

Education Programs Are Likely to Improve Health, but Will They Improve Health Equity?



Education is a strong predictor of health and longevity: the higher a person's level of education, the greater the likelihood of a long and healthy life. This is true in the U.S. as well as in other parts of the world.¹ The association is stronger in some countries than in others—for example, in the U.S. than in most Western European countries,² perhaps because of greater economic returns to schooling in the U.S.³—but it is otherwise remarkably consistent across time and place.

This consistency has tempted researchers and policy-makers alike to interpret the association as being causal—with the arrow of causality running from education to health, not the other way around. This is, however, not the only possible interpretation because good health and personal characteristics leading to better health, such as cognitive ability and time preference, may also lead to better educational outcomes.⁴

As true experiments are impossible, quasi-experimental studies are the best way to assess whether the effects of education on health and longevity are indeed causal. “Natural experiments” exploiting the introduction of compulsory schooling laws indeed generally show that an extra year of education leads to lower mortality in later life^{5,6} and thus support the claim that at least part of the commonly observed association between education and health is causal. This effect of education on health is probably due to the fact that education confers several health-related benefits, such as a better understanding of health risks, more effective utilization of health services, a more secure and fulfilling job, and a higher income.⁴

It is therefore also likely—although difficult to prove because of the long delays involved—that programs and policies that improve educational outcomes among young people at risk of not achieving their full educational potential have positive health effects. Educational policies, like housing and social security policies, are increasingly seen as an important adjunct to conventional health policies,⁷ and the inclusion by the U.S. Community Preventive Services Task Force of education programs and policies among the interventions for which it conducts effectiveness reviews is a welcome support to this development.

As part of its focus on “health equity,” the U.S. Community Preventive Services Task Force has reviewed evidence on the effectiveness of several education programs: comprehensive programs for children of low-income families to foster early childhood

development,⁸ full-day kindergarten programs,⁹ and out-of-school-time academic programs.¹⁰ For all these types of programs, it found convincing evidence for beneficial effects on one or more relevant educational outcomes. It has now also assessed the effectiveness of high school completion programs, and a paper reporting on this review can be found elsewhere in this issue of the journal.¹¹

The review finds that several high school completion programs are effective. These include vocational training, social-emotional skills training, mentoring and counseling, and various other intervention packages. High-risk student populations exposed to such programs are more likely to complete high school as compared to control groups, and the effects are often substantial: the difference in high school completion was between 4 and 16 percentage points (e.g., 86% for those who received vocational training versus 70% for those who did not). Slightly larger effects were found for programs targeting pregnant or parent student populations.¹¹

Together with the presented economic evidence, the review findings certainly support the recommendation by the U.S. Community Preventive Services Task Force to implement these programs for students at high risk for non-completion, not only from a broader societal perspective but also from a public health perspective. This will probably have various beneficial effects among these students, including improved later-life health, but the review also concludes that “because many programs are targeted to high-risk students and communities, they are likely to advance health equity.”

This would be highly desirable, but will they really? The review does not present a detailed rationale or “logic model” to underpin this claim, other than the general idea that “these programs are commonly targeted to minority and low-income communities, [and] are likely to narrow academic achievement gaps.” An important assumption here is that “targeting” will prevent young people from non-minority and middle- and high-income communities from benefiting from these programs, and that may or may not be true. These or similar programs will inevitably also be offered to young people from non-disadvantaged backgrounds who are at high risk for non-completion of high school education, and whether academic achievement gaps will actually be narrowed will then depend on differences in coverage and success rates among disadvantaged and non-disadvantaged groups.

More importantly, the plausibility of the claim that these programs will advance health equity strongly depends on how health equity is conceptualized. It is commonly defined as (the absence of) systematic disparities in health between socially defined subgroups of

the population (i.e., between racial or ethnic groups, between socioeconomic groups, and others).¹² The “problem” with educational programs is that they change the distribution of the population across some of these subgroups: if they are effective, they move people into higher educational groups, and subsequently also into higher occupational and income groups. Although this will reduce the proportion of the population in the lowest socioeconomic groups, and may reduce disparities in health between groups defined in racial or ethnic terms, it will not necessarily reduce disparities in health between groups defined in socioeconomic terms.

On the contrary, the available evidence suggests that over the past decades, relative disparities in mortality between educational groups have increased in many countries, and the shift toward higher levels of education has been associated with increasing disparities in health between educational groups.^{13,14} Possible explanations are that education has become more selective with regard to personal characteristics conducive to health, that the importance of education as a resource for health has increased over time,¹⁵ or both. Education programs and policies that help young people achieve their educational potential will not change that, and may even paradoxically strengthen these effects.

Widening disparities in health at the population level are a price we may have to pay for better educational systems and better health outcomes at the individual level. This is no reason not to implement the education programs recommended by the U.S. Community Preventive Services Task Force, but the persistence of health disparities across time and place should remind us that these disparities are a truly wicked problem.

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