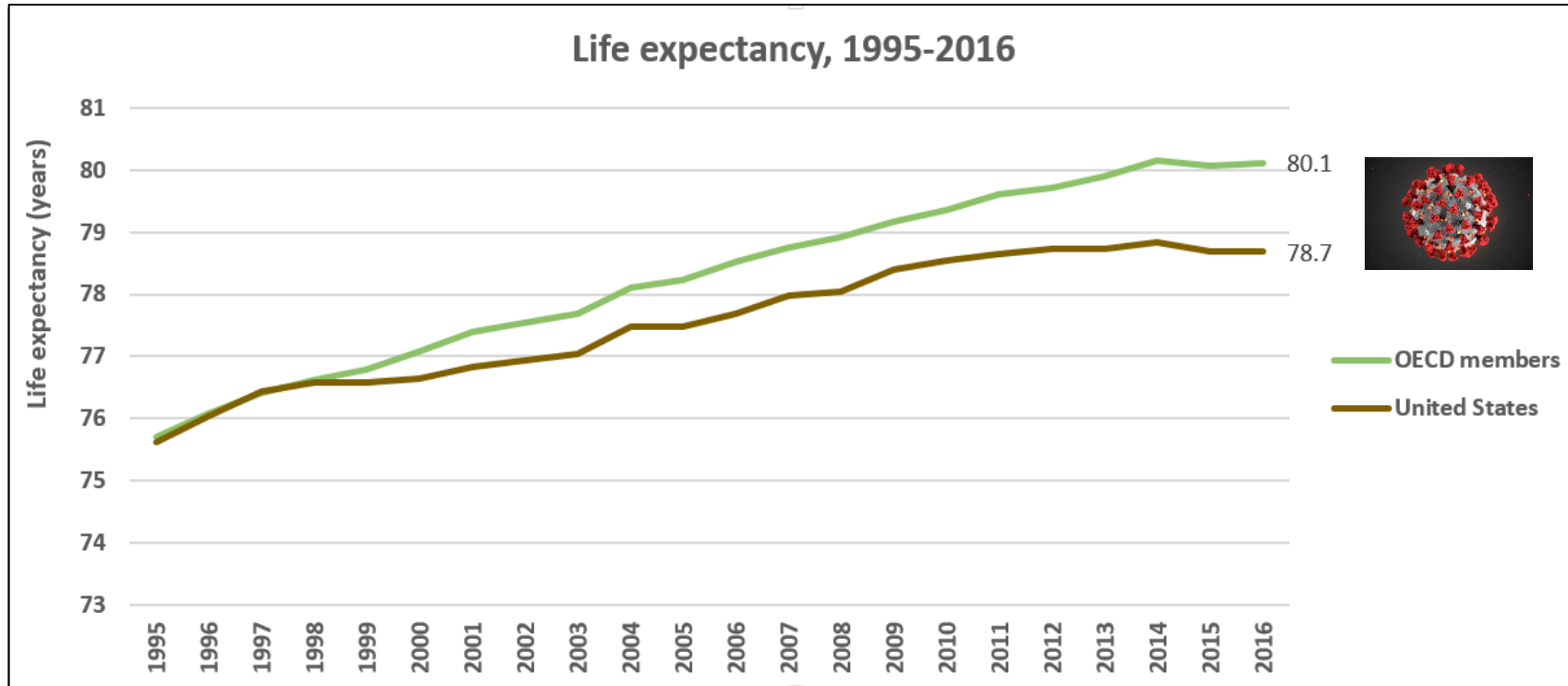


# Increasing All-Cause Mortality in America's Children and Teens

Webinar on The State of Our Children's Health  
National Institute for  
Health Care Management Foundation  
May 8, 2023

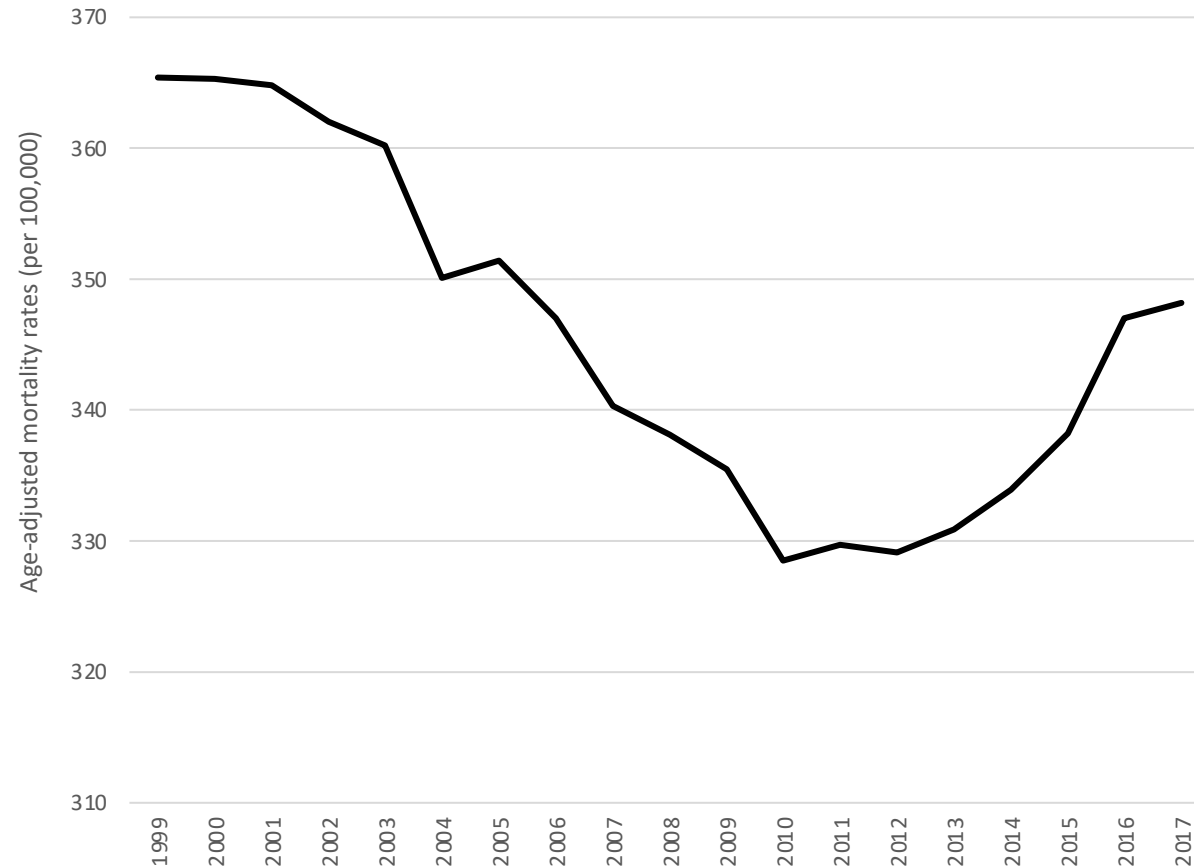
Steven H. Woolf, MD, MPH  
Director Emeritus, Center on Society and Health  
Professor of Family Medicine and Population Health  
Virginia Commonwealth University School of Medicine

# The decline in US health



Source: The World Bank. <https://data.worldbank.org/indicator/sp.dyn.le00.in>

# Midlife mortality (ages 25-64 years), United States, 1999-2017



Source: Woolf et al. *JAMA*. 2019;322(20):1996-2016.

HEALTH

# Death Rates Rising for Middle-Aged White Americans, Study Finds

By GINA KOLATA NOV. 2, 2015



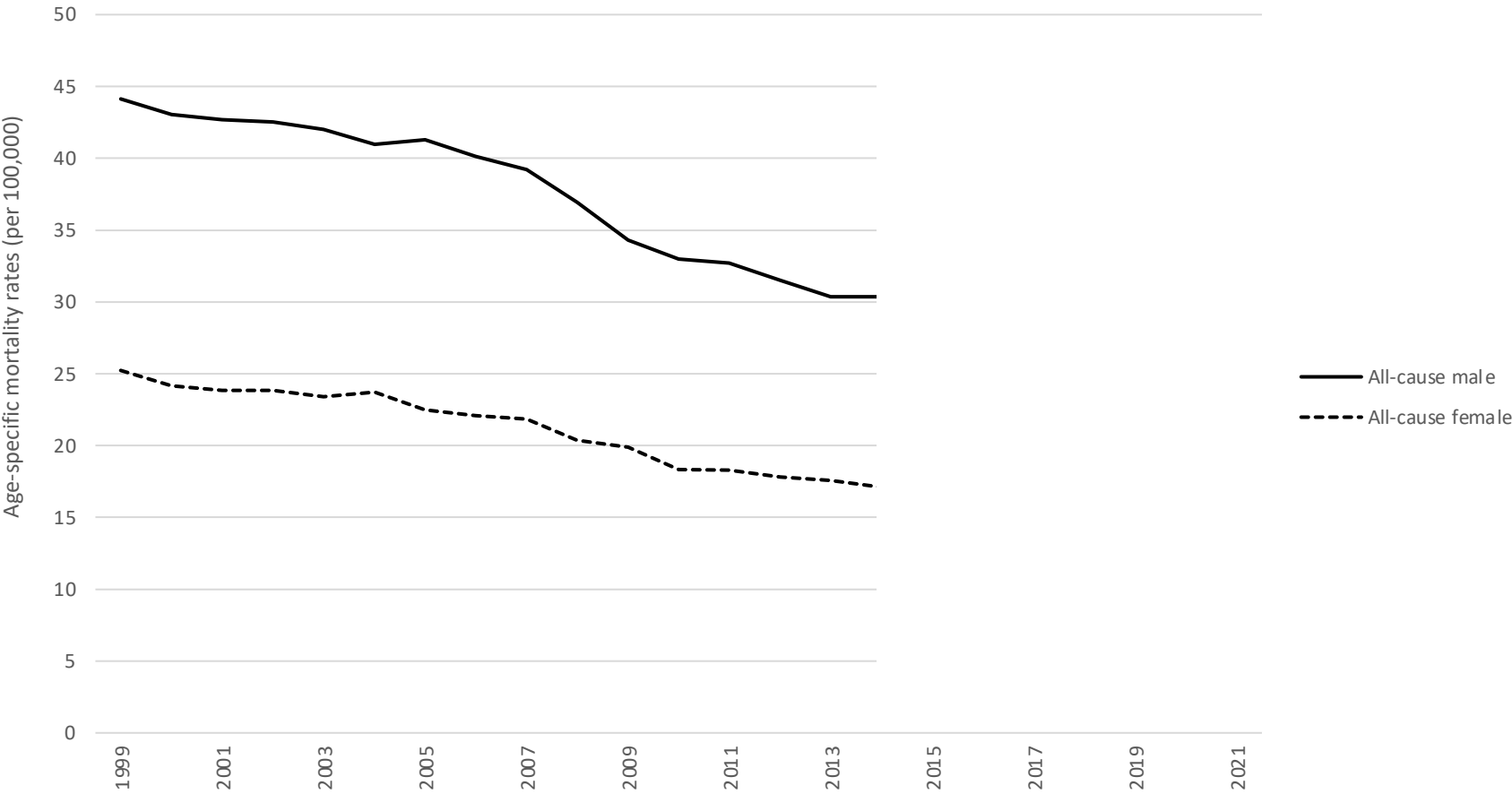
Angus Deaton with his wife, Anne Case, right, last month after he won the 2015 Nobel Memorial Prize in Economic Science. Together, they wrote a study analyzing mortality rates.

Ben Solomon for The New York Times

Something startling is happening to middle-aged white Americans. Unlike every other age group, unlike every other racial and ethnic group, unlike their counterparts in other rich countries, death rates in this group have been rising, not falling.

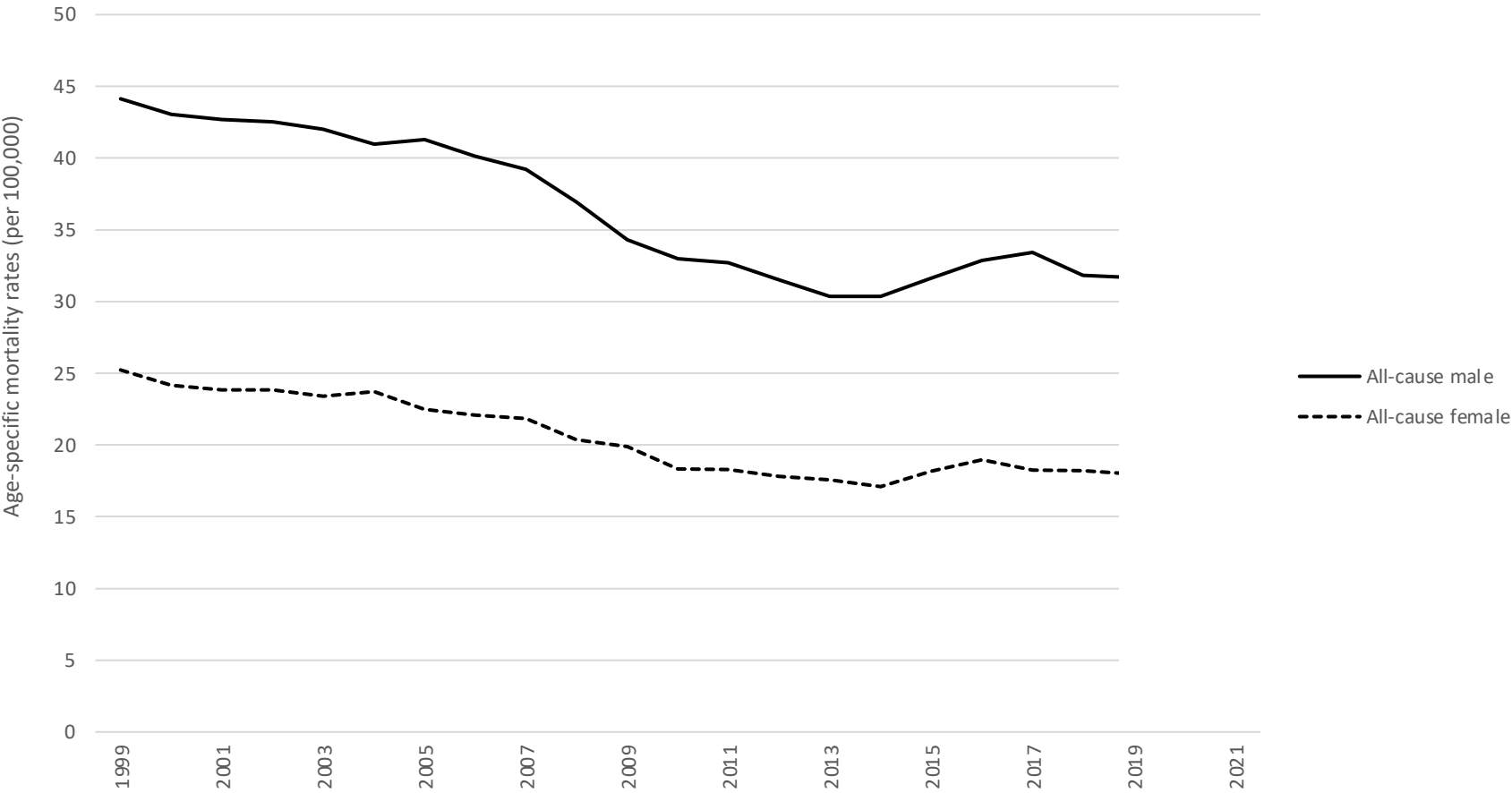
That finding was reported Monday by two Princeton economists, Angus Deaton, who last month [won the 2015 Nobel Memorial Prize in Economic Science](#), and Anne Case. Analyzing health and mortality data from the Centers for Disease Control and Prevention and from other sources, they concluded that rising

# Pediatric mortality rates, ages 1-19, 1999-2014



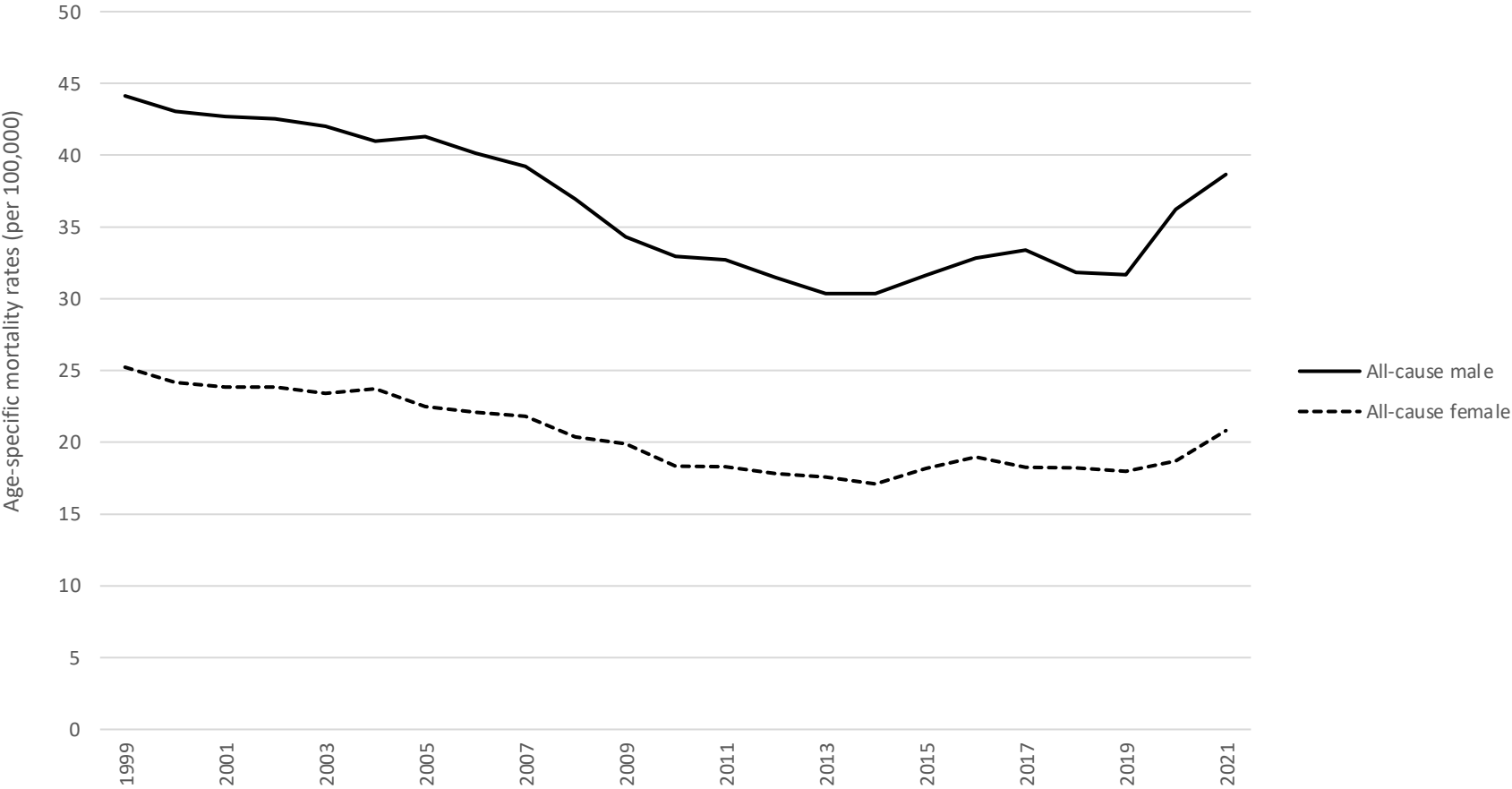
Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Pediatric mortality rates, ages 1-19, 1999-2019



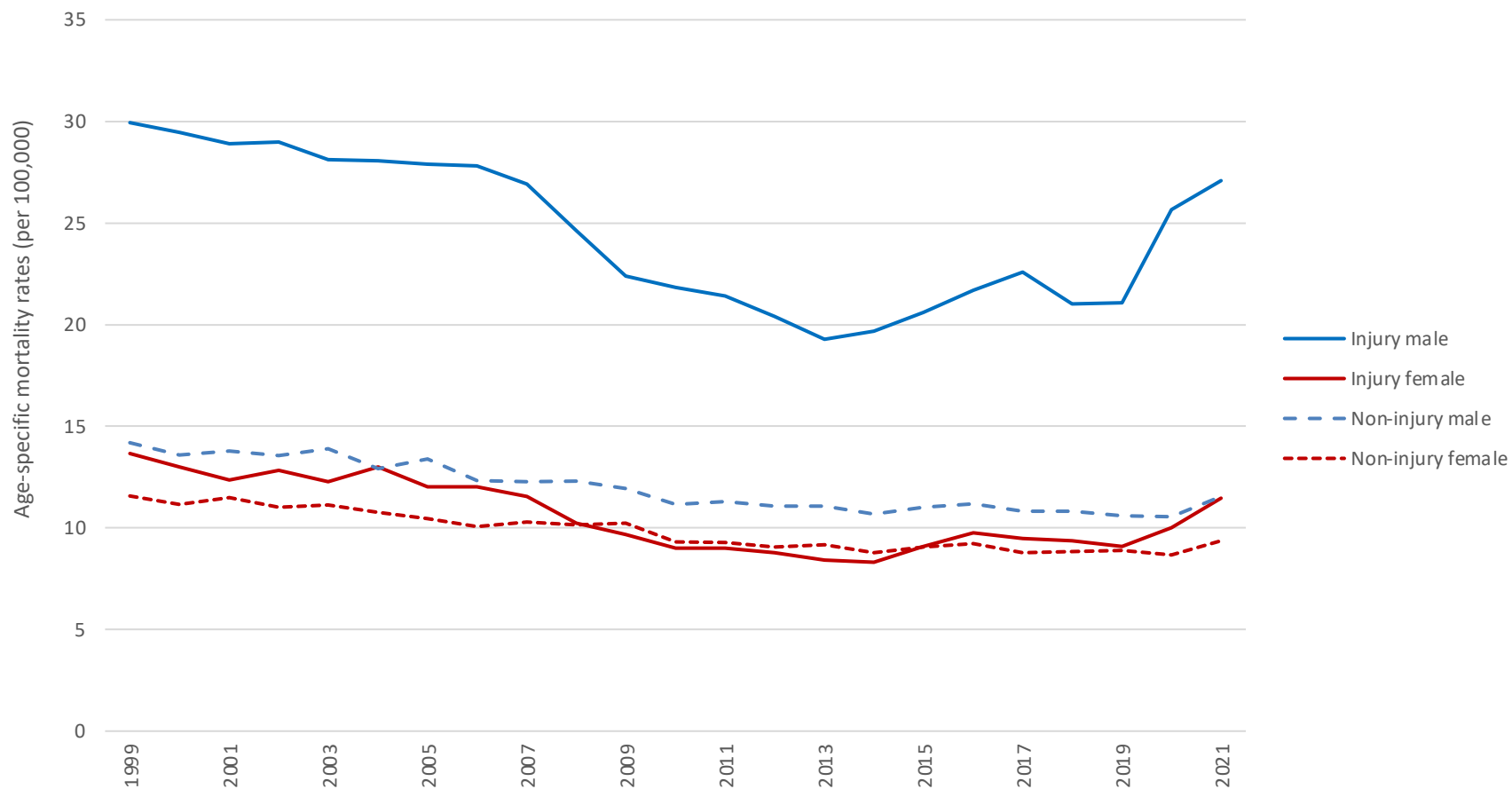
Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Pediatric mortality rates, ages 1-19, 1999-2021



Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Pediatric injury and non-injury mortality rates, ages 1-19, 1999-2021, by sex



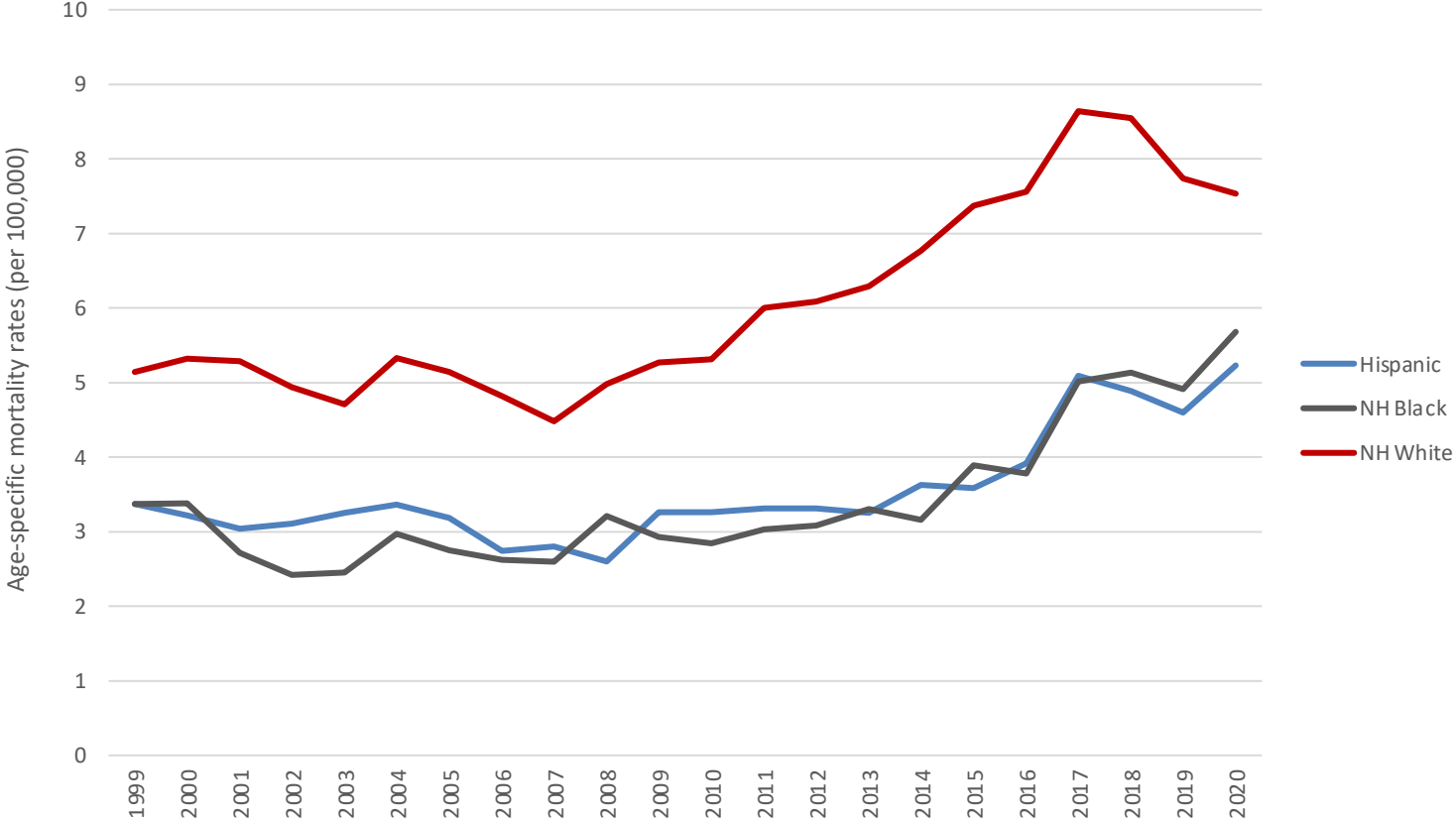
Source: Woolf et al. *JAMA*. 2023;329:975-976.



# Primary drivers of increasing pediatric all-cause mortality

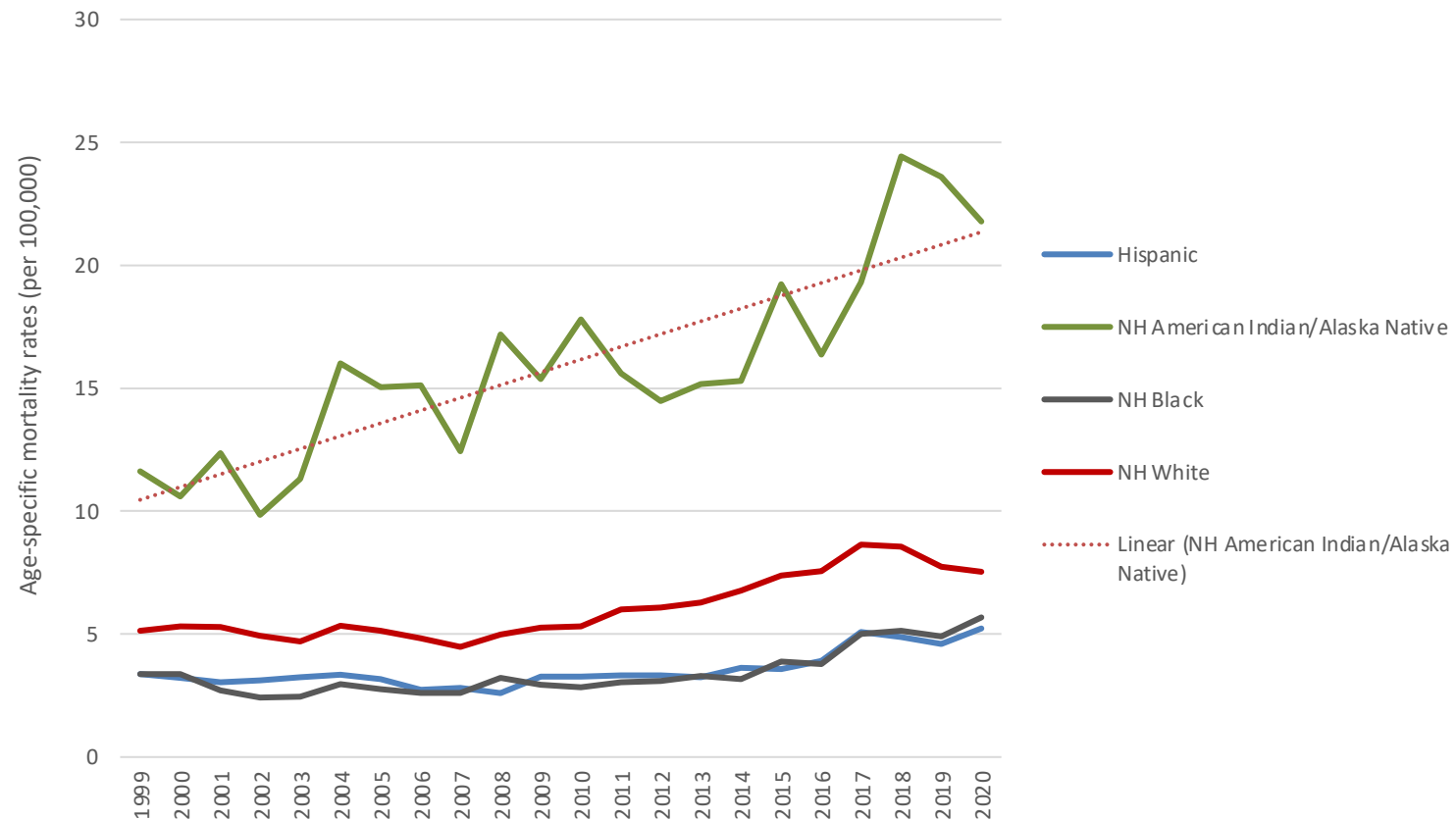
- Suicide
- Homicide
- Accidental drug overdoses
- Motor vehicle crashes (transport accidents)

# Suicide rates, ages 10-19, by race-ethnicity



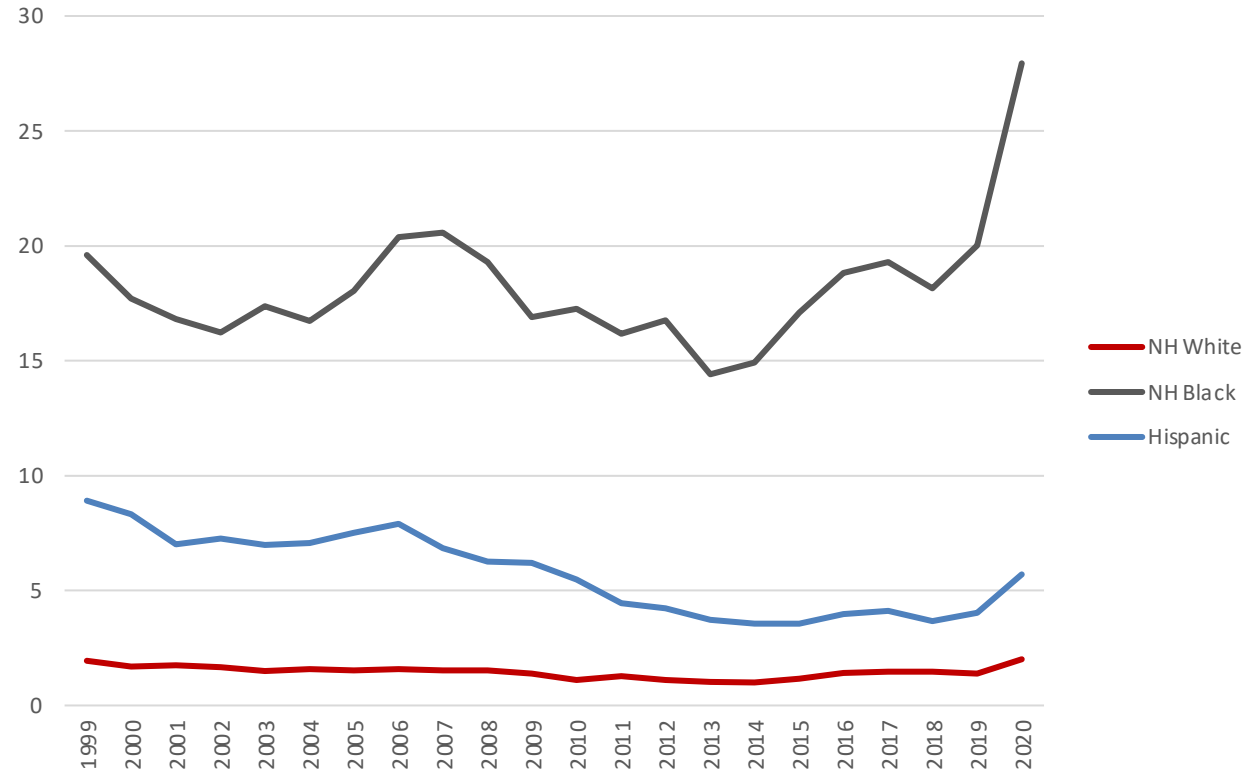
Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Suicide rates, ages 10-19, by race-ethnicity (including American Indian/Alaska Native)



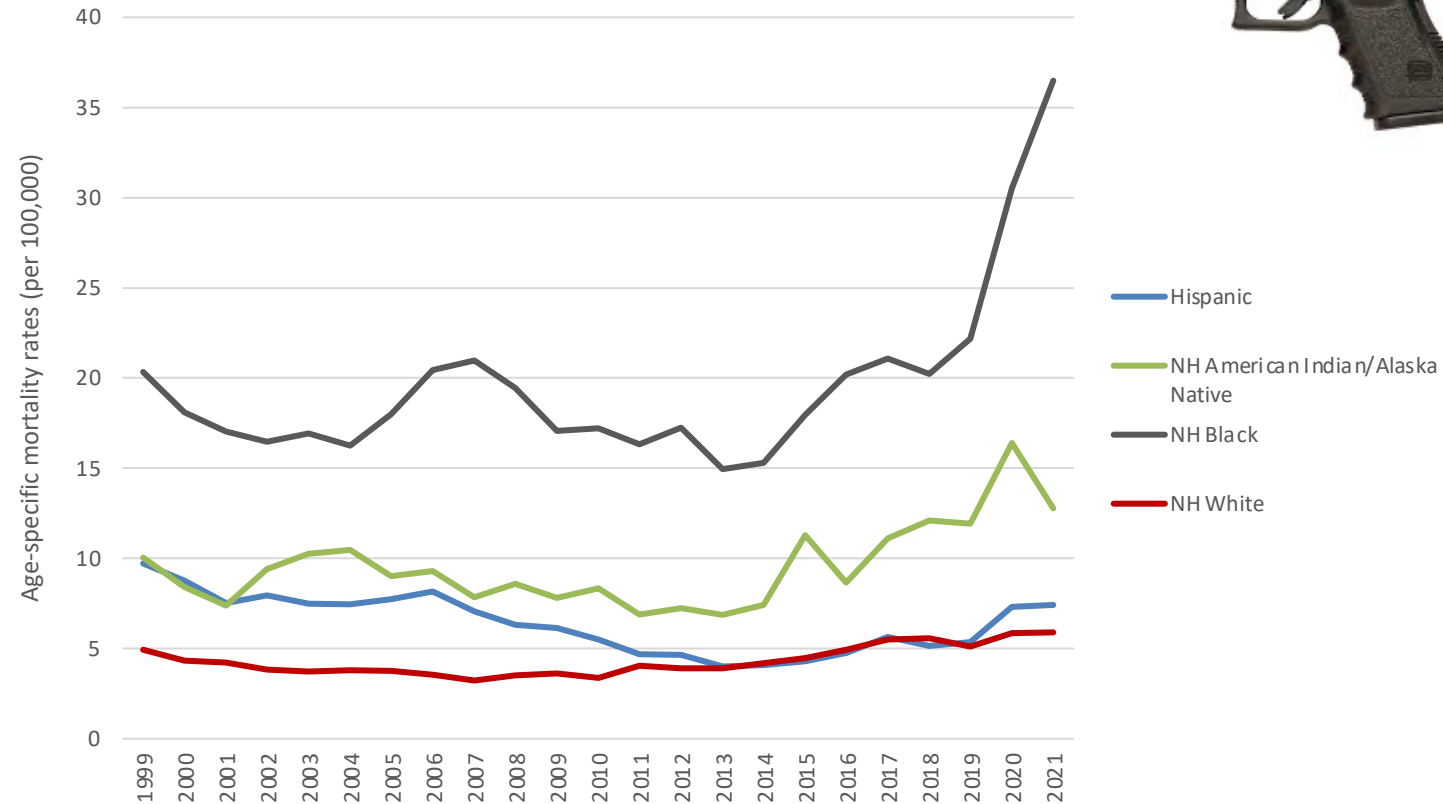
Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Homicide rates, ages 10-19, by race-ethnicity

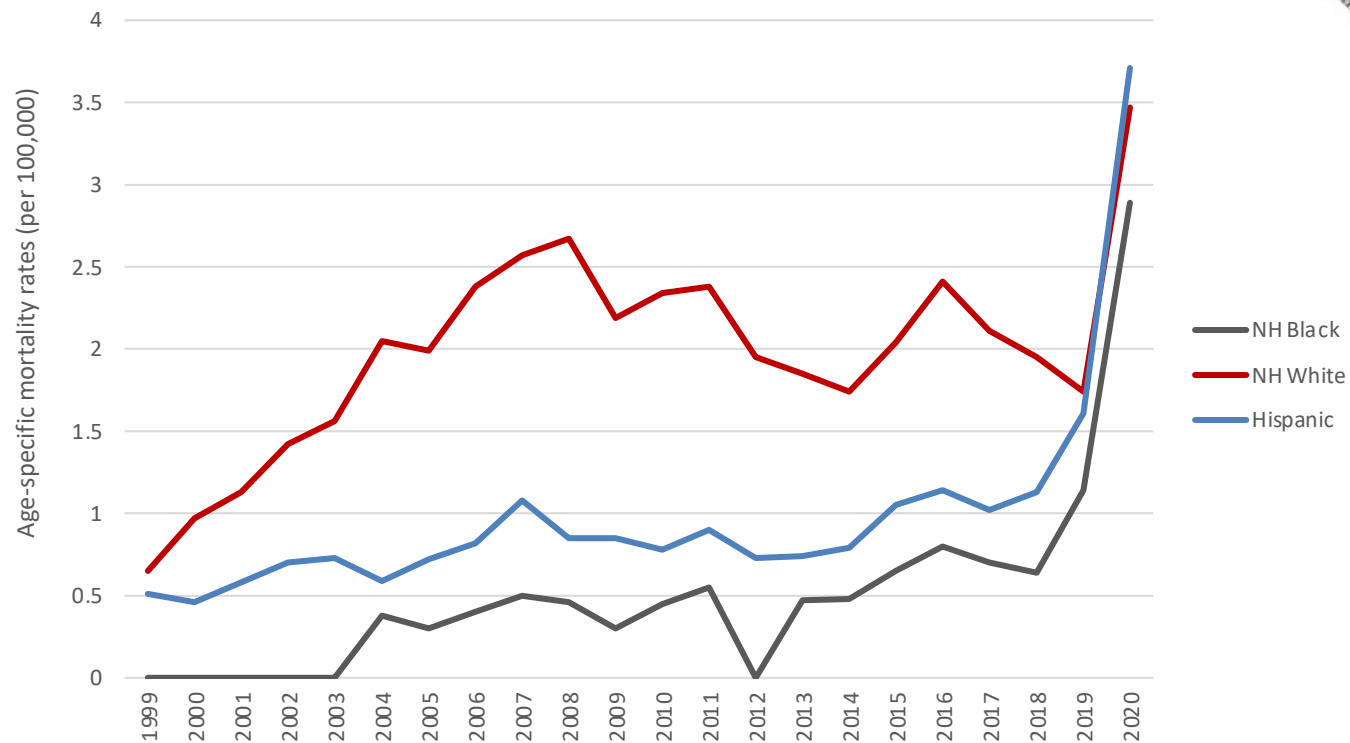


Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Firearm-related death rates, ages 10-19, by race-ethnicity

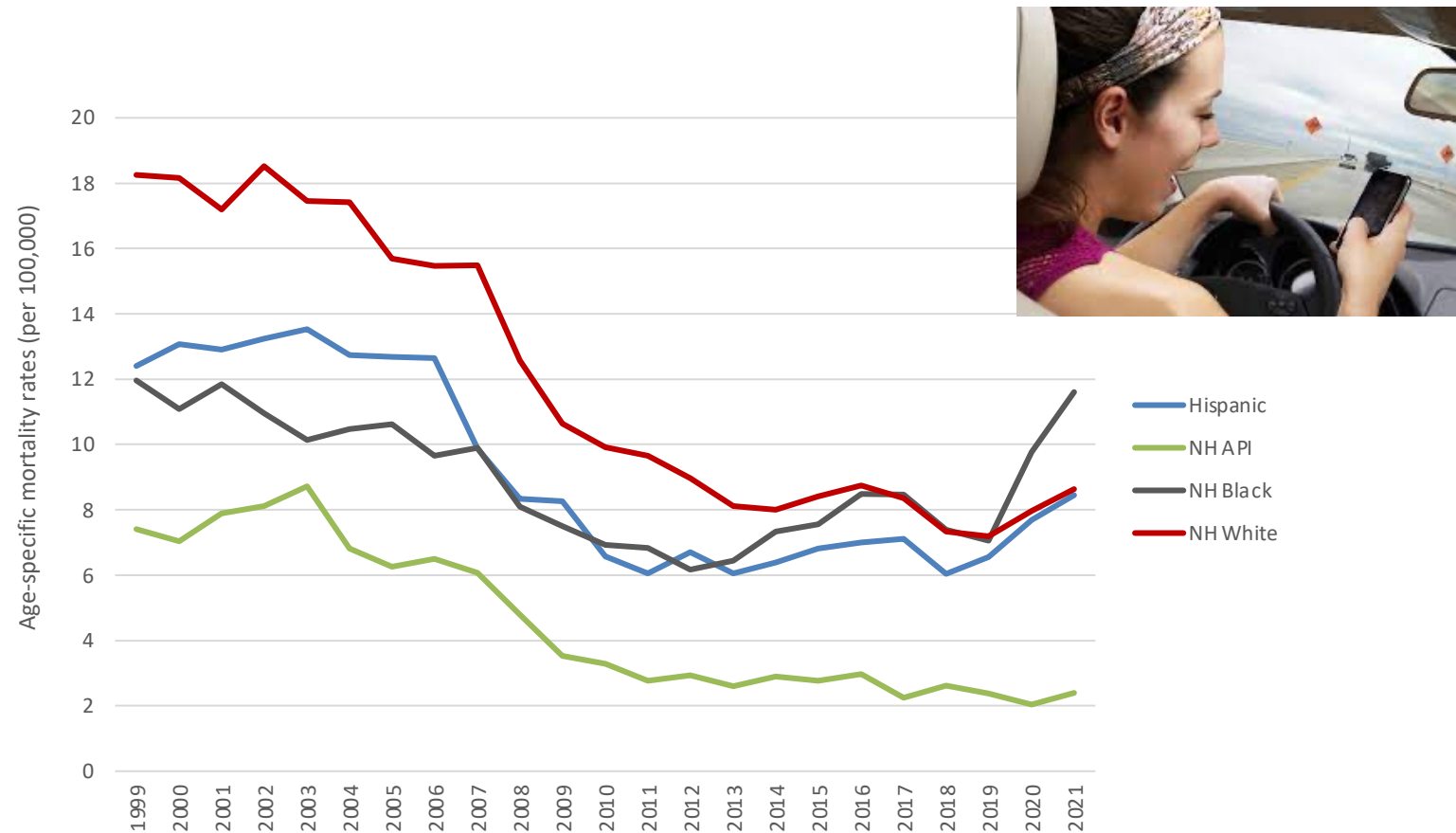


# Drug overdose death rates, ages 10-19, by race-ethnicity



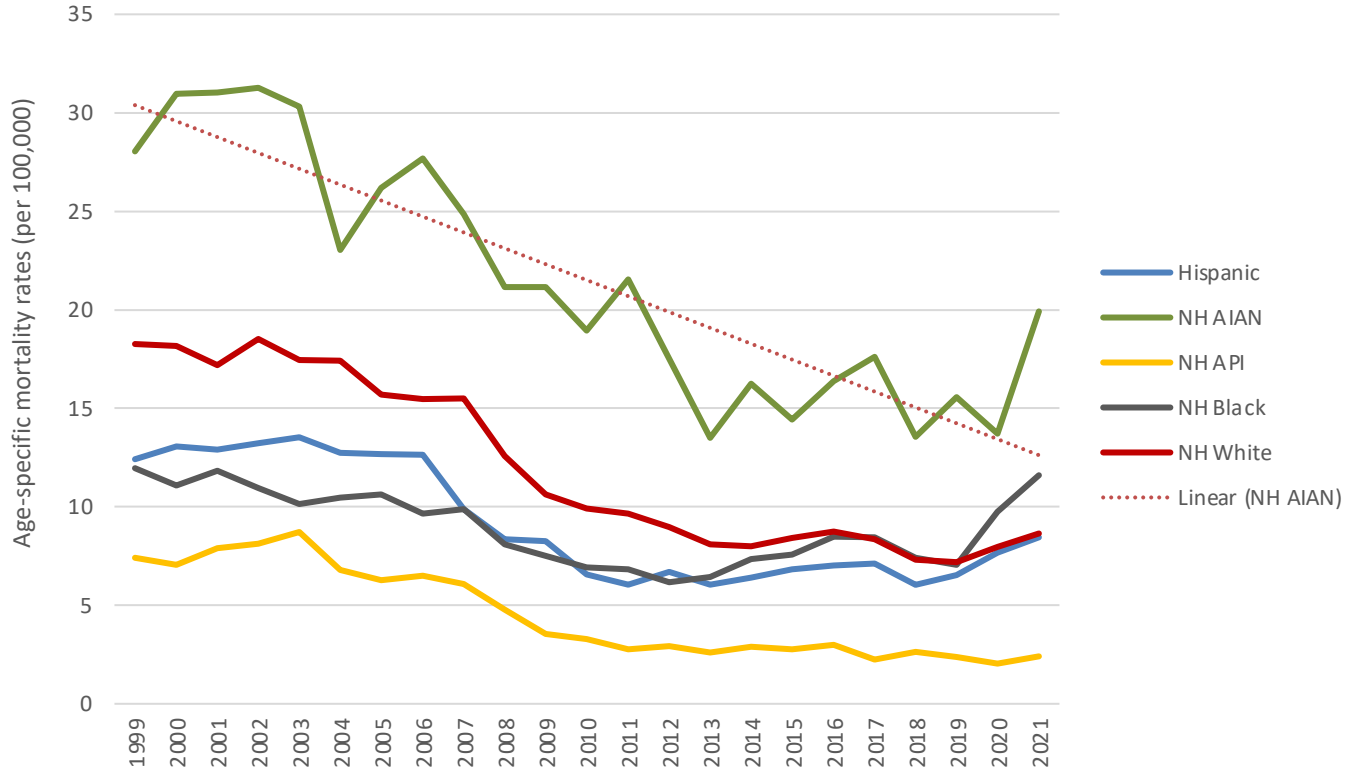
Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Transport accident death rates, ages 10-19, by race-ethnicity



Source: Woolf et al. *JAMA*. 2023;329:975-976.

# Transport accident death rates, ages 10-19, by race-ethnicity (including American Indian/Alaska Native)

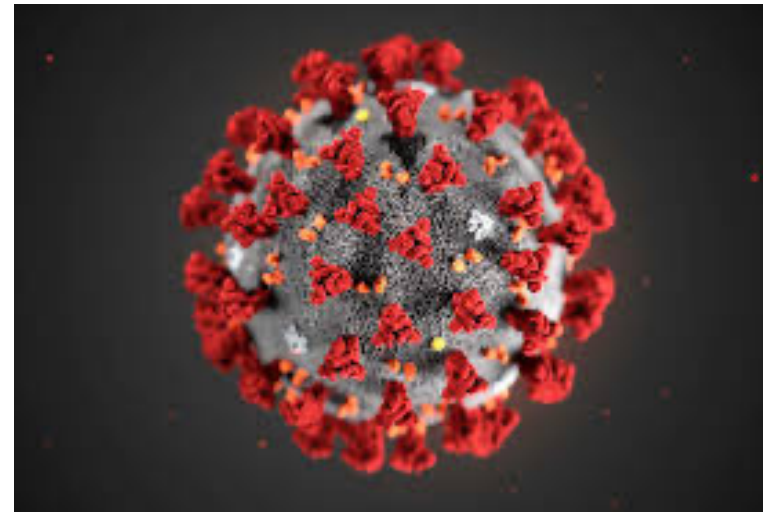


Source: Woolf et al. *JAMA*. 2023;329:975-976.



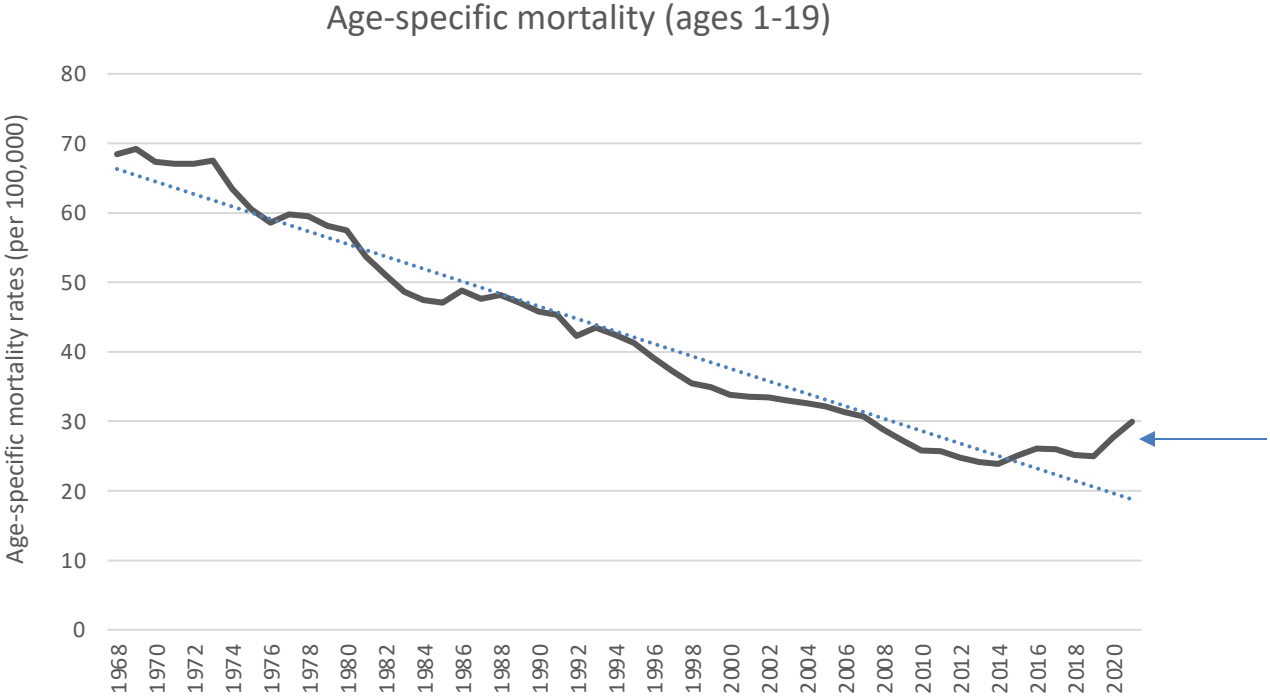
# COVID-19 pandemic: pouring fuel on the fire

- Injury mortality at ages 10-19 rose by 23% between 2019 and 2020.
  - Homicide rate increased by 39.1%
  - Drug overdose death rate increased by 114%
  - Transport-related death rates increased by 16% in 2020.
- Among children ages 1-9, injuries explained two thirds (64%) of the increase in all-cause mortality in 2021,



# What an increase in all-cause mortality means

# The meaning of rising all-cause mortality



# Remarkable advances in pediatric medicine and prevention of child and adolescent injury deaths



# Policy priorities to address rise in pediatric mortality

- Mental health
- Firearms
- Inequity and marginalization

