Live Long and Prosper: The Impact of Education on Mortality

Understanding the Relationship Between Years of Education and Longevity

Robert M. Kaplan
Agency for Health Care Research and Quality
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“Science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life and reduce illness and disability.”
Trends in Current Life Expectancy for 50 Year Old Women

Source: Chapter 2, Diverging Trends in Life Expectancy at Age 50: A Look at Causes of Death, D. Glei, F. Mesle, J. Vallin

Source: Glei et al. 2010
17 Peer Comparison Countries

- Australia
- Austria
- Canada
- Denmark
- Finland
- France
- Germany
- Italy
- Japan
- Norway
- Portugal
- Spain
- Sweden
- Switzerland
- The Netherlands
- United Kingdom
- United States
The problem is longstanding and worsening. In 1980, US life expectancy among females was about average, and was near the bottom for males, but by 2006 US life expectancy for both sexes had fallen to the bottom ranks.
US male and female newborns can expect to lose about 1.4 years and 0.8 years of life, respectively, before age 50.

The US losses before age 50 are double those of Sweden, the best performing country.

For decades, American youth have been less likely to survive to age 50 than people in other rich nations.

Educational Attainment in the US is Slipping

- US preschool enrollment is lower than in most high-income countries.
- Among adults of all ages, the US ranks well in educational attainment, but other countries (including emerging economies) are outpacing the US in the educational attainment of young people (e.g., graduation rates).
- US grade school students score above average, but by age 15 US students have average or below-average scores on math, science, and reading.

With State as Unit of Analysis, Life Expectancy Health Disparities Are Highly Correlated with 4th Grade Math Performance Disparities (from Kaplan 2013)
Education and Longevity in the REGARDS Study With Adjustments

From Kaplan, Howard et al, *Annals of Epidemiology, Epidemiology* 25(5), 323-328
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The Health of Nations: More Spending Does Not Translate into Longer Lives

Figure 1. There are large differences in life expectancy and health care spending across OECD countries 2008.

Source: OECD Health Data 2010.
Education and Health: Is it Access to Care?

Fig 1c Percent with activity limitations

FROM Kaplan et al 2015: MEPS 2013 data
Quality-Adjusted Life Years By Risk Group

Data estimated from Whitehall 39 year follow-up: Clarke BMJ 2009;339:b3513
Deaths Associated With Low Education

Scatterplot of relationship between increases in % with college degree and increase in life expectancy 1970-2010: OECD data
"Somebody has to do something, and it's just incredibly pathetic that it has to be us."

Jerry Garcia
the Grateful Dead