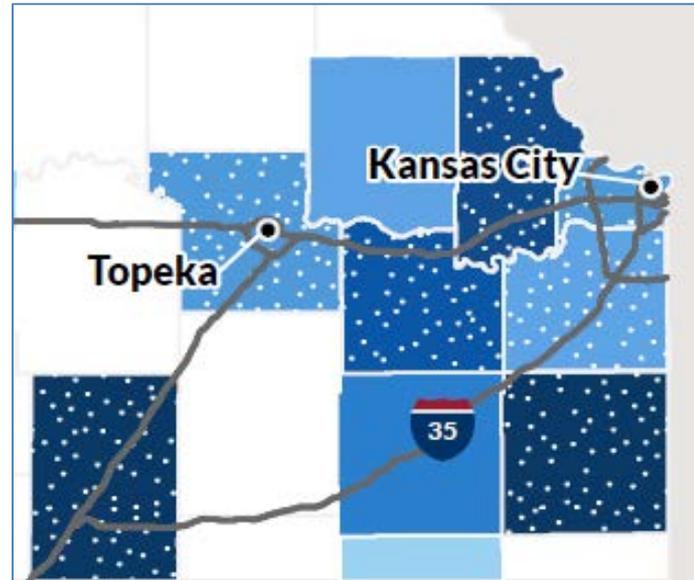
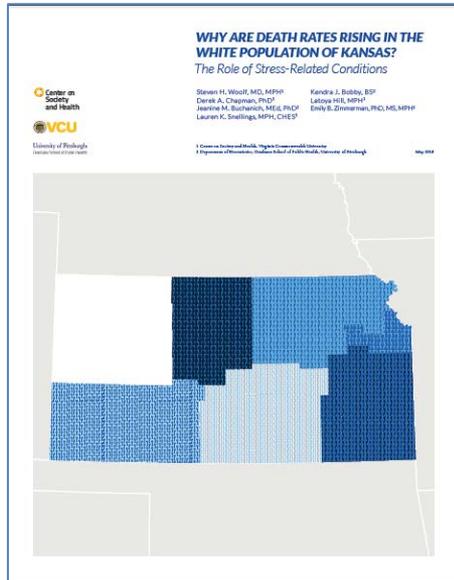


# Rising Mortality Rates Among Non-Hispanic Whites in Kansas



Kansas Health Institute Briefing  
Topeka, Kansas  
May 11, 2018

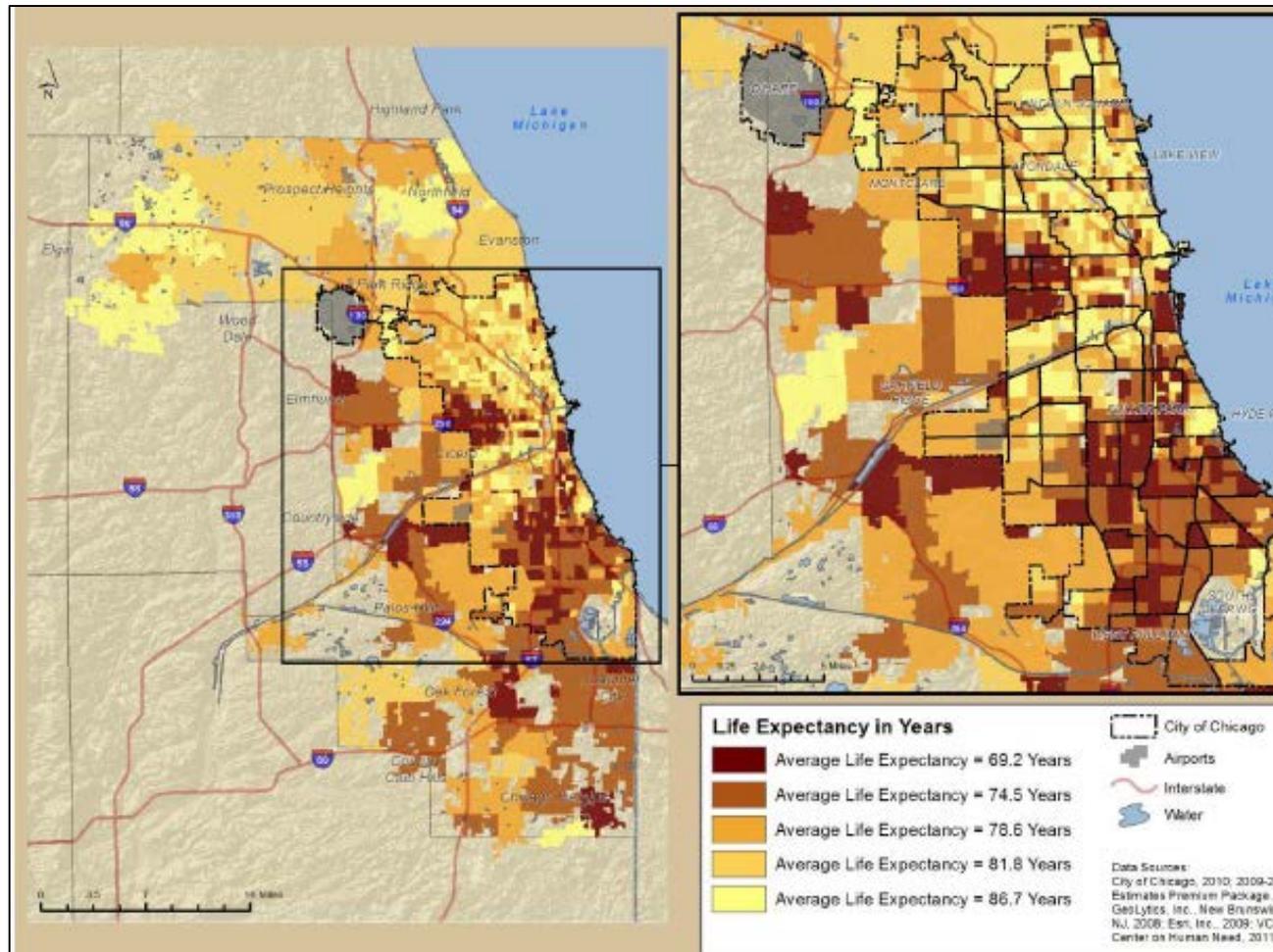
Steven H. Woolf, MD, MPH  
Center on Society and Health  
Virginia Commonwealth University



3MI \*Life expectancy at birth

© 2013 Robert Wood Johnson Foundation

# Life expectancy by census tract, Chicago





Emily Zimmerman, PhD, MS  
Amber Halley, MPH  
Albert Walker, THM, MDiv  
Stovan Woolf, MD, MPH  
Kim Nguyen, MD  
Wendy Shuo, MD  
Lauren Kolloy, MPH  
Jill Holman  
Derek Chapman, PhD

The Engaging Richmond Team

Center on Society and Health  
Virginia Commonwealth University  
Richmond, Virginia

Spring 2016

 Center on Society and Health

# Health Equity in Richmond, Virginia

Engaging Richmond's *Photovoice* Project

## Violence Tax

"It hurts to know that you work hard only to have your belongings destroyed through random acts of gun violence in our community..."



"...Most of the time, it is the innocent ones that are affected by the behavior of gun violence. It is a financial strain to have your vehicles shot up and your windows blown because these things have to be replaced. We, as a community, feel like we have lost all control even when it comes to our safety and personal assets."

(Community researcher)



Center on Society and Health



Why examine mortality rates in whites?

## HEALTH

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

By GINA KOLATA NOV. 2, 2015



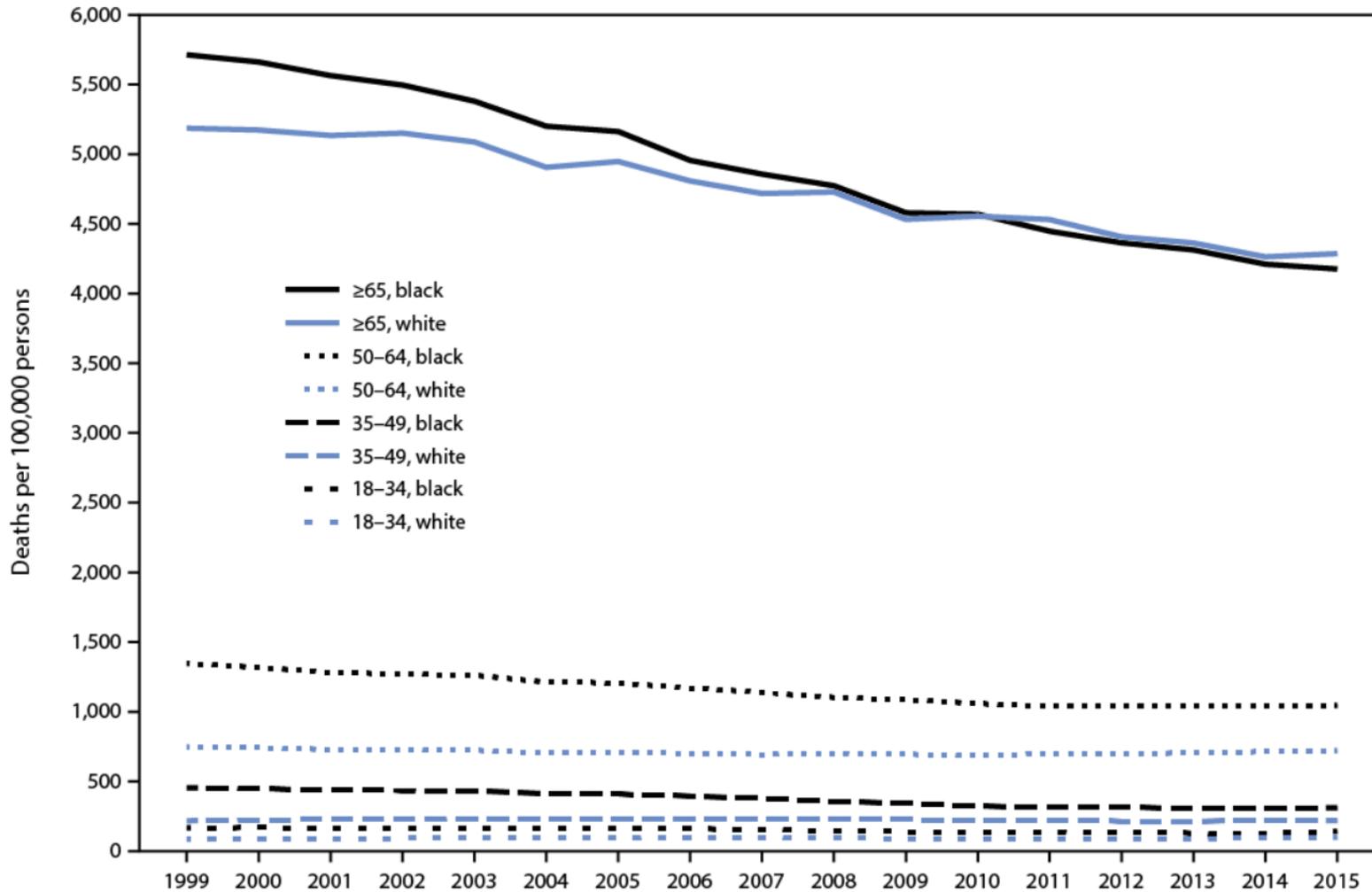
Angus Deaton with his wife, Anne Case, right, last month after he won the 2015 Nobel Memorial Prize in Economic Science. Together, they wrote a study analyzing mortality rates.

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

# Death rates among blacks and whites, 1999-2015



# Canary in the coal mine



# Influences on Health: Broadening the Focus

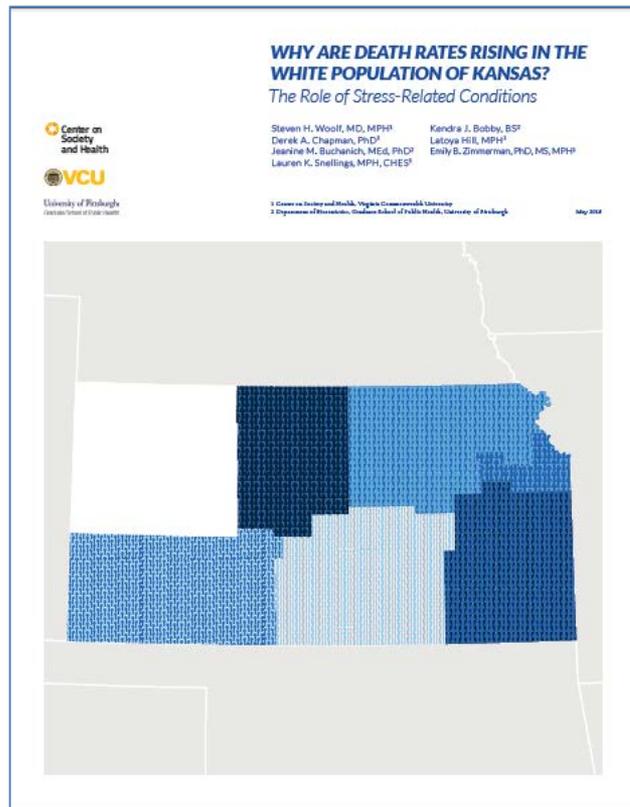
Health is shaped by many influences, including age, sex, genetic make-up, medical care, individual behaviors and other factors not shown in this diagram. Behaviors, as well as receipt of medical care, are shaped by living and working conditions, which in turn are shaped by economic and social opportunities and resources.



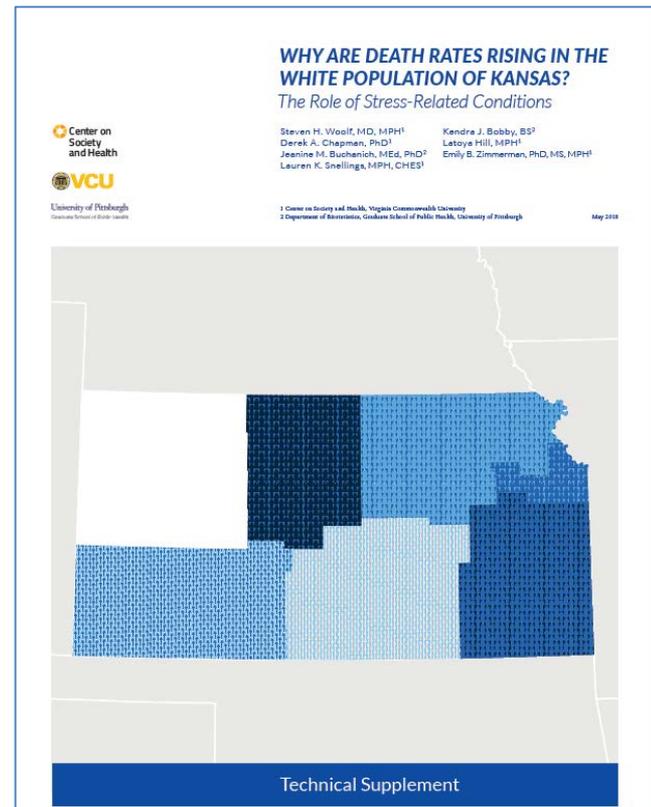
Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.

# Overview of study

## Issue brief



## Technical supplement



# Deaths from all causes (all ages)

**Table 5.**

**ALL-CAUSE MORTALITY RATES (ALL AGES), BY RACE-ETHNICITY, KANSAS, 1995-2014**

RACE-ETHNICITY	1995–1999		2000–2004		2005–2009		2010–2014		RELATIVE INCREASE IN AGE-ADJUSTED MORTALITY RATE (%)	
	DEATHS (NO.)	AGE-ADJUSTED MORTALITY RATE	FROM 1995–99 TO 2010–2014	FROM 2000–04 TO 2010–2014						
Non-Hispanic whites	109,493	821.5	111,470	811.8	111,275	777.8	113,685	755.6	-8.0*	-6.9*
Non-Hispanic blacks	5,976	1159.5	6,315	1156.8	6,259	1059.6	6,331	943.9	-18.6*	-18.4*
Non-Hispanic American Indians and Alaskan Natives	591	1072.3	672	955.0	1,061	1364.6	1,235	1374.3	28.2*	43.9*
Non-Hispanic Asians and Pacific Islanders	379	523.4	434	377.3	663	439.9	892	437.2	-16.5	15.9
Hispanics	1,757	674.9	2,278	600.0	2,870	551.1	3,527	552.0	-18.2*	-8.0

\* p < 0.05

# Deaths from all causes (all ages)

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\* p < 0.05

# Deaths from all causes (ages 25-64 years), non-Hispanic whites

**Table 6.**

**ALL-CAUSE MORTALITY RATES, NON-HISPANIC WHITES AGES 25-64 YEARS, SELECTED COUNTIES, KANSAS, 1995-2014**

COUNTY	1995–1999		2000–2004		2005–2009		2010–2014		RELATIVE INCREASE IN AGE-ADJUSTED MORTALITY RATE (%)	
	DEATHS (NO.)	AGE-ADJUSTED MORTALITY RATE	FROM 1995–99 TO 2010–2014	FROM 2000–04 TO 2010–2014						
Allen County	130	363.2	139	373.9	180	490.2	194	532.1	46.5%*	42.3%*
Cherokee County	245	420.7	238	405.9	339	543.5	346	562.0	33.6%*	38.5%*
Coffey County	52	231.6	76	313.7	69	250.0	110	420.4	81.5%*	34.0%
Morton County	10	130.9	22	283.6	22	299.6	35	484.8	270.3%*	71.0%
Reno County	482	313.6	506	308.1	638	371.4	674	378.5	20.7%*	22.8%*
Saline County	393	316.9	406	308.8	493	343.2	553	376.5	18.8%	21.9%*

\*  $p < 0.05$ .

Between 1995-1999 and 2000-2014, all-cause mortality also increased significantly ( $p < 0.05$ ) among NH whites ages 30-59 years in Allen County (61.0%), Barber County (136.3%), Barton County (42.4%), Cherokee County (59.9%), Montgomery County (34.5%), Reno County (25.6%), and Saline County (33.9%).

# Stress-related conditions (SRC)

1. Accidental drug overdoses
2. Alcohol poisoning (e.g., binge drinking)
3. Alcoholic liver disease
4. Suicide

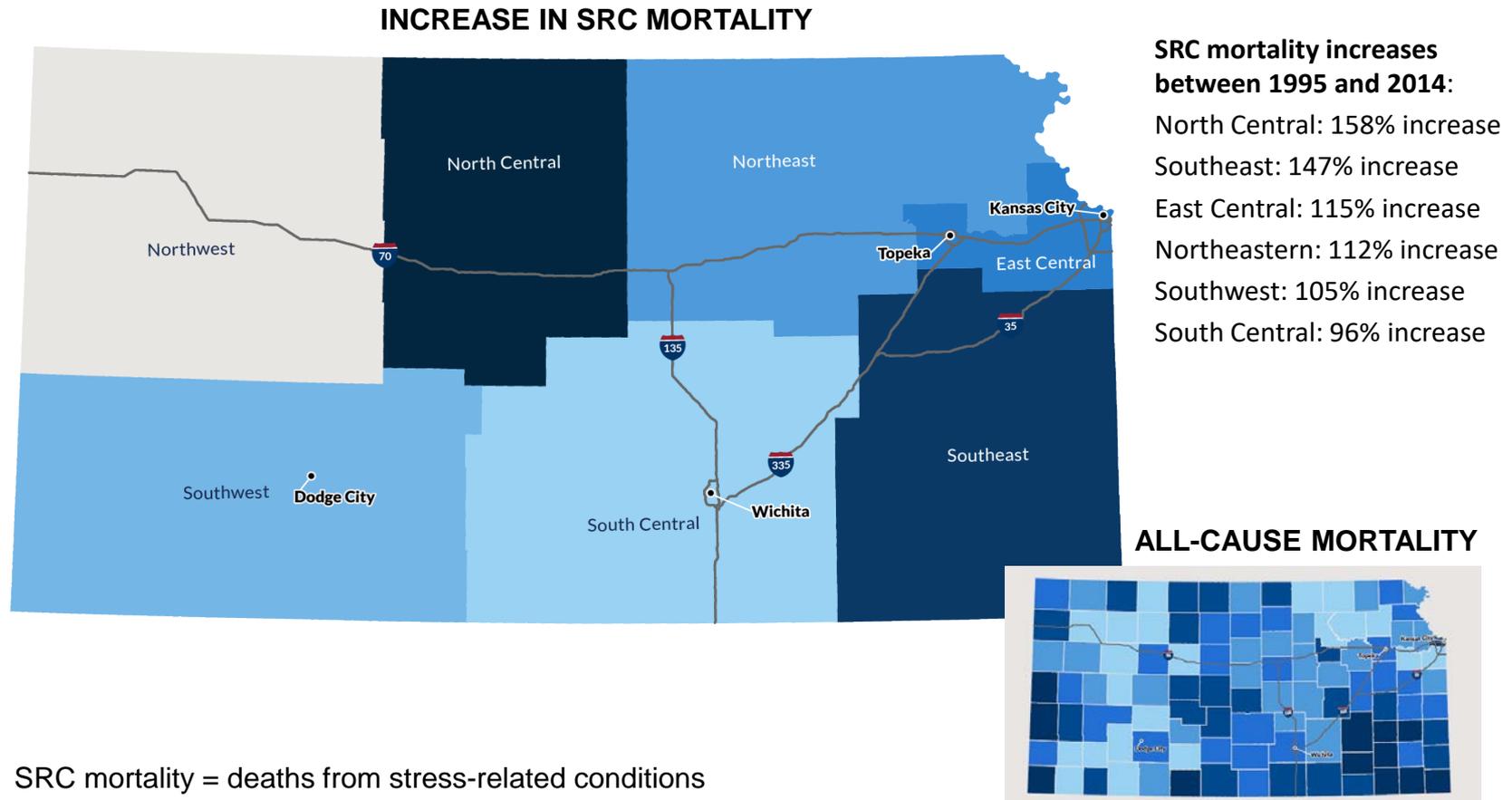
# In Kansas, SRC mortality among whites ages 25-64 increased dramatically

Between 1995-99 and 2010-14:

- **Accidental drug overdose** mortality increased by 585%
- Deaths from **alcoholic liver disease** increased by 54%
- **Suicides** increased by 52%, including
  - Non-firearm suicides (64% increase)
    - Hanging, strangling, asphyxiation (135% increase)
  - Firearm suicides (42% increase)

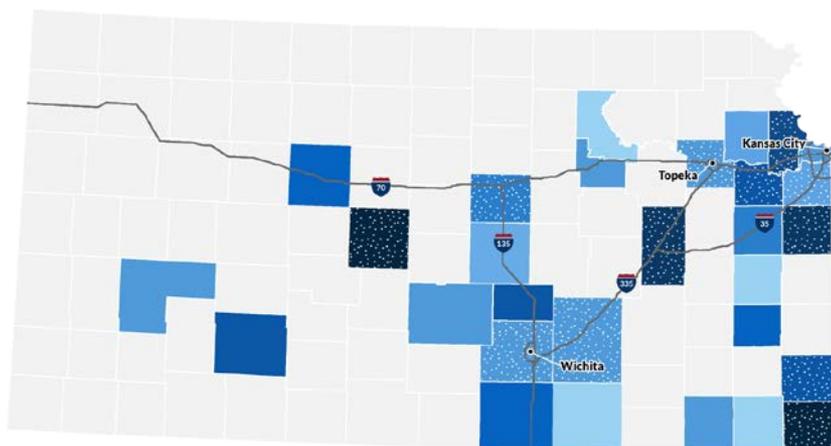
	CALIFORNIA	KANSAS	MINNESOTA	MISSOURI	VIRGINIA
<b>STRESS-RELATED CONDITIONS</b>					
1995-99	41.6	21.8	18.3	25.8	24.7
2000-04	39.9	29.8	21.5	31.0	29.7
2005-09	51.7	38.6	28.4	44.0	36.8
2010-14	59.2	46.2	36.6	55.9	43.5
% increase from 1995-99 to 2010-14	42.2%*	111.5*	99.4%*	116.7%*	76.0%*
% increase from 2000-04 to 2010-14	48.2%*	54.9*	70.1%*	80.2%*	46.6%*
<b>Accidental drug poisoning</b>					
1995-99	11.5	2.2	1.2	3.5	3.7
2000-04	12.4	6.9	3.9	8.7	9.2
2005-09	19.5	12.3	6.9	17.9	13.2
2010-14	22.9	15.1	10.5	25.1	16.3
% increase from 1995-99 to 2010-14	99.9%*	584.7%*	775.3%*	618.6%*	338.5%*
% increase from 2000-04 to 2010-14	85.1%*	116.8%*	170.8%*	189.3%*	77.7%*
<b>Alcoholic liver disease</b>					
1995-99	11.3	4.1	4.0	4.6	3.7
2000-04	10.7	4.6	4.5	4.3	3.8
2005-09	11.7	5.3	5.0	4.6	4.2
2010-14	13.2	6.4	6.7	5.9	4.9
% increase from 1995-99 to 2010-14	16.3%*	53.8%*	69.6%*	28.2%*	33.0%*
% increase from 2000-04 to 2010-14	23.3%*	37.6%*	48.9%*	36.1%*	31.2%*
<b>Suicide</b>					
1995-99	18.7	15.4	12.8	17.6	16.8
2000-04	16.7	18.0	12.9	17.8	16.3
2005-09	19.6	20.3	15.5	20.8	18.9
2010-14	21.4	23.3	17.4	23.9	21.5
% increase from 1995-99 to 2010-14	14.7%*	51.8%*	36.3%*	35.6%*	27.9%*
% increase from 2000-04 to 2010-14	28.5%*	29.5%*	35.2%*	33.9%*	31.9%*

# Increases in SRC mortality among whites (ages 25-64 years), 1995-99 to 2010-14



SRC mortality = deaths from stress-related conditions

# Limited county-level data also show increases in SRC mortality

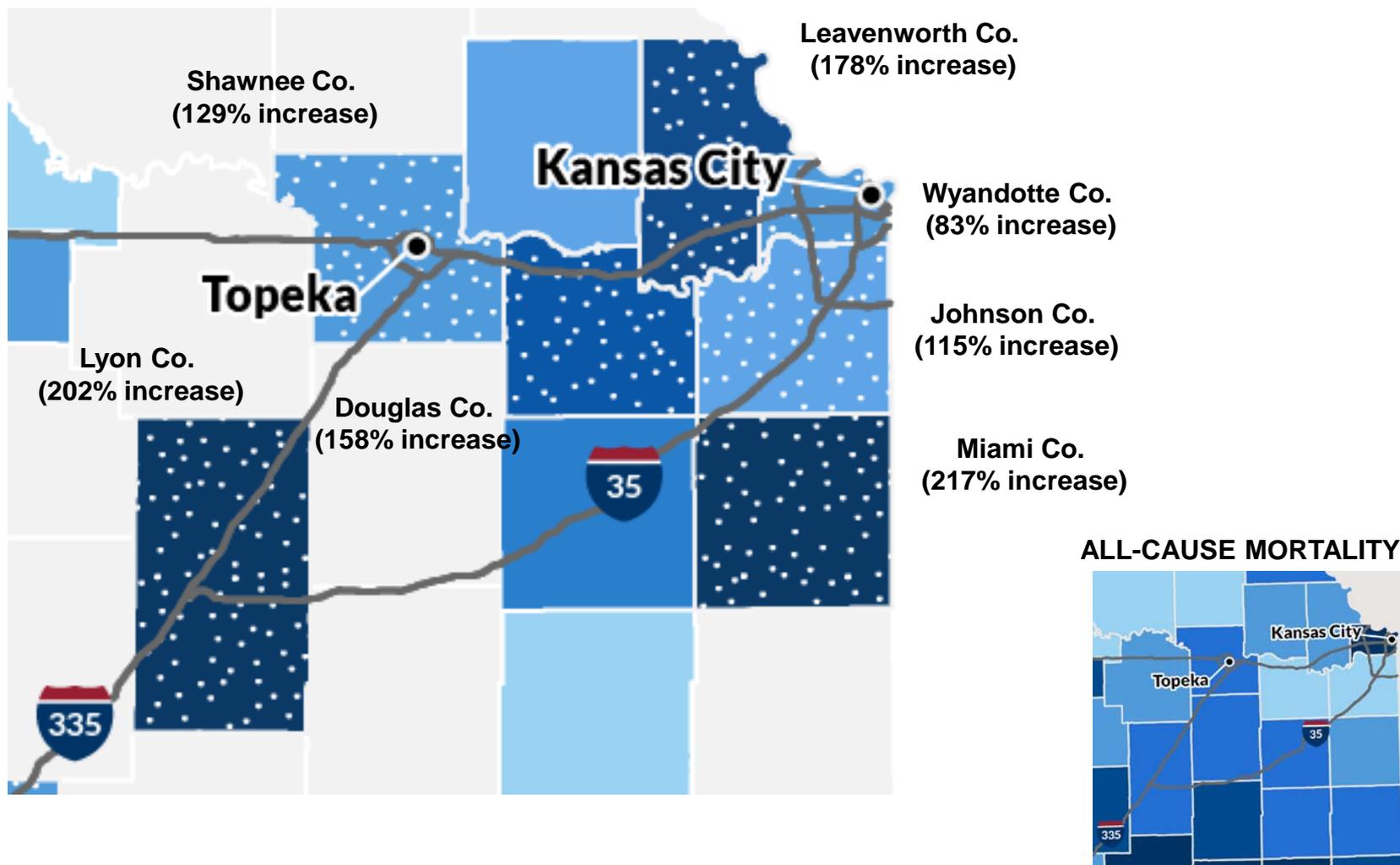


## Counties with the largest *relative* increases in SRC mortality:

- Barton County (298% increase)
- Cherokee County (309% increase)
- Miami County (217% increase)
- Lyon County (201% increase)

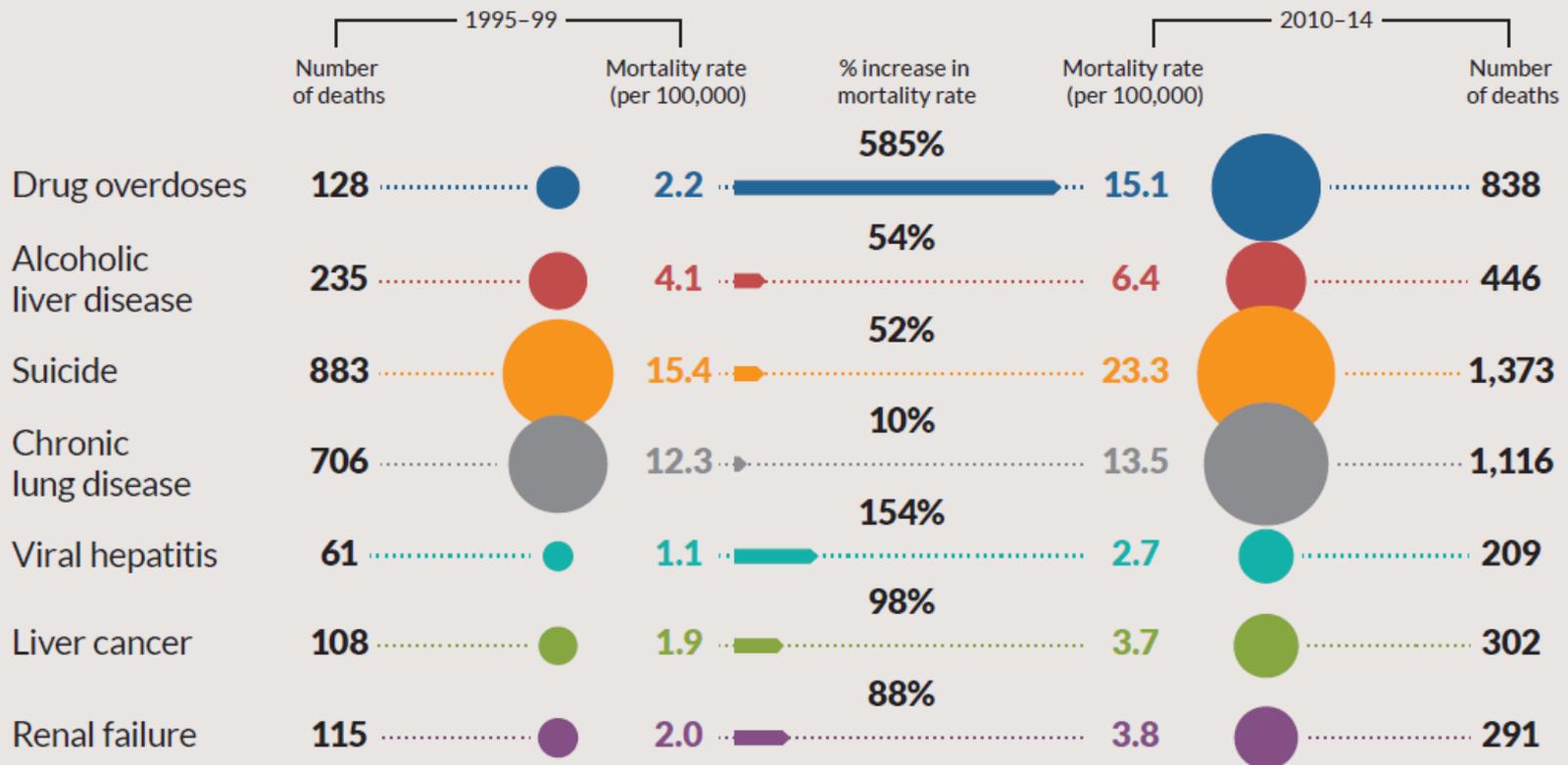
SRC mortality = deaths from stress-related conditions. Increases are from 1995-99 to 2010-14.

# Increases in SRC mortality among whites (ages 25-64 years), 1995-99 to 2010-14



# Death rates from organ diseases also increased significantly

**Figure 1. Increases in deaths among whites ages 25–64 years in Kansas, 1995–2014**



# Sedgwick County: Wichita

In Sedgwick County, whites ages 25–64 years experienced a 95% increase in SRC mortality between 1995 and 2014

- Fatal drug overdoses (597% increase)
- Suicides (34% increase)
  - Hanging, strangulation, asphyxiation (97% increase)

Increases in organ disease mortality

- Liver cancer (395% increase)
- Renal (kidney) failure (137% increase)

LOCAL

## Suicides reaching 'epidemic' levels in Wichita area

BY STAN FINGER

[sfinger@wichitaeagle.com](mailto:sfinger@wichitaeagle.com)



# Regional predictors for SRC mortality among whites ages 25-64 years (2010-2014)

## Higher absolute SRC mortality

- Poverty ( $r_2=0.60$ )
- Unemployment ( $r_2=0.71$ )
- Violent crime ( $r_2=0.55$ )
- Public health insurance ( $r_2=0.78$ )
- Commuting by motor vehicle ( $r_2=0.66$ )
- Single-parent households ( $r_2=0.63$ )

## Greater increase in SRC mortality

- Household income ( $r_2=-0.62$ )
- Poverty ( $r_2=0.61$ )
- Income inequality ( $r_2=0.52$ )
- Single-parent households ( $r_2=0.52$ )



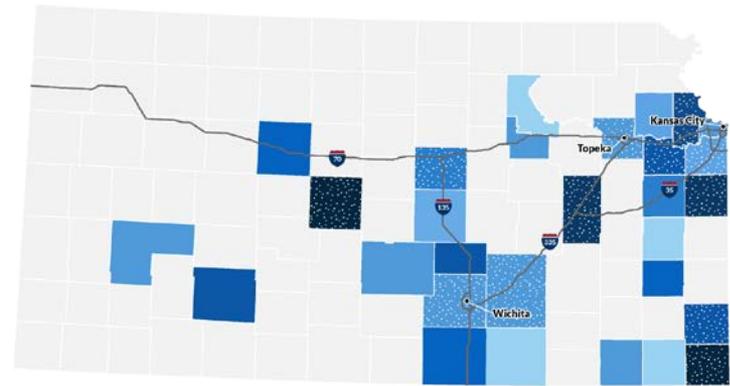
# County predictors for SRC mortality among whites ages 25-64 years (2010-2014)

## Higher absolute SRC mortality

- Population size ( $r_2=-0.51$ )
- Some college ( $r_2=-0.82$ )
- Poverty ( $r_2=0.55$ )
- Household income ( $r_2=-0.65$ )
- No vehicle ( $r_2=0.60$ )
- Pre-1950 housing ( $r_2=0.78$ )
- Public health insurance ( $r_2=0.76$ )
- Uninsured ( $r_2=0.58$ )

## Greater increase in SRC mortality

- Rural ( $r_2=0.64$ )
- Pre-1950 housing ( $r_2=-0.60$ )



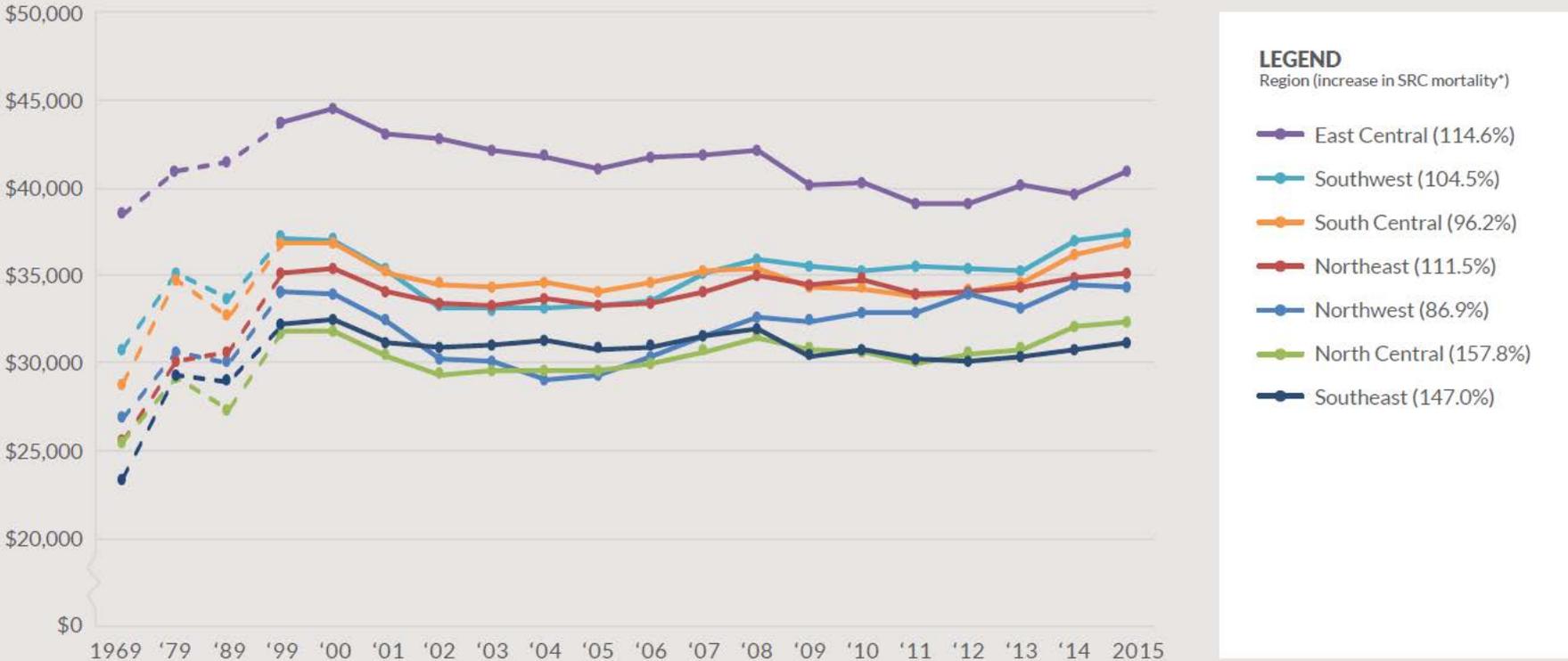
# Regional economic stresses

- As of 2016, Kansas ranked 42nd out of the 50 states in the growth of its gross domestic product
- Declines in agriculture
- Losses in oil and gas extraction, manufacturing, and management sectors
- Decreases in labor force, especially in western Kansas
- Inflation-adjusted wages experienced little growth



# Some impacted regions experienced greater protracted economic distress

Figure 4. Median household income in Kansas, by region, 1969-2015



# Postulated health consequences of mounting stress

- Increase in anxiety, depression, chronic stress, despair, and physical and psychic pain
- Diet: overeating, consumption of calorie-dense fast foods
- Tobacco use: smoking
- Hopelessness, leading to suicidal behavior
- Self-medication: alcohol, drugs
- Acting out: violence

*“It is a mistake to focus on (or blame) the behaviors that individuals adopt to cope with these stresses and ignore the policies and living conditions in communities that fuel these behaviors.”*

# Unemployment predicts opioid use



## Overdose Deaths, Hospital Visits and Unfilled Jobs: The Opioid Crisis in Missouri and Kansas

Mat Reidhead, MA  
Vice President of Research  
and Analytics  
Hospital Industry Data Institute

Leslie Porth, Ph.D.  
Senior Vice President of Strategic  
Quality Initiatives  
Missouri Hospital Association

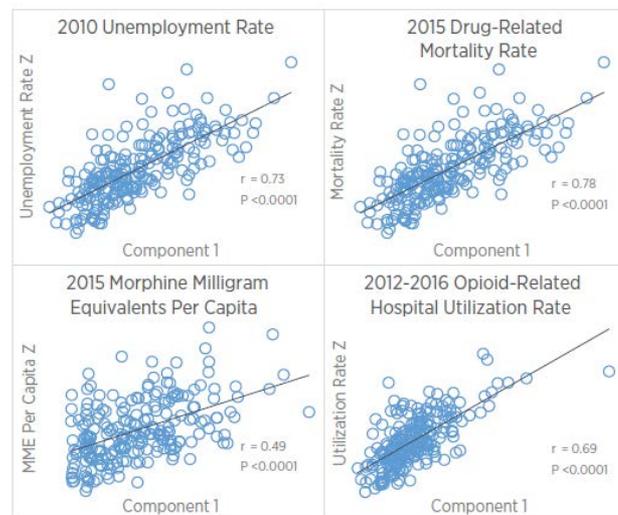
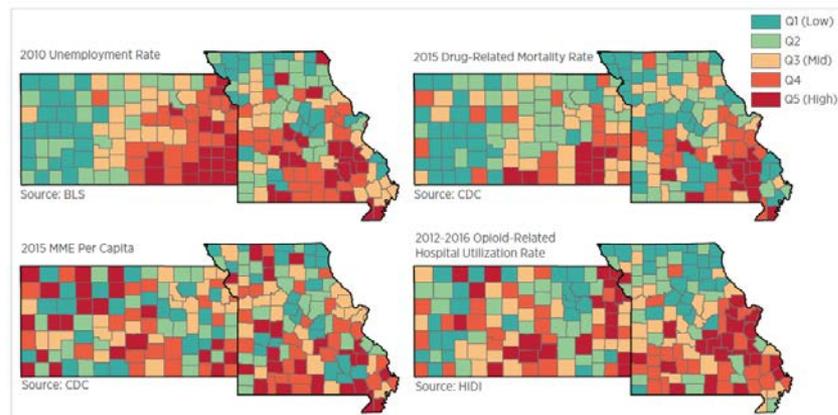
Karen Braman, RPH, MS  
Senior Vice President of Healthcare  
Strategy and Policy  
Kansas Hospital Association

### Executive Summary

Recent reporting suggests that the opioid epidemic is constraining the U.S. labor market. Many employers are reporting increased difficulty in matching eligible workers with open positions, particularly in rural areas and the manufacturing sector. Two factors driving the shortage are the continued post-recession absence of prime-age males from the labor market, and the inability of job applicants to pass routine drug screens. **A 2016 survey of prime-age men 25 to 54 who were not in the labor force — defined as not employed or looking for work — found that 47 percent had taken a pain medication on the previous day, and among those, nearly two-thirds had taken a prescription pain medication!**

What is the relationship between unemployment and opioid utilization in Missouri and Kansas, and is the opioid crisis contributing to a decreased employable workforce or worker productivity? The aim of this policy brief is to identify linkages between unemployment and opioid dependence at the county level in Missouri and Kansas using state and national datasets.

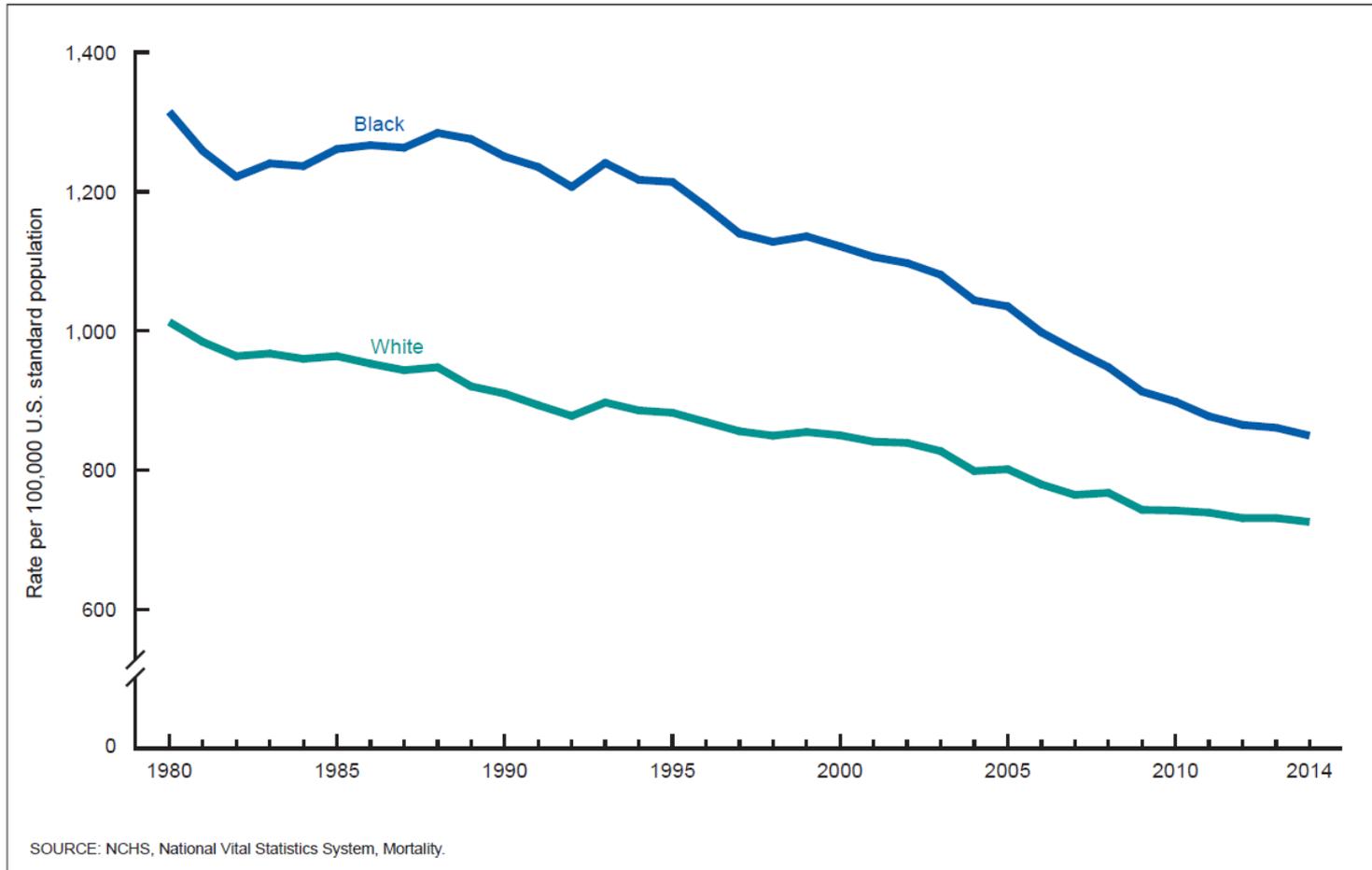
This research is intended to help health care providers, policymakers and business leaders identify areas in Missouri and Kansas that are at greater risk of experiencing a disproportionate burden of the ongoing opioid epidemic in terms of labor market conditions, drug-related deaths, oversupply of prescription opioids and opioid-related hospital utilization. These data and information are intended to help direct scarce resources to geographic areas of greatest need.



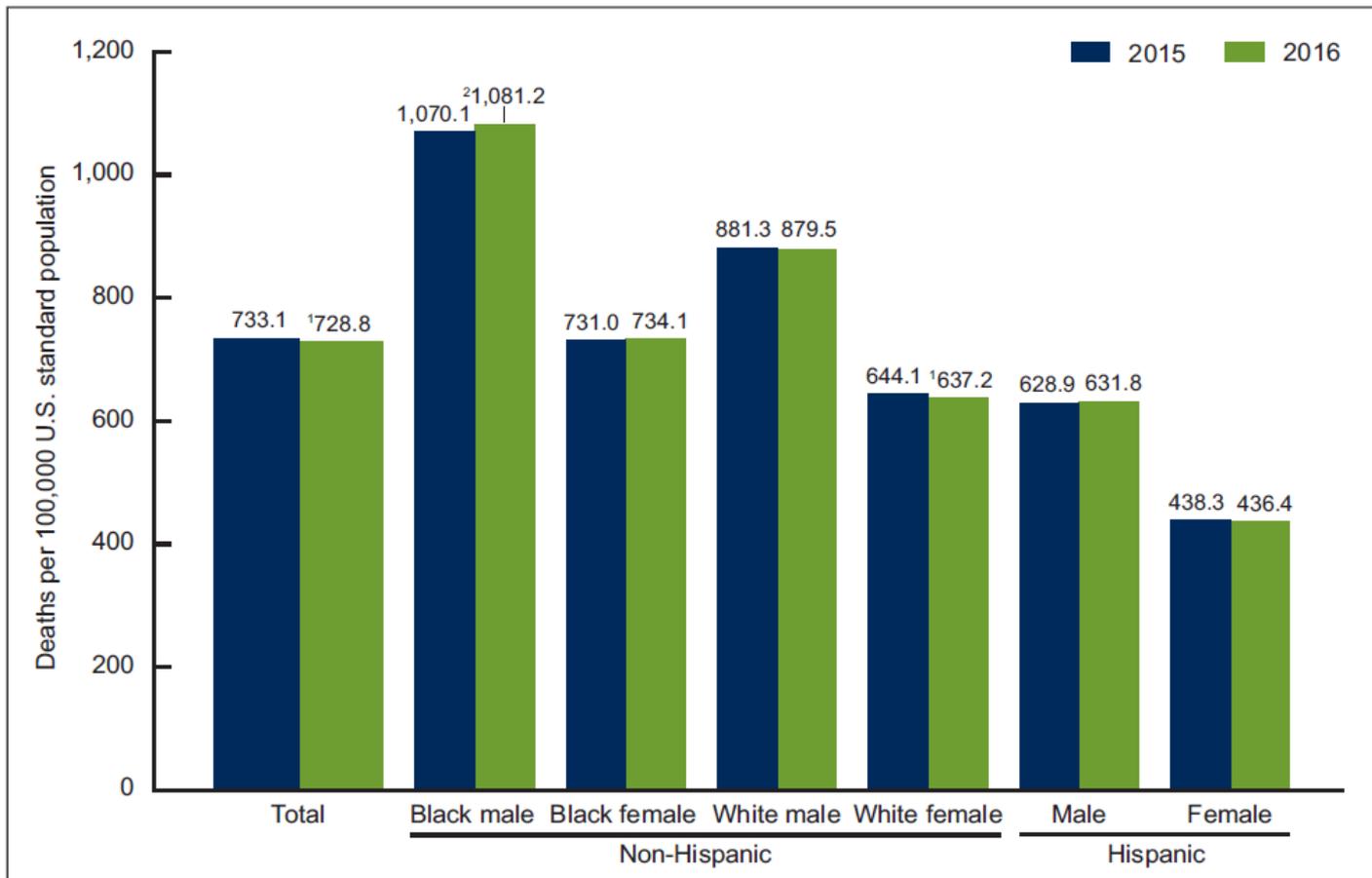
# Policy strategies to address rising mortality rates

1. **Strengthen behavioral health services** (e.g., for substance abuse and suicide prevention)
2. **Address root causes by improving economic and social conditions for populations in need** (e.g., access to education, economic mobility)
3. **Invest in communities** (e.g., economic development, civic engagement, cross-racial alliance)
4. **Prepare the health care system for expanding caseloads** (e.g., access to health care and insurance, resources for volume)
5. **Conduct research on underlying causes** (e.g., establish causal links, social science and economics)

# Joining the club

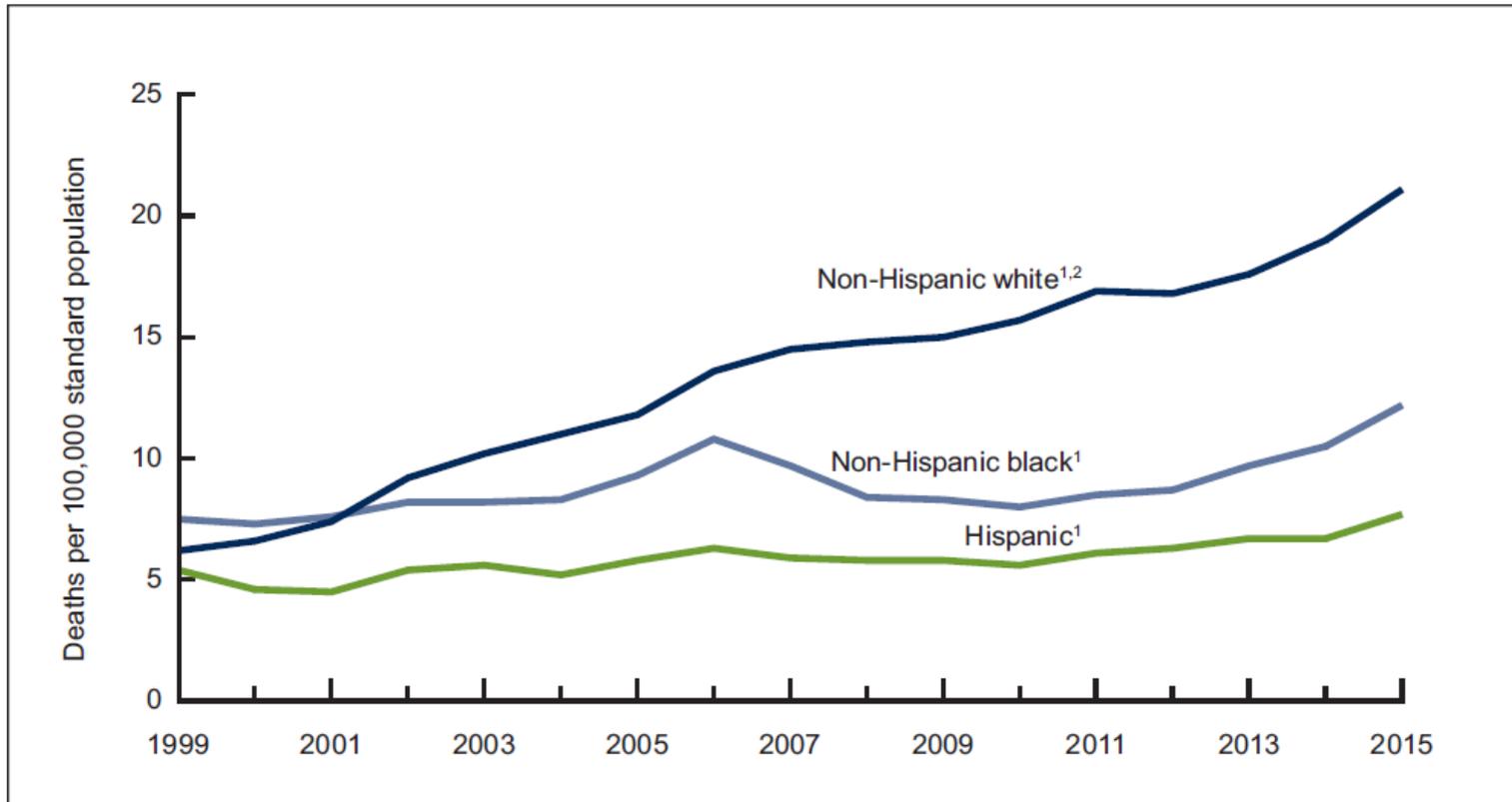


# Changes in age-adjusted mortality



Source: Kochanek et al. NCHS Data Brief, no 293. Hyattsville, MD: National Center for Health Statistics. 2017.

# Drug overdose rates, by race-ethnicity



Source: Hedegaard et al., 2017

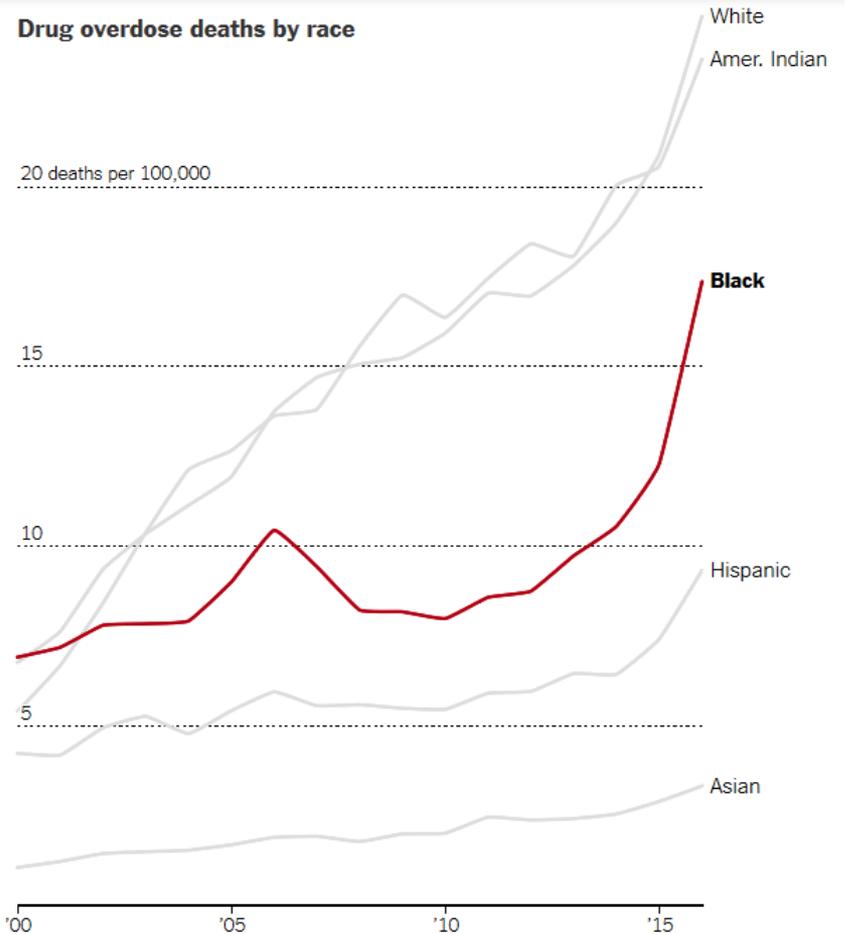
# Media coverage

## The New York Times

- |   |   |  |
|---|---|--|
| 3.  What Is Cinco de Mayo? | 4.  Kentucky Derby 2018: Odds and Our Experts' Predictions | 5.  |
|---|---|--|

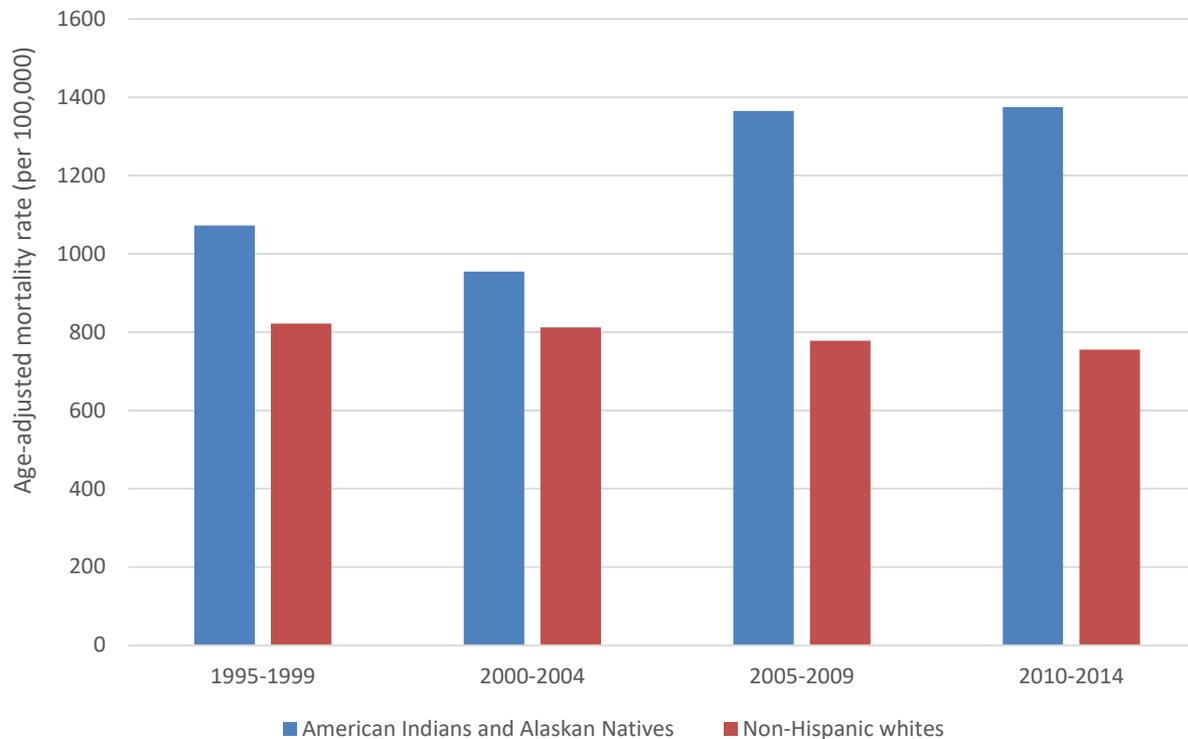
## The Opioid Crisis Is Getting Worse, Particularly for Black Americans

By JOSH KATZ and ABBY GOODNOUGH DEC. 22, 2017



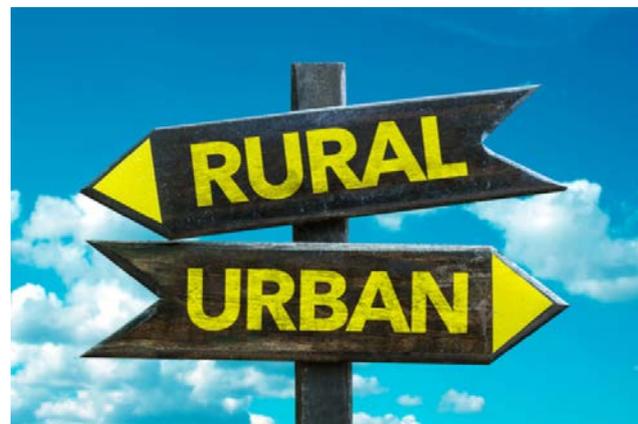
# Increasing mortality among Native Americans in Kansas

Age-adjusted all-cause mortality rates,  
American Indians and Alaskan Natives and non-Hispanic whites,  
1995-2014



# Tensions in the conversation

- Histories of advantage, privilege, and oppression through different lenses
- Sensitivities surrounding race and racism
- Rural-urban divide
- Relative vs. absolute risk
- Personal vs. societal responsibility
- Current events



# Policy change as a destination

- The destination: policies, strategies, and investments to address the social determinants of health, wherever needed
  - National, state, local
  - Urban, suburban, and rural settings
  - Priority populations
- Multiple paths to destination
- Engaging diverse stakeholders broadens buy-in



# Communication challenges

- The case for strategic communication
- Problems and solutions involve different audiences. Need to tailor messaging, language, products, and venues.
- Language challenges
  - Positive vs. negative, deficit vs. asset messaging
  - The opportunity frame and the American dream
  - Political and ideological undertones