

Commentary on "Study: Unhealthy Eating Is Top Risk for Early Death in U.S."

Story authored by Cliff Despres. April 25, 2018

Copy at <https://salud-america.org/unhealthy-eating-is-top-cause-of-us-death/>

Extract from the story (first three lines):

"An unhealthy diet is the leading risk factor for death, causing more than 500,000 U.S. deaths in 2016, according to a new study.

For the study, University of Washington researchers analyzed data on 333 diseases in every state from 1990-2016.

They implicated diet in 529,999 deaths from heart disease, stroke, diabetes, cancer, and other diseases in 2016."

Schild comment (posted online):

More "spotty" statistics: deaths based on statistical associations. The key word in this story is "implicated": "They [the researchers] implicated diet in 529,999 deaths".

These are not coroner-assigned causes of deaths. These are statistically-linked factors.

Suppose that reading home and fashion magazines is a bigger risk factor for pregnancy than reading car and sport magazines. Being a bigger risk factor doesn't mean it has any causal effect.

Diet may cause premature death, but this study doesn't give much evidence to support that claim.

For more on "spotty" statistics, see [Epidemiological Models and Spotty Statistics](#).

Abstract:

Epidemiological models generate statistics that look like ordinary counts and percents of real things. But these statistics are anything but ordinary counts and percents. These statistics are generated by models – they are speculative statistics. And like all model-generated numbers, they depend critically on the assumptions involved – the choice of what to take into account. This paper reviews how these statistics are generated and shows how sensitive they are when taking into account confounders.

These speculative statistics are described as “spotty statistics” for the same reason we might say a worker’s resume with big gaps between jobs is a “spotty work record.” We are not saying that anything is necessarily false. We are saying that what is not shown may be extremely relevant to the situation at hand. In the case of spotty statistics, their sensitivity to assumptions or confounders means they should definitely be handled with care.

Copy at www.statlit.org/pdf/2011SchildISI.pdf