The American Obesity Epidemic: Are We Really That Fat? And, How Could It Have Happened?

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Abstract

Over the past several decades, the proportion of Americans who are considered overweight or obese has skyrocketed. According to a survey conducted by the Center for Disease Control in the year 2000, less than half (42.9%) of the American population is now considered to be a healthy weight. This increase has sparked tremendous public concern because excess body weight has been linked to a host of mortality, morbidity, and disability outcomes. Some have even referred to this trend as the Obesity Epidemic. Others have called obesity the #1 public health concern in America. This project documents the trends in American body weight over the past four decades (1960-2000) and offers potential explanations for when and how this epidemic actually occurred. The explanations offered here rely primarily on the types of lifestyles, including exercise and dietary behaviors, that modern-day Americans have adopted.

Introduction

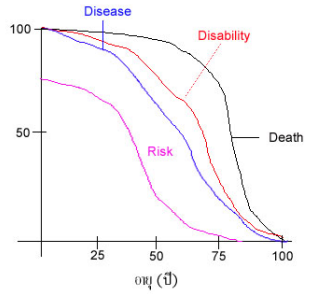
According to a survey conducted by the Center for Disease Control in the year 2000, 38.8 million people (20.1% of the American population) were considered obese, 36.7% was classified as overweight, and less than half (42.9%) of the population was considered to be a healthy weight. Compare this to the 11.6% of the population that was obese in the year 1990 and it is clear that the prevalence of obesity has increased dramatically throughout recent American history.

This project aims to carefully document and dissect the obesity-related trends in America from 1960 to 2000. The presentation that I am proposing is primarily a descriptive analysis. It presents an empirically-grounded perspective on recent trends in American body weight. It also offers possible explanations for why America has seen such an explosion of obese/overweight people in recent decades. Overall, the population-level trends* presented in this presentation provide a detailed account of American health behaviors and general lifestyle choices over the past four decades.

** I have done (and will briefly mention) work on the differences in these trends by race, class, and gender. But, the presentation will focus primarily on mapping the historical trends in body weight and related health behaviors (e.g., diet, exercise) at the population level.*

Theoretical Focus & Motivation

The major theoretical motivation of this paper rests on the compression of morbidity/mortality debates. I posit that an understanding of behaviorally-based risk factors, such as diet and exercise, as well as the outcome of those health behaviors and lifestyle choices (e.g., obesity) will expand our ability to make projections about the morbidity, mortality, and disability of future cohorts of older adults in America. To reinforce this theoretical prediction, I will highlight biomedical research findings that link poor health behaviors and excess body weight to a host of morbidity, disability, and mortality outcomes.



Data & Sample

The project integrates four decades of data from the NHANES data collection.

NHES I (1959-1962)	[midyear 1961, sample born 1882-1943]
NHANES I (1971-1975)	[midyear 1973, sample born 1901-1970]
NHANES II (1976-1980)	[midyear 1978, sample born 1904-1978]
NHANES III (1988-1994)	[midyear 1991, sample born 1917-1991]
NHANES IV (1999-2000)	[midyear 2000, sample born 1925-1999]

I am not using two of the data series from this data collection (NHES II or NHES III, which were both conducted in the 60s) because NHES II was limited to children aged 6-11 and NHES III was limited to children aged 12-17. All the other collections include samples of persons 18 and older, which is the analytic sample used for these analyses.

Proposed Analytic Plan

First, to document whether the obesity epidemic has really occurred and when it actually occurred, I graph trends in body size from 1959-2000. More specifically, I present population-level trends for the following outcomes. The use of both clinically- and self-assessed body weight is a noted strength of the study.

- Body Mass Index (clinically assessed)
- Waist to hip ratio (clinically assessed)
- Self-reported anthropometric data and self-perceived body image

Second, to offer possible explanation for these trends in body weight, I present parallel trends in dietary habits and exercise behaviors for the same years, 1959-2000. This is a simple way to dispel, or perhaps substantiate, some of the myths about the changing American diet and lifestyle. The NHANES exercise data, particularly in the earlier waves, is limited. However, the NHANES dietary data includes a complete 24-hour dietary recall, which allows me to document trends in portion size (calories) as well as consumption of fat, carbohydrates, and other nutritional elements.

Finally, to give an even more complete picture of how and when the Obesity Epidemic occurred, I link the parallel trends in body weight and health behaviors to the specific historical context in which they were occurring. The attention to this macro-level context provides a unique glimpse into how the changing culture and lifestyle of modern-day America is (or is not) responsible for the recent increases in body weight. Specifically, I delineate where policies were implemented (e.g., food labeling acts, presidential fitness tests, title IX) and document other "fun" facts that may correlate with the trends (e.g., average size of McDonald's French fries, increase in average commute times to work, raw sugar consumption/import, growth of suburbia/urban sprawl, car ownership, computer/television use and ownership).

Expected Findings & Implications

Are Americans really that fat? (*yes*)
And how did it happen? (*a combination of changing diet, exercise, and community living patterns*)

[Put that way, it all seems so simple! Really, it is far more exciting than that!]

The most notable strength of this paper is that I have presented actual data, from over four decades of recent American history, to document these trends in body weight and health behaviors. Although the Obesity Epidemic has been receiving considerable amounts of coverage in popular press over the past few years, rarely have I seen an empirical analysis that links the population-level trends in health behaviors to the rising proportion of individuals who are overweight or obese. And, never have I seen an analysis that does this for the past four decades of American history. Another unique feature of this study is its careful attention to historical specificity, which gives it a simple, but very complete, overview of when and how the Obesity Epidemic may have occurred in America.

The potential application of these findings is great. I argue that by better understanding behaviorally-based population-level trends (in obesity/exercise/diet, for example) demographers and epidemiologists will be able to make more informed projections about the health and life expectancy of future cohorts of Americans. In more academic terms, the trends in health behaviors may be an important piece of the puzzle to consider in the compression of morbidity and mortality debates.