Health Inequalities and Inequities in the United States

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Population Health

Population health is a field of study:

- Documents patterns and trends in health within specific places and periods in history
- Explains those patterns and trends
- Translates research into policies and interventions to improve population health

Population health statistics are measures of societal wellbeing – reflect how well society is taking care of its people.

Health disparities reveal social inequality, and potentially, inequity.

US life expectancy in comparative perspective: Males

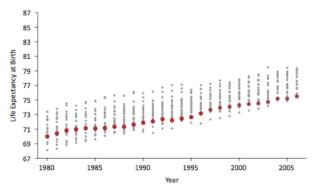


FIGURE 1-5 U.S. male life expectancy at birth relative to 21 other high-income countries, 1980-2006.

NOTES: Red circles depict newborn life expectancy in the United States. Grey circles depict life expectancy values for Australia, Austria, Belgium, Canada, Denmark, Finland, France, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and West Germany.

SOURCE: National Research Council (2011, Figure 1-3).

US life expectancy in comparative perspective: Females

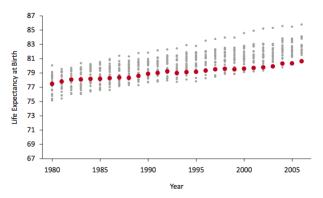
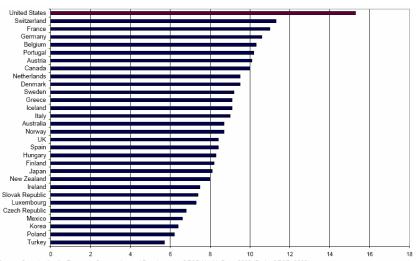


FIGURE 1-6 U.S. female life expectancy at birth relative to 21 other high-income countries, 1980-2006.

NOTES: Red circles depict newborn life expectancy in the United States. Grey circles depict life expectancy values for Australia, Austria, Belgium, Canada, Denmark, Finland, France, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and West Germany.

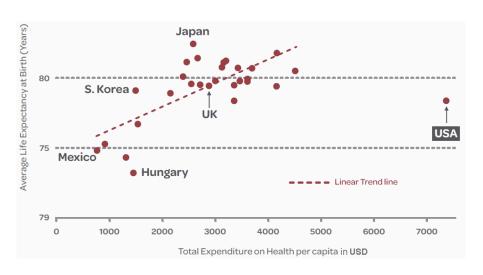
SOURCE: National Research Council (2011, Figure 1-4).

Healthcare spending as percent of GDP



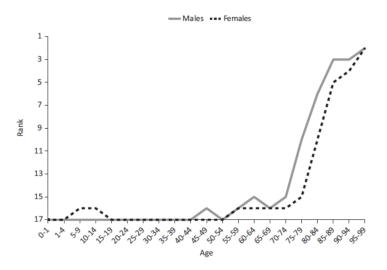
Source: Organization for Economic Cooperation and Development, OECD Health Data, 2008 (Paris: OECD, 2008). Note: For countries not reporting 2006 data, data from previous years is substituted.

America's health-wealth paradox



Source: Organization for Economic Cooperation and Development (OECD)

Ranking of U.S. mortality among 17 peer countries, 2008

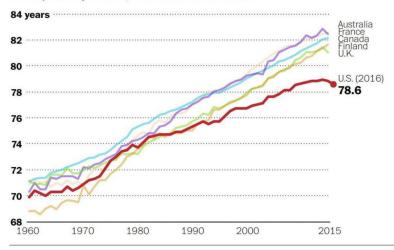


Source: National Research Council et al. 2013

U.S. Life Expectancy has declined for the past 2 years

American exceptionalism

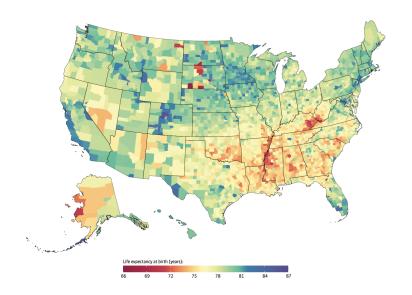
Life expectancy at birth, selected OECD countries



THE WASHINGTON POST

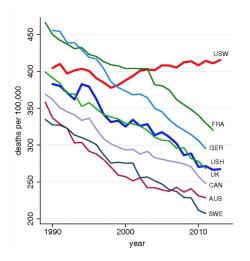
Source: OECD, U.S. Census Bureau

Life Expectancy at birth by county, 2014



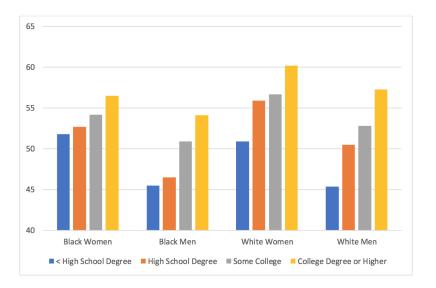
Source: Dwyer-Lindgren et al. (2017) JAMA internal Medicine

Rising mortality among middle-aged White Americans



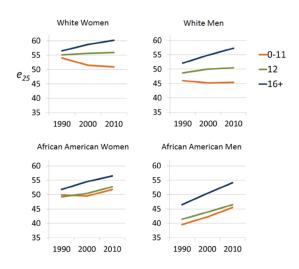
Source: Case & Deaton (2015). *PNAS*All-cause mortality, ages 45 - 54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE). The increase in white deaths is concentrated among people with a high school degree or less.

Life Expectancy at age 25 by years of schooling, 2010



Source: Sasson 2016 Demography. Image: Hummer & Hamilton 2018.

Life Expectancy at age 25 by years of schooling, United States 1990-2010

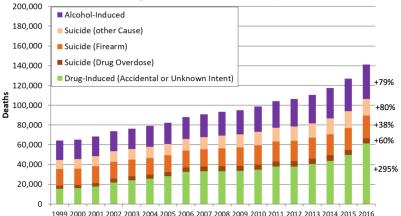


Source: Sasson 2016 Demography. Data sources: U.S. Multiple Causes of Death public use files (CDC 2013), 5% IPUMS (Ruggles 2010), U.S. Census, and American Community Survey.

Dying of Despair?

Drug, Alcohol, and Suicide Deaths have all Increased





1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 201

Data: CDC Wonder Multiple Cause of Death Files; https://wonder.cdc.gov/

Chart: Shannon Monnat, smmonnat@maxwell.syr.edu

Are White Americans really worst off?

Figure 1.1 All-cause mortality by race and ethnicity, ages 50-54 White non-Hispanics 900 high school or less deaths per 100,000 00 700 Black non-Hispanics White non-Hispanics (all) 500 300 Hispanics

Source: Anne Case and Angus Deaton (2017). Mortality and morbidity in the 21st century. Brookings Papers on Economic Activity.

2005

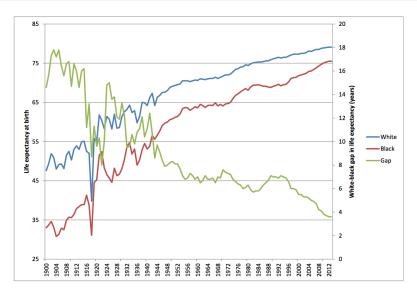
2000

Survey year

2010

2015

Are White Americans really worst off?



Source: Arias 2015; Kochanek et al. 2016

Infant Mortality by Race

*** US-Born Childbearing Women Ages 25 and Above ***

| | # of Births | % of Births | <u>IMR</u> |
|----------|-------------|-------------|------------|
| NH-Black | 975,539 | 13.5% | 12.76 |
| NH-White | 5,768,099 | 79.9% | 4.60 |
| MX Amer. | 472,195 | 6.5% | 5.45 |
| Total | 7,215,833 | 100.0% | 5.76 |

Source: Hummer, R. 2017 Talk at UW-Madison. Data come from 2007-2010 linked birth/infant death files. Includes 16,127,486 births and over 100.000 infant deaths

Infant Mortality by Mother's Race and Education

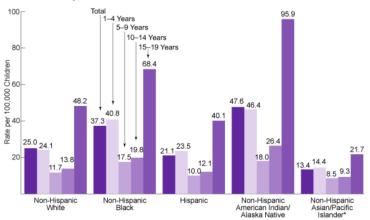
Maternal Education-Specific Infant Mortality Rates & Rate Ratios by Race

| | | ack <u>RR</u> | Wh IMR | | MX-Am IMR | erican <u>RR</u> |
|---------------------------|------|------------------|-----------|------|--------------|---------------------|
| HS or Less | 14.7 | 2.19 | 6.7 | ref | 6.4 | 0.96 |
| Some Coll. | 12.2 | 1.82 | 4.8 | 0.72 | 5.3 | 0.79 |
| College Deg. or Higher | 9.8 | 1.46 | 3.5 | 0.52 | 3.4 | 0.51 |

Source: Hummer, R. 2017. Data come from 2007-2010 linked birth/infant death files.

Racial disparities over the full life course

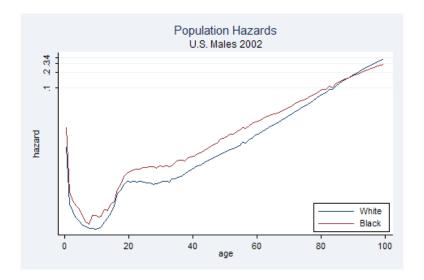
Figure 2. Mortality Among Children Aged 1–19 Years, by Age and Race/Ethnicity, 2011



^{*}Separate estimates for Asians, Native Hawaiians, and other Pacific Islanders were not available.

Source: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying cause of death 1999–2011. CDC WONDER Online Database, released 2014. Data are from the Multiple Cause of Death Files. 1999–2011.

Black mortality disadvantage at (almost!) all ages



How should we understand racial disparities in health?

Race/ethnicity is a remarkably strong predictor of health status. Does that mean that race is a CAUSE of health disparities?

3 common - but wrong - explanations:

- Racial/genetic determinism
- Cultural/behavioral
- Socioeconomic

Racism, more than "race," is what matters for health.

• Racial disparities reflect the biological impact of present and past histories of racial discrimination and economic deprivation.

AAA Statement on "Race"

"Evidence from the analysis of genetics (e.g., DNA) indicates that most physical variation, about 94%, lies *within* so-called racial groups. Conventional geographic "racial" groupings differ from one another only in about 6% of their genes."

"Historical research has shown that the idea of "race" has always carried more meanings than mere physical differences; indeed, physical variations in the human species have no meaning except the social ones that humans put on them."

Conclusion

Population health trends reveal tremendous long-term success. Still, longevity and health in the United States is unequally distributed by:

- Geography
- Gender
- Race/ethnicity
- Socioeconomic status (esp. education)

Why do these patterns emerge?

- Individual characteristics, personal choices and behaviors?
- Access to healthcare?
- Individual and population health is profoundly influenced and constrained by social forces.

What can we do?