EMERGING TRENDS IN AMERICAN LIFE EXPECTANCY

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BROOKINGS

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#LifeExpectancy
Is 50 the New 80?

Anne Case
Death in the Afternoon

Angus Deaton
• There has been a remarkable long-term decline in mortality rates for middle-aged and older adults in the US

• Accompanied by decreases in morbidity, even among the increasingly long-lived elderly

• CDC reports [e.g., Health, United States, 2014] emphasize recent improvements, and also note a marked closing of the gap in black to white life expectancy, both of which are welcome

• These improvements play an important role in discussions of possible reforms to Social Security and Medicare
But not all is well
All cause mortality, ages 45-54
All cause mortality, ages 45-54

200 250 300 350 400 450
deaths per 100,000
1990 2000 2010
year

USW
FRA
GER
USH
UK
CAN
AUS
SWE
Figure 1. Increase in life expectancy at birth, by race and Hispanic origin: United States, 2000–2014

- All origins: 2.0 years
- Non-Hispanic black: 3.6 years
- Hispanic: 2.6 years
- Non-Hispanic white: 1.4 years

NCHS Data Brief No. 250 June 2016
What do changes in LE tell us?

• By itself, a change in LE doesn’t tell us where the action is
  o Changes in infant and child mortality have large effects on LE at birth
  o Changes in mortality in middle age and in old age carry very different weight in its measurement
  o Change in LE doesn’t carry with it the causes of death that are driving the change
Figure 1. Increase in life expectancy at birth, by race and Hispanic origin: United States, 2000–2014

<table>
<thead>
<tr>
<th>Race and Hispanic Origin</th>
<th>Increase in Life Expectancy (Years)</th>
</tr>
</thead>
<tbody>
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Figure 2: Contribution of the leading causes of death to the change in life expectancy for the non-Hispanic white population: United States, 2000–2014

NOTES: The figure shows only 10 causes of death. The sum of all contributions by cause of death equals 1.4 years, the increase in life expectancy for the non-Hispanic white population from 2000 to 2014. Access data table for Figure 2 at: http://www.cdc.gov/nchs/data/databriefs/db250_table.pdf#2.

Between 2013-2014 there was no overall improvement in LE, but this stasis masks changes seen in LE by race/ethnicity:

- BNH + 0.1 years
- Hispanics + 0.2 years
- WNH − 0.1 years

This decline was the first for WNH in over 20 years.
All cause mortality, ages 45-54

- USW
- FRA
- GER
- USH
- UK
- CAN
- AUS
- SWE

Mortality rates per 100,000 people from 1990 to 2010.
All cause mortality, ages 35-44

USW
FRA
GER
USH
UK
CAN
AUS
SWE

200 250 300 350 400
deaths per 100,000
1990 2000 2010
year

All cause mortality, ages 45-54

USW
FRA
GER
USH
UK
CAN
AUS
SWE

400 600 800
1000 1200
deaths per 100,000
1990 2000 2010
year

All cause mortality, ages 55-64

USW
GER
FRA
UK
CAN
USH
SWE
AUS

50 100 150 200 250
deaths per 100,000
1990 2000 2010
year

All cause mortality, ages 65-74

USW
GER
FRA
UK
USH
SWE
CAN
AUS

1500 2000 2500 3000 3500
deaths per 100,000
1990 2000 2010
year
Mortality by cause
In the past 15 years, the biggest increases are seen for:

- Accidental drug poisoning
- Suicide
- Alcoholic liver diseases and cirrhosis
Changing patterns of suicide and age

- Suicides among the elderly falling
- Suicides in middle age rising
- Both men and women, but more dramatic for women
- Happening in all US states

- NOT happening in other rich countries around the world
CDC reports that in 2008 there were 14,800 prescription painkiller deaths. *And for every 1 death there were*

- 10 treatment admissions for abuse
- 32 ER visits for misuse or abuse
- 130 people who abuse or are dependent
- 825 non-medical users
CDC reports that in 2008 there were 14,800 prescription painkiller deaths. And for every 1 death there were

10 treatment admissions for abuse
32 ER visits for misuse or abuse
130 people who abuse or are dependent
825 non-medical users

12 million people using prescription painkillers for non-medical uses
Suicide or accidental poisoning?
Suicide, alcohol and drug mortality may all be part of a deeper problem.
Now is when the real work begins (going into the weeds to put the pieces together)

BY CAUSE, BY RACE, BY AGE, BY SEX, BY COUNTRY,
BY SMALL GEOGRAPHIC REGION,
BY EDUCATION, EMPLOYMENT
Accidental poisoning, suicide and alcohol-related liver mortality

White non-Hispanics

year
Accidental poisoning, suicide and alcohol-related liver mortality
Black non-Hispanics
Poisoning, Suicide and Alcohol-related Liver Mortality
Men and Women, ages 45-49

Deaths per 100,000


year

Men and Women, ages 45-49
Poisoning, Suicide and Alcohol-related Liver Mortality
White non-Hispanic mortality ages 50-54, by education

- Men, high school degree or less
- Women, high school degree or less
- Men, 4-year college or more
- Women, 4-year college or more

Poisoning, suicide, and alcohol-related liver mortality

Year:
- 2000
- 2005
- 2010
- 2015

Education levels:
Drug and alcohol poisoning, Men and Women ages 50-54
Heart disease mortality, Men and Women ages 50-54

USW, DEU, UK
50
100 150
deaths per 100,000
1990 2000 2010
year
Heart disease mortality, Men and Women ages 50-54
Heart disease mortality, Men and Women ages 40-44

USW
UK
DEU

10 20 30 40
deaths per 100,000
1990 2000 2010
year

Heart disease mortality, Men and Women ages 40-44
Heart disease mortality, Men and Women ages 45-49

USW
DEU, UK
CAN

20 40 60 80
deaths per 100,000
1990 2000 2010
year
Heart disease mortality, Men and Women ages 45-49
Morbidity
We see large increases in midlife morbidity for WNH from 1997-present:

- Self-reported health status
- Pain (sciatica, lower back, neck, face, chronic joint)
- Social isolation
- Liver damage
- Difficulties with activities of daily living
- Serious psychological distress/mental illness

Accompanied by increases in drug and alcohol related deaths and suicides
What is going on here?
National Overdose Deaths
Number of Deaths from Prescription Opioid Pain Relievers

Source: National Center for Health Statistics, CDC Wonder
National Overdose Deaths
Number of Deaths from Heroin

Source: National Center for Health Statistics, CDC Wonder
**Why this upsurge in morbidity and mortality?**
We don’t have “an answer” to this yet
Proximate causes are drugs and alcohol, and the flat-lining of progress in heart disease, but what are the underlying causes?

- Declining prosperity for working class Americans?
- Fear of downward mobility?
- Disappearance of “good” jobs for high school graduates?
- Lack of a safety net?
- Lack of social connection?

**Why hasn’t this happened in other rich countries?**
We don’t know the answer to this yet

**Why haven’t US Blacks and Hispanics faced whatever has landed on the heads of White non-Hispanics?**
We have ideas, but no answers yet
Midlife mortality and economic circumstance

• We’ve begun new work on looking at mortality by cause and economic conditions by small geographic area over time in the US (which we call coumas)

• These are smaller than states, but generally larger than counties
couma mortality from drugs, alcohol, suicide 2005
white non-Hispanics ages 45-54
couma mortality from drugs, alcohol, suicide 2005
white non-Hispanics ages 45-54

couma unemployment rate, ages 25-64

depth per 100,000
WHO'S GOING TO WATCH FOX NEWS NOW?

DEATH RATE FOR MIDDLE-AGED WHITES ON THE RISE
EMERGING TRENDS IN AMERICAN LIFE EXPECTANCY

ANNE CASE

@hamiltonproj #LifeExpectancy
Harnessing Public Policy to Increase Life Expectancy for All Americans

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The Rich Live Longer Everywhere. For the Poor, Geography Matters.

By NEIL IRWIN and QUOCTRUNG BUI  APRIL 11, 2016

The opinions expressed in this paper are those of the authors alone and do not necessarily reflect the views of the Internal Revenue Service, the U.S. Treasury Department, or any other agency of the Federal Government.
10-15 Year Differences in Life Expectancy by Income

Women: Gap between top and bottom = 10.1 years
Annual Change in Race-Adjusted Expected Age at Death for Men in Bottom Quartile by State

Note: Turquoise represents rising life expectancy; red represents falling life expectancy
High life expectancy for the poor is correlated with 
(a) Healthier behaviors (smoking, obesity); and 
(b) The presence of a robust middle class
Harnessing Public Policy to Increase Life Expectancy for All Americans
Low Life Expectancy at Every Age

Ranking of US Mortality Rates by Age Group vs. Peer Countries, 2006-2008

For both sexes, the US never ranks higher than 15 out of 17 countries before age 75.
Survival to age 50 (females)
Harnessing Public Policy to Increase Life Expectancy for All Americans