Bridging Education and Health: Opportunities for Collaboration on Research and Data Systems

Executive Summary
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Introduction

Historically, researchers and policymakers have paid too little attention to the interconnectivity between two key domains — education and health. To help cultivate connections between these two domains, Educational Testing Service (ETS) convened a conference, *Understanding the Opportunities for Collaboration between the Health and Education Sectors in a Culture of Health*. The conference brought together social, behavioral and education science researchers and other experts in the fields of health and education to begin to build a bridge between the health and education data information systems and a small number of leading researchers, with the intention of exploring opportunities for collaborations. Support for this conference was provided by a grant from the Robert Wood Johnson Foundation (RWJF).

This conference provided the opportunity for health and education experts to present their research and data sources; to discuss the strengths and limitations of existing data and research; and to offer advice about steps toward strengthening data systems and research that will contribute to advancing health and education in K–12 schools and school systems in the United States. This was done with the belief that improved research and better data will expand scientific understanding and aid in the development and refinement of evidence-based practice. The group explored opportunities for collaborations between the health and education research sectors aimed at benefiting K–12 education as well as human and community health outcomes.

Recommendations

During the conference, the participants made several recommendations for prioritizing related research and expanding the available health and education data, which we grouped under seven main topics. It is our hope that policymakers, researchers and practitioners from both the health and education sectors collaborate to make these recommendations a reality.

Health and Education Must Be More Aligned

The two fields need to work together to focus the public discourse and agenda on both health and education. Suggested efforts to focus public discourse include: 1) create spaces and systems to further encourage cross-sector engagement, 2) promote the alignment of health and education metrics that reflect the common and interconnected goals of the two fields, and 3) cultivate strategies for communication, advocacy and action based on cross-sector research to promote the health and educational well-being of all people, including the most vulnerable populations.

One concrete recommendation for moving forward from this conference was for more convenings in which people from both health and education review leading issues, solidify what is known and not known in the field, and develop a strategy for advocacy. Future convenings could have stronger health representation and include professionals and practitioners from school health and pediatrics.
Create Common Metrics

Adding questions to existing large-scale surveys can leverage the utility of evaluations by developing and promoting the use of common health and education metrics. Common metrics could also leverage the utility of evaluations. In the same way that using established survey questions across large-scale surveys is a valuable research tactic, it is also possible that having common questions and approaches to various constructs across evaluations could expand the knowledge base connecting health and education.

Both nationally and locally, academics, program evaluators, policymakers and funders could use a comprehensive list of valid and reliable items that efficiently measure important health and education constructs. If there are common health and education variables in program logic models, and researchers and funding organizations agree to incorporate common measures into their work, the field will be poised to expand both its understanding and impact on improving health and K–12 outcomes.

Link Existing Datasets

The conference highlighted many existing primary sources of health and K–12 data including federal study data and federal and state administrative data records. ETS compiled a list of available health and education datasets found in the public domain, which was discussed during the conference and has been made public.\(^1\)

To expand the available health and education data, researchers can link different data systems. Linking datasets would expand the depth of information available and make it possible for researchers, evaluators and policy analysts to address additional health and education questions. Possible research investments for increasing the use of data linking strategies include directly funding secondary data analysis and providing support for researchers, especially new academics, to promote the connected use of datasets.

Map Health and Education Outcomes and Discover Patterns

Use of Geographic Information Systems (GIS) is an innovative approach which visually links and maps data. This technology provides an enhanced ability to visualize and map health outcomes and patterns. Spatial data can be used to analyze and communicate about community health and education issues, assets, and strategies for change. For example, the ZIP code data on education surveys can be used to assess the academic impacts of aggregate neighborhood health characteristics.

Develop a Health and Education Data Enclave

A cross-discipline health-and-education secure data enclave, open to the research community, could be valuable and play a critical role in the merging or coupling of one dataset with another to conduct unique analyses. A data enclave is a research repository that allows for the sharing of highly sensitive confidential data, such as survey respondents’ personally identifiable information. Enclaves allow

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1 https://www.ets.org/s/achievement_gap/rsc/xls/public_health_edu_datasets.xls
researchers to safely conduct analyses within a secure environment and ensure the confidentiality of survey respondents, thus balancing privacy with scientific utility.

**Develop and Use New and Innovative Analytic Methods**

As increasingly complex datasets are developed, researchers will need to depend on new and innovative analytic methods to examine them. For example, high-dimensional statistical procedures can be used to help identify the most relevant predictors in complex models. Also, statistical simulation models are a useful tool for projecting a real-world process into the future, allowing researchers to estimate the promise of targeted interventions.

**Prioritize Research within Promising Areas**

Areas of research that hold promise in promoting broader understanding and action toward advancing health and education in the United States include: 1) individual health factors (such as vision problems, asthma, and mental health issues) that impact education outcomes, 2) social and emotional skill development, and 3) neighborhood and school safety factors. Initial findings indicate that prioritizing research and development of interventions in these areas should be continued. Another promising area for research is the construction of a health-education logic model that formally outlines the path estimates and effect sizes for multiple sub-populations. This could help researchers and policymakers better understand and improve outcomes for different groups.

**Conclusion**

Researchers in both the education and health sectors recognize that the disparities in education and health require frameworks that include a variety of social, neighborhood, school and family characteristics, all of which influence opportunities to thrive and prosper across multiple domains of life. While the public health and education communities are working to more fully understand the ways in which physical, emotional and environmental health impact education, and vice versa, they often remain separated in their work. Research, evaluation and data recommendations presented at this conference exemplify the possibilities of cross-sector collaboration to enhance K–12 education, community health and individual health outcomes. The hope is that these suggested opportunities inspire increased bridging of the health and education sectors and their research and data systems.
About ETS

At ETS, we advance quality and equity in education for people worldwide by creating assessments based on rigorous research. ETS serves individuals, educational institutions and government agencies by providing customized solutions for teacher certification, English language learning, and elementary, secondary and postsecondary education, and by conducting education research, analysis and policy studies. Founded as a nonprofit in 1947, ETS develops, administers and scores more than 50 million tests annually — including the TOEFL® and TOEIC® tests, the GRE® tests and The Praxis Series® assessments — in more than 180 countries, at over 9,000 locations worldwide.