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Beyond Obesity: Historical, Social Change Approaches to Improve the Fitness of Americans

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**Beyond Obesity: Historical, Social Change Approaches to Improve the Fitness
of Americans**

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Dedication

To H.B.:

I hope your namesake made you proud.

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Beyond Obesity: Historical, Social Change Approaches to Improve the Fitness of Americans

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America's growing concern about fatness during the twentieth century developed in parallel with a society that made it increasingly harder to live a healthy lifestyle. Since the 1970s, sweeping political, economic, cultural, and familial changes have occurred in the United States. Many researchers argue that these changes have created an "obesogenic" environment that has contributed to the increased prevalence of overweight and obesity in America by favoring inactivity and the over consumption of highly-processed, calorie-dense foods and beverages. As a result, the field of public health has increasingly begun to recognize obesity as a "societal disease."

In 2001, *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* categorized the number of overweight and obese Americans as reaching "nationwide epidemic proportions." Since that time, America has waged an all-out "war on obesity." Instead of a broader emphasis on health promotion, some public health researchers have suggested that this heightened focus on obesity is 1) guided by America's historically-rooted social disdain for fatness and 2) insufficient to improve the healthy lifestyles of Americans.

In searching for a solution to the so-called "obesity epidemic," a growing number of researchers have begun to look to models of social change. After an introductory

chapter describing the scope of the problem, this dissertation provides an historical analysis of two, relevant social change models. The first historical case study is an examination of the Centers for Disease Control and Prevention's VERB social marketing campaign. The second study explores the model of social movements through the history of the aerobics "boom" of 1970s America. Based on these histories, this dissertation concludes by proposing a blended approach that harnesses the strengths of both models to organize and advance America's healthy living movement.

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Chapter 1

Introduction

In her 2014 article, Cynthia Ogden reported that, since the 1970s, the number of obese children in the United States doubled, while the number of obese adolescents quadrupled. According to their research, approximately one-third of all children and adolescents in America were overweight or obese in 2012.¹ Katherine Flegal found that overweight and obesity prevalence among adults in the U.S. also spiked during roughly this same period; in her 2010 study, she reported that nearly seventy percent of American adults were overweight or obese.² Citing these historical trends, Youfa Wang projected that nearly ninety percent of all American adults will be overweight or obese by the year 2030 with associated health care costs approaching one trillion dollars.³

¹ Cynthia L. Ogden et al., "Prevalence of Childhood and Adult Obesity in the United States, 2011-2012," *JAMA: The Journal of the American Medical Association* 311, no. 8 (2014): 806-14.

² Katherine M. Flegal et al., "Prevalence and Trends in Obesity among U.S. Adults, 1999-2008," *Ibid.* 303, no. 3 (2010): 235.

³ Youfa Wang et al., "Will All Americans Become Overweight or Obese? Estimating the Progression and Cost of the U.S. Obesity Epidemic," *Obesity* 16, no. 10 (2008): 2323. Recent research by Cynthia Ogden et al. indicated that obesity rates among U.S. youth and adults have remained level in the years between 2003 and 2012 (except for women age sixty and older for whom obesity rates increased during this time period). This development may require the projections by Wang to be reconsidered. See: Ogden et al., "Prevalence of Childhood and Adult Obesity, 2011-2012," 808-13.

⁴ U.S. Department of Health and Human Services, "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity," (Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001).

⁵ Katherine M. Flegal et al., "Prevalence and Trends in Obesity among U.S. Adults, 1999-2008," *Ibid.* 303, no. 3 (2010): 235.

⁶ Using PubMed, a search conducted on 26 July 2014 for scholarly articles, published since 2001, with the

³ Youfa Wang et al., "Will All Americans Become Overweight or Obese? Estimating the Progression and Cost of the U.S. Obesity Epidemic," *Obesity* 16, no. 10 (2008): 2323. Recent research by Cynthia Ogden et al. indicated that obesity rates among U.S. youth and adults have remained level in the years between 2003 and 2012 (except for women age sixty and older for whom obesity rates increased during this time period). This development may require the projections by Wang to be reconsidered. See: Ogden et al., "Prevalence of Childhood and Adult Obesity, 2011-2012," 808-13.

In his 2001 report *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*, then U.S. Surgeon General, Dr. David Satcher, described the rapid increase in the incidence of overweight and obesity in the U.S. as a serious threat to the country and, for the first time, categorized the number of overweight and obese Americans as reaching “nationwide epidemic proportions.”⁴ Since the release of the Surgeon General’s report in 2001, more than 120,000 academic articles with the words, “obesity” or “overweight,” in the title or abstract have been written.⁵ During this same period of time, numerous scholarly and popular books were published, each attempting to explain the rise of America’s obesity “epidemic” and offering solutions to the crisis.⁶

In response, a smaller body of scholarly literature has risen to challenge the claims made by those who label obesity as a “disease” and describe its incidence in America as reaching “epidemic” proportions. These critics, including Paul Campos and Eric Oliver, have challenged the prevailing scholarship on two, primary counts: 1) they claim that the measure, BMI, by which the prevalence of overweight and obesity in the population is determined is highly flawed because it does not adequately distinguish between lean muscle mass and adipose/fatty tissue and, thus, produces inflated numbers; and 2) they argue that only the more severe forms of obesity can be correlated with

⁴ U.S. Department of Health and Human Services, "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity," (Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001), v.

⁵ Using PubMed, a search conducted on 26 July 2014 for scholarly articles, published since 2001, with the word, “obesity” or “overweight,” in the title and/or abstract yielded 121,307 results.

⁶ For a very small sample of this scholarship, see: Kelly D. Brownell, *Food Fight: The inside Story of the Food Industry, America's Obesity Crisis & What We Can Do About It* (New York: McGraw-Hill, 2004), 3-356; Marion Nestle, *Food Politics: How the Food Industry Influences Nutrition and Health* (Berkeley: University of California Press, 2002); Eric Schlosser, *Fast Food Nation: The Dark Side of the All-American Meal* (New York: Houghton Mifflin, 2001); and Greg Critser, *Fat Land: How Americans Became the Fattest People in the World* (New York: Houghton Mifflin, 2003).

adverse health outcomes at a population level.⁷ Other scholars, such as Lori Dorfman and Lawrence Wallack, have argued that the framing of the problem as one of obesity is ineffective because it incorrectly “narrows” the issue and further stigmatizes an already marginalized population.⁸

Although there is disagreement within the academic and scientific communities about the increased incidence of overweight and obesity in the U.S. warranting the “epidemic” label, most agree on three, key points: 1) the historic rise in obesity prevalence (as well as associated chronic disease, including type II diabetes and fatty liver disease) in the U.S. since the 1970s represents a troubling trend; 2) these increases in obesity and related chronic disease took place in a changing societal environment that increasingly favored an “energy imbalance,” which Kevin Hall et al. defined as an “imbalance between the energy content of food eaten and energy expended by the body to maintain life and perform physical work;” and 3) efforts to “combat” the issue of

⁷ This literature will be covered much more fully in Chapter 2. However, for a small segment of the related literature, see: J. Eric Oliver and Taeku Lee, "Public Opinion and the Politics of Obesity in America," *Journal of Health Politics, Policy and Law* 30, no. 5 (2005): 923-54; Eric Oliver, *Fat Politics: The Real Story Behind America's Obesity Epidemic* (Oxford: Oxford University Press, 2006); Sander L. Gilman, *Fat: A Cultural History of Obesity* (Cambridge: Polity Press, 2008); Paul Campos, *The Obesity Myth: Why America's Obsession with Weight Is Hazardous to Your Health* (New York: Gotham Books, 2004); Paul Campos et al., "The Epidemiology of Overweight and Obesity: Public Health Crisis or Moral Panic?" *International Journal of Epidemiology* 35, no. 1 (2006): 55-60; Glenn Gaesser, *Big Fat Lies: The Truth About Your Weight and Health* (Carlsbad: Gurze Books, 2002); Michael Gard and Jan Wright, *The Obesity Epidemic: Science, Morality and Ideology* (New York: Routledge, 2005), 1-218; and Michael Gard, *The End of the Obesity Epidemic* (London: Routledge, 2011).

⁸ Lori Dorfman and Lawrence Wallack, "Moving Nutrition Upstream: The Case for Reframing Obesity," *Journal of Nutrition Education and Behavior* 39, no. 2S (2007): S46-S47.

obesity in America have, as Cecile Knai and Martin McKee pointed out in their 2010 article, “proven generally insufficient.”⁹

In order to explain the increased incidence in overweight and obesity in the U.S., a growing number of public health researchers have begun to argue that an array of wide-sweeping political, economic, environmental, familial, and technological changes in America since the 1970s have created an “obesogenic” societal environment.¹⁰ Increasingly, the field of public health has begun to recognize the influence of these societal changes, and as a result, many in the field have started to refer to obesity in the U.S. as a “societal problem.”¹¹ In their 2002 article, John Peters et al. described obesity as a “socio-cultural disorder” that “will require input and effort by almost every sector of society.”¹² More recently, the researchers J. J. Reilly and David Katz have argued that, given its societal drivers, obesity should be understood and treated as a “societal disease.”¹³

⁹ Kevin D. Hall et al., “Quantification of the Effect of Energy Imbalance on Bodyweight,” *The Lancet* 378, no. 9793 (2011): 826; and Cécile Knai and Martin McKee, “Tackling Childhood Obesity: The Importance of Understanding the Context,” *Journal of Public Health* 32, no. 4 (2010): 506.

¹⁰ Roland Sturm, “Childhood Obesity: What We Can Learn from Existing Data on Societal Trends, Part 1,” *Prev Chronic Dis* 2, no. 1 (2005); and Roland Sturm, “Childhood Obesity: What We Can Learn from Existing Data on Societal Trends, Part 2,” *Preventing Chronic Disease* 2, no. 2 (2005). The author’s use of the “obesogenic” label is attributed to Sara Kirk et al.; see: Sara F. L. Kirk, T. L. Penney, and T. L. F. McHugh, “Characterizing the Obesogenic Environment: The State of the Evidence with Directions for Future Research,” *Obesity Reviews* 11, no. 2 (2010).

¹¹ M. B. Schwartz and R. Puhl, “Childhood Obesity: A Societal Problem to Solve,” *Obesity Reviews* 4, no. 1 (2003): 57.

¹² John C. Peters et al., “From Instinct to Intellect: The Challenge of Maintaining Healthy Weight in the Modern World,” *Obesity Reviews* 3, no. 2 (2002): 70, 74.

¹³ J. J. Reilly, “Tackling the Obesity Epidemic: New Approaches,” *Archives of Disease in Childhood* 91, no. 9 (2006): 726; and David L. Katz, “Are Our Children ‘Diseased?’” *Childhood Obesity* 10, no. 1 (2014): 2.

Throughout the twentieth century in the U.S., these societal changes that made it increasingly more difficult to live a healthy lifestyle and avoid becoming overweight or obese paralleled a deepening disdain for fatness in America. Historian Hillel Schwartz wrote the seminal work on the changing views about fatness in America. In his book *Never Satisfied: A Cultural History of Diets, Fantasies, and Fat*, Schwartz explained that “(Americans) take for granted now a constant personal vigil against overweight and obesity... (we) liked being fat a century ago.”¹⁴ For example, until the early twentieth century, parents desired the “fine fat baby,” as a larger, more rotund baby was considered healthier.¹⁵ The same was true for men and women; “voluptuous” women were considered fashionable and attractive, while heavier men were perceived as prosperous, robust, and virile.¹⁶

What had been favorably referred to as stoutness or *embonpoint* in the nineteenth century took on a “new and rather sinister” meaning in the twentieth century as fatness became known as “obesity,” and obesity, in all its forms, became a “scourge” on America that required a full-on “war” to defeat it.¹⁷ Though the first use of the word obesity in the West can be traced back to the English physician Tobias Venner in the seventeenth century, the term did not become widely regarded as a medical condition in the U.S. until

¹⁴ Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies and Fat* (New York: Doubleday, 1986), 4.

¹⁵ *Ibid.*, 272.

¹⁶ Lois Banner, *American Beauty: A Social History...Through Two Centuries...Of the American Idea, Ideal, and Image of the Beautiful Woman* (New York: Alfred A. Knopf, 1983), 111-14; and Peter N. Stearns, *Fat History: Bodies and Beauty in the Modern West* (New York: New York University Press, 1997), 8-9.

¹⁷ Banner, *American Beauty*, 107; Gilman, *Fat*, 3; Cathy Banwell et al., "Reflections on Expert Consensus: A Case Study of the Social Trends Contributing to Obesity," *The European Journal of Public Health* 15, no. 6 (2005): 568; and Samuel Klein, "The War against Obesity: Attacking a New Front," *The American Journal of Clinical Nutrition* 69, no. 6 (1999): 1061-63.

the publication of the popular medical textbook, *Cecil Textbook of Medicine*, in 1927.¹⁸ By the 1950s, fatness in America had become fully “medicalized”; the medical community recognized obesity as excess body weight above a certain threshold and labeled the condition a serious medical threat.¹⁹

These growing societal concerns about obesity coupled with the increased incidence of overweight and obesity in the U.S. created a modern environment in which obesity has become increasingly “framed” as the problem, and obesity prevention, in turn, has become the proposed solution. In his 2006 book *Social Marketing in the 21st Century*, Alan Andreasen advanced Erving Goffman’s original definition by describing a “frame” as “a context offered for interpreting a set of data.”²⁰ Andreasen argued that “(simple) labels for social problems can have powerful impacts on the debate about solutions.”²¹ In her 2009 article, sociologist Samantha Kwan echoed Andreasen by suggesting that frames matter a great deal because they both “define an issue but also prescribe its solution.”²²

Larry Cohen and Lori Dorfman are two such scholars who have argued against the continued framing of the issue through the lens of obesity. Cohen et al., in their 2005

¹⁸ Tobias Venner, *Via Recta Ad Vitam Longam, or, a Plain Philosophicall Discourse of the Nature, Faculties, and Effect* (London: Richard Moore, 1620); and Gard and Wright, *The Obesity Epidemic*, 71.

¹⁹ Jeffery Sobal, "The Medicalization and Demedicalization of Obesity," in *Eating Agendas: Food and Nutrition in Social Problems*, ed. Donna Maurer and Jeffery Sobal (New York: Aldine de Gruyter, 1995), 72-73.

²⁰ Erving Goffman, *Frame Analysis: An Essay on the Organization of Experience* (Lebanon: Northeastern University Press, 1974); and Alan R. Andreasen, *Social Marketing in the 21st Century* (Thousand Oaks: Sage, 2006), 46.

²¹ Andreasen, *Social Marketing in 21st Century*, 47.

²² Samantha Kwan, "Framing the Fat Body: Contested Meanings between Government, Activists, and Industry," *Sociological Inquiry* 79, no. 1 (2009): 27.

article, argued that the “persistent drumbeat of ‘obesity’” by the public health and medical communities “oversimplifies a complex issue,” further stigmatizes the overweight and obese, and prevents progress by taking the “focus away from creating healthy lifestyles.”²³ In a later article, Dorfman and Wallack echoed Cohen et al.’s central argument by calling for what they described as an “upstream” reframing of the issue to include societal as well as individual perspectives.²⁴

A growing number of public health researchers have begun to join Dorfman and Cohen in calling for an expanded focus on social change to both describe the problem and offer potential solutions. As referenced previously, Reilly, Peters, and Katz have all suggested that the increased incidence of obesity in the U.S. is symptomatic of our obesogenic society and, as a result, social change is required to improve the health of Americans. In their 2001 article, “What Lessons Have Been Learned from Other Attempts to Guide Social Change?,” Christina Economos et al. argued that the “current social landscape” in America “fails to promote healthy eating and active living,” and, therefore, “we must fight (this situation) with a reactive and powerful social change.”²⁵ Economos et al. examined a variety of historical social change models to improve population health behaviors and concluded that social marketing and social movements held the most promise as relevant social change approaches.²⁶

²³ Larry Cohen, Daniel P. Perales, and Catherine Steadman, “The O Word: Why the Focus on Obesity Is Harmful to Community Health,” *Californian Journal of Health Promotion* 3, no. 3 (2005): 154-57.

²⁴ Dorfman and Wallack, “Moving Nutrition Upstream,” S47.

²⁵ Christina D. Economos et al., “What Lessons Have Been Learned from Other Attempts to Guide Social Change?” *Nutrition Reviews* 59, no. 3 (2001): S40.

²⁶ *Ibid.*, S41-S55.

In their book *Marketing Public Health*, Michael Siegel and Lynne Donner Lotenberg wrote, “The basic public health product is social change, and the fundamental mission of the public health practitioner is to market social change.”²⁷ Social change, which Charles Harper and Kevin Leicht defined as “the significant alteration of social structure and cultural patterns through time,” is the central concern of social marketing, according to Rob Donovan and Nadine Henley.²⁸ Adapting Alan Andreasen’s long-standing definition of social marketing, Donovan and Henley suggested that social marketing is “the application of commercial marketing (techniques)” to “improve the welfare of individuals and society” by “(influencing) the voluntary or involuntary (behaviors) of target audiences.”²⁹

Increasingly, the field of public health has begun to look beyond social marketing to social movements, which Ralph Turner and Lewis Killian defined as “(collectivities) acting with some continuity to promote or resist a change in the society...of which (they are) part,” as promising models to address the issue of obesity.³⁰ In a 2006 article, John Peters wrote, “We continue to lose ground in meeting national goals for reversing obesity... Success will depend on mounting an effective social movement.”³¹ One of the

²⁷ Michael Siegel and Lynne Doner Lotenberg, *Marketing Public Health: Strategies to Promote Social Change*, 2nd ed. (Sudbury: Jones and Bartlett Publishers, 2007), 31.

²⁸ Charles L. Harper and Kevin T. Leicht, *Exploring Social Change: America and the World*, 4th ed. (Upper Saddle River: Prentice Hall, 2002), 5; and Rob Donovan and Nadine Henley, *Principles and Practice of Social Marketing: An International Perspective* (Cambridge: Cambridge University Press, 2010), 1.

²⁹ Donovan and Henley, *Principles and Practice*, 7.

³⁰ Ralph H. Turner and Lewis M. Killian, *Collective Behavior*, 3rd ed. (Englewood Cliffs: Prentice-Hall, 1987), xii.

³¹ John C. Peters et al., "From Instinct to Intellect: The Challenge of Maintaining Healthy Weight in the Modern World," *Obesity Reviews* 3, no. 2 (2002): 70, 74.

most ardent advocates for the social movement model in the public health community is Stanford University physician, Thomas Robinson. In a 2010 article, Robinson argued that “movements stand out” as the most relevant models for obesity prevention, because they serve as proven cases in America’s history “where individuals adopt and sustain dramatic changes in their behaviors.”³²

Although there is growing recognition in the field of public health that a social change solution is required to address America’s obesogenic societal environment, very little historical scholarship has been devoted to the concept. Written more than thirteen years ago, Economos’ article remains the most comprehensive analysis of the relevant topics. Although important, their study did not fully explore the historical, societal changes that have occurred in the U.S. to warrant a social change solution, nor did they fully call upon the relevant social marketing and social movement studies scholarship in their examination of the social change examples they reviewed.

Using a historical approach, the purpose of this dissertation is to build on the scholarship of Economos and the aforementioned researchers by demonstrating that 1) the rising prevalence of obesity in the U.S. since the 1970s are associated with broad societal changes; 2) these societal changes require a social change approach that moves the work beyond obesity in order to advance healthy lifestyles among Americans; 3) social marketing and social movements are two such social change models that have been applied to the issue; and 4) an approach that combines both models may hold the greatest

³² Thomas N. Robinson, "Save the World, Prevent Obesity: Piggybacking on Existing Social and Ideological Movements," *Obesity* 18, no. S1 (2010): S17.

promise for creating a “culture of health” in America.³³ Because an examination of the application of social change approaches to the topic of healthy living (and the full spectrum of behaviors that subject entails) is beyond the scope of this dissertation, the analysis herein is limited to physical activity. As such, the author focuses on two, relevant examples of social marketing and social movement approaches to improve the fitness of Americans: the Centers for Disease Control and Prevention’s (CDC) VERB social marketing campaign and the rise of aerobics within America’s historical healthy living movement.³⁴ It is the author’s belief that a thorough analysis of these examples, as well as the related, social marketing and social movement studies scholarship, can inform a unified social change approach that has the potential of moving the work beyond obesity in order to create a society that favors physical activity and healthful eating.

The above aims of this dissertation are advanced within a three-article format. Although the three articles are written to be self-contained, historical pieces suitable for publication in peer-reviewed journals, they are united by the central thesis of the dissertation: 1) the increased incidence of overweight and obesity in America since the

³³ Risa Lavizzo-Mourey, "Partnering with Corporations for Greater Scale: How the Robert Wood Johnson Foundation Is Using Business to Advance a Nationwide Health Initiative," *Stanford Social Innovation Review*, http://www.ssireview.org/blog/entry/partnering_with_corporations_for_greater_scale.

³⁴ In defense of Economos et al., it must be noted that they could not have covered VERB in their study, as the Campaign did not begin until more than a year after the publication of their article. Also, as detailed later in this chapter and much more thoroughly in Chapter Four, the author agrees with the scholarship of Michael Goldstein and Ruth Engs, who argued that a movement to improve the healthy behaviors of the American public has been underway in America for some time. Goldstein suggested that the movement, which he referred to as “the health movement,” in America got its start with the increased “medicalization” of the 1950s. Engs, in contrast, explained that America’s “clean living movements” have been underway in cyclic form since the early nineteenth century. See: Michael S. Goldstein, *The Health Movement: Promoting Fitness in America*, ed. Irwin T. Sanders, *Social Movements Past and Present* (New York: Twayne Publishers, 1992); and Ruth C. Engs, *Clean Living Movements: American Cycles of Health Reform* (Westport: Praeger, 2000).

1970s is associated with wide-sweeping societal changes that favored unhealthy eating and physical inactivity; 2) in order to reverse this situation, a social change approach is required; and 3) the social change models of social marketing and social movements have been applied to the issue and hold the most promise within a unified approach. In the concluding chapter, the findings from the three articles are summarized and recommendations are made for a unified social change model.

The first of the three articles, Chapter Two, is entitled “A Perfect Storm: The History of Youth Obesity in the U.S. and a Society in Transition.” It documents both the historical societal changes that have contributed to America’s obesogenic environment, as well as the changing attitudes about and definitions of youth fatness throughout the twentieth century. Chapter Two builds on the scholarship of Roland Sturm and Patricia Anderson by demonstrating that the increased incidence of youth overweight and obesity in the U.S. since the 1970s is related to wide-sweeping economic, political, familial, technological, and environmental changes that have occurred during the same time period.³⁵ It concludes, as Cohen, Dorfman, and Reilly do, by arguing that 1) obesity is best understood as a symptom of a society that favors inactivity and the overconsumption of unhealthy foods and beverages; 2) social change should be our focus in improving the healthy behaviors of Americans; and 3) a social change model must be identified to address the issue.

³⁵ Sturm, "Childhood Obesity, Part 1" and "Childhood Obesity, Part 2" and Patricia M. Anderson and K. E. Butcher, "Childhood Obesity: Trends and Potential Causes," *Future Child* 16, no. 1 (2006).

The second of the three articles, Chapter Three, picks up on the conclusion of the preceding chapter by analyzing the social change model of social marketing applied to the issue of youth obesity. Entitled “Selling Sweat: The VERB Campaign and the Limits of Social Marketing,” Chapter Three presents a historical case study of the CDC’s VERB social marketing campaign. Launched in June 2002 and conducted through September 2006, VERB cost taxpayers nearly \$340 million and remains an unprecedented social marketing effort to increase physical activity among youth. The Campaign, which consisted of nationwide television, print, and radio advertisements, as well as creative websites and experiential marketing, encouraged American “tweens” to “find their VERB.”³⁶ Although VERB was among the largest, most innovative, and most successful social marketing programs the CDC has ever initiated, the Campaign’s impact quickly faded after Congress denied the CDC continued funding in 2006. Chapter Three concludes by suggesting that the story of VERB illustrates that social marketing alone, especially in the form of a mass media campaign, is insufficient to create systemic, social change. However, Chapter Three also demonstrates that the success of VERB in achieving many of its behavior change objectives points to the power and potential of social marketing within a larger social change framework like a social movement.

Chapter Four is entitled “Join the Movement: A Case Study of Aerobics in the U.S. and Its Impact on and Lessons for America’s Healthy Living Movement.” This chapter builds on the work of Michael Goldstein and Ruth Engs to make the case that 1) a

³⁶ Although no agreed-upon definition exists, the term “tween” is, essentially, a youth marketing term. The word “tween” is shorthand for “between,” as in the ages between childhood and the teenage years, and meant to represent not-quite-“teen.” VERB’s leadership at the CDC defined “tweens” as youth between the ages of nine and thirteen.

series of healthy living movements, which the author defines as those intentional collective efforts to improve the health of the population through healthful eating and regular physical activity, have been underway in cyclic form in America for some time; and 2) the aerobics “boom” of the 1970s created by Dr. Kenneth Cooper represented a pivotal point for the modern healthy living movement cycle by contributing to an unprecedented awareness and pursuit of personal health and fitness among the American public. By constructing the history of aerobics in the 1970s and its “father,” Dr. Cooper, Chapter Four demonstrates that aerobics helped to shape the modern environment in which there is widespread interest in healthy lifestyles at all levels and in all sectors of society, as well as a large number of, as Engs suggested, “loosely related...single issue advocacy groups” that have been created to help people better access and sustain these lifestyles.³⁷ The chapter concludes by arguing that Cooper and the aerobics “boom” he created has contributed to a unique opportunity at this moment in history for the modern healthy living movement to achieve the kind of widespread support, organizational cohesion, and impact that has eluded it in the past.

³⁷ There are numerous trends within the consumer, K-12 public school, corporate, academic, and government sectors to support this claim. For example, a recent RAND Corporate report reveals that nearly half of all U.S. employers now offer some form of a corporate wellness program due to growing “concern about the impact of chronic disease on employee health and wellbeing, the cost of health care coverage, and competitiveness.” Also, a 2014 report by the United States Department of Agriculture demonstrated a greater number of American adults now make food purchase decisions based on nutritional information and health claims than in prior years. Soeren Mattke et al., “Workplace Wellness Programs Study,” in *RAND Health* (RAND Corporation, 2013), xii; Jessica E. Todd, “Changes in Eating Patterns and Diet Quality among Working-Age Adults, 2005-2010,” in *Economic Research Service* (United States Department of Agriculture, 2014), 2; and Ruth C. Engs, “Resurgence of a New “Clean Living” Movement in the United States,” *Journal of School Health* 61, no. 4 (1991): 155; and Elizabeth Mendes, “In U.S., More Cite Obesity as Most Urgent Health Problem,” in *Health and Healthcare Survey* (Gallup, 2012), 1.

The concluding chapter applies the insights of each prior chapter to propose a unified social change approach. Developed to build upon the examples of VERB and aerobics, this approach 1) moves beyond obesity through the framing of healthy living as both an individual and collective cause; 2) integrates social marketing as a core strategy within a larger social movement framework; and 3) leverages social movement organizations to help organize and accelerate America's modern healthy living movement. The chapter ends with a series of recommendations for further research and increased action.

Chapter 2

A Perfect Storm: The History of Youth Obesity in the U.S. and a Society in Transition¹

Fat, however, is truly in the eye of the beholder. Each age, culture, and tradition has defined acceptable weight for itself, and yet all have a point beyond which excess weight is unacceptable, unhealthy, ugly, or corrupting...fat has taken on a new and rather sinister quality over the past century. Obesity is a national rather than an individual problem and that, not only because of epidemiological evidence, but also because of the meanings now firmly attached to an expansive waistline.²

Since the 1970s, the American political, economic, environmental, and familial landscapes have changed in dramatic, unprecedented ways. More than ever, we move less, have supersized our diets and waistlines, and increasingly live second-to-second and day-to-day in a world that values “fast” over “healthy,” “digital” over “real,” and “high scores” over “active play.” Our “modern living environment,” as Steve Blair and Tim Church wrote in 2004, has become “characterized by low daily energy expenditure and an abundant and inexpensive food supply,” which has resulted in “an increasing prevalence of obesity.”³ No group lives in this world more than America’s children and adolescents.

¹ Portions of this chapter originally appeared in Baker Harrell, “A Perfect Storm: An Analysis of the American Youth Obesity Epidemic,” *Iron Game History* 10, no. 1 (November 2007): 14-22.

² Sander L. Gilman, *Fat: A Cultural History of Obesity* (Cambridge: Polity Press, 2008), 3.

³ S. N. Blair and T. S. Church, “The Fitness, Obesity, and Health Equation: Is Physical Activity the Common Denominator?” *JAMA: The Journal of the American Medical Association* 292, no. 10 (2004): 1232.

In the last thirty years, the number of overweight and obese preschoolers ages two to five and adolescents ages twelve to nineteen in the U.S. has doubled, while the number of overweight and obese children ages six to eleven has more than tripled.⁴ In his 2001 report, *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*, Dr. David Satcher, then U.S. Surgeon General, cited the rapid increase of overweight and obesity in the U.S. as a major threat to the country and, for the first time, described overweight and obesity in America as an “epidemic.”⁵ While members of the academic and scientific communities are not in full agreement about obesity rates in the U.S. warranting the “epidemic” label, most agree on three points: 1) the recent rise in obesity (and related, preventable chronic disease, including type II diabetes and fatty liver disease) among America’s youth represents a worrisome trend;⁶ 2) these developments occurred within a changing societal environment that increasingly favored an energy imbalance in individuals—a net increase in total calories consumed versus those

⁴ Cynthia Ogden and Margaret Carroll, "Prevalence of Obesity among Children and Adolescents: United States, Trends 1963-1965 through 2007-2008," in *National Center for Health Statistics* (Centers for Disease Control and Prevention, 2010), 3. The Centers for Disease Control and Prevention (CDC) defines youth overweight as a body mass index (BMI) at or above the eighty-fifth percentile and below the ninety-fifth percentile for sex- and age-specific reference curves that are designed to account for maturation and growth. Accordingly, youth obesity is defined as a BMI at or above the ninety-fifth percentile for the same sex- and age-specific CDC reference curves. "Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation," (Washington: Institute of Medicine of the National Academies, 2012), 43. These definitions and their historical development are covered more fully in the following section.

⁵ U.S. Department of Health and Human Services, "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity," (Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001), xiii.

⁶ Critics, such as Paul Campos and Eric Oliver, of the “epidemic” label being applied to obesity in the U.S. typically challenge the application on two, primary counts: 1) they claim that the measure, BMI, by which the incidence of overweight and obesity in the population is determined is highly flawed (because it does not adequately distinguish between lean muscle mass and adipose/fatty tissue) and thus produces inflated numbers; and 2) they purport that only the more severe forms of obesity can be correlated with adverse health outcomes at a population level. See: Paul Campos, *The Obesity Myth: Why America's Obsession with Weight Is Hazardous to Your Health* (New York: Gotham Books, 2004); and Eric Oliver, *Fat Politics: The Real Story Behind America's Obesity Epidemic* (Oxford: Oxford University Press, 2006).

expended;⁷ and 3) traditional efforts to “combat” obesity have, as Cecile Knai and Martin McKee reported in their 2010 article, “proven generally insufficient.”⁸ About this “changing societal environment,” the Institutes of Medicine, in their 2012 report *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*, wrote, “(The obesity epidemic) in the general population...is attributable to changes in the environments in which Americans live that shape physical activity patterns and food consumption in people’s daily lives. In brief, children (and) families...are at every turn surrounded—even bombarded by—inducements that discourage physical activity and encourage overeating.”⁹

In his 2006 article, John Cawley wrote, “The problem for researchers is not figuring out what could have caused the rise in childhood obesity; the problem is that too many things could have caused it.”¹⁰ While a definitive judgment about the complete etiology of youth overweight and obesity in America may be, as Cawley suggested, impossible, a comprehensive analysis of the relevant societal changes over the last thirty-plus years in U.S. history is critical towards advancing a solution. In recognition of the influence of these societal changes, a growing number of researchers have begun to describe obesity in the U.S. as a “societal problem.”¹¹ In a 2002 article, John Peters and his colleagues label obesity a “socio-cultural disorder,” whose management “will require

⁷ "Accelerating Progress," 49.

⁸ Cécile Knai and Martin McKee, "Tackling Childhood Obesity: The Importance of Understanding the Context," *Journal of Public Health* 32, no. 4 (2010): 506.

⁹ "Accelerating Progress," 49.

¹⁰ J. Cawley, "Markets and Childhood Obesity Policy," *Future Child* 16, no. 1 (2006): 70.

¹¹ M. B. Schwartz and R. Puhl, "Childhood Obesity: A Societal Problem to Solve," *Obesity Reviews* 4, no. 1 (2003): 57.

input and effort by almost every sector of society.”¹² More recently, the researcher J. J. Reilly has suggested that obesity might best be understood as a “societal disease.”¹³

Although there is emerging consensus in the scientific community that obesity may best be understood as a societally-rooted issue, much of the research to-date in the area of youth obesity has focused more narrowly on 1) defining the issue, both in terms of prevalence and effects on health; 2) examining current contributors, including environmental, genetic, familial, and economic factors; and 3) evaluating potential solutions, including individual-, systems-, and policy-based approaches.¹⁴ Comparatively, very little historical scholarship has been conducted on the aforementioned societal shifts since the 1970s that may have contributed to the rapid increases in youth overweight and obesity in the U.S.¹⁵ Furthermore, no such history has been constructed that balances an analysis of these societal changes with America’s evolving attitudes about *fatness* throughout the nineteenth and twentieth centuries, as well as with the body of literature that is highly critical of the “framing” of the issue through the lens of obesity.¹⁶

¹² John C. Peters et al., "From Instinct to Intellect: The Challenge of Maintaining Healthy Weight in the Modern World," *Obesity Reviews* 3, no. 2 (2002): 70, 74.

¹³ Reilly, "Tackling the Obesity Epidemic," 726.

¹⁴ *Ibid.*, 5.

¹⁵ Anderson and Butcher, "Childhood Obesity;" Sturm, "Childhood Obesity, Part 1;" "Childhood Obesity, Part 2;" and "Accelerating Progress." The most comprehensive analyses on the societal changes that have likely contributed to rising youth overweight and obesity rates since the 1970s include, arguably, Patricia Anderson et al.’s 2006 article, “Childhood Obesity: Trends and Potential Causes,” Roland Sturm’s 2005 articles, “Childhood Obesity: What We Can Learn from Existing Data on Societal Trends, Parts 1 and 2,” and the Institute of Medicine’s 2012 report, *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*.

¹⁶ The author uses “fatness” throughout the chapter as a placeholder term for socially-constructed definitions of what constitutes “excess” body fat. The author freely acknowledges the subjective, historically fluid, and stigmatizing nature of the term and uses it only as a linguistic device to discuss the

This chapter attempts to add to the limited historical scholarship on the matter of youth obesity in America. Specifically, the purpose of this chapter is to track 1) how fatness has gone from socially desired to reviled in the last century in America, particularly in the case of children; 2) how fatness became “medicalized” and measured in youth; 3) how major societal changes in the U.S. since the 1970s have likely contributed to the rise in youth overweight and obesity; and 4) how the framing of the issue as one of obesity ultimately limits progress towards the development of a social change solution.¹⁷ Taken together, this chapter seeks to explain the societal “perfect storm” that has contributed to youth overweight and obesity in this country and the necessity of a social change approach to create a “culture of health” for America and its children.¹⁸

topic of “fat” in America. Also, the terms, “frame” and “framing,” are often employed by a variety of disciplines and sub-disciplines, including sociology, psychology, linguistics, communication, political science, social movement studies, and social marketing; as such, no unified definition of these terms exists. All discussions of “framing” and “frame analysis” can ultimately trace their roots to Erving Goffman’s seminal work, *Frame Analysis: An Essay on the Organization of Experience* (Lebanon: Northeastern University Press, 1974), 21. Samantha Kwan, “Framing the Fat Body: Contested Meanings between Government, Activists, and Industry,” *Sociological Inquiry* 79, no. 1 (2009): 26-27. Although no single definition is available, most scholars agree that frames are social constructions that serve, as the sociologist Samantha Kwan writes, to suggest “what is at issue and a course of action.” Kwan reminds us that frames matter a great deal because they both “define an issue but also prescribe its solution.”

¹⁷ Peter Conrad, “Medicalization and Social Control,” *Annual Review of Sociology* 18(1992): 209. Peter Conrad defines “medicalization” as a “process by which nonmedical problems become defined and treated as medical problems, usually in terms of illnesses or disorders.”

¹⁸ Risa Lavizzo-Mourey, “Partnering with Corporations for Greater Scale: How the Robert Wood Johnson Foundation Is Using Business to Advance a Nationwide Health Initiative,” *Stanford Social Innovation Review*, http://www.ssireview.org/blog/entry/partnering_with_corporations_for_greater_scale.” In a 2014 post on the *Stanford Social Innovation Review* blog, Dr. Risa Lavizzo-Mourey, President and CEO of the Robert Wood Johnson Foundation—the largest private funder of obesity prevention efforts in the U.S.—discussed the “shift” in their priorities and approach related to issues like obesity; recognizing the many societal drivers of these issues, Dr. Risa Lavizzo-Mourey explained that the Foundation’s new focus is on creating a “Culture of Health.”

A GATHERING STORM

The media and popular press provide a near-constant reminder of America's "obesity epidemic" and the "terror within" that the issue purportedly represents to the country.¹⁹ It has become commonplace for national magazines to run cover stories, such as the ones featured below in Figure 1, warning of the alleged disaster that obesity poses to the country's children and its future. In a search of U.S. newspapers using LexisNexis and the keywords "overweight" and "obesity," the author found only one story on the subject in 1970. Comparatively, and as a demonstration of America's growing obsession with the topic of obesity, a search using the same criteria and source revealed 13,998 stories written in 2013.²⁰

In their 2008 article "Fat in the Fire? Science, the News Media, and the 'Obesity Epidemic'," Abigail Saguy and Rene Almeling detailed the synergistic and reciprocal nature of the scientific community's scholarship on the topic of obesity and the ways in which those in the popular press "dramatize" those findings, including "(reporting) more heavily on the most alarmist and individual-blaming scientific studies."²¹ Saguy's claims about the "interconnectedness" of the news media and the scientific community's coverage of obesity appear to be supported when comparing the parallel explosive growth of that coverage by both communities across the same time span.²² For example, a

¹⁹ Associated Press, "Surgeon General: Obesity Epidemic Will Dwarf Terrorism," *Associated Press*, 2 March 2006. In 2006, then U.S. Surgeon General Richard Carmona reportedly called obesity the "terror within" and warned that "unless we do something about it, the magnitude of the dilemma will dwarf 9-11 or any other terrorist attempt."

²⁰ The author conducted this search on 10 April 2014.

²¹ Abigail C. Saguy and Rene Almeling, "Fat in the Fire? Science, the News Media, and the 'Obesity Epidemic'," *Sociological Forum* 23, no. 1 (2008): 53.

²² *Ibid.*



Figure 1. Modern cover stories on the topic of childhood obesity in *Time* (2008) and *Newsweek* (2012) magazines.²³

PubMed search of scientific articles with the keywords “overweight” and “obesity” in the title and/or abstract published in 1970 yielded 215 articles. Using the same search criteria, a scan of PubMed for articles published in 2013 produced a total of 17,976 articles—an increase of nearly 8,400 percent.²⁴

As demonstrated by the simple searches referenced above, the widespread concern about fatness and the calls for a full-on “war” to defeat it are relatively recent

²³ Jeffrey Kluger, "How America's Children Packed on the Pounds: It Wasn't Easy to Produce a Generation of Overweight Kids but It Might Have Well Been Inevitable," *Time*, 28 June 2008; and Gary Taubes, "The New Obesity Campaigns Have It All Wrong: The Government Has Spent Hundreds of Millions Telling Americans to Exercise More and Eat Less. But the Country Is Getting Heavier Every Year. It's Time to Change the Way We Think About Fat," *Newsweek*, 14 May 2012.

²⁴ The author conducted this search on 10 April 2014.

phenomena.²⁵ In *Never Satisfied: A Cultural History of Diets, Fantasies, and Fat*, the seminal work on the changing attitudes about fatness in America, historian Hillel Schwartz detailed how “(Americans) take for granted now a constant personal vigil against overweight and obesity...(we) liked being fat a century ago.”²⁶ This was especially true for children.

In *Never Satisfied*, Schwartz revealed how, up through the early twentieth century, the “fine fat baby” was desired by parents, because a larger, more rotund baby was considered healthier.²⁷ Throughout the nineteenth century, the weighing of babies was, according to Schwartz, a routine practice for physicians and parents alike. For pediatricians, it was an essential diagnostic tool for determining whether or not the child was sick and “malnourished.”²⁸ Parents weighed their babies, typically with grocers’ counter scales, as a simple confirmation of the health of their child.²⁹ Schwartz explained that the focus on baby weight during this period was deeply rooted in a “centuries-strong folk belief that weighing a baby was not only an act of measurement but an act of therapy”—a “therapy” that “by the simple act of weighing” could fatten and heal a “weak, thin, or sickly” child.³⁰

Peter Stearns, in his 1997 book *Fat History: Bodies and Beauty in the Modern West*, expanded upon the history constructed by Schwartz through a more focused

²⁵ Samuel Klein, "The War against Obesity: Attacking a New Front," *The American Journal of Clinical Nutrition* 69, no. 6 (1999): 1061-63.

²⁶ Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies and Fat* (New York: Doubleday, 1986), 4.

²⁷ *Ibid.*, 272.

²⁸ *Ibid.*, 283.

²⁹ *Ibid.*, 272.

³⁰ *Ibid.*

exposition on the changing attitudes in America towards fatness throughout the nineteenth and twentieth centuries. Like Schwartz, Stearns explained that, through the nineteenth century in America, a level of fatness was desired in men and women as it was in children. According to Stearns, “leanness” was considered a “positive vice” among adults. Stearns suggested that a “decent belly on a man denoted prosperity and sensible good health.”³¹ Lois Banner, in her book *American Beauty*, explained that the “voluptuous” figure was considered fashionable and attractive for women following the Civil War and throughout the remainder of the nineteenth century.³²

But, as documented in great detail by Schwartz, the early twentieth century would usher in sharply different attitudes about fatness in America, particularly for adults. In *Never Satisfied*, Schwartz explained that these changes occurred largely as the result of the following distinct-but-interrelated societal trends that began to emerge in the nineteenth century but gained mainstream popularity during the first half of the twentieth century in the U.S. These included: 1) the growing emphasis on weight and the near-ubiquity of the scale in the early twentieth century created a common means by which to measure weight on a population level and led to the establishment of weight norms for men and women; 2) significant advances in the fields of medicine, public health and home economics which resulted in a shifting focus from infectious disease to lifestyle and which linked weight definitively to health; 3) the creation of actuarial tables by the emerging life insurance industry that equated above-“normal” weight with adverse health

³¹ Stearns, *Fat History*, 9.

³² Banner, *American Beauty*, 111-14.

effects; 4) changes in fashion, especially for women, led to an emphasis of the more slender physique and “slimming” and “reducing” to achieve that look; and 5) a growing emphasis on “perfecting” the body through various methods of “physical culture,” including exercise, fasting, proper mastication, and other practices.³³

What the nineteenth century graciously called *embonpoint*, or plumpness, took on a “new and rather sinister” meaning in the twentieth century when it was renamed “obesity.”³⁴ Obesity comes from the Latin word “obedere” which means to “eat up, to devour.”³⁵ Although the word obesity was used as early as the 1600s by the English physician Tobias Venner, who would also define fatness as a “disease process,” obesity did not become solidly rooted as a medical condition in America until the publication of the popular medical textbook, *Cecil Textbook of Medicine*, in 1927.³⁶ By 1950, the medical community was largely in agreement that excess body weight above a certain threshold constituted obesity and that obesity represented a serious medical threat.³⁷ For example, in 1952, the National Institutes of Health labeled obesity the nation’s primary nutritional problem.³⁸

Unlike with adults, America’s feelings about the “fine fat baby” remained largely unchanged through the first half of the twentieth century. During this period, extra weight in children was often sentimentalized as “baby fat”—a harmless, almost-cherubic

³³ Schwartz, *Never Satisfied*, 75-233, 303-18.

³⁴ Banner, *American Beauty*, 107; and Gilman, *Fat*, 3.

³⁵ Gard and Wright, *The Obesity Epidemic*, 92.

³⁶ Tobias Venner, *Via Recta Ad Vitam Longam, or, a Plain Philosophicall Discourse of the Nature, Faculties, and Effect* (London: Richard Moore, 1620); and Gard and Wright, *The Obesity Epidemic*, 71.

³⁷ Sobal, "The Medicalization and Demedicalization of Obesity," 72-73.

³⁸ Shelly McKenzie, *Getting Physical: The Rise of Fitness Culture in America* (Lawrence: University Press of Kansas, 2013), 3.

quality that a child would shed as they moved into adolescence and adulthood.³⁹ While widespread concerns about overweight and obesity in children would not emerge until the 1980s and 1990s, a landmark study published in 1953 on the “fitness” of America’s children would forever change the trajectory of America’s focus on the health of its children.

That study, conducted by Ruth Hirschland and Dr. Hans Kraus, used a series of exercise tests (developed by Dr. Sonja Webster), such as toe touches and sit-ups, to evaluate the comparative “fitness” between American children and their counterparts in Austria, Switzerland, and Italy. They found that fifty-six percent of the American children failed the tests, while only eight percent of the European children had.⁴⁰ Signaling some of the societal changes in America that would become much more pronounced by the 1970s and 1980s, Kraus and Hirschland explained that the poor performance of the American children as compared to their European peers was the result of “European children (not having) the benefit of a highly mechanized society; they do not use cars, school buses, elevators, or any other labor-saving devices. They must walk everywhere. Their recreation is largely based on the active use of their bodies.”⁴¹

Concerned about the results of this study and growing fears that America’s youth were not up to the challenge posed by the Soviet Union, President Eisenhower, through Executive Order 10673, founded the President’s Council on Youth Fitness (PCYF) in

³⁹ Schwartz, *Never Satisfied*, 271-82.

⁴⁰ McKenzie, *Getting Physical*, 15.

⁴¹ Hans Kraus and Ruth P. Hirschland, "Muscular Fitness and Health," *Journal of Health, Physical Education & Recreation* 24, no. 10 (1953): 17-19.

1956 and selected Shane MacCarthy, a former employee of the Central Intelligence Agency, to serve as its Executive Director.⁴² Between the years 1956-1960, MacCarthy and the PCYF brought increased national attention to the term “fitness” and its application to children. Through their efforts throughout the 1950s, the concept of “fitness testing” in children became mainstream, reaching its zenith in 1960 with the publication of then-President-Elect John F. Kennedy’s article, “The Soft American,” in *Sports Illustrated* magazine. In the article, President Kennedy exhorted every American to “consider our own responsibilities for the physical vigor of our children.”⁴³ This fear of “soft” American children would only become more pronounced in the following decades as youth obesity became defined, tracked, and thoroughly studied.

THE EYE OF THE STORM

The prevalence of youth obesity in the U.S. began as a slow moving storm front in the 1970s and rapidly gained momentum in the 1980s as the American landscape became increasingly “obesogenic.”⁴⁴ The terms “obesity” and “overweight” are often used interchangeably. The two classifications, however, are not the same. “Overweight” in youth is currently defined as by the U.S. Centers for Disease Control and Prevention (CDC) as a body mass index (BMI) at or above the eighty-fifth percentile and below the ninety-fifth percentile for sex- and age-specific reference curves that are designed to

⁴² McKenzie, *Getting Physical*, 22.

⁴³ John F. Kennedy, "The Soft American," *Sports Illustrated*, 26 December 1960, 17.

⁴⁴ J. O. Hill, J. C. Peters, and H. R. Wyatt, "The Role of Public Policy in Treating the Epidemic of Global Obesity," *Clinical Pharmacology Therapeutics* 81, no. 5 (2007): 772.

account for maturation and growth. Youth “obesity” is defined as a BMI at or above the ninety-fifth percentile for the same sex- and age-specific CDC reference curves.⁴⁵

In youth, BMI is assessed by dividing a child or adolescent’s weight in pounds by height in inches squared and multiplying by a conversion factor of 703. The resulting value is then compared to baseline percentages based on age and gender-specific growth charts approved by the CDC in 2000. As the inclusion of the year in the CDC’s growth chart implies, this calculation of youth overweight and obesity and the resulting definitions have changed over time.

In 1994, the Expert Committee on Clinical Guidelines for Overweight in Adolescent Preventive Services recommended that overweight in youth be defined as a BMI at or above the ninety-fifth percentile for age and gender. The Committee further recommended that a BMI at or above the eighty-fifth percentile and below the ninety-fifth percentile for age and gender be considered “at risk of overweight.”⁴⁶ Unlike the 2000 CDC growth charts which combined historical height and weight data for U.S. children across a three-decade timespan (1963-1995), the Committee’s recommendations were based on a single set of data from the National Health and Examination Survey (NHANES) conducted between the years 1971-1974 and applied to all youth between six and nineteen years of age.⁴⁷

⁴⁵ "Accelerating Progress," 43.

⁴⁶ Nancy F. Krebs et al., "Assessment of Child and Adolescent Overweight and Obesity," *Pediatrics* 120, no. Supplement 4 (2007): S194.

⁴⁷ Cynthia L. Ogden et al., "The Epidemiology of Obesity," *Gastroenterology* 132, no. 6 (2007): 2089.

In 2005, the Institute of Medicine (IOM) recommended doing away with the 1994 Committee's definitions for youth overweight and obesity and developed the definitions and terminology in use today. So that the labels aligned with the adult labels and definitions for overweight and obesity, the IOM suggested that "at risk of overweight" in youth become "overweight," and "overweight" for youth become "obese." They justified these changes by suggesting that the terms were both more medically accurate (including their link to increased morbidity and risk factors, such as increased risk of obesity in adulthood) and would be easier for parents to understand.⁴⁸

While BMI is the measure by which overweight and obesity is calculated and defined in the U.S., the CDC uses the NHANES to track the prevalence and trends of overweight and obesity in youth and adults. The CDC has been using the NHANES to weigh and measure a nationally representative sample of children and adolescents since 1971.⁴⁹ According to the 1971 through 1974 NHANES, approximately five percent of youth were obese. Between the years 1976 and 1980, the number of obese youth was only marginally higher. By 1994, the number of obese youth in the U.S. had nearly doubled. The 2003-2004 NHANES revealed that more than sixteen percent of U.S. youth were overweight and another seventeen percent were obese.⁵⁰ The 2005-2006, 2007-2008, and 2009-2010 NHANES all demonstrated rates of overweight and obesity in youth consistent with the 2003-2004 NHANES.⁵¹

⁴⁸ Krebs et al., "Assessment of Child," S194.

⁴⁹ Ogden et al., "The Epidemiology," 2089.

⁵⁰ *Ibid.*, 2091.

⁵¹ Ogden and Carroll, "Prevalence of Obesity among Children and Adolescents, Trends 1963-1965 through 2007-2008," 1.

According to the latest NHANES (2011-2012) data, the overall leveling off in youth overweight and obesity demonstrated in the 2005-2010 NHANES appears to be holding. The 2011-2012 NHANES even revealed a significant decrease (from 13.9 percent to 8.4 percent) in obesity among children aged two to five, as compared to the 2009-2010 NHANES.⁵² While these results were promising, the same data also revealed an upward trend over the last ten-plus years in severe forms of obesity among youth.⁵³ Also, the data produced by the NHANES continues to demonstrate that African-American and Hispanic youth are more likely to be overweight or obese as compared to Caucasian and Asian-American youth.⁵⁴ Similarly, the NHANES data reveals that youth in families living at or below the poverty level are significantly more likely to be overweight or obese as compared to their more affluent peers.⁵⁵

Taken together, these data reveal that, since 1980, the obesity rate for children aged two to five years has more than doubled (from 5 percent to 12.4 percent); the obesity rate for children aged six to eleven has nearly tripled (from 6.5 percent to 17 percent), and; the obesity rate for adolescents aged twelve to nineteen more than tripled (from 5 percent to 17.6 percent).⁵⁶ These trends are especially worrisome to many in the scientific community because research has demonstrated that overweight and obese youth are more likely to become obese adults than their peers of “normal” weight. For

⁵² Ogden et al., "Prevalence of Childhood and Adult Obesity, 2011-2012," 806.

⁵³ A. Skinner and J. A. Skelton, "Prevalence and Trends in Obesity and Severe Obesity among Children in the United States, 1999-2012," *JAMA Pediatrics* (2014): E1.

⁵⁴ "Accelerating Progress," 45.

⁵⁵ *Ibid.*, 46-7.

⁵⁶ National Collaborative on Childhood Obesity Research, "Childhood Obesity in the United States," (National Collaborative on Childhood Obesity Research, 2009), 1.

example, Shumei Guo and William Chumlea found in their 1999 study that the probability of youth obesity persisting into adulthood increases from nearly twenty percent at age four to upwards of eighty percent at adolescence.⁵⁷

The youth overweight and obesity trends of the last thirty-plus years in the U.S. also concern many because obesity is a primary predisposing factor for America's leading chronic diseases, such as hypertension, certain forms of cancer (including colon and endometrial cancer), type II diabetes mellitus, and coronary heart disease.⁵⁸ In a 2008 study, Wang projected that by the year 2030, nearly ninety percent of all U.S. adults and close to sixty percent of all American youth could become overweight or obese if the historical increases in overweight and obesity rates continued.⁵⁹ Building on these projections, Wang further predicted in a 2011 study that the rapid increase in overweight and obesity in the U.S. in the last twenty-plus years could result in more than eight million new cases of diabetes, nearly seven million cases of coronary heart disease and stroke, and over five hundred thousand new cases of cancer in American over the next two decades.⁶⁰ According to Wang, this increase in preventable, chronic disease could result in a loss of 24.5 to 48.2 million quality-adjusted life years and account for nearly twenty percent (nearly \$1 trillion) of total health-care expenditures in the U.S.⁶¹

⁵⁷ Shumei S. Guo and William Cameron Chumlea, "Tracking of Body Mass Index in Children in Relation to Overweight in Adulthood," *The American Journal of Clinical Nutrition* 70, no. 1 (1999): 145S.

⁵⁸ Y. Claire Wang et al., "Health and Economic Burden of the Projected Obesity Trends in the U.S.A. and the U.K.," *The Lancet* 378, no. 9793 (2011): 815.

⁵⁹ Wang et al., "Will All Americans," 2323.

⁶⁰ "Health and Economic Burden," 817.

⁶¹ *Ibid.*, 815, 818.

As in adults, numerous studies link overweight and obesity in youth to short- and long-term health outcomes. A 2003 study, determined that severely obese youth are 5.5 times more likely to have an impaired health-related quality of life as compared to their normal-weight peers.⁶² In another 2003 study, Frank Gilliland found that youth overweight and obesity are associated with a fifty-two percent increased risk for new diagnoses of asthma in children and a sixty percent increase in adolescents.⁶³ David Freedman and his colleagues reported in a 2007 study that seven percent of obese youth had a minimum of one cardiovascular disease risk factor, while thirty-nine percent had two or more such risk factors.⁶⁴

Due to the increases in youth overweight and obesity in the U.S. since the 1970s, chronic diseases that were once limited to adults have become more common in youth. For example, type II diabetes was once commonly referred to as “adult-onset” diabetes until the sharp rise in the number of youth being diagnosed with the disease beginning in the 1990s. In a 2003 study, Venkat Narayan projected that, based on the increase incidence of overweight and obesity in youth, one-third of all U.S. children born in the year 2000 would develop type II diabetes in their lifetime. The situation was even worse for African-American and Hispanic children—Narayan predicted that one-half of all U.S.

⁶² Jeffrey B. Schwimmer, Tasha M. Burwinkle, and James W. Varni, "Health-Related Quality of Life of Severely Obese Children and Adolescents," *Journal of the American Medical Association* 289, no. 14 (2003): 1816.

⁶³ Frank D. Gilliland et al., "Obesity and the Risk of Newly Diagnosed Asthma in School-Age Children," *American Journal of Epidemiology* 158, no. 5 (2003): 406.

⁶⁴ David S. Freedman et al., "Cardiovascular Risk Factors and Excess Adiposity among Overweight Children and Adolescents: The Bogalusa Heart Study," *The Journal of Pediatrics* 150, no. 1 (2007): 12.

children in these ethnic groups would develop the disease.⁶⁵ Dana Dabelea, in her 2014 study, lent support to Narayan's projections. She found that between the years 2001 and 2009, there was a 30.5 percent increase in type II diabetes among children and adolescents in the U.S.⁶⁶

Type II diabetes, however, is not the only disease that was once the domain of adults, which has begun to become more prevalent in American youth. Nonalcoholic fatty liver disease (NAFLD) is a chronic condition closely associated with obesity that can contribute to cirrhosis and liver failure as one ages. In a 2013 study, Jean Welsh and her colleagues found that NAFLD had more than doubled—from 3.9 percent to 10.7 percent—in U.S. youth between 1988 and 2010.⁶⁷

In addition to the numerous physiological complications associated with obesity, the negative, psychosocial effects of the disease are many. In their 2001 book, *Childhood Obesity: Prevention and Treatment*, Jana Parizkova and Andrew Hill wrote that obese individuals generally report a fear of participating in sports, recreational activities and other social activities. It is for these reasons, Parizkova and Hill claimed, that the overweight or obese youth often avoids physical activity, which only serves to perpetuate their overweight or obese status.⁶⁸ In a 2003 study, Richard Strauss and Harold Pollack

⁶⁵ K. Narayan et al., "Lifetime Risk for Diabetes Mellitus in the United States," *JAMA: The Journal of the American Medical Association* 290, no. 14 (2003): 1884.

⁶⁶ Dana Dabelea et al., "Prevalence of Type 1 and Type 2 Diabetes among Children and Adolescents from 2001 to 2009," *JAMA: The Journal of the American Medical Association* 311, no. 17 (2014): 1778.

⁶⁷ Jean A. Welsh, S. Karpen, and M. B. Vos, "Increasing Prevalence of Nonalcoholic Fatty Liver Disease among United States Adolescents, 1988-1994 to 2007-2010," *The Journal of Pediatrics* 162, no. 3 (2013): 496.

⁶⁸ Jana Parizkova and Andrew Hills, *Childhood Obesity: Prevention and Treatment* (New York: CRC Press, 2001), 57-59.

gave context to the findings of Parizkova and Hill. They determined that overweight and obese adolescents are more likely to be socially isolated and peripheral to social networks than peers who are at a “normal” weight.⁶⁹ They also concluded that, on average, obese adolescents reported lower levels of self-esteem than their normal-weight peers, and the obese adolescents with lower self-esteem demonstrated significantly increased degrees of sadness, loneliness and nervousness.⁷⁰

The public health and medical communities are not the only sectors that have expressed concern about the long-term effects of youth overweight and obesity in the U.S. Echoing President Kennedy’s warnings about the “soft American,” a growing number of current and retired military leaders have begun to suggest that obesity poses not only a serious health threat to our country, but a critical threat to our national security, as well.⁷¹ In a 2014 article in the *Wall Street Journal*, author Miriam Jordan reported, “more than two-thirds of America’s youth...fail to qualify for military service,” with obesity being the “single biggest reason for disqualifying new recruits.”⁷²

In response to these developments, some in the scientific and medical community have ratcheted up the alarmist rhetoric. In an oft-cited article, Jay Olshansky and his colleagues predicted in 2005 that this modern generation of youth is the first in one

⁶⁹ Richard S. Strauss and Harold A. Pollack, "Social Marginalization of Overweight Children," (2003), 746.

⁷⁰ *Ibid.*, 749-52.

⁷¹ Allison Linn, "Retired Military Leaders Fret Kids Will Be 'Too Fat to Fight'," CNBC, <http://www.cnbc.com/id/101656954>.

⁷² Miriam Jordan, "Recruits' Ineligibility Tests the Military: More Than Two-Thirds of American Youth Wouldn't Qualify for Service, Pentagon Says," *Wall Street Journal*, 27 June 2014, <http://online.wsj.com/articles/recruits-ineligibility-tests-the-military-1403909945>.

hundred years to have a lower projected life expectancy than their parents.⁷³ Olshansky, along with Eric Riether and Yang Yang, doubled-down on their dire predictions for the future health of young Americans in a more recent study published in 2011. In that study, they claimed that the most common projections for U.S. life expectancy and “vital statistics” in the coming decades could “be misleading because they fail to account for recently observed declines in the health and mortality prospects of younger generations.”⁷⁴

The American Medical Association (AMA) has recently followed suit. In 2013, the AMA officially recognized obesity as a disease. While the AMA’s labeling of obesity as a disease does not carry any legal authority, it does open the door for the insurance industry to begin to fund the treatment and prevention of overweight and obesity in youth and adults.⁷⁵ This decision by the AMA actually overrode the recommendations of its own Council on Science and Public Health, which was charged with considering the issue, and some leading voices in the medical community have begun to echo the concerns raised by the Council that labeling obesity a disease is medically tenuous and, even more importantly, further stigmatizing.⁷⁶

⁷³ S. Jay Olshansky et al., "A Potential Decline in Life Expectancy in the United States in the 21st Century," *New England Journal of Medicine* 352, no. 11 (2005): 1141-43.

⁷⁴ Eric N. Riether, S. Jay Olshansky, and Yang Yang, "New Forecasting Methodology Indicates More Disease and Earlier Mortality Ahead for Today’s Younger Americans," *Health Affairs* 30, no. 8 (2011): 1567.

⁷⁵ Andrew Pollack, "A.M.A Recognizes Obesity as a Disease," *New York Times*, 18 June 2013, B1.

⁷⁶ Geoffrey Kabat, "Why Labeling Obesity as a Disease Is a Big Mistake," *Forbes*, 9 July 2013, <http://www.forbes.com/sites/geoffreykabat/2013/07/09/why-labeling-obesity-as-a-disease-is-a-big-mistake/>.

One such “voice” is that of physician David Katz, editor-in chief of *Childhood Obesity*. In a 2014 editorial for *Childhood Obesity* entitled, “Are Our Children Diseased?” Katz argued that the labeling of obesity as a disease was both scientifically flawed and harmful for children. In concluding his article, he wrote:

Obesity as disease implies that a large population of our sons and daughters are not just heavy, but diseased. I object to this, for the fault lies not with the bodies of our children, but with the body politic. The fault lies with a culture that sanctions junk as a food group, jettisons physical activity from the school day, despite evidence of its myriad benefits, and, in general, leaves health to languish on a road not taken while neglecting much that might be done to put it on a path of lesser resistance. If ever more effort is directed at obesity as a disease, treated in the customary ways, none of these fundamental problems will garner the attention each deserves... If (obesity) is a disease, it is a societal disease.⁷⁷

These “fundamental problems,” which according to Katz make obesity not a disease of the individual, but rather, one of society, are what this chapter will now explore. The story of this societal “perfect storm” continues with an analysis of the historical changes to the school environment.

RECESS TAKES A TIME-OUT

Unfortunately, there remains a shortage of reliable research on the ways in which the school environment may have contributed to the rise in youth overweight and obesity rates in this country. Of the research that does exist, the majority of the research falls into three categories: 1) trends in participation rates by students in physical education classes; 2) school lunch and vending trends, and; 3) trends in the provision of recess. Of

⁷⁷ Katz, "Are Our Children," 2.

the three categories of research, the “vending trends” category is perhaps the most robust in terms of raw data.

Using the Youth Risk Behavior Survey (YRBS), the primary source of data on U.S. physical education participatory rates, conducted between 1991-1997, Richard Lowry found significant decreases in the number of high school students who attended daily physical education (down from 41.6 percent to 27.4 percent). A sharp drop-off was also shown in terms of the percentage that participated in more than twenty minutes of moderate to vigorous activity during daily physical education classes (down from 34.2 percent to 21.7 percent).⁷⁸ The most recent YRBS data from the CDC supports Lowry’s findings.

The 2013 YRBS report described a general downward trend in daily physical education attendance from the years 1991-2003, with forty-two percent of high schools reporting daily physical education in 1991 as compared to only twenty-nine percent of high schools in 2013. Since then, the report also demonstrated a slight uptick in the percentage of high schools, nearly thirty-two percent in 2011, offering daily physical education.⁷⁹ A 2013 report by the Institute of Medicine (IOM) explained the drop-off in physical education in the U.S. in the early 2000s as a byproduct of the passage of President George W. Bush’s signature education policy—the No Child Left Behind Act (NCLB) of 2001. Forty-four percent of school administrators surveyed for the report

⁷⁸ Richard Lowry et al., "Recent Trends in Participation in Physical Education among Us High School Students," *Journal of School Health* 71, no. 4 (2001): 145.

⁷⁹ "Physical Activity Facts: Physical Activity and the Health of Young People," (Centers for Disease Control and Prevention, 2014).

claimed that they significantly reduced time for physical education classes and recess to, instead, focus more time on the tested subject areas of NCLB, such as math and reading.⁸⁰

In a 2003 study, French and colleagues found a three percent increase in the share of soft drinks consumed in school cafeterias between the years 1977-1978 and 1994-1998. They also noted a forty-eight percent increase in the share of soft drinks consumed by students from vending machines over that same period of time.⁸¹ In a separate 2003 report, Patricia Anderson found that seventy-three percent of high schools, fifty-eight percent of middle schools, and forty-two percent of elementary schools had exclusive “pouring contracts” with soft drink manufacturers; these contracts allow manufacturers to place vending machines within the school grounds in exchange for revenue sharing between the school and manufacturer. Forty-six percent of high schools, twenty-nine percent of middle schools, and thirteen percent of the elementary schools they surveyed also allowed these same manufacturers to advertise to students.⁸² These developments are especially important because, as the Robert Wood Johnson Foundation revealed in a 2012 report, “more than thirty-five percent of children’s and adolescents’ daily energy intake occurs at school.”⁸³

⁸⁰ "Educating the Student Body: Taking Physical Activity and Physical Education to School," (Washington: Institute of Medicine of the National Academies, 2013), 3.

⁸¹ Simone A. French, Biing-Hwan Lin, and Joanne F. Guthrie, "National Trends in Soft Drink Consumption among Children and Adolescents Age 6 to 17 Years: Prevalence, Amounts, and Sources, 1977/1978 to 1994/1998," *Journal of the American Dietetic Association* 103, no. 10 (2003): 1326.

⁸² Patricia A Anderson, K. F. Butcher, and P.B. Levine, "Economic Perspectives on Childhood Obesity," in *Economic Perspective 3Q* (Chicago: Federal Reserve Bank of Chicago, 2003), 43-44.

⁸³ Jamie F. Chriqui, "Influence of Competitive Food and Beverage Policies on Children's Diets and Childhood Obesity," (Robert Wood Johnson Foundation, 2012), 1.

A 2001 study by Charlene Burgeson demonstrated that only four percent of states required and twenty-two percent of states recommended that schools provide “regularly scheduled” recess for elementary students.⁸⁴ In a separate report issued the same year, it was noted that forty percent of elementary schools have reduced, deleted or were considering deleting recess since 1989, when ninety percent of elementary schools had some form of regularly scheduled recess.⁸⁵ As will be discussed, it is not just the school environment that has changed over the last few decades. Home environments have also undergone significant shifts in the last thirty-plus years.

THE MELTDOWN OF THE NUCLEAR FAMILY

From 1960 to 2013, the percentage of births to unmarried women grew from 8.2 percent to 40 percent.⁸⁶ This is a significant statistic, as was demonstrated in a 1999 study, in that children in homes with single mothers were at a significantly greater risk for becoming overweight or obese compared to children in two-parent homes.⁸⁷ In a related issue, a 2005 report produced by the U.S. Department of Labor revealed that, in the last thirty years, the number of women (with children younger than age eighteen) participating in the labor force grew from forty-seven percent to seventy-two percent,

⁸⁴ Charlene R. Burgeson et al., "Physical Education and Activity: Results from the School Health Policies and Programs Study 2000," *Journal of School Health* 71, no. 7 (2001): 285.

⁸⁵ "Recess and the Importance of Play," in *A Position Statement on Young Children and Recess* (National Association of Early Childhood Development Specialists in State Departments of Education, 2001), 2.

⁸⁶ Jennifer Augustine and Rachel Kimbro, "Family Structure and Obesity among U.S. Children," *Journal of Applied Research on Children: Informing Policy for Children at Risk* 4, no. 1 (2013): 2.

⁸⁷ R. S. Strauss and J. Knight, "Influence of the Home Environment on the Development of Obesity in Children," *Pediatrics* 103, no. 6 (1999): 1.

with the most significant rise among mothers with children younger than three years.⁸⁸ This shift, which includes an increasing number of married women with children under the age of one entering the labor force (thirty one percent in 1975 to fifty-five percent in 2003) may have contributed to the increased prevalence of youth overweight and obesity in the U.S.: first, because of more meals being consumed away from home and, second, because there were more children who required child care.⁸⁹

In a 2004 study, Roland Sturm found that for the entire U.S. population, the number of daily minutes dedicated to preparing meals declined from forty-four minutes in 1965 to thirty-two minutes in 1999. Sturm also reported that Americans spent one third of their food dollars outside the home in 1970; by 2001, Americans were spending nearly half of all their food dollars away from the home.⁹⁰ A 1999 report by Biing-Hwan Lin revealed that the total share of calories consumed away from home rose from eighteen percent to thirty-four percent between the years 1977 and 1995. This report also concluded that during the same time period, the total share of meals consumed away from home increased from sixteen percent to twenty-nine percent.⁹¹ In another study, Lin and Guthrie determined that, between 1994-1996, U.S. children consumed thirty-two percent of their calories away from home.⁹² Based on these consumer trends, it is not surprising

⁸⁸ United States Department of Labor, "Women in the Labor Force: A Databook," (U.S. Department of Labor, United States Bureau of Labor Statistics, 2005).

⁸⁹ U.S. Census Bureau, "Statistical Abstract of the United States: 2004-2005," (Bureau of Census, 2005).

⁹⁰ Sturm, "Childhood Obesity, Part 1" 6.

⁹¹ Biing-Hwan; Guthrie Lin, Joanne; Frazao, Elizabeth, "Away-from-Home Foods Increasingly Important to Quality of American Diet," in *Agriculture Information Bulletin* (United States Department of Agriculture, Economic Research Service, 1999), 3.

⁹² Biing-Hwan Lin and Joanne Guthrie, "Quality of Children's Diets at and Away from Home: 1994-96," *Food Review* 22, no. 1 (1999): 2.

that the fast food industry in the U.S. has grown from \$6 billion in sales in 1970 to \$160 billion in 2013—an increase of 2,600 percent.⁹³

Story and colleagues found in 2006 that thirteen million of the twenty-one million pre-school children in the U.S. spend a significant portion of their day in a childcare facility.⁹⁴ Moreover, the Children's Foundation and National Association for Regulatory Administration estimates that the number of child care facilities in the U.S. grew from 25,000 in 1977 to more than 116,000 in 2004.⁹⁵ In *Working Families and Growing Kids: Caring for Children and Adolescents*, Smolensky and Gootman determined that employed mothers of children aged five and younger have their children in child care for an average of nearly forty hours a week.⁹⁶ Unfortunately, little research has been conducted on the quality of food offered at these child care facilities.⁹⁷ Kranz and colleagues, in a study of a nationally representative sample of children aged three to five between the years 1977 and 1998, found that total energy intake increased, along with the consumption of excess juice and added sugars. Also, while the consumption of

⁹³ Matt Sena, "Fast Food Industry Analysis 2014 - Cost & Trends," <https://www.franchisehelp.com/industry-reports/fast-food-industry-report/>.

⁹⁴ M. Story, K. M. Kaphingst, and S. French, "The Role of Child Care Settings in Obesity Prevention," *Future Child* 16, no. 1 (2006): 144-46.

⁹⁵ "2004 Family Child Care Licensing Study," (Washington, D.C.: Children's Foundation and National Association for Regulatory Administration, 2004).

⁹⁶ Eugene; Gootman Smolensky, Jennifer Appleton, "Working Families and Growing Kids: Caring for Children and Adolescents," in *Committee on Family and Work Policies* (Washington: US National Research Council, 2003), 42-43.

⁹⁷ Story, Kaphingst, and French, "The Role of Child Care Settings," 150.

grains, fruits, and vegetables improved, they fell far below the recommended daily servings for children.⁹⁸

More is known, however, about the amount of physical activity in which children in child care facilities are engaged. In a 2004 study, Russell Pate determined that many children in preschool settings are not receiving the recommended two hours of daily physical activity and that youth in these settings need more moderate-to-vigorous physical activity.⁹⁹ Pate followed-up this study with another in 2008 that produced even more troubling findings; he found that of the thirty hours, on average, that children spend in child care settings each week, twenty-five hours are spent on sedentary activities and only one hour each week involves moderate-to-vigorous physical activity.¹⁰⁰ These findings are especially significant because, as noted by the consulting firm M. Cubed in a 2002 report for the National Child Care Association, the number of U.S. children aged four and younger is expected to grow significantly in the coming decades. Accordingly, the number of working parents dependent upon child care is also expected to rise.¹⁰¹

BIG GULPS IN A FAST FOOD NATION

John Cawley, citing a report by the U.S. Bureau of Labor Statistics, wrote,

A quick comparison of the various consumer price indexes indicates that between January 1989 and January 2005, the real price of fruits and vegetables rose 74.6% while that of fats and oils fell 26.5% and that of sugars and sweets fell 33.1%.

⁹⁸ Sibylle Kranz, Anna Maria Siega-Riz, and Amy H. Herring, "Changes in Diet Quality of American Preschoolers between 1977 and 1998," *American Journal of Public Health* 94, no. 9 (2004): 1526-27.

⁹⁹ Russell R. Pate et al., "Physical Activity among Children Attending Preschools," *Pediatrics* 114, no. 5 (2004): 1261.

¹⁰⁰ "Directly Observed Physical Activity Levels in Preschool Children," *Journal of School Health* 78, no. 8 (2008): 442.

¹⁰¹ M. Cubed and National Child Care Association, "The National Economic Impacts of the Child Care Sector," (Conyers, GA: National Child Care Association, 2002), 4.

Thus energy dense foods have become considerably cheaper, relative to less energy-dense foods in the past 15 years.¹⁰²

Drewnowski and Specter, in a 2004 article, supported Cawley's findings. Like Cawley, they found that energy-dense consumables (including highly processed foods with high levels of sugar, fat, and salt) are much cheaper than those foods, such as fruits and vegetables, that are low in energy density.¹⁰³ In their 2002 study, Lakdawalla and Philipson argued that the decline in the relative price of food over the last twenty years resulted in people eating more energy-dense foods which, in turn, contributed to at least forty percent of the increases in overweight and obesity in youth and adults in the last thirty-plus years.¹⁰⁴

According to a report produced in 2006 by the Institute for Agriculture and Trade Policy, the increased consumption of these energy-dense foods and beverages in the U.S. is the direct result of U.S. farm policies over the last fifty years which have driven down the price of farm commodities, including corn and soybeans. Conversely, this report concludes, these farm policies have had the opposite effect on the prices for fruits and vegetables. As a result, the food industry responded to and profited from these lower prices for the commodities by increasingly engineering new additives, such as high

¹⁰² Cawley, "Markets and Childhood Obesity Policy," 72.

¹⁰³ Adam Drewnowski and S. E. Specter, "Poverty and Obesity: The Role of Energy Density and Energy Costs," *American Journal of Clinical Nutrition* 79, no. 1 (2004): 13-14.

¹⁰⁴ Darius N. Lakdawalla and Tomas J. Philipson, "The Growth of Obesity and Technological Change: A Theoretical and Empirical Examination," (Cambridge, MA: National Bureau of Economic Research, 2002), ii.

fructose corn syrup and hydrogenated vegetable oils, to make foods and beverages increasingly high in fat and added sugars (i.e. “energy-dense”).¹⁰⁵

Of the myriad categories of energy-dense consumables, regular (non-diet) soft drinks and fast foods have demonstrated the most significant link to youth overweight and obesity. In a 2004 study, James demonstrated that a reduction in the consumption of regular sodas by a representative sample of children aged seven to eleven resulted in a reduction of the number of overweight and obese participants.¹⁰⁶ In a 2004 article, Samara Nielsen and Barry Popkin chronicled the consumption of regular soft drinks by youth (ages two through eighteen) between the years 1977 and 2001. They found that during this time period, regular soft drink consumption among youth more than doubled, increasing from 3 percent in total calories to 6.9 percent.¹⁰⁷ Gail Woodward-Lopez recently estimated that sweetened beverages may account for one-fifth of the weight gained by Americans in the years between 1977 and 2007.¹⁰⁸ Fortunately, the most current data reveal a downward trend in the consumption of regular soft drinks among youth. In her 2011 study, Jean Welsh found that youth consumed thirty-nine percent fewer calories from regular soft drinks between the years 1999 and 2008.¹⁰⁹

¹⁰⁵ Heather Schoonover, "Food without Thought-How U.S. Farm Policy Contributes to Obesity," (Minneapolis: Institute for Agriculture and Trade Policy, 2006), 1.

¹⁰⁶ Janet James et al., "Preventing Childhood Obesity by Reducing Consumption of Carbonated Drinks: Cluster Randomised Controlled Trial," (2004), 1.

¹⁰⁷ Samara Joy Nielsen and Barry M. Popkin, "Changes in Beverage Intake between 1977 and 2001," *American Journal of Preventive Medicine* 27, no. 3 (2004): 207.

¹⁰⁸ Gail Woodward-Lopez, Janice Kao, and Lorrene Ritchie, "To What Extent Have Sweetened Beverages Contributed to the Obesity Epidemic?" *Public Health Nutrition* 14, no. 3 (2011): 499.

¹⁰⁹ Jean A. Welsh et al., "Consumption of Added Sugars and Indicators of Cardiovascular Disease Risk among U.S. Adolescents," *Circulation* 123, no. 3 (2011): 726.

In the preceding section, the dramatic increase in the number of calories and meals consumed away from home was noted. In a 2003 study, Paeratakul and colleagues found that those people consuming fast food meals experienced higher energy intake with lower nutritional values than those individuals not consuming fast food.¹¹⁰ Bowman and colleagues, in a 2004 study, came to a similar conclusion. They found that children who ate fast food, as compared to those who did not, consumed more total calories, more calories per gram of food, more total fat, more total carbohydrates, more sugar-sweetened beverages, more added sugars, less milk, less fiber and fewer fruits and non-starchy vegetables.¹¹¹ And in a longitudinal study of girls aged eight to twelve, Olivia Thompson concluded that those participants eating fast food a minimum of two times a week had larger weight gains at the end of the three-year study.¹¹²

But it is not only the frequency of the consumption of fast food that has led to the increases in youth overweight and obesity. With the fall of the relative price of food, the ability of vendors to provide larger and larger portions became a reality. In a 2002 study, Lisa Young and Marion Nestle documented the increases in portion sizes that have occurred in the U.S. from the 1970s to the late 1990s. For 181 products, Young and Nestle reported a sixty percent increase in portion sizes.¹¹³ Rolls, in a 2000 study, found

¹¹⁰ Sahasporn Paeratakul et al., "Fast-Food Consumption among U.S. Adults and Children: Dietary and Nutrient Intake Profile," *Journal of the American Dietetic Association* 103, no. 10 (2003): 1332.

¹¹¹ Shanthy A. Bowman et al., "Effects of Fast-Food Consumption on Energy Intake and Diet Quality among Children in a National Household Survey," *Pediatrics* 113, no. 1 (2004): 116-17.

¹¹² O. M. Thompson et al., "Food Purchased Away from Home as a Predictor of Change in Bmi Z-Score among Girls," *International Journal of Obesity & Related Metabolic Disorders* 28, no. 2 (2004): 282.

¹¹³ Lisa R. Young and Marion Nestle, "The Contribution of Expanding Portion Sizes to the U.S. Obesity Epidemic," *American Journal of Public Health* 92, no. 2 (2002): 247-48.

that individuals as young as five years old would eat more if offered larger portion sizes.¹¹⁴

It was the promotion of these increasingly low prices and ever-increasing quantities across an expanding media landscape that developed a significant youth market for these energy-dense products. These promotions drove the youth market to demand and consume more and more of these calorie-laden foods and beverages. In a 1999 report, Anthony Gallo revealed that, in 1997, the food industry spent \$7 billion on advertising—second only to the automobile industry.¹¹⁵ Harris and colleagues, in a 2002 report, reported an increase in spending for the advertising of soft drinks from \$541 million in 1995 to \$799 million in 1999—an increase of nearly fifty percent. As a contrast, Harris and colleagues pointed out that overall food advertising increased only twenty percent, from \$9.8 billion to \$11.6 billion, over the same time period.¹¹⁶

In “Children and Television Advertising,” Dale Kunkel estimated that the number of television commercials viewed by U.S. children doubled from nearly twenty thousand in 1970 to forty thousand by the year 2000. He also found that more than eighty percent of all advertising to children consists of four product categories: cereal, candy, fast food,

¹¹⁴ Barbara J. Rolls, Dianne Engell, and Leann L. Birch, "Serving Portion Size Influences 5-Year-Old but Not 3-Year-Old Children's Food Intakes," *Journal of the American Dietetic Association* 100, no. 2 (2000): 234.

¹¹⁵ Anthony E. Gallo, "Food Advertising in the United States," in *Agriculture Information Bulletin*, ed. Elizabeth Frazao (Washington: United States Department of Agriculture, 1999), 174-75.

¹¹⁶ J. Michael Harris, "The U.S. Food Marketing System, 2002: Competition, Coordination, and Technological Innovations into the 21st Century," in *USDA Agricultural Economic Report* (Washington: United States Department of Agriculture, 2002), 79.

and toys.¹¹⁷ In a 1995 article, Howard Taras and Miriam Gage found the same upward trend in advertising during children's television programming; they reported eleven percent more commercials per hour of children's programming in 1995 than in 1987.¹¹⁸ Gerard Hastings concluded, in a 2003 report, that the decades long trend among advertising to children represents a near total reduction in advertisements for fruits and vegetables and a rapid increase in the numbers of advertisements for fast food, soft drinks, snacks, and breakfast cereals.¹¹⁹

With the discussion of advertising, it is appropriate that we now turn our attention to the ways in which the rapidly evolving and expanding media landscape may have contributed to the rise in youth overweight and obesity in the U.S. since the 1970s. As the title of the next section (a play on the online world of *Second Life*) suggests, modern young people straddle two realities: one real and one virtual.¹²⁰ Increasingly, according to the research presented below, this virtual, digitally-mediated world is where America's children and adolescents are often spending their leisure time, rather than in active play.

¹¹⁷ D. Kunkel, "Children and Television Advertising," in *Handbook of Children and the Media*, ed. D; Singer Singer, J. (Thousand Oaks, CA: Sage, 2001), 376-77.

¹¹⁸ H. L. Taras and M. Gage, "Advertised Foods on Children's Television," *Archives of Pediatrics & Adolescent Medicine* 149, no. 6 (1995): 649.

¹¹⁹ Gerard Hastings, "Review of Research on the Effects of Food Promotion to Children," (Glasgow, U.K.: Centre for Social Marketing, University of Strathclyde, 2003), 2.

¹²⁰ See: www.secondlife.com.

SECOND LIVES¹²¹

In a 1999 Kaiser Family Foundation report, Donald Roberts and colleagues chronicled the dominance of the television over the last thirty years. They reported that in 1970, thirty-five percent of homes had more than one television, six percent had three or more televisions, and only six percent of sixth grade students had a television in their bedroom. By the year 1999, things had dramatically changed—eighty-eight percent of families had more than one television, sixty percent had three or more televisions, and seventy-seven percent of sixth grade students had a television in their room.¹²² Despite the proliferation of the television sets during this period, the amount of television youth actually watched slightly declined. For example, Patricia Anderson and Kristin Butcher, in their 2006 study, found that children aged six to eleven in 1982 watched twenty-four hours of weekly television viewing. In this same year, female teens averaged nearly twenty-one hours of weekly viewing and male teens averaged twenty-four hours. But by 1999, weekly television for both groups of youth had fallen to 19.7 hours.¹²³

The decline in television viewing in these years, particularly the mid-1990s, resulted from youth substituting other forms of media. In the 1999 Kaiser Family Foundation report, Roberts found that children spent 19.3 hours a week viewing television, another 2.5 hours in front of the computer, and 2.3 hours playing video

¹²¹ As mentioned above, this heading is a reference to the website *Second Life* which bills itself as the “largest-ever 3-D virtual world created entirely by its users.” See: Linden Labs, “Second Life,” <http://secondlife.com/>.

¹²² Donald F. Roberts et al., “Kids and Media at the New Millenium,” in *Kaiser Family Foundation Report* (Kaiser Family Foundation, 1999), 24.

¹²³ Anderson and Butcher, “Childhood Obesity,” 37.

games.¹²⁴ Furthermore, Elizabeth Vandewater and her colleagues revealed that even the youngest of children have become heavy media consumers. In a study published in 2007, they revealed that among children aged zero to six, seventy-five percent watch television and thirty-two percent watch videos or DVDs for approximately eighty minutes within a typical day. They also found that twenty-seven percent of children aged five to six use a computer for fifty minutes on a typical day. Finally, they found that twenty percent of children aged zero to two and thirty-three percent of children aged three to six have a television in their room.¹²⁵

Also worth noting is the modern dominance of video game consoles and mobile devices, even over computers, among children and adolescents. In 1999, thirty percent of boys and seventeen percent of girls owned at least one video game console. By 2004, sixty-three percent of boys and thirty-three percent of girls owned at least one video game console. Televisions owned by boys during the same time period only increased by two percentage points (from seventy percent to seventy-two percent), while for girls, the number actually decreased by six percentage points (from seventy percent to sixty-four percent). Computers owned by boys during this period increased from twenty-two percent to thirty-five percent, while, yet again, the numbers of ownership decreased by a percentage point (from twenty-seven percent to twenty-six percent) for girls.¹²⁶ Recent research on media usage by youth in the U.S. also reveals that mobile phones are

¹²⁴ Roberts et al., "Kids and Media," 26-28.

¹²⁵ Elizabeth A. Vandewater et al., "Digital Childhood: Electronic Media and Technology Use among Infants, Toddlers, and Preschoolers," *Pediatrics* 119, no. 5 (2007): e1013-14.

¹²⁶ Donald F. Roberts, Ulla G. Foehr, and Victoria J. Rideout, "Generation M: Media in the Lives of 8-18 Year Olds," in *Kaiser Family Foundation Study* (Kaiser Family Foundation, 2005), 2-5.

increasingly becoming a key multimedia device in the lives of children. A 2010 study by the Kaiser Family Foundation revealed that sixty-nine percent of American youth, aged eleven to fourteen, and eighty-five percent of youth, aged eight to eighteen, in the U.S. own a mobile phone. The same study reported that U.S. youth spend an average of forty-nine minutes each day listening to music, engaging with social media, texting, or watching video on a mobile device.¹²⁷

The discussion of media's dominance in the lives of modern youth is an important one because of the link between sedentary behaviors and overweight and obesity. In their groundbreaking study, William Dietz and Steven Gortmaker determined that each additional hour of television viewing per day increased the prevalence of childhood obesity by two percent.¹²⁸ Thomas Robinson, in a 1999 study, confirmed the results of Dietz and Gortmaker's study. He found that a reduction in children's television viewing lowers their overall BMI.¹²⁹ In a 2004 study, Elizabeth Vandewater and colleagues collected data that contradicted the studies of Dietz and Gortmaker, and Robinson. Vandewater et al. found that video game usage was related to children's weight status while television viewing was not. They also noted that children with higher weight status spent more time involved in sedentary activities than their normal-weight peers.¹³⁰

¹²⁷ Victoria J. Rideout, Ulla G. Foehr, and Donald F. Roberts, "Generation M2: Media in the Lives of 8-to-18-Year Olds," (Menlo Park, Ca: Kaiser Family Foundation, 2010), 18-19.

¹²⁸ William H. Dietz Jr and Steven L. Gortmaker, "Do We Fatten Our Children at the Television Set? Obesity and Television Viewing in Children and Adolescents," *Pediatrics* 75, no. 5 (1985): 809.

¹²⁹ Thomas N. Robinson, "Reducing Children's Television Viewing to Prevent Obesity: A Randomized Controlled Trial," *JAMA: The Journal of the American Medical Association* 282, no. 16 (1999): 1565-66.

¹³⁰ Elizabeth A. Vandewater, Mi-suk Shim, and Allison G. Caplovitz, "Linking Obesity and Activity Level with Children's Television and Video Game Use," *Journal of Adolescence* 27, no. 1 (2004): 77-81.

While some researchers disagree over the effect sizes for certain media on youth overweight or obesity, all agree that increased amounts of sedentary activity (the kind of activity so often associated with media consumption) accompanied by increased amounts of energy intake through energy-dense foods and beverages is associated with increases in adiposity and weight status. It is not merely the changes in media consumption that have contributed to the increases in sedentary activity among youth, however. Larger, environmental changes have also played a significant role in the way in which youth interact with their world. In the final section, we examine the ways in which the “built environment” has changed since the 1970s in the U.S., and how these changes may have contributed to the increases in overweight and obesity rates among America’s youth during the same period.

BUILT FOR BIG

In the 2006 article, “The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood,” James Sallis and Karen Glanz define the built environment as “the neighborhoods, roads, buildings, food sources, and recreational facilities in which people live, work, are educated, eat, and play.”¹³¹ Their definition includes the environments of home and school, which we have already explored. For this section, we will limit our focus to two primary components of the “built environment” concept: transportation routes and neighborhood composition.

¹³¹ J. F. Sallis and K. Glanz, "The Role of Built Environments in Physical Activity, Eating, and Obesity in Childhood," *Future Child* 16, no. 1 (2006): 90.

In a 2002 report, Reid Ewing and colleagues document the urban sprawl that has occurred in the U.S. in the recent decades. They determined that urban sprawl increases automobile travel and as sprawl has expanded, so too have the number of vehicle miles the average person travels on a regular basis.¹³² Patricia Hu and Timothy Reuscher, in a 2004 report, found that the number of daily vehicle miles traveled per household were fairly consistent at thirty-three between the years 1977 and 1983. By 1990, however, the number had increased to forty-one daily vehicle miles and in 2001, the number reached fifty-eight.¹³³ In a 2006 article, Ewing reported a significant correlation between this historical expansion of urban sprawl in the U.S. and the increased incidence of youth overweight and obesity during the same period.¹³⁴

Closely related to the number of daily vehicle miles is the subject of how children travel to school. In 2002, the research and communications firm Beldon Russonello and Stewart surveyed a nationally representative sample of parents. Their resulting report revealed that fifty-three percent of parents drove their children to school and thirty-eight percent had their children ride the school bus. Only seventeen percent of the parents surveyed reported that their children walked to school, while merely five percent of

¹³² Reid Ewing, Rolf Pendall, and Don Chen, "Measuring Sprawl and Its Transportation Impacts," in *Smart Growth America Report* (Washington: Smart Growth America, 2002), 180-82.

¹³³ Patricia S.; Reuscher Hu, Timothy R., "Summary of Travel Trends: 2001 National Household Travel Survey," in *United States Department of Transportation Federal Highway Administration Report* (Washington: United States Department of Transportation, 2004), 15.

¹³⁴ Reid Ewing, Ross C. Brownson, and David Berrigan, "Relationship between Urban Sprawl and Weight of United States Youth," *American Journal of Preventive Medicine* 31, no. 6 (2006): 469-72.

parents indicated that their children rode a bike to school.¹³⁵ Among the parents surveyed who reported driving their kids to school or putting them on the bus, the most common response (sixty-six percent) as to why their children did not walk or ride their bike to school was that the school was too far away.¹³⁶ Finally, as a pure example of the urban sprawl phenomenon previously discussed, seventy percent of all parents participating in the survey reported that they had primarily walked or biked to school when they were children.¹³⁷

In a 2010 study, Elizabeth Wilson confirmed Russonello's findings about the changing modes of transportation to school. She reported that between the years 1969 and 1990 the percent of trips to school by bicycle or foot by students had fallen from forty-one percent to thirteen percent. The decline in the amount of walking and cycling to school by students is an important statistic to track because research demonstrates that both activities require substantial energy expenditure by students.¹³⁸ Other research has shown that children who walk to school are, overall, more physically active than those who do not.¹³⁹

Research on the composition of neighborhoods may partially explain why youth obesity is more prevalent among low income and minority populations. In a 2004 study,

¹³⁵ Belden Russonello and Stewart, "Americans' Attitudes toward Walking and Creating Better Walking Communities," in *Surface Transportation Policy Project Report* (Washington: Belden Russonello & Stewart: Research and Communications, 2003), 11.

¹³⁶ *Ibid.*, 6.

¹³⁷ *Ibid.*, 11.

¹³⁸ C. Tudor-Locke, B. E. Ainsworth, and B. M. Popkin, "Active Commuting to School: An Overlooked Source of Childrens' Physical Activity?" *Sports Medicine* 31, no. 5 (2001): 309.

¹³⁹ Ashley R. Cooper et al., "Physical Activity Levels of Children Who Walk, Cycle, or Are Driven to School," *American Journal of Preventive Medicine* 29, no. 3 (2005): 182-83.

Paul Estabrooks and colleagues found less available fitness clubs, parks, sports fields, and walking and biking trails in low-income neighborhoods as compared to more affluent ones.¹⁴⁰ In a 2000 study, James Sallis reported that youth with easy access to recreational facilities are more physically active than those without access.¹⁴¹ Penny Gordon-Larsen and colleagues, in a study conducted in 2006, also found recreational facilities (such as youth centers, parks, YMCAs, pools and athletic clubs) that promoted physical activity were unequally distributed among minority and low-income populations.¹⁴² Like Sallis, they noted that the availability of just one such facility per census block group is related to an individual's increased likelihood of a minimum of five, weekly bouts of moderate-to-vigorous physical activity per week and a five percent decrease in the probability of overweight.¹⁴³

The perceived safety of a neighborhood may also influence whether or not parents encourage their children to be active outdoors. Anna Timperio found in a 2004 study that the way that parents in a neighborhood perceive the environment can affect the degree to which children regularly walk and cycle.¹⁴⁴ They demonstrated that in settings with

¹⁴⁰ Paul A. Estabrooks, Rebecca E. Lee, and Nancy C. Gyurcsik, "Resources for Physical Activity Participation: Does Availability and Accessibility Differ by Neighborhood Socioeconomic Status?" (2003), 100.

¹⁴¹ J. F. Sallis, Judith J. Prochaska, and Wendell C. Taylor, "A Review of Correlates of Physical Activity of Children and Adolescents," *Medicine and Science in Sports and Exercise* 32, no. 5 (2000): 965-69.

¹⁴² Penny Gordon-Larsen et al., "Inequality in the Built Environment Underlies Key Health Disparities in Physical Activity and Obesity," *Pediatrics* 117, no. 2 (2006): 417.

¹⁴³ *Ibid.*, 421.

¹⁴⁴ Anna Timperio et al., "Perceptions About the Local Neighborhood and Walking and Cycling among Children," *Preventive Medicine* 38, no. 1 (2004): 43.

heavy vehicle traffic (as is often the case in many dense, urban neighborhoods), children are less likely to walk.¹⁴⁵

The effect of the built environment upon physical activity is just one side of the coin; the built environment also influences the way in which residents consume. In a 2002 study, Kimberly Morland and colleagues discovered that supermarkets were less common in low-income and minority neighborhoods.¹⁴⁶ Donald Rose and Rickelle Richards reported in their 2004 study that the availability of supermarkets is directly associated with fruit and vegetable intake among low-income households.¹⁴⁷ In a study that same year, Jason Block found that fast-food restaurants were more prevalent in minority and low-income neighborhoods.¹⁴⁸ The combination of these factors has led some researchers to refer to these environments as “food deserts.”¹⁴⁹

While the research on this topic is still nascent, there is some debate about the link between the neighborhood food environment and obesity. In a 2012 study, An Ruopeng and Roland Sturm determined that low-income neighborhoods have access to supermarkets in-line with wealthier areas, and that residents of low-income communities consumed similar amounts of fast food, fruits and vegetables, and soda as their more

¹⁴⁵ Ibid., 45-46.

¹⁴⁶ Kimberly Morland et al., "Neighborhood Characteristics Associated with the Location of Food Stores and Food Service Places," *American Journal of Preventive Medicine* 22, no. 1 (2002): 27-28.

¹⁴⁷ Donald Rose and Rickelle Richards, "Food Store Access and Household Fruit and Vegetable Use among Participants in the U.S. Food Stamp Program," *Public Health Nutrition* 7(2004): 1085.

¹⁴⁸ Jason P. Block, Richard A. Scribner, and Karen B. DeSalvo, "Fast Food, Race/Ethnicity, and Income: A Geographic Analysis," *American Journal of Preventive Medicine* 27, no. 3 (2004): 211.

¹⁴⁹ Kai A. Schafft, Eric B. Jensen, and C. Clare Hinrichs, "Food Deserts and Overweight Schoolchildren: Evidence from Pennsylvania," *Rural Sociology* 74, no. 2 (2009): 153-77.

affluent peers.¹⁵⁰ In a 2012 interview with the *New York Times*, Sturm explained their finding by suggesting that instead of referring to low-income neighborhoods as “food deserts,” they should be called “food swamps” because residents have access to “basically any type of food.”¹⁵¹

CALMING THE STORM: BEYOND OBESITY

Sturm’s above statement gets at the heart of this chapter’s central argument: since the 1970s, wide-sweeping societal changes in America have created a modern environment that favors inactivity and is awash in cheap, fast, energy-dense foods. These changes have become so pervasive in our society that they now affect us all. As chronicled throughout this chapter, these societal shifts have included massive transformations in the home and workforce, agricultural policies that spurred the rapid expansion of the processed and fast food industries, cuts to physical education and recess in schools, urban sprawl and the decline of active transportation, and a technology revolution that made play sedentary.

This chapter also demonstrated that America’s growing concern about fatness during the twentieth century developed in parallel with a society that made it increasingly harder to live a healthy lifestyle and avoid becoming overweight or obese. Our continued obsession with fatness, from HBO’s recent *Weight of the Nation* documentary series to Georgia’s “Strong4Life Campaign” (see Figure 2), has made us increasingly concerned

¹⁵⁰ Ruopeng An and Roland Sturm, "School and Residential Neighborhood Food Environment and Diet among California Youth," *American Journal of Preventive Medicine* 42, no. 2 (2012): 131-34.

¹⁵¹ Gina Kolata, "Studies Question the Pairing of Food Deserts and Obesity," *New York Times*, 17 April 2012.



Figure 2. An example of an early print, web, and television ad of Georgia’s controversial Strong4Life anti-youth obesity campaign.¹⁵²

about the “scourge of obesity,” but it has not resulted in any meaningful and lasting improvement in the healthy behaviors of our populace.¹⁵³

In his 2005 article, “The O Word: Why the Focus on Obesity is Harmful to Community Health,” Larry Cohen created a compelling case for the continued focus on obesity as the root of why such little progress has been made in both preventing obesity

¹⁵² Laura Stampler, "This Shocking Anti-Childhood Obesity Campaign Is Stirring National Controversy," *Business Insider*, 3 January 2012), <http://www.businessinsider.com/this-shocking-anti-childhood-obesity-campaign-is-stirring-national-controversy-2012-1?op=1>.

¹⁵³ In their 2005 study, Douglas Evans et al. demonstrated increasing concerns about childhood obesity among the U.S. populations. They found that concerns about childhood obesity ranked equal with tobacco use and violence and just behind drug abuse. See: W. Douglas Evans et al., "Public Perceptions of Childhood Obesity," *American Journal of Preventive Medicine* 28, no. 1 (2005): 29-32. For the “scourge of obesity” comment, see: Banwell et al., "Reflections on Expert Consensus: A Case Study of the Social Trends Contributing to Obesity," 568.

and improving healthy lifestyles in America.¹⁵⁴ He argued that this “persistent drumbeat of ‘obesity’ oversimplifies a complex issue” and 1) further stigmatizes an already marginalized population; 2) can lead to eating disorders and unhealthy behaviors; and 3) prevents progress by taking the “focus away from creating healthy lifestyles.”¹⁵⁵ He concluded, “Focusing on the obese and overweight individual alone...is not helping us address the broader social and economic issues that influence people’s lives.”¹⁵⁶

Lori Dorfman and Lawrence Wallack picked up Cohen’s argument in their 2007 article. Dorfman and Wallack suggested that the “framing” of the problem as one of obesity incorrectly “narrows” the issue and is stigmatizing.¹⁵⁷ They admonished those who continued to advance the focus on obesity by writing that to do so “was imprecise at best and inaccurate at worst.”¹⁵⁸ Like Cohen, Dorfman and Wallack argued for what they termed an “upstream” reframing of the issue from that of a personal to a societal one.¹⁵⁹

At the beginning of this chapter, the author presented a growing number of researchers, including J. J. Reilly and John Peters, who have begun to join Cohen and Dorfman in calling for an expanded focus on social change. If, as these researchers suggest, social change should be our focus towards improving the health of Americans, then a social change model must be identified. In the chapters that follow, two social change models are analyzed: social marketing and social movements. This dissertation concludes by proposing a blended approach that harnesses the strengths of both models

¹⁵⁴ Cohen, Perales, and Steadman, "The O Word," 154-61.

¹⁵⁵ *Ibid.*, 154-57.

¹⁵⁶ *Ibid.*, 158.

¹⁵⁷ Dorfman and Wallack, "Moving Nutrition Upstream," S46-S47.

¹⁵⁸ *Ibid.*, S46.

¹⁵⁹ *Ibid.*, S47.

and the need for social movement organizations to organize and advance America's healthy living movement.

Chapter 3

Selling Sweat: The VERB Campaign and the Limits of Social Marketing

The conferees expect the goals of the campaign will...address the growing problem of obesity in this country. By displacing the opportunity for young people to make bad choices during after-school and weekend hours (such as being physically inactive) with opportunities to engage in positive goal-directed activities (such as sports and other physical activity) the campaign will reduce the proportion of children and adolescents who are overweight and obese.¹

With the above appropriations language, the United States Congress in fiscal year 2001 authorized the Centers for Disease Control and Prevention (CDC) to develop and lead an unprecedented, four-plus-year social marketing campaign designed to “help kids develop habits that foster good health over a lifetime,” and appropriated \$125 million to the CDC to fund the first year of the project.² Eventually called “VERB,” the Youth Media Campaign spanned the years 2002-2006 and cost taxpayers nearly \$340 million.³ To date, VERB remains an unrivaled social marketing effort to increase physical activity

¹ Faye L. Wong, Email correspondence with the author, 2 August 2013. Ms. Wong was the Director of the VERB Campaign at the Centers for Disease Control and Prevention (CDC) throughout its tenure. This language was delivered to the CDC by the Conference of the House and Senate Appropriations Committees and funded and directed the Agency to develop the Youth Media Campaign, which would later become VERB.

² Faye L. Wong et al., "It's What You Do: Reflections on the VERB Campaign," *American Journal of Preventive Medicine* 34, no. 6S (2008): S175.

³ Ibid.

among youth, and among the largest, most innovative, and most successful social marketing programs the CDC has ever initiated.⁴

Despite its national reach and many accomplishments, relatively little scholarship on VERB exists other than that generated by those involved with the Campaign itself—and no historian has attempted to document its history.⁵ The chapter aims, therefore, to provide an overview of the history of VERB Campaign through the use of interviews with key figures, including Faye Wong and Marian Huhman, who led the VERB Campaign for the CDC, and former Illinois Congressman John Porter, who championed the legislation that provided funding for the Campaign. The author will also draw upon primary and secondary sources, campaign collateral (including Campaign advertisements and promotional material), and government documents. Because of its unprecedented scale and scope, VERB represents a uniquely relevant case study to evaluate the strengths and limitations of social marketing, especially when applied to the complex issue of obesity.

⁴ Leslie B. Snyder, "Health Communication Campaigns and Their Impact on Behavior," *Journal of Nutrition Education and Behavior* 39, no. 2, Supplement 1 (2007): S34.

⁵ To date, no independent historical scholarship on the VERB Campaign has been conducted. The most comprehensive source of scholarship on VERB can be found in the 2008 supplemental issue (volume 34) of the *American Journal of Preventive Medicine*. This issue consists of fourteen articles on VERB, several of which were authored by former VERB staff, including Faye Wong, Dr. Marian Huhman, Lori Asbury, and Rosemary Brethauer-Mueller. To view these articles: [http://www.ajpmonline.org/issue/S0749-3797\(08\)X0007-8](http://www.ajpmonline.org/issue/S0749-3797(08)X0007-8). Although VERB is discussed in three recent books on social marketing by luminaries in that field, none of these books discuss the implementation or impact of the campaign. See: Andreasen, *Social Marketing in 21st Century*, 3-262. Jeff French et al., eds., *Social Marketing and Public Health: Theory and Practice* (Oxford: Oxford University Press, 2010), 1-351. Nancy R. Lee and Philip Kotler, *Social Marketing: Influencing Behaviors for Good*, 4th ed. (Thousand Oaks: Sage, 2011), 2-500.

BEGINNINGS

Most scholars agree that the field of social marketing owes its origins to a seemingly innocuous question posed by G.D. Weibe in the Winter 1951-1952 edition of *Public Opinion Quarterly*. In his article titled, “Merchandising Commodities and Citizenship on Television,” Weibe asked rhetorically, “Why can’t you sell brotherhood and rational thinking like you can sell soap?”⁶ Nearly forty-seven years later, John Porter, the former Illinois Congressman, then-Chairman of the Subcommittee on the Departments of Labor, Health and Human Services, Education, and Related Agencies, and the leading visionary of, and legal architect for, the undertaking that would become VERB, unknowingly asked his fellow members of the Subcommittee a question quite similar to Weibe’s when he asked, “If advertising can influence decisions about what cars we drive and what cereal we eat, why can’t it persuade children to make healthy lifestyle choices?”⁷ Ironically (because Porter, at the time he asked the above question, had never heard of G.D. Weibe or his groundbreaking supposition), Porter’s question would serve as the basis for the legislation authored by his Subcommittee in 1999 that directed the CDC to embark upon the creation of VERB—a first-of-its-kind, publicly-funded social marketing media campaign that harnessed the country’s top advertising talent to brand physical activity as desirable and “cool” in the minds of America’s youth.⁸

⁶ G.D. Weibe, "Merchandising Commodities and Citizenship on Television," *Public Opinion Quarterly* 15(1951-1952): 679.

⁷ Penny Gordon-Larsen, Linda S. Adair, and Barry M. Popkin, "Ethnic Differences in Physical Activity and Inactivity Patterns and Overweight Status," *Obesity Research* 10, no. 3 (2002): 26.

⁸ John Porter, Phone interview with the author, 8 August 2013. Marian Huhman, Phone interview with the author, 16 July 2013.

That legislative language, which was part of the House appropriations vernacular for fiscal year 2000, broadly instructed the CDC to develop a plan for a national media campaign designed to “change the behaviors of our children and young adults...(by reaching) them at an early age with important health messages about tobacco prevention, sexually transmitted diseases, nutrition and exercise, and underage drinking.”⁹ With this wide-sweeping mandate, leadership at the CDC, including then-Director Dr. Jeffrey Koplan, engaged Aeffect, Inc. (a market research firm based in Deerfield, Illinois) and Porter Novelli (a leading public relations and communications firm with offices across the world) to conduct the formative research that would help inform the development of the project by the CDC. This work resulted in two reports, “Life’s First Great Crossroad: Tweens Make Choices that Affect Their Lives Forever” and “Review of Literature to Support Development of the Youth Media Campaign,” which were delivered to the CDC in May and December 2000, respectively.¹⁰

Based on extensive interviews with tweens, parents, teachers, public health professionals, and industry leaders, these reports produced two, key recommendations that would heavily influence the development of VERB. The first report, “Life’s First Great Crossroad,” determined that the developing campaign should make its primary,

⁹ "Hearing before a Subcommittee of the Committee on Appropriations - House of Representatives - One Hundred Sixth Congress - Second Session," <http://www.gpo.gov/fdsys/pkg/CHRG-106hhrg64152/html/CHRG-106hhrg64152.htm>.

¹⁰ Aeffect Inc., "Life's First Great Crossroad: Tweens Make Choices That Affect Their Lives Forever," (Centers for Disease Control and Prevention, 2000); Aeffect Inc., "Review of Literature to Support Development of the Youth Media Campaign: Exploring How to Motivate Behavior Change among Tweens in America," (Centers for Disease Control and Prevention, 2000), 1-30.

target audience “tweens.”¹¹ The literature review report helped to narrow the wide range of behaviors referenced in the above appropriations language to a campaign focus on physical activity.¹²

Although no agreed-upon source of origination exists, the term “tween” is, for all intents and purposes, a youth marketing term. The word “tween,” as its spelling suggests, is both shorthand for “between,” as in the ages between childhood and the teenage years, and meant to represent not-quite-“teen.” The authors of the report defined tweens as children ages nine to thirteen and justified the selection of tweens as the target audience based on three, primary criteria: 1) tweens are, as the title of the report suggests, at a “crossroads” where the behavioral choices they make can last a lifetime; 2) tweens are especially heavy consumers of media (and, thus, easier to reach via a mass media campaign); and, 3) tweens are at an age when they are less likely to engage in healthy behaviors (such as physical activity) and more likely to engage in unhealthy ones (such as tobacco and alcohol use) as compared to younger children.¹³ Furthermore, the authors of the report also noted the important role that parents and role models (such as celebrities and teachers) played in the lives of tweens and encouraged the Campaign to also include these audiences as secondary audiences.¹⁴

In the second report, “Review of Literature to Support Development of the Youth Media Campaign,” the authors picked up on one of the key findings from the first report:

¹¹ Aeffect Inc., "Life's First Great Crossroad."

¹² Aeffect Inc., "Review of Literature," 1-30.

¹³ Edward M. Heath and Karen J. Coleman, "Evaluation of the Institutionalization of the Coordinated Approach to Child Health (Catch) in a U.S./Mexico Border Community," *Health Education & Behavior* 29, no. 4 (2002): 3.

¹⁴ *Ibid.*, 22-24.

physical activity significantly declines as American youth move from childhood into adolescence.¹⁵ The report concluded that a focus on physical activity, as opposed to the much more complex topic of nutrition, would best resonate with tweens and could be branded most effectively. After reviewing a variety of marketing and social marketing campaigns targeted at tweens, they further determined the best way to market physical activity to tweens was by emphasizing activities that stressed experimentation, exploration, and, above all else, “fun.”¹⁶

The CDC delivered the findings of these reports to Congress throughout 2000, and in December of that year, Congressman Porter led the Subcommittee on the Departments of Labor, Health and Human Services, Education, and Related Agencies in appropriating \$125 million in fiscal year 2001 to the CDC for the development of what the appropriations language described as a national campaign to tackle the issue of childhood overweight and obesity by “(using) the same communication tactics that are employed by the best kids’ marketers.”¹⁷

In an interview with the author, Porter explained that his support for this funding was the result of his growing concerns about childhood obesity. In the mid- to late-1990s, the Committee he chaired began to receive regular reports from leadership at the CDC, Health and Human Services, and the National Institutes of Health about the rapidly growing rates of overweight and obesity in the U.S., particularly among African

¹⁵ Ibid., 18.

¹⁶ Aeffect Inc., "Review of Literature," 5.

¹⁷ Bill J. Atkinson, "Proposed Data Collections Submitted for Public Comment and Recommendations," ed. Centers for Disease Control and Prevention, Federal Register (2004).

American and Hispanic children.¹⁸ Porter became convinced that childhood obesity represented “one of the greatest threats to our country,” and the issue quickly became a legislative priority for him. Porter retired from office in 2001, but not before securing the funding for the CDC that would give rise to his dream of cutting-edge advertising to sell healthy behavior to America’s children.¹⁹

With that first-year funding in place, the CDC moved quickly to form a leadership team for what the CDC dubbed the “Youth Media Campaign” (YMC). Faye Wong, who was at the time working in the CDC’s Division of Diabetes Translation, was tapped in January 2001 to serve as the Campaign’s Director.²⁰ Once in place, Wong created three functional staff teams, eventually comprised of twelve full-time personnel. The “creative” team, headed by Lori Asbury, was charged with managing the development of the Campaign’s brand and all related Campaign advertising and communication. The “partnership” team, led by Rosemary Bretthauer-Mueller, was tasked with the formation and management of key national and community partnerships.²¹ And the “evaluation” team, under the direction of Dr. Marian Huhman, was responsible for the formative, process, and outcome evaluation of the Campaign.²² In addition to the full-time staff, the YMC team also recruited advisors throughout the duration of the Campaign to assist with both the planning and implementation of the marketing/communications- and evaluation-

¹⁸ Richard S. Strauss and Harold A. Pollack, "Epidemic Increase in Childhood Overweight, 1986-1998," *JAMA: The Journal of the American Medical Association* 286, no. 22 (2001): 2846-48.

¹⁹ Porter, Phone interview, 8 August 2013.

²⁰ Faye L. Wong, Phone interview with the author, 18 July 2013.

²¹ Further detail about these partnerships is provided in the following “Campaign” section.

²² Wong, Email, 12 August 2013.

related activities. Among others, this advisory group consisted of Drs. Tom Baranowski, Adrian Bauman, Janet Fulton, Bob Hornik, Harold (Bill) Kohl, Greg Welk, and Russ Pate, as well as Charlene Burgeson, Mary Kennedy, and Lance Potter.²³

In March of 2001, the YMC team issued a comprehensive request for proposal (RFP) to openly and competitively select the agencies that would develop and carry out the Campaign's primary activities.²⁴ The RFP broadly defined the goal of the Campaign:

The overarching goal of the Youth Media Campaign...is to promote healthy lifestyles and displace unhealthy, risky behaviors among tweens. Areas of interest for the Campaign in promoting healthy lifestyles include but are not limited to positive activity such as physical activity or sports, creative endeavors such as music, performance arts including dance, academic pursuits, community service and similar activities.... In the early phases of this Campaign, the CDC plans to emphasize positive activity, especially physical activity.... Later, more complex messages such as healthy eating, making wise choices today for lifelong health and other messages to promote healthy lifestyles can be added to the Campaign.²⁵

In addition to identifying the Campaign's primary (tweens) and secondary (parents, teachers, and other influencers) audiences as the "general market," the RFP further segmented the general market into four "ethnic" markets. These ethnic markets included Asian Americans, African Americans, American Indians, and Hispanics/Latinos. The RFP specified that, in addition to agencies with general market

²³ Claudia Parvanta, "Dr. Marian Huhman Interview Transcript," in *Essentials of Public Health Communication* (Sudbury, MA: Jones & Bartlett Learning, 2011). This transcript was downloaded from samples.jbpub.com/9780763771157/Marian_Huhman.doc.

²⁴ Aeffect Inc., "Message Strategy Research to Support Development of the Youth Media Campaign (YMC): Revealing Target Audience Receptiveness to Potential Ymc Message Concepts," (Atlanta, Georgia: Centers for Disease Control and Prevention, 2001), 1-76.

²⁵ *Ibid.*, 3.

expertise, firms with specialized expertise in engaging each of these diverse audiences would be selected.²⁶

The RFP further stipulated that the framework of social marketing must underpin all aspects of the Campaign.²⁷ Given the field of public health's well-documented reliance upon the practice of social marketing to prevent disease, decrease unhealthy behaviors, and increase healthy ones, it is understandable that the CDC would call-upon social marketing as the foundation on which to build the YMC.²⁸ In their groundbreaking article, "Social Marketing: An Approach to Planned Social Change," Philip Kotler and Gerald Zaltman coined the term, "social marketing," and provided its first definition—the application of commercial marketing practices to "influence the acceptability of social ideas."²⁹ More than twenty years later, Alan Andreasen, in his 1994 article entitled, "Social Marketing: Its Definition and Domain," updated Kotler and Zaltman's work by suggesting that their original definition of social marketing did not adequately describe what he believed was the critical "bottom-line" of social marketing: behavior change. As such, he proposed the following definition, "Social marketing is the adaptation of commercial marketing technologies to programs designed to influence the voluntary

²⁶ Ibid.

²⁷ Ibid., 4.

²⁸ Lee and Kotler, *Social Marketing*, 2. In their 2011 book, *Social Marketing: Influencing Behaviors for Good*, Nancy Lee and Philip Kotler write, "Social marketing, as a discipline, has...had a profound positive impact on social issues in the areas of public health... . Fundamental principles at the core of (social marketing) have been used to help reduce tobacco use, decrease infant mortality, stop the spread of HIV/AIDS, prevent malaria...make wearing a bike helmet a social norm..."

²⁹ Philip Kotler and Gerald Zaltman, "Social Marketing: An Approach to Planned Social Change," *Journal of Marketing* 35, no. 3 (1971): 5.

behavior of target audiences to improve their personal welfare and that of the society of which they are part.”³⁰

<u>Agency</u>	<u>Location</u>	<u>Agency Type</u>	<u>Target Audience</u>	<u>Phase(s) Engaged</u>
General-Market				
Frankel	Chicago, IL	Marketing	General	1-4
Saatchi & Saatchi	New York, NY	Advertising	General	1-3
Publicis Dialog	Chicago, IL	Public Relations	General	1-2
Manning, Selvage & Lee	Washington, DC & New York, NY	Public Relations	General	3-4
Leo Burnett	Chicago, IL	Advertising	General	4
Ethnic Audiences				
APartnership	New York, NY	Marketing	Asian Americans	1-4
PFI Marketing	New York, NY	Marketing	African Americans	1-4
G&G Advertising	Albuquerque, NM & Billings, MT	Marketing	American Indians	1-4
Garcia 360 ⁰	San Antonio, TX	Marketing	Hispanics/Latinos	1-4
Evaluation				
Westat	Rockville, MD	Research & Evaluation	N/A	1-4

Table 1. Summary of VERB’s Marketing, Advertising, Public Relations, and Evaluation Agencies³¹

Due to the size of the allocated budget and the groundbreaking nature of the opportunity, the YMC team received a flood of proposals from advertising and communications agencies across the country.³² In September 2001, the team selected

³⁰ Alan R. Andreasen, "Social Marketing: Its Definition and Domain," *Journal of Public Policy & Marketing* 13, no. 1 (1994): 110.

³¹ Adapted from a table in Wong et al., "It's What You Do," S176.

³² Wong, Email, 12 August 2013.

Frankel (Chicago, Illinois) to serve as the lead agency for the general market Campaign, while Saatchi and Saatchi (New York, New York) and Publicis Dialog (Chicago, Illinois) were tapped to head-up the Campaign’s advertising- and public relations-related efforts, respectively. In addition to the general market Campaign, the YMC team also chose the following marketing agencies to lead the “ethnic”-specific Campaign advertising: APartnership (New York, New York) was selected to lead the Asian American marketing; PFI Marketing (New York, New York) was tapped to head-up the advertising to African American audiences; G&G Advertising (Albuquerque, New Mexico and Billings, Montana) was chosen to develop and drive the marketing to the American Indian audiences; and Garcia 360 (San Antonio, Texas) received the contract to lead the marketing to Hispanic/Latino audiences. Finally, Westat (Rockville, Maryland) was selected to work with Dr. Huhman’s research team in supporting the ongoing formative, process, and outcome evaluation of the Campaign. Table 1 provides a complete listing of all the agencies engaged by the CDC throughout the duration of the Campaign.

These firms worked closely with the YMC team over the next eight months to give life and purpose to the broad objectives of the Congressional appropriations language. In order to map the key audiences, activities, and desired outcomes of the developing Campaign, the YMC team created a logic model. The purpose of a campaign logic model is to help identify the desired short-term, intermediate, and long-term outcomes of the campaign and to ensure the campaign’s activities and research align with those outcomes.

To create this logic model, they combined the formative research conducted by Aeffect and Porter Novelli with the theoretical constructs of branding theory,³³ the theory of message design,³⁴ the theory of planned behavior,³⁵ social cognitive theory,³⁶ and information processing theory.³⁷ Interestingly, the first draft of the YMC logic model included both physical activity and “pro-social activities,” which the YMC team defined as playing music in an orchestra and community service.³⁸ But, the YMC team eventually realized that such pro-social activities were much harder to define and

³³ Marian Huhman, Carrie D. Heitzler, and Faye L. Wong, "The VERB Campaign Logic Model: A Tool for Planning and Evaluation," *Preventing Chronic Disease* 1, no. 3 (2004): 3. Huhman et al. describe branding theory as the mechanism by which the target audience develops a relationship with a brand. They write that the audience first builds awareness and association with attributes of the brand, and over time, the audience builds an affinity and loyalty to the brand.

³⁴ *Ibid.*, 4. Calling upon theories of information processing, Huhman et al. write, “Theories of message design help explain the steps for building awareness of a brand like VERB...if branding evokes a high level of interest and identification with the advertisement, then information processing theory...suggests that the child would be willing to exert more cognitive effort to pay attention to the ad, understand it, and actively process its message.”

³⁵ *Ibid.* This theory suggests that a person’s intention to perform a behavior flows from their attitudes and beliefs about the behavior, from the perceived subjective norms surrounding that behavior and from their control over performing their behavior.

³⁶ *Ibid.*, 4-5. About social cognitive theory, Huhman et al. write, “Principles of social cognitive theory that are especially applicable to child physical activity behaviors include 1) perceptions of the environment, knowledge, and skill to perform an activity; 2) others’ observations of and reinforcement for activity trial; 3) beliefs about the likely outcomes of a behavior; and 4) the values that the child places on the outcome. In addition, self-efficacy (the confidence of the child to perform the behavior) is a critical part of the theory....”

³⁷ William J. McGuire, "Personality and Attitude Change: An Information-Processing Theory," University of California, San Diego, http://www.ciadvertising.org/studies/course/syllabi_grad/theory_readings/McGuire.pdf. McGuire describes the information processing theory of persuasive communication as consisting of six major steps: 1) the probability that the message will be communicated; 2) the probability that the audience will view the message; 3) the probability that the audience will comprehend the message if viewed; 4) the probability that the audience will change their behavior according to the message; 5) the probability that the audience will continue the newly adopted behavior shortly after the message has ceased; and 6) the probability that the audience will continue the adopted behavior long after the message has ceased. According to McGuire, the persuasiveness of a message for the audience depends upon the exposure to the message which is followed by an understanding of the message, and, finally, by intention and behavior change. McGuire demonstrates that members of the audience drop out along each stage, which makes it necessary for the message to initially be exposed to a large audience to account for audience fallout.

³⁸ Wong et al., "It's What You Do," S177.

measure, so the group eventually landed on the intermediate target outcome of increasing and maintaining physical activity among tweens.³⁹ The final logic model that guided all aspects of the VERB Campaign is provided in Figure 3.⁴⁰

CAMPAIGN

With their logic model in place, the YMC team moved quickly to develop the Campaign's brand, strategies, and structure. Drawing from the key findings of the formative research conducted by Aeffect and Porter Novelli, the YMC's leading agencies, Frankel and Saatchi and Saatchi, used the following brand attributes to drive the development of the brand: they stressed that it must at all times communicate "fun" and "cool;" it must allow for "exploration" and "discovery" of new activities; and it must be social in nature by encouraging play amongst friends.⁴¹ Instead of a traditional public health strategy of communicating "facts and figures" about the benefits of physical activity, the advertising agencies advocated for a "gain-framed" identity for the Campaign that exemplified the aforementioned brand attributes that really matter to tweens and that tweens would recognize as a "true for-kids-by-kids brand."⁴²

³⁹ Huhman, Heitzler, and Wong, "The VERB Campaign Logic Model," 2.

⁴⁰ Ibid.

⁴¹ Lori D. Asbury et al., "The VERB Campaign: Applying a Branding Strategy in Public Health," *American Journal of Preventive Medicine* 34, no. 6, Supplement (2008): S185.

⁴² Faye L. Wong et al., "It's What You Do." "Gain-framed" messages are those which are structured to highlight or accentuate the positive aspects of a desired behavior. In the case of VERB, the creators of the brand sought to at all times focus on the "gain"-related attributes of the brand (such as "fun"), instead of the "pain"-related aspects (such as "overweight"/"obesity") of not engaging in the desired behavior of physical activity.

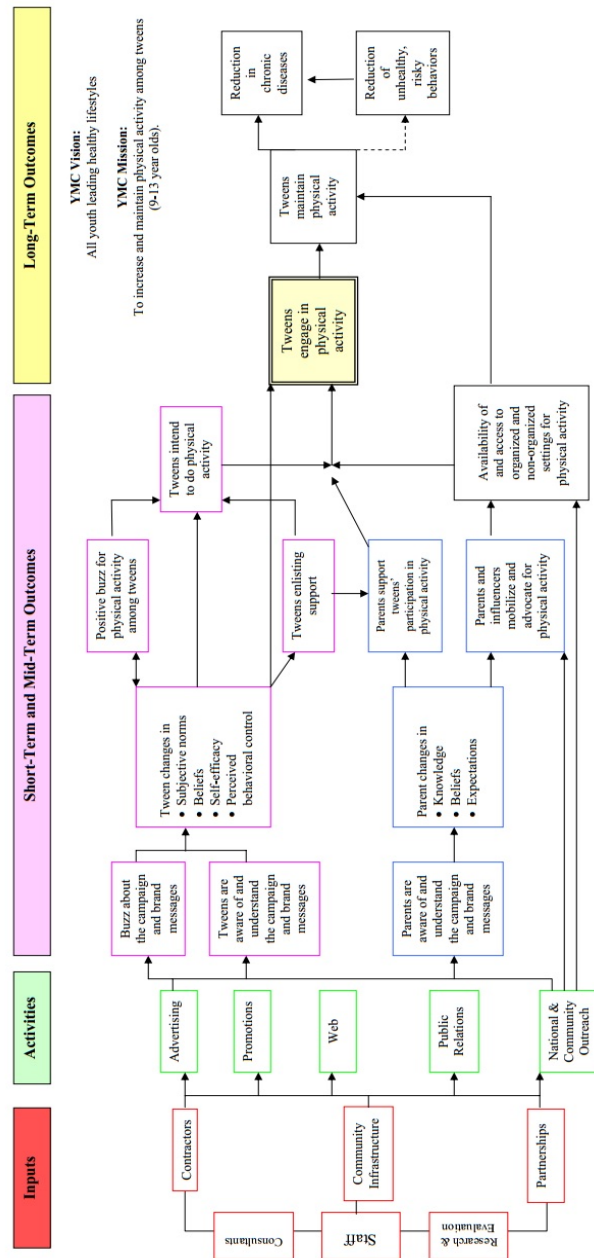


Figure 3. The Centers for Disease Control and Prevention's VERB Campaign Logic Model⁴³

⁴³ Huhman, Heitzler, and Wong, "The VERB Campaign Logic Model," 2.

In the first quarter of 2002, the Campaign got its brand – VERB—and the tagline, “It’s What You Do!”⁴⁴ The newly minted VERB team then decided upon the Campaign’s primary audience, tweens aged 9 to 13 years, and secondary audiences, parents, teachers, and caregivers.⁴⁵ This broad mix of primary and secondary audiences was labeled the “general market” segment. The general market segment was then further segmented by ethnicity into four, distinct markets: an African-American market, a Hispanic/Latino market, an Asian-American market, and, finally, a Native American market. Each smaller market had specially designed and targeted messaging specific to the language and culture of the respective market. To reach these markets, a combination of television, radio and print advertising, as well as promotional (contests, events and in-school programs) and public relations efforts, were employed.⁴⁶

To reach VERB’s primary audience, tweens, the team developed what they called a “surround strategy.” This surround strategy consisted of a marketing mix designed to consistently expose the country’s tweens to the VERB brand by reaching them at home, at school, and in their communities.⁴⁷ The surround strategy was operationalized through a combination of advertising (primarily television, radio, and print ads), national and community partnerships (with organizations such as the National Football League, the Women’s National Basketball Association, the National Association for Sport and

⁴⁴ Wong, Email 12 August 2013..

⁴⁵ Simani M. Price, Marian Huhman, and Lance D. Potter, "Influencing the Parents of Children Aged 9–13 Years: Findings from the VERB Campaign," *American Journal of Preventive Medicine* 34, no. 6, Supplement (2008): S267.

⁴⁶ Marian Huhman et al., "The VERB Campaign's Strategy for Reaching African-American, Hispanic, Asian, and American Indian Children and Parents," *Ibid.*, no. 6S: S194-S209.

⁴⁷ Carrie D. Heitzler, Lori D. Asbury, and Stella L. Kusner, "Bringing 'Play' to Life: The Use of Experiential Marketing in the VERB Campaign," *Ibid.*, no. 6, Supplement: S189.

Physical Education, and the National Recreation and Park Association), spokespeople (including current and former professional sports stars like Venus Williams and Donovan McNabb), community events (like the VERB “Anytour”), new media (including the main VERBnow.com website and the “8372” text messaging campaign), and experiential marketing, including school- and community-based promotions (such as the “Yellowball,” “Crossover,” and “Summer Scorecard” programs).⁴⁸

Of these components, the national ads targeted at tweens constituted the primary and most expensive elements of the Campaign. These ads, the bulk of which were television ads, aired across the country on stations popular with tweens, including Cartoon Network, Nickelodeon, MTV, WB Kids, and Disney. The print ads, which were in most cases static representations of the television ads, appeared in a variety of publications that appealed to tweens, including *Sports Illustrated for Kids* and *Teen People*.⁴⁹

For the secondary audiences of the “general market,” parents of tweens were the central focus. In contrast to the advertising strategy targeted at tweens, VERB was primarily marketed to parents through print ads that were “placed” far away from the eyes of tweens in national women’s magazines, including *Good Housekeeping* and *Family Circle*. This was done intentionally to protect the “coolness” of VERB’s brand

⁴⁸ Ibid., S190-92. These elements are detailed further in the detailed description of each of the Campaign’s four “Phases” later in this section.

⁴⁹ Faye L. Wong et al., “It’s What You Do.” Examples of the print ads from the Campaign’s four “Phases” are also included later in this section.



Figure 4. An example of a VERB print ad targeted to African-American parents.⁵⁰

identity among tweens.⁵¹ As illustrated in the parent-directed print ad (Figure 4), the VERB Campaign encouraged parents to simply support tweens in “finding their own VERB” (as opposed to serving as “messengers” for the Campaign) and directed parents to a separate website—VERBparents.com—which provided parents with tips on how

⁵⁰ *Phase 1: VERB African-American Print Ad*. (Centers for Disease Control and Prevention, 2002).

⁵¹ Price, Huhman, and Potter, "Influencing the Parents," S268.

they could encourage their kids to become more physically active and recognize and reward their tweens for engaging in those activities.⁵²

In addition to the general and ethnically segmented markets, the VERB team selected nine communities to receive supplemental marketing activities. These communities included Spokane, Washington; Washington, D.C.; Kansas City, Missouri; Green Bay, Wisconsin; Greenville, South Carolina; Columbus, Ohio; Miami, Florida; Houston, Texas; and Los Angeles, California. Six of the nine communities (Green Bay, Greenville, Columbus, Miami, Houston, and Los Angeles) were labeled “high-dose” communities and received a greater proportion of the additional advertising.⁵³ These communities were selected based on a variety of factors, including racial and ethnic diversity, the size of the media market, geographic positioning across the United States, and the size of the population.⁵⁴ These “high-dose” markets served as a test sample within the larger evaluation plan to determine if increasing the Campaign’s primary activities within a specific community would lead to increased physical activity among tweens.⁵⁵

In total, the VERB Campaign’s official operations spanned fifty-two months—from 1 June 2002 to 30 September 2006.⁵⁶ The VERB team decided early to divide the

⁵² Faye L. Wong et al., "It's What You Do," S177.

⁵³ Judy M. Berkowitz, Marian Huhman, and Mary Jo Nolin, "Did Augmenting the VERB Campaign Advertising in Select Communities Have an Effect on Awareness, Attitudes, and Physical Activity?" *American Journal of Preventive Medicine* 34, no. 6, Supplement (2008).

⁵⁴ Faye L. Wong et al., "VERB: A Social Marketing Campaign to Increase Physical Activity among Youth," *Preventing Chronic Disease* 1, no. 3 (2004): 1-2.

⁵⁵ Judy M. Berkowitz, Marian Huhman, and Mary Jo Nolin, "Did Augmenting the VERB Campaign?" The effect of the “high-dose” advertising is covered in the following “Impact” section.

⁵⁶ Faye L. Wong et al., "It's What You Do."

Campaign into twelve month “phases” (June – May), each with its own set of strategic objectives, core messages, and calls to action.⁵⁷ Because the VERB Campaign was completely reliant upon federal dollars, this phased approach also allowed the VERB team to annually adjust their efforts according to the available funds appropriated for the Campaign each year through the federal budget process.

While there were four phases, the Campaign actually received five years of federal funding. In federal fiscal year (FY) 2001 (which began on 1 October 2000 and ended 30 September 2001), VERB received a total of \$125 million. These funds paid for the majority of the Campaign’s development and initial advertising.⁵⁸ After that first year of funding, however, the Campaign suffered a major blow when its chief legislative architect and champion, Congressman Porter, left office on 3 January 2001.⁵⁹ Following Congressman Porter’s departure, the Subcommittee he chaired the year before (the Subcommittee on the Departments of Labor, Health and Human Services, Education, and Related Agencies) slashed VERB’s budget by nearly 50 percent to \$68.4 million in FY 2002. In FYs 2003 and 2004, VERB’s budget was further reduced to \$51.3 million and \$36 million, respectively, with an uptick to \$59 million in FY 2005—its last year of federally appropriated funding.⁶⁰

Phase One of the VERB Campaign began on 1 June 2002 with a six-month run of “teaser” print, radio, and television ads designed to build awareness of the VERB brand

⁵⁷ The final “Phase,” Phase Four, ran longer than the other three, from June 2005 to September 2006, because after learning VERB would not be receiving any additional federal funding, the VERB team decided to extend the final phase as long as the remaining funds would last.

⁵⁸ Wong, Email, 12 August 2013.

⁵⁹ Porter, Phone interview, 8 August 2013.

⁶⁰ Wong et al., “It’s What You Do,” S175.

and excitement for its official launch, which kicked-off in November of that year. For Phase One, the VERB team's strategy was to leverage tweens' interest in discovery, fun, and self-expression. The "call to action" that united all Phase One efforts was the encouragement of tweens to "find (their) VERB."⁶¹ These efforts, including the national advertising buy and the launch of the tween-focused website, VERBnow.com, were intended to lay the foundation for all the following Phases by creating rapid, wide-spread brand awareness of VERB among a minimum of 50 percent of the nation's tweens.⁶²

Phase One's teaser ads initially reinforced the "pro-social" activities of VERB's original logic model. In an article about the VERB Campaign that ran in the 16 July 2002 edition of *USA Today*, the author described VERB's initial ads as encouraging kids to "pick their favorite verbs," such as participating in an orchestra or volunteering.⁶³ As demonstrated in Figure 5 below, a still shot from one of the early teaser television ads demonstrates these pro-social activities. In the ad, the camera pans a group of kids performing a variety of activities; the tweens playing music are positioned between two girls planting a tree and a tween golfer juggling a golf ball.

⁶¹ Marian Huhman et al., "The VERB Campaign's Strategy for Reaching African-American, Hispanic, Asian, and American Indian Children and Parents," *Ibid.*, S195.

⁶² Marian Huhman, Email with the author, 23 July 2013. Phase One actually created 66% overall brand awareness of VERB among U.S. tweens. Asbury et al., "The VERB Campaign: Applying a Branding Strategy," S186.

⁶³ Nanci Hellmich, "Sedentary Kids Called to Action in National Campaign," *USA Today*, July 16 2002.



Figure 5. A 2002 VERB television ad created by the advertising agency, APARTNERSHIP.⁶⁴

Six months after the teaser ads began, however, VERB's lead advertising agencies and advisors expressed concern about the pro-social elements of the Campaign to Wong and her team at a meeting she convened at CDC's headquarters in Atlanta, Georgia.⁶⁵ They explained that by trying to promote both physical activity and pro-social behaviors (including "[joining] the orchestra or debate club") at the same time and often in the same ad, they were creating message confusion and encouraging tweens to be both sedentary and physically active.⁶⁶ They convinced the CDC team to abandon the pro-social aspects of the Campaign and, going forward, focus exclusively on physical activity as the target behavior. The Phase One print ad in Figure 6, which ran in *Sports*

⁶⁴ APARTNERSHIP, *Reserved*, (2002), Video Advertisement.

⁶⁵ Wong et al., "It's What You Do," S177.

⁶⁶ *Ibid.*

Illustrated for Kids months after this meeting, reflected this narrowed focus on physical activity-only messages while reinforcing the Phase One objective of encouraging tweens to find their VERB.

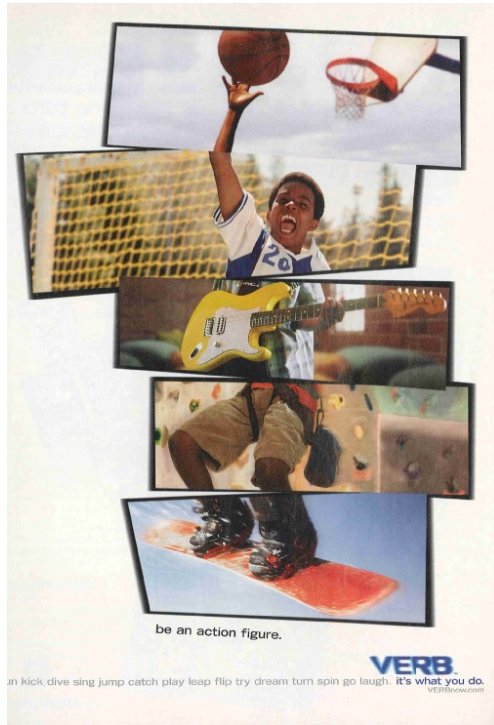


Figure 6. A 2003 VERB Phase One print ad that ran in *Sports Illustrated for Kids*.⁶⁷

Phase One’s advertising to tweens culminated in a final round of ads featuring professional athletes from a variety of traditional and “extreme” sports. These athletes, including the professional snowboarder Kelly Clarke and Olympic gold-medalist speed skater Apolo Ohno, in their respective television, print, and radio ads encouraged tweens

⁶⁷ "VERB Phase One Ad," *Sports Illustrated for Kids*, February 2003, 18.

to try their VERB of choice. For example, Kelly Clarke encouraged the tween audience to “spin,” while Ohno invited tweens to “race.” Clarke and Ohno were joined by former National Basketball Association star Tracy McGrady and former professional tennis player James Blake.⁶⁸

The Phase One ads targeting parents mirrored the ads targeted to tweens, but the parents’ call to action, as illustrated in the parent-directed ad featured in Figure 4, was altered to stress that parents should “support” their children in finding their VERB (versus delivering messages about the Campaign), which they could learn how to do by visiting VERB’s parent-focused website, VERBparents.com. This emphasis on protecting VERB as a tweens brand also extended to schools. The VERB team decided to not begin promotion of the Campaign in schools during Phase One for fear that associating the brand in its infancy with a place that many tweens considered “not cool” could sink the entire venture.⁶⁹

While the VERB brand was initially nowhere to be found in schools during Phase One, it did have a strong presence on the burgeoning internet. The tween-focused website, VERBnow.com, launched in June 2002 in conjunction with the initial Phase One teaser ads. At launch, the Phase One tween website featured links to the websites of the Campaign’s national partners, including Nickelodeon, Cartoon Network, and Nike’s websites. The website also emphasized sports in both its visual design and in certain

⁶⁸ "VERB Creates Positive Attitudes: Campaign Putting Physical Activity at the Forefront Hits Home with Children," (Centers for Disease Control and Prevention, 2003), 1.

⁶⁹ Asbury et al., "The VERB Campaign: Applying a Branding Strategy," S186.

features, such as the “VERB of the Week.”⁷⁰ The VERB team quickly realized that the links to their partners’ websites were drawing tweens away from the VERB site, so they refined the website to deemphasize those links. They also received tween feedback that stressed the importance of giving tweens the ability to find local activities and to better provide a customized experience that allowed tweens to adjust the content on the website to better align with their favorite activities.⁷¹ By February 2003, VERBnow.com had logged more than 1.2 million visits to the website, reinforcing the power and importance of new media to the VERB Campaign.⁷²

VERB’s Phase Two began in June 2003 and ran through May 2004.⁷³ Through their formative research and the work conducted during Phase One, the VERB team discovered that sports were a draw for many tweens. As such, the Campaign morphed from a strategic focus of encouraging tweens to “find their VERB” in Phase One to a strategy in Phase Two that emphasized organized sport. For Phase Two, the core message communicated to tweens was that everyone was an athlete and that through play in the form of organized sport, their everyday physical activities could be elevated to that of professional athletes. Phase Two’s associated call to action, as illustrated in the tween-targeted print ad in Figure 7, became, “Every day is game day. Get out and go play.”⁷⁴

⁷⁰ Marian Huhman, "New Media and the VERB Campaign: Tools to Motivate Tweens to Be Physically Active," *Cases in Public Health Communication and Marketing* 2(2008): 129.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Asbury et al., "The VERB Campaign: Applying a Branding Strategy," S186.

⁷⁴ Marian Huhman et al., "The VERB Campaign's Strategy," S195.



Figure 7. A VERB Phase Two print ad that ran in *Sports Illustrated for Kids* in 2003.⁷⁵

Phase Two's strategic promotional approach for parents built upon the messaging structure employed in Phase One. The focus of the parent-targeted ads in Phase Two shifted from emphasizing tween support to making the case back to parents about the benefits of physical activity for their children. These benefits included physical health,

⁷⁵ "VERB Phase Two Ad," *Sports Illustrated for Kids*, July 2003, 4.

leadership, self-esteem and academic performance. This shift in message strategy, from one of gently persuading parents to encourage and support their children in Phase One to a strategy focused on educating parents about the positive aspects of physical activity for their children and family, was carried through the remainder of the Campaign.⁷⁶

Parents were not the only cohorts of VERB's secondary audiences that experienced changes in Phase Two of the Campaign. Because Phase One had been so successful at establishing the VERB brand, including generating greater than fifty percent brand awareness among the country's tweens, the VERB team felt that it was "safe" to begin promoting the brand in schools.⁷⁷ Thanks to a partnership with Channel One, a news-oriented cable channel targeted at kids and adolescents through participating schools, VERB's television ads began accompanying Channel One's daily news program during Phase Two.⁷⁸ The VERB team also developed classroom activity kits, which they distributed free-of-charge to physical education and homeroom teachers. These "kits," which included basic equipment and printed tutorials, were essentially promotional programs that allowed teachers to demonstrate to their students how easy it was to create fun activities that they could replicate at home.⁷⁹

The VERBnow.com tween website also received some minor upgrades in Phase Two. Responding to tweens' desire for greater interactivity and to better advance the mission of the Campaign through the website, the VERB team introduced the "MyVERB

⁷⁶ Price, Huhman, and Potter, "Influencing the Parents," S267.

⁷⁷ Wong, Email, 12 August 2013.

⁷⁸ Wong et al., "VERB: A Social Marketing Campaign," 5.

⁷⁹ Carrie D. Heitzler, Lori D. Asbury, and Stella L. Kusner, "Bringing 'Play' to Life: The Use of Experiential Marketing in the VERB Campaign," *American Journal of Preventive Medicine* 34, no. 6, Supplement (2008): S191.

Recorder” in Phase Two. The MyVERB Recorder feature allowed tweens to log the type and duration of an activity (from a pre-established list), and it provided the VERB team with richer data about the tweens who were engaging with the website.⁸⁰

While the website continued to grow in features and functionality during Phase Two, the augmented, “high-dose” advertising strategy was scaled back. Due to the aforementioned reduction in Congressional appropriations for Phase Two, only four (Los Angeles, Miami, Columbus, and Greenville) of the initial six “high-dose” communities received additional advertising (approximately 40 percent more than the national average as compared to the 50 percent increase in Phase One).⁸¹ At the close of Phase Two, the strategy of additional general market advertising to the “high-dose” communities was discontinued for Phases Three and Four.⁸²

Like Phases One and Two, Phase Three got its start in (June 2004) and ended twelve months later in May (2005).⁸³ Phase Three continued Phase Two’s tween message strategy of employing sports to encourage physical activity, but the call to action shifted in Phase Three to emphasize individuality and flexibility by encouraging tweens to “make up their own rules” and play “anytime, anywhere, anyway.”⁸⁴ This adjustment in activation was accompanied by the introduction of a new roster of current and former professional athletes, including Venus Williams, Donovan McNabb, and Landon Donovan, who served as spokespeople for the VERB Campaign throughout Phase Three

⁸⁰ Huhman, "New Media," 129.

⁸¹ Berkowitz, Huhman, and Nolin, "Did Augmenting," S259-S62.

⁸² Marian Huhman, Email with the author, 13 November 2007.

⁸³ Asbury et al., "The VERB Campaign: Applying a Branding Strategy," S186.

⁸⁴ Marian Huhman et al., "The VERB Campaign's Strategy."

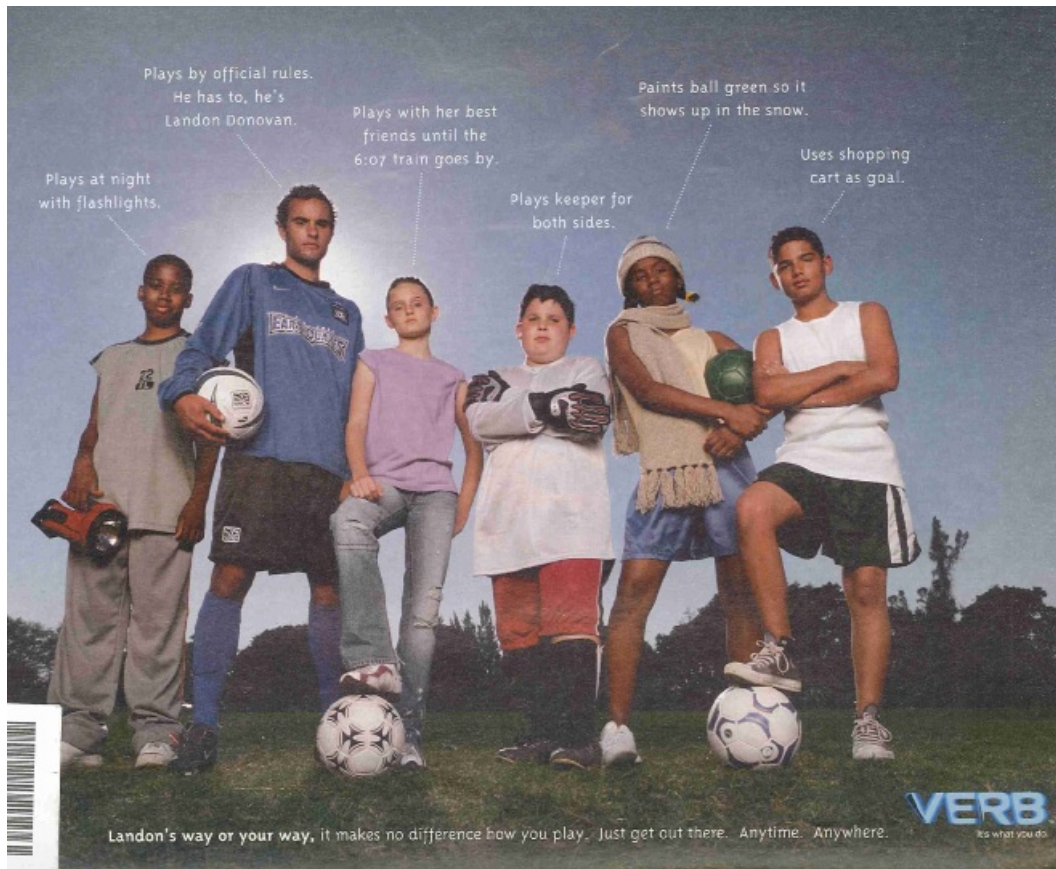


Figure 8. A 2004 VERB Phase Three print ad that ran in *Sports Illustrated for Kids*.⁸⁵

and around whom the majority of the tween-focused advertising was constructed. Figure 8 is a print ad from Phase Three that features the introduction of Donovan Landon as a spokesperson for the Campaign, as well as this new and more nuanced call to action.

Phase Three's "make up your own rules" call to action was also reflected in a variety of major updates to the Tween website, VERBnow.com. These new features included a search engine that allowed tweens to find activities in their community, a "Game Generator" that allowed them to create and name their own games, and a series of

⁸⁵ "VERB Phase Three Ad," *Sports Illustrated for Kids*, October 2004.

video- and text-based “tutorials” by the celebrity athletes featured in the ads.⁸⁶ The most popular addition to the Phase Three tween website, however, was the introduction of “ViRTs.”⁸⁷ As the term implies, ViRTs were digital characters that tweens could customize to reflect their personal style and activity/sports preferences. A tween’s ViRT gained the ability to move around, do tricks, and interact with its virtual world based on the amount of activity that tween recorded through the website. A print ad promoting the ViRTs feature of the Phase Three tween website is provided in Figure 9. The overhaul of the VERBnow.com website in Phase Three led to a five hundred percent increase in registered users as compared to Phase Two.⁸⁸

Beyond the television, radio, and print advertising and the relaunch of the tween website, the promotional activities of VERB in Phase Three were expanded to include the VERB “Anytour”—an “experiential marketing,” mobile tour consisting of six, custom-built trucks that toured the nation. The Anytour represented the evolution of the “Activity Zones” of Phases One and Two.⁸⁹ During the Anytour, which took place in two, four-to-five month “legs” throughout Phase Three, the Anytour trucks (image provided in Figure 10) would travel around a target market for a week at a time, visiting existing events that attracted tweens, such as minor league baseball games,

⁸⁶ Huhman, "New Media," 131. In one of these “tutorials,” Donovan McNabb, former quarterback for the Philadelphia Eagles, taught tweens, via a recorded video, how to throw the perfect spiral.

⁸⁷ Ibid.

⁸⁸ Ibid., 137.

⁸⁹ Heitzler, Asbury, and Kusner, "Bringing 'Play' to Life," S190. The “Activity Zones” of Phases One and Two consisted of “pop-up” activity zones within VERB-sponsored, third-party events, such as the Nickelodeon Wild and Crazy Kids tour and the Sports Illustrated for Kids “No Limits” Road Trip tour. The Activity Zones featured a variety of activities for tweens, including active video games, sports, and rock climbing.



Figure 9. A VERB print ad promoting the ViRTS web feature of the VERB tween website.⁹⁰

amusement parks, summer camps, and community events.⁹¹ These trucks carried makeshift sports and activity equipment, such as trash cans for basketball hoops, to teach kids how to use everyday items to reinforce the Phase Three call to action of playing “anytime, anywhere, anyway.”

⁹⁰ Ibid., 131.

⁹¹ Ibid., S190-S91.



Figure 10. Image of the VERB Anytour Truck.⁹²

Like the “at home” and “in the community” messaging elements of Phase Three’s surround strategy, the “at school” promotions also carried forward the “make up your own rules” and “anytime, anywhere, anyway” core messages of Phase Three’s tween marketing. No school promotion better exhibited this than the VERB “Crossover” program. Launched in March 2005, VERB Crossover was a three-week, teacher-facilitated program that encouraged fourth through eighth grade students to create new games by “crossing” a traditional sport with another sport, piece of equipment, and/or activity.⁹³ More than two thousand participating teachers/schools received a Crossover

⁹² Ibid., S191.

⁹³ Ibid. "VERB: The Latest Word-Special Edition: Phase Three Creative Highlights," (Centers for Disease Control and Prevention, 2005). The VERB Crossover program was the evolution of the school-based “Anytime Doubletime” program the VERB team implemented in April and May the prior Phase/year (2004). The Anytime Doubletime program also targeted tweens in 4th-8th grade and involved combining

program toolkit, which included a variety of resources and tools, including a teacher guide, parent letters, student prizes, and a “game wheel” that could be spun to mix and match sports and equipment to create a game.⁹⁴

At the close of the school year in 2004, the Lexington (Kentucky) Tweens Nutrition and Fitness Coalition, a coalition of public health professionals and local stakeholders, developed and piloted (with the support of the VERB Team) a summer-based VERB promotion called the VERB Summer Scorecard.⁹⁵ The three-month Summer Scorecard program was designed to introduce tweens to new forms of physical activity during the summer. Through the program, tweens received a printed “scorecard,” represented in Figure 11, from participating businesses that provided activity opportunities, such as bowling alleys and community pools. Each time a tween participated in an activity for at least sixty minutes, an adult would stamp or sign one of the scorecard’s twenty-four squares. When a scorecard was filled, that tween could redeem her or his card for prizes, such as Frisbees or water bottles, from participating sponsors.⁹⁶ The Summer Scorecard program was adopted by other states during the Campaign, including Georgia and Iowa that continue to implement the program to this day.⁹⁷

two separate activities/sports to create a new game. Like the Crossover program, Anytime Doubletime included a school kit, including a teacher guide, parent letters, classroom resources, and student prizes.

⁹⁴ Heitzler, Asbury, and Kusner, "Bringing 'Play' to Life," S192.

⁹⁵ M. L. Alfonso et al., "Vigorous Physical Activity among Tweens, VERB Summer Scorecard Program, Lexington, Kentucky, 2004-2007," *Preventing Chronic Disease* 8, no. 5 (2011): 2.

⁹⁶ *Ibid.*, 3.

⁹⁷ At the time of writing, the Georgia and Iowa VERB Summer Scorecard websites are still live and can be accessed here: <http://jphcoph.georgiasouthern.edu/georgiaverb/> and <http://iowaverb.org/>, respectively.



Figure 11. Example of the VERB Summer Scorecard.⁹⁸

For parents, the messaging in Phase Three continued the educational trend of Phase Two but became exclusively focused on communicating the CDC’s recommended amount of daily physical activity for youth—a minimum of sixty minutes of physical activity every day.⁹⁹ The VERB brand and logo were removed from all promotional assets to secondary audiences beginning in Phase Three. In their place, a new, parent-focused brand, 60:PLAY, was developed to support this updated parental message and to further distance all promotion to secondary audiences from the VERB Campaign. All Phase Three, parent-targeted advertising and digital assets, including a new website for parents (60PLAY.com), reflected this new, 60:PLAY brand, as well as provided tips for parents to help their children get sixty minutes of recommended daily activity.¹⁰⁰

The final Phase of the campaign, Phase Four, ran for sixteen months, from June 2005 through September 2006. Phase Four was funded by the last congressional

⁹⁸ Alfonso et al., "Vigorous Physical Activity," 3.

⁹⁹ "60:Play," (Time for Kids, 2004).

¹⁰⁰ Parvanta, "Huhman Interview by Parvanta."

appropriation for VERB: an investment of \$59 million. Demonstrated by the sheer number of top advertising prizes awarded to VERB in its final year, Phase Four represented the creative pinnacle for the Campaign and pushed the boundaries of social marketing, especially in the digital domain.¹⁰¹

The general market messaging to tweens in Phase Four served as the final evolution of tween messaging concepts presented by VERB. In Phases One through Three, tweens were encouraged to “find” their favorite “verb” by searching their environments and interacting with their friends (“Get Out. Go Play.”) By Phase Four, the VERB team knew from their evaluation of the Campaign during the prior three years that tweens were becoming more active as a result of VERB.¹⁰² As a result, Phase Four’s tween messaging became much less about exploration and trial and much more focused on sustaining and deepening tweens’ engagement with the Campaign and their levels of associated physical activity.¹⁰³ As such, the VERB team made Phase Four’s central tween messaging objective “(igniting tweens’) desire for physical activity” by demonstrating to them that they “can’t not play.”¹⁰⁴

In order to activate this intensified focus on tween engagement, the VERB team kicked-off Phase Four with a cutting-edge (at the time) text messaging-based promotion

¹⁰¹ National Mail Order Association, "Interesting Direct Marketing Promotion Wins Award: Arc Shows How a Website Can Get Kids Active," (Chicago, IL: Arc Worldwide, 2007), 1. VERB and Arc Worldwide won four marketing awards, more than any other promotion, at the prestigious Reggie Awards in 2007 for the YELLOWBALL campaign (detailed in the following paragraphs). These awards included Gold for best Cause Marketing campaign of the year, Silver for Kids Marketing campaign of the year, Silver for Target, Local or Regional campaign of the year, and Bronze for Consumer Promotion of the year.

¹⁰² Huhman.

¹⁰³ Marian Huhman et al., "The VERB Campaign's Strategy," S195.

¹⁰⁴ Ibid.

during the summer months of 2005. Called “8372” (because those numbers, when entered on a keypad, spelled “V-E-R-B”), the program, which included 8372 print and television ads and a branded website, began in June 2005 and ran through August of that year. Throughout the program, tweens were encouraged to text message the 8372 number or visit the 8372.com website to register to receive daily information. This information, which included tips to be active during the summer months and encouragement from celebrities to be active, was delivered to participating tweens via a “web agent” (a “pop-up,” computer-based feature) and text message. By the end of the three-month program, more than 250,000 tweens had downloaded the 8372 web agent and 25,000 tweens registered to receive the 8372 text messages.¹⁰⁵

The VERB team followed-up the 8372 program with another highly innovative program and the culminating promotion of the VERB Campaign: Yellowball. If Phase Four was VERB’s creative pinnacle, Phase Four’s Yellowball promotion represented the Campaign’s magnum opus. The Yellowball promotion, which began in November 2005 and ran through the end of the Campaign in September 2006, represented the only VERB promotion to fully integrate all three environments (home, school, and community) of the Campaign’s surround strategy. Of all the Campaign’s various promotions across the four Phases, Yellowball was also the most successful at leveraging and linking all of the Campaign’s various components, including broadcast advertising, experiential marketing,

¹⁰⁵ Huhman, "New Media," 133. In a 2013 interview with Dr. Huhman conducted by the author, Huhman remarked that it was still uncommon in 2005 for national advertising campaigns to utilize text messaging in their promotion, and it was virtually unheard of for social marketing campaigns in the U.S. to incorporate text messaging.



Figure 12. A 2006 Phase Four Yellowball print ad.¹⁰⁶

national and community partnerships, and website, and it remains one of the most creative and highly awarded social marketing promotions of all time.¹⁰⁷

Phase Four's Yellowball campaign used yellow rubber balls as its literal and metaphorical design cue. As demonstrated in Figure 12, the "yellow ball" not only represented a familiar piece of play equipment, it also evoked kids playing outside in the sun. The Yellowball program began with a series of print, radio, and television ads designed to introduce the new brand and promotion. In the first television ads, tweens

¹⁰⁶ Brian Michael Bendis, "The New Avengers Annual," *The New Avengers*, June 2006, 15.

¹⁰⁷ National Mail Order Association, "Interesting Direct Marketing," 1.

plucked the sun from the sky and used it as a “yellow ball” that they used to play sports, such as basketball, and games with their friends.

Yellowball’s early promotion also included a “word-of-mouth” campaign fueled by a group, called Team Yellowball, comprised of nearly one thousand youth, aged thirteen to sixteen.¹⁰⁸ Team Yellowball members, each of whom received a kit comprised of instructions, a t-shirt, and yellow balls, served as Yellowball campaign ambassadors and were instructed to promote the campaign to their friends at school and in their communities. Team Yellowball ambassadors were further attached to the Yellowball mobile and “guerilla” event tours (Yellowball-branded versions of the aforementioned VERB Activity Zone and Anytour events), which connected with Team Yellowball members in communities across the country to initiate the second phase of the Yellowball campaign—a yellow ball-fueled, online and offline “chain letter of play.”¹⁰⁹

This second phase consisted of Team Yellowball and the Yellowball events (as well as national and community partners) distributing over five hundred thousand VERB-branded yellow balls to tweens across the country. Each of these five hundred thousand yellow balls had a unique code printed on its back (illustrated in Figure 13), along with the following instructions: 1) play with the ball; 2) log onto the VERBnow.com website; 3) register their ball by inputting its unique code; 4) blog about how they played with the ball; and 5) give the ball to a friend or neighbor.¹¹⁰

¹⁰⁸ Heitzler, Asbury, and Kusner, "Bringing 'Play' to Life," S191.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.



Figure 13. The front and back of the VERB Yellowball.¹¹¹

When tweens visited VERBnow.com, they were encouraged to visit the Yellowball-specific “mini-site” that the VERB team created for the promotion. In addition to the Yellowball tween and celebrity blogs, this site also included a Yellowball “Video Mixer” feature that allowed tweens to create and share their own Yellowball videos.¹¹² By the end of the VERB Campaign, tweens had created more than 170,000 videos and over 17,000 Yellowball blog posts (see Figure 14.)¹¹³

¹¹¹ Huhman, "New Media," 134.

¹¹² Ibid., 135-36. The Yellowball campaign’s featured celebrity was Hillary Duff, a popular actress at the time, who had her own Yellowball blog on the mini-site.

¹¹³ Ibid., 136.

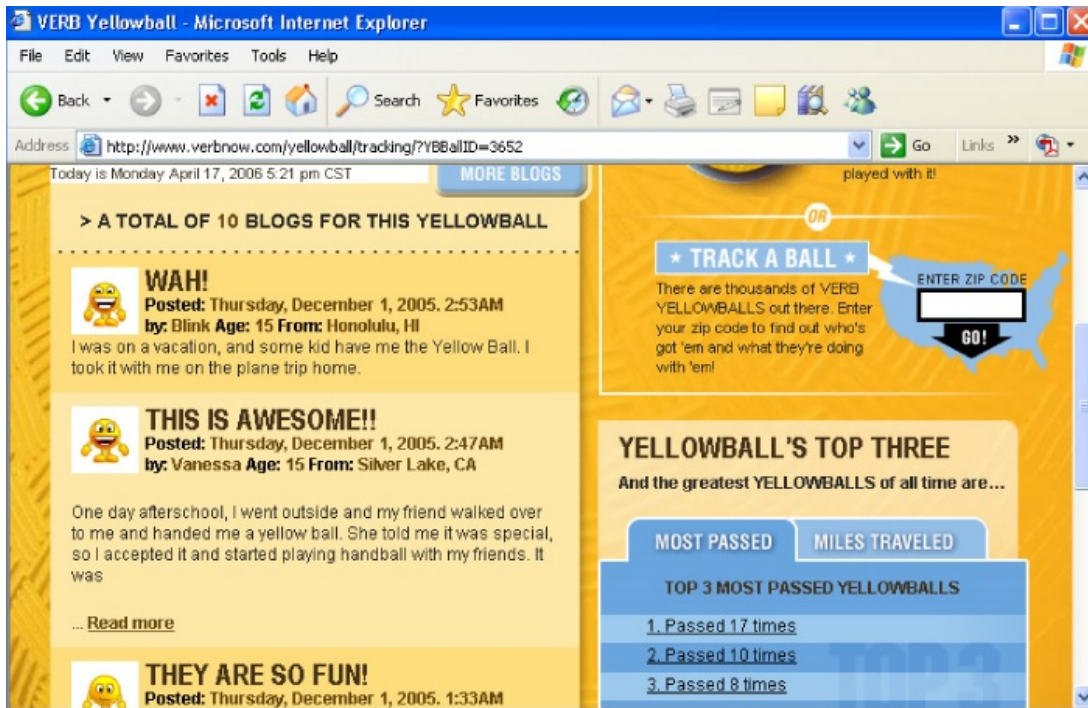


Figure 14. A screenshot from the VERB Yellowball blog website.¹¹⁴

Yellowball's "chain letter of play" used viral marketing and grassroots marketing strategies to cost-efficiently reach tweens and provide them with a tangible means of interacting with the campaign in both virtual and physical environments. It also allowed tweens to encourage their friends, in a fun and natural way, to become more physically active. For the VERB Team, the Yellowball campaign allowed them to see, in real time, the impact the program was having and to encourage and support tweens via the Yellowball blog in highly personalized ways that had not been possible in prior Phases. This unique mix of online and offline interaction led to a ten percent conversion rate for

¹¹⁴ Ibid.

tweens receiving the ball and then going on to visit the website and blog, as compared to a one-to-three percent conversion rate for most marketing campaigns.¹¹⁵ In recognition of the groundbreaking and effective work illustrated throughout the Yellowball campaign, the advertising industry awarded its creator, Arc Worldwide (a subsidiary of the Leo Burnett), four awards (including the Gold Medal in the Cause Marketing category) at the 2007 Reggie Awards.¹¹⁶ The Reggie Awards, a production of the Promotion Marketing Association, are the annual advertising industry awards for the top promotional marketing campaigns in the U.S. each year.

On 30 September 2006 with the last yellow rubber ball passed out, the VERB Campaign ceased due to lack of funding. In all, VERB cost taxpayers \$339 million over its fifty-two-month lifespan.¹¹⁷ Despite demonstrating significant innovation in the area of youth health promotion and achieving unprecedented success for a nationwide, public/private social marketing campaign targeted at tweens, Congress denied CDC's request for additional funding.¹¹⁸ Without an influential legislative leader like Porter to advocate on behalf of VERB, the U.S. House proposed an \$11.2 million budget for the Campaign in FY 2006 but could not get the Senate to follow suit.¹¹⁹

It is ironic that one of the most expensive social marketing media campaigns ever undertaken by the CDC ended not exclusively with a final, massive media buy in the last

¹¹⁵ Ibid., 136.

¹¹⁶ MarketWired, "Arc Worldwide Wins Big at 2007 Reggie Awards: Arc Shows How a Website Can Get Kids Active," *Eclipse, Developer's Journal* (2007).

¹¹⁷ The VERB Campaign ran from June 2002 through September 2006. Faye L. Wong, Email with the author, 19 November 2007.

¹¹⁸ Snyder, "Health Communication Campaigns," S34.

¹¹⁹ Wong, Email, 12 August 2013.

year, but instead, with the distribution of five hundred thousand yellow, rubber, playground balls. After all the money, the initial Congressional support, the industry experts, the support from the public health community,¹²⁰ the celebrity endorsements, the massive media buys, and the industry accolades, all that is truly left of VERB is a smattering of faded collateral, some anthology DVDs, a handful of VERB Summer Scorecard community websites, a small number of scholarly articles, and all those yellow rubber balls.¹²¹

IMPACT

Because it was a federally funded initiative of the research-based CDC, VERB was evaluated at several points in its short lifespan. As previously referenced, the VERB

¹²⁰ Members of the public health community who have commented on VERB have largely praised the Campaign. When asked about VERB in 2002 by a *USA Today* reporter, Dr. Margo Wootan, Director of Nutrition Policy at the Center for Science in the Public Interest, reportedly said, “We think (VERB) is one of the most innovative and important programs to reduce childhood obesity.” See: Hellmich, "Sedentary Kids," 6D. In their 2008 article entitled, “VERB: Demonstrating a Viable National Option for Promoting Physical Activity Among Our Children,” Nick Cavill and Dr. Edward Maibach echoed Dr. Wootan by praising VERB; about the Campaign, they wrote, “the VERB team demonstrated a remarkable ability to hit the mark and achieve population-based impact. That the target audience was national in scope made the accomplishment all that much more impressive.” See: Nick Cavill and Edward W. Maibach, "VERB: Demonstrating a Viable National Option for Promoting Physical Activity among Our Children," *American Journal of Preventive Medicine* 34, no. 6, Supplement (2008): S173. Not everyone was a fan of VERB, however. In a 2002 press release, Ralph Nader’s organization, Commercial Alert, issued a press release criticizing the CDC for hiring and partnering with the “obesity lobby” which included advertising agencies, like Frankel, and companies, like, Viacom, that, according to Commercial Alert, were responsible for “pitching junk food” and promoting sedentary activities, like television-viewing and video games. See: News Release, "Obesity Lobby' Will Carry out CDC's New Program, Commercial Alert Charges," (2002), <http://www.commercialalert.org/news/news-releases/2002/07/obesity-lobby-will-carry-out-cdcs-new-program-commercial-alert-charges>. On an episode of *NOW with Bill Moyers* in 2002, Dr. Susan Linn, a faculty member at the Harvard Medical School and co-founder and director of the national coalition, Campaign for a Commercial-Free Childhood, echoed Commercial Alert’s criticism. When asked about VERB’s public/private partnership, Dr. Linn responded, “(The CDC is) working with people who have a vested interest in keeping children watching television and eating food that isn’t good for them. Now, how can people for whom that is a primary value be really helping children and families combat childhood obesity?” See: Kathy Hughes, "Fit or Fat?" in *NOW with Bill Moyers* (2002).

¹²¹ Huhman, "New Media," 138. After the VERB Campaign officially ended, the VERBnow.com website remained “live” through December 2007. Throughout 2007, the website registered nearly 550,000 visits.

evaluation team was headed by Dr. Marian Huhman and included Dr. Greg Welk and the evaluation contractor, Westat. Before VERB's launch and informed by the Campaign's logic model, the evaluation team developed VERB's central outcome evaluation tool—the Youth Media Longitudinal Survey (YMCLS).

A national, self-report, telephone survey of tweens and parents, the YMCLS served as the central assessment tool of the VERB Campaign. In addition to testing the target audiences' awareness of VERB, the YMCLS was also designed to test both the physical and psychosocial effects of the VERB Campaign. The physical dimensions tested included free-time physical activity in the seven days before the survey, organized physical activity in the seven days before the survey, and physical activity the day before the survey. The psychosocial dimensions included the child's beliefs about the benefits of physical activity, the child's self-efficacy to engage in physical activity, and the influence of family and peers on the child's decision to be active.¹²²

Because parents represented a secondary audience in the VERB Campaign, the parent-focused questions on the YMCLS were fewer in number as compared to the tween-directed portion of the survey. These questions included measures of awareness of the VERB Campaign, as well as parents' beliefs and attitudes about the importance of physical activity for their children and their ability to influence the physical activity their child's physical activity. The parent-targeted questions of the YMCLS also asked parents

¹²² Marian E. Huhman et al., "Evaluation of a National Physical Activity Intervention for Children: VERB Campaign, 2002-2004," *American Journal of Preventive Medicine* 32, no. 1 (2007): 39-40.

if they had been physically active at any point with their child seven days prior to the survey.¹²³

VERB's longitudinal outcome evaluation design consisted of the YMCLS being conducted during the months of April-June, once before the launch of VERB in 2002 and every year thereafter (through 2006).¹²⁴ Three randomly generated "panels" of tweens and parents were selected to receive the survey throughout the Campaign. Panel One consisted of a group of tweens, aged nine to thirteen years, and their parents. Panel One received the YMCL in 2002, the year before the launch of the VERB campaign (serving as the baseline cohort for the outcome evaluation), and every year after. Panel Two was also comprised of a set of tweens, aged nine to thirteen years, and their parents. Panel Two first received the YMCLS in 2004 and then again every year through 2006. Like Panels One and Two, Panel Three also consisted of a cohort of tweens, aged nine to thirteen, and their parents, but Panel Three only received the YMCLS in 2006.¹²⁵

Dr. Greg Welk, an advisor to the VERB team and faculty member at Iowa State University, was tapped in 2004 by the CDC to test the reliability and validity of the YMCLS as a tool to assess physical activity in youth. Welk, along with colleagues from Iowa State, the CDC, and Westat, developed a test protocol designed to compare the results from the subjective YMCLS evaluation instrument against another subjective instrument—a comprehensive, daily activity log—created by Welk, and an objective

¹²³ Simani M. Price, Marian Huhman, and Lance D. Potter, "Influencing the Parents," S270-S71.

¹²⁴ Lance D. Potter et al., "Methodology of the Outcome Evaluation of the VERB Campaign," *Ibid.*, no. 6S: S231.

¹²⁵ *Ibid.*

one—an accelerometer.¹²⁶ The participants of their study were representative of VERB's target audience—195 students in grades four through eight.¹²⁷ In three, two-week intervals throughout the months of April and May 2004, the YMCLS was administered to these 195 students, who also wore accelerometers and regularly updated their activity logs.

After comparing the students' YMCLS results against their accelerometer and activity log data, Welk found low but significant correlations for both male ($r = 0.27$) and female ($r = 0.27$) participants using the accelerometer, and moderate and significant correlations for both male ($r = 0.40$) and female ($r = 0.45$) subjects using the activity log.¹²⁸ In the 2007 article which summarized his findings, Welk concluded, "Although the YMCLS seems valid for the broad age range of 9-13 yr, some evidence from our study suggests that reliability and validity were better among the 11- to 13-yr olds than among the 9- to 10-yr-olds."¹²⁹ When asked by the author about his findings, Welk acknowledged that, ideally, the validity and reliability of the YMCLS would have been confirmed before its use. He reiterated, however, that his study represented the state of the art at the time in terms of rigor (by comparing the YMCLS to the accelerometer, an

¹²⁶ Gregory J. Welk, Eric Wickel, and Marc Peterson, "Reliability and Validity of Questions on the Youth Media Campaign Longitudinal Survey," *Medicine and Science in Sports and Exercise* 39, no. 4 (2007): 613. An accelerometer, in this instance, is a device worn by a participant that tracks that individual's total minutes of activity and the intensity of that activity.

¹²⁷ *Ibid.*

¹²⁸ *Ibid.*, 618.

¹²⁹ *Ibid.*, 620.

objective measure), and as such, it demonstrated that the YMCLS was, indeed, a highly reliable, stable, and valid evaluation tool for the VERB Campaign.¹³⁰

To date, the most comprehensive evaluation of VERB was conducted by many of the Campaign's principals at the CDC, including Dr. Marian Huhman, Lance Potter, and Faye Wong. In the 2010 article, "The Influence of the VERB Campaign on Children's Physical Activity in 2002 to 2006," Huhman provided a comprehensive analysis of the efficacy of the VERB Campaign to achieve its primary impact objectives which were to 1) create high brand/campaign awareness among tweens; 2) demonstrate an association between the VERB Campaign and improvements in tweens' beliefs about physical activity and their self-efficacy to engage in physical activity; and 3) show that exposure to the VERB Campaign led to an increase in physical activity.¹³¹

On all counts, Huhman found that the VERB Campaign had an overall, positive dose-response effect. In the above 2010 article, she reported that awareness of the Campaign among tweens increased from sixty-seven percent in 2003 to seventy-five percent by 2006.¹³² She further concluded that, in 2006, exposure to the VERB Campaign had a 0.09 effect size on the percentage of tweens who saw the Campaign every day (68.4 percent) and who engaged in "previous day" physical activity (defined as physical activity the day before the YMCLS was administered), as compared to the percentage of tweens (62.4 percent) with no exposure to VERB who engaged in physical

¹³⁰ Greg Welk, Phone interview with the author, 30 January 2014.

¹³¹ Marian E. Huhman et al., "The Influence of the VERB Campaign on Children's Physical Activity in 2002 to 2006," *American Journal of Public Health* 100, no. 4 (2010): 638-45.

¹³² *Ibid.*, 641.

activity the prior day.¹³³ These findings were also consistent with the results from 2004 and 2005 (effect sizes of 0.09 and 0.11, respectively).¹³⁴ Finally, regarding the effect of the Campaign in 2006 on psychosocial variables, Huhman concluded, “The more frequently children were exposed to the (Campaign), the more they believed in the benefits of being physically active... their self-efficacy to be physically active, and social influences on their physical activity.”¹³⁵ They reported the effect sizes for these three measures as 0.12, 0.06, and 0.07, respectively.¹³⁶

Huhman also discussed a series of limitations inherent in the design of the YMCLS and the evaluation of the Campaign. Foremost among these limitations were the issues of self-reported data produced by the YMCLS, as well as potential issues with “cuing and social desirability (that) could have led to overreporting of physical activity” by tweens.¹³⁷ Despite these limitations, however, the previously referenced reliability study by Welk demonstrated that the YMCLS was, in fact, reliable and produced significantly valid results.

The VERB evaluation team also tracked the Campaign’s impact on parents, as well as the performance of the Campaign’s new media efforts. In a 2008 article, Price reported that the Campaign created similar effects in the parents of tweens. Drawing upon the YMCLS data, the study found that awareness of VERB among parents increased from thirty-four percent in 2003 to fifty-five percent in 2005 (the last year that

¹³³ Ibid.

¹³⁴ Ibid., 642.

¹³⁵ Ibid., 641.

¹³⁶ Ibid.

¹³⁷ Ibid., 643.

data were available), with television (eighty-eight percent) being the most frequently reported medium for learning about VERB.¹³⁸ This was of interest to the authors because there were virtually no parent-directed VERB ads, which indicated that a large majority of all parents who became aware of VERB did so by watching television ads targeted to their children. Price also concluded that parents who were aware of the Campaign were significantly more likely to have positive attitudes about the importance of physical activity for all kids, to believe in the importance of physical activity for their children, to have higher self-efficacy to influence the physical activity of their children, and to have been physically active in the seven days prior to being administered the YMCLS.¹³⁹

Dr. Huhman, in a 2008 article entitled, “New Media and the Verb Campaign: Tools to Motivate Tweens to Be Physically Active,” documented the success of the Campaign’s various digital initiatives.¹⁴⁰ She found that throughout the Campaign, the VERBnow.com site got nearly 11 million visits and registered nearly 1.1 million tween users. She also reported that nearly 3.6 million hours of physical activity was logged through the “VERB Recorder” and more than 830,000 ViRTs were created.¹⁴¹ These accomplishments were in addition to the 17,000 Yellowball blog posts created by tweens through the Yellowball micro-site and 170,000 Yellowball videos created by tweens, as previously discussed.

¹³⁸ Price, Huhman, and Potter, "Influencing the Parents," S270.

¹³⁹ *Ibid.*, S271.

¹⁴⁰ Huhman, "New Media," 126-39.

¹⁴¹ *Ibid.*, 130.

Although VERB achieved unprecedented gains in its short lifespan, in order to discuss its full impact, these gains must be measured against the original goals set forth by its legislative creators, as well as the Campaign's lessons for the practice of social marketing and the field of public health. As referenced previously, the Congressional Appropriations language that gave life to VERB included the following directives to the CDC, "The conferees expect the goals of the campaign will also address the growing problem of obesity in this country...the campaign will reduce the proportion of children and adolescents who are overweight and obese."¹⁴² While the Campaign, as demonstrated above, did generate greater levels of physical activity among tweens, the YMCLS did not track tweens' weight or changes in weight status.

When asked by the author why VERB did not address obesity as a goal, Huhman responded by saying, "We weren't aiming for changes in BMI...our focus was just to get kids more active and changes in adiposity take longer and more focused interventions than a media campaign."¹⁴³ In a separate interview with a reporter, while addressing the VERB/childhood obesity link, Huhman elaborated on the choice of physical activity over childhood obesity as the central goal of the campaign. She reportedly stated, "It's not just counteracting obesity, as physical activity is in some ways the closest thing we have to a silver bullet for general health."¹⁴⁴ But, recent studies by Dwyer-Lindgren and Iannotti and Wang do not fully support Huhman's "silver bullet" comment when applied

¹⁴² Wong, Email, 12 August 2013.

¹⁴³ Huhman, Email, 13 November 2007.

¹⁴⁴ Kim Krisberg, "Successful CDC VERB Campaign in Danger of Losing Funding: Budget Cuts Likely," Medscape: WebMD, <http://www.medscape.com/viewarticle/513388>.

to overweight and obesity. Both studies, which, when combined, tracked physical activity trends and prevalence of overweight and obesity among U.S. adolescents and adults during the years of 2001 through 2011, demonstrated that while there was a slight increase in the levels of physical activity during this time period, there was also an overall increase in obesity and overweight among both age groups—age groups that included the full range of former tweens targeted by the VERB Campaign throughout its duration.¹⁴⁵

This discrepancy between the original stated goal in the Congressional appropriations language which directed the CDC’s creation of VERB (“...the campaign will reduce the proportion of children and adolescents who are overweight and obese.”) and the ultimate impact goal (increasing physical activity) that guided the development and evaluation of the Campaign has never been fully addressed by the various, former members of the VERB team in any of the post-VERB literature they authored. To be fair to Wong, however, it was, as Huhman suggested, unrealistic for a mass media social marketing campaign to be able to reduce overweight and obesity among the whole of the nation’s tweens in the span of five years (the number of years for the Campaign originally approved by Congress). But, the Congressional instructions were clear, despite being overly optimistic, and the levels of overweight and obesity among the tweens targeted by VERB have, according to the aforementioned researchers, continued to rise in the years since the Campaign’s end.

¹⁴⁵ Laura Dwyer-Lindgren et al., "Prevalence of Physical Activity and Obesity in U.S. Counties, 2001–2011: A Road Map for Action," *Population Health Metrics* 11, no. 1 (2013): 1. Ronald J. Iannotti and Jing Wang, "Trends in Physical Activity, Sedentary Behavior, Diet, and Bmi among Us Adolescents, 2001–2009," *Pediatrics* (2013): 606.

Despite VERB's shortcomings, which are inherent to any undertaking of VERB's scope and scale, the Campaign's many successes have demonstrated the potential of social marketing for the promotion of healthy behaviors. Modern initiatives, such as First Lady Michelle Obama's "Let's Move" campaign and the National Football League's "Play 60" campaign, owe much to VERB.¹⁴⁶ Although it did not create the kind of wide-sweeping and lasting societal impact its political underwriters imagined in their original appropriations language, VERB did what its creators at the CDC designed it to do and what the strengths and limitations of traditional social marketing forced upon it—it moderately increased physical activity for a short period of time among a very targeted audience.¹⁴⁷ In the final section below, these "limitations" of traditional social marketing are further explored and a more comprehensive social change model designed to exploit social marketing's strengths is proposed.

CONCLUSION

VERB demonstrated the power of a mass media social marketing campaign when properly financed, structured, and led. VERB proved that a "gain-framed" approach that prioritized the importance of a consistent and compelling brand was a highly effective

¹⁴⁶ According to Ms. Wong, the early developers of Let's Move visited leadership at the CDC to inquire about the lessons the agency learned from the VERB Campaign, including using the framework of social marketing to inform the design and implementation of Let's Move. See: Wong, Email, 12 August 2013. The NFL's Play 60 campaign has employed VERB's intense focus on branding physical activity as "fun" and "cool" to kids, as well as its use of professional athletes to "sell" physical activity to youth.

¹⁴⁷ Dr. Huhman's cumulative evaluation article reported a significant weakening of effects by the Campaign on "free-time" physical activity as tweens who were originally targeted by VERB transitioned into adolescence. See: Huhman et al., "The Influence of the VERB Campaign," 642. This rapid weakening of effects is to be expected among social marketing campaigns like VERB. About the matter of this impermanence of campaign effects, Leslie Snyder, in her 2007 article entitled, "Health Communication Campaigns and Their Impact on Behavior," wrote, "Unfortunately, communication campaign effects often decline after a campaign is over." See: Snyder, "Health Communication Campaigns," S39.

way to “sell” a healthy behavior. Daniel O’Keefe and Jakob Jensen define “gain-framed” approaches as those that “(emphasize) the advantages” of engaging in a particular behavior versus a “pain-framed” (or “loss-framed”) appeal that stresses the negative outcomes of not engaging in that behavior.¹⁴⁸

The VERB team was also a national innovator in the use of new media to build a following and deliver health messages in a highly interactive way. VERB also revealed that a public-private approach in the promotion of healthy living could be mutually beneficial and impactful. But, the mass media social marketing framework that powered many of VERB’s successes was also largely responsible for its demise and the decline of its impact after the Campaign ended.

As much as VERB is a testament to the potential of social marketing, the Campaign equally serves as a cautionary tale. Because VERB so heavily relied upon national media buys, the Campaign required massive, annual infusions of funding. The levels of funding required were so large, in fact, that they could only logically come from one source—the federal government. This funding came with some major, built-in limitations. Chief among these limitations was the requirement that the funding had to be administered by a federal agency—the CDC. This meant that the VERB team was never capable of lobbying for continued funding, either directly by contacting legislators or indirectly by encouraging others, such as parents or community members, to lobby on

¹⁴⁸ Daniel J. O’Keefe and Jakob D. Jensen, “The Relative Persuasiveness of Gain-Framed Loss-Framed Messages for Encouraging Disease Prevention Behaviors: A Meta-Analytic Review,” *Journal of Health Communication* 12, no. 7 (2007): 623.

their behalf.¹⁴⁹ And, as demonstrated, because VERB was totally dependent upon federal funding, the Campaign was always subject to the whims of Congress; once VERB lost its Congressional champion in Former Representative John Porter after the first year of appropriations, federal support for the Campaign was never the same and VERB's days became numbered before it ever began.¹⁵⁰

The VERB team's narrow focus on a single behavior (physical activity) and a single, primary target audience (tweens) also limited VERB's impact and longevity.¹⁵¹ As previously referenced, VERB's effect on tweens' physical activity, while very impressive, was not sustained once the Campaign ended, nor did that temporary effect contribute to a reduction or leveling off of obesity and overweight among that age group. Also, because engaging parents and other influencers was not a focus for the Campaign, once Congressional funding for VERB began to waver, the very people who could have lobbied for its continuation were never aware of its looming expiration nor invested in its prolonged success.

¹⁴⁹ Staff at all federal agencies are strictly prohibited from engaging in any activity that can be perceived as indirectly or directly related to lobbying on behalf of a federally funded and/or administered program.

¹⁵⁰ Wong, Email, 12 August 2013.

¹⁵¹ According to Dr. Huhman in a 2007 interview conducted by the author, at the time of VERB's creation, "best practice" in social marketing stipulated that effective social marketing campaigns should have both a single target audience and behavior. See: Huhman, Email, 13 November 2007. Since that time, a number of scholars have, after conducting meta-analyses on health promotion-based social marketing campaigns, revealed that social marketing campaigns can effectively target multiple audiences and behaviors at the same time and within the same campaign. See: Ross Gordon et al., "The Effectiveness of Social Marketing Interventions for Health Improvement: What's the Evidence?" *Public Health* 120, no. 12 (2006); Martine Stead, G. Hastings, and L. McDermott, "The Meaning, Effectiveness and Future of Social Marketing," *Obesity Reviews* 8(2007); and Martine Stead et al., "A Systematic Review of Social Marketing Effectiveness," *Health Education & Behavior* 107, no. 2 (2007). The "Let's Move" campaign is an example of a social marketing initiative that is targeting multiple behaviors (physical activity and healthy eating) and audiences (youth, parents, educators, industry leaders, etc.) within the same framework.

But it was also VERB's structure as a campaign that led to its short lifespan and transient impact. By definition, campaigns have a clear beginning and end. Unlike causes, which are bottom-up in nature and people-powered/-distributed, social marketing campaigns are typically top-down, expert-driven initiatives that rely on traditional media; once the media buys end, the campaign usually ends as well.¹⁵² As previously illustrated, such was the case with VERB.

These lessons provided by VERB matter today because the field of public health continues to look to social marketing as a social change tool, particularly as applied to the issue of obesity. In the 2006 article entitled, "The Effectiveness of Social Marketing Interventions for Health Improvement: What's the Evidence?" Ross Gordon wrote, "Evidence of the growing interest in social marketing is abundant." This "growing interest in social marketing" spotted by Gordon and his colleagues in 2006 is still very much alive according to the Institute of Medicine (IOM); as recently as 2012, the IOM called for the development of a "sustained, targeted physical activity and nutrition social marketing program" as a core strategy to prevent obesity.¹⁵³

Despite being one of the strongest advocates for social marketing and a global thought leader in its practice, Alan Andreasen does not necessarily see this "growing interest" in social marketing as a good thing. In *Social Marketing in the 21st Century*,

¹⁵² Robbin Phillips et al., *Brains on Fire: Igniting Powerful, Sustainable, Word of Mouth Movements* (Hoboken: John Wiley and Sons, 2010), xxxiii. In their 2010 book, *Brains on Fire*, Robbin Phillips and her colleagues compare and contrast social movements from social and commercial marketing campaigns.

¹⁵³ "Accelerating Progress," 435.

Andreasen calls for a “repositioning” of social marketing.¹⁵⁴ He suggests that “a significant majority of social marketing interventions designed to bring about social change in the past has focused on those who are causing the social problem by carrying out undesirable behaviors.”¹⁵⁵ Instead, he argues that the field of social marketing needs to broaden its focus to include not only the “downstream” individuals and behaviors deemed problematic, but also the environmental and political “upstream” drivers so that comprehensive social change can occur.¹⁵⁶ But while Andreasen argues for the application of social marketing in both “upstream” and “downstream” domains for the purpose of social change, it is important to note that he stops short of providing an example of how this “repositioned” social marketing has been successfully applied to an existing social problem, especially one as societally-rooted as obesity.

When applied to the highly complex, “societal disease” of obesity, the story of VERB illustrates that a social marketing-only approach, especially in the form of a mass media campaign, is insufficient to create the kind of systemic, social change that a growing number of public health researchers have begun to argue that obesity demands.¹⁵⁷ In his 2002 article entitled, “From Instinct to Intellect: The Challenge of Maintaining Healthy Weight in the Modern World,” John Peters described obesity as a

¹⁵⁴ Andreasen, *Social Marketing in 21st Century*, 216.

¹⁵⁵ *Ibid.*, 8.

¹⁵⁶ *Ibid.*, 215.

¹⁵⁷ Reilly, "Tackling the Obesity Epidemic," 726; and Walter Wymer, "Rethinking the Boundaries of Social Marketing: Activism or Advertising?" *Journal of Business Research* 63, no. 2 (2010): 99-100. In his 2010 article, Wymer offered a frank assessment of what he argued was social marketing's inability to adequately address the “obesity problem.” He wrote, “The typical social marketing approach is to develop a short-lived mass advertising campaign to encourage individuals to eat more fruits and vegetables or to exercise more...however, the obesity rates continue to rise, proving the social marketing campaigns to be ineffectual.”

“socio-cultural disorder” whose management “will require input and effort by almost every sector in society.”¹⁵⁸ In their 2008 article “Transforming Research Strategies for Understanding and Preventing Obesity,” Terry Huang and Thomas Glass described obesity as a “complex systems problem,” consisting of interrelated biological, individual, environmental, societal, and governmental factors.¹⁵⁹

This shift in thinking about obesity, from a problem of individual behavior to one that includes individual behavior as well as societal drivers, has led some researchers to look outside the field of public health for potential social change models. One such “model” that has recently become popular within the public health scholarship on obesity prevention is the framework of social movements. In his 2006 article “Obesity Prevention and Social Change: What Will It Take?” John Peters wrote, “We continue to lose ground in meeting national goals for reversing obesity... Success will depend on mounting an effective social movement.”¹⁶⁰ Thomas Robinson, in a 2010 article entitled, “Save the World, Prevent Obesity: Piggybacking on Existing Social and Ideological Movements,” echoed Peters advocacy of a social movement approach when he posited, “Elusive, however, has been an intervention approach that results in greater magnitude and sustained changes in obesity-related behaviors...Looking for examples where

¹⁵⁸ Peters et al., "From Instinct to Intellect," 70, 74.

¹⁵⁹ Terry T.-K. Huang and Thomas A. Glass, "Transforming Research Strategies for Understanding and Preventing Obesity," *JAMA: The Journal of the American Medical Association* 300, no. 15 (2008): 1811.

¹⁶⁰ John C. Peters, "Obesity Prevention and Social Change: What Will It Take?" *Exercise and Sport Sciences Reviews* 34, no. 1 (2006): 4.

individuals adopt and sustain dramatic changes in their behaviors, social and ideological movements stand out.”¹⁶¹

In conclusion, it was VERB’s strict adherence to the traditional rules of social marketing (employing a campaign-as-intervention approach that targets a narrow audience to engage in an even more narrow behavior) that ultimately resulted in its downfall. As Lorien Abrams and Edward Maibach (citing the scholarship of Robert Hornik) pointed out in their 2008 article entitled "The Effectiveness of Mass Communication to Change Public Behavior," “the mass media campaigns most likely to fail...are those aimed solely at changing individuals...these programs fail precisely because they do not change the larger social system.”¹⁶² But, VERB’s many successes also point to the power of social marketing, especially as a key strategy and practice within a larger social change model like a social movement—a social change framework that draws its strength and longevity from the people who comprise it and work on its behalf and as such, is not solely dependent upon government funding or massive media buys to achieve its goals. In the next chapter, the potential of a social movement model to create a “culture of health” in America is explored.¹⁶³

¹⁶¹ Robinson, "Save the World," S17.

¹⁶² Lorien C. Abrams and Edward W. Maibach, "The Effectiveness of Mass Communication to Change Public Behavior," *Annual Review of Public Health* 29, no. 1 (2008): 228.

¹⁶³ Lavizzo-Mourey, "Partnering with Corporations." In a 2014 post on the Stanford Social Innovation Review blog, Dr. Risa Lavizzo-Mourey, President and CEO of the Robert Wood Johnson Foundation—the largest private funder of obesity prevention efforts in the U.S.—discussed the “shift” in their priorities and approach related to issues like obesity; recognizing the many systemic, societal drivers of these issues, Dr. Risa Lavizzo-Mourey explained that the Foundation’s new focus is on creating a “Culture of Health.”

Chapter 4

Join the Movement:

A Case Study of Aerobics in the U.S. and Its Impact on and Lessons for America's Healthy Living Movement

In the 1930s, most Americans showed little interest in exercise...exercise and sports, for the most part, was something the average American considered important only for younger individuals or athletes... However, it was not until 1968, after Kenneth Cooper published *Aerobics*, that a new fitness movement took hold. Cooper's book represented the symbolic beginning of the late twentieth century exercise and fitness movement.¹

Since the 1970s, sweeping political, economic, cultural, and familial changes have occurred in the United States. Researchers like Gary Egger and Sara Kirk have argued that these changes created an "obesogenic" societal environment that has contributed to the increased prevalence of overweight and obesity in America by favoring inactivity and the over-consumption of highly-processed, calorie-dense foods and beverages.² As a result, the field of public health has increasingly begun to recognize obesity as a "societal disease."³

A growing number of public health researchers have suggested that wide-scale social change, in addition to individual behavior change, is required to address this issue. In their 2001 article, Christina Economos and her colleagues argued that America's

¹ Engs, *Clean Living Movements: American Cycles of Health Reform* (Westport: Praeger, 2000), 248-49.

² See: Garry Egger and Boyd Swinburn, "An "Ecological" Approach to the Obesity Pandemic," *BMJ: British Medical Journal* 315, no. 7106 (1997); and Kirk, Penney, and McHugh, "Characterizing the Obesogenic Environment: The State of the Evidence with Directions for Future Research," *Obesity Reviews* 11, no. 2 (2010).

³ See: Reilly, "Tackling the Obesity Epidemic: New Approaches," *Archives of Disease in Childhood* 91, no. 9 (2006): 726; and Katz, "Are Our Children 'Diseased'?" *Childhood Obesity* 10, no. 1 (2014): 2.

“current social landscape fails to promote healthy eating and active living,” and, as a result, “we must fight (this situation) with a reactive and powerful social change.”⁴ John Peters and his colleagues expanded on this social change concept by defining obesity as a “socio-cultural disorder,” whose management “will require input and effort by almost every sector of society.”⁵

Some of these same researchers have suggested that social movements may hold promise as a social change model capable of addressing America’s obesity “epidemic.”⁶ In “What Lessons Have Been Learned from Other Attempts to Guide Social Change?” Economos explored a variety of social change models; she cited examples of social movements, including the tobacco control and environmental movements, as among the most successful.⁷ Peters, in a 2006 article on the matter, wrote, “We continue to lose ground in meeting national goals for reversing obesity...Success will depend on mounting an effective social movement.”⁸ That next year, Marlene Schwartz and Kelly Brownell echoed Peters by suggesting that obesity represented a “very real need for social change,” which “may require an entire social movement.”⁹ One of the strongest

⁴ Christina D. Economos et al., "What Lessons Have Been Learned from Other Attempts to Guide Social Change?" *Nutrition Reviews* 59, no. 3 (2001): S40.

⁵ John C. Peters et al., "From Instinct to Intellect: The Challenge of Maintaining Healthy Weight in the Modern World," *Obesity Reviews* 3, no. 2 (2002): 70, 74.

⁶ In 2001, the Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity categorized the number of overweight and obese Americans as reaching “nationwide epidemic proportions.” See: U.S. Department of Health and Human Services, "The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity," (Rockville, Maryland: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001), v.

⁷ Economos et al., "What Lessons," S40.

⁸ John C. Peters, "Obesity Prevention and Social Change: What Will It Take?" *Exercise and Sport Sciences Reviews* 34, no. 1 (2006): 4.

⁹ Marlene B. Schwartz and Kelly D. Brownell, "Actions Necessary to Prevent Childhood Obesity: Creating the Climate for Change," *Childhood Obesity* 35, no. 1 (2007): 78-79.

proponents of the social movement model is the Stanford University physician, Thomas Robinson. In a 2010 article, he argued that “movements stand out” as the most logical models for obesity prevention, because they represent proven cases in America’s history “where individuals adopt and sustain dramatic changes in their behaviors.”¹⁰

Among these researchers, it is often suggested that a new social movement to reduce/prevent obesity should be based on the tobacco control movement of the mid-twentieth century in the United States. Citing limited success in efforts to reduce and/or prevent obesity in the U.S., Derek Yach argued that “much could be learned from those working on tobacco control.”¹¹ In their 2008 article, Robinson and William Dietz wrote, “Like tobacco control, we believe that the necessary changes in nutrition, activity, and inactivity will likely require changes on the scale of a social movement.”¹² In a later article, Jonathan Klein and Dietz referred to childhood obesity as the “new tobacco.”¹³

Although the tobacco control movement was successful in significantly reducing the number of U.S. smokers throughout the latter half of the twentieth century, its applicability to obesity is problematic.¹⁴ In his 2007 article, Steven Schroeder detailed the many ways that the tobacco control movement falls short as a model for obesity. He wrote, “The binary definition of smoking status (smoker or nonsmoker) does not apply to

¹⁰ Thomas N. Robinson, "Save the World, Prevent Obesity: Piggybacking on Existing Social and Ideological Movements," *Obesity* 18, no. S1 (2010): S17.

¹¹ Derek Yach, "Comment on the Obesity Issue," *Social and Preventive* 48, no. 6 (2003): 336.

¹² William H. Dietz and Thomas N. Robinson, "What Can We Do to Control Childhood Obesity?" *The Annals of the American Academy of Political and Social Science* 615(2008): 224.

¹³ Jonathan D. Klein and William H Dietz, "Childhood Obesity: The New Tobacco," *Health Affairs* 29, no. 3 (2010).

¹⁴ "Achievements in Public Health, 1900-1999: Tobacco Use—United States, 1900-1999," in *Morbidity and Mortality Weekly Report* (Centers for Disease Control and Prevention, 1999).

obesity... It is not biologically possible to stop eating, and unlike moderate smoking, eating a moderate amount of food is not hazardous... Nonsmokers mobilize against tobacco because they fear injury from secondhand exposure, which is not a peril that attends to obesity.”¹⁵

It should be noted that linkages between the effects of second-hand smoke on nonsmokers and the societal “costs” (including medical costs, decreased productivity, etc.) of obesity to the country can be drawn. However, it is the author’s contention that the key difference between the two are that with tobacco, nonsmokers were stigmatizing a product (primarily cigarettes), whereas with obesity, to apply the exact approach would be to further stigmatize an already marginalized individual (e.g. an overweight person). Such an approach has, to date, been proven ineffective in the U.S. and, in some cases, harmful to the mental well-being of the overweight and obese.¹⁶

The proposal of the tobacco control movement as a model for obesity is flawed, because it suggests that a more relevant, healthy living movement has not yet begun. Michael Goldstein and Ruth Engs would disagree. In their respective books, *The Health Movement: Promoting Fitness in America* and *Clean Living Movements: American Cycles of Health Reform*, Goldstein and Engs argued that such a movement focused on

¹⁵ Steven A. Schroeder, "We Can Do Better — Improving the Health of the American People," *New England Journal of Medicine* 357, no. 12 (2007): 1224. Using the tobacco control movement’s successful strategy of increased taxation on tobacco products as a model, some in public health have begun to target food manufacturers and retailers with proposed taxes on sugar-sweetened beverages and limits on the size of fountain drinks. Yet, widespread public demand for these measures does not currently exist, nor is there sufficient evidence that these efforts will have an effect on consumption and obesity rates. See: Jay E. Maddock, "Soda Taxes, Obesity, and the Perils of Complexity," *American Journal of Health Promotion* 25, no. 2 (2010): 91.

¹⁶ Larry Cohen, Daniel P. Perales, and Catherine Steadman, "The O Word: Why the Focus on Obesity is Harmful to Community Health," *Californian Journal of Health Promotion* 3, no. 3 (2005): 154-58.

healthy (i.e. “clean”) living is underway in this country and has been active for some time.¹⁷ Goldstein suggested that this healthy living movement, which exists as “submovements” focused on healthful eating, exercise, and tobacco control, began with the increased “medicalization” of perceived social issues in the 1950s, including mental illness and behavior-related, chronic disease.¹⁸ Building on Goldstein’s work, Engs proposed, instead, that a series of what she described as “clean living movements” have taken place in “cyclic” form in America throughout the nineteenth and twentieth centuries.¹⁹ Engs argued that these cycles of health reform movements shared common traits, including close ties to larger, social reform movements led by religious awakenings, but she suggested that while they shared similar traits, each was distinct from the preceding movement.²⁰

The passage that began this chapter is that of Engs. Like her, Goldstein also identified Dr. Kenneth Cooper’s development of aerobics as a key period in what he titled America’s “health movement.”²¹ Goldstein and Engs, along with other scholars, including Lance Dalleck, Len Kravitz, Shelly McKenzie, and Marc Stern, have pointed to Cooper’s creation of aerobics as the pivotal development that sparked an American

¹⁷ Michael S. Goldstein, *The Health Movement: Promoting Fitness in America*, ed. Irwin T. Sanders, Social Movements Past and Present (New York: Twayne Publishers, 1992); and Engs, *Clean Living Movements*.

¹⁸ Goldstein, *The Health Movement*, 2-5.

¹⁹ About the choice of the term “clean living movements,” Engs wrote, “Health-reform movements have attempted to clean up society; hence the name Clean Living Movement. Lucy Gaston, the progressive era antitobacco reformer, had children sign ‘clean life’ pledges to which they agreed to abstain from tobacco... Bernarr Macfadden of this same period was sometimes called a crusader for clean living...” See: Engs, *Clean Living Movements*, 2-3, 16.

²⁰ *Ibid.*, 2-3.

²¹ Goldstein, *The Health Movement*, 83.

“fitness movement” in the 1970s.²² While these scholars agree that Cooper’s development of aerobics represented a turning point in American’s modern concerns about healthy living, little scholarship has documented the history of aerobics or its impact on and lessons for the current manifestations of America’s healthy living movement. In looking for a relevant social movement model to address the societal issue of obesity, as modern researchers suggest, the history of aerobics deserves more study to understand how it developed, what it contributed, and why its gains ultimately failed to prevent the sharp increase in the prevalence of overweight and obesity in America in the subsequent decades. The purpose of this chapter is to tell that history so that others can hopefully apply those lessons.

By constructing the history of the aerobics “boom” in the 1970s and its “father,” Dr. Kenneth Cooper, this chapter 1) supports the work of Goldstein and Engs, who argued that a modern healthy living movement is underway in America; 2) explains that the development of the aerobics “boom” in the 1970s represented not a separate movement, but, rather, a turning point for America’s current healthy living movement; 3) summarizes the influence of aerobics on exercise trends and medicine in the 1970s; and, 4) proposes a series of lessons that the history of aerobics provides to the modern “cycle” of America’s healthy living movement. While scholars, including Muriel Gillick, Barry Glassner, Benjamin Rader, Darcy Plymire, and Shelly McKenzie, have written about the topic of aerobic fitness in the 1970s from a historical perspective, none of these studies

²² Lance C. Dalleck and Len Kravitz, "The History of Fitness," *IDEA Health & Fitness Source* (2002): 9; Shelly McKenzie, "Fitness Movement," in *The Seventies in America*, ed. John C. Super (West Virginia: Salem Press, 2005), 1-4; and Marc Stern, "The Fitness Movement and the Fitness Center Industry, 1960-2000," *Business and Economic History On-Line* 6(2008): 10.

has situated aerobics within the current healthy living movement as this chapter attempts to do.²³

SOCIAL MOVEMENTS AND HEALTH

The interdisciplinary field of social movement studies has provided much of what we know about social movements. This field, which is comprised of scholarship from the social sciences, including sociology and political science, is relatively new. In their 2011 book, *Social Movements: The Key Concepts*, Graeme Chesters and Ian Welsh traced the roots of the field of social movement studies back to the 1960s, when, as they explained, “the emergence of increasingly visible and for many, surprising, forms of collective action, especially in Europe and the USA” began to appear.²⁴ Because of the sheer number, size, and wide-sweeping effects of these forms of collective action within a compressed period of time, Chesters and Welsh argued, social movements started to become “recognized as empirical objects of study worthy of scientific research.”²⁵

While the field of social movement studies is still maturing, according to scholars Donatella Della Porta and Mario Diani, it now includes “specialized journals, book series, and professional associations,” and the scholarship that it has produced in

²³ See: Muriel R. Gillick, "Health Promotion, Jogging, and the Pursuit of the Moral Life," *Journal of Health Politics, Policy and Law* 9, no. 3 (1984): 369-87; Barry Glassner, "Fitness and the Postmodern Self," *Journal of Health and Social Behavior* 30, no. 2 (1989): 180-91; Benjamin G. Rader, "The Quest for Self-Sufficiency and the New Strenuousness: Reflections on the Strenuous Life of the 1970s and 1980s," *Journal of Sport History* 18, no. 2 (1991): 255-66; Darcy C. Plymire, "A Moral Exercise: Long-Distance Running in the 1970s" (Dissertation, University of Iowa, 1997); "Running, Heart Disease, and the Ironic Death of Jim Fixx," *Research Quarterly for Exercise and Sport* 73, no. 1 (2002): 38-46; and Shelly McKenzie, *Getting Physical: The Rise of Fitness Culture in America* (Lawrence: University Press of Kansas, 2013).

²⁴ Graeme Chesters and Ian Welsh, *Social Movements: The Key Concepts* (London: Routledge, 2011), 2.

²⁵ Ibid.

short time is expansive.²⁶ A variety of U.S. and European schools and researchers of competing social movement theories and traditions now exist. Their work primarily seeks to address the following topics: 1) what phenomena constitute social movements; 2) what components are shared amongst and unique to social movements; 3) why and how do movements emerge and what is their lifecycle; 4) how is their purpose developed and communicated; 5) how are their actors, activities, and resources organized and mobilized; 6) how and why do movements succeed or fail; and 7) in what ways have social movements (their objectives, participants, and strategies) remained the same or changed over time.²⁷

²⁶ Donatella Della Porta and Mario Diani, *Social Movements: An Introduction* (Malden: Blackwell Publishing, 2006), 1.

²⁷ This list of topics is in no way exhaustive. Rather, it is the author's contention that this list represents the leading questions of inquiry that the majority of the social movement studies scholarship seeks to address. Also, the sources which follow are merely some of the most widely recognized and frequently cited scholars and scholarship in the field. Jeff Goodwin and James M. Jasper, eds., *The Social Movements Reader: Cases and Concepts* (Malden: Blackwell Publishing, 2003); David A. Snow and Sarah A. Soule, eds., *A Primer on Social Movements*, Contemporary Societies Series (New York: W. W. Norton and Company, 2010); Frederick D. Miller, "The End of Sds and the Emergence of Weatherman: Demise through Success," in *Waves of Protest: Social Movements since the Sixties*, ed. J. Freeman and V. Johnson (Lanham: Rowman & Littlefield Publishers, 1999), 303-24; Bill Moyer, *The Practical Strategist: Movement Action Plan (Map), Strategic Theories for Evaluating, Planning and Conducting Social Movements*. (San Francisco: Social Movement Empowerment Project, 1990); Hank Johnston and John A. Noakes, eds., *Frames of Protest: Social Movements and the Framing Perspective* (Lanham: Rowman and Littlefield Publishers, 2005); Kevin Gillan, "Understanding Meaning in Movements: A Hermeneutic Approach to Frames and Ideologies," *Social Movement Studies* 7, no. 3 (2008): 247-63; Doug McAdam and Ronnelle Paulsen, "Specifying the Relationship between Social Ties and Activism," *American Journal of Sociology* 99, no. 3 (1993): 640-67; Carol Chetkovich and Frances Kunreuther, *From the Ground Up: Grassroots Organizations Making Social Change* (Ithaca: ILR Press, 2006); Lee Ann Banaszak, *Why Movements Succeed or Fail: Opportunity, Culture, and the Struggle for Woman Suffrage* (Princeton: Princeton University Press, 1996); Marco G. Giugni, "Was It Worth the Effort? The Outcomes and Consequences of Social Movements," *Annual Review of Sociology* 24(1998): 371-93; Marco G. Giugni, Doug McAdam, and Charles Tilly, eds., *How Social Movements Matter*, vol. 10, Social Movements, Protest, and Contention (Minneapolis: University of Minnesota Press, 1999); and Enrique Larana, Hank Johnston, and Joseph R. Gusfield, *New Social Movements: From Ideology to Identity* (Philadelphia: Temple University Press, 1994); and Nelson A. Pichardo, "New Social Movements: A Critical Review," *Annual Review of Sociology* 23, no. 1 (1997): 411-30.

Because the purpose of this chapter is limited to the history of aerobics and its contributions to the larger healthy living movement in America, much of this scholarship is far beyond the scope and purpose of this chapter. However, the social movement studies literature focused on the study of health-related social movements is of obvious relevance to this chapter's purpose. Unfortunately, little such scholarship exists.²⁸

In addition to Engs and Goldstein, Phil Brown is a leading scholar on the intersection of social movements and health. In his 2004 article, Brown created a new term, "Health Social Movements" (HSM), to define and develop a subfield within social movement studies that is focused exclusively on the study of health-related movements. He defined HSMs as "collective challenges to medical policy and politics, belief systems, research and practice that include an array of formal and informal (organizations), supporters, networks of co-operation, and media."²⁹ In a later work, Brown and Stephen Zavestoski wrote that HSMs "address (a) access to, or provision of, health-care services; (b) disease, illness experience, disability, and contested illness; and (c) health inequality and inequality based on race, ethnicity, gender, class, and/or sexuality."³⁰

²⁸ Phil Brown et al., "Embodied Health Movements: New Approaches to Social Movements in Health," *Sociology of Health & Illness* 26, no. 1 (2004): 52. The author recognizes Kristine Beyerman Alster's 1989 work, *The Holistic Health Movement*, as contributing to the historical scholarship on health reform efforts in the U.S. It is the author's opinion that, while important, Alster's book does not warrant inclusion in the body of social movement studies scholarship concerned with healthy living, because unlike Goldstein, Engs, and Brown, Alster does not draw upon social movement theory at any point to justify her use of the term, "movement," in the title of her book. Rather, she concedes that a prior author's point about referring to holistic health as a "movement" is "problematic." See: Kristine Beyerman Alster, *The Holistic Health Movement* (Tuscaloosa: The University of Alabama Press, 1989), 46-47.

²⁹ Brown et al., "Embodied Health Movements," 50.

³⁰ Phil Brown and Stephen Zavestoski, eds., *Social Movements in Health* (Malden: Blackwell Publishing, 2005), 1.

The choice of definition is obviously critical to one's understanding of what counts as a social movement, and Brown's above definition of HSMs is especially illustrative of this point. For example, Brown cited Della Porta and Diani's definition of social movements as the basis for his definition of HSMs. Della Porta and Diani defined social movements as "informal networks based on shared beliefs and solidarity which mobilize around conflictual issues and deploy frequent and varying forms of protest."³¹ Because Della Porta and Diani's definition prioritized "conflict" and "protest" as core elements of a social movement, Brown's definition also emphasized those elements. As a result, the literature within the subfield of HSMs has, to date, not included scholarship on healthy lifestyle-related movements but has, instead, largely focused on disease-related, healthcare equity, and patients' rights movements.³²

In their respective scholarship, Goldstein and Engs both used Ralph Turner and Lewis Killian's social movement definition to guide their work.³³ In the 1987 printing of their seminal book on the study of social movements, *Collective Behavior*, Turner and Killian defined a social movement as "a collectivity acting with some continuity to promote or resist a change in the society or a group of which it is part."³⁴ In contrast to the conflict- and protest-oriented movements around which Brown's Health Social Movements framework is structured, Goldstein argued that the healthy living movement about which he wrote was not comprised of individuals who have been "stigmatized" or

³¹ Della Porta and Diani, *Social Movements*, 20.

³² For the best illustration of this point, see: Brown and Zavestoski, eds., *Social Movements in Health*.

³³ See: Goldstein, *The Health Movement*, ix; and Engs, *Clean Living Movements*, 5.

³⁴ Ralph H. Turner and Lewis M. Killian, *Collective Behavior*, 3rd ed. (Englewood Cliffs: Prentice-Hall, 1987), 223.

“fought bitter and sometimes violent battles for recognition.”³⁵ Rather, as Goldstein explained, the “adherents, advocates, and leadership” of his interpretation of the movement have been representatives from the more privileged “middle and professional classes.”³⁶

In defining his concept of America’s “health movement,” Goldstein acknowledged that the term, “health,” is an especially broad one and opens up the possibility of any number of health-related issues, from the “health of the elderly” to “nutrition,” to be considered part of the movement.³⁷ He attempted to reconcile this issue by arguing that the “unifying force in any social movement is a shared grievance.”³⁸ For Goldstein, the “shared grievance” that determined what health-related issues did and did not fit into his definition of the health movement was the collective “dissatisfaction with the health of Americans.”³⁹ He went on to write, “(The health promotion movement’s) message is that the illnesses and diseases from which our nation suffers are not to be understood as part of the natural order of life. Rather, they should be redefined as injustices or inequities that have their origin in both our personal and social lives.”⁴⁰ Using the above definitions, Goldstein structured his analysis of the “health movement”

³⁵ Goldstein, *The Health Movement*, xii.

³⁶ *Ibid.*

³⁷ *Ibid.*, 5, x. Throughout his book, Goldstein uses “health movement” and “health promotion movement” interchangeably.

³⁸ *Ibid.*, x.

³⁹ *Ibid.*

⁴⁰ *Ibid.*, x-xi.

around what he considered to be the movement's three, major "submovements"—"proper eating habits," "physical exercise," and "the elimination of smoking."⁴¹

Engs, however, took a much more elongated, cyclical view than Goldstein in identifying the individuals and efforts that comprised her "clean living movements." Engs argued that there have been three, major "clean living movements" since the founding of the U.S., each tied to and/or the result of major religious revivals, or "Great Awakenings," in America. Accordingly, she explained that each of these three movements, like the Great Awakenings that influenced them, occurred in "cycles," with thirty- to forty-year "reforming phases" between each cycle. Engs identified the first "clean living movement" as taking place during the Jacksonian Era from 1830-1860; the second she positioned as occurring during the Progressive Era from 1890-1920; and the third (current) Millennial Era she posited began in 1970 with an end date to be determined.⁴²

In order to build on the scholarship of Goldstein and Engs, the author will also employ Turner and Killian's aforementioned definition of social movements to underpin the chapter's reference to America's "healthy living movement." While social movements are defined in a variety of ways throughout the social movement studies scholarship, Turner and Killian's definition, with its focus on collective, sustained action towards the advancement of (or resistance to) social change, serves as a useful, unifying model for the analysis of aerobics within a historical healthy living movement in

⁴¹ Ibid., 5.

⁴² Engs, *Clean Living Movements*, 2-3. Engs actually listed the year 2005 as a potential end date for her third "clean living movement," but she suggested that was merely a guess based on the length of the prior two movements.

America.⁴³ Because this chapter is in response to a growing call in the field of public health for a social movement to address the issue of obesity, the *healthy living* portion of the author's "healthy living movement" term will refer, in a more limited way than Goldstein and Eng's definitions, to those intentional collective efforts to improve the health of the population through healthful eating and regular physical activity.⁴⁴ Finally, the author agrees with Eng's assertion that what the author refers to as the healthy living movement is, in reality, a "cycle" of related health reform efforts that she posited began in the 1970s in America. However, the author will argue that the modern "cycle" of the healthy living movement, which aerobics helped to spawn, has the potential to be much more impactful and widely supported than any prior cycle.

THE FOREBEARS OF AEROBICS

By the time Kenneth Cooper published *Aerobics* in 1968, reform efforts to improve the health of Americans through exercise had been underway for more than 150 years. In her 1998 book *Physical Culture and the Body Beautiful: Purposive Exercise in the Lives of American Women*, historian Jan Todd explained that Americans in the

⁴³ In "The Questions of Relevance in Social Movement Studies," Richard Flacks discussed the diversity of definitions of social movements within the social movement studies scholarship and the challenges that this complexity of definitions and related theories creates for the field. In seeking to create a unified definition, he wrote, "I think there is agreement in the field on the following definition of social movements: they are collective efforts, of some duration and organization, using noninstitutionalized methods to bring about social change." See: Richard Flacks, "The Question of Relevance in Social Movement Studies," in *Rhyming Hope and History: Activists, Academics, and Social Movement Scholarship*, ed. David Croteau, William Hoynes, and Charlotte Ryan (Minneapolis: University of Minnesota Press, 2005), 5. The author believes that because Turner and Killian's above definition of social movements captures the key elements of Flack's definition and is, thus, consistent with the larger body of social movement studies scholarship.

⁴⁴ While the precise etiology of obesity is not known, most researchers agree that the dramatic increase in the incidence of obesity in America since the 1970s is largely due to a net increase in total calories consumed by individuals versus those expended. See: S. N. Blair and T. S. Church, "The Fitness, Obesity, and Health Equation: Is Physical Activity the Common Denominator?," *JAMA: The Journal of the American Medical Association* 292, no. 10 (2004): 1232.

nineteenth century were regularly reminded by health reformers that “the truly moral person was vigorous, fit, and free of disease.”⁴⁵ Among other health reformers of the nineteenth century, Todd chronicled the pioneering work of Catharine Beecher, who, along with Mary Lyon, popularized the practice of good health and calisthenics for women.⁴⁶ Beecher published several widely read books in the middle years of the nineteenth century that promoted general health and regular exercise for women. According to Todd, Beecher was able to successfully advance her ideas because she shrewdly couched them “within the socially acceptable framework of domesticity.”⁴⁷

In the same period as Beecher, Dioclesian Lewis was also spreading the message of good health in America. A charismatic leader of the temperance movement in the mid- to late-nineteenth century, Lewis also authored books on exercise and nutrition.⁴⁸ But, it was Lewis’ development of “New Gymnastics” in the early 1860s that gained him his largest following.⁴⁹ Lewis felt that the “old gymnastics” of the “Turners” was exclusionary of women, children, elderly, and the heavy set.⁵⁰ He also found the

⁴⁵ Jan Todd, *Physical Culture and the Body Beautiful: Purposive Exercise in the Lives of American Women 1800-1875* (Macon, Georgia: Mercer University Press, 1998), 7.

⁴⁶ *Ibid.*, 157-62. The contributions to the advancement of good health among women in the nineteenth century were many and, according to Todd, included “the first true promotional campaign in the United States for any exercise system” (*ibid.*, 58).

⁴⁷ *Ibid.*, 157.

⁴⁸ Lewis authored a total of eight books, including *The New Gymnastics for Men, Women, and Children* and *Weak Lungs, and How to Make Them Strong*. James C. Whorton, *Crusaders for Fitness: The History of American Health Reformers* (Princeton, New Jersey: Princeton University Press, 1982), 275. See: Dio Lewis, *The New Gymnastics for Men, Women and Children* (Boston: Ticknor & Fields, 1862); and *Weak Lungs, and How to Make Them Strong, or Diseases of the Organs of the Chest: With Their Home Treatment by the Movement Cure* (Boston: Ticknor & Fields, 1863).

⁴⁹ Whorton, *Crusaders for Fitness*, 275.

⁵⁰ *Ibid.*, 276. The “Turnen” system became the dominant form of gymnastics in the first half of the nineteenth century, as German practitioners of the system, known as “Turners,” emigrated to the U.S. in large waves throughout this period (*ibid.*, 272).

gymnastics of the Turners to be too focused on larger muscles and limited movements and, thus, disconnected from the advancement of general health and longevity.⁵¹ Lewis' system, which was designed to advance "mental and moral improvement" through "whole body flexibility, coordination, agility, and grace of movement," was heralded as a "democratized" form of gymnastics and became the basis for physical education programs in most schools across the country in the decades after the end of the Civil War.⁵²

Towards the end of the nineteenth century, Dudley Allen Sargent was beginning his groundbreaking work in physical education. Referred to as the "Newton of his field" by historian James Whorton, Sargent's seminal work at Harvard University helped to establish physical education as a profession and linked exercise to health.⁵³ For Sargent, fitness and health were determined by the body's measurements. He helped advance a new scientific discipline called physical anthropometry and developed a series of tests and measurements that allowed him to determine an individual's fitness based on his physical proportions. Sargent also created a number of exercise machines and recommended resistance training to allow individuals to work on making their bodies approach the desired measurements.⁵⁴ Historian Harvey Green argued that Sargent's success in advancing the field of physical education was due to his "ability to define clearly what physical education was and why it was necessary," and also because, Green

⁵¹ Ibid.

⁵² Ibid., 277-78.

⁵³ Ibid., 283.

⁵⁴ Ibid.

explained, Sargent looked not at elite athletes but rather at the entire student body.⁵⁵ Sargent's inclusive and progressive approach influenced the career paths of key health professionals and enthusiasts, including President Theodore Roosevelt, who studied under Sargent and were inspired by him.⁵⁶

In the early twentieth century, President Theodore Roosevelt proved to be a powerful advocate for physical activity.⁵⁷ Roosevelt advanced the notion that the “strenuous life,” including participation in sports and outdoor activities (such as hiking and hunting), best prepared Americans “for the struggle between the nations and the races of the world.”⁵⁸ While Roosevelt sporadically addressed these issues from the bully pulpit of his political career, Bernarr Macfadden provided the public with regular and hyperbolic exhortations to embrace “clean living” ideologies in *Physical Culture* magazine, which he began in 1899.⁵⁹ Eccentric and often regarded as a crank by the medical community, Macfadden nonetheless was able to inundate early twentieth century America with the concept of healthy living through his highly successful magazine and numerous books on exercise, nutrition, and health enhancement—which he defined as physical culture.⁶⁰

Macfadden also experimented with myriad other entrepreneurial ventures aimed at promoting health, including vegetarian “penny restaurants,” “healthatoriums,” and

⁵⁵ Harvey Green, *Fit for America: Health, Fitness, Sport and American Society* (Baltimore, Maryland: The Johns Hopkins University Press, 1986), 202-03.

⁵⁶ Whorton, *Crusaders for Fitness*, 283.

⁵⁷ Green, *Fit for America*, 213.

⁵⁸ *Ibid.*, 235-37.

⁵⁹ *Ibid.*, 245.

⁶⁰ *Ibid.*, 242-53.

even a Utopian-esque experiment in a healthy living community in New Jersey.⁶¹ Macfadden, who grew *Physical Culture*'s readership from 100,000 subscribers in 1900 to 340,000 by the Depression era, was a shrewd marketer of health and exercise to an increasingly interested public.⁶² Serving as the model for many modern health and fitness magazines, the covers of *Physical Culture* often featured scantily-clad women and muscular men and featured stories and products that promised to make its readers stronger, more beautiful, and sexually potent.⁶³

After the First World War, Roosevelt's concerns about the "strenuousness" of the (primarily) American male were renewed when it was revealed that a large percentage of men conscripted during the War were not physically fit to serve.⁶⁴ One of the outcomes of this realization was the establishment of the National Physical Education Service and the creation of state laws that mandated physical education in public schools.⁶⁵ According to historian Roberta Park, thirty-eight states had enacted such laws by 1938 and twenty-three states had also appointed directors of physical education.⁶⁶ A similar, national alarm was raised during and after the Second World War when, again, many of those drafted were found to not measure up. In a 1978 article, Stanley Reiser reported

⁶¹ Ibid., 245-47.

⁶² Jan Todd, "Bernarr Macfadden: Reformer of Feminine Form," *Journal of Sport History* 14, no. 1 (1987): 71; and William H. Taft, "Bernarr Macfadden: One of a Kind," *Journalism & Mass Communication Quarterly* 45, no. 4 (1968): 629.

⁶³ Green, *Fit for America*, 250-51.

⁶⁴ Roberta J Park, "Setting the Scene: Bridging the Gap between Knowledge and Practice: When Americans Really Built Programmes to Foster Healthy Lifestyles, 1918-1940," *The International Journal of the History of Sports* 25, no. 11 (2008): 1430. The term "strenuousness" is a reference to Benjamin Rader's 1991 article, "The Quest for Self-Sufficiency and the New Strenuousness," see: Rader, "The Quest for Self-Sufficiency."

⁶⁵ Park, "Setting the Scene," 1430.

⁶⁶ Ibid.

that nearly one-third of the twenty million men evaluated between 1940 and 1946 were judged to be “mentally, physically, or educationally unfit for service.”⁶⁷

America’s children were not fairing any better. A study conducted by Ruth Hirschland (who would later change her name to Bonnie Prudden) and Dr. Hans Kraus in 1953 revealed that American children were much less “fit” than their European counterparts.⁶⁸ These developments reflected a growing concern in 1950s America about the “degeneration of the body rather than control of contagious diseases.”⁶⁹ This concern was magnified by the Soviet Union’s emergence as a competing world power and fears that an increasingly sedentary American society was producing “soft” citizens.⁷⁰ These worries led President Eisenhower to establish the President’s Council on Youth Fitness (PCYF) in 1956 and spurred President Kennedy, in 1963, to rename that organization the President’s Council on Physical Fitness to reflect the expanded focus on fitness for all Americans.⁷¹

This period also featured prominent health and fitness entrepreneurs and promoters, including Vic Tanny and Jack LaLanne. Beginning in 1939, Vic Tanny built the first nationwide gym chain, creating a fitness club empire that pulled in \$15 million

⁶⁷ Stanley Joel Reiser, "The Emergence of the Concept of Screening for Disease," *The Milbank Memorial Fund Quarterly. Health and Society* 56, no. 4 (1978): 408.

⁶⁸ McKenzie, *Getting Physical*, 15.

⁶⁹ Rader, "The Quest for Self-Sufficiency," 258. Rader pointed out that the advancements in public health and medicine in the early twentieth century, which he dubbed the “antibiotic revolution,” led to the shift in focus from viral- and bacterial-borne disease to the chronic diseases most closely related to lifestyle (ibid.)

⁷⁰ Jeffrey Montez De Oca, "'As Our Muscles Get Softer, Our Missile Race Becomes Harder': Cultural Citizenship and the 'Muscle Gap'," *Journal of Historical Sociology* 18, no. 3 (2005). The term “soft” is in reference to then-President-Elect Kennedy’s 1960 article, “The Soft American.” See: Kennedy, "The Soft American," *Sports Illustrated*, 26 December 1960, 17.

⁷¹ McKenzie, *Getting Physical*, 15, 56.

annually by the 1960s and, in so doing, pioneered many of the practices of the modern gym industry, including annual memberships.⁷² Jack LaLanne was also a highly innovative fitness entrepreneur. Like Bonnie Prudden, LaLanne was one of the first to recognize the power of the television set to promote fitness, beginning with a local show in San Francisco in 1953 that was syndicated nationally from 1959 to 1985. According to historian Jonathan Black, LaLanne's television show reached fifty percent of Americans by the early 1960s.⁷³

Unlike the commercial pursuits of Tanny and LaLanne, Thomas Cureton sought to advance the scientific understanding of the relationship between exercise, fitness, and health. Of all the aforementioned health reformers, Cooper's story bears the greatest resemblance to Cureton. Born in 1901, Cureton would earn his Ph.D. in educational research from Columbia University in 1939 after resigning from the U.S. Army in 1934.⁷⁴ Cureton served in leadership positions with a variety of influential organizations during this period, including the Young Men's Christian Association (YMCA) and the American Association of Health, Physical Education, and Recreation (AAHPER). He was also a founding member of the American College of Sports Medicine (ACSM) and an adviser to the President's Council on Physical Fitness and the United States Olympic Committee.⁷⁵

⁷² Jonathan Black, *Making the American Body: The Remarkable Saga of the Men and Women Whose Feats, Feuds, and Passions Shaped Fitness History* (Lincoln: University of Nebraska Press, 2013), 37-38.

⁷³ *Ibid.*, 41-43. LaLanne also had a network of gyms and would continue to sell fitness and nutritional products until his death in 2011.

⁷⁴ Jack W. Berryman, "Thomas K. Cureton, Jr.: Pioneer Researcher, Proselytizer, and Proponent for Physical Fitness," *Research Quarterly for Exercise and Sport* 67, no. 1 (1996): 1-3.

⁷⁵ *Ibid.*, 7-10.

Predating Cooper by more than a decade, Cureton was an early champion for the connection between exercise and health, especially cardiovascular health. In a 1955 *Sports Illustrated* article, Cureton was quoted as saying, “The key to turning back the clock on physical aging is to force open and use (the) blood vessels.”⁷⁶ Cureton’s scientific study of the exercise/health-link as director of the Physical Fitness Research Laboratory at the University of Illinois added much to the scholarship in the fields of exercise physiology, physical education, and kinesiology throughout the 1950s and 1960s.⁷⁷ Cureton also presaged Cooper by prescribing running as a way to achieve better health. In 1961, he created the “Run for Your Life” program, which was adopted by YMCAs across the country and served as a key development in the growth of jogging throughout the 1960s and 1970s.⁷⁸ In honoring Cureton’s many contributions after his passing in 1992, Michael Pollock referred to Cureton as the “Granddaddy of the Fitness Boom”—a clear nod to Cooper’s role as the “Father” of fitness and inheritor of Cureton’s legacy.⁷⁹

THE DEVELOPMENT OF AEROBICS

Cooper was not always worthy of that title or legacy, however. Like many of the health reformers before him, Cooper “had to reform (himself) first.”⁸⁰ In an interview

⁷⁶ William H. White, "Exercise to Keep Fit," *Sports Illustrated*, 17 January 1955, 1.

⁷⁷ Berryman, "Thomas K. Cureton, Jr.," 5-7.

⁷⁸ McKenzie, *Getting Physical*, 114.

⁷⁹ Michael L. Pollock, "In Memoriam: The Passing of a Pioneer-Thomas K. Cureton, Jr., Ph.D., 1901-1992," *Southeastern Region Newsletter* 1993, 5.

⁸⁰ Whorton, *Crusaders for Fitness*, 8. Whorton argued that most health reformers throughout American history have shared a similar beginning. He wrote, “They have a standard biography, from which few have deviated. Due to a weak constitution and/or bad habits, the individual’s early years are a steady descent

with the author, Cooper explained that by age twenty-nine, he was forty pounds overweight and inactive—the result of a grueling schedule as a recently married medical doctor in the Air Force. While water-skiing one afternoon, Cooper developed an arrhythmia and feared he was having a heart attack.⁸¹ Rushed to the hospital, Cooper was told by the attending physician that the “only thing (that was wrong with him was) that (he was) out of shape.”⁸²

Determined to find a solution for his declining health, Cooper’s heart attack scare led him back to the activity at which he had excelled as an adolescent and young man—running. Born in Oklahoma City, Oklahoma, in 1931, Cooper was a stellar scholar-athlete in high school. During his senior year, he made all-state in basketball and won the Oklahoma state championship in the mile run. Cooper was awarded a track scholarship to the University of Oklahoma in 1949, where he then earned both his undergraduate and medical degrees.⁸³

In the early 1960s, as Cooper was renewing his relationship with running, “jogging” had yet to become a widely-practiced activity in America. Cooper was one of the early adopters of a fitness trend that he would help popularize. In a 2013 article, Alan Latham traced the origins of jogging in the U.S. back to the publication of a small pamphlet, entitled “The Joggers Manual,” that was authored by Bill Bowerman, the

through levels of vitality, until semi-invalidism is approached. A shock of realization of poor health at last fires a renunciation of self-indulgence and a search for hygienic truth” (ibid., 9).

⁸¹ Kenneth Cooper, Interview with the author, 16 December 2013.

⁸² Ibid.

⁸³ Ibid.

University of Oregon track coach, in 1963.⁸⁴ Funded by the Oregon Heart Foundation and The U.S. National Bank of Portland, fifty thousand copies of “The Joggers Manual” were distributed by banks throughout Oregon.⁸⁵ In the pamphlet, Bowerman described jogging as “a bit more than a walk” and encouraged its readers to “(jog) until you are puffing, then walk until your breathing is normal again.”⁸⁶ Jogging became much more mainstream in America in 1967 with Bowerman’s *Jogging: A Physical Fitness Program for All Ages*, which he co-authored with cardiologist, Dr. Waldo Harris.⁸⁷ According to historian Shelly McKenzie, Bowerman’s book took off—selling more than a million copies in a short period of time and sparking a growing interest in jogging.⁸⁸

After jogging regularly for a year, and losing his forty extra pounds in the process, Cooper decided to participate in the 1962 Boston Marathon.⁸⁹ Of the 150 registered runners that year, Cooper was the last runner to cross the finish line before the official timing of the event ceased, with a total time of three hours fifty-four minutes. In fact, he was only allowed to receive an official finish time, because his wife, Mildred, convinced the judges to extend the official closing time past the three hour thirty minute mark.⁹⁰

⁸⁴ Alan Latham, "The History of a Habit: Jogging as a Palliative to Sedentariness in 1960s America," *Cultural Geographies* 0, no. 0 (2013): 1, 8.

⁸⁵ *Ibid.*, 1, 20.

⁸⁶ *Ibid.*, 1.

⁸⁷ William J. Bowerman and W. E. Harris, *Jogging* (New York: Grosset & Dunlap, 1967).

⁸⁸ McKenzie, *Getting Physical*, 113. The history of jogging and aerobics impact on its growth in the 1970s is covered more extensively in the “Influence of Aerobics” section which follows.

⁸⁹ Cooper and his wife, Mildred, were living in Boston at the time, because he had recently received his Master’s degree in Public Health from Harvard University and had begun coursework on a Ph.D. in physiology, which he did not complete. By this point, he had transferred from the Army to the Air Force, which allowed him to pursue this additional training in preparation for his eventual work with the NASA program. See: Cooper interview, 16 December 2013.

⁹⁰ *Ibid.*

Despite his prowess as a former track star, Cooper was not dismayed by his time. To the contrary, in jogging, he found both cure and calling. Invigorated by his transformation through jogging, Cooper returned to complete his medical residency at Brooks Air Force Base in San Antonio, Texas, where he would soon have another life-altering experience.⁹¹

In 1964, while speaking with Jeff Davis, a fellow medical resident at Brooks, Davis suggested to Cooper that physicians “should be able to measure the benefits of exercise like (they) can measure the benefits of antibiotics.” Davis wondered why the medical community did not know what “dose of exercise” to “prescribe to people.”⁹² In Davis’ offhand remark, Cooper saw his life’s work. Cooper described the moment as though a “switch flipped in (his) head.”⁹³

Davis was not the first to be frustrated by the lack of scientific understanding about the relationship between physical activity and health. Less than a decade earlier, the President’s Council on Youth Fitness (PCYF) struggled with the same issue. In her book *Getting Physical: The Rise of Fitness Culture in America*, Shelly McKenzie explained that the PCYF wrestled with how best to define, measure, and make recommendations on appropriate levels of fitness throughout its tenure, as no validated standard for fitness in youth or adults existed at the time.⁹⁴

⁹¹ Ibid.

⁹² Amy George, "Aerobics: 40 Years of Changing Lives," *Cooper Health*, Fall 2008, 5.

⁹³ Cooper interview, 16 December 2013.

⁹⁴ McKenzie, *Getting Physical*, 27.

McKenzie blamed this lack of understanding on the fact that “(scientific research) into the effects of physical activity on health was in its infancy” during this period.⁹⁵ In 1953, J. N. Morris published an article that found that sedentary bus drivers in England had higher incidences of heart disease and related mortality than more active workers.⁹⁶ William Pomeroy and Paul Dudley White, in a 1958 study, tested former football players for coronary heart disease. They found that the former players who continued to regularly exercise did not develop heart disease like their less active peers.⁹⁷ Lester Breslow and Philip Buell supported these prior studies’ findings with their 1960 study in which they concluded that sedentary behavior in adults was correlated with an increased risk of cardiovascular disease and death from the disease.⁹⁸ Henry Taylor updated the work of Morris in 1962 by conducting a similar analysis on the link between activity and mortality in railroad workers in the U.S. Like Morris and Breslow and Buell, they found an increased risk of coronary heart disease and related mortality among the sedentary workers.⁹⁹

Despite these advances and growing concerns about an epidemic of heart disease, which President Eisenhower’s heart attack in 1955 helped to spark, a more complete understanding of the connection between physical activity, fitness, and health (especially

⁹⁵ Ibid.

⁹⁶ J. N. Morris et al., "Coronary Heart-Disease and Physical Activity of Work," *The Lancet* 262, no. 6795 (1953): 1053-57.

⁹⁷ William C. Pomeroy and Paul D. White, "Coronary Heart Disease in Former Football Players," *Journal of the American Medical Association* 167, no. 6 (1958): 711-14.

⁹⁸ Lester Breslow and Philip Buell, "Mortality from Coronary Heart Disease and Physical Activity of Work in California," *Journal of Chronic Diseases* 11, no. 3-4 (1960): 421-44.

⁹⁹ Henry Longstreet Taylor et al., "Death Rates among Physically Active and Sedentary Employees of the Railroad Industry," *American Journal of Public Health* 52, no. 10 (1962): 1697-707.

heart health) remained elusive through the mid-1960s.¹⁰⁰ Latham partially attributed this lack of knowledge about the link between exercise and health to the “intense focus physiologists and others had paid to the development of the bodies of children and young adults” through the first half of the twentieth century.¹⁰¹ He also blamed the medical profession for perpetuating a long-standing belief that exercise, especially for a person of middle age or older, would “wear (a) body out” or “bring it to collapse.”¹⁰² In an interview with the author, Cooper confirmed Latham’s claims. Cooper explained that in medical school he and his peers “were taught that you have a certain number of heartbeats...(so) if you exercise, you’ll shorten your life.”¹⁰³

Determined to create a scientifically validated definition of fitness and its proper “prescription” for good health, Cooper would spend the next two years in close collaboration with Bill Thorn at the Aerospace Medical Laboratory where they were tasked with developing conditioning programs for NASA’s astronauts.¹⁰⁴ Because astronauts’ musculature and fitness quickly deteriorate in space due to weightlessness, Cooper and Thorn knew that they had to determine which exercises and what amount of each exercise was most effective at rapidly building the fitness of astronauts prior to their launch and while in space.¹⁰⁵ After measuring oxygen consumption during bouts of various forms of exercise to maximal exertion, Cooper and Thorn were able to develop both a baseline test for what Cooper would later term an individual’s “aerobic fitness,” as

¹⁰⁰ McKenzie, *Getting Physical*, 84.

¹⁰¹ Latham, "The History of a Habit," 9.

¹⁰² *Ibid.*

¹⁰³ Cooper interview, 16 December 2013.

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid.*

well as a points system that allowed him to compare the aerobic “value” of different exercises conducted at a variety of levels of intensity over a standard period of time.¹⁰⁶

In 1966, journalist Kevin Brown visited Cooper in San Antonio for a story called “How to Exercise the Astronaut Way” in *Family Weekly* magazine. During their time together, Brown convinced Cooper that the program he had developed for astronauts could be packaged for the general public and suggested that they collaborate on a book. Over the next two years, Brown and Cooper worked on the book that would become *Aerobics*.¹⁰⁷

While meeting with their publisher in New York prior to the publication of the book, Cooper was asked why he had titled the first chapter, “Aerobics.” He explained that he had added an “s” to the adjective, “aerobic,” in order to turn the word that literally meant “living on air” into a noun that would best describe his program. His publisher liked the word and recommended that the book be called “aerobics.” Cooper resisted because he feared people would have trouble pronouncing and spelling it. He worried that, “No one will remember it.”¹⁰⁸

Fortunately for Cooper, the publisher ignored his concerns, and in 1968, Bantam Books and M. Evans and Company simultaneously released paperback and hardback versions of *Aerobics*.¹⁰⁹ With Brown’s input, Cooper was able to convert reams of

¹⁰⁶ Ibid.

¹⁰⁷ George, “Aerobics: 40 Years of Changing Lives,” 6.

¹⁰⁸ Black, *Making the American Body*, 73.

¹⁰⁹ George, “Aerobics: 40 Years of Changing Lives,” 6. Cooper learned from his early misjudgment about the public’s reception of “aerobics.” In 1986, the Oxford English Dictionary recognized both the word and Cooper’s definition: “Physical exercise, typically of relatively low intensity and long duration, that

scientific data that he and Thorn had collected on military personnel into a highly structured yet approachable exercise program that, for the first time, truly allowed the average individual to assess, track, and improve her or his aerobic fitness. On the introductory page, the book was billed as, “The only scientifically developed program of exercise—aimed at the overall fitness and health of your body—that lets you measure your progress toward maximal health.”¹¹⁰

Cooper’s *Aerobics* program was nearly identical to the fitness protocol and conditioning regimen that he had developed with Thorn at the Aerospace Medical Laboratory, with one exception. Cooper discovered that the distance an individual could run at a maximal pace within twelve minutes provided a statistically significant correlation with the much more technically advanced, oxygen consumption treadmill tests he used to develop his system. Cooper dubbed this the “twelve-minute field test.”¹¹¹ He also created related fitness categories that corresponded with the twelve-minute test, so that individuals, using the test, could determine their level of “physical fitness.” For example, individuals who covered less than one mile in the twelve-minute period, were placed in the “very poor” physical fitness category (the lowest category—“Category I”),

increases the body's oxygen consumption in a sustainable manner and is aimed at improving cardiovascular fitness.” See: *Ibid.*, 7.

¹¹⁰ Kenneth H. Cooper, *Aerobics* (New York: Bantam Books, 1968), i. While based on a scientific study led by Harris, Bowerman and Harris’ *Jogging: A Physical Fitness Program for All* did not incorporate the number of subjects over an extended period of time with the degree of scientific rigor that Cooper and Thorn’s tests did. Latham, “The History of a Habit.” Sargent’s advancement of physical anthropometry also represented a scientific measure of fitness for his time, but Sargent’s innovations were less popular than Cooper and did not allow the average individual to easily measure and track their own fitness in the same way that *Aerobics* did. Whorton, *Crusaders for Fitness*, 283.

¹¹¹ Cooper, *Aerobics*, 34.

while those very fit individuals who could run 1.75 miles or more within the twelve minute duration received the second-highest (“Category V”) rating: “excellent.”¹¹²

Cooper explained that there was a level beyond “Category V,” consisting of “supremely conditioned athletes.”¹¹³ Cooper neither gave this group a category nor a recommended regimen, because, as he explained, “the men in this group don’t need any help from me.”¹¹⁴ Cooper also referenced a “Category X” that he labeled “the clinical cases, the cardiac and others with serious ailments” and encouraged people in this category to engage in exercise under the regular supervision of a physician.¹¹⁵

While the twelve-minute test was the means by which an individual assessed his aerobic fitness, Cooper’s “aerobics points” system was the way by which he improved and sustained it. In the Appendix of his book, Cooper included nine pages of aerobic activities, from running, walking, and swimming, to cycling, handball, and golf, and the aerobic points associated with the completion of or participation in that activity within a specified period of time.¹¹⁶ Running a mile in under six and a half minutes earned a

¹¹² Ibid., 36.

¹¹³ Ibid., 41.

¹¹⁴ Ibid. In *Aerobics for Women*, which Cooper published with his wife Mildred Cooper in 1972, he attempted to address the inherent neglect of women on display in the above comment and throughout *Aerobics*. Cooper began *Aerobics for Women* by publishing the letter from Marie Gill, who concluded her letter by writing, “How can we consider ourselves important when we’re relegated to obscurity (in Aerobics)? You have no program for females—just a passing suggestion that we might aim for a 9-minute mile. Phooey!” In response to Gill’s letter, Cooper closed his opening remarks by writing, “Thank you for your patience—and bless all of you who cared enough to complain. See: Mildred Cooper and Kenneth H. Cooper, *Aerobics for Women* (New York: Bantam Books, 1972), 7.

¹¹⁵ Cooper, *Aerobics*, 41.

¹¹⁶ Conspicuously absent from Cooper’s list of activities in *Aerobics* were strength training exercises. Cooper had few nice things to say about these forms of physical activity in the 1960s. He wrote, “Muscular fitness is of some value, but it is too limited. It concentrates on only one system in the body, one of the least important ones, and has limited beneficial effect on the essential organs or overall health. It’s like putting a lovely new coat of paint on an automobile that really needs an engine overhaul.” See: Ibid., 13.

person six points, while playing nine holes of golf (with “no motorized carts!”) would only earn that same person one and a half points.¹¹⁷

Cooper’s “aerobics system” combined both the twelve-minute test and the “aerobics points” tables to create a weekly aerobic fitness program based on the principle of what he described as the “training effect.”¹¹⁸ The foundation of his entire system, Cooper described the training effect as the improved cardiorespiratory capacity to consume, transport, and convert oxygen into energy that an individual gains from regular and repeated bouts of aerobic activity.¹¹⁹ Using his aerobic points tables and physical fitness categories, Cooper included a multi-week, progressive exercise program for individuals in Categories I-III based on an ultimate goal of thirty aerobic points a week, which was the maximum total of weekly aerobic points that Cooper could demonstrate led to an improved training effect.¹²⁰ For example, individuals in Category I were provided a sixteen-week program that had them earning a total of ten aerobic points per week for the first three weeks. By weeks fifteen and sixteen, Category I individuals, according to Cooper’s program, should have advanced to thirty aerobic points per week.¹²¹

¹¹⁷ Ibid., 165, 173.

¹¹⁸ Ibid., 12. Cooper did not include a recommended program for the people in his highest categories, “IV, V, and VI.” Instead, he encouraged them to just “keep it up,” (ibid., 40-41).

¹¹⁹ Ibid.

¹²⁰ Ibid., 38-40.

¹²¹ Ibid., 38.

Cooper's advanced and yet simply structured aerobic fitness program became a massive success.¹²² Immediately upon its release, Cooper participated in a successful national book tour that included being interviewed on the *Today* show by Barbara Walters.¹²³ Before the year ended, Charles Maher, a reporter for the *Los Angeles Times*, was already calling aerobics a "movement" and Cooper its leader.¹²⁴

After spending more than twenty weeks on the best-seller list, Cooper decided to publish the sequel to *Aerobics*, which he titled *The New Aerobics* in 1970.¹²⁵ Based on the outpouring of feedback he received from the more than 1.5 million readers who purchased his first book, *The New Aerobics* modified Cooper's aerobics system by allowing individuals to adjust the program based on their age.¹²⁶ He also included a greater number of aerobic activities, including lacrosse and soccer, through which individuals could earn their weekly "points."¹²⁷ Seizing on the opportunity created by the early success of *Aerobics* and *The New Aerobics*, Cooper decided to leave the Air Force, retiring with the rank of Lieutenant Colonel, and in 1970, Cooper and his family moved to Dallas, Texas, where he founded the Cooper Clinic and the Cooper Institute for Aerobics Research.¹²⁸

Aerobics' highly regimented but endlessly customizable aerobic fitness program, coupled with its promises of increased longevity and individual control over one's own

¹²² To date, *Aerobics* has been translated into forty-one languages, plus Braille. Cooper's books, including eighteen others, have sold more than thirty million copies across the world.

¹²³ Cooper interview, 16 December 2013.

¹²⁴ Charles Maher, "A Running Discussion," *Los Angeles Times*, 7 June 1968, E2.

¹²⁵ Gillick, "Health Promotion," 372.

¹²⁶ Kenneth H. Cooper, *The New Aerobics* (New York: Bantam Books, 1970), 12.

¹²⁷ *Ibid.*, i, 184.

¹²⁸ Cooper interview, 16 December 2013.

health through regular aerobic exercise, aligned well with the emerging cultural touchstones and shifting demographic trends that would come to define the 1970s. While Cooper's innovative approach and accessible presentation of *Aerobics* certainly contributed to its rapid success, middle-class Americans' growing interest in self-improvement and deepening concerns about lifestyle-related chronic disease in the 1970s created an ideal market for Cooper and his innovation.¹²⁹ Cooper's release of *Aerobics* on the cusp of what journalist Tom Wolfe described as the "me decade" could not have been better timed.¹³⁰

THE SOCIOCULTURAL BACKDROP OF AEROBICS

In *The Culture of Narcissism: American Life in an Age of Diminishing Expectations*, Christopher Lasch's landmark critique of American culture in the 1970s, Lasch proposed that "social change manifests itself inwardly as well as outwardly."¹³¹ Lasch argued that through the "outwardly"-focused political unrest and social turmoil of the 1960s, the American population began to lose faith in government and traditional centers of power, and in response, became much more "inwardly" focused in the 1970s. This "inward turn," Lasch explained was responsible for what he called the "competitive individualism" of the decade.¹³² Lasch identified the growing fascination with forms of "self-improvement," including jogging and "eating health food," as manifestations of a

¹²⁹ Plymire, "A Moral Exercise", 10-13.

¹³⁰ Tom Wolfe, "The Me Decade and the Third Great Awakening," in *The Purple Decades: A Reader* (New York: Berkley Books, 1987), 265-93.

¹³¹ Christopher Lasch, *The Culture of Narcissism: American Life in an Age of Diminishing Expectations* (New York: Warner Books, 1979), 355.

¹³² *Ibid.*, 21.

“war of all against all, the pursuit of happiness to the dead end of a narcissistic preoccupation with the self.”¹³³

Prior to the 1960s and 1970s, however, most adults did not, as Alan Latham noted, “partake in any physical activity more strenuous than yard work, bowling, golf, or light calisthenics.”¹³⁴ Many Americans had been regularly physically active through their work prior to World War II, but by the 1960s, there was growing concern that America’s post-World War II prosperity and increasing automation was having a deleterious effect on the nation’s health. In a 1978 article for *The Saturday Evening Post*, journalist Ted Kreiter wrote, “We men and women of the (twentieth century) are probably the only beings in the long history of mankind who have found it necessary to intentionally seek out forms of exercise to keep ourselves fit.”¹³⁵ Kreiter went on to report that as a result of “chronic inactivity,” Americans were “falling like flies” in the early 1960s, with “(about fifty-five percent) of all deaths in the U.S....caused by diseases of the cardiovascular system, heart attacks often brought on by overweight and lack of exercise.”¹³⁶

In his 1991 article, Benjamin Rader argued that the major impetus for what he described as a “wide-ranging quest for self-sufficiency” in the 1970s and 1980s was the result of a “preoccupation with the strenuous life.”¹³⁷ Rader supported Kreiter’s observations by identifying what he considered to be the two, key developments during

¹³³ Ibid., 21, 29.

¹³⁴ Latham, "The History of a Habit," 2.

¹³⁵ Ted Kreiter, "The Aerobic Hustle," *Saturday Evening Post*, October 1978, 22.

¹³⁶ Ibid.

¹³⁷ Rader, "The Quest for Self-Sufficiency," 256.

this period that shifted the burden of one's health from the medical community back to the individual: 1) increasing awareness among the public "that modern medicine had no panaceas for extending life or preventing aging;" and 2) a "growing body of epidemiological evidence (that) indicated that the way persons lived directly affected their health."¹³⁸ As a result, Rader explained, people began to "(watch) what they ate, tried to control their diet, exercised more, stopped smoking, and tried to reduce stress in their lives."¹³⁹ Like Lasch, Rader noted that all of these behaviors "could be accomplished by the self... (with) little or no reliance upon society."¹⁴⁰ With an emerging understanding of the link between exercise and health in place, historian Shelly McKenzie argued that the popularity of jogging and aerobic exercise among the middle-aged during the 1970s and 1980s was largely the result of this population's ability to activate this new information.¹⁴¹

While, according to Rader, middle-aged Americans' preoccupation with "increasing longevity and a growing obsession with youthfulness" drove their participation in the aerobics and fitness booms of the 1970s and 1980s, young Americans' motivations for taking part were markedly different than those of their parents. In her 1997 dissertation, Darcy Plymire argued that the middle-class youth of the 1960s had grown up in "an era of unprecedented material comfort."¹⁴² By the late 1960s and early 1970s these youth-turned-young adults, faced a much different economic

¹³⁸ Ibid., 258.

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ McKenzie, *Getting Physical*, 115.

¹⁴² Plymire, "A Moral Exercise," 11.

reality and outlook. Plymire explained that due to a stagnating economy, rising inflation, surging oil prices, and concerns about unemployment, the “generation which had grown up having it all was confronted with the possibility of not having enough.”¹⁴³

In a later article, Plymire suggested that, in response, young Americans during this period turned away from the “affluent consumerist lifestyles of their parents” and the bleak economic picture painted by 1970s America by seeking out “ways to make their lives more meaningful.”¹⁴⁴ For many young Americans during this period, participation in exercise became less about health, sports, or recreation and, according to Plymire, more focused on a lifestyle of self-improvement through “bodily discipline or control.”¹⁴⁵ Plymire cited “Rolfing, Transcendental Meditation, and running” as forms of activity that became especially popular with young people in the 1970s because they “ultimately required, and/or promised, radical lifestyle changes and altered states of consciousness.”¹⁴⁶

A changing social environment for women in the 1970s also heavily influenced their participation in the aerobics boom. The passage of the federal Title IX legislation in 1972, which gave women equal access to all federally funded education programs and activities, opened the door to women’s participation in interscholastic sports and the expansion of women’s sports in secondary public schools. In his 2008 article, Marc Stern explained that because of Title IX, “the number of women in interscholastic sports

¹⁴³ Ibid.

¹⁴⁴ Darcy C. Plymire, "Positive Addiction: Running and Human Potential in the 1970s," *Journal of Sport History* 31, no. 3 (2004): 300.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

expanded ten-fold (between 1970 and 1980), from under 300,000 to over 3.1 million.”¹⁴⁷ Stern also pointed to the feminist movement as helping to drive greater numbers of women than men to participate in the fitness boom of the 1970s.¹⁴⁸ In an interview with the author, Jacki Sorensen, the creator of aerobic dancing, explained that her creation, in many ways, came out of the feminist movement. Sorensen argued that women increasingly sought out aerobic exercise, especially aerobic dance, in the 1970s and 1980s because it allowed women to “take charge of their health the same way they had begun to take charge of their lives.”¹⁴⁹

THE INFLUENCE OF AEROBICS

While *Aerobics* capitalized upon (versus created) many of the above sociocultural developments that contributed to its success, Cooper’s innovation did have significant and far reaching influence within and beyond the fitness sector. A full accounting of the impact of *Aerobics* is beyond the scope and purpose of this chapter. Instead, this section focuses on the domains that Cooper and *Aerobics* had the most significant and direct effect upon in the 1970s and 1980s: the development of new and the expansion of existing forms of exercise (aerobic dancing and jogging, respectively) and the scientific link between exercise, health, and medicine.

Jogging, as previously noted, had been firmly established as a form of exercise by the time Cooper wrote *Aerobics*. The Road Runners Club of America had been established in 1957 to “assert the rights of long-distance runners” and popularize the

¹⁴⁷ Stern, "The Fitness Movement," 8.

¹⁴⁸ Ibid.

¹⁴⁹ Jacki Sorensen, Phone interview, 18 June 2014.

sport of road racing and marathon running.¹⁵⁰ Developed in 1961, Cureton's "Run for Your Life" program was in YMCAs across the country by the late-1960s.¹⁵¹ Bowerman and Harris' seminal book on jogging predated *Aerobics* by a year in 1967. Richard Bohannon, former surgeon general of the Air Force, founded the National Jogging Association the next year.¹⁵² The magazine *Distance Running News*, founded by Bob Anderson in 1966, became the highly influential *Runner's World* magazine in 1970.¹⁵³ Nonetheless, while Cooper did not play a lead role in the development of jogging, most scholars on the topic point to Cooper's creation of *Aerobics*, which emphasized running/jogging above all other forms of exercise for its combination of accessibility, low-cost, and aerobic demand, as the pivotal development in the popularization of jogging in the 1970s.¹⁵⁴

In her 2004 article, Plymire cited a ten-fold increase, from three million to thirty million, between the years 1970 and 1980 in the number of Americans who reported running regularly. Plymire explained that this rapid expansion was the confluence of a variety of factors, but she reported, "(the) most obvious explanation was the heightened interest in aerobic fitness and cardiac health promulgated during the 1960s and 1970s by

¹⁵⁰ Pamela Cooper, *The American Marathon* (Syracuse, New York: Syracuse University Press, 1998), 102.

¹⁵¹ McKenzie, *Getting Physical*, 114.

¹⁵² *Ibid.*, 109.

¹⁵³ Cooper, *The American Marathon*, 133.

¹⁵⁴ Non-scholars also recognized the impact of *Aerobics* on the growth of running in the 1970s. In a 1968 *Los Angeles Times* article entitled, "Joggers," Vernon Scott wrote that the "movement" of jogging "gained impetus this year with the publication of *Aerobics*." Vernon Scott, "Joggers," *Los Angeles Times*, 7 July 1968, A24. Two years later, another *Los Angeles Times* reporter, Earl Gustkey, reported that jogging had, by 1970, reached "craze proportions in the United States" and credited Cooper's *Aerobics* as the "impetus." Earl Gustkey, "Joggers: Some Run Risk of Fatal Step," *Los Angeles Times*, 31 May 1970, OC1.

doctors and scientists such as Kenneth Cooper.”¹⁵⁵ Like Plymire, Rader also pointed to the influence of *Aerobics* on the growth of jogging; Rader noted that “astronaut-hero John Glenn followed Cooper’s regimen of aerobic fitness,” and cited Frank Shorter’s gold medal in the marathon event at the 1972 Summer Olympics, as being pivotal moments in the popularization of jogging among the American public.¹⁵⁶ Writing about the origins of jogging in America, McKenzie, too, pointed to the influence of *Aerobics*; she wrote, “Cooper’s book was seminal” because it not only privileged cardiovascular fitness exercises over other forms, it also “focused on jogging because it could be practiced anywhere by almost anyone.”¹⁵⁷

Though he certainly helped to popularize jogging in America in the 1970s, Cooper never took on the role of jogging proselytizer like Jim Fixx and George Sheehan did. Sheehan, a cardiologist from New Jersey, stressed the transcendent nature of running over the health benefits that Cooper emphasized; in his 1975 book *Dr. Sheehan on Running*, he contrasted himself from Cooper by writing, “Cooper’s tables measure...everything except what makes life worthwhile.”¹⁵⁸ Instead of Cooper’s recommended bouts of jogging for no more than fifteen minutes for health benefits, Sheehan, in his 1978 book *Running and Being: The Total Experience*, recommended

¹⁵⁵ Plymire, "Positive Addiction," 297.

¹⁵⁶ Benjamin G. Rader, "The Quest for Self-Sufficiency," 258-59.

¹⁵⁷ McKenzie, *Getting Physical*, 114.

¹⁵⁸ George Sheehan, *Dr. Sheehan on Running* (New York: Warner Books, 1975), 27.

running for longer distances and durations and argued that a daily six mile run was ideal.¹⁵⁹

Published two years after Sheehan's first book, Jim Fixx's *The Complete Book of Running* (1977) was, according to Plymire, "the single most successful running book of the era."¹⁶⁰ Like Sheehan, Fixx emphasized the pleasure of long-distance jogging and criticized Cooper for his "forbidding and joyless aerobics charts."¹⁶¹ Fixx also differed from Cooper in suggesting that running longer distances supported good physiological and psychological health.¹⁶² Sadly, Fixx died of a heart attack at the age of fifty-two while running in 1984. Cooper would get the last word of the debate one year later when he published *Running Without Fear: How to Reduce the Risk Of Heart Attack and Sudden Death During Aerobic Exercise* in response to Fixx's death and in support of the kind of medical screening Cooper helped to develop and popularize. In *Running Without Fear*, Cooper argued that if Fixx had paid attention to his medical history and had undergone "regular, comprehensive medical examinations" including a "maximal stress test," he might not have died.¹⁶³

Though Cooper was important to the popularization of jogging in America, the publication of *Aerobics* played a much more direct role in Jacki Sorensen's creation of another highly popular form of exercise in the 1970s and 1980s: aerobic dance. Sorensen

¹⁵⁹ George Sheehan, *Running and Being: The Total Experience* (New York: Warner Books, 1978), 132.

¹⁶⁰ Plymire, "Running," 38.

¹⁶¹ James F. Fixx, *The Complete Book of Running* (New York: Random House, 1977), 11.

¹⁶² Plymire, "Running," 38.

¹⁶³ Kenneth H. Cooper, *Running without Fear: How to Reduce the Risk of Heart Attack and Sudden Death During Aerobic Exercise* (New York: M. Evans and Company, 1985), 35, 40.

was a classically trained dancer, beginning her dance training at the age of six.¹⁶⁴ As an adolescent, Sorensen attended a theatrical high school in California where she participated in a minimum of twelve hours of dance training and practice a week.¹⁶⁵ In college at the University of California at Berkeley, Sorensen continued her involvement in dance by helping to choreograph the routines for her fellow “pom-pom girls.”¹⁶⁶

In 1969, while stationed at Ramey Air Force base in Puerto Rico with her husband Neil, who was a B2 pilot, Sorensen was asked to host a television fitness program for the military wives on the base.¹⁶⁷ In doing research for the television show, Sorensen came upon *Aerobics* and decided to take its running-based, twelve-minute aerobic fitness test. When she scored “excellent” (Category V) despite having not done any regular form of exercise other than dance since she was a child, Sorensen realized that she could package dancing as a fun yet aerobically rigorous form of exercise.¹⁶⁸

Using *Aerobics* as part inspiration and part guide, Sorensen called this new form of exercise “aerobic dancing” and referred to her creation as a “fitness sport you play for fun.”¹⁶⁹ She emphasized the term “sport” to both empower participating women to think of themselves as athletes and the word “fun” to allay any concerns people might have had about the need to be a trained dancer in order to participate.¹⁷⁰ In order to make the classes even more approachable, Sorensen determined early on that 1) she (and her future

¹⁶⁴ Patricia McCormack, "Aerobic Dancing: Musical Fitness," *Los Angeles Times*, 22 October 1981, G20.

¹⁶⁵ Jacki Sorensen, Phone interview with author, 18 June 2014.

¹⁶⁶ *Ibid.*

¹⁶⁷ Carol Krucoff, "Fitness: The Aerobic Beat Goes On," *The Washington Post*, 13 May 1983, B5.

¹⁶⁸ *Ibid.*

¹⁶⁹ Sorensen, Phone interview, 18 June 2014.

¹⁷⁰ *Ibid.*

fellow instructors) would always keep her back to the class, so that participants would not feel judged; 2) she encouraged participants to wear simple shorts and a comfortable t-shirt, so that everyone looked the same and the focus was kept on the dances and not one's appearance; and 3) she would not teach her class in a room with mirrors because she wanted all her participants "to feel like (they were) Ginger Rogers."¹⁷¹

Sorensen structured the program as a twelve-week cycle of classes consisting of choreographed dance routines set to popular music. Each class consisted of a warm-up followed by a series of aerobic dances; the class ended with a cool-down routine of slower movements and stretches. She made the class cycles twelve weeks in duration so that participants could master the choreographed dance routines but also look forward to a completely new set of dance moves the next cycle.¹⁷²

Shortly after creating the television program at Ramey, the Sorensens moved to New Jersey, where Sorensen began teaching her newly developed aerobic dancing program at a local YMCA.¹⁷³ Her initial class of six participants quickly grew to two classes of twenty-five students each, and Sorensen was soon asked to offer her classes at other locations, including local universities and churches.¹⁷⁴ During this time, Sorensen was also asked by the President's Council on Physical Fitness and Sports to serve as a traveling clinician; through that role, Sorensen was able to train elementary and

¹⁷¹ Ibid., and McCormack, "Aerobic Dancing: Musical Fitness," G20. Sorensen's de-emphasis of the role of fashion and appearance in aerobic dancing would suffer a major challenge upon the release of the *Jane Fonda Workout* video in 1982. According to Black, that video sold seventeen million copies and remains the "biggest-selling home video of all time." Black, *Making the American Body*, 85-86.

¹⁷² Sorensen, Phone interview, 18 June 2014.

¹⁷³ Ibid.

¹⁷⁴ McCormack, "Aerobic Dancing: Musical Fitness," G20.

secondary school teachers, as well as college students, across the U.S. on the principles of her aerobic dance program.¹⁷⁵

In 1972, the Sorensens moved back to California and focused on turning Sorensen's creation into a business. Called Jacki Sorensen Aerobic Dancing Inc., Sorensen began certifying instructors to teach her classes across the country. Sorensen also published the first of her two books, *Aerobic Dancing*, in 1979 along with Bill Burns and would go on to develop a series of workout videos and records through the 1980s.¹⁷⁶ According to historian Jonathan Black, Aerobic Dancing Inc. reached its zenith in 1981, when Sorensen had more than 4,000 certified instructors and 1,500 field offices in forty-five states.¹⁷⁷ Due to the popularity of the exercise trend that she created, a number of high profile and savvy competitors, including Jane Fonda, Richard Simmons, and Judi Missett, entered the aerobic dancing market in the 1980s. Due to increased competition and growing financial struggles, Aerobic Dancing Inc. was forced to declare bankruptcy by the end of the 1980s and became restructured as Jacki's, Inc., which still exists to this day. In recognition of her numerous contributions to the field, Sorensen received the President's Council Lifetime Achievement Award in 2012.¹⁷⁸

Although *Aerobics* met with early success and influenced the growth of jogging and the efforts of fellow fitness enthusiasts like Sorensen, the reception of Cooper's

¹⁷⁵ Ibid.

¹⁷⁶ Jacki Sorensen and Bill Bruns, *Aerobic Dancing* (New York: Rawson Wade, 1979).

¹⁷⁷ Black, *Making the American Body*, 81.

¹⁷⁸ Sorensen, Phone interview, 18 June 2014.

innovation by the medical community was much less favorable upon its release.¹⁷⁹ Driven by the still common belief that vigorous exercise could shorten a middle-aged person's life or cause sudden death, Cooper was called before the Board of Censors of the Dallas County Medical Society in 1970 only a few months after opening his Clinic.¹⁸⁰ Because Cooper was the first doctor in Dallas to use the maximal performance treadmill stress test on his patients (the same test he had used in the Air Force), the members of the Board of Censors, who were all medical doctors themselves, expressed grave concern that Cooper's practices would lead to the deaths of some of his patients.¹⁸¹

While the Board ultimately allowed him to continue to operate his Clinic, Cooper realized that he needed to develop a body of scientific literature to support his claims of the beneficial effects of aerobic exercise on health and longevity. To develop the scientific proof for his claims, Cooper created an ingenious, symbiotic business model with the founding of his Clinic and Institute in 1970; the Clinic served as Cooper's private medical practice that allowed him to "(use) exercise in the practice of preventive, diagnostic, and rehabilitative medicine," while the Institute served as a research center to build a scientific evidence base for Cooper's "exercise as medicine" approach.¹⁸² Each

¹⁷⁹ The highest profile example of the medical community's challenge to Cooper's theories came in 1984 when he debated cardiologist Henry Solomon on national television. Earlier that year, Solomon published *The Exercise Myth: A New Approach to Health and Fitness* in which he attempted to tear down the core pillars of Cooper's theories. In the debate, which aired on *ABC News' Nightline* program, Solomon brought forward all of the central critiques of his book. In addition to questioning the safety of Cooper's practices, Solomon argued that Cooper's claims about the link between exercise and longevity were flawed because he used highly subjective questionnaires in his work with his patients, and thus, Cooper could not scientifically prove his claims. See: Henry A. Solomon, *The Exercise Myth: A New Approach to Health and Fitness* (Orlando, Florida: Harcourt Brace Jovanovich, 1984).

¹⁸⁰ Cooper, Interview, 16 December 2013.

¹⁸¹ *Ibid.*

¹⁸² George, "Aerobics: 40 Years of Changing Lives."

patient that the Clinic saw was asked to voluntarily allow his or her de-identified information to be used in the Institute's studies. This growing set of data became known as the Cooper Center Longitudinal Study and is now one of the largest and most highly-referenced databases of its kind.¹⁸³

The Cooper Institute was certainly not the only research center in the country focused on studying the link between exercise and health at this time. In her 1984 article, Gillick explained that research “entirely devoted to the study of exercise or ‘human performance’” was created “by a new generation of exercise physiology institutes” that, along with the Cooper Institute, were established in Kentucky, Nevada, and Utah during the 1970s.¹⁸⁴ There was even a professional association for those interested in this topic. Founded in 1954, the American College of Sports Medicine (ACSM) had encouraged research on the effects of exercise from its inception and was a major influence in the growth of the field of exercise physiology. Nearly forty years after the publication of *Aerobics*, the ACSM launched its “Exercise Is Medicine” campaign in 2007 to “promote physical activity as a health management strategy for the general public” and to encourage physicians to “prescribe” exercise.¹⁸⁵

Although the Cooper Institute was not alone in its focus, the research it produced in the 1980s was groundbreaking. In a watershed article published in the *Journal of the American Medical Association* in 1984, exercise physiologist Steve Blair and his fellow

¹⁸³ Cooper, Interview, 16 December 2013.

¹⁸⁴ Gillick, "Health Promotion," 378.

¹⁸⁵ Ben Pollack, "Exercise Is Science: The American College of Sports Medicine and Scientific Disciplines," (Unofficial Manuscript on Deposit at H. J. Lutcher Stark Center: University of Texas at Austin, 2014), 6, 9.

researchers at the Cooper Institute showed that aerobically fit men and women were significantly less likely to develop hypertension than their less fit peers.¹⁸⁶ Blair followed-up this study with an even more important and unprecedented one in 1989; in the article entitled, “Physical Fitness and All-Cause Mortality, A Prospective Study of Healthy Men and Women,” Blair, Harold Kohl, and other colleagues at the Cooper Institute demonstrated for the first time a significant reduction in all-cause mortality the more aerobically fit individuals were.¹⁸⁷

By the end of the 1970s, Cooper had emerged as an international expert on and promoter of the link between fitness and good health.¹⁸⁸ What began as an attempt to improve the fitness of astronauts became the twentieth century’s most influential and important model for measuring fitness in an individual and for explaining the relationship between fitness, exercise, and health. The scholarship that Cooper helped support through his Institute was instrumental to the development of the field of exercise physiology, and his pioneering work in the field of preventive medicine positioned exercise as both medical test and treatment.¹⁸⁹

As a result of the exercise boom in the 1970s that Cooper’s innovations helped spark, heart disease declined in adults by more than twenty percent between the years

¹⁸⁶ Steven N. Blair et al., "Physical Fitness and Incidence of Hypertension in Healthy Normotensive Men and Women," *Journal of the American Medical Association* 252, no. 4 (1984): 487-90.

¹⁸⁷ Steve N. Blair et al., "Physical Fitness and All-Cause Mortality. A Prospective Study of Healthy Men and Women," *JAMA: The Journal of the American Medical Association* 262, no. 17 (1989): 2395-401.

¹⁸⁸ Cooper is especially popular in Brazil, where going for a jog is called “doing a Cooper.” In 1969, Cooper was asked by the then-trainer of the Brazilian soccer team to help him use Cooper’s aerobics system to condition the athletes in preparation for the 1970 World Cup, which they would go on to win. Cooper became widely recognized throughout Brazil for his support of the winning team. See: Cooper, Interview, 16 December 2013.

¹⁸⁹ McKenzie, *Getting Physical*, 114.

1967 and 1981 and the incidence of stroke in adults fell by thirty-three percent during the same period.¹⁹⁰ By 1981, nearly fifty percent of the adult population reported exercising regularly, up from twenty-four percent in 1960.¹⁹¹ That same year, thirteen million Americans were members of more than five thousand health clubs across the U.S., and the thirty million Americans who self-identified as joggers helped to create a one billion dollar sport shoe industry.¹⁹² And, the field of sports medicine, which Cooper helped to advance, grew to a two billion dollar specialty in 1981 as a result of the burgeoning market for fitness that the aerobics boom birthed.¹⁹³

Now eighty-three years old, Cooper still works every day and continues to see patients. While he travels less frequently, he continues to be a strong advocate for health, especially the health of children. He prides himself on having jogged more than thirty-eight thousand miles in his lifetime and always cites his family and his marriage to Mildred as his greatest achievements.¹⁹⁴

THE LESSONS OF AEROBICS

Writing in 1979 about the “fitness boom” of the decade, historians Patricia Eisenman and Robert Barnett enthusiastically remarked, “(the) cause of fitness in this country is burning brightly.”¹⁹⁵ Presciently, they cautioned that “this harmonious situation” would only continue if the “overriding value orientation in American society,

¹⁹⁰ J. D. Reed, "America Shapes Up," *Time*, 2 November 1981, 10.

¹⁹¹ *Ibid.*, 2.

¹⁹² *Ibid.*, 2-3.

¹⁹³ *Ibid.*, 3.

¹⁹⁴ Cooper, Interview, 16 December 2013.

¹⁹⁵ Patricia A. Eisenman and C. Robert Barnett, "Physical Fitness in the 1950s and 1970s: Why Did One Fail and the Other Boom?" *Quest* 31, no. 1 (1979): 121.

achievement” was tempered with a “second and sometimes conflicting value orientation, humanism.”¹⁹⁶ Sadly, this was not to be the case as American society and its fitness culture took an even more intense, individualistic turn focused on personal achievement throughout the 1980s.

John Van Doorn, a reporter for *New York Magazine*, characterized this intensified focus on personal fitness as a pursuit of physical perfection, which he termed, “physical elitism.”¹⁹⁷ This search for physical perfection, however, could only be sustained for so long; by the end of the 1980s, participation in exercise by American adults was down by more than ten percent as compared to the beginning of the decade.¹⁹⁸ In her 1986 book *The Body of America*, journalist Blair Sobal explained that the decline of the fitness boom in the 1980s was a result of the decade’s never-ending quest for the “ultimate burn” that would produce ever bigger muscles, tighter rear ends, and firmer stomachs. She wrote, “Aerobics, and fitness in general, did not just become a fashion—they became a craze. And it was the craziness that became injurious to the entire health movement.”¹⁹⁹ As a result of this “craze,” Sobal argued that most Americans who had participated in the fitness boom of the 1980s became increasingly “burned out” and “ruined” by it.²⁰⁰

The focus on fitness as a way to control one’s health in the 1970s and as a means of physical improvement in the 1980s were the core motivations of the millions of Americans who created a “boom” for aerobics and fitness during this period. And these

¹⁹⁶ Ibid.

¹⁹⁷ John Van Doorn, "An Intimidating New Class: The Physical Elite," *New York Magazine*, 29 May 1978.

¹⁹⁸ McKenzie, *Getting Physical*, 177.

¹⁹⁹ Blair Sobal, *The Body of America: An Insider's Journey through the Bumps & Pumps, Groans & Moans, Pecs & Wrecks, Sweat & Sex of the Fitness Explosion* (New York: Arbor House, 1986), 220.

²⁰⁰ Ibid., 215.

motivations are what make the characterization of that “boom” as a “fitness movement” by scholars inaccurate. In their 2003 book, social movement studies researchers Jeff Goodwin and James Jasper wrote that social movements are “conscious, concerted, and sustained efforts...to change some aspect of (society).”²⁰¹ They distinguished social movements from “fads and fashions” based on whether or not the mass activities are intentionally created, organized, and furthered with the express purpose to drive social change.²⁰²

While the efforts of Cooper, Sorensen, and other exercise advocates during this period helped to get millions of individuals engaged in healthier behaviors throughout the 1970s, these leaders never truly conceptualized their efforts as part of or in service to a larger social movement. Unlike the prior, historical “cycles” of health reform in the U.S., which, according to Engs, were part of larger, religiously-motivated social reform movements, participants in the aerobics and fitness “booms” of the 1970s and 1980s did not, as Lasch, Rader, and Sobal explained, engage in these “booms” because of their association with a social movement. To the contrary, Americans pursued fitness during this period as a way to escape the social unrest of the prior decades through the increased individual (versus societal) control that fitness provided. This resulted in the flourishing of what Engs referred to as the “loosely related coalition of single-issue advocacy groups” that she argued characterize the “current” cycle of health reform in America.²⁰³

²⁰¹ Goodwin and Jasper, eds., *The Social Movements Reader*, 3.

²⁰² Ibid.

²⁰³ Ruth C. Engs, "Resurgence of a New “Clean Living” Movement in the United States," *Journal of School Health* 61, no. 4 (1991): 155.

Though the aerobics boom of the 1970s did not produce the near future for the healthy living movement that Eisenman and Barnett imagined, it did generate much greater awareness of the importance of healthy living among the American public. This has laid the foundation for an emerging “outward turn” in our notions of health. This outward turn includes Americans’ designation of obesity as among the nation’s top three most “urgent health problems.”²⁰⁴ The outward turn can also be seen in the growing calls for collective action and social change by Dietz, Reilly, and Robinson referenced earlier in this chapter, as well as the increasing number of organizations, like the National Football League and Action for Healthy Kids, that describe their efforts as contributing to a larger healthy living movement.²⁰⁵

In order for the healthy living movement to seize this opportunity, leaders should learn from the example of aerobics in the 1970s. Namely, the modern healthy living movement should be better recognized by the public health community and studied by the both the fields of public health and social movement studies. Also, a collective frame is needed to unite the disparate “single-issue groups” that Engs described. This frame should position health as both a collective (“outward”) and individual (“inward”) cause that leverages people’s relationships with their friends, families, colleagues/neighbors, and loved ones, as well as their connections to their neighborhoods and communities.²⁰⁶ Finally, there is a real need for social movement organizations to help organize and

²⁰⁴ Mendes, "In U.S., More Cite Obesity as Most Urgent Health Problem," 1.

²⁰⁵ See: National Football League, "Nfl Play 60," <http://www.nfl.com/play60>; and Action for Healthy Kids, "Join the Movement to End Childhood Obesity," <http://www.actionforhealthykids.org/what-we-do/every-kid-healthy-week>.

²⁰⁶ Robert Putnam, Lewis Feldstein, and Don Cohen, *Better Together: Restoring the American Community* (New York: Simon & Shuster Paperbacks, 2003).

accelerate existing efforts and innovate where there are gaps. These developments, which Cooper and his aerobics innovation helped put into motion more than forty years ago, have created a unique opportunity for the healthy living movement to gain the kind of intentional, collective purpose, widespread support, organizational cohesion, and sustained impact that the aerobics and fitness “booms” of the 1970s and 1980s were never able to achieve.

Chapter 5

Conclusion

The three articles that comprise this dissertation are bound by the unifying thesis that 1) the increased incidence of overweight and obesity in America since the 1970s is associated with wide-sweeping societal changes that favored unhealthy eating and inactivity; 2) in order to reverse this situation, a social change approach is required; and 3) the social change models of social marketing and social movements have been applied to the issue and hold the most promise within a unified approach. Taken together, the three articles unite a disparate body of scholarship from the fields of American Studies, Sport History, Public Health, Sociology, and Health Education concerned with America's historical struggle with fatness and modern, social change approaches to improve the fitness of its people. The key insights from each of the three articles are summarized below and are then applied to a brief discussion of a unified, social change approach.

The first article (Chapter Two) built on the work of Hillel Schwartz and other historians who argued that Americans' changing attitudes about fatness developed in parallel with a changing society that increasingly made it much more likely to become overweight or obese.¹ With a focus on the topic of youth obesity, these changing views provided context for a historical analysis of the associated and wide-sweeping economic, environmental, familial, technological, and political shifts that, since the 1970s, helped to

¹ Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies, and Fat* (New York: Doubleday, 1986). See also Sander L. Gilman, *Fat: A Cultural History of Obesity* (Cambridge: Polity Press, 2008); and Peter N. Stearns, *Fat History: Bodies and Beauty in the Modern West* (New York: New York University Press, 1997). As reported in the first article (Chapter Two), the number of obese children in the U.S. has doubled since the 1970s, while the number of obese adolescents has quadrupled. According to the research of Cynthia Ogden et al., one-third of all children and adolescents in America are overweight or obese. Cynthia L. Ogden et al., "Prevalence of Childhood and Adult Obesity in the United States, 2011-2012," *JAMA: The Journal of the American Medical Association* 311, no. 8 (2014): 806-14.

create what many researchers now refer to as America's "obesogenic" societal environment.² These shifts included changes in the family structure and workforce composition, reductions in physical education and recess in schools, federal policies that helped to finance the growth of the processed and fast food industries, the development of technologies that made play less physically active, and urban sprawl and contractions in active transportation.

In total, the first article demonstrated that the growing calls from public health researchers for a social change approach to address the issue of obesity are warranted.³ The article also supported the scholarship of Lori Dorfman and Lawrence Wallack, who suggested that the framing of the issue as one of obesity is stigmatizing and limits progress.⁴ Like Dorfman and Wallack, the author argued for a more "upstream" frame that better emphasized healthful eating and physical activity, while advancing both individual and societal change.⁵

Picking up on the call for a social change approach, the second article (Chapter Three) explored the model of social marketing as applied to the issue of youth obesity. Using a historical approach, a case study of the CDC's VERB social marketing campaign was constructed. The example of VERB demonstrated that the framework and practice of social marketing can be highly effective at raising awareness about an issue and driving short-term behavior change within a target audience. By its final year (2006), VERB achieved seventy-five percent Campaign awareness among the nation's tweens

² Sara F. L. Kirk, T. L. Penney, and T. L. F. McHugh, "Characterizing the Obesogenic Environment: The State of the Evidence with Directions for Future Research," *Obesity Reviews* 11, no. 2 (2010).

³ Christina D. Economos et al., "What Lessons Have Been Learned from Other Attempts to Guide Social Change?" *Nutrition Reviews* 59, no. 3 (2001); and J. J. Reilly, "Tackling the Obesity Epidemic: New Approaches," *Archives of Disease in Childhood* 91, no. 9 (2006).

⁴ Lori Dorfman and Lawrence Wallack, "Moving Nutrition Upstream: The Case for Reframing Obesity," *Journal of Nutrition Education and Behavior* 39, no. 2S (2007): S45-S49.

⁵ *Ibid.*, S47-S49.

and significantly increased the physical activity of those tweens who were exposed to the Campaign.⁶ VERB also revealed that a “gain-framed” approach—an approach that, according to Daniel O’Keefe and Jakob Jensen, “(emphasizes) the advantages” of engaging in a particular behavior versus stressing the negative outcomes of not engaging in that behavior—is an effective way to promote healthy behaviors, especially physical activity.⁷

However, VERB also revealed that a social marketing-only approach is incapable of creating the kind of sustained social change that a growing number of researchers now suggest that the highly complex, societally-rooted issue of obesity requires.⁸ Further, the story of VERB underscored the issues that traditional social marketing campaigns which rely on mass media often face. Because VERB depended upon huge sums of federal funding to support its national television, print, and radio advertisements, VERB was continually subject to the whims of Congress, which ultimately shuttered it after only four years and despite demonstrating success. Also, because VERB focused primarily on a single audience (tweens), the Campaign was not able to gain the widespread support of parents and other influencers who could have advocated for its continued funding and operation had they been engaged.

In contrast to the second article, the third article (Chapter Four) addressed the argument that a social movement approach is required to tackle the “societal disease” of

⁶ Marian E. Huhman et al., "The Influence of the VERB Campaign on Children's Physical Activity in 2002 to 2006," *American Journal of Public Health* 100, no. 4 (2010): 638-45.

⁷ Daniel J. O’Keefe and Jakob D. Jensen, "The Relative Persuasiveness of Gain-Framed Loss-Framed Messages for Encouraging Disease Prevention Behaviors: A Meta-Analytic Review," *Journal of Health Communication* 12, no. 7 (2007): 623.

⁸ Walter Wymer, "Rethinking the Boundaries of Social Marketing: Activism or Advertising?" *Journal of Business Research* 63, no. 2 (2010): 99-100.

obesity.⁹ The article began by building on the scholarship of Michael Goldstein and Ruth Engs to support their respective claims that a movement focused on healthy living has been underway in America for some time. The author argued that 1) a discussion of this “healthy living movement” is largely absent from the related public health scholarship; and 2) the healthy living movement represents a more relevant social movement model for the issue of obesity than the tobacco control movement, which a number of researchers, including Robinson and William Dietz, have recommended.¹⁰

Like Goldstein and Engs, the author identified the aerobics “boom” of the 1970s that Dr. Kenneth Cooper helped to create as a pivotal point in the trajectory of the healthy living movement. The author argued that the focus on self-improvement and the increased interest in the maintenance of one’s health through exercise (among other behaviors), that, according to Christopher Lasch and Benjamin Rader, so characterized the 1970s, created an ideal environment for the popularization of Cooper’s aerobics system—a significant innovation that for the first time 1) developed a science base for the link between exercise and health; 2) provided an objective measure and definition of fitness; and 3) created an evidence-based exercise program that favored jogging but allowed people to choose from a wide variety of forms of exercise to assess, track, and improve their aerobic fitness.¹¹ These advancements, in turn, helped to spur related developments in medicine and science, increased participation in fitness activities

⁹ John C. Peters, "Obesity Prevention and Social Change: What Will It Take?" *Exercise and Sport Sciences Reviews* 34, no. 1 (2006): 4; and Thomas N. Robinson, "Save the World, Prevent Obesity: Piggybacking on Existing Social and Ideological Movements," *Obesity* 18, no. S1 (2010): S17. The obesity as “societal disease” comment is attributed to David Katz; see: David L. Katz, "Are Our Children 'Diseased'?" *Childhood Obesity* 10, no. 1 (2014): 2.

¹⁰ William H. Dietz and Thomas N. Robinson, "What Can We Do to Control Childhood Obesity?" *The Annals of the American Academy of Political and Social Science* 615(2008): 224.

¹¹ Christopher Lasch, *The Culture of Narcissism: American Life in an Age of Diminishing Expectations* (New York: Warner Books, 1979); and Benjamin Rader, "The Quest for Self-Sufficiency and the New Strenuosity: Reflections on the Strenuous Life of the 1970s and 1980s," *Journal of Sport History* 18, no. 2 (1991).

(especially jogging), the creation of new fitness activities (such as aerobic dancing), and an entire industry to support and promote these activities.

Although the aerobics “boom” represented a transformative period for a modern healthy living movement in America, it was not able to sustain many of its gains through the 1990s. As the author argued, Cooper and his peers never truly conceptualized their work as part of or in service to a larger social movement. Likewise, the American public did not, as Lasch and Rader explained, seek out participation in the aerobics “boom” because of its association with a social movement; to the contrary, people pursued fitness in the 1970s as a means to escape the social unrest of the prior decade through the increased individual (versus societal) control that fitness offered.

As a result, the adoption of healthier behaviors during this period did not produce widespread recognition of a healthy living movement nor support for it. Rather, as Engs suggested, this period resulted in the growth of a “loosely related coalition of single-issue advocacy groups.”¹² However, the author argued that the increased knowledge of and interest in the link between health and fitness that this period spawned, as well as the emergence of the related groups that Engs referenced, have contributed to a modern environment in which it is now common for a leading public health researcher like Dietz to call for a healthy living movement and an organization like the National Football League (NFL) to describe its *Play 60* campaign as contributing to this movement.¹³ Because of these developments that the aerobics “boom” helped put into motion more than forty years ago, the author further postulated that this current environment represents

¹² Ruth C. Engs, "Resurgence of a New “Clean Living” Movement in the United States," *Journal of School Health* 61, no. 4 (1991): 155.

¹³ The NFL describes its Play 60 program, which is targeted to youth, as a “movement for an active generation.” See: National Football League, "Nfl Play 60," <http://www.nfl.com/play60>.

a singular opportunity for the healthy living movement to achieve widespread support and impact.

In sum, the three articles inform the following, unified model:

- 1) the societally-rooted nature of obesity demands a social change approach to improve healthful eating and physical activity at a population level;
- 2) this social change approach must be “gain-framed” so that it moves the focus beyond obesity and the work beyond obesity prevention;
- 3) the frame of this social change approach should also stress both individual (“downstream”) and collective (“upstream”) dimensions and should serve to unite and advance the disparate-but-related efforts and organizations in the healthy living sector by creating shared value and impact objectives;
- 4) the social change approach should focus on advancing America’s historical healthy living movement by integrating both social marketing and social movement theories and frameworks;
- 5) social marketing should be employed to raise awareness of the movement, promote its unifying frame, and drive behaviors (including advocacy actions as well as physical activity) that advance it;
- 6) social marketing should also be harnessed to, as Bill Smith has recommended, create actual products (such as a mobile app) and services (like a community walking program) that both further the movement’s impact and can provide financial support; and,
- 7) social movement organizations, which Mayer Zald and John McCarthy defined as “(formal organizations that) identifies (their) goals with the preferences of a social movement...and attempts to implement these goals,” should be created with the

express intent of organizing and accelerating the healthy living movement in America through the above efforts.¹⁴

In conclusion, the author proposes that the fields of public health and sociology/social movement studies acknowledge and build upon the scholarship of Goldstein and Engs and the healthy living movement about which they wrote. The author also suggests that the fields of public health and sociology further explore the integration of social marketing and social movement approaches to improve healthy living. This is an area of transdisciplinary study that the author believes holds great promise but has thus far been underexplored. Finally, it is the author's hope that this dissertation informs future scholarship on the above topics and lends support to and honors the critical efforts of those who work each day to build a society that promotes and supports healthful eating and active living.

¹⁴ Bill Smith, "The Power of the Product P, or Why Toothpaste Is So Important to Behavior Change," *Social Marketing Quarterly* 15, no. 1 (2009): 103; and Mayer N. Zald and John D. McCarthy, "Social Movement Industries: Competition and Cooperation among Movement Organizations," *Research in Social Movements, Conflict and Change* 3(1980): 2.

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