Diabetes and Hypertension Project ECHO* Clinic

*ECHO: Extension of Community Healthcare Outcomes

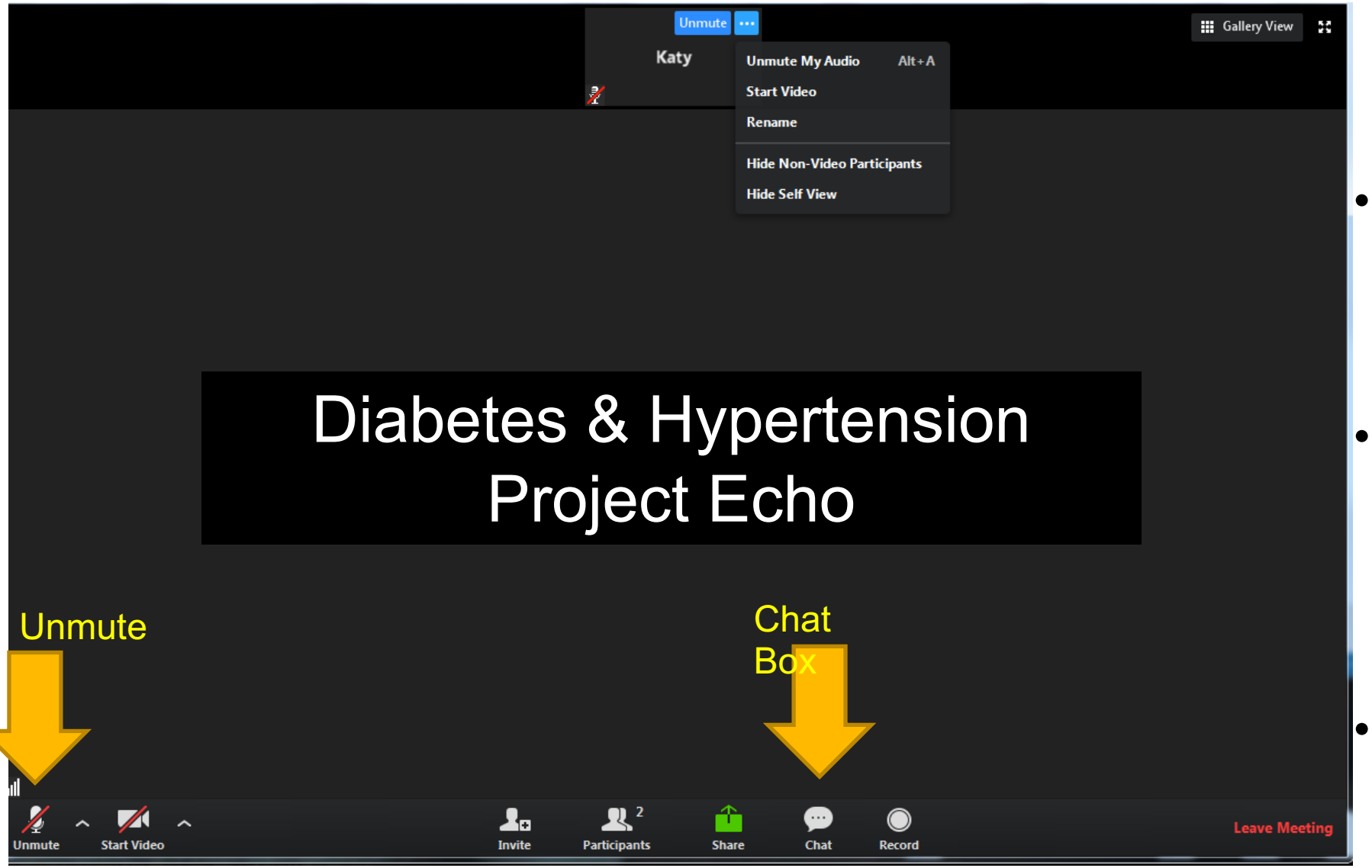
Feb. 9, 2023

Before we begin:

- Rename your Zoom screen with your name and organization
- Claim CE: text 25397-25389 to 804-625-4041
  - Go to **vcuhealth.org/echodmhtn** for instructions on creating your account

The Diabetes and Hypertension ECHO is made possible by funding through CDC Cooperative Agreement NU58DP006620-InnoVAte.

Zoom Reminders



- You are all on mute. Please unmute to talk.
- If joining by telephone audio only, press *6 to mute and unmute.
- Use the chat function to speak with our team or ask questions.

Helpful Reminders

Please feel free to eat your lunch or step away briefly if needed

We are recording and can share sessions upon request

- Each session's slides are available on www.vcuhealth.org/echodmhtn

Please **do not share any protected health information** in your discussion or the chat box

Project ECHO operates on the "All Teach, All Learn" model

- Feel free to ask questions in the chat or unmute to ask questions at designated times
- We're all here to learn from each other and value each person's input and expertise!

VCU Health Diabetes & Hypertension ECHO Clinics

VCU Hub Team	
Principal Investigator	Dave Dixon, PharmD
Clinical Experts	Niraj Kothari, MD Trang Le, MD

- One-hour ECHO clinics on 2nd Thursdays
- Every ECHO clinic includes a didactic presentation followed by case discussions
- Website: www.vcuhealth.org/echodmhtn
  - Directions for claiming CE can be found here
  - You have up to six days after our session to claim CE by texting **25397-25389** to **804-625-4041**

Disclosures

Niraj Kothari, M.D. has no financial conflicts of interest to disclose.

There is no commercial or in-kind support for this activity.

Disparities in CKD/ESKD care and the effects of the COVID-19 pandemic

Niraj Kothari, M.D.

February 9, 2023

Learning Objectives

- Gain perspective of existing disparities affecting CKD/ESKD patients
- Understand the potential and observed impacts of the COVID-19 pandemic on disparities affecting CKD/ESKD care
- Discuss strategies to mitigate disparities affecting the care of CKD/ESKD patients

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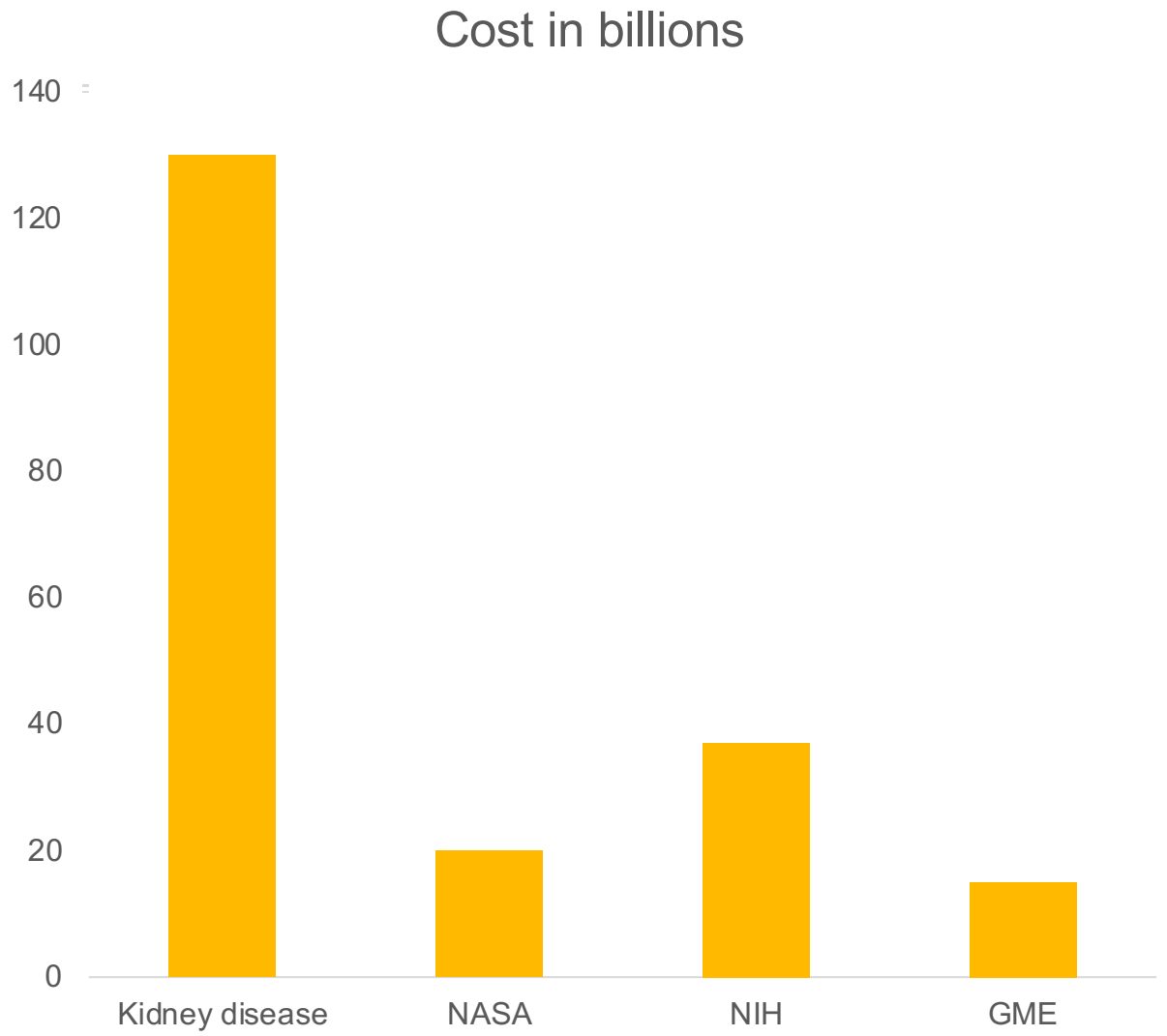
Why does this matter?

"Of all the forms of inequality, injustice in health is the most shocking and the most inhuman"
- Dr. Martin Luther King, Jr. (1966)

- Healthcare disparities lead to worsened outcomes and increased costs for disadvantaged populations
- CKD/ESKD populations already suffer from substantial disparities in care

CKD/ESKD represent a major public health burden

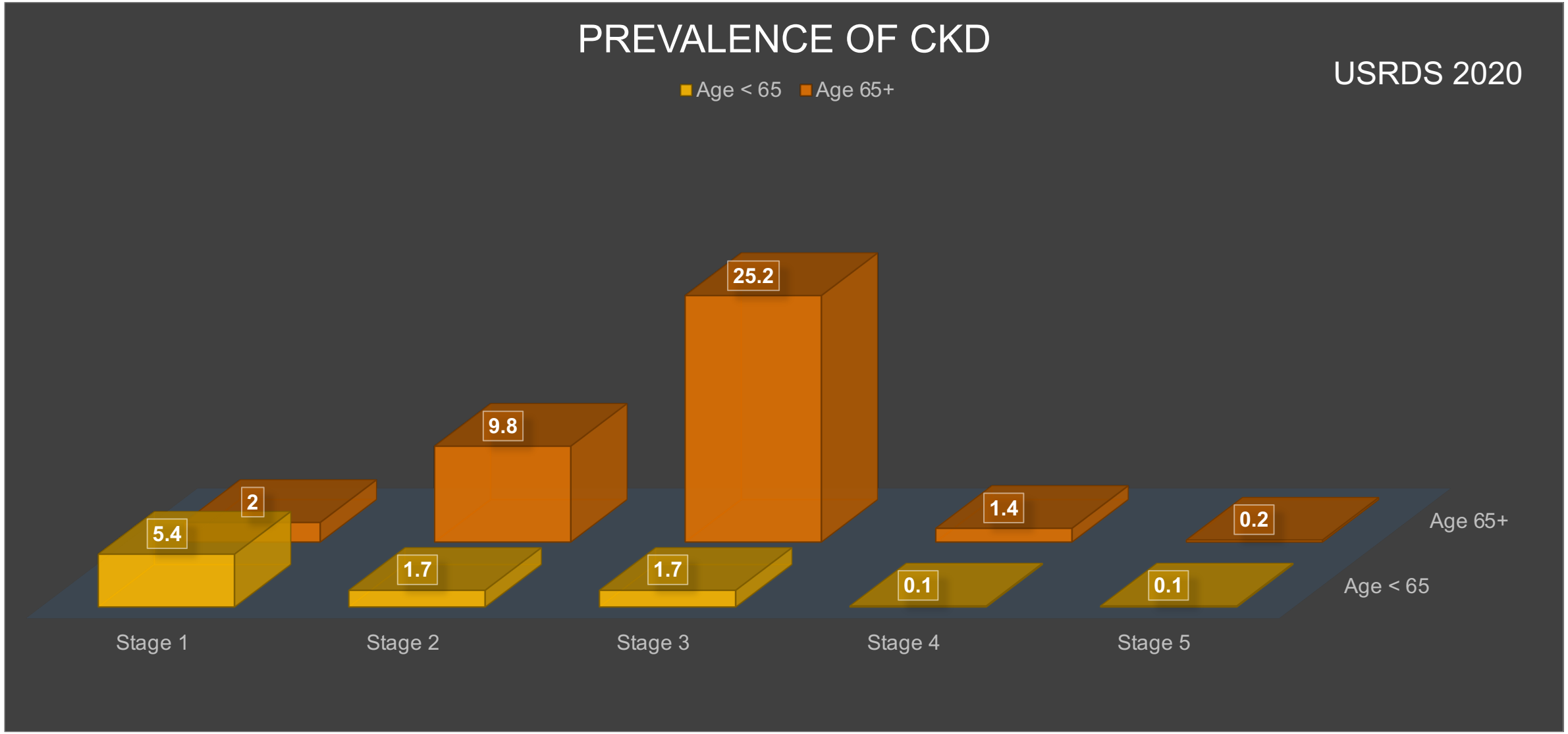
- ~15% of US adults have CKD
- Medicare expenditures for CKD: over $81 billion in 2018
- Medicare expenditures for ESKD: $49.2 billion in 2018
- Total Medicare expenditures on CKD/ESKD ~$130 billion
- NASA budget: ~$20 billion
- NIH budget: ~$37 billion
- GME: ~$15 billion



USRDS 2020

VCU Health

CKD is not distributed equally



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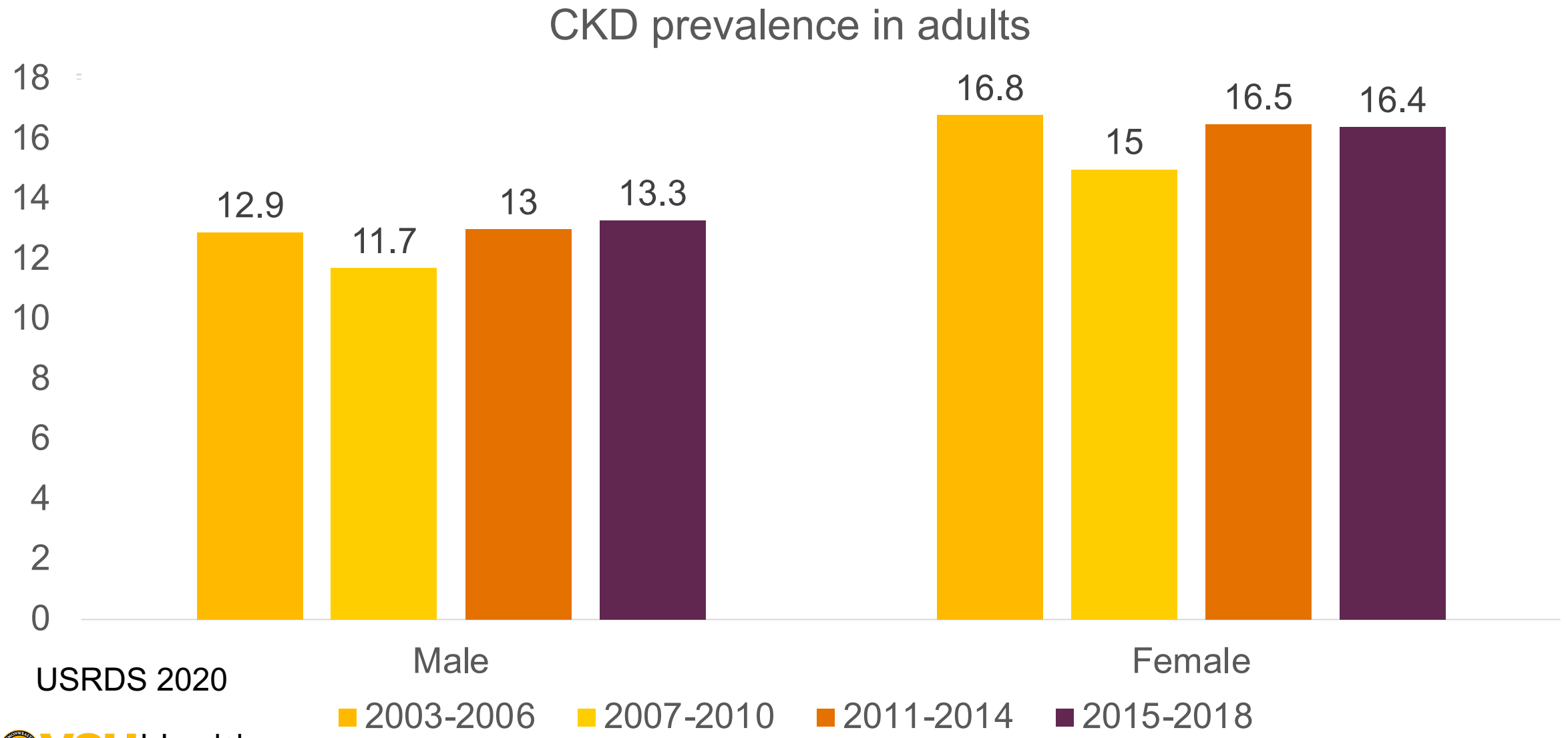


USRDS 2020

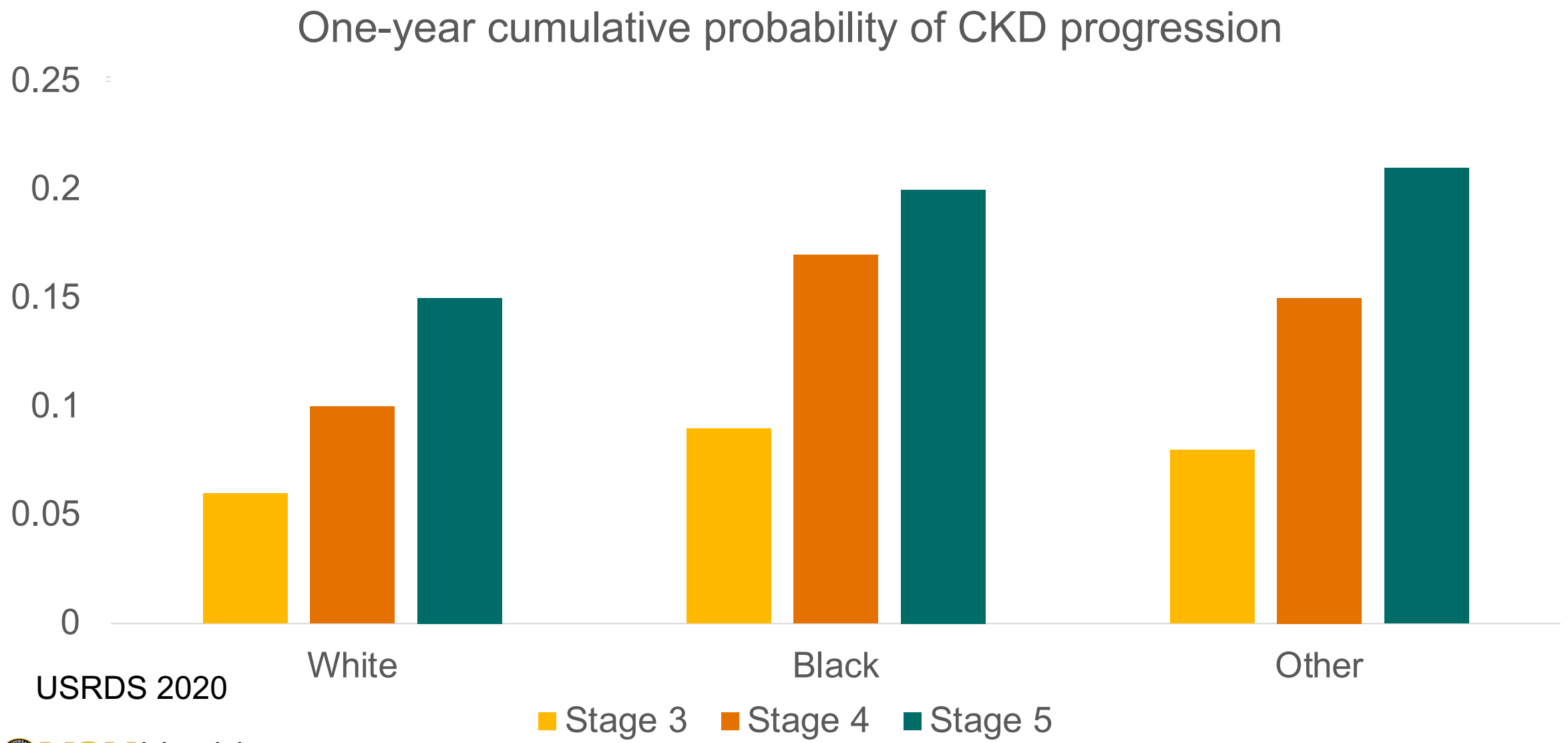
VCU Health

CKD is not distributed equally

- Poverty and education are major disparities affecting CKD prevalence
- Prevalence of CKD:
  - 17.4% in patients living in poverty, versus 14.4% for patients not in poverty
  - 19.5% for patients who are not HS graduates, 17.2% for patients with HS/GED equivalent, 13.1% for patients with at least some college education

USRDS 2020

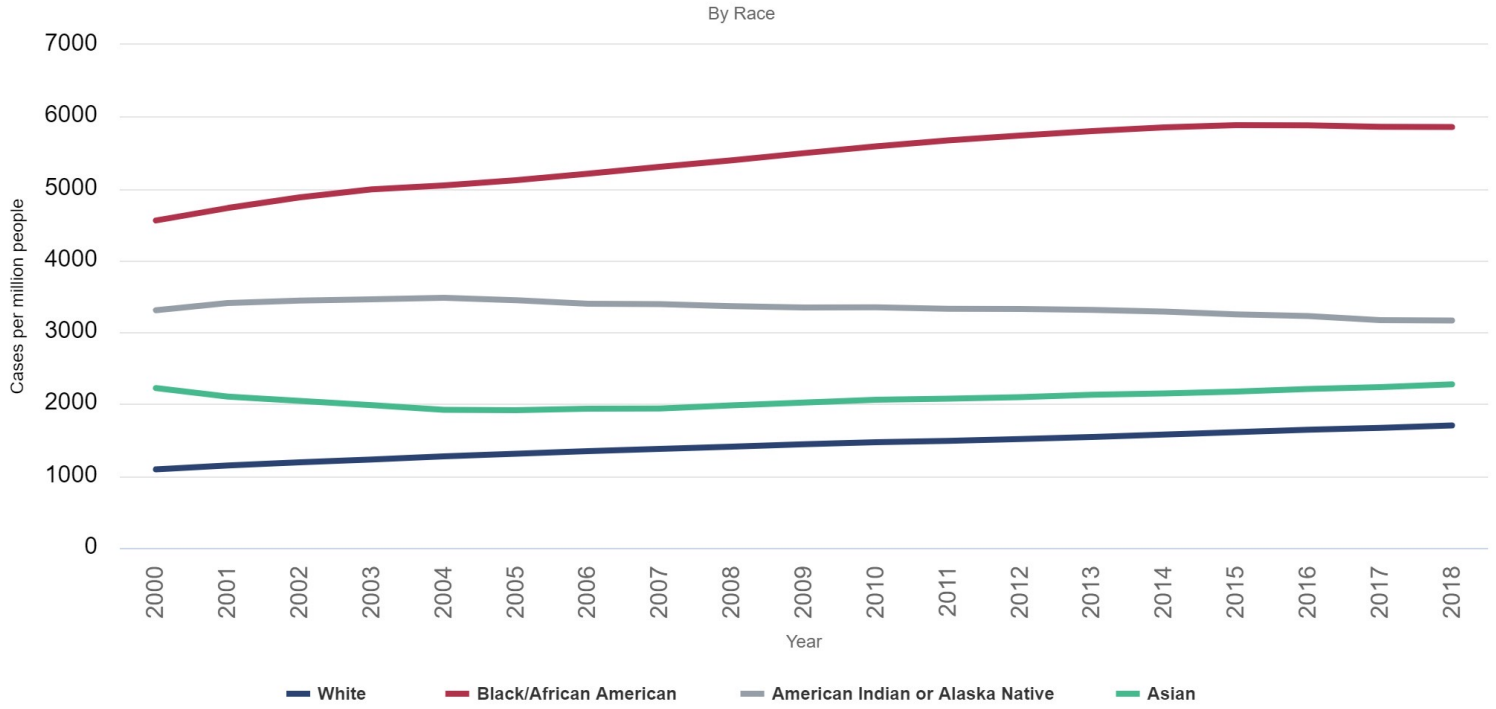
Significant disparities in CKD progression



USRDS 2020

ESKD is not distributed equally

Figure 1.8 Adjusted ESRD prevalence, by age, race, and ethnicity, 2000-2018



Race	Cases per mil	Total US pop (mil)	Total cases
White	1703.5	211.5	360223
Black	5854.8	34.7	202917
American Indian/Alaska Native	3163.4	2.5	7832
Asian	2275.3	10.2	23306

Data Source: 2020 United States Renal Data System Annual Data Report

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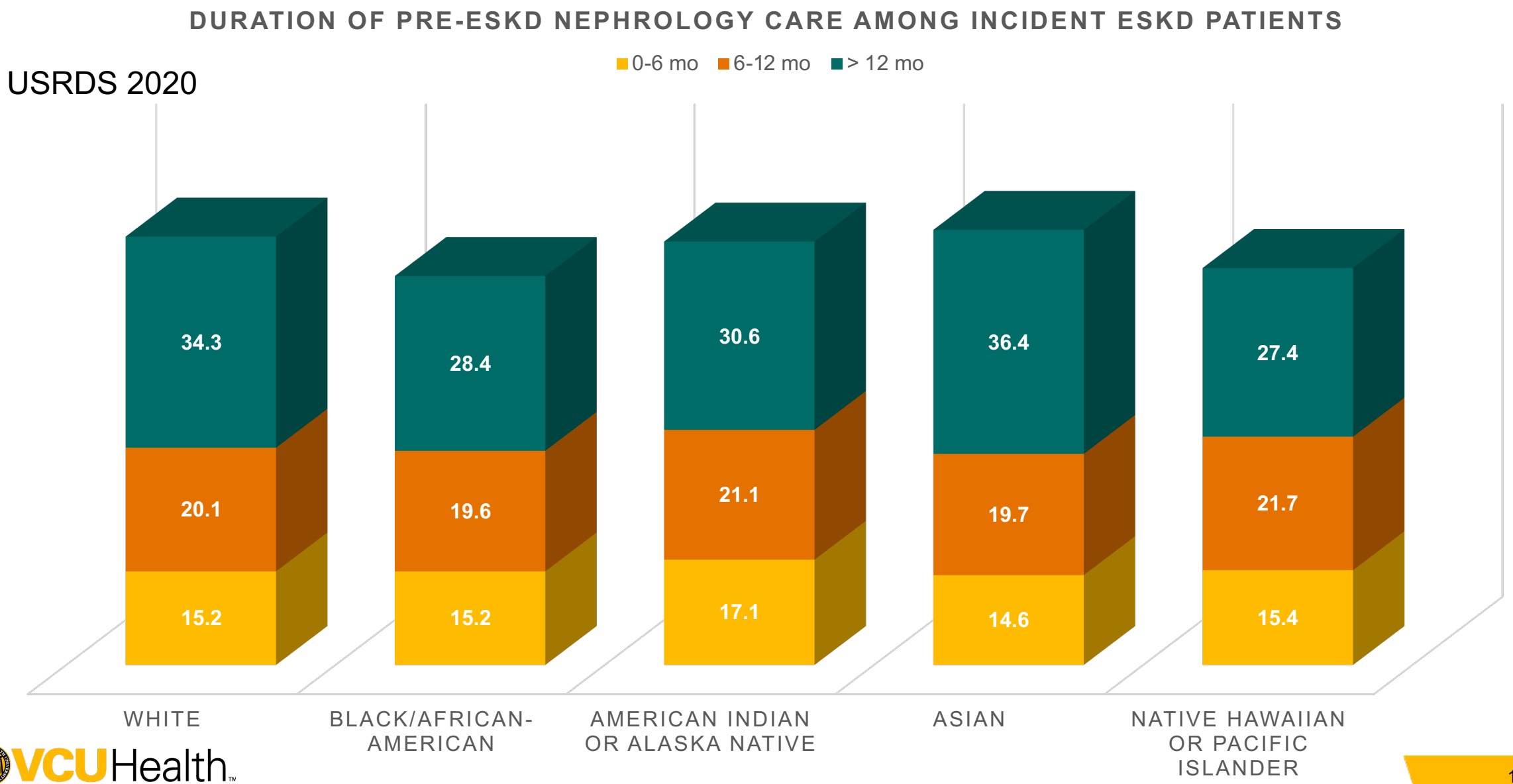
Unequal access to nephrology care



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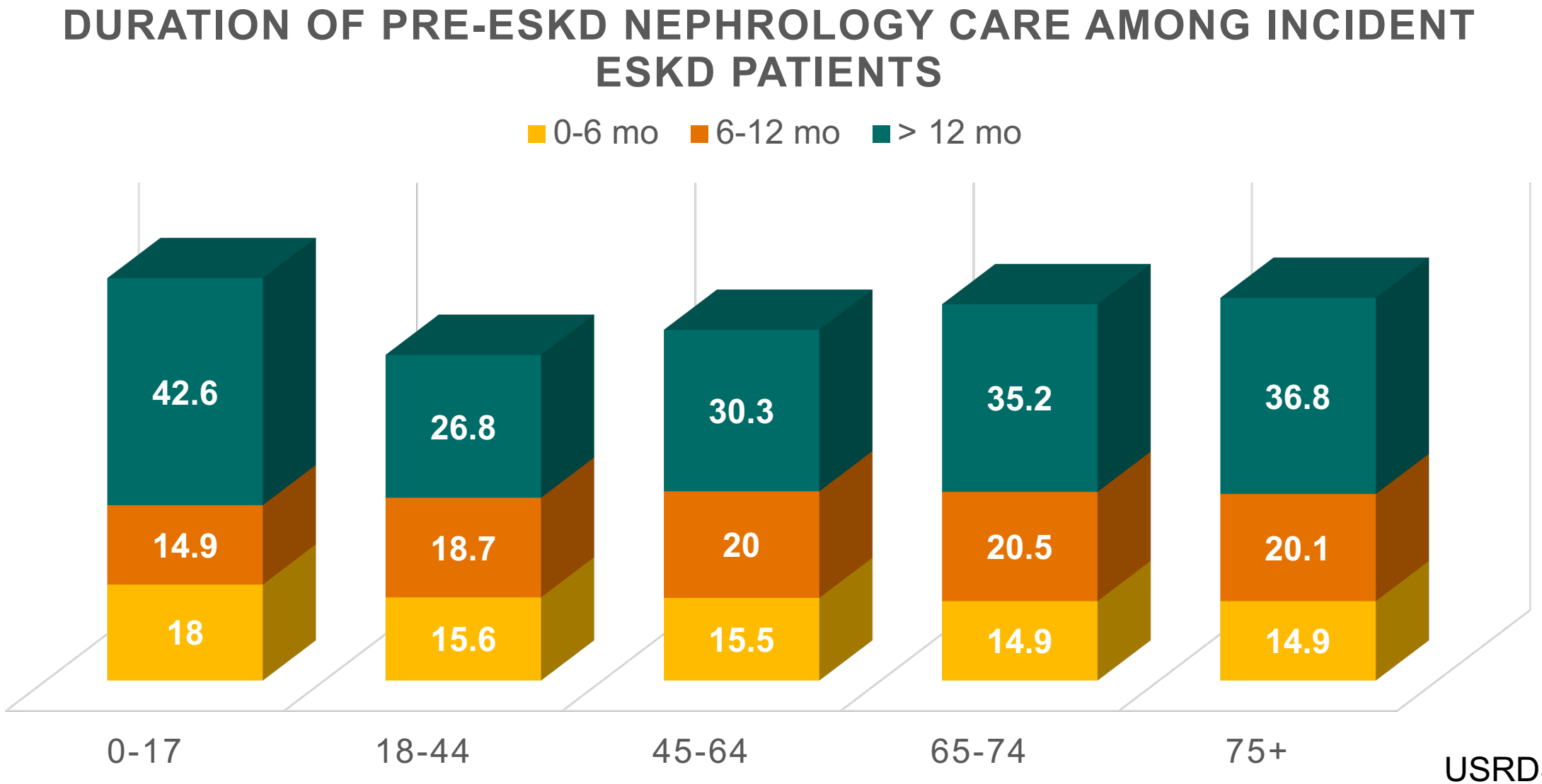

USRDS 2020

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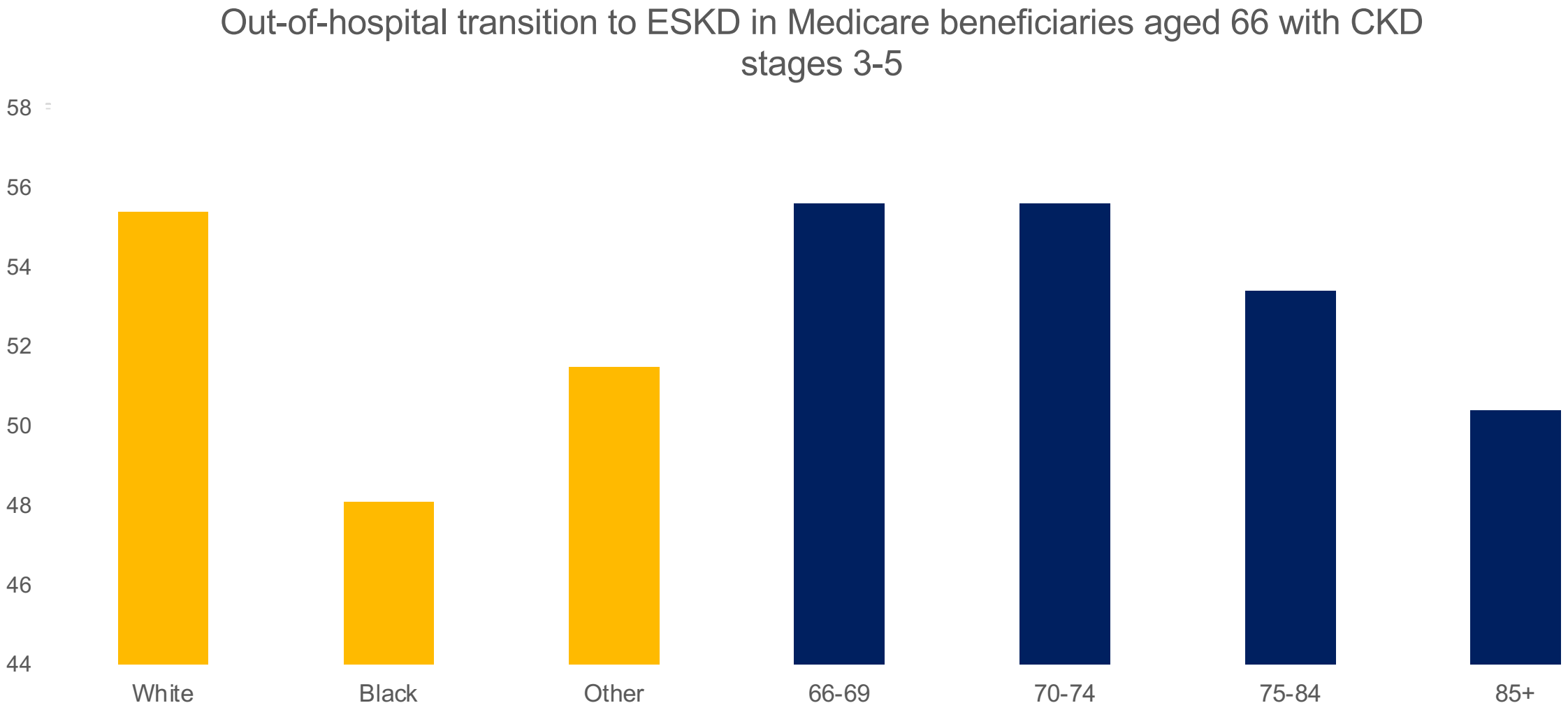
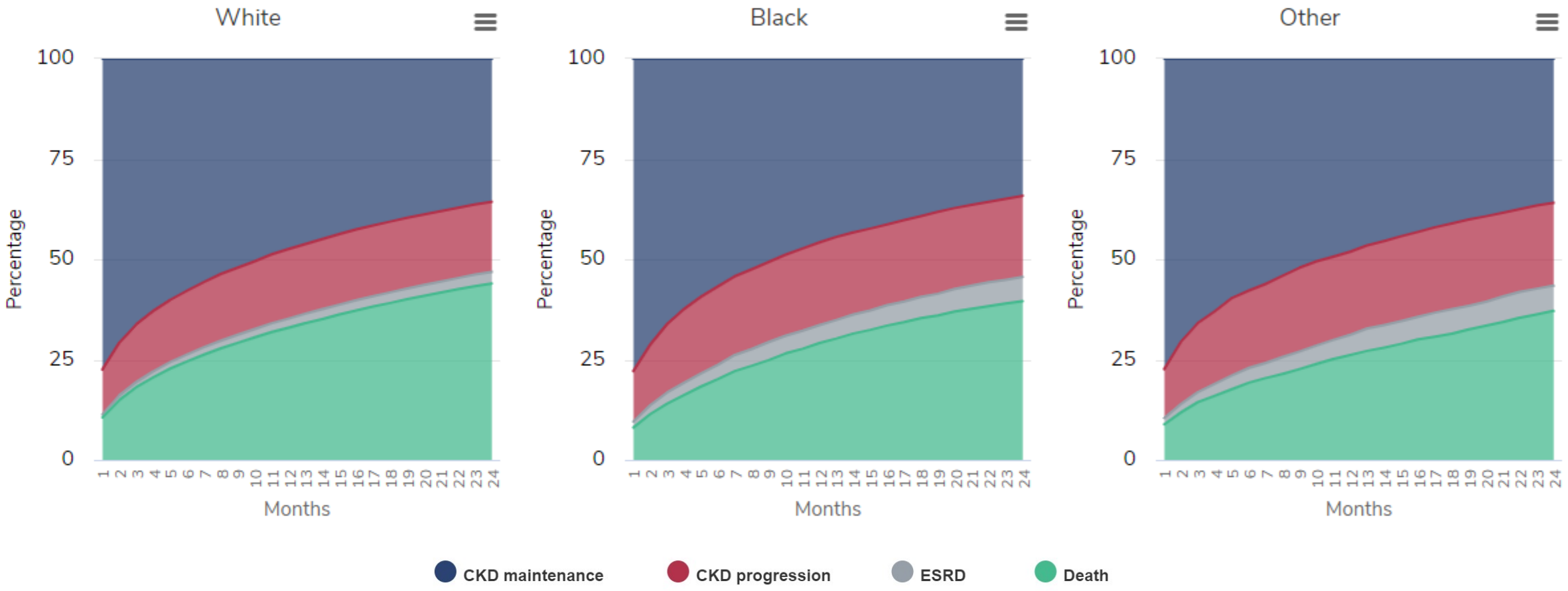


USRDS 2020

Uneven distribution of outcomes after AKI



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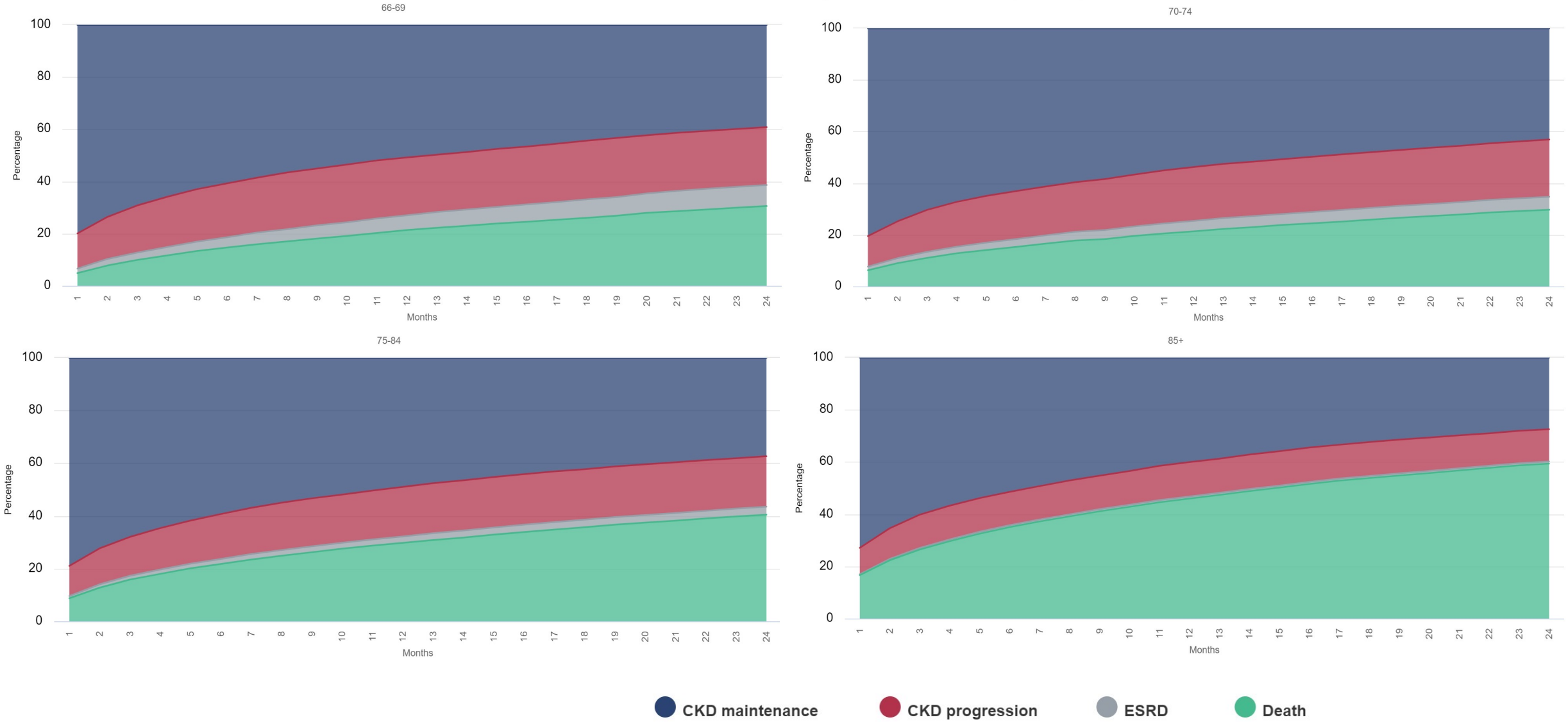

Data Source: 2020 United States Renal Data System Annual Data Report

Learning Objectives

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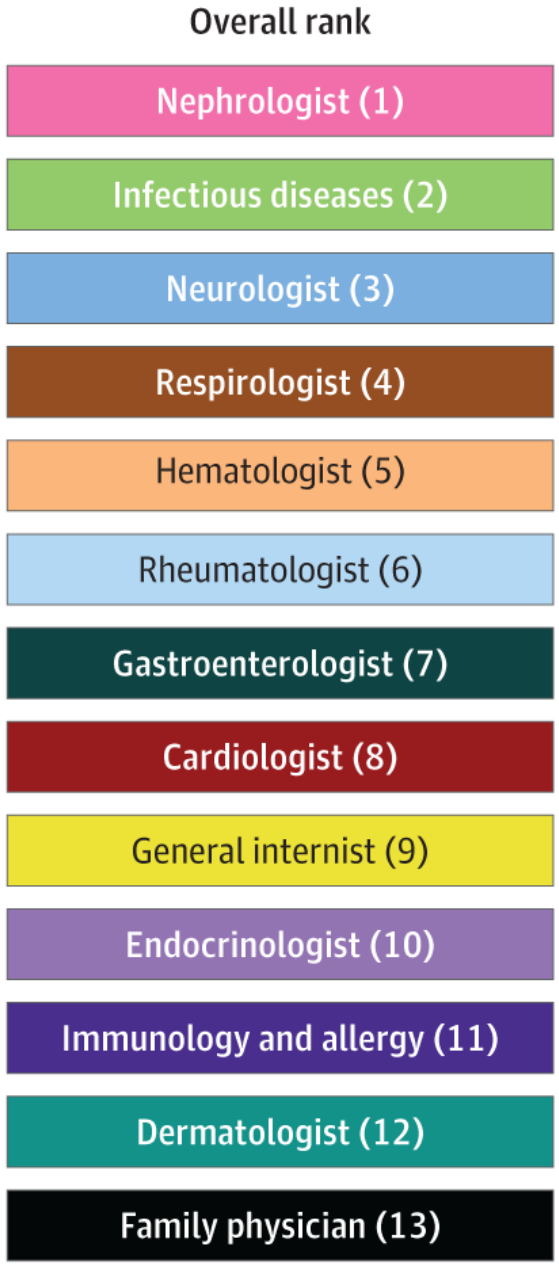
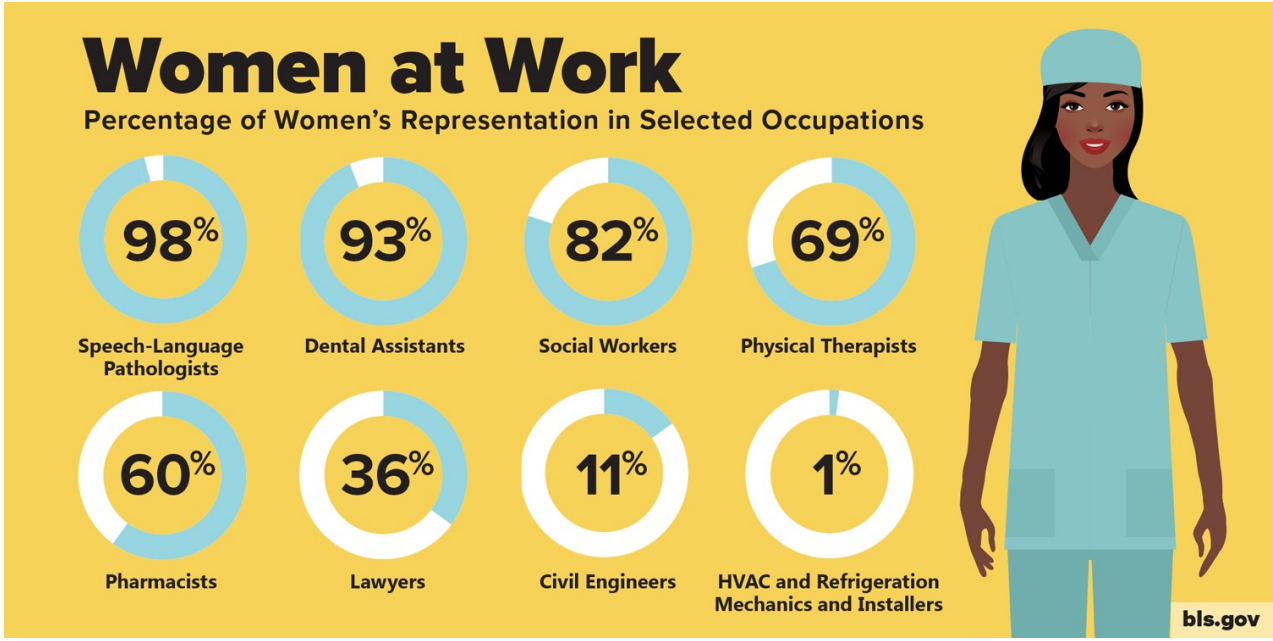
Potential issues facing CKD/ESKD patients

- Complex care needs
  - Delayed transplantation (evaluation, surgery, etc)
  - Impaired access to follow up care; outpatient dialysis initiation may have been impacted
  - Increased risk of adverse outcomes from COVID-19 infection
  - Transportation



Gender disparities

- Higher prevalence of CKD in women
- Women constitute a disproportionately large proportion of formal and informal caregivers
  - US: 65% of unpaid family caregivers are women
  - 33% of jobs held by women are essential vs. ~28% for men
  - More time spent in unpaid work (~4 hrs/day vs. ~2.5 hrs/day for men)
    - Homeschooling
    - Other child care
  - 79% of healthcare COVID infections



USRDS 2020, OECD, Journal of Women's Health 2020, MMWR 2020

COVID has not affected dialysis patients equally

Figure 13.1 Count and rate of COVID-19 hospitalizations during epidemiologic weeks 8 to 27 of 2020, by patient characteristics, among Medicare fee-for-service beneficiaries receiving dialysis

Data Source: 2020 United States Renal Data System Annual Data Report

VCU Health

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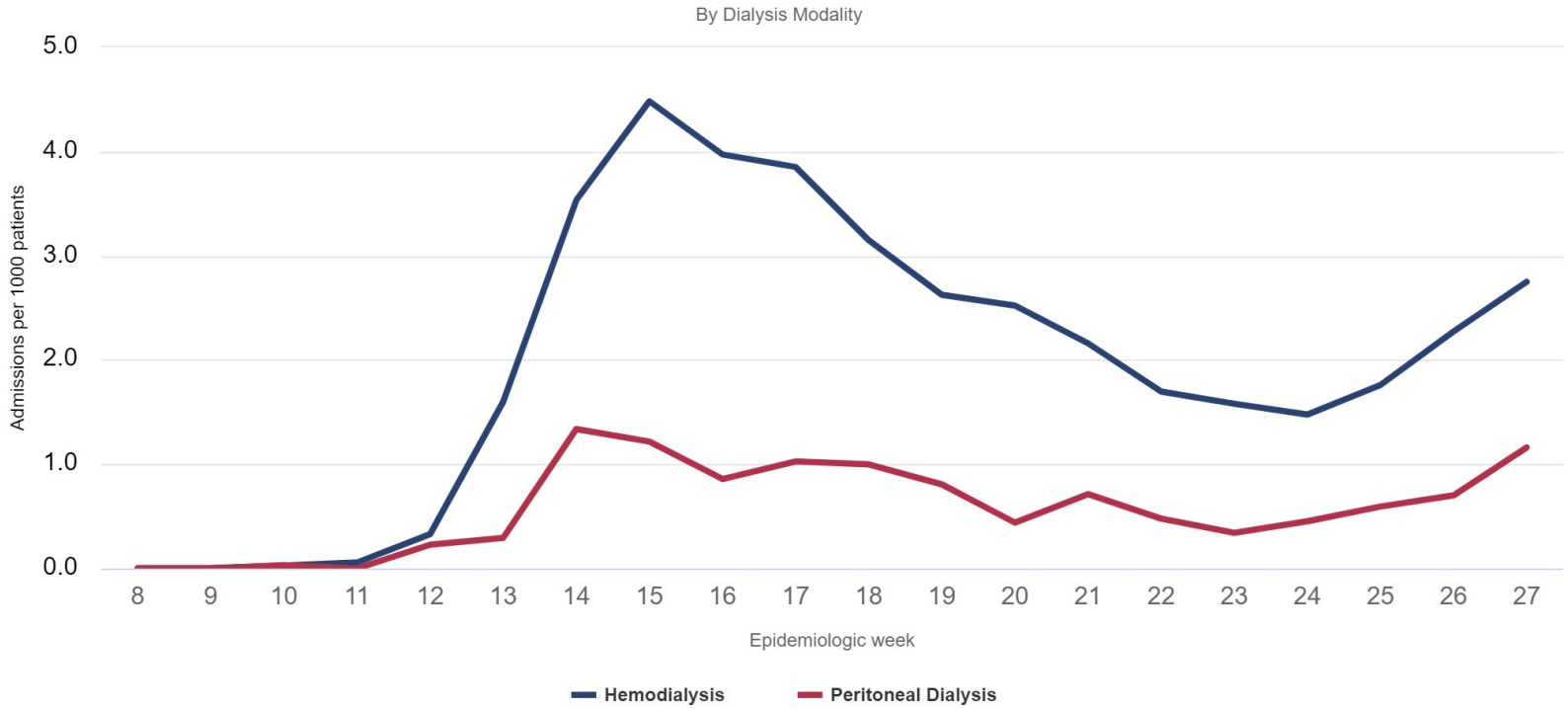
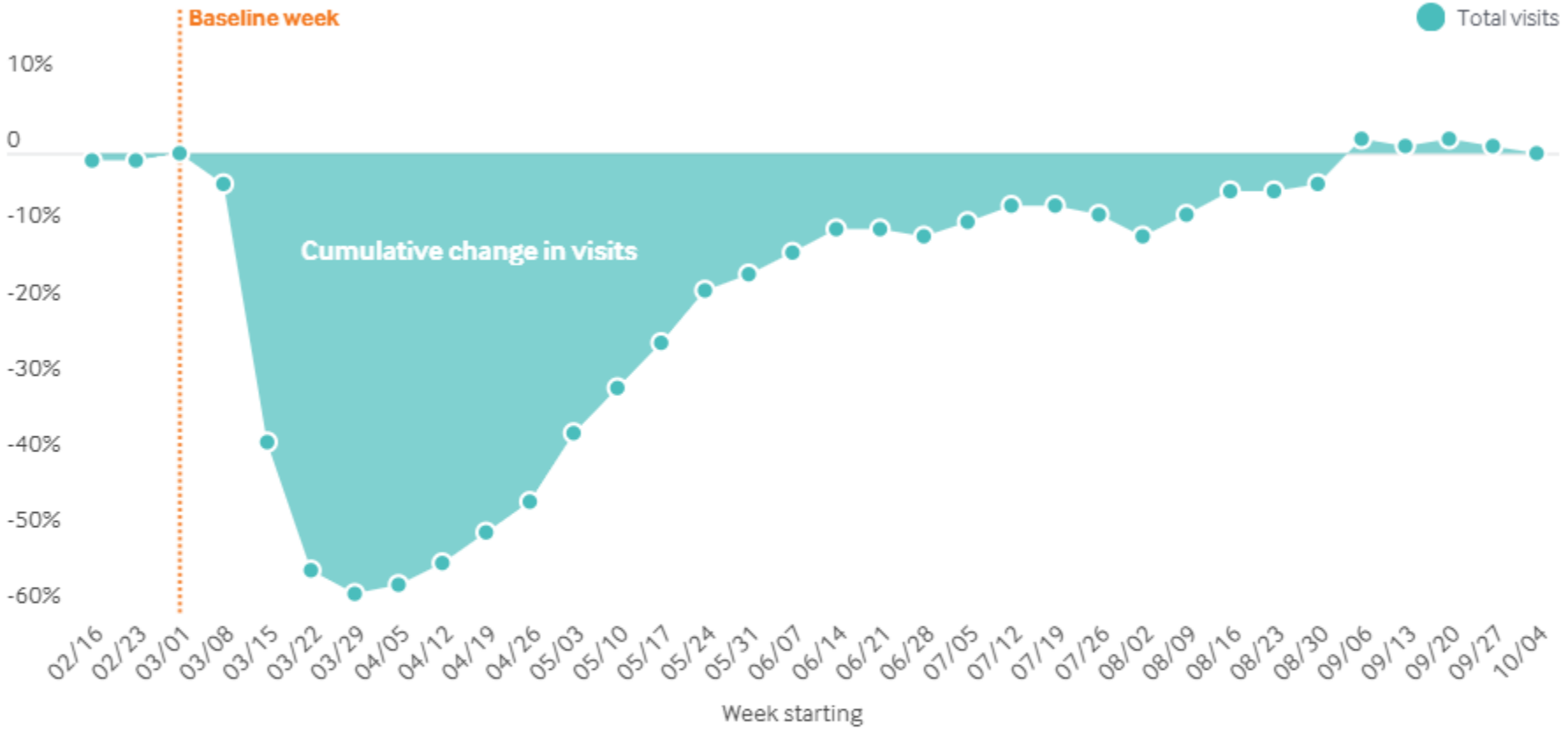


Data Source: 2020 United States Renal Data System Annual Data Report

COVID has significantly impacted access to outpatient care



Download data

Note: Data are presented as a percentage change in the number of visits in a given week from the baseline week (March 1–7).

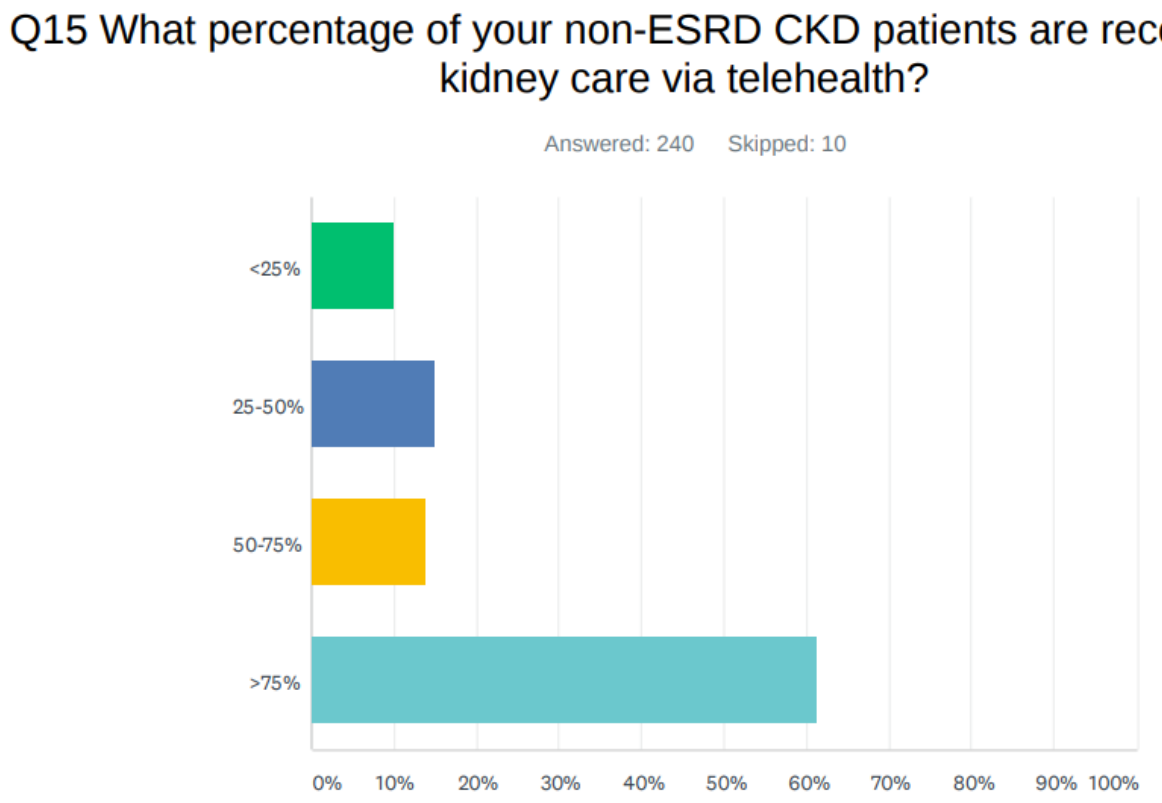
Source: Ateev Mehrotra et al., *The Impact of the COVID-19 Pandemic on Outpatient Care: Visits Return to Prepandemic Levels, but Not for All Providers and Patients* (Commonwealth Fund, Oct. 2020). https://doi.org/10.26099/41xy-9m57

What about telemedicine?

- Utilization has increased significantly
- Potential benefits
- Significant disparities in access/utilization
- Complex care conversations may be more difficult

"You can't list your iPhone as your primary-care physician."

Increasing reliance on telemedicine



RPA Telehealth Survey 2020

ANSWER CHOICES	RESPONSES	
<25%	10.00%	24
25-50%	15.00%	36
50-75%	13.75%	33
>75%	61.25%	147
TOTAL		240

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Disparities in willingness to use telemedicine

- RAND American Life Panel
- Surveyed 2555 adults about their willingness to use telehealth to communicate with a physician to get advice about a health issue

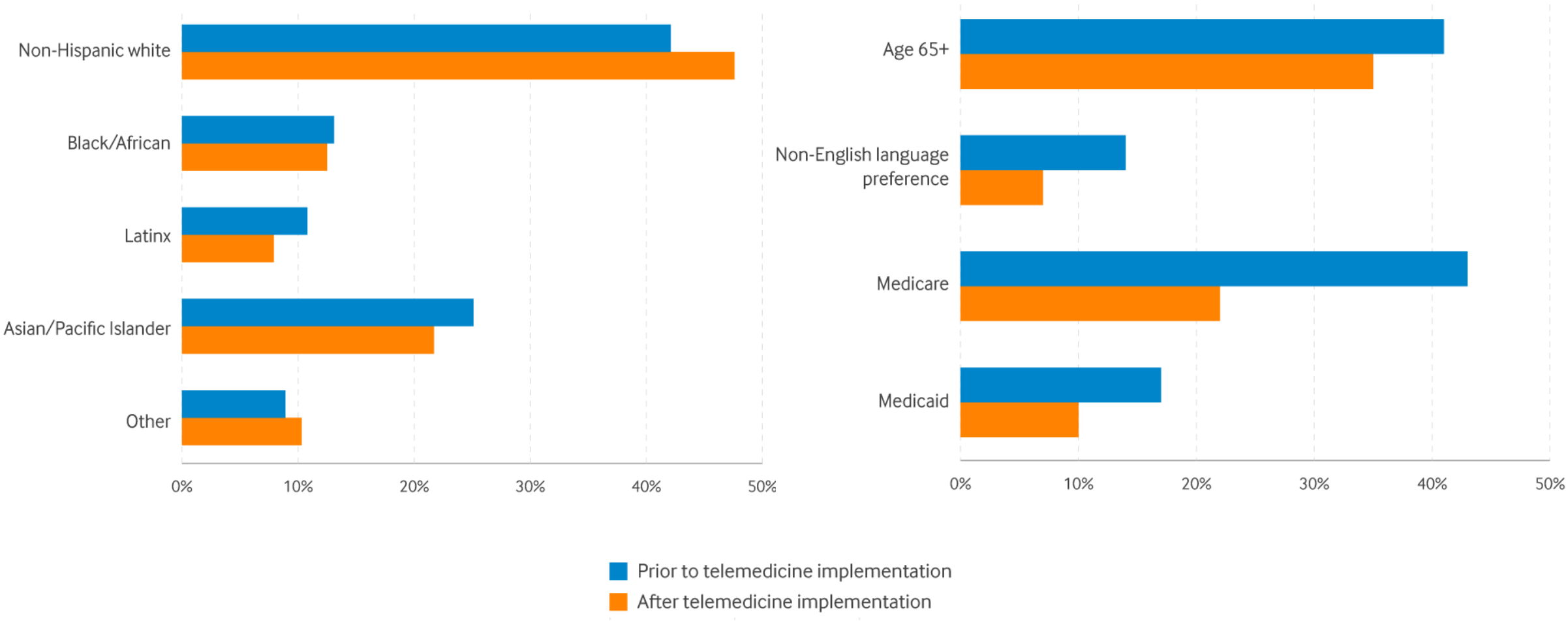
Characteristic	OR (95% CI)
Race: Black	0.59 (0.38-0.91)
Age: > 65	0.51 (0.40-0.66)
Education: high school or less	1
Associate's degree	1.98 (1.39-2.83)
Bachelor's degree	2.65 (1.79-3.90
Advanced degree	2.67 (1.79-3.99)

JAMA Network Open 2020

Disparities in ability to use telemedicine

- Smartphone use is relatively high in the United States, but this may not be enough
  - Quality of cellular/home data connection
  - Data limits
  - Technology literacy
- Generally higher patient understanding/satisfaction with video visits when compared with telephone encounters
- Barriers:
  - Age: adults > 65 with only 55-60% smartphone/broadband access
  - Income: low income individuals with only 71% smartphone ownership, 59% with home broadband
  - Rural location
  - Racial/ethnic minority
- Reimbursement parity between telephone and video visits

Vulnerable populations are being affected



NEJM Catalyst 2020

Learning Objectives

- Gain perspective of existing disparities affecting CKD/ESKD patients
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What can we do?

- Acknowledge that disparities in delivery of healthcare are real
- Address structural inequities
- Remove barriers to delivery of telemedicine care
  - Staff training
  - Workflow optimization
- Policy changes
  - Encouragement of broadband/smartphone adoption
  - Digital literacy
  - Reimbursement parity
- Individual efforts
  - Empathy for difficult conversations (i.e. initiation of dialysis)
  - Extra understanding for “hiccups” in encounters

What can we do?

- Moving toward a post-COVID or at least manageable-COVID future, we have returned in large part to in-person care
- Need better data on current utilization of telemedicine and nephrology services, so we can determine who is being left behind
- What if there is another wave?

In summary

- Significant disparities exist which impact care delivery to CKD/ESKD patients, particularly those from disadvantaged communities.
- The COVID-19 pandemic has exacerbated many of these disparities
- Rapidly evolving
  - Need to be proactive, even without concrete data some steps can be taken to mitigate the impact of the pandemic on disadvantaged populations

Question #1

CKD and ESKD are not distributed equally, showing predominance in older adults

A. True
B. False

Question #2

The COVID pandemic has caused a disproportionate number of hospitalizations in dialysis patients

A. True
B. False

Question #3

What proportion of COVID infections in healthcare workers were in women?

A. The vast majority, 79%
B. Some, 50%
C. Lower proportion, 35%

Case

72yo M is referred for evaluation of rapidly progressive CKD. He has also been diagnosed with stage 2 hypertension but has not started any medication for this. He has difficulty obtaining transportation to the clinic but does have a home health nurse who comes by his home to draw labs. How can we best address his needs?

Case

53yo F with resistant HTN

PMH: ESKD (does not produce urine), chronic pain

Meds: carvedilol 25mg BID, clonidine 0.2mg BID, felodipine 10mg daily

HR 60

Adverse reactions with hydralazine (dyspnea) and ACEi (angioedema)

Limited education

Challenge: what other treatment options are available for this patient? What other factors need to be considered?

Case Studies

Anyone can submit cases: www.vcuhealth.org/echodmhtn

Receive feedback from participants and content experts

Earn **$150** for submitting and presenting

Provide Feedback

www.vcuhealth.org/echodmhtn

- Feedback
  - Overall feedback related to session content and flow?
  - Ideas for guest speakers?

Send us your feedback

vcuhealth.org/services/telehealth/for-providers/education/diabetes-and-hypertension-project-echo

For Providers

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Diabetes and Hypertension Project ECHO

Welcome to the Diabetes and Hypertension Extension for Community Health Outcomes or ECHO, a virtual network of multidisciplinary diabetes and hypertension experts. An ECHO model connects professionals with each other in real-time collaborative virtual sessions on Zoom. Participants present de-identified cases to one another, share resources, connect to each other, and grow in their expertise. This ECHO will address practice level issues and solutions related to managing complex patients with difficult to control diabetes and hypertension. Register now for an ECHO Session!

Network, Participate and Present

- Engage in a collaborative community with your peers.
- Listen, learn and discuss informational and case presentations in real-time.
- Take the opportunity to submit your de-identified case study for feedback from a team of specialists for diabetes and hypertension.
- Provide valuable feedback.
- Claim CE credit by texting in attendance.

Benefits

Thank you for coming!

Text **25397-25389** to **804-625-4041** for CE credit

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Reminder: Mute and Unmute to talk
Press *6 for phone audio
Use chat function for quest