How many US deaths are caused by poverty, low levels of education and other social factors?

June 16 2011

How researchers classify and quantify causes of death across a population has evolved in recent decades. In addition to long-recognized physiological causes such as heart attack and cancer, the role of behavioral factors—including smoking, dietary patterns and inactivity—began to be quantified in the 1990s. More recent research has begun to look at the contribution of social factors to U.S. mortality. In the first comprehensive analysis of such studies, researchers at Columbia University's Mailman School of Public Health found that poverty, low levels of education, poor social support and other social factors contribute about as many deaths in the U.S. as such familiar causes as heart attacks, strokes and lung cancer.

The full study findings are published online ahead of print in the *American Journal of Public Health*.

The research team, led by Sandro Galea, MD, DrPH, chair of the Mailman School Department of Epidemiology, estimated the number of U.S. deaths attributable to social factors using a systematic review of the available literature combined with vital statistics data. They conducted a MEDLINE search for all English-language articles published between 1980 and 2007 with estimates of the relation between social factors and adult all-cause mortality. Ultimately they considered 47 studies for meta-analysis. After calculating for the relative risks of mortality from social factors, researchers obtained prevalence estimates for each social factor

using primarily Census Bureau data. Individual social factors included education, poverty, health insurance status, employment status and job stress, social support, racism or discrimination, housing conditions and early childhood stressors. Area-level social factors included area-level poverty, income inequality, deteriorating built environment, racial segregation, crime and violence, social capital and availability of open or green spaces.

The investigators found that approximately 245,000 deaths in the United States in the year 2000 were attributable to low levels of education, 176,000 to racial segregation, 162,000 to low social support, 133,000 to individual-level poverty, 119,000 to income inequality, and 39,000 to area-level poverty.

Overall, 4.5% of U.S. deaths were found to be attributable to poverty—midway between previous estimates of 6% and 2.3%. However the risks associated with both poverty and low education were higher for individuals aged 25 to 64 than for those 65 or older.

"Social causes can be linked to death as readily as can pathophysiological and behavioral causes," points out Dr. Galea, who is also Gelman Professor of Epidemiology. For example, the number of deaths the researchers calculated as attributable to low education (245,000) is comparable to the number caused by heart attacks (192,898), which was the leading cause of U.S. deaths in 2000. The number of deaths attributable to racial segregation (176,000) is comparable to the number from cerebrovascular disease (167,661), the third leading cause of death in 2000, and the number attributable to low social support (162,000) compares to deaths from lung cancer (155,521).

"These findings argue for a broader public health conceptualization of the causes of mortality and an expansive policy approach that considers how social factors can be addressed to improve the health of

populations," observed Dr. Galea.

Provided by Columbia University

Citation: How many US deaths are caused by poverty, low levels of education and other social factors? (2011, June 16) retrieved 4 May 2024 from https://medicalxpress.com/news/2011-06-deaths-poverty-social-factors.html