

# Disclosures

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I have no financial relationships to disclose within the past 12 months relevant to my presentation. The ACCME defines 'relevant' financial relationships as financial relationships in any amount occurring within the past 12 months that create a conflict of interest.

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# Racial Disparities in Access to Liver Transplantation in the United States

Authors

# Background

- Center variation and disparities in access to the liver transplant waiting list exist but are still not well understood.

## Aims

- To compare the population of patients listed for liver transplant in each state and center to the local population risk of mortality from liver disease
- To assess for potential regional impact of (1) change in liver distribution (acuity circles) and/or (2) Medicaid expansion on access to liver transplant

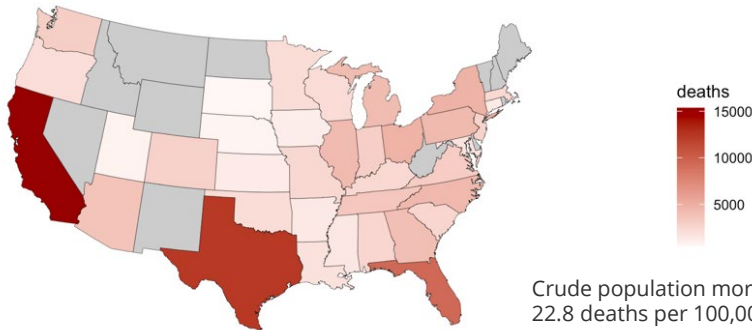
# Methods

- New adult waitlist registrations for liver or liver-kidney transplant in SRTR/OPTN database, 2 years before and after implementation of acuity circles on 2/4/2020
- Excluded centers with fewer than 10 transplants performed
- Population death rates for liver-related causes of death among adults aged 18-70 obtained from CDC WONDER 2018-2020
- For each **state**, calculated the listing-to-death ratio (LDR) (ie, the number of listings to the number of liver-related deaths per state)
- For each **center**, calculated proportion of listings and transplants by race, relative to the population liver-related mortality risk by state
- Mixed effects linear regression model to assess impact of post-acuity circles era and state Medicaid expansion status on center-level variance

# Results

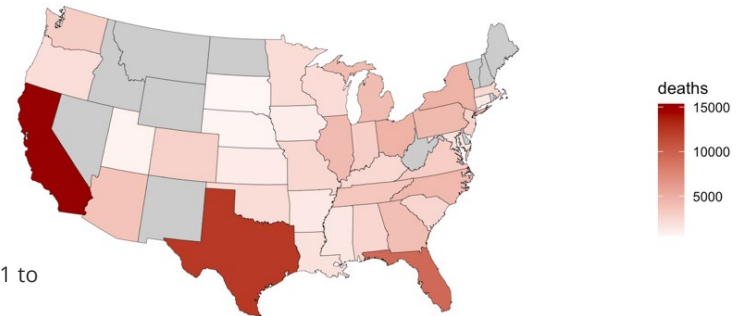
- 118 eligible liver transplant centers with 50,141 new waitlist registrations
- Median age 58 years (IQR 49-64 years)
- 69.8% White, 17.4% Hispanic, 6.9% Black

## Liver-related deaths by state



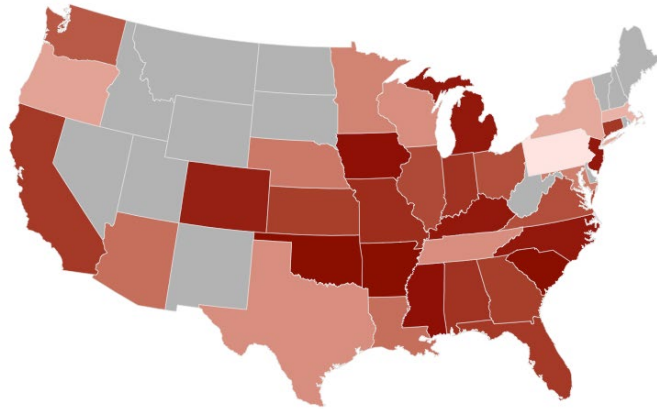
Crude population mortality rates range from 10.1 to 22.8 deaths per 100,000 persons by state

## Number of listings by state



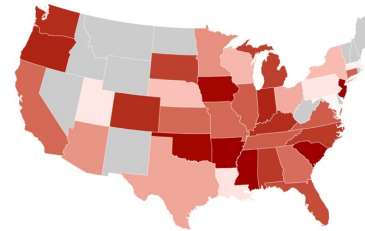
# Results

## LDR by state of the listing center

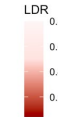
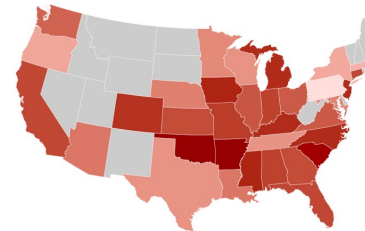


LDR not significantly different between states that did or did not expand Medicaid (0.27 versus 0.25,  $P = .28$ )

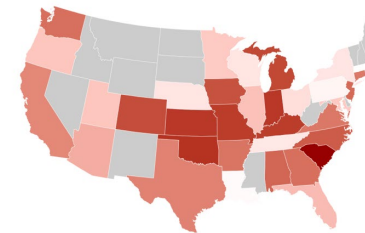
## Race-specific LDR



White



Black



Hispanic

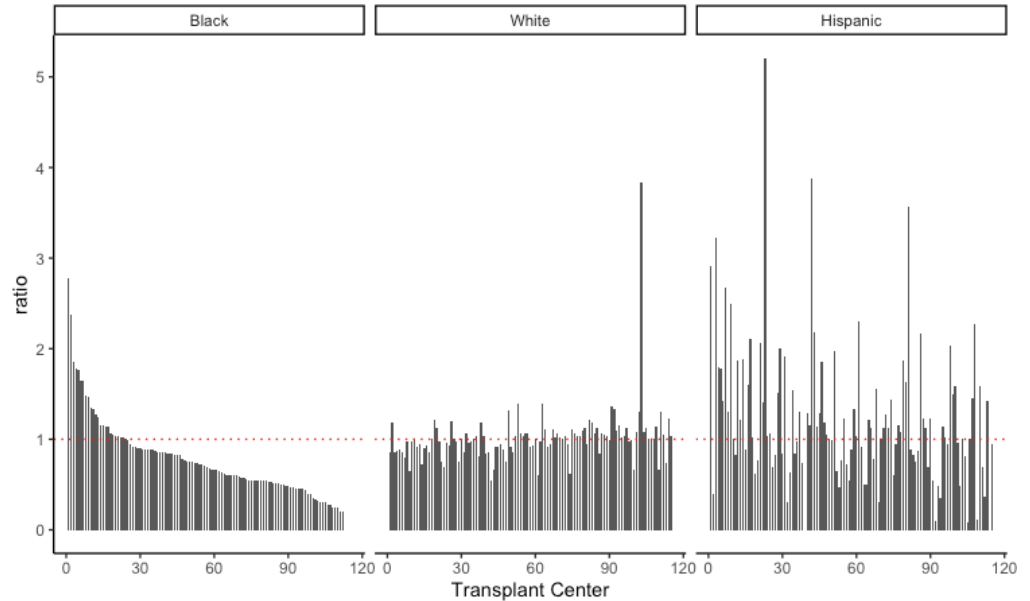
# Results

## Ratio of center listings to the state liver-related mortality, by race

### Significant center variation

- Black (0.70, IQR 0.52-0.90)
- White (1.00, IQR 0.91-1.08)
- Hispanic (1.06, IQR 0.78-1.52)

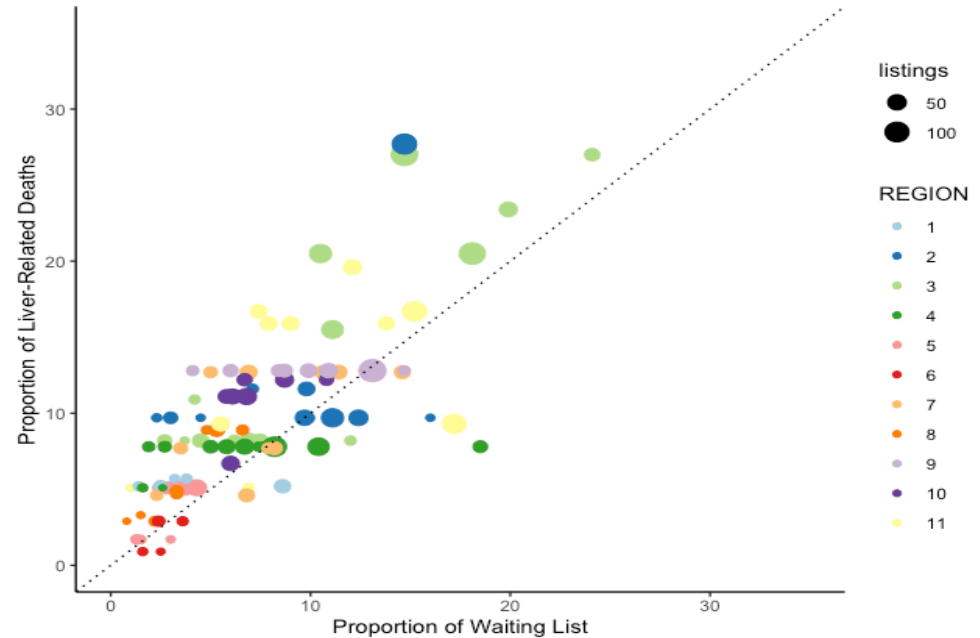
42 centers added fewer Black patients to the waiting list than expected (ie, 1 SD below the baseline population risk)



# Results

- Centers 1 SD below the baseline population risk before acuity circles exhibited no change after the policy change ( $P = .31$ )
- Post-acuity circles era not associated with the center-level variance, either for new waitlist additions or transplants ( $P > .05$ )
- No difference in variance between centers in states that did or did not expand Medicaid ( $P = .91$ )

## Center variation in the proportion of listings for Black patients, relative to the crude state population liver-related mortality rate





# Conclusion

- Liver transplant waiting lists would ideally reflect the underlying population and liver-related mortality risk.
- Racial disparities in access to the liver transplant list persist throughout the United States.
  - No detectable impact related to the implementation of acuity circles or Medicaid expansion



## Transplantation

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