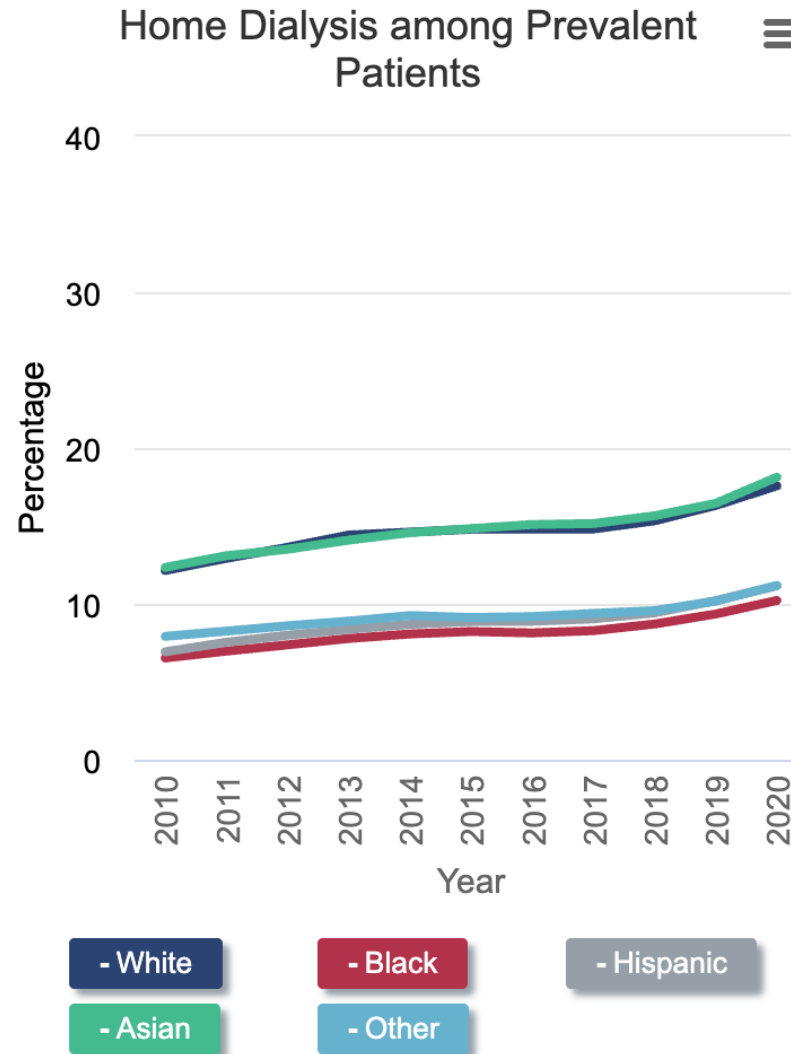


# Black and Hispanic groups are less likely to initiate on home therapies

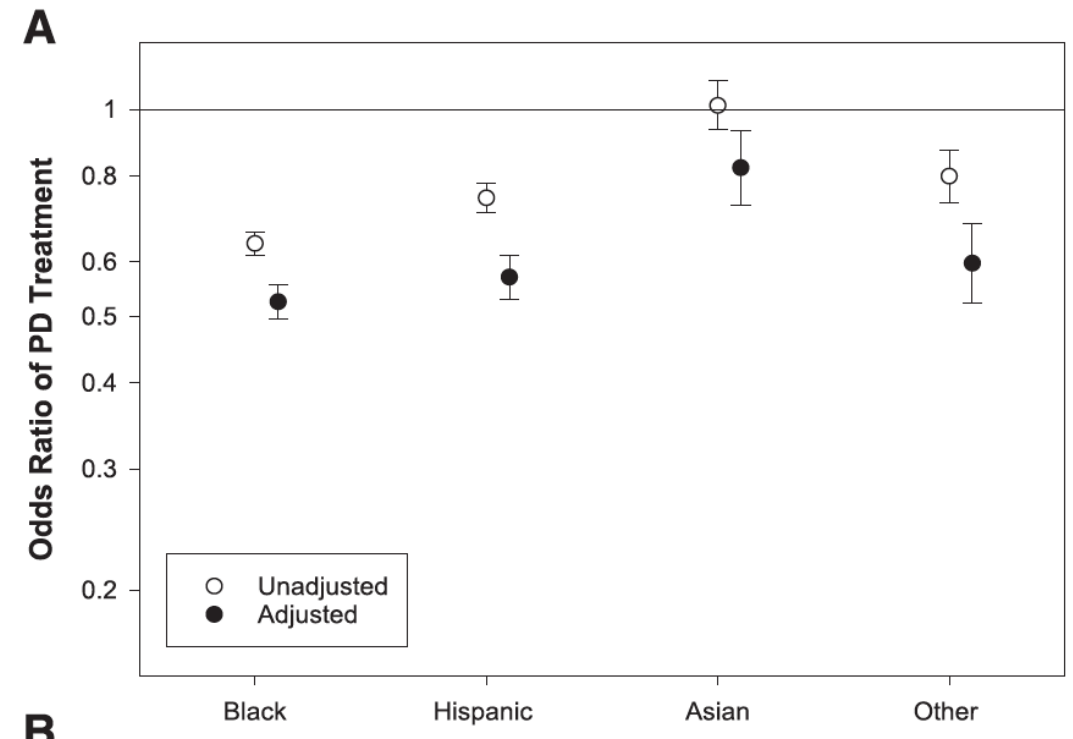
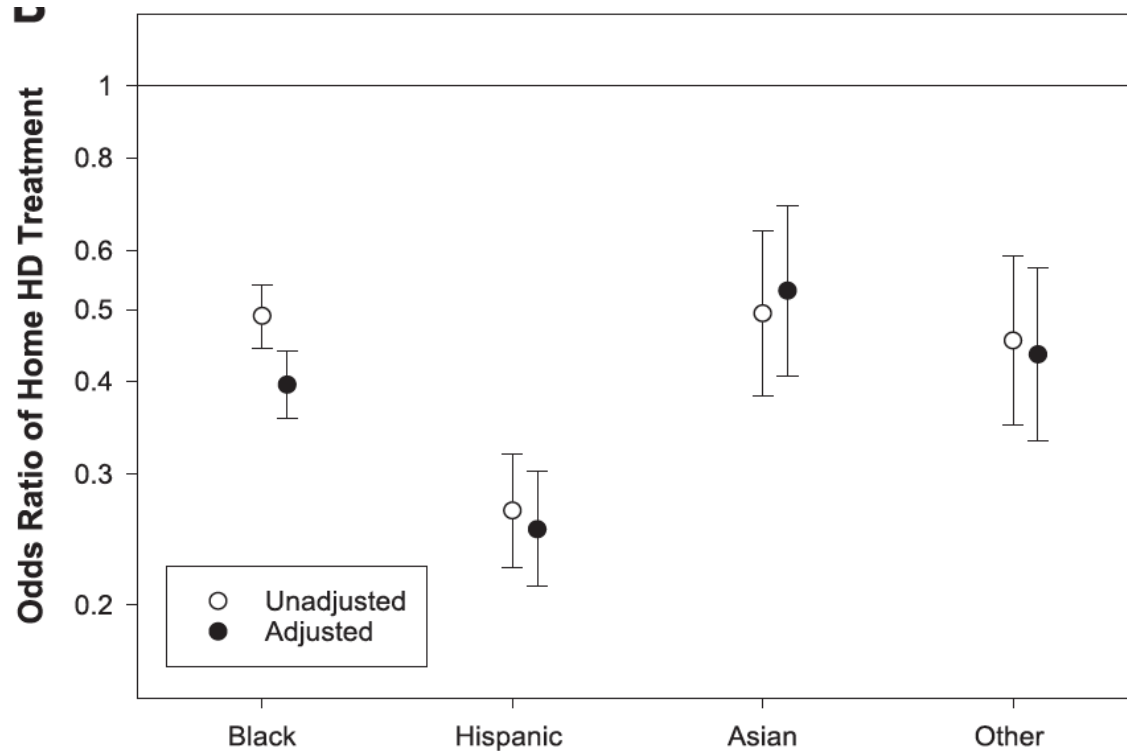




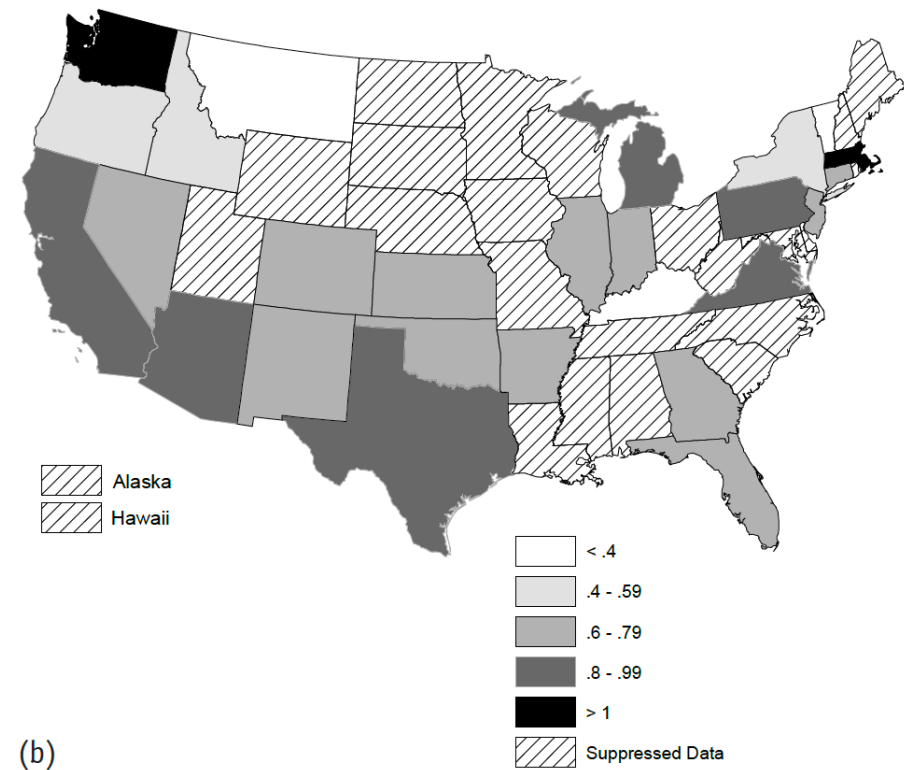
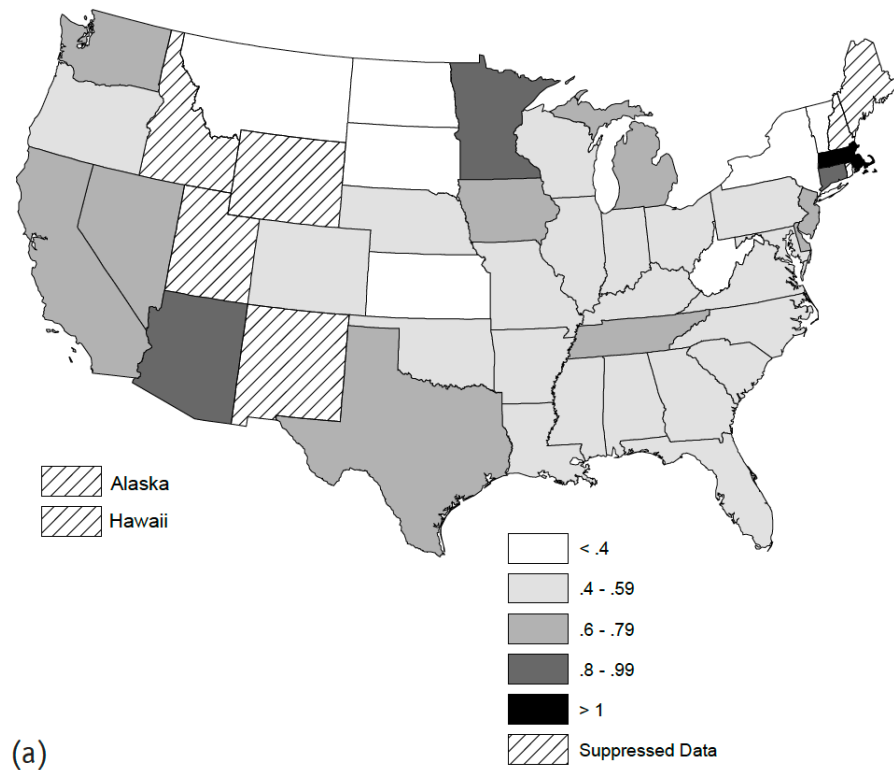
# Black and Hispanic groups are less likely to switch to home therapies



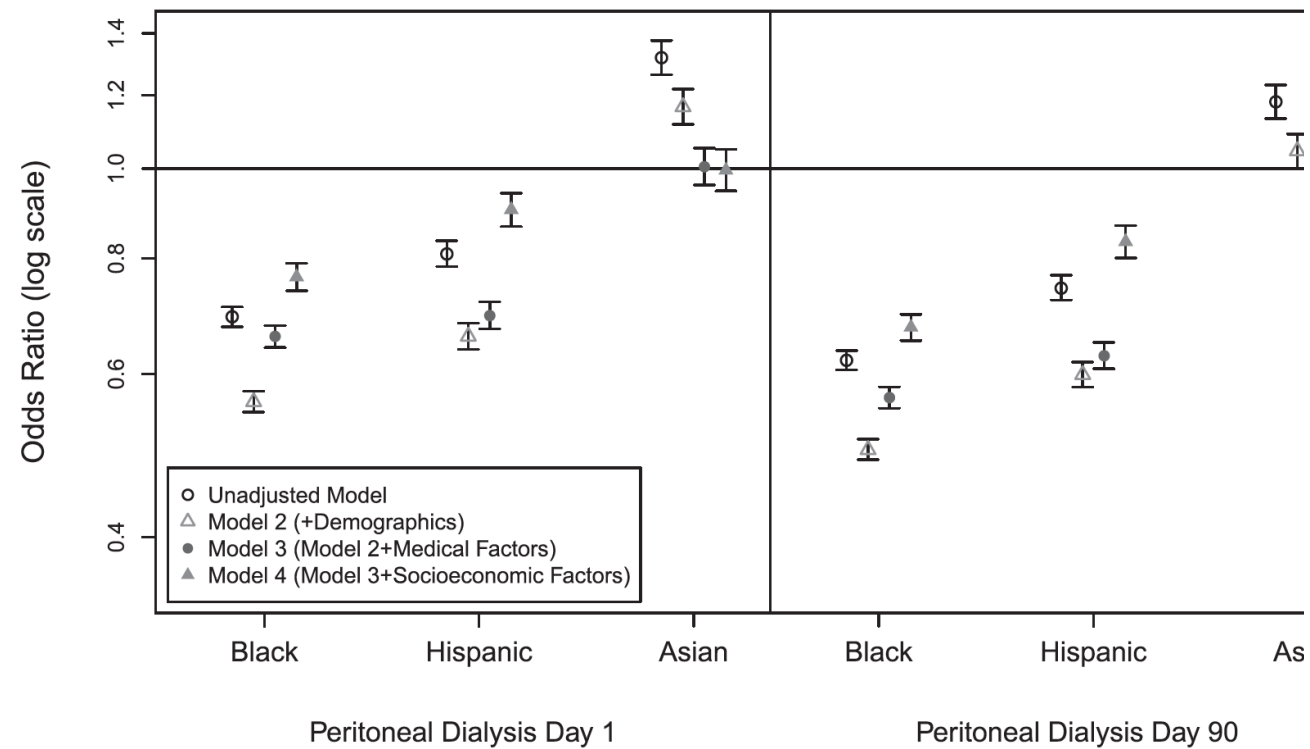
# Disparities in home dialysis



# Near universal disparities by state

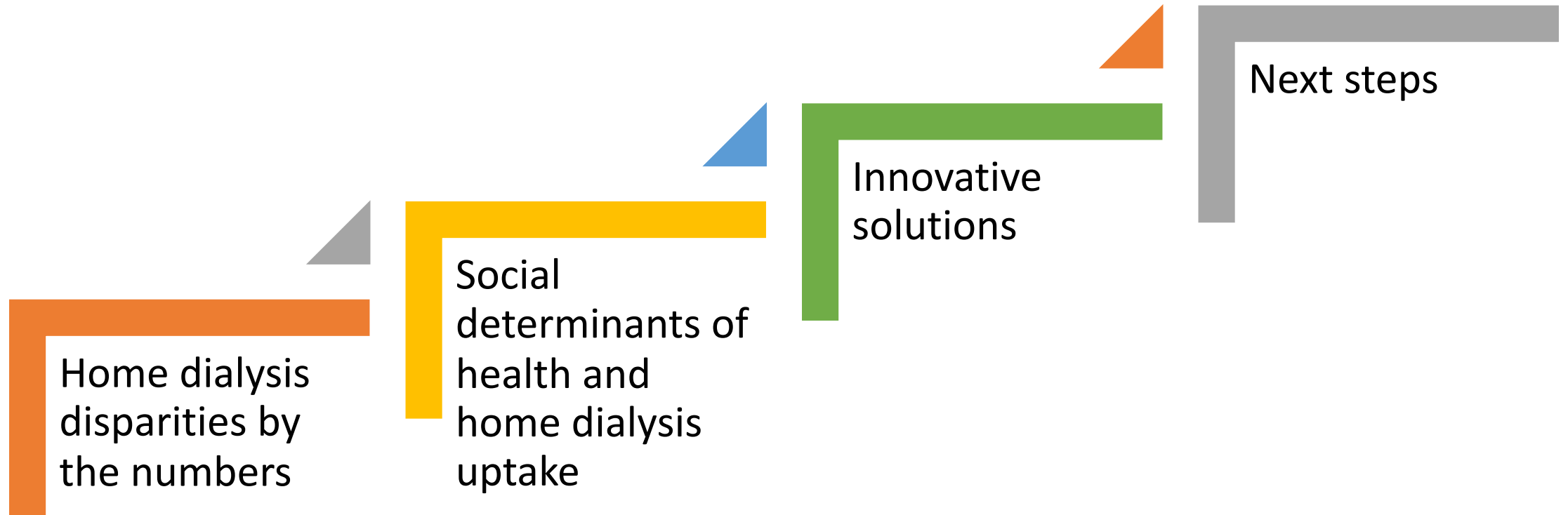


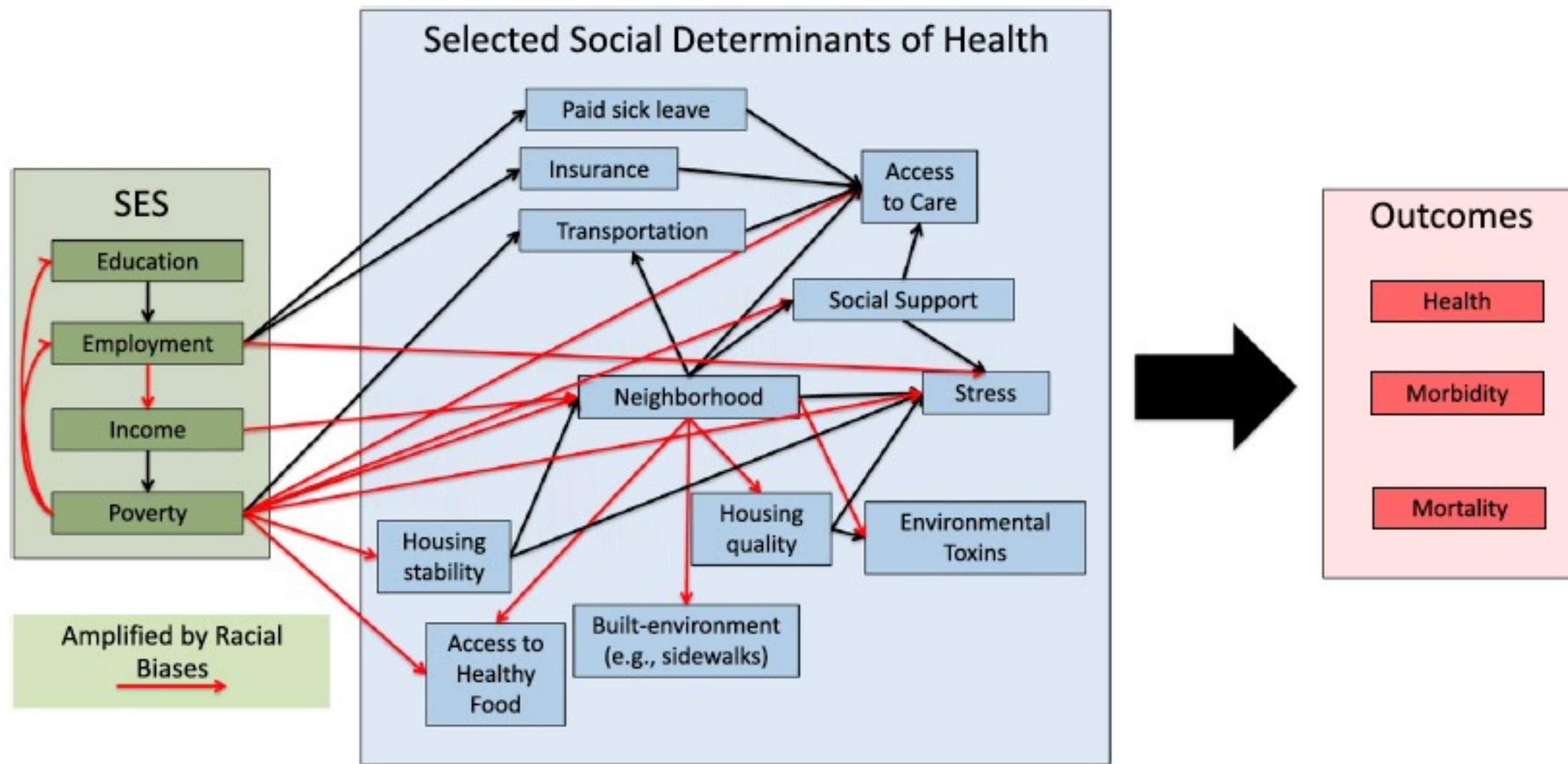
# Disparities in home dialysis



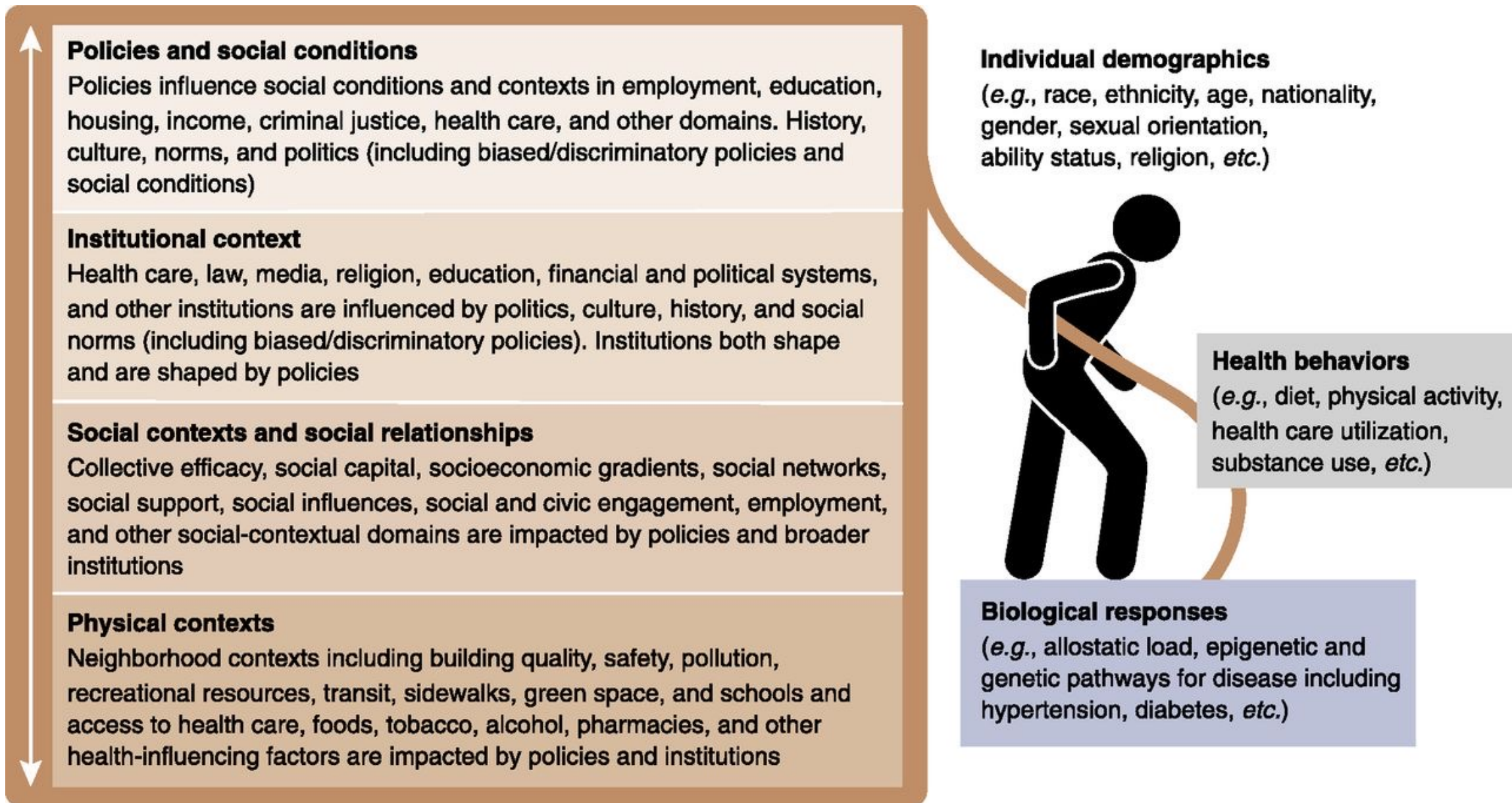
II

# Outline











# Barriers in home dialysis



PATIENT

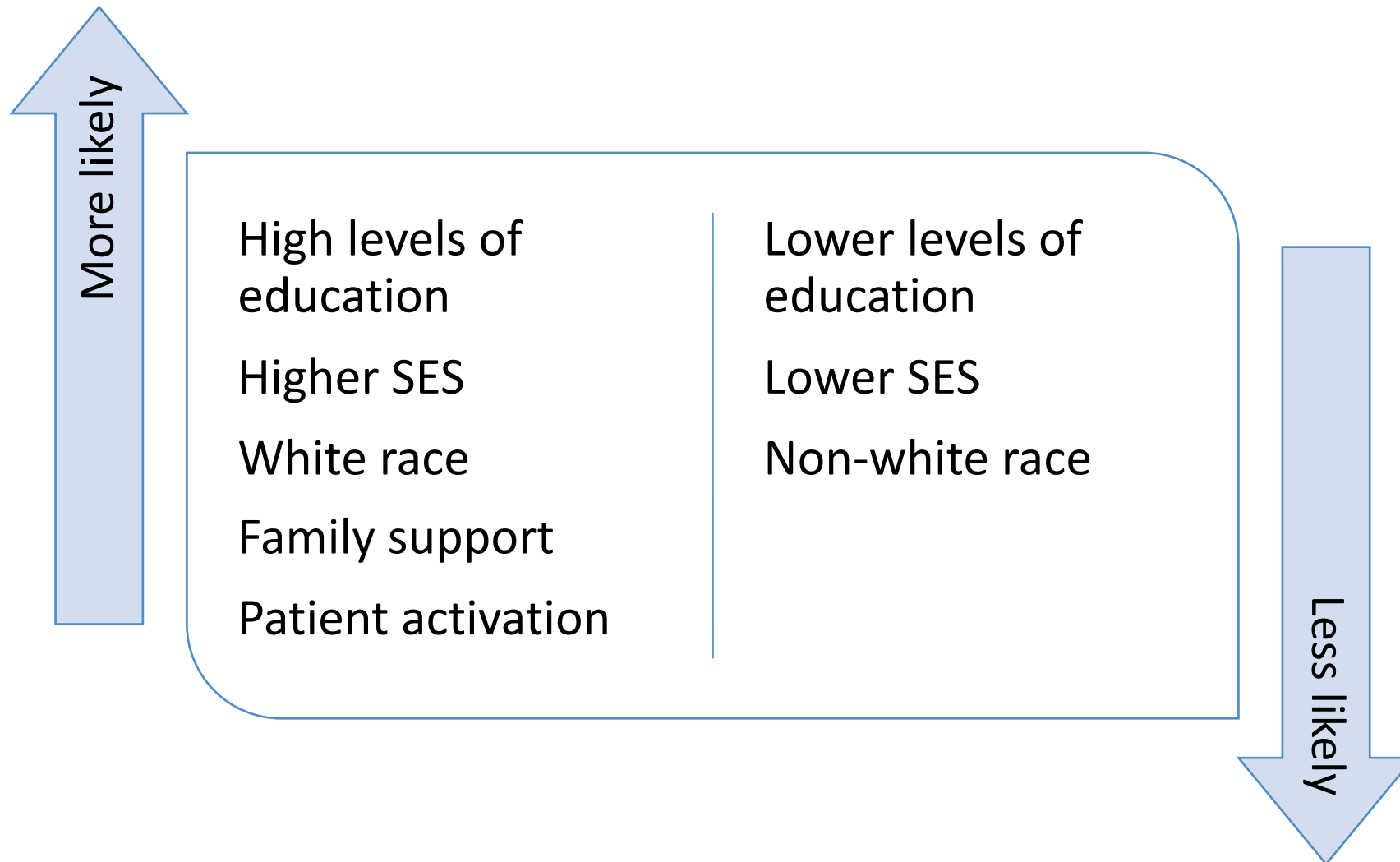


PROVIDER



SYSTEM

# Patient level-factors





# Major barriers for patients

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- Prefers hemodialysis (social reasons)
- Waiting to decide (not ready)
- Anxieties about self-efficacy or lack of social support
- Built environment (space for supplies etc)
- Negative bias
- Swimming/pets



# Provider

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- Lower levels of pre-dialysis care
- Higher levels of suboptimal starts
- More likely to use units without home dialysis
- Lower provider familiarity with home dialysis

## >12 months pre-dialysis care

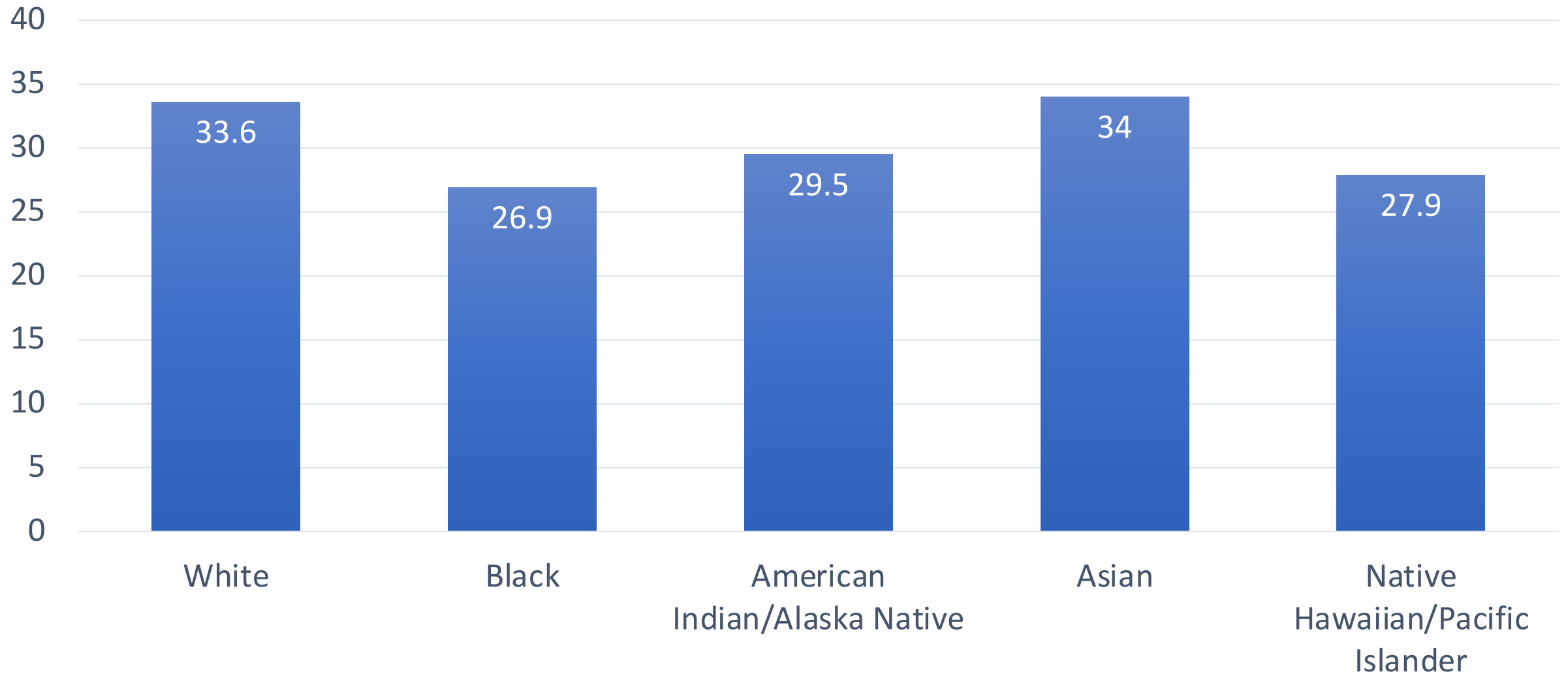


Table 3. Temporal Trends in Racial/Ethnic Disparities in Receipt of at Least 12 Months of Predialysis Nephrology Care

Cohort year	Crude OR (95% CI)				Adjusted OR (95% CI) <sup>a</sup>			
	White	Black	Hispanic	Asian	White	Black	Hispanic	Asian
2005-2007	1 [Reference]	0.74 (0.72-0.75)	0.61 (0.59-0.63)	0.81 (0.77-0.85)	1 [Reference]	0.82 (0.80-0.84)	0.67 (0.65-0.69)	0.84 (0.80-0.89)
2008-2010	1 [Reference]	0.71 (0.69-0.72)	0.58 (0.57-0.60)	0.81 (0.78-0.85)	1 [Reference]	0.77 (0.76-0.79)	0.63 (0.61-0.65)	0.84 (0.81-0.88)
2011-2013	1 [Reference]	0.72 (0.71-0.73)	0.57 (0.56-0.59)	0.83 (0.80-0.86)	1 [Reference]	0.78 (0.76-0.79)	0.61 (0.59-0.62)	0.85 (0.81-0.88)
2014-2015	1 [Reference]	0.71 (0.70-0.73)	0.60 (0.58-0.61)	0.90 (0.86-0.94)	1 [Reference]	0.76 (0.74-0.78)	0.61 (0.60-0.63)	0.90 (0.86-0.95)

Abbreviation: OR, odds ratio.

<sup>a</sup> Adjusted for differences in age (continuous), sex (male or female), body mass index (calculated as weight in kilograms divided by height in meters squared; ≤30.0 or >30.0), and end-stage kidney disease etiology (diabetes, hypertension, glomerular diseases, or other).

Racial and ethnic disparities in predialysis care did not improve from 2005 to 2015

# Sub-optimal dialysis initiation

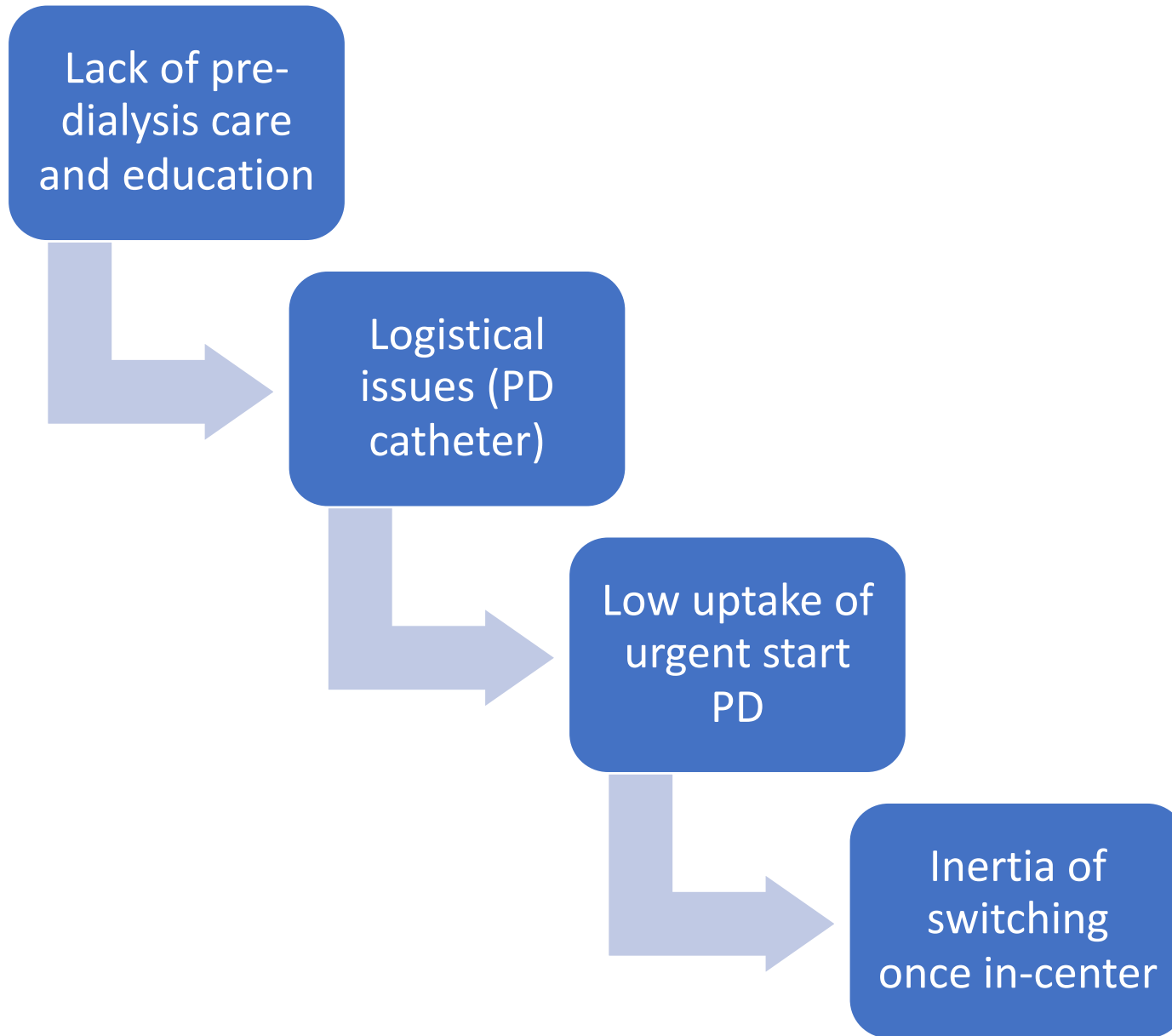


Inpatient

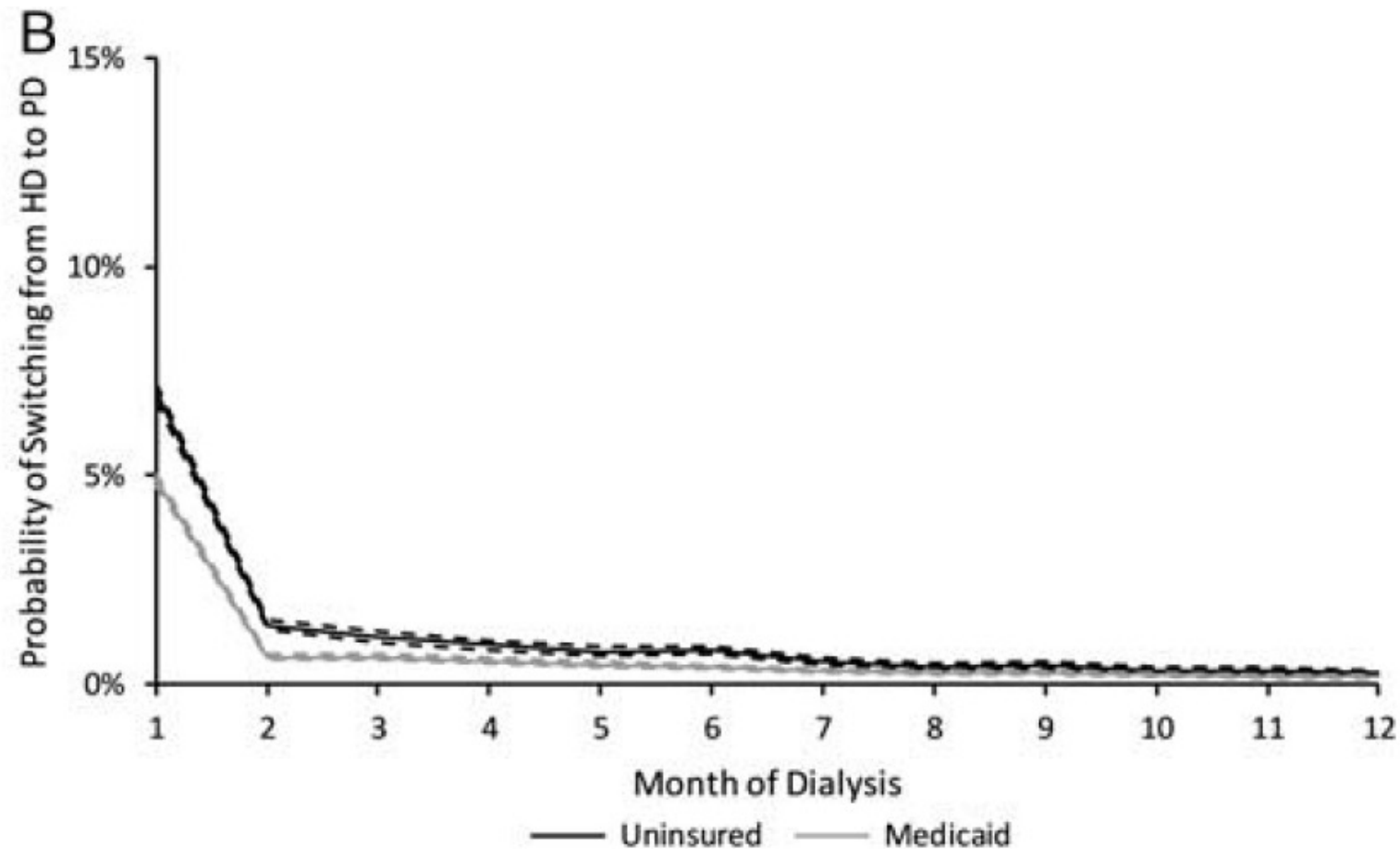
Not chosen  
therapy

Temporary  
dialysis access

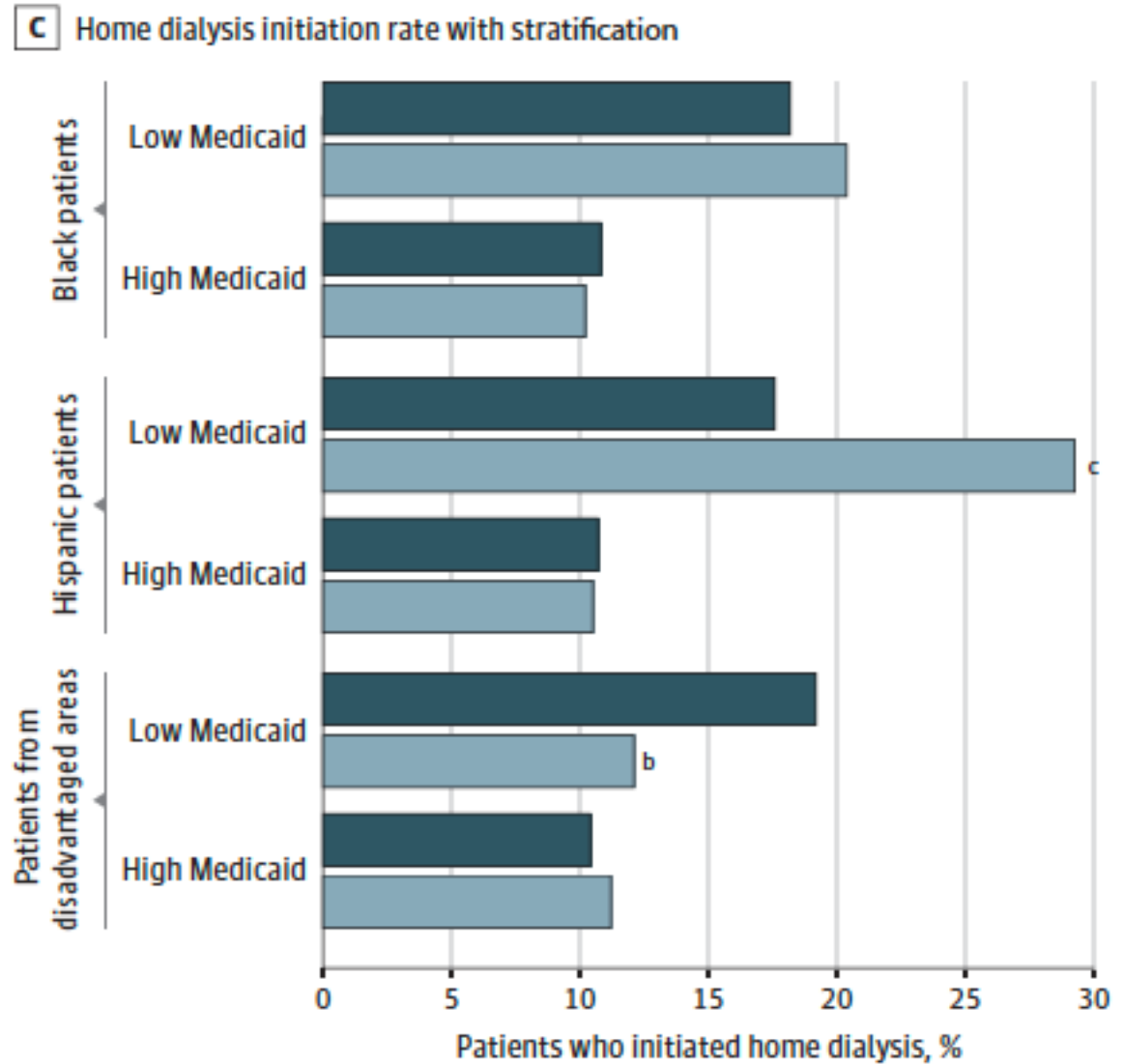




# Dialysis inertia

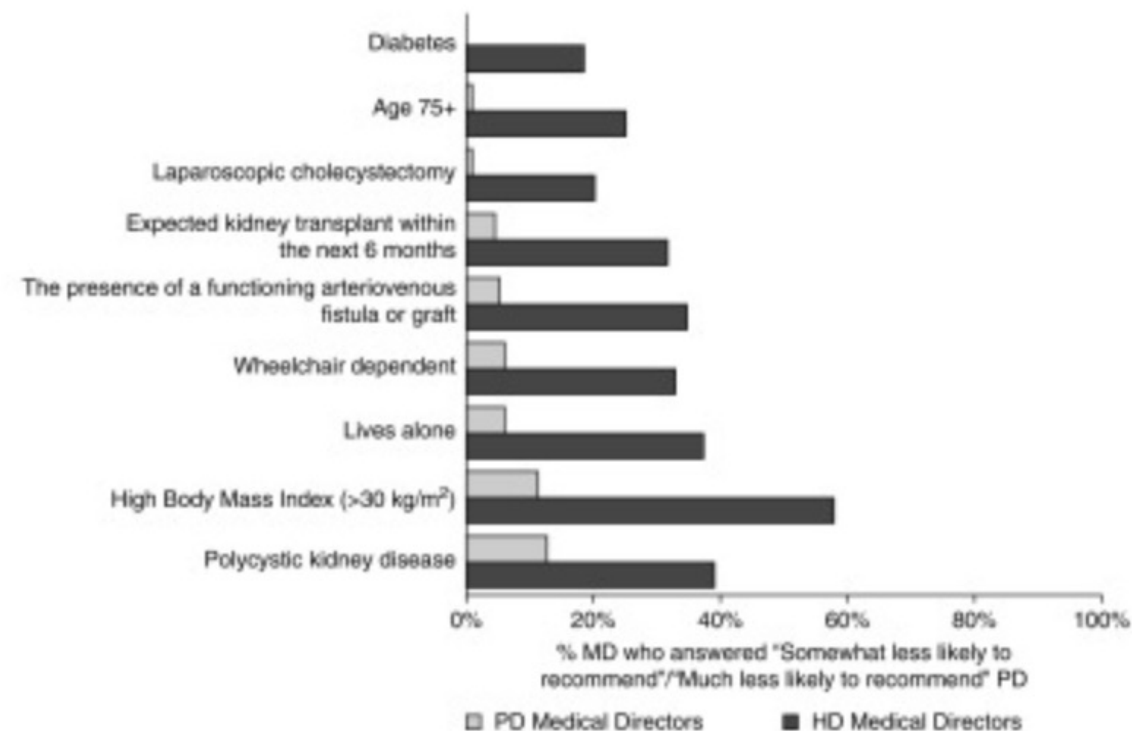


Patients from  
more  
disadvantaged  
backgrounds are  
less likely to start  
home dialysis



# HD units without home options

- Less access to quality information/education
- Less staff training
- Less enthusiasm for home therapies



# System



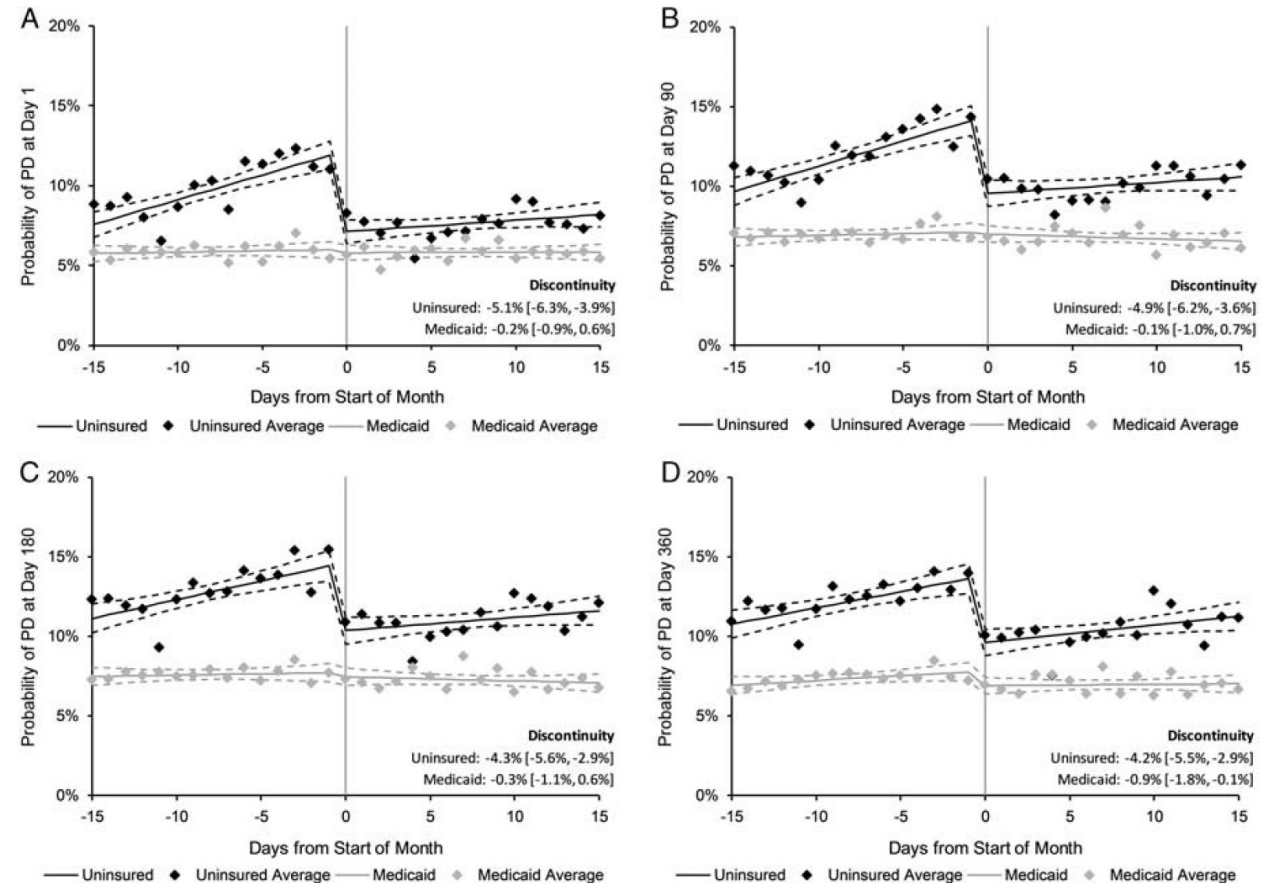
Pre-dialysis insurance

Language  
interpretation

Policies penalizing  
facilities with socially  
disadvantaged  
patients

# Insurance

- Medicare starts the same calendar month as PD initiation
- PD catheter only paid for if it is within the same calendar month as initiation
- Starting dialysis later in the month is associated with increased PD uptake



The biggest barrier is honestly just the language barrier. You send somebody home, and I'm calling them, usually daily, to check in and how did treatment go last night... you're getting a translator on the line... But do they fully understand, because it's very specific medical terminology.





# Policy

What to do with patients with barriers to home dialysis?

# ERSD Treatment Choices payment model

Adjust payments to incentivize home dialysis



Did not adjust for socioeconomic factors such as:

Housing

Income

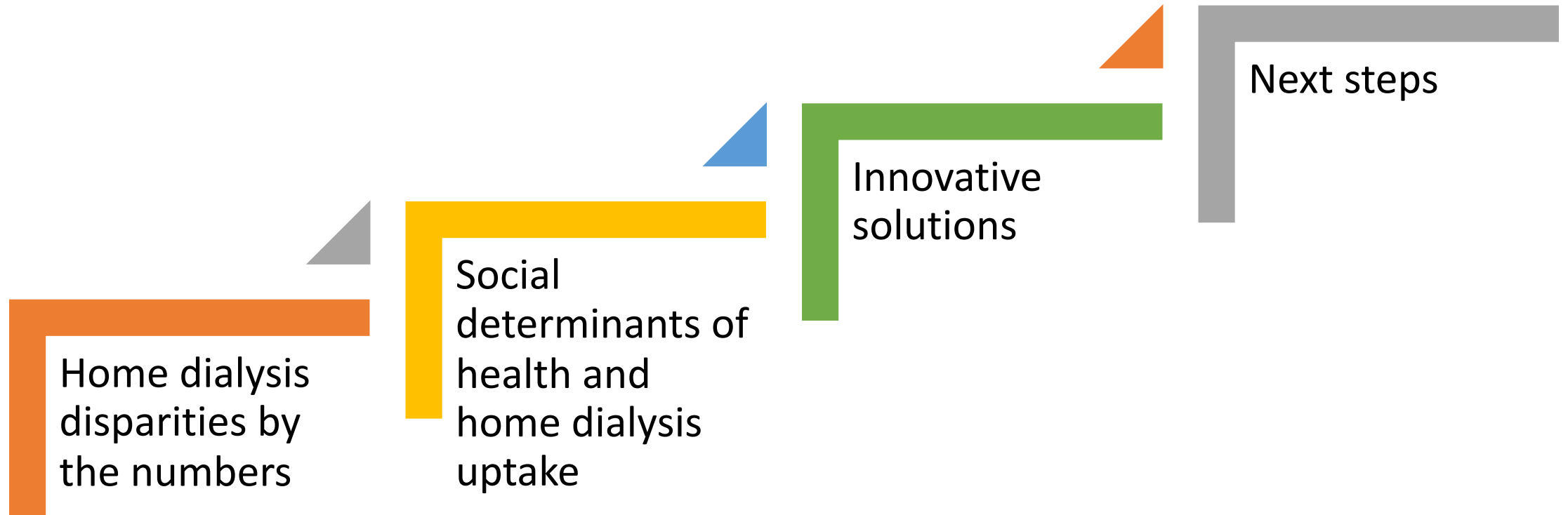
Education

Occupation

Insurance  
coverage

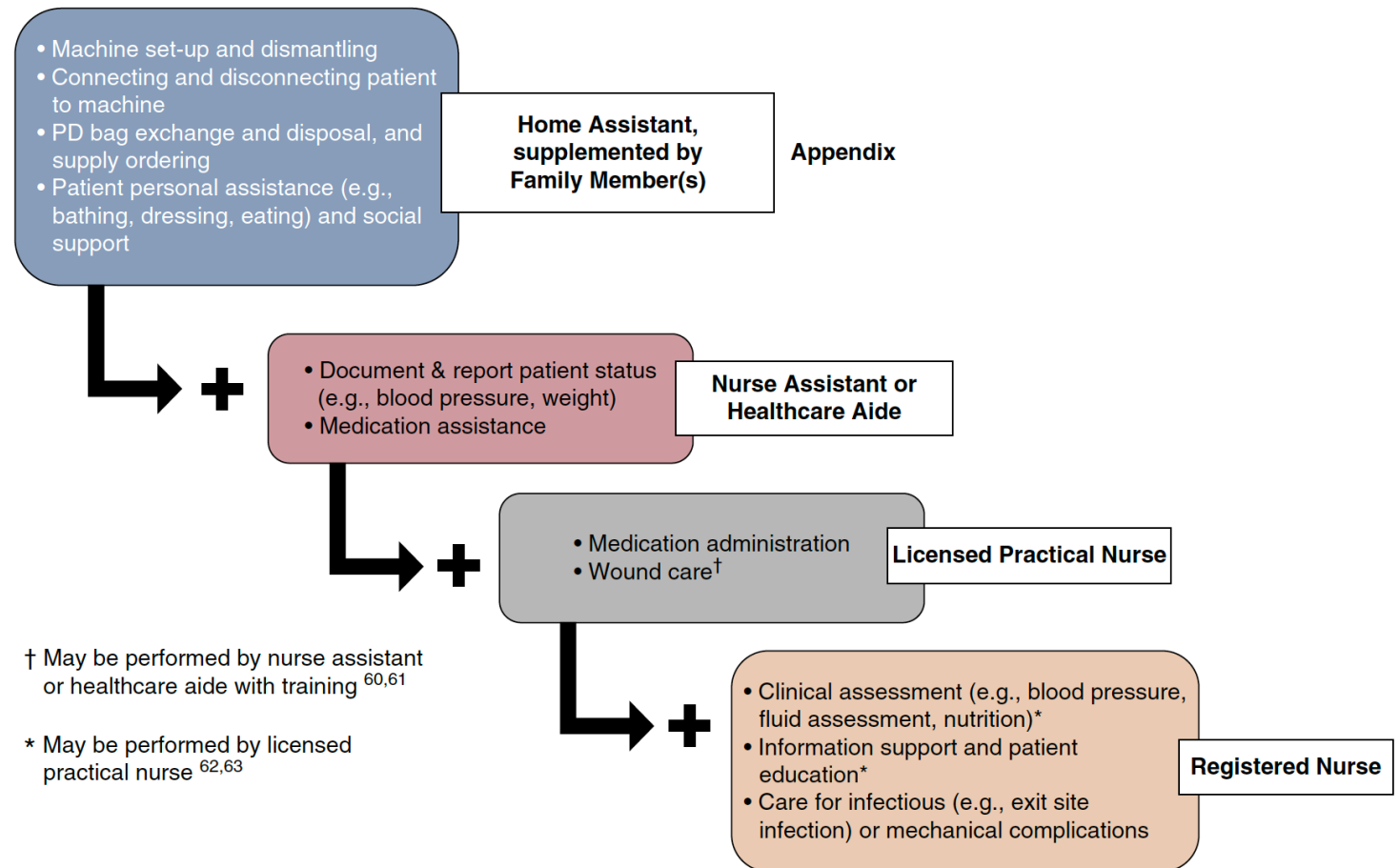
Access to  
care

# Outline



# Caregiver support: patient-assisted PD

- Addresses:
  - Social isolation
  - Lack of care giver support
  - Transportation
- Different models to address a range of needs





# Built environment: community home hemodialysis

## What are patients' experiences of community house hemodialysis?



Who?



25  
hemodialysis  
participants



Māori or  
Pacific island  
ethnicity



Living in  
Aotearoa  
(New Zealand)

What?



Semi-  
structured and  
in depth  
interviews



Examining  
experiences  
and  
perspectives



Patients in  
community  
dialysis  
programs

Baseline Characteristics



11 Women  
14 men



Ages 31-65  
years



2/3<sup>rd</sup> dialysed for  
>20 hrs per week

Themes



Reduced burden on family

↓ Exposure to dialysis,  
↓ cost, and maintaining  
privacy



Flexibility and freedom

Maintaining employment,  
and facilitating travel



Control of health

Building independence,  
avoiding institutionalization



Community support

Building social inclusion and  
supporting peers

**Conclusion:** Community house hemodialysis is a modality that overcomes many of the socioeconomic barriers to home hemodialysis, is socially and culturally acceptable, and supports extended-hour hemodialysis thereby promoting more equitable access to best practice services.

References: Walker et al. *Patients' Experiences of Community House Hemodialysis: A Qualitative Study*. 2019.  
10.1016/j.xkme.2019.07.010.

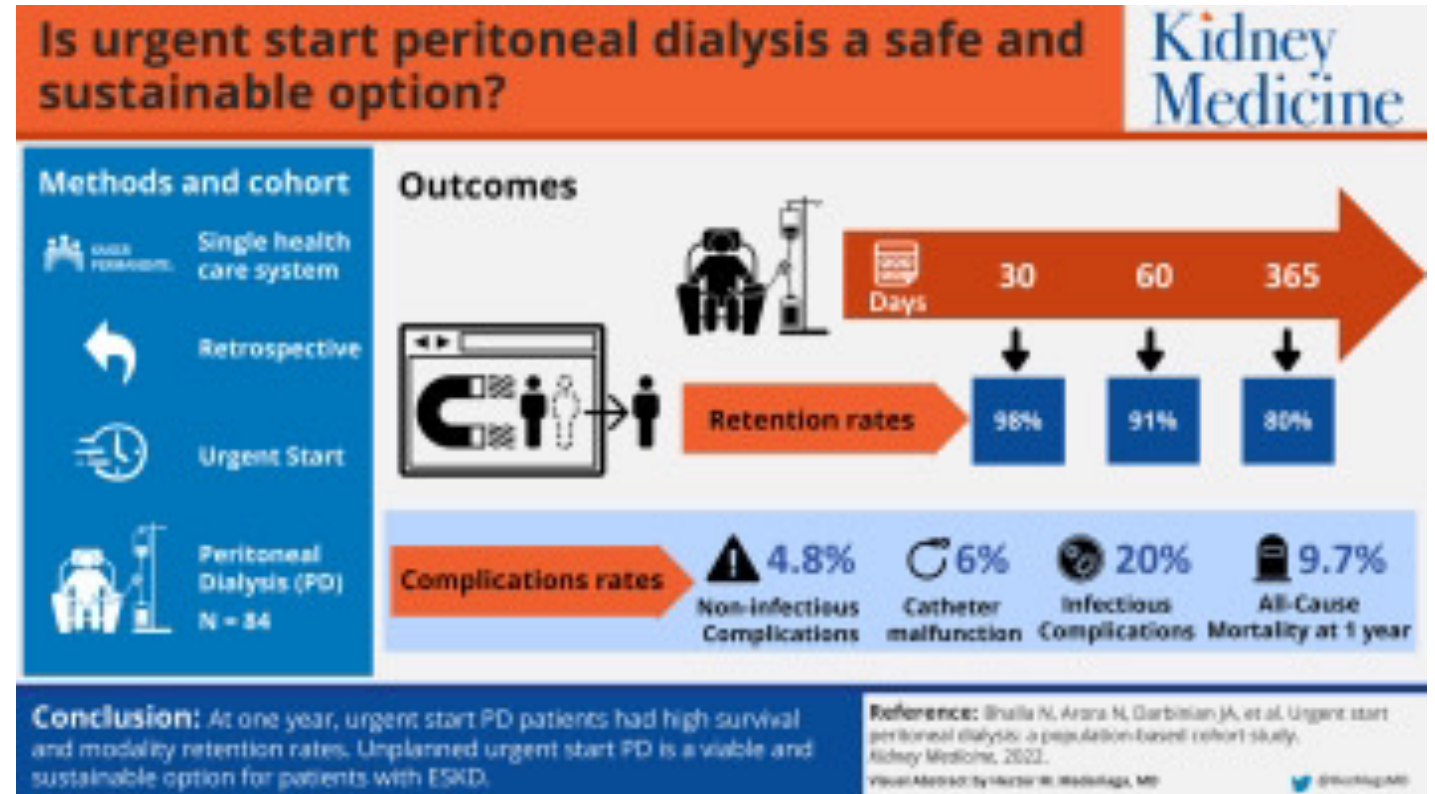
Visual abstract by Sharanya Ramesh MD PhD

@SRameshMD

# Start on home: Urgent-start PD

Requires:

- Capacity for outpatient care of low-volume PD exchanges
- Adequate nursing staff to supervise low-volume PD exchanges
- Process in place for urgent PD catheter insertion
- Dedicated outpatient home dialysis clinic
- Dedicated PD coordinator for the above processes



# Suggestions for policy improvements



IMPROVE DOCUMENTATION OF SOCIAL  
DETERMINANTS OF HEALTH

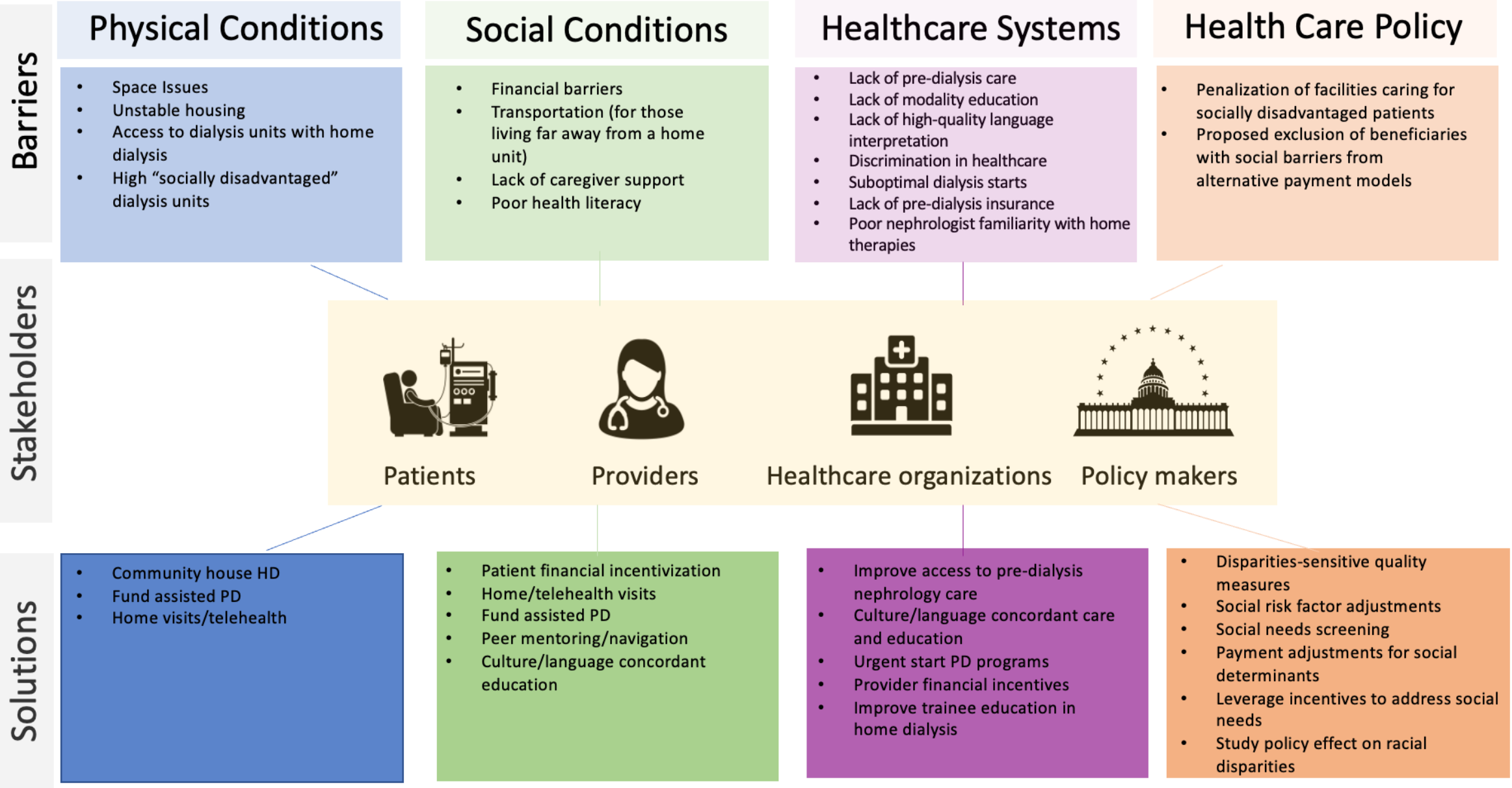


INCORPORATE PAYMENTS ON BASIS OF  
SOCIAL DETERMINANTS OF HEALTH



LEVERAGE INCENTIVES FROM ETC TO  
DEVELOP INNOVATIVE APPROACHES TO  
CARE EQUITY

Figure 1. Barriers and Potential Solutions to Racial and Ethnic Disparities in Home Dialysis Care





# Takeaways

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Racial and ethnic disparities are due to the complex interplay between social determinants of health affecting access to care on the patient, provider, and system level

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Equity in home dialysis care requires a multifaceted and innovative approaches to improve barriers at every level

A serene landscape featuring a calm body of water reflecting a dense line of trees. The trees have green foliage and dark trunks. The reflection is clear and symmetrical. The overall color palette is muted, with a blueish-grey background and green foliage.

Thank you!



Questions