

VID Colloquium

The Population Education Transition Curve: The Education-Health Gradient across Demographic Transitions

David P. Baker,
Pennsylvania State University, United States

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The salutary effect of formal education on health risks, disease, and mortality is extensively documented: *ceteris paribus*, greater educational attainment leads to healthier lives and longevity. Even though the epidemiological evidence strongly indicates formal education as a leading “social vaccine,” there is intermittent reporting of counter education gradients for health risks and diseases for certain populations at specific time periods. How can education have both salutary and harmful effects on health, and during which contexts do particular effects emerge? A potentially useful way to conceptualize demographic influence of education is to consider it as a process sensitive to environmental change during demographic transitions. Developed here is a hypothesis that the education effect is made up of multiple potent pathways (material, psychological, cognitive) by which health is influenced, and there can be circumstances under which pathways act in opposite directions or are differentially suppressed and enhanced. The Population Education Transition (PET) curve is proposed as a unifying functional form to predict the shifting education gradient across the onset and course of demographic transitions and their related health implications for populations. The PET curve is then estimated for the association of educational attainment with: 1) risk of smoking over access to mass-produced cigarettes in the U.S., 1940-1999; 2) risk of smoking over access to mass-produced cigarettes in the China, 1940-2000; 3) risk of over-weight among females in Caribbean/ Latin America over the population nutritional transition; 4) risk of HIV infection among Tanzanians across different stages of public health mobilization during the pandemic. Lastly, the theoretical and policy implications of the PET curve for understanding all demographic processes of highly educated populations is considered.

About the presenter

David P. Baker is Professor of Education and Sociology, and is a research scientist at the Center for the Study of Higher Education and the Population Research Institute at the Pennsylvania State University, where he directs a research program on the worldwide education revolution's impact on global development and health. He leads a multi-disciplinary research project on understanding the education effect on population health, including the HIV/ AIDS pandemic in sub-Saharan Africa, obesity and the nutrition transitions in Latin America, the smoking epidemic in China, and the epidemiological transition to chronic disease load. Baker regularly consults with multilateral organizations about research on education development. His social science research has encompassed all regions of the world and has been reported in scientific journal articles, monographs, and multi-lateral development agency policy reports, and his most recent book is *The Schooled Society: The Educational Transformation of Global Culture*, Stanford University Press. © VID