Comments on “The Association Between Income and Life Expectancy in the United States, 2001-2014” by Raj Chetty

Janet Currie
Main Points

- Higher income is associated with greater longevity.
- Inequality in life expectancy at age 45 and older has increased over this time period.
- There is variation in life expectancy within income groups across commuting zones. E.g. for men in the lowest income ventile LE ranged from 72.3 in Detroit to 78.6 in NYC.
- Areas with less smoking and obesity have better outcomes for the low income.
- Only limited if any support for the hypotheses that contemporaneous quality of medical care, pollution, social cohesion, or inequality per se are strongly related to area-level differences in life expectancy.
Why are these Results Relevant in a Conference on Working Longer and Retirement?

- Health is a major determinant of work life – if people live longer *and if they are healthy* – they may also work longer.

- Longevity determines the length of Social Security and Medicare payments.
  - There is already concern that the system is biased against the poor because they have a shorter period of time in which to collect benefits.
  - This analysis suggests that such inequities are growing.

- Accurate forecasts of LE and retirement ages are needed to forecast the fiscal health of the SS and Medicare payment system (also Medicaid which pays for nursing home care).
Raj’s work is a major advance over much previous work on this topic: e.g. Olshansky et al. (2012)

The New York Times

Life Spans Shrink for Least-Educated Whites in the U.S.

By SABRINA TAVERNISE  SEP. 20, 2012

For generations of Americans, it was a given that children would live longer than their parents. But there is now mounting evidence that this enduring trend has reversed itself for the country’s least-educated whites, an increasingly troubled group whose life expectancy has fallen by four years since 1990.

Researchers have long documented that the most educated Americans were making the biggest gains in life expectancy, but now they say mortality data show that life spans for Americans are actually contracting.
Life Expectancy At Birth, By Years Of Education At Age 25 For White Females, 1990–2008

- 1990
- 2000
- 2008

Years of education:
- <12
- 12
- 13-15
- 16 or more

Life expectancy at birth (years):
- 70
- 73
- 76
- 79
- 82
- 85
Population Share
by Education for White Non-Hispanic Females, Age 25-84, 1990-2010

- 66% decrease

Years of education
1990 2000 2010
Provides important data and a useful corrective

- Useful for forecasting the longevity of those currently middle aged.
- An especially important finding is that some places with the most inequality (e.g. New York City) have the best outcomes for low income people.
  - This result refutes the very prevalent view that income inequality per se leads to health inequality.
  - It suggests that policies can be pursued in order to improve the health of the low income even in a world with rising income inequality.
- Suggests that policies at the local level have been important.
I will offer some observations and findings complementary to those Raj presented

- Trends in inequality in mortality are starkly different for children than for middle aged and older adults: The health of children has improved dramatically over the past 20 years.
  - Improvements are especially dramatic for African-Americans (who cannot be distinguished in the tax data).

- Forecasts of the health and longevity of today’s children, should begin with today’s children, not the middle aged.
  - Health (including heart disease and cancer risk) is a stock that is shaped by events from before birth and not only by the current health environment.
Our Approach (Currie and Schwandt, 2016 Science, JEP)

We first rank counties from richest to poorest.

We then group counties into “bins” each representing about 5% of the population.

We do this separately for 1990, 2000, and 2010, so that in each Census year, we are considering mortality in the poorest counties and the richest counties regardless of whether counties changed ranks.

Calculate 3-year mortality rates.
3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.

(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

(A) Age 0-4
3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.
(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)
3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.
(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

(C) Age 20-49
3-Year Mortality Rates Across County Groups Ranked by Poverty Rates, by Race and Gender.
(Blue triangle=1990, Green Circle=2010, Red Square=2010 with multiple race)

(D) Age 50+
Summary

- We find increases in mortality inequality among adults 50+ consistent with Chetty et al.
- But there are strong reductions in inequality in mortality among children and young adults.
- Stunning declines in mortality levels among African-Americans at all ages which have been little discussed.

- But declines in mortality among the young may not necessarily mean that survivors are healthier. What other evidence is there for improvements in health among the young?
Sharp declines in child hospitalizations for cohorts eligible for public health insurance: 2009 hospitalizations for chronic illness in black children born after Sept. 1, 1983 (Wherry et al., 2015)
Reductions in Smoking: Fractions of people who “ever smoked” (source is NHIS)

Age 50+

Increase in SES smoking gap: Men 6pp; Women 10.5pp

Age 18+

Increase in SES smoking gap: Men -2.3pp; Women -0.2pp
Improvements May Reflect the Fact that Amounts Spent on Children Have Greatly Increased ($2015)

Note: Only Medicaid for children and non-disabled adults is included. Assumed that ½ of Food Stamp payments go to families with children.
The Bright Bottom Line

- Even in a time of growing economic inequality, there were strong reductions in mortality among the poor.
- Mortality among poor children improved at a faster rate than among rich children reducing inequality in mortality.
- Suggests that current young cohorts will be healthier than current old cohorts and have less inequality in health.
- Policy may be able to effectively buffer the health effects of poverty and economic inequality.