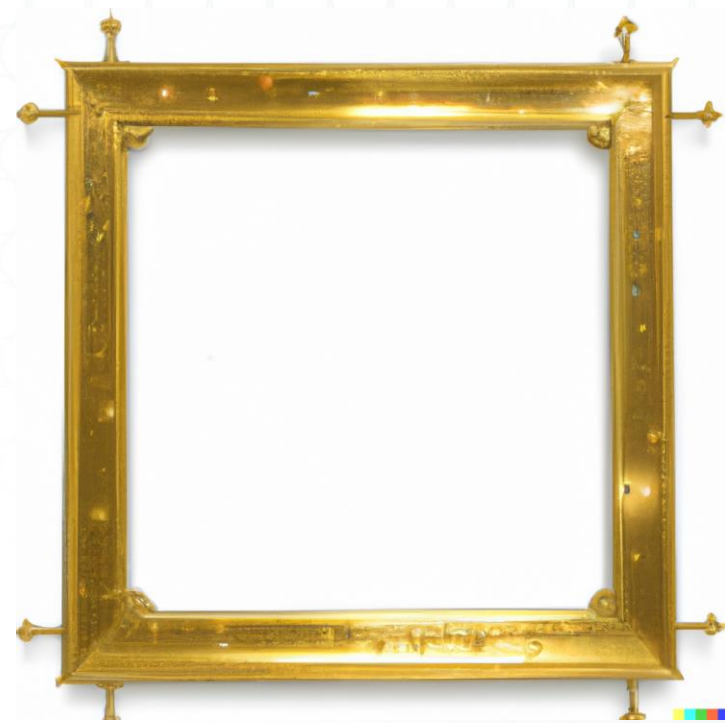


UNOS Policy Update: The Importance of Race-Neutral eGFR Calculation

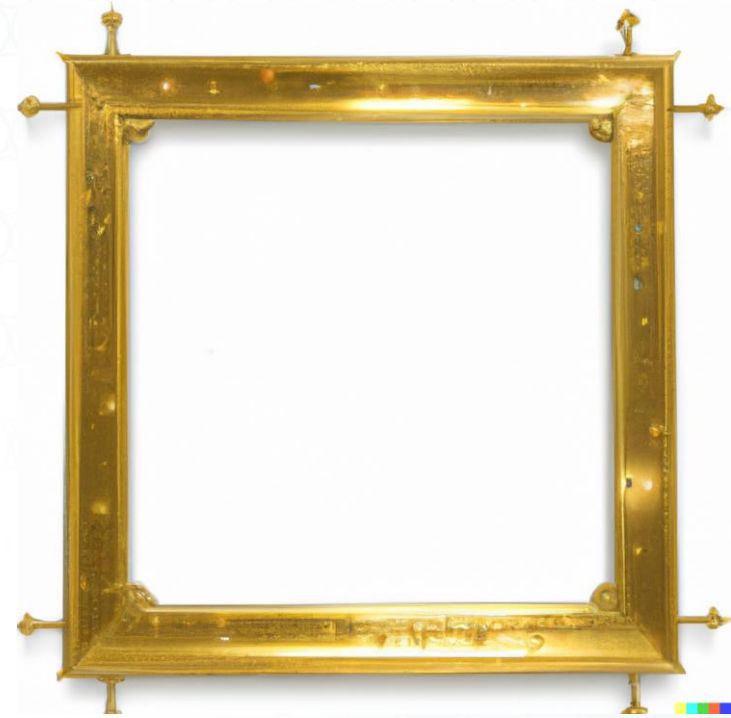
Peter Reese, MD, PhD
Professor of Medicine & Epidemiology

The big picture: eGFR equations



- The traditional equations assigned Black Americans a slightly higher eGFR compared to identical non-Black individuals
- These equations worked pretty well for the field for 20 years ...
- Why do we have to go through this big change?

The big picture: Why change eGFR equations?



- Moral distress at using race to determine someone's health status or health care
- Disparities in access to kidney transplantation (today's topic)

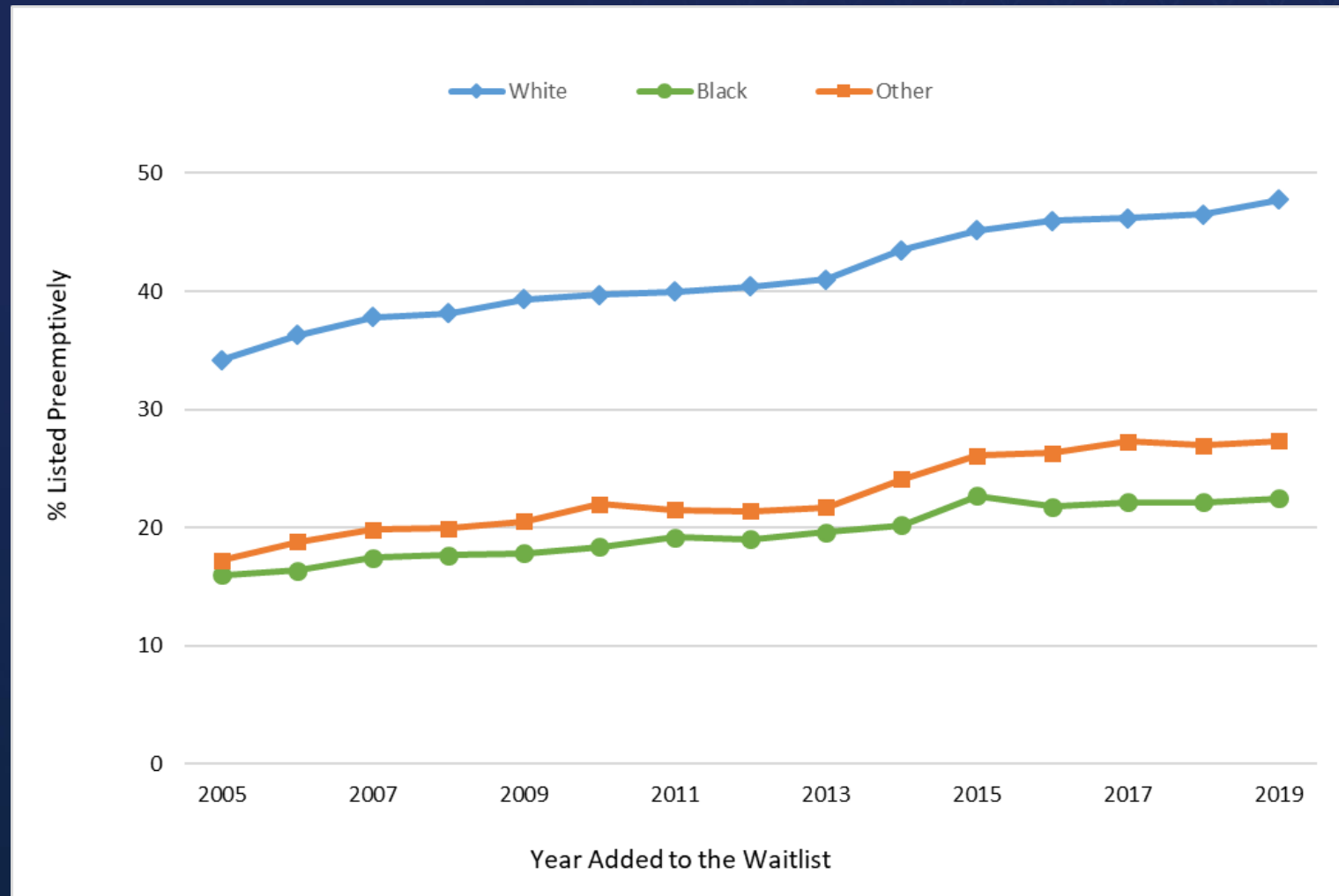
Kidney transplant wait-listing policy in 2019

- Patient arrives at transplant center **after starting dialysis** → waiting time back-dated to when patient started dialysis
- Patient arrives at transplant center **before starting dialysis** → waiting time can be back-dated to the first time the person had a documented eGFR < 20 ml/min/1.73 m²
 - This low eGFR could have happened because the kidney disease progressed to an advanced level
 - This low eGFR could also have happened because a person with kidney disease had a temporary injury - for instance from getting the flu
- A Black patient would be assigned a higher eGFR and might quality for the waiting list later than an otherwise identical White patient with the same creatinine

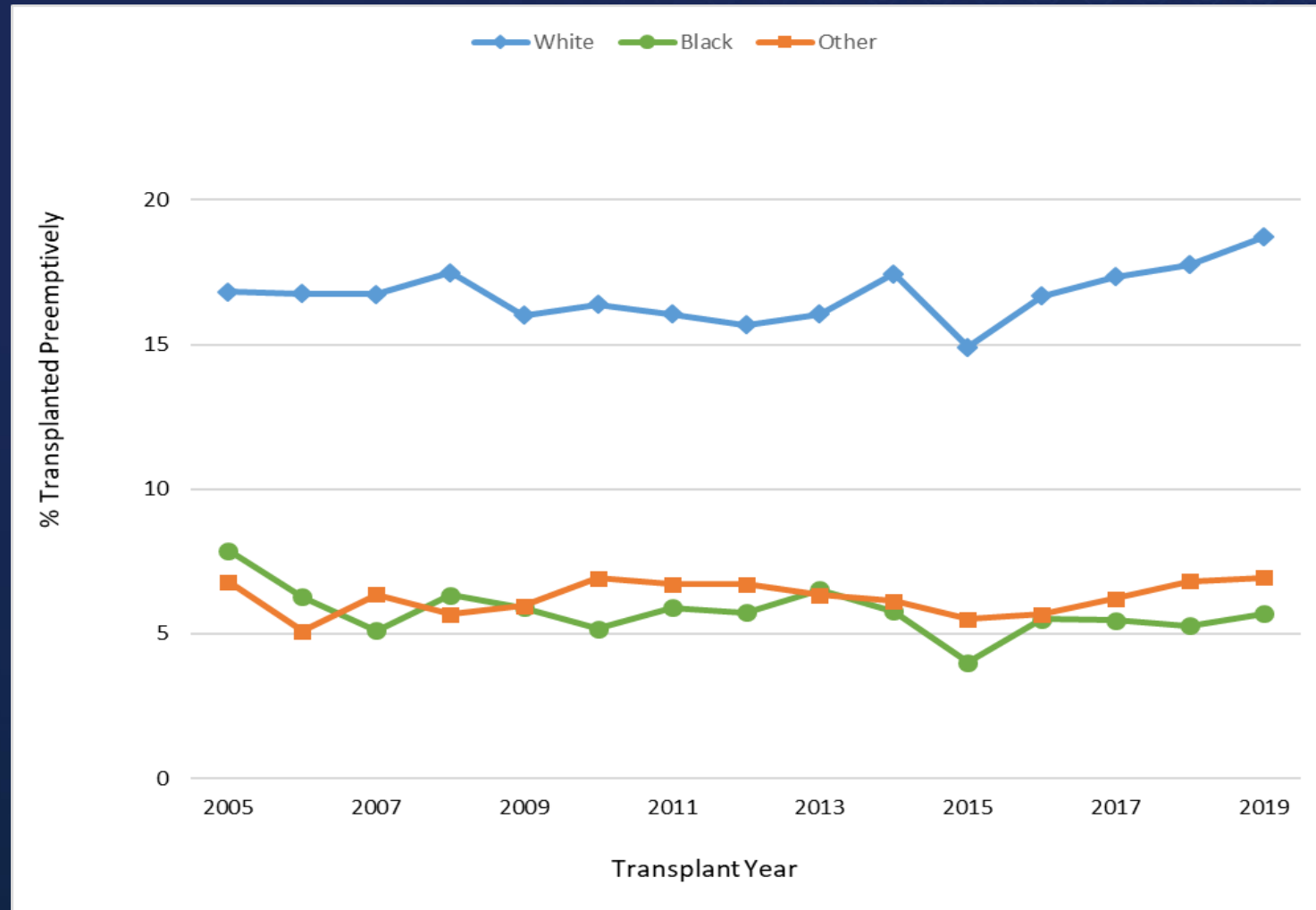
- **Could race-based eGFR equations be contributing to disparities in access to the kidney transplant waiting list?**



Major racial disparities in pre-dialysis waitlisting for kidney transplantation, over time*



Major racial disparities in pre-dialysis deceased donor kidney transplantation, over time*



The problem of race-based medical practice: The case of eGFR in 2019

- **Using race to tailor clinical care is justified only if:**
 - 1) that use confers substantial benefit (**maybe**);
 - 2) the benefit cannot be achieved through other feasible approaches (**not sufficiently explored**);
 - 3) patients who refuse race categorization are accommodated fairly (**unclear**); and
 - 4) the use of race is transparent (**unlikely**)



Eneanya, Yang, Reese. *JAMA*. 2019



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New Creatinine- and Cystatin C–Based Equations to Estimate
GFR without Race

L.A. Inker, N.D. Eneanya, J. Coresh, H. Tighiouart, D. Wang, Y. Sang, D.C. Crews, A. Doria, M.M. Estrella, M. Froissart, M.E. Grams, T. Greene, A. Grubb, V. Gudnason, O.M. Gutiérrez, R. Kalil, A.B. Karger, M. Mauer, G. Navis, R.G. Nelson, E.D. Poggio, R. Rodby, P. Rossing, A.D. Rule, E. Selvin, J.C. Seegmiller, M.G. Shlipak, V.E. Torres, W. Yang, S.H. Ballew, S.J. Couture, N.R. Powe, and A.S. Levey, for the Chronic Kidney Disease Epidemiology Collaboration*

- New formulas created that do not use race
- New formulas have good accuracy
- But health professionals still need to be aware of ongoing shortcomings such as measurement problems in very large or very small patients, or the elderly
- A lot of encouragement to use cystatin C as well as creatinine to measure eGFR
- Widely adopted by health systems including PennMedicine



Transplant policy created by diverse stakeholders

- UNOS: The United Network for Organ Sharing
- Policy is generated by committees of interested parties
 - Physicians
 - Patients
 - Living organ donors
 - Families of deceased donors
 - Clergy
 - Organ procurement organization leaders
- Public comment period
- Relatively good transparency ... and substantial interest and comment from journalists, government and community



New policy from UNOS requiring race-free GFR estimation

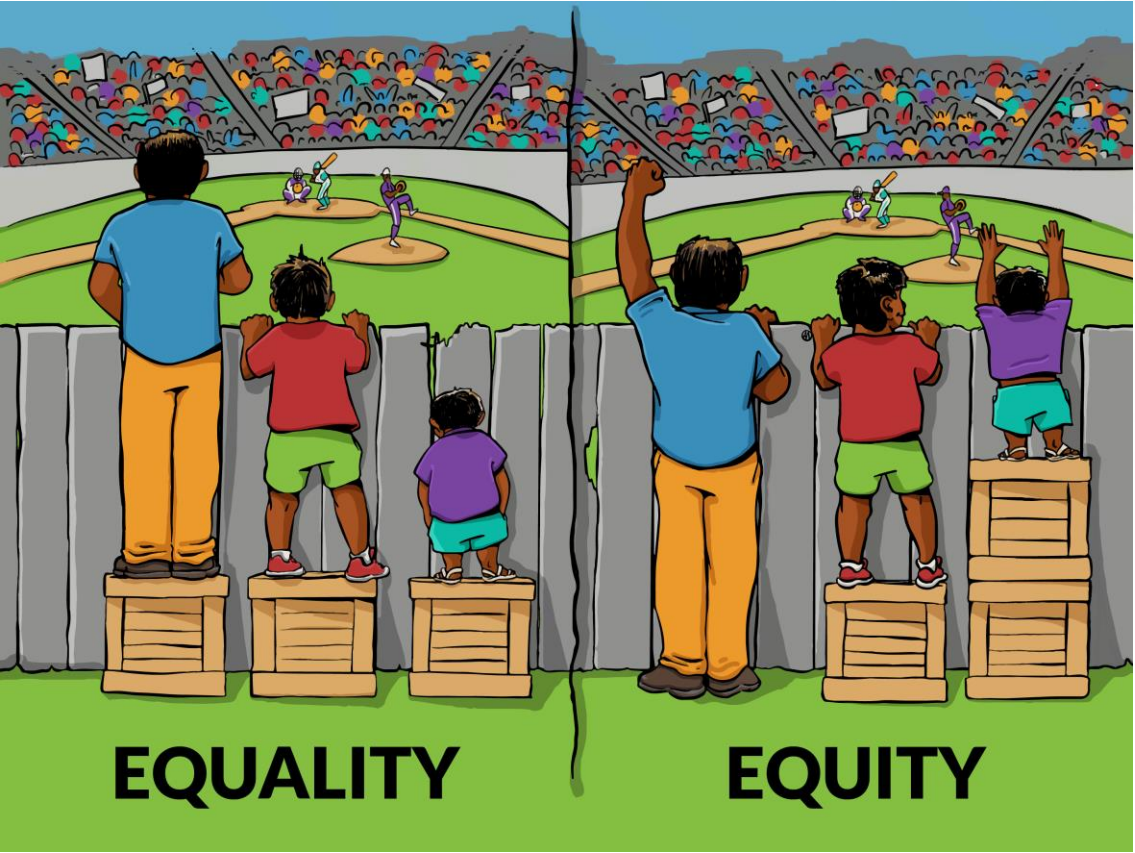
- This change could lead to earlier access to the waiting list for Black Americans
- Recent policy now being implemented
 - → too early to determine the full effects
- Race-free eGFR must also be used for living kidney donor evaluation and eligibility for multi-organ transplant



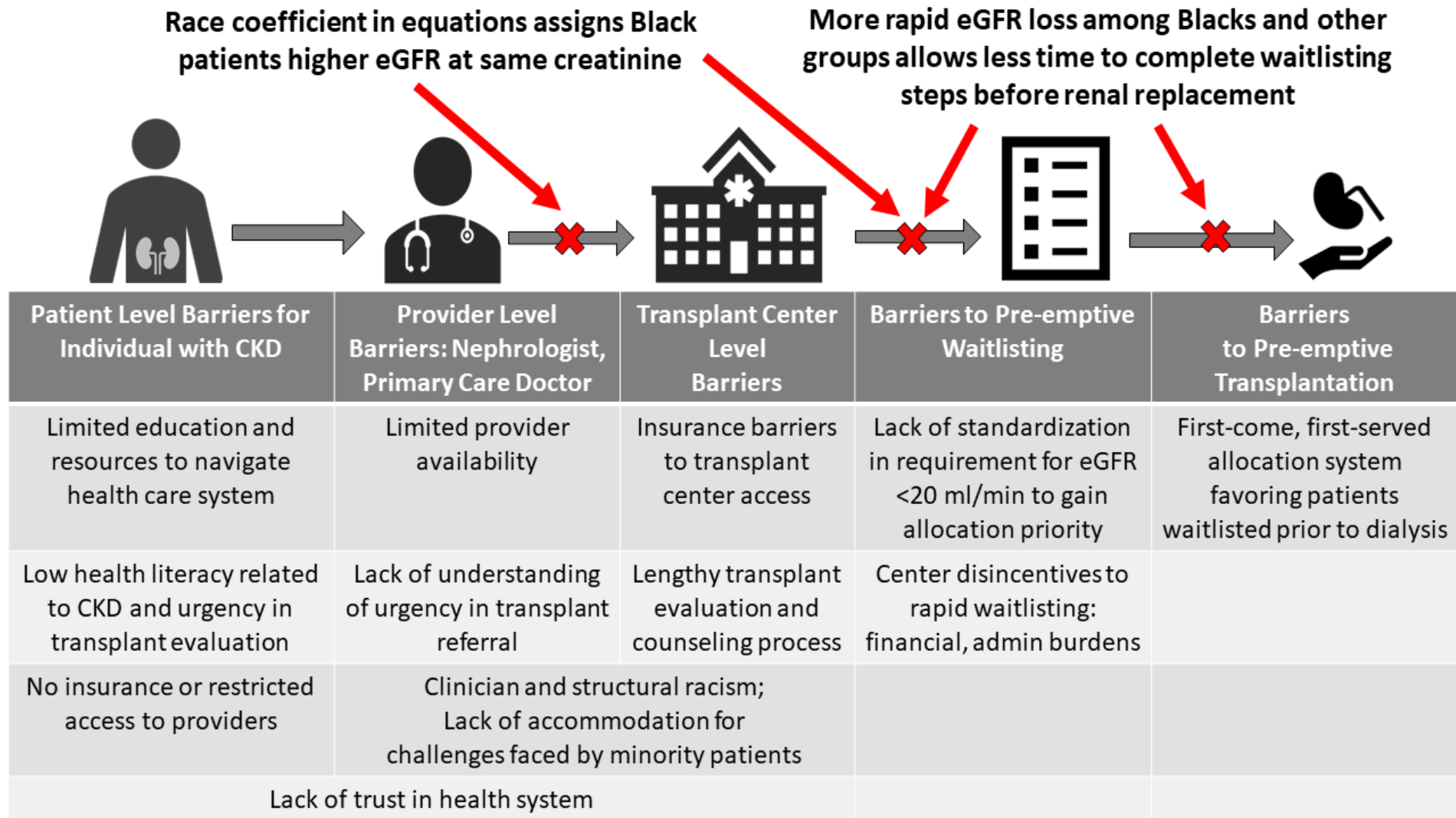
Another new policy from UNOS allowing Black patients to improve their waiting time

- Enables Black patients currently on the waiting list to seek earlier start dates for waiting time if they can show that
 - They had a historical creatinine in which eGFR using race was > 20 , AND
 - That re-calculated eGFR using a race-free formula was < 20
- Applied to patients waitlisted before and after dialysis
- All centers must try to identify patients who would benefit
- Some complaints
 - Lawsuit from California patient arguing that he was harmed - his priority was not changed sooner
 - Complaints from medical directors about lack of fairness to non-Black patients on dialysis

Future directions - Looking beyond GFR



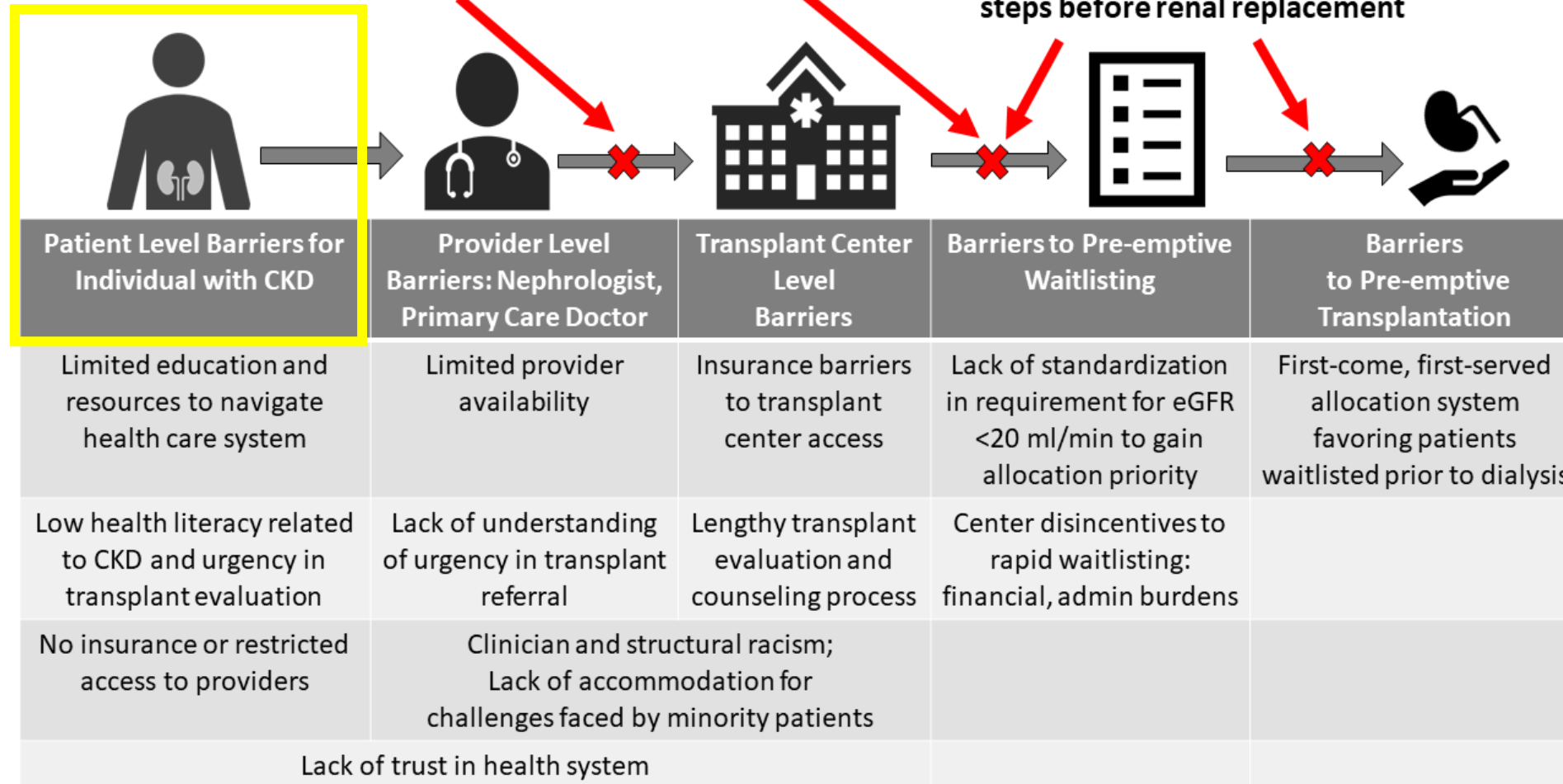
We can't forget - eGFR is only part of the problem



eGFR is only part of the equity problem

Race coefficient in equations assigns Black patients higher eGFR at same creatinine

More rapid eGFR loss among Blacks and other groups allows less time to complete waitlisting steps before renal replacement



Margaret Leid for the invitation and all of
you for listening!

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Clarity about the history and meaning of race

- **Race is a social, not a biological construct**
- The construction of race has been driven by political ideology
- **The construct of race was used to support the idea of a hierarchy of groups, with Whites at the top**
- Common, flawed idea in the US that Black people are biologically and behaviorally different from all other humans
- **Race-based medical practice enabled systemic racism by promoting flawed ideas about Black Americans**
- GFR estimating equations are a paradigm example

- **Message: Racism, not “race”** → a better framework to think about the main drivers of health disparities between racial groups

