

# Potential Trends Toward Less Blame for People with Obesity

Theodore K. Kyle,<sup>a,b</sup> Andrew McDougall,<sup>c</sup> Diana M. Thomas,<sup>c</sup> Joseph Nadglowski,<sup>b</sup> Rebecca M. Puhl<sup>d</sup>

<sup>a</sup>ConscienHealth, Pittsburgh, PA, USA; <sup>b</sup>Obesity Action Coalition, Tampa, FL, USA; <sup>c</sup>Montclair State University, Montclair, NJ, USA;

<sup>d</sup>Rudd Center for Food Policy and Obesity, University of Connecticut, Hartford, CT, USA

## Abstract

**Background.** Bias and stigma are well-established barriers to improving public and personal health. Blaming people with obesity for their condition is a common expression of bias. Bias against people with obesity has been reported to have worsened as the prevalence of obesity has increased. The present study measured changes between 2013 and 2016 in public attitudes about obesity and people with obesity.

**Methods.** Consecutive samples totaling 122,922 U.S. adults completed a series of anonymous, voluntary online surveys between Feb 2013 and Apr 2016. Respondents completed self-report measures assessing perceptions of obesity. Beginning in October 2014, measures of blame for obesity, social acceptance of people with obesity, and fat phobia (explicit weight bias) were also collected. Descriptive statistics were analyzed to identify significant trends.

**Results.** Social acceptance of people with obesity declined between Oct 2014 and Aug 2015, but then began rising through Apr 2016. Between Feb 2013 and Apr 2016, public perceptions of obesity as a “personal problem of bad choices” declined modestly (from 44% to 39%), while views of obesity as a “community problem” rose. Two out of three measures of explicit blame for obesity declined as well. Also, agreement increased that obesity is a disease and that it is a problem resulting from unhealthy food and too few opportunities for exercise. Observed trends were statistically significant ( $p < 0.01$ ).

**Conclusions.** These data suggest that the public increasingly understands that obesity is more than a simple problem of personal responsibility. A sustained trend in social acceptance of people with obesity is not yet apparent. Weight bias remains a significant source of harm to people living with obesity and interferes with prevention and treatment of obesity. Thus, continued monitoring of public attitudes will be important to inform interventions and reduce societal bias.

## Introduction

Obesity is a complex chronic disease that is often resistant to behavioral and medical treatment. Pervasive bias has been found to reduce quality of life for individuals with obesity and interfere

with efforts to address the harm caused by this disease.<sup>1</sup> Evidence of bias against individuals with obesity has been documented across the lifespan and is common in education, media, healthcare, employment, and interpersonal relationships.<sup>2</sup>

Bias against people with obesity has worsened as the prevalence of obesity has increased. The prevalence of weight discrimination experienced by U.S. adults increased markedly between 1995 and 2006.<sup>3</sup> Between 1961 and 2001, stigmatization of children with obesity, increased by approximately 40%.<sup>4</sup> More recently, concerns about “fat shaming” has captured national attention in both popular culture and even in political discourse.<sup>5</sup>

The present study was designed to assess current public attitudes about obesity and trends in explicit attitudes related to weight bias.

## Methods

Consecutive samples totaling 132,746 U.S. adults completed a series of anonymous, voluntary online surveys between Feb 2013 and Sep 2016. Characteristics of the survey samples are summarized in Table 1.

**Table 1: Survey Sample Characteristics**

Primary Measures	Social Acceptance	Obesity Perceptions	Obesity Narratives	Blame	Fat Phobia Scale
<b>Survey Dates</b>	10/2014 12/2014 2/2015 4/2015 6/2015 8/2015 10/2015 12/2015 2/2016 4/2016 6/2016 8/2016	2/2013 7/2015 3/2013 9/2015 8/2013 11/2015 5/2014 1/2016 9/2014 3/2016 11/2014 5/2016 1/2015 7/2016 3/2015 9/2016 5/2015	8/2015 10/2015 12/2015 2/2016 4/2016 6/2016 8/2016	11/2014 1/2015 3/2015 5/2015 7/2015 9/2015 11/2015 1/2016 3/2016 5/2016 7/2016 9/2016	10/2014 1/2014 4/2015 7/2015 12/2015
<b>Sample Size (n)</b>	45,848	62,858	4,071	17,719	2,250
<b>Gender</b>					
M	55%	47%	57%	54%	49%
F	45%	53%	43%	46%	51%
<b>Age</b>					
18-24	16%	19%	16%	16%	13%
25-34	22%	29%	20%	21%	17%
35-44	17%	16%	18%	17%	18%
45-54	17%	14%	17%	18%	19%
55-64	17%	15%	17%	17%	16%
65+	11%	7%	12%	11%	17%

Google Consumer Surveys<sup>6</sup> were employed to collect data for the social acceptance,<sup>7</sup> obesity perceptions,<sup>8</sup> obesity narratives,<sup>9</sup> and blame questions.<sup>8</sup> Data was collected separately for each question in the surveys to eliminate the possibility that a response to one question could influence responses to other questions. Google Consumer Surveys infers respondent age and gender based on the website user's browsing history and location determined from the Internet provider address. In order to reduce bias in aggregate statistical reporting, Google Consumer Surveys also provide post-stratification weighting based on age, gender, and region. The effect yields a more accurate result with lower root mean square error and reflects a better representation of national responses.

Survey questions are outlined in Table 2. Descriptive statistics were calculated and analyzed to identify significant trends. Significance of trends was evaluated with general linear models using JMP Pro version 11.

**Table 2: Survey Questions**

**Obesity Perceptions**

Which phrase comes closer to describing the type of problem that you think obesity is?

- A personal problem of bad choices
- A medical problem
- A community problem of bad food & inactivity
- A totally different kind of problem

**Obesity Blame**

How strongly do you agree or disagree [5-point scale]

- A person with obesity is personally responsible for becoming obese.
- If a person has obesity, it is their own fault.
- The cause of obesity is beyond the control of a person with obesity.

**Obesity Narratives**

How strongly do you agree or disagree? [5-point scale]

- Obesity is such a big problem because too many people don't take personal responsibility for eating right and exercising. It's disgusting.
- Obesity is such a big problem because too many people get hooked on junk food and sugary drinks. They've become addicted and can't help themselves.
- Obesity is such a big problem because the food industry sells so much unhealthy food while modern lifestyles make adequate exercise impossible.
- Obesity is such a big problem because too many people get blamed for this disease instead of getting the medical help they need.

**Social Acceptance**

How strongly do you agree or disagree [5-point scale]

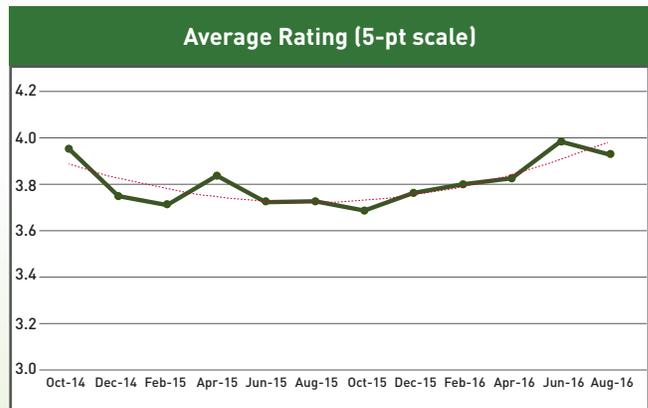
- I wouldn't mind having a person with obesity in my car pool every day.
- I wouldn't mind spending an evening socializing with a person who has obesity.
- I would avoid talking to a person with obesity if possible.
- If I were an employer, I would interview a person who has obesity for a job.
- It would be fine if a person who has obesity became my children's teacher.
- I wouldn't mind if a person who has obesity married into my family.
- I wouldn't mind if a person who has obesity worked together with me at my workplace.
- I wouldn't mind if a person who has obesity moved in next door to me.

Data for the short form of the Fat Phobia Scale<sup>10</sup> were collected by Lab42,<sup>11</sup> a professional research organization with capabilities for collecting data from longer questionnaires than Google Consumer Surveys.

**Results**

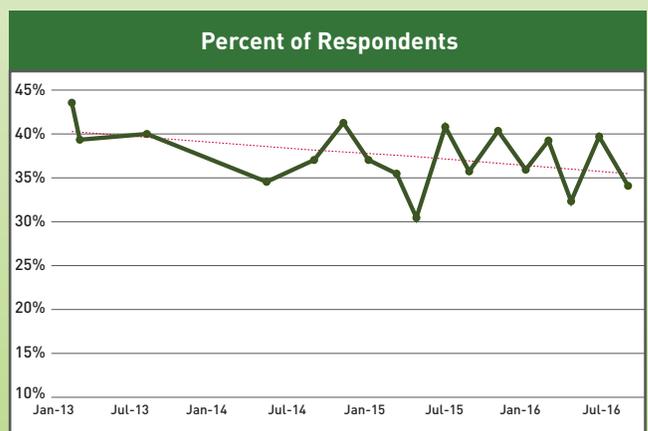
Explicit weight bias as measured by the Fat Phobia Scale did not change significantly. Social acceptance of people with obesity declined between Oct 2014 and Aug 2015, but then began rising through Aug 2016 (Figure 1,  $p=0.0156$ , quadratic regression model).

**Figure 1: Composite Score for Eight Items Assessing Social Acceptance**



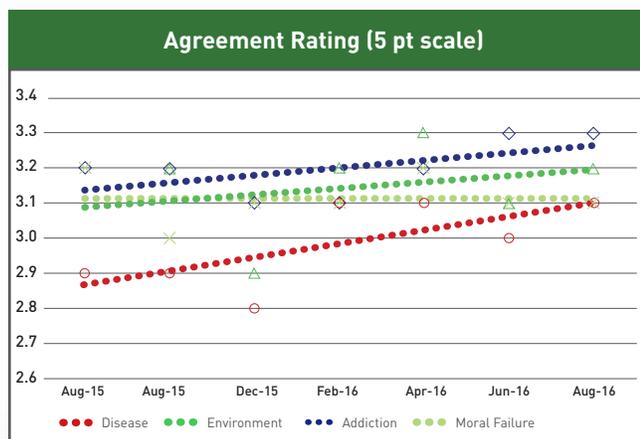
Between Feb 2013 and Sep 2016, public perceptions of obesity primarily as a "personal problem of bad choices" declined from 44% to 34% (Figure 2,  $p=0.0264$ , bivariate regression). Although the percentage of respondents who identified obesity primarily as a "community problem" was higher in Sep 2016 than Feb 2013, the trend was not statistically significant.

**Figure 2: Percent of Respondents Identifying Obesity Primarily as a Personal Problem of Bad Choices**



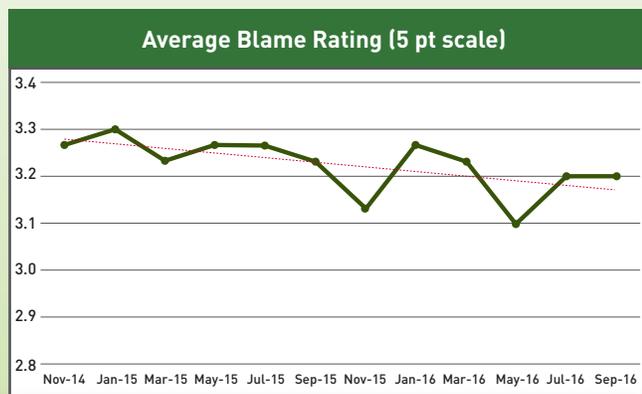
In tracking agreement with different obesity narratives between Aug 2015 and Aug 2016, public agreement with obesity as a disease showed the most significant positive trend (Figure 3,  $p=0.0158$ , regression). For agreement with each of the other three obesity narratives (environment, addiction, moral failure), none of the trends were significant.

**Figure 3: Trends in Agreement with Four Different Obesity Narratives**



Two of the three measures of explicit blame for obesity declined, as did the composite of all three measures (Figure 4,  $p=0.0257$ , bivariate regression).

**Figure 4: Composite Score for Three Measures of Personal Blame for Obesity**



## Conclusions

- This study suggests growth in public understanding that obesity is more than a personal failure or a problem of personal responsibility.
- Findings show a trend toward less blame of individuals with obesity and more agreement that obesity is a disease.
- A sustained trend in social acceptance of people with obesity is not yet apparent.
- Weight bias remains a significant source of harm to people living with obesity and interferes with prevention and treatment of obesity.
- Continued monitoring of public attitudes will be important to inform interventions to reduce bias and stigma.

## Acknowledgements and References

This research was funded by the Obesity Action Coalition and made possible in part by a grant from Novo Nordisk.

1. Kyle, T. and R. Puhl. 2014. *Pervasive bias: An obstacle to obesity solutions*. Commentary, Institute of Medicine, Washington, DC. <https://nam.edu/wp-content/uploads/2015/06/pervasivebias.pdf>.
2. Puhl, Rebecca M., and Chelsea A. Heuer. "The stigma of obesity: a review and update." *Obesity* 17.5 (2009): 941-964.
3. Andreyeva, Tatiana, Rebecca M. Puhl, and Kelly D. Brownell. "Changes in perceived weight discrimination among Americans, 1995–1996 through 2004–2006." *Obesity* 16.5 (2008): 1129-1134.
4. Latner, Janet D., and Albert J. Stunkard. "Getting worse: the stigmatization of obese children." *Obesity research* 11.3 (2003): 452-456.
5. Lee, Jasmine, Alicia Parlapiano, Adam Pearce, and Karen Yourish. "Which Debate Clips Got Replayed the Most on CNN, Fox News and MSNBC." *New York Times*. N.p., 29 Sept. 2016. Web. 21 Oct. 2016.
6. McDonald P, Mohebbi M, Slatkin B. "Comparing Google Consumer Surveys to Existing Probability and Non-Probability Based Internet Surveys." Google, 2012. Web. Accessed October 17, 2015.
7. DePierre, Jenny A., Rebecca M. Puhl, and Joerg Luedicke. "A new stigmatized identity? Comparisons of a "food addict" label with other stigmatized health conditions." *Basic and Applied Social Psychology* 35.1 (2013): 10-21.
8. Kyle, Theodore, et al. Perceptions of Obesity as a Policy Issue: Differences between Healthcare Professionals and the General Public. Presented at: ObesityWeek; November 13, 2013; Atlanta, GA. Available at: <http://tinyurl.com/j7g9knt>. Accessed October 15, 2016.
9. Thibodeau, Paul H., Victoria L. Perko, and Stephen J. Flusberg. "The relationship between narrative classification of obesity and support for public policy interventions." *Social Science & Medicine* 141 (2015): 27-35.
10. Bacon, Jane G., Karen E. Scheltema, and Beatrice E. Robinson. "Fat phobia scale revisited: the short form." *International journal of obesity and related metabolic disorders: journal of the International Association for the Study of Obesity* 25.2 (2001): 252-257.
11. Pirc, Jonathan. "A New Wave of Consumer Survey Sampling." *RW Connect*. ESOMAR, 14 Sept. 2015. Web. 17 Oct. 2015.

