

### Post-Print

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## Separating the Science and Politics of “Obesity”

Stacy M. Carter, Helen L. Walls (2013)

Last month, JAMA published a systematic review and meta-analysis of the relationship between body mass index (BMI) and all-cause mortality. The researchers, led by Katherine M. Flegal, PhD, of the US Centers for Disease Control and Prevention, found that people who are categorized as being mildly obese according to their BMI had no increased risk of dying prematurely, and overweight people a slightly reduced risk of dying prematurely, compared with their normal-weight counterparts—a finding supported by previous studies.

In an accompanying editorial, two researchers said that the findings highlighted the limitations of increased BMI as an indicator of unhealthiness. Early coverage of the study in the mass media was restrained, emphasizing the authors’ main messages. Response in social media such as Twitter ranged from excited acceptance to confusion and voicing of familiar critiques, such as the limitations of observational studies or of using all-cause mortality as an outcome measure rather than morbidity or disability.

And then the response evolved and became heated. We have documented some of the exchange on [Storify](#). Storify is a tool that allows users to collect tweets, images, videos, and other elements about a particular subject from social media sites and use those elements to create a story stream about that subject.

Several lines of argument developed, generating flurries of retweets. For example, Arya Sharma, MD, PhD, professor of medicine and chair in obesity research and management at the University of Alberta, Edmonton, Canada, explained why BMI is meaningless unless combined with other risk factor information and promoted his system for doing this. In an opinion piece in the *New York Times*, Paul Campos, JD, a well-known law professor and critic of public health approaches to obesity, dismissed obesity interventions as baseless and driven by economic interests.

The most strident criticism sprang from Walter Willett, MD, Dr PH, of Harvard School of Public Health, who was interviewed on NPR. Willett offered a sound bite that described the study as “really a pile of rubbish” and suggested that “no one should waste their time reading it”—a remark that was rapidly picked up by media outlets, including the BBC and *The Atlantic*.

The comment took on a life of its own, reinforced by recirculation of an earlier report by the Center for Science in the Public Interest that featured Willett, criticizing a 2005 study by Flegal and colleagues. In the BBC story, the vice president of the UK Royal College of Physicians was reported as

saying that “huge pieces of evidence go against this, countless other studies point in the other direction”—a common objection to the study. In the same story, a representative of the UK National Obesity Forum said, “It’s a horrific message to put out at this particular time. We shouldn’t take it for granted that we can cancel the gym, that we can eat ourselves to death with black forest gateaux.”

### **A Flashpoint**

On NPR, Flegal reflected: “Our article got called rubbish and ludicrous ...so it really opens you to lots of criticism. I discovered much to my sorrow that this is kind of a flashpoint for people.” Why is this issue such a flashpoint? Why might the complexities of the evidence spark such animosity?

We suggest that the problem stems from the fact that obesity has a scientific meaning and a socio-political meaning, and the distinction between the two is increasingly blurred. In medical science, obesity has a precise meaning: having a BMI (calculated as weight in kilograms divided by height in meters squared) of 30 or greater. Overweight means having a BMI of at least 25 but less than 30. These definitions are sometimes accompanied by information regarding waist circumference.

However, in policy, media, and lay circles, “obesity” has become shorthand for something quite different from and much less precise than its scientific meaning. In these arenas, obesity appears to have 2 implicit political and social meanings. One meaning characterizes obesity as something like the pattern of increasing prevalence in non-communicable diseases, especially diabetes, due to a half century of developments such as urbanization, sedentary work and leisure, car dependence, and radical changes in the food supply. The second implicit meaning is something like the problem of people who are above normal weight.

In this amorphous social and political sense, obesity is associated with powerful negatives, stemming from both long-standing prejudice and recent public health framing. These include epidemic threat, devastating impending costs, tragedy (particularly children routinely dying before their parents), as well as poor character in obese individuals, who are frequently implied to be lazy, to lack willpower, to be greedy, or to shirk personal responsibility. This view is used to legitimize the well-documented discrimination experienced by heavier people, especially women, particularly younger women and girls. For people above normal weight, then, public discussion of obesity is fraught.

### **The “Institutionalization” of Obesity**

Obesity in the socio-political sense also became institutionalized fairly rapidly in universities and governments in the late 20th century. There are now obesity strategies, government departments responsible for obesity, obesity handbooks, professorial chairs, university research centres, websites, Twitter feeds, and advocacy groups with the word obesity in their titles. So obesity as an amorphous but potent social and political concept now raises the stakes in many settings, engendering blame, inducing strong feelings, and providing the focus for many people’s professional roles and identities. No wonder it has become such a battleground.

Questioning the relationship between obesity and health has perhaps become socially and politically analogous to questioning the relationship between smoking and health. For smoking, the socio-political problem maps fairly neatly onto the scientific problem: the object of concern is people lighting and inhaling from small sticks of tobacco. For obesity, however, the socio-political and scientific problems are now hopelessly divergent.

The claim by Flegal and colleagues that overweight is associated with lower all-cause mortality than normal weight was precise, limited, and cautiously interpreted, as our Storify page highlights. It was also potentially scientifically important (and not without precedent) and thus worth discussing.

However, the socio-political claim that “obesity may not kill you” seems to be regarded by many as potentially treasonous, because the socio-political meaning of obesity is so imprecise and has so much riding on it. Socially and politically, the claim that “obesity may not kill you” may be the equivalent of implying that weight is irrelevant to health (untrue); that we should stop caring about non-communicable diseases (unsupportable); or that urbanization, sedentary work and leisure, car dependence, and radical changes in the food supply are unrelated to health (ridiculous).

The message that “obesity may not kill you” has even starker implications for overweight or obese individuals (who may view it as demonstrating that “the prejudice against me is unfounded and I am vindicated”) and for professionals (who may view it as implying that their personal university chair, handbook, advocacy organization, blog, career, or professional identity are deeply misguided or irrelevant). Such effects might help explain the unreasonableness of the ensuing exchange.

### **Lessons for Obesity Research and Advocacy?**

The animosity triggered by the findings of Flegal and colleagues has lessons for the future of obesity research and advocacy. A broad commitment to civility and open exchange among health researchers and advocates is clearly needed. Those of us who are researchers need to be skilful in communicating our work beyond academia to policy makers and the public. Although there’s little we can do to protect ourselves against vitriol, if we are gifted communicators we are more likely to have media influence.

Researchers also must be self-aware and vigilant about the potential and inevitable biases in their work and their interpretation of others’ work. We need to avoid arrogant self-assuredness, which is—as some online commenters noted—inconsistent with scientific ideals.

Furthermore, it would be helpful to disentangle the scientific from the socio-political meaning of obesity. As a start, it might be time to remove the word obesity from the names of centres, advocacy organizations, university chairs, and so on. If our professional identities are at stake, it is more difficult to remain civil. In our experience, the terms health promotion or non-communicable disease prevention would usually do as well as obesity in these titles.

The relation between BMI and health is imperfect. The basic messages of health promotion, however, are fairly consistent. Human health depends on good housing in safe neighbourhoods, safe and rewarding employment, fresh and whole food (especially from plants), physical activity, recreation, and social connectedness.

Focusing holistically on health promotion has much to commend it—not the least of which is that it tends to deflate political competition between disease silos. That’s an old lesson we would do well to finally master.