

# Can We Eat Our Way to Health (Or at Least Avoid Dying)?



By Chuck Dinerstein — April 4, 2019



Courtesy of the National Institutes of Health [1]

A new analysis looks at the impact of diet, writ large, on the “global burden of disease,” that is to say what in our diet is linked [1] to disease and to what extent. It is part of the Lancet’s year-long effort to look at noncommunicable diseases.

*“Our findings show that suboptimal diet is responsible for more deaths than any other risk globally, including tobacco smoking.”*

The top three sources of mortality were diets high in salt, low in whole grains or low in fruit. Few surprises there although the salt data according to the Lancet remains [controversial](#) [2]. But among the diet with the lesser mortality were diets high in red meat, processed food, sugar-sweetened beverages, and trans-fats; diets low in calcium and milk also had less impact – at least globally. Aren’t those the foods we have been told to avoid?

## **The analytic model**

The researchers looked at 15 dietary “risk factors,” using data from many meta-analyses of food and diet, consumption of these factors in countries and regions, and dietary information based on 24-hour diet recall, “the gold standard method for assessing mean intake at the population level.” For each diet-disease pair, they applied other meta-analyses to determine possible rates of morbidity and mortality. Finally, the optimum level of intake was the level that “minimizes risk from all causes of death.” They brought a great deal of disparate data together to do their analysis and

should be congratulated on the effort.

The limitations of the study include significant gaps in the quality of the data they utilize; they freely admit that the gold-standard dietary recall is susceptible to bias. The data also has large gaps in information when looking at so many countries. The selection of meta-analysis to determine rates of morbidity and mortality is subject to bias and since each diet-disease pair is looked at in isolation their cumulative effect may be overestimated. Despite the findings of the analysis, we must take the results with a large grain of salt – to use an art analogy the report is more impressionistic than portraiture.

## **The findings**

Diets high in sugar or low in whole grains or fruit were responsible for the most deaths, primarily from cardiovascular disease followed by cancer and diabetes. But as you might expect the country and regional patterns varied quite a bit. Salt was a big issue in central and east Asia, home of large populations, therefore, maximizing its analytic impact; salt was far less in the US. The regional disparities were not as significant for low grains or fruits; everyone seemed to be suboptimal to a similar degree. But each culture had its own pattern of deficiencies – diet is culturally driven, not global.

When stratifying their results by socio-demographic index, a way of describing a countries development [2], the lowest burden of dietary risk was observed in high SDI countries, like ours. Top SDI countries had the least cardiovascular and diabetes burden, low SDI countries the least cancer when adjusted for age. When unadjusted those countries in the upper middle, e.g., Argentina, Greece, Iran, Northern Ireland, had the greatest diet-related deaths and disability.

## **Marching orders**

While the headlines are about sugar, whole grains and fruit this report represents the new marching orders in population health. Whatever you may conclude from the report, the fact that diet has a more significant impact than tobacco is reasonable, if for no other reason than we all eat and a declining few of us smoke. What are the new directives?

First, it is a recognition that diet may play a significant role in our health. The internet meme is “food is the new medicine,” but for policymakers and talking heads the key phrase is “social determinants of health.” The dietary interventions already in place, labeling, taxes, subsidies, education, worksite, and school programs have “observed effects ... below the level required to achieve optimal diet globally ... with no evidence of the effectiveness of these interventions.” Second, the realization that these interventions involve “simplifying assumptions” that do not take into account consumer responses, like traveling outside of areas where sugary beverages are taxed to purchase them. Third, is acknowledging that our diets are complex interrelationships between culture, manufacturing, income, education, a host of factors so that targeting the consumer alone has little effect.

The message to policymakers, and let’s be honest, that is where this paper is directed, is that the previous measures are ineffectual and that it is time to put down the stick and pick up the carrot. The push is going to be to increase the good rather than continue to restrict the bad – and that will

apply to whatever is currently defined as bad or good. The push in healthcare is to provide healthier diets, not advice. It has already begun with the American Medical Association, the American Hospital Association and United Healthcare all sponsoring enhanced medical coding for the social determinants of health, like “lack of adequate food.” But that is a topic for another day.

[1] There are no established causal links; they are all associations with varying impacts.

[2] SDI is based on income, level of education and fertility with higher scores awarded for higher income and education and lower fertility.

Source: Health effects of dietary risk in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease study 2017 Lancet DOI: 10.1016/S0140=6736(19)30041-8

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[1] [https://upload.wikimedia.org/wikipedia/commons/6/6d/Good\\_Food\\_Display\\_-\\_NCI\\_Visuals\\_Online.jpg](https://upload.wikimedia.org/wikipedia/commons/6/6d/Good_Food_Display_-_NCI_Visuals_Online.jpg)

[2] <https://www.acsh.org/news/2018/08/10/spoonful-salt-makes-blood-pressure-go-down-13289>