The National Journal

February 6, 2010

The End Of Obesity

BYLINE: Neil Munro

SECTION: FEATURE STORY

LENGTH: 4575 words

The longtime health campaign against obesity has collided with the public's preferences, and the result isn't pretty. Four decades of professional cajoling, stigmatizing, drug-developing, and doctoring have failed to reduce Americans' appetite for sugary, fatty, and chocolately goodness, or even to shrink their collective girth. "People have been working for 40 years on treatments. None of these things have worked," said Kelly Brownell, the director of the Rudd Center for Food Policy and Obesity at Yale University.

Morgan Downey, who ran the American Obesity Association and its successor organization, the Obesity Society, from 1997 to 2008, agreed. "We have very good [surgical] solutions for the very worst cases," he said, but "where we're terrible is for the 30-pound-overweight people," because there are no remedies except the challenging regimen of eating less and exercising more.

The XXXL-sized failure by government-funded public health professionals is demonstrated by the federal Healthy People 2010 education program, which in 2000 set a goal of reducing the obesity rate from 30 percent to 15 percent by this year. The rate has since stretched, however, to 33.8 percent of the adult population, although the rate of growth has slowed slightly in recent years, according to a January 13 article in**The Journal of the American Medical Association.**

Ironically, the campaign's failure to meet its target may not have much effect on the underlying health issues. Although more and more data indicate that extreme obesity is life-threatening, people who are merely a tad overweight -- say 10 to 20 pounds for someone 5 feet, 9 inches tall -- are at less risk of dying than those who are said to be at an ideal weight. Many people can be healthy even if they are fat.

It turns out that other factors, including the type and location of body fat, are more important than the number on the scale. Exercise is particularly important. If individuals' fitness is taken into account, says Steven Blair, a professor of at the University of South Carolina's Exercise Science Department, "the association between obesity and mortality just goes away." To be sure, these complexities don't faze the enemies of obesity. "There's junk food everywhere and it's cheap. We're stuck with air conditioning, and we're stuck with cars, [so] we'll fight against them by encouraging people to change their lifestyle," says Michael Jacobson, the executive director of the Center for Science in the Public Interest, a Washington advocacy group that is prominent in fighting obesity.

Jacobson and many other crusaders for good health are heading back to the drawing board, trying to develop a Plan B that would use many levels of government to nudge, nanny, tax, and subsidize a wide segment of Americans until they reduce

their snacking, TV watching, and sitting around. The health insurance bills that passed the House and Senate last year, for example, would require restaurants to disclose the calorie content of the meals they serve. First lady Michelle Obama next week launches a campaign to prevent excess weight gain in childhood. There's no estimate of how much money anti-obesity projects cost or even if they work, but supporters say that these programs can produce billions of dollars in health care savings.

Intense debate is developing over "obesity," however, a word that simultaneously serves as a powerful tool for lobbyists, a medical term for doctors, and an insult for millions of Americans. Increasingly, public health advocates are trying to sideline the term. They say that government policy should shift away from condemning obesity and fatness toward promoting healthy lifestyles for everyone -- fat and thin, slim and obese. Evidence is mounting that making people feel bad about their weight can lead to serious medical and lifestyle problems.

"Overweight and obesity is the most stigmatized condition in the United States," said William Dietz, director of the Centers for Disease Control and Prevention's Nutrition, Physical Activity, and Obesity Division. The prejudice against excess weight restricts workplace opportunities for fat people, reduces their happiness, and imposes disease-causing stress. Peter Muennig, a researcher at Columbia University's Mailman School of Public Health, explains that a serious self-image problem "activates systems within the body that disrupt the normal endocrine and biochemical systems -- it changes your thermostat settings -- and that can lead to diabetes, [dangerous] blood pressure, and heart disease."

The federal government is still developing a new approach to weight issues, Dietz said, and "what we call it, how you shape it, is still under construction." But the past emphasis on obesity, he said, "is not the right frame."

Data: Dangers Exaggerated?

The causes of the nation's collective weight gain go far beyond Americans' undeniable taste for the cornucopia of cheap, yummy, and inconsistently nutritious products offered by food producers, scientists say. Contributing factors include reduced tobacco usage, the decline of manual labor, and possible weight-increasing viruses, as well as the proliferation of creature comforts such as air conditioning and TV remote controls, not to mention the high-tech, low-exercise lure of computers and video games. So far, these complex biological factors and technological trends have proved far more powerful in determining behavior than have any downbeat health warnings about fatness.

Most Americans manage their weight reasonably well, doctors say, but 33.8 percent are fat enough to be deemed obese, according to CDC data.

The most widely used obesity gauge is the Body Mass Index, which integrates height and weight in categorizing individuals. People with a BMI of 18.5 to 24.9 are deemed "normal." A BMI of 25 to 29.9 gets you into the "overweight" category, and a number of 30 to 39.9 earns you entry into the "obesity" group. People with a BMI rating of 40 or greater are deemed "extremely obese."

Since 1994, the percentage of adult Americans rated overweight has risen from 33.1 percent to 34.2 percent in 2007-08, according to the recent**JAMA**article. The percentage of people deemed obese has increased from 22.9 to 33.8 percent, based on the CDC data. This pool includes people who are considered extremely obese, a

category that grew from 2.9 percent to 5.7 percent of the adult population -- meaning that 69 percent weigh more than they should. The figures show that heavier people have gained weight much faster than have average Americans.

The data reveal a number of factors that greatly complicate policy responses. The percentage of Hispanics in the population has risen significantly since the early 1990s, for example, pushing national weight averages higher because Hispanics have a 21 percent greater prevalence of obesity than Anglos, according to the CDC. In 2007, the center reported that 51 percent of Hispanic women ages 40 to 59 were obese or extremely obese, compared with 39 percent of non-Hispanic women.

Most of the population's weight gain, the data say, is concentrated among African-Americans and women. About 70 percent of extremely obese people are female, and African-Americans are more than twice as likely to be extremely obese as are whites. A CDC chart shows only one state (West Virginia) where a third of the white population is obese, but more than 40 states where at least 30 percent of African-Americans are obese.

Upper-income and university-educated white Americans tend to be thinner, in part because these demographic groups strongly stigmatize obesity, Muennig said. They also provide much of the political support for the anti-obesity movement, he pointed out.

Over the past few years, public health officials have quietly sidled away from the claim that fatness is inextricably linked to poor health, largely because biology has proven too complex to support the crude anti-obesity pitch. Many researchers have tried to estimate the extra risks caused by obesity. The people with the greatest risk of dying are found at the extremes of the scale, those who are very underweight or very obese. Curiously, however, people who are deemed overweight have a lesser risk of dying from obesity-related illnesses in any particular year than those who are in the "normal" BMI category.

The BMI risk categories mask further complexities. There are different types of fat, for example, and each produces chemicals and hormones that can be helpful or harmful, or only harmful to older people, researchers say. Fat on the thighs can be protective, while fat at the waistline tends to produce potentially harmful hormones such as estrogen, which can spur breast cancers, according to a November statement by the American Institute for Cancer Research. Fat that is stored in between internal organs seems to be the most hazardous.

Mortality estimates are also uncertain. In 2004, a group of CDC experts estimated that obesity was responsible for an extra 400,000 deaths a year in a population of 285 million. The next year, a rival group of CDC and National Institutes of Health scientists led by Katherine Flegal estimated that 112,000 obesity-related deaths occurred in 2000. Two-thirds of those deaths were among people with a BMI of 35 or greater, according to the latter study, which was published in the April 2005 issue of**JAMA.**But when Flegal incorporated the lower-than-expected risk among people in the "overweight" category, the obesity-caused death toll for the year dropped to 26,000.

In November 2009, the American Institute for Cancer Research estimated that body fat caused more than 100,000 extra cancer deaths per year and recommended that people strive to "be as lean as possible without becoming underweight." However, "there aren't yet much data showing that if [overweight] people**lose**weight, their

cancer risk will automatically go down," spokesman Glen Weldon said. "Those studies just haven't been done. That's why the best advice is to do whatever you can to avoid putting on weight in the first place." This is what Michelle Obama is trying to do by targeting childhood obesity. Focusing on children may have greater success than adult-oriented programs because parents can control what their families eat, and the chances of getting children into exercise routines are better.

Costs: Who Knows?

A frequent theme of anti-obesity campaigns has been how much money consumers pay for health care for overweight people. A 2009 article in the journal**Health Affairs**analyzed medical spending data to estimate that the combined national bill for obesity and extreme obesity had risen to $147 billion in 2008, up from $78.5 billion in 1998.

Anti-obesity advocates often cite this dollar amount, even though little evidence suggests that government action can reduce fatness-related costs. On the sixth page of the study, for example, the authors acknowledged that "the extent to which greater use of obesity treatments would reduce spending in either the short or the long run remains unknown." Also unknown is the cost of the treatments themselves.

"Without [effective] treatments, [cost] is a moot point," said Paul Ernsberger, a nutrition professor at Case Western Reserve University. Jacobson said, "I've no idea how much the [health care] costs could be reduced by" decreasing obesity. "I don't think anybody has -- it's too complicated."

The simplest way to reduce federal obesity costs, said Michael Cannon, director of health policy studies at the libertarian **Cato Institute,** would be for the government to "stop paying for people's medical care and leave those tax dollars in the hands of individuals so they can make their health decisions."

Losing Weight: What Works?

The obvious remedies for obesity -- dieting, drugs, and exercise -- have inconsistent benefits, at best, and don't provide easy solutions, scientists say.

The human body has evolved subtle biological defenses against dieting. These include mechanisms that increase a dieter's hunger cravings and maximize the calories extracted from foods when intake is reduced, Ernsberger said -- processes that probably developed to maximize energy storage.

The federal government has done its due diligence here. In the 1990s, the NIH funded the three-year, $20 million Pathways study of 1,704 American Indian third-graders at 41 schools in the Southwestern states. In 2003, results published in the peer-reviewed**American Journal of Clinical Nutrition**showed that using education to persuade students to reduce their calorie consumption "resulted in no significant reduction in percentage body fat." Since then, the campaign to promote dietary knowledge has largely disappeared, Ernsberger said, because "it doesn't work."

Yet, even modest weight loss can sharply improve some health factors, said Donna Ryan, associate executive director for clinical research at Pennington Biomedical Research Center in Baton Rouge, La., and president of the Obesity Society. A study of fat people with emerging diabetes showed that an average weight loss of just 6.7 percent halved the number of people who went on to develop full diabetes, she said. The project was somewhat expensive because it involved therapy sessions, but it

succeeded even though the average total weight loss was only 15 pounds and many participants remained obese.

People need to exercise to keep excess weight off, Ryan said, although exercise alone is a slow and labor-intensive way to slim down. But moving your body even a little can pay great health dividends, said Blair, the exercise scientist at the University of South Carolina. "Non-fit, normal-weight people have twice the risk of dying compared to the risk of obese people who are fit," he said. The risk drops by a third for people between the ages of 60 and 70 who walk for exercise two and a half hours a week, and by half among those who walk five hours a week, he said.

Drugs usually deliver easier and cheaper results than surgery, but scientists haven't been able to develop effective and safe anti-obesity drugs. In 1997, the federal government forced the withdrawal of the fen-phen combination weight-loss drug after a sharp increase in heart damage and deaths. The drug's maker, Wyeth Pharmaceuticals, was hit with 50,000 lawsuits that cost the company up to $21 billion. In the past two years, major drugmakers have abandoned other candidate medications in Europe and the United States, leaving only a few weight-loss drugs seeking regulatory approval in the United States.

Diet pills fail to produce weight loss, Downey said, because the body has "so many compensatory [appetite-promoting] mechanisms that suppressing one [with a drug] usually doesn't have enough effect to trick a very complicated biological system into thinking it is not hungry or has enough food." Worse, those reward mechanisms are entwined with other biological pleasure-generating triggers, and drugs that block them can spur suicidal thoughts, said Allen Levine, who is the director of the Minnesota Obesity Center and a drug researcher. "If you're blocking rewards," he said, "life is not so great."

The drugs' failure and the subsequent withdrawal of several pharmaceutical companies from the field sharply cut financial support for anti-obesity campaigns, Downey said. "Most of it was funded through the pharmaceutical companies, [and] that's left us pretty modestly supported."

New drugs offer some hope for overweight people, however. San Diego-based Arena Pharmaceuticals plans to seek approval for its Lorcaserin diet pill, a fine-tuned version of the fen-phen compound. Recent tests with 7,000 patients have "shown that the safety and tolerability of the drug are absolutely exceptional," Arena spokesman David Schull said, adding that if all goes well, doctors will be able to prescribe the drug by early 2011.

Weight-loss surgery works reliably because it bypasses the body's complex biology. Surgeons either reduce the size of the stomach to limit the amount of food that a person can eat at one sitting or shorten the digestive system to reduce the body's ability to extract calories from food. A large and well-designed test of 2,010 people in Sweden showed that the technique produced an average weight loss of nearly 20 percent and a 30 percent reduction in long-term deaths.

This success for very fat people excludes most of the public, Downey said. "There's a real divide between what consumers want -- their college weight -- and what the best health care systems can provide, which is usually on the basis of 5-to-10 percent loss," he said. "Frankly, consumers don't think that gets them very far."

Some evidence shows, though, that Americans are indeed choosing to change their behavior, or at least limit their appetites. In July, the CDC reported no excessive weight gain among a large sample of preschool children in federally funded nutrition programs between 2003 and 2008. Between 2002 and 2008, obesity in the adult population increased by 3.4 percent, or about half the rates seen between 1976 and 2000, according to the January**JAMA**article that the CDC's Flegal co-authored. Allowing for the uncertainties in measuring obesity, "we just don't find any statistically significant increase," Flegal told**National Journal.**But, she added, "we don't know why [obesity] increased, and it's hard to say why it stopped increasing, if it has." Dietz said that the emerging evidence is that obesity "has come to people's attention, and they're changing their behavior in ways we can't count."

Strategies: What's Plan B?

Because diets, drugs, and exercise haven't reduced the nation's taste for calories, advocates are promoting a new range of policies that would have government play a greater role in shaping Americans' lifestyles and waistlines.

In July, the CDC issued 24 policy suggestions that included a call for local governments to boost consumption of healthy food and to promote the rebuilding of neighborhoods and towns that encourage people to walk, bike, or take public transportation rather than drive. The report also urged officials and nannies to limit television watching and food intake in schools and day care centers. The agency's report, "Recommended Community Strategies and Measurements to Prevent Obesity in the United States," called for the establishment of local political coalitions to campaign for its goals.

Public weight-management programs should be expanded to include infants and pregnant mothers, said the Obesity Society's Ryan. Keeping women from carrying too much weight during pregnancy might protect fetuses from in utero biochemical traumas that could make them more likely to gain weight later in life. She believes that this prebirth conditioning is a likely source of obesity, although she cautions that the "research hasn't been done." Ryan wants other jurisdictions to emulate New York City's new licensing rules for nannies, which require them to limit infants' TV watching and calorie consumption.

Stephanie Silverman, a founding board member of the Campaign to End Obesity, says that government should reimburse doctors and medical firms for treating obesity, despite the cost. The campaign is run out of Silverman's Venn Strategies consulting firm, and its members include medical societies, health care firms, and advocacy groups. The Senate's health insurance overhaul package includes several provisions that could allow doctors to be reimbursed for diagnosing and treating obesity.

The anti-obesity movement is increasingly focused on regulating food. Without restrictions on the food industry, Yale's Brownell said, "there's no hope, because it is such a powerful and relentless force." Ryan said that the government should, for example, rethink the agriculture subsidies for corn that "make it possible to make highly processed foods very inexpensively."

The Los Angeles City Council decided in 2008 to limit the number of fast-food restaurants in South Los Angeles, which is home to many African-Americans and Hispanics and where obesity rates are 50 percent above those in higher-income neighborhoods. But, according to a study released in October by the Rand think

tank, the restriction is unlikely to succeed, because the area already has comparatively few fast-food establishments.

In December 2006, New York City began requiring fast-food restaurants to provide calorie information to customers. One subsequent study found that customers who read the labels slightly increased their calorie consumption; a second study found the opposite. The city has also acted to limit restaurants' use of trans fats and salt. The Senate and House health care reform bills require restaurants to display meals' calorie content, despite strong opposition from the restaurant industry.

More than 30 states levy taxes on sugar-heavy soft drinks, often by denying them a sales tax exemption for food. Brownell supports imposing taxes to reshape diets, arguing that every cent of tax per ounce of sweetened drink would reduce calorie consumption by 1 percent. This strategy might not have a significant effect, though, especially if people turn to fruit juice and other alternatives: An NIH-funded study in the**American Journal of Clinical Nutrition**reported in May that consumers who cut out one non-diet sugar-sweetened drink each a day dropped their weight by only 1.5 pounds after 18 months.

But even if such taxes do little to reduce people's waistlines, advocates say, they help bulk up government revenues that can underwrite medical and fitness programs. In July, CDC Director Thomas Frieden told reporters that a 1 cent per ounce tax on sugary drinks would raise $15 billion per year. On January 20, New York Gov. David Paterson introduced a plan to impose a 1-cent tax on sodas, which he said would raise $465 million annually.

Michelle Obama's childhood-obesity campaign envisions government playing a larger role in getting people to live healthier lives. Governments should increase the number of "healthy schools," get more children off the couch and into exercise programs, and reward people who change their diets, according to a White House statement. In a January 28 preview, the administration released "The Surgeon General's Vision for a Healthy and Fit Nation," which declared that "as a society, we have to change our habits one healthy choice at a time ... and the reward is the creation of a healthy and fit nation."

Many of the proposed anti-obesity policies have not been proven to be effective, and they thus invite public pushback and legislative opposition. Moreover, opponents -- legislators and trade associations for the retail, restaurant, and farming industries -- can easily rally public opposition to measures that would tax or inconvenience people who already control their diet, or who exercise, or who possess genes that keep them thin.

Strategy: Less Stigma?

Leaders of the anti-obesity movement do not downplay the cost of shaming fat people, many of whom are also poor. Health advocates, the CDC's Dietz said, should try "to de-stigmatize big bodies and at the same time promote healthy eating and exercise."

Blair agrees. Stigmatizing is "just everywhere you look," he said, "and it's wrong and we've got to fight this."

The stigmatization of fat may have stemmed from post-1950s technological shifts that made food so plentiful that even the poor could get fat, just like rich folks, said Paul Campos, a law professor at the University of Colorado and the author of a 2004

book,**The Obesity Myth: Why America's Obsession With Weight Is Hazardous to Your Health.**

Rich people responded to the trend by declaring fat declasse, he said, and by making lean, tanned bodies the acme of fashion. The status shift can be seen by comparing the rotund figures of Presidents Grover Cleveland and William Howard Taft with the slim, athletic builds of George W. Bush and Barack Obama. These days, Blair said, "we have this enormous bias against overweight and obese people, and we worship the pencil-thin stars."

Many larger-sized people, not surprisingly, resent the stigma imposed by social elites and government leaders. Big bodies won a small victory in November when New Jersey voters elected Republican Chris Christie governor. The incumbent, Democrat Jon Corzine, ran television ads featuring him jogging and highlighting his rival's ample midriff. After a few days, Christie decided to fight back. "Man up," he declared five days before the election on Don Imus's radio show. "If you say I'm fat, I'm fat. Let's go. Let's talk about it." Joking about his weight, Christie added, "We have to spur our economy. Dunkin' Donuts, International House of Pancakes, those people need to work, too."

According to Ernsberger, many fat people damage their health because they feel pressure to take weight-reducing pills and to cycle through one failed diet after another -- both hazardous practices. Psychological pressure also floods the body with dangerous hormones, Muennig said. A more tolerant attitude in the black community, he added, may be why poorer African-American women can carry up to 225 pounds in weight yet suffer no extra health hazards beyond those faced by white women weighting 170 pounds.

Obese people suffer in the workplace because they are routinely denied jobs and promotions by managers who dislike fat, or who fear that overweight people will displease customers or drive up health costs, according to several academic studies cited by the National Association to Advance Fat Acceptance, a self-described civil-rights group. Few businesses, including those selling fitness services or products, include fat people in their advertising, Blair noted; instead, they market their business to "the young, the trim, the attractive," who don't much need what they are selling.

Liberals and conservatives alike share the prejudice against obesity, Ernsbseger said. Surveys show that conservatives tend to believe that fat people just don't control their appetite, and liberals tend to believe that fat people can't resist industry's marketing messages, he said. In contrast, scientific research suggests that most people's genes strongly resist a weight loss of greater than 10 percent of their current body weight, he said.

The anti-obesity movement should emphasize "health at any weight," Ryan contended. That approach would encourage people to improve their health -- through exercise and diet -- but not pressure them to lose more than 10 percent of their weight.

The administration seems to be accepting this argument, although it continues to use the obesity term. The surgeon general's statement, for example, mentions obesity 84 times but concludes: "The 'old normal' was to stress the importance of attaining recommended numbers for weight and BMI. Although these numbers are important measures of disease and disability, the total picture is much bigger. It involves the

creation of a 'new normal' -- an emphasis on achieving an optimal level of health and well-being."

Still, some in the anti-fat movement are loath to give up the word "obesity." The term is a widely recognized brand that helps spur government action, Silverman says. Jacobson primarily blames the food industry for obesity, but he nevertheless says that stigmatizing fat is a vital public health tool. Obesity is caused by "human nature, sloth, and gluttony, and it takes a lot of effort to overcome," he said. Still, he added, stigmatizing obesity "has to be done with some sensitivity."