

Social Determinants of Health

Education Access and Quality

August 2024



INTRODUCTION

According to the U.S. Department of Health and Human Services (DHHS), social determinants of health (SDOH) are environmental conditions that impact the health of individuals. These include where a person is born; where they live; their age; and their economic background. SDOH can be broken down into five groups:¹

1. Health Care Access and Quality;
2. Education Access and Quality;
3. Social and Community Context;
4. Neighborhood and Built Environment; and
5. Economic Stability.

This commentary, the second of a five-part series, will focus on education access and quality. Existing research suggests literacy and education have a positive relationship with health and well-being. Early childhood education, finishing high school, and enrollment in a college or university, all have an impact on a person's quality of health.

Americans without a college education have a significantly shorter lifespan—about 8.5 years less—than those with a bachelor's degree.



PEOPLE WITH HIGHER LEVELS OF EDUCATION ARE MORE LIKELY TO LIVE LONGER

According to a recent Princeton study², Americans without a college education have a significantly shorter lifespan than those with a bachelor's degree. Using death records from 1992 to 2021 that included information on educational attainment, researchers calculated life expectancy by college degree beginning at age 25 (when most people will have earned their degree). Researchers calculated that the future life expectancy for an average college-educated individual increased to 84 years. Those without a college degree would expect to live about 8.5 years less than those with a college degree.

A meta-analysis of more than 600 studies spanning more than 50 countries suggests that, on average, an adult with 12 years of education has a 24.5 percent lower risk of mortality compared to an adult with no schooling. Each year of schooling lowers the risk of mortality by 1.9 percent.³

PEOPLE WITH HIGHER LEVELS OF EDUCATION ARE MORE LIKELY TO BE HEALTHY THROUGHOUT THEIR LIVES

Nearly all health outcomes have been found to be strongly patterned by education. Less-educated adults generally report worse overall health, more chronic conditions, more functional limitations, and more disability when compared to individuals with higher levels of education. Less-educated adults are more likely to smoke, less likely to exercise, and more likely to have an unhealthy diet.⁴

A 2020 study⁵ looked at the linkage between education and health over a 20-year period for 26 countries around the world. Using empirical data from the Organization for Economic Cooperation and Development (OECD) and World Bank, researchers found that adults with higher levels of educational attainment have better health and lifespans compared to their less-educated peers.

Well-educated people generally experience better health as reflected in the high levels of self-reported health and low levels of morbidity, mortality, and disability.⁶ Education enables people to develop a wide range of skills that predispose them toward improved health outcomes.⁷

1 DHHS, "Priority Areas – Social Determinants of Health," retrieved from <https://health.gov/healthypeople/priority-areas/social-determinants-health>, accessed on April 1, 2024.

2 Anne Case and Angus Deaton, "Accounting for the Widening Mortality Gap Between American Adults With and Without a B.A.,"

3 IHME-CHAIN Collaborators, "Effects of Education on Adult Mortality: A Global Systematic Review and Meta-Analysis," January 23, 2024, retrieved from <https://www.thelancet.com/action/showPdf?pii=S2468-2667%2823%2900306-7>, July 16, 2024.

4 Anna Zajacova and Elizabeth M. Lawrence, "The Relationship Between Education and Health: Reducing Disparities Through a Contextual Approach," National Institutes of Health, January 12, 2018, retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5880718/>, July 15, 2024.

5 Viju Raghupathi and Wullianallur Raghupathi, "The Influence of Education on Health: an Empirical Assessment of OECD Countries for the Period 1995–2015," Archives of Public Health, 78, 20 (2020).

6 Ibid.

7 Mirowski J, Ross CE. "Education, Learned Effectiveness and Health," London Rev Edu. 2005;3(3):205–20.

The vocabulary gap between children from the wealthiest and poorest families can be more than 30 million words by age 3, significantly affecting their academic performance and future health.



PEOPLE WITH LOWER SOCIOECONOMIC STATUS ARE AT GREATER RISK OF HEALTH ISSUES

Education plays an important role in health through its influence on socioeconomic factors such as employment and income. Education leads to better, higher-paying jobs. Higher-paying jobs allow families to accumulate income and wealth.

Studies suggest that Americans at all income levels are less healthy than those with incomes higher than their own.⁸ Low-income adults are more likely than affluent adults to report being in fair or poor health, and to report having activity limitations due to chronic illness. Low-income adults have higher rates of obesity, smoking, heart disease, diabetes, and other chronic disorders than wealthier adults, and they are less able to afford health care services and health insurance.⁹

EDUCATION CAN HELP TO CONTROL THE COSTS OF HEALTH CARE AND GENERATE BROADER ECONOMIC RETURNS

Human services (40.2 percent/\$47.7 billion) and education (27.0 percent/\$31.9 billion) make up a significant portion of Florida's state budget. For fiscal year 2024-25, Medicaid will account for almost 30 percent (\$35.5 billion) of the state's overall spending.¹⁰ States like Florida spend a disproportionate amount of their health care budget to care for low-income people with limited education.

8 Braveman, Paula A., Catherine Cubbin, Susan Egerter, David R. Williams, and Elsie Pamuk. 2010. "Socioeconomic Disparities in Health in the United States: What the Patterns Tell Us." *American Journal of Public Health* 100 (S1): S186–S196. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2837459/>.

9 Steven H. Woolf, et al., "How Are Income and Wealth Linked to Health and Longevity?" Urban Institute, April 2015.

10 Florida TaxWatch, "The Taxpayers' Guide to Florida's FY 2024-25 State Budget," July 2024.

11 Andrew J. Barnes, Rose S. Bono, April D. Kimmel, and Steven H. Woolf, "Investments in Education are Investments in Health," Virginia Commonwealth University, March 2015.

12 R.F. Schoeni, W.H. Dow, W.D. Miller, and E.R. Pamuk, "The Economic Value of Improving the Health of Disadvantaged Americans," *Am. Journal of Prev. Med.* 2011;40(1, Suppl. 1):S67-S72.

Nationwide, about 80 percent of Medicaid spending is for persons with chronic diseases, such as cardiovascular disease, obesity, and diabetes, which occur at higher rates among populations with lower levels of education.¹¹ A 2011 study found that, if the health status of less-educated persons was the same as their college-educated peers, the related improvements in health would save more than \$1 trillion.¹²

Better-educated Floridians are more likely to be employed and productive and are less likely to require financial assistance in the form of state and federal safety net programs. At the state level, their higher earnings contribute to increased state revenue collections and a stronger economy overall. At the local level, their higher earnings translate into higher property values, stronger tax rolls, and improved facilities and services for residents.

ACCESS TO QUALITY EDUCATION IN THEIR EARLY YEARS LEADS TO BETTER HEALTH AS ADULTS

A child's quality of life, and that child's contributions to society as an adult, are shaped during the early years (0-5) of a child's life. Their experiences during their early life form the basis for their growth and development and for their ability to learn.

Research suggests that children who were born into homes with fewer economic resources learn fewer words, have fewer experiences with

words in interactions with other persons, and acquire a vocabulary of words more slowly.¹³ By age 3, the vocabulary gap between children from the wealthiest and poorest families is more than 30 million words.¹⁴

Why is this important? Because vocabulary development during a child's early years directly affects their ability to read and comprehend, which affects their academic performance. Children cannot understand what they are reading if they do not know what the words mean.

According to the U.S. Centers for Disease Control and Prevention (CDC), nine out of ten adults have a hard time understanding and using health information when it is filled with complex or unfamiliar terms.¹⁵ Individuals with limited literacy face difficulties understanding their physicians; following medication instruction; and obtaining their health information.

Further, research shows that patients with inadequate health literacy had an average stay of 12.5 days in the hospital while those with adequate health literacy had a stay of 7.5 days.¹⁶

A 2019 study found that people with inadequate health literacy utilize more resources through more frequent emergency department visits and have higher care costs with poorer health outcomes.¹⁷

Research shows that children from low-income families who participate in high-quality early learning programs show benefits that extend well into adulthood. These benefits include higher levels of educational achievement and earnings, as well as health improvements (e.g., reductions in smoking, lower risk of heart disease and diabetes, etc.). Public benefits include reduced societal costs (e.g., reduced crime, etc.) and increased tax revenues.¹⁸

CONCLUSION

The major takeaway from this Commentary is that education and health are intrinsically linked—investments in education are investments in health, and these investments produce broad economic returns.

Those with good educations generally experience better health and health outcomes throughout their adult lives. They live longer and generate lower healthcare costs. They tend to be more successful students, more productive employees, and contribute more to the economy. All of this suggests that investments in education might prove to be a cost-effective way to achieve better health outcomes.

If we are going to invest in education, the earlier the better. Early investments have the potential to change (for the better) the educational trajectories of students, particularly students from low-income families.

13 Betty Hart and Todd R. Risley, "Meaningful Differences in the Everyday Experience of Young American Children," 1995.

14 Laura J. Colker, "The Word Gap: The Early Years Make the Difference," *Teaching Young Children*, February/March 2014, Vol. 7, No. 3.

15 CDC, "Talking Points About Health Literacy," retrieved from <https://www.cdc.gov/healthliteracy/shareinteract/TellOthers.html>, accessed on July 1, 2024.

16 Rabia Shahid, "Impact of Low Health Literacy on Patients' Health Outcomes: A Multicenter Cohort Study," September 2022.

17 Rabia Shahid, "Impact of Low Health Literacy on Patients' Health Outcomes: A Multicenter Cohort Study," September 2022.

18 James J. Heckman, Rob Grunewald, and Arthur J. Reynolds, "The Dollars and Cents of Investing Early: Cost-Benefit Analysis in Early Care and Education," *Zero to Three*, July 2006, 26(6), pp. 10-17.

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RESEARCH PROJECT TEAM

Bob Nave	Senior VP of Research		<i>Contributing Author</i>
Jui Shah	Research Economist		<i>Contributing Author</i>
George Kantelis	Communications Specialist		<i>Layout & Design</i>

All Florida TaxWatch research is done under the direction of Dominic M. Calabro, President, CEO, Publisher & Editor.

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106 N. Bronough St
Tallahassee, FL 32301

o: 850.222.5052

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