



The Johns Hopkins Medical Institutions

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Director *Associate Director*

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To: Members of the Howard County Council

From: Lawrence J. Appel, MD, MPH
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Re: Written testimony against bill CR37–2014

I greatly appreciate the opportunity to provide testimony on the current bill under consideration by the Howard County Council. In the strongest possible terms, I urge the Howard County Council to vote against this bill which will dramatically and dangerously set back the amazing progress that Howard County has made in promoting healthy lifestyle changes among its citizens.

Let me first document my credentials.

- First, I have been a resident of Howard County for 20 years.
- Second, I am a physician and clinical researcher at the Johns Hopkins University School of Medicine and the Bloomberg School of Public Health. The focus of my career is especially relevant to the bill under consideration. Specifically, I have spent most of my career conducting research to prevent cardiovascular and kidney diseases, with a particular emphasis on the role of lifestyle changes. I have completed numerous studies, typically sponsored by the NIH. These studies have had a tremendous impact on health care policy. For example, I led the study which developed the DASH diet and which documented its beneficial effects. I have also implemented numerous lifestyle intervention studies, most of which tested weight loss interventions.
- Third, I am an active volunteer and spokesperson of the American Heart Association. I chaired its highly influential Nutrition Committee. In the process, I have co-authored numerous scientific statements, including statements on dietary factors to control blood pressure and its landmark statement on sugar-sweetened beverages and health. I currently chair the AHA Council on Lifestyle and Cardiometabolic Health.
- Fourth, I have had a prominent role in developing policy recommendations. I served on the 2005 and 2010 US Dietary Guidelines Scientific Advisory Committees, which set dietary recommendations for all Americans. I have served on four Institute of Medicine (IOM) studies. This past year, I was elected to the Institute of Medicine.

In the process of conducting my research and serving on these advisory committees, I have thoroughly evaluated evidence on the relationship of diet and health, including the relationship of sugar-sweetened beverage intake with weight gain and on the relationship of obesity with adverse health outcomes. As a result of these experiences, I am extremely familiar with the scientific issues related to the bill under consideration. Below are 7 points relevant to the Council's deliberations.

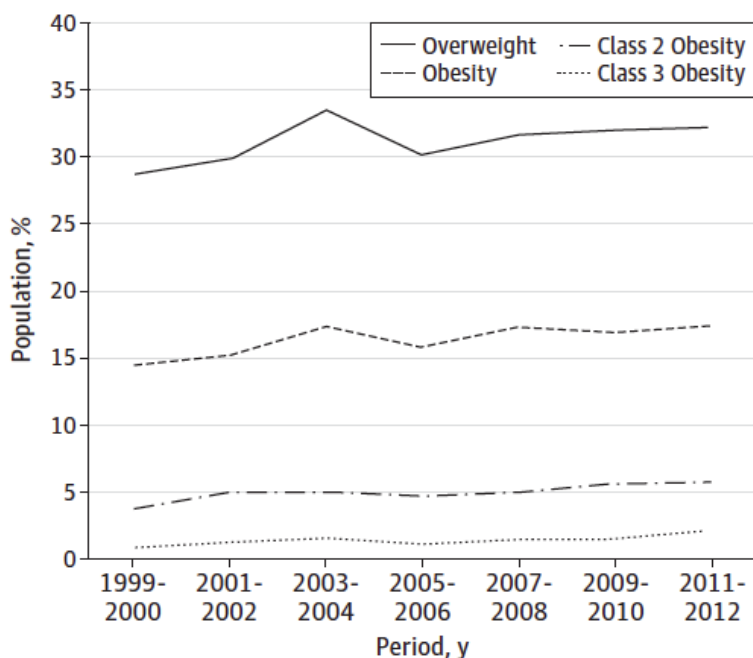
• **Overweight/obesity is a major risk factor for heart disease, stroke and elevated blood pressure, as well as degenerative arthritis, diabetes, and several forms of cancer, including breast and uterine cancer.** The health and economic consequences of obesity are staggering and are a substantial concern to health care providers, government, and employers. Many authorities believe that the pandemic of obesity is the most important public health problem facing our nation and the world. However, from an individual perspective, the consequences are also devastating and can include:

- heart attacks and stroke,
- dialysis, blindness, and limb amputations among persons with diabetes,
- increased risk of cancer – breast cancer and uterine cancer
- joint pain and disability related to arthritis

Importantly, obesity likely contributes to health disparities, including the higher risk of hypertension, stroke, and breast cancer observed in blacks compared to whites.

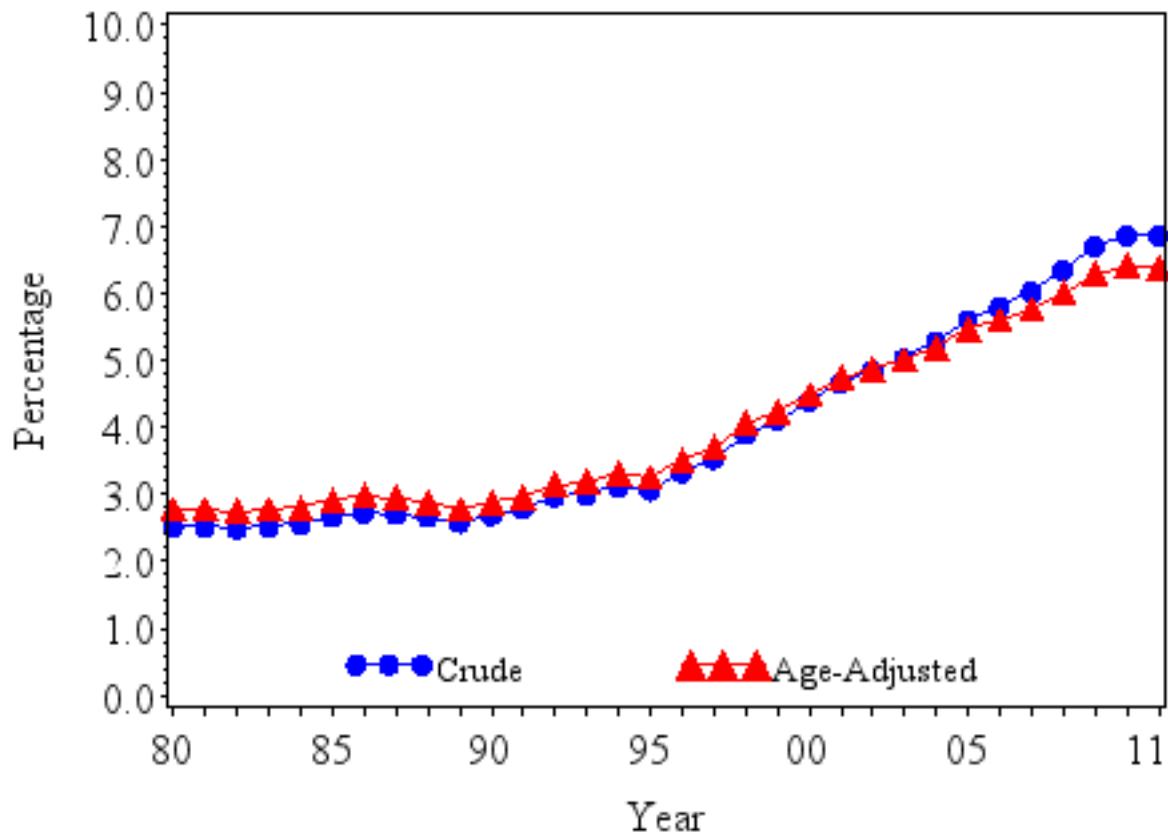
• **The prevalence of overweight/obesity not only persists but might even be worsening in certain key groups** Approximately 2/3 of adults and 1/3 of children in the US are overweight or obese. Importantly, trend data provide no evidence of any major improvement. In fact, disparities in obesity are increasing and in children, severe obesity is rising, as displayed below.

Figure. Prevalence of Overweight, Obesity, Class 2 Obesity, and Class 3 Obesity Among Children in the United States by Year



Consistent with the increasing prevalence of obesity, the prevalence of many obesity-related conditions is also rising. As displayed below, the prevalence of diabetes has steadily increased over time, with a steeper rise after ~1995.

Figure: Prevalence of diabetes over time in the US (NHANES Data)



- **While several dietary factors are associated with excess weight gain, evidence is particularly compelling that consumption of sugar sweetened beverages is an especially powerful contributor to obesity in children.** There is ample evidence that calorie intake has increased in children by roughly 200-300 calories and that virtually all of these excess calories come from sugar sweetened beverages. Since the 2010 US Dietary Guidelines, several major studies, including 2 clinical trials, have documented that substitution of sugar sweetened beverages with water reduced weight gain in children.
- **Individuals consume what they are provided, much more than what they need.** Individuals poorly self-regulate calorie consumption. We eat what individuals (parents or spouses), schools, and companies serve us, whether or not we need to consume the food or beverage. I suspect that most legislators appreciate this indelible aspect of human behavior. We finish our plate, we empty our beverage containers, whether the beverage is 8 oz of water or 16 oz of soda. For this reason, it is especially important that children be provided low calorie beverage (preferably water) rather than soda or other sugar-sweetened beverages.

- **The environment has a predominant role in determining whether or not individuals consume excess calories, eat a healthful diet, and are physically active (Dietary Guidelines, 2005).** In preparing its reports in 2005 and 2010, the Dietary Guidelines Scientific Advisory Committees were struck by the overwhelming importance of the environment. The current environment tends to encourage the over-consumption of calories and discourage the expenditure of energy. Changes in the environment and changes in individual behavior (but not changes in genes) are the driving forces that account for the obesity epidemic. Environmental factors that may contribute to excess calorie intake include, but are not limited to, the increased availability of sugar-sweetened beverages; energy dense, nutrient-poor foods; expanding portion sizes; and increased consumption of meals outside the home.
- **Changing the environment is critical to accomplishing weight reduction in the general population.** Given the massive scope of the obesity epidemic and the limited effectiveness of individual-based interventions, we CANNOT rely solely on interventions and programs that target individuals. Rather, we need a dual strategy that also changes the environment by making the low calorie choice, the default. Proposals to replace sugar sweetened beverages with non-caloric beverages are an important step in creating an environment that promotes healthy weight and that prevents excessive weight gain, particularly in children.
- **Howard County's policies which promote healthful foods and low calorie beverages are now mainstream, part of a rising wave of local and state government initiatives.** Over 50 local and state governments have policies in place to improve the food environment of their communities. Importantly, this is not limited to government. As you will hear from the President of Howard County General Hospital, employers are likewise making dramatic changes to the workplace food environment in efforts to improve the health of their employees and reduce unsustainable medical costs. Of course, a few governments have balked. The State of Mississippi, which has the 2nd high prevalence of obesity in the US, has passed legislation that forbids local governments from making limits on portion size of foods and beverages.

The Howard County Council now has a choice. I strongly urge it to remain in the vanguard of employers and mainstream governments, now over 50, that are changing the default to promote the health of its citizens.