

# Obesity and Health Care Reform

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*From 1998 to 2006 Mr. Downey was the chief executive officer of the American Obesity Association (AOA). AOA was an educational and advocacy organization. During his tenure he achieved an Internal Revenue System revenue ruling that expenses for weight loss were eligible for the medical deduction; convinced the Social Security Administration, the IRS that obesity is a disease; advocated successfully for the Centers for Medicare and Medicaid Services to remove coverage language that claimed obesity was not a disease and, later, greatly expanded Medicare coverage of bariatric surgery. From 2006 to 2008 he was the Executive Vice President of the Obesity Society, the medical and scientific society for obesity. In that position he conducted a forum in 2007 on what the next Administration should do about obesity. Nine presidential candidates (Senators Biden, Clinton, Dodd, Edwards, McCain, Obama, and Governors Richardson Romney and Mayor Guiliani) were represented as well as Peter Orszag from the Congressional Budget Office. In 2008, Mr. Downey conducted similar forums at both the Democratic and Republican National Party Conventions. Due to these efforts, obesity was included for the first time in both party's national platforms in 2008. He is currently consulting with several organizations.*

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## ABSTRACT

*Obesity is a major public health problem and is growing in prevalence and severity. Projections indicate continued growth with strong gender, race and ethnic differences. Morbid obesity is also increasing significantly. Many obstacles have persisted which have impeded effective public policies to address the issue. Health care reform presents unparalleled opportunities to change the approaches to obesity in a way to positively improve individual and public health. Simple solutions will not be adequate; rather a complete integration of evidence-based interventions into the nation's health care system is required. Costs will be significant yet the costs of inaction will be greater. Recommendations are offered for the integration of obesity prevention and intervention measures.*

## *The Current Situation*

Obesity is now recognized as one of America's most serious and growing epidemics. Over 2/3 of Americans are overweight or obese; 1/3 are obese.<sup>1</sup> As expected, the prevalence of numerous, adverse health conditions flowing from obesity has also increased. For some of these conditions, obesity appears to be a strong causal factor, others are mentioned in the literature as associations or as causing additional

complications: asthma, birth defects, certain cancers (such as breast, esophageal, gastric cardia, colorectal, endometrial, kidney, ovarian, pancreatic, prostate, and renal cell), chronic venous insufficiency, congestive heart failure, coronary artery disease, deep vein thrombosis, end stage renal disease, erectile dysfunction, gallbladder disease, gastroesophageal reflux disease (GERD), gout, fatty liver disease also called NASH, heat disorders, hypertension, hypercholestermia, impaired respiratory function, infections following wounds, infertility, kidney disease, low back pain, macular degeneration, metabolic syndrome, migraine, gynecological complications, osteoarthritis, pancreatitis, polycystic ovary syndrome, pseudo tumor cerebri or benign intracranial hypertension, psoriasis, sleep apnea, stroke and urinary stress incontinence, and urinary tract infections. Obesity is often accompanied by psycho-social problems and outright stigmatization and discrimination. Low self-esteem and disability are obesity's handmaidens.

Maternal overweight and obesity are special public health challenges. More women are entering pregnancy at higher weights and are more likely to retain gestational weight with each pregnancy. Overweight and obese mothers are at higher risk of infertility. If they do conceive, they have a higher risk for gestational diabetes, thromboembolism, pregnancy-induced hypertension and pre-eclampsia, birth defect, large for gestational age babies, macrosomia, cesarean section, prolonged labor and postpartum anemia. Children born to obese mothers are more susceptible to obesity in adolescence and adulthood.

Childhood and adolescent obesity are national and international public health concerns. During the 1970s between 3% and 6% of American children and adolescents were obese. In 2004, the number had increased 5-fold to 16-18% of all Americans between age 6 and 19 years old. Childhood and adolescence lay the foundations for future obesity. All children are born with fat cells or adipose tissue. The developmental stages of adiposity growth occur during infant feeding and puberty. Obesity occurs when either the fat cells increase, in number or in size, or, frequently, both.

The risks of childhood obesity are not limited to the likelihood that obesity will persist into adulthood. Studies have shown a strong association in children between overweight and increased presence of atherosclerotic lesions in both the aorta and coronary arteries. Increased childhood weight is a strong predictor of coronary calcium which is associated with increased risk of myocardial infarction. Other results of childhood obesity include hypertension, left ventricular hypertrophy, insulin resistance, dyslipidemia, type 2 diabetes, asthma, obstructive sleep apnea, NASH and GERD. Excess weight causes extreme stress on the developing musculoskeletal system and overweight and obese children report frequent pain in the knee and hip. The

psychosocial impacts of obesity in children cannot be overstated. Obese adolescents seeking treatment for their obesity show higher rates of depression than peers without obesity. Depression itself may be associated with abnormal eating and exercise patterns. Overall, obese children and adolescents report significantly lower health-related quality of life than peers of normal weight, a level as low as that for children being treated for cancer.

### *The Future*

In one estimate, by 2030, 86% of adults will be overweight/ obese and 51% will be obese; African-American women - at a level of 97% - will be the most affected, followed by Mexican-American men (91%). By 2048, all American adults would be overweight or obese but African-American women would reach that milestone by 2034. In children, the authors estimate, prevalence will reach 50% by 2074. Total health care costs attributable to obesity/overweight would double every decade, accounting for 16-18% of total US health care costs by 2030<sup>2</sup> compared to about 9% at present.<sup>3</sup>

Elevated Body Mass Index (BMI) levels in children are associated with \$14.1 billion in additional prescription drug, emergency room and outpatient visit costs annually, indicating that the economic consequences of childhood obesity are probably much greater than previously indicated.<sup>4</sup> (The Body Mass Index is a formula in which the weight in kilograms is divided by height in meters squared. A BMI of 40 or greater is regarded as morbid or severe obesity (roughly 100 lbs. over ideal weight); a BMI of 30 to 39.9 is regarded as obese; 25-29.9 overweight and 20-24.9 normal weight; below a BMI of 20 is considered unhealthy.)

Frequently overlooked in discussions about obesity is the role played by morbid obesity. While this population is only about 5% of the total U.S. population or 15 million people, it is greater than the entire population of Illinois and is roughly 3X as large as the population with Alzheimer's disease. It is this group – the persons with morbid obesity – who have the most comorbid conditions, the highest health care costs and the greatest likelihood of premature death.

While the overall prevalence is 5%, gender and racial differences in morbid obesity are strong. The prevalence is greater among women than men and among African-Americans than among non-Hispanic whites or Hispanics. Among African-American women age 40-59, the prevalence is over 16%.<sup>1</sup> The mortality due to morbid or extreme obesity is greater among the young than the older adults, greater for men than for women and greater among whites than blacks.<sup>7</sup>

The number of Americans with morbid or severe obesity is growing twice as fast as the number of Americans who are overweight or obese. The prevalence of Americans with a BMI over 50 has increased by 75% from 2000 to 2005. This confirms that the heaviest BMI groups have been increasing at the fastest rates for 20 years.<sup>5</sup> Heavier Americans are getting heavier. Ethnic disparities are increasing. The group with the greatest increases are young Americans. In all these categories, central adiposity which has the greatest health effects is increasing.<sup>6</sup>

A recent study of thousands of employees found that those with morbid obesity have a significantly higher prevalence of more than 102 diseases and conditions out of 131 eligible diseases and conditions than employees who were not diagnosed with morbid obesity.<sup>8</sup> This study also revealed several conditions which were not noted in previous studies including intervertebral disc disorders, malaise and fatigue, anemia, other upper respiratory disease, abdominal pain, and nonspecific chest pain, indicating that morbid obesity may be more severe than previously estimated.

### *Obesity and the Uninsured Population*

There appears to be a high prevalence of overweight and obesity in the uninsured population. A study published in 2000 indicated that, "Smokers, obese individuals, and binge drinkers, were more often uninsured than adults without these risk factors. In contrast, people with self-reported hypertension, diabetes mellitus, and elevated cholesterol were less likely to be uninsured than adults without these conditions."<sup>9</sup>

Likewise, it is estimated that nearly half of all uninsured, non-elderly adults report having a chronic condition. Common reported chronic conditions are diabetes, hypertension, arthritis-related conditions, high cholesterol, asthma and heart disease, all of which are either caused by or highly associated with, overweight and obesity.<sup>10</sup>

### *Is there a role for public policy in influencing individual behaviors, such as overeating and lack of physical activity?*

To many thoughtful people, altering the course of the obesity epidemic is a futile effort because they believe that obesity is only a result of individual choices to consume more calories than are expended. Therefore, efforts at control of such behavior are futile. There is no small truth in this: changing the course of obesity on an individual or society level will require great effort and will incur many frustrations. To some extent, changing the course of the obesity epidemic may be a greater challenge than achieving mass behavioral changes, as difficult as that is. Obesity, especially at the heavier levels, is greatly influenced by genetic predisposition. The likelihood of one becoming obese is

greater if one parent is obese and much greater than if both parents were obese.<sup>11</sup> This may explain the results of a paper presented by researchers at the State University of New York, Buffalo children as young as 3 years old were obese and showing abnormal liver function and abnormally high insulin levels.<sup>12</sup> Current research is exploring the possibly significant impact of the intrauterine environment. One study found that the odds of overweight in offspring by age 7 increases 3% for every kilogram of gestational weight gain.<sup>13</sup> If that is not enough, we are clearly living in an environment where food is nearly universally available and where 'healthy foods' are much more expensive than foods with lesser nutritional value.

### *Conceptual constraints on policy-making in obesity*

Three common concepts – silos of the mind - have impeded progress on policy-making in obesity. The first is the concept of “personal responsibility.” While this is in vogue in the current health care reform debate, it is the constant restraint on policy development in obesity. “Personal Responsibility” has been used for years to justify not taking action at various governmental and private sector levels. At the point where a majority of the population is overweight, where we can see rates of overweight and obesity over 85% as far into the future as the administration of Jimmy Carter is behind us, it is time to put this canard in its rightful place and begin serious work on addressing the issue. It is not that personal responsibility is not important. It is. However, in many health care issues, such as sexually transmitted diseases or skin cancer, personal responsibility is one part of the solution; with obesity it is the end of the discussion.

The second concept is that of between children and adults and between prevention and treatment. In obesity, but not in any other health condition, it is common to hear the position expressed, “I don’t care about the adults; I only want to focus on the children.” Or, “I don’t want to treat obesity; I only want to prevent it.” Unfortunately, child-focused efforts have not prevented increases in prevalence and now those children are growing into adulthood and having their own children.

The third concept is the inability to define obesity itself. While leading federal health agencies regard obesity as a disease as do many health care professionals, still others are not comfortable calling it a “disease” but address it variously as a “condition”, “lifestyle factor,” “biometric,” etc. This has resulted in obesity usually being put into one of two ‘buckets.’ One ‘bucket’ is reimbursement for professional services and interventions through traditional insurance mechanisms. Obesity is usually left out of this bucket. The other ‘bucket’ is labeled wellness or prevention and it receives far less support. The problem is also seen in discussions of children where it is still debated whether to use the term “obesity” at all.

## *Obesity as A Unique Chronic Disease Model*

Most chronic diseases, if they have a treatment, can be better addressed at early stages before the disease process has established itself. The longer and more severe the disease, the less effective treatments there are. Obesity does not follow that model. For the most severe cases we actually have a very good and effective intervention, bariatric surgery. It is finding more effective interventions at lower BMI levels that is the challenge. Bariatric surgery, or any surgery, is rarely thought of as “preventive.” Yet, in the case of obesity it is. In addition to sustained, significant weight loss, many studies support surgery as effective in resolving comorbid chronic diseases. <sup>14</sup>

The ability of bariatric surgery to effect a remission of type 2 diabetes was first reported in the 1970s. Subsequent research has increased the evidence for this effect.

One commentator has concluded, “The most effective way to induce a remission of type 2 diabetes at present is not pharmacologic but surgical. Bariatric surgery, particularly when gastric banding is effectively applied, results in rapid and massive weight loss that reduces insulin resistance. Roux-en-Y procedures, however, may act via the enteropancreatic (incretin) hormone axis, causing diabetes to remit even before weight loss. However bariatric surgery has adverse effects and complications, as it enforces a major alteration of lifestyle. Surgically reduced stomach volume restricts how much food the individual can ingest without significant discomfort. Long-established eating habits are necessarily changed.” <sup>15</sup>

Another paper estimated that as many as 14,310 diabetes-related deaths might be prevented by bariatric surgery over 5 years. <sup>16</sup>

Other studies support for surgery’s role in treating type 2 diabetes.<sup>17</sup> In the study cited above, 26 of the 106 AHRQ specific diagnostic categories were resolved in 2-4 months after surgery. In addition to diseases previously reported, this study saw reductions in other mental disorders, other respiratory disorders, other respiratory infections, acute bronchitis, nonspecific chest pain, sprains and strains and biliary tract disease. <sup>8</sup>

## *Obesity in Health Care Reform*

Therefore, health care reform presents a unique, historical opportunity to address obesity from a comprehensive, system-wide approach, employing evidence-based strategies and forgoing old dogmas which have kept us from meaningful intervention in this epidemic. As stated in the Baucus Plan (Call to Action Health Reform 2009, November 12, 2008, Senate Finance Committee), “Prevention must become a cornerstone of the health care system rather than an afterthought. This shift requires a

fundamental change in the way individuals perceive and access the system and community-based wellness approaches at the Federal, state, and local levels. With a national culture of wellness, chronic disease and obesity will be better managed and, more importantly, reduced.” (at p.28) Therefore, health reform must be about something more than insurance reform. It must be focused on actually improving the health of Americans. The following are recommendations for meeting this opportunity

### RECOMMENDATIONS

Recommendation 1: The legislation establishing a program for the coverage of the uninsured should prohibit any exclusion based on weight or undefined ‘health status.’

When individuals, outside of group plans, with obesity try to purchase health insurance policies on an individual basis, they find they are unwelcome. Many private health insurance programs exclude individuals with certain Body Mass Index from accessing individual policies. According to *F as in Fat Report* by the Trust for America, many companies will charge additional premiums for persons with a BMI between 30 and 39. Over a BMI of 39, a person may find no company willing to provide individual coverage. Other plans may classify persons as “unhealthy” or “uninsurable” due to obesity. Companies are free to make their own definitions of these terms. Few states restrict these practices.<sup>18</sup>

Even if the person with obesity can overcome the weight hurdle, their coverage may be limited by the use of the common ‘pre-existing condition’ requirements which restrict a person for a period of time from accessing their plan’s benefits. As indicated above, many chronic diseases are associated with obesity and these can form additional hurdles to obtaining needed care.

Some health insurance plans have started to take very small steps to deal with obesity. For the most part, these efforts include bariatric surgery for additional premiums or offering employers a worksite wellness program, also for an additional payment.

Few states have any kind of mandated benefits related to obesity treatment or prevention. In such cases, the insurance industry typically fights such proposals extremely vigorously.<sup>19</sup>

The elimination of pre-existing condition exclusion is critically important to make health insurance available to uninsured overweight/obese Americans.

Recommendation 2: The legislation should define a minimum benefit package including behavioral, pharmacological and surgical interventions based on the

evidence-based recommendations of the National Institute of Health/National Heart, Lung and Blood Institute.

Health reform must address one of the root causes of mortality and morbidity in the country. Without fully including evidence-based interventions for obesity, it is hard to see a net improvement in the health of Americans. The current situation of health insurance, in its avoidance of obesity prevention and treatment, perpetuates a focus on the conditions caused by obesity. Millions of dollars spent on heart disease or type 2 diabetes (not to mention the other ill effects) will only continue.

The question has been raised of which model to use in designing a benefit package for a minimum health insurance proposal. Medicare, Medicaid and private insurance plans have been cited as possible models. However, all these plans are flawed.

Regarding Medicare,

- a. In 2004, Medicare eliminated language in its coverage manual to the effect that obesity was not a disease. This opened the door to treat obesity in its own right as a disease.
- b. In February 2006, CMS significantly expanded its national coverage policies to cover more bariatric surgery procedures when performed in designated centers of excellence.
- c. Medicare Part D does not cover drugs for the treatment of obesity.
- d. Medicare does not cover physician or dietetic counseling for weight loss.

Regarding Medicaid,

- a. Most Medicaid plans have either limited to no coverage of drugs for the treatment of obesity. The Medicaid statute actually bans states from including such pharmaceutical products but allows a waiver on request of the state. Few states have sought or received such a waiver.
- b. Bariatric surgery, while nominally covered in many states, is subject to such low reimbursement rates that few surgeons want to provide it.

Typically, private insurance plans contain exclusions for any weight loss treatment. A few have expanded coverage of bariatric surgery, usually when performed in a center of excellence.

The National Institutes of Health/National Heart, Lung and Blood Institute established guidelines for the treatment of adult obesity in 2000. They are the product of extensive research and peer-review. They are currently being updated and new guidelines are expected in the spring of 2010. These constitute the best in evidence-based recommendations. Regarding children and adolescents, the American Academy of Pediatrics and 15 national medical societies have adopted guidelines which can be incorporated into the statute.<sup>20</sup>

It is important that Congress specifically include coverage of obesity interventions in the final statute. The scope and novelty of such coverage mitigates against any agency or body, such as the proposed Health Coverage Council, undertaking such a step without a clear Congressional mandate.

Recommendation 4 : Coverage of obesity treatment (based on NIH/NHLBI adult and APA childhood guidelines) should be modified as needed using comparative effectiveness research.

Due to the provisions of the American Recovery and Reinvestment Act, much activity is taking place by the relevant federal agencies to develop plans to implement comparative effectiveness research. It seems likely that obesity will be one of the priority areas for this research. However, it will be crucial that the comparative effectiveness research ask the right questions. One question is obviously what is the best way to lose a clinically significant amount of body weight and sustain that loss.

However, the answer may be complex. The answer is clearly bariatric surgery. But surgery is not everyone's choice of intervention. Even if it were, sustaining weight loss achieved by surgery will require non-surgical pharmacological or behavioral intervention.

But there are other serious questions. What is the best way to treat type 2 diabetes, sleep apnea or back pain, by weight loss alone or by treatments more specific to those conditions or by some combination of therapies? Does weight loss resolve all of the comorbid conditions associated with obesity or just some? Does the means of weight loss affect the outcome or is all weight loss the same?

Recommendation 5: The Office of the National Coordinator for Health Information Technology should create one or more advisory panels to plan for common data collection methodologies and for their integration.

The infusion of federal support into health information technology has tremendous promise to vastly improve obesity treatment and prevention, to drive quality professional services and enhance patient safety - if done correctly.

Health IT's potential to improve prevention and treatment of obesity can be pictured at three levels. At the level of the individual, Personal Health Records can help individuals track their eating and physical activity patterns. Millions of Americans familiar with Weight Watchers will understand the value of this tracking as a way to encourage thoughtful pattern changes in diet and physical activity. For many successful weight losers, periodic tracking of diet and physical activity is used and recommended by professionals.

The power of Health IT comes in at the next level: the Electronic Health Record (EHR). This proposal will allow individuals to convert their food/activity tracking (a) to nutritional dimensions (proteins, carbohydrates, fats, salt, etc.) and (b) changes in their clinical profile, such as blood pressure, cholesterol levels, HBA1c, and prescription or OTC medications, etc. This can be correlated with the individuals Body Mass Index (and other metrics such as waist circumference.) So the powerful second level can take the food/activity patterns and combine them with nutritional clinical indicators.

At the third level is the combination of these two steps into powerful databases, based on real world experience, not only on highly controlled clinical trials, to generate improvements in patient care and safety. Such databases are already underway in the area of bariatric surgery through programs of the organization which approves bariatric centers of excellence, The Surgical Review Corporation ([Surgical Review Corporation](#)) and providers such as Geisinger. [Health System Program That Guarantees Doing Things Right the First Time, for Flat Fee, Pays Off - washingtonpost.com](#)

To achieve this integration will not be easy. Common definitions and the ability to communicate across such different platforms will be challenging, but the promise to provide enhanced patient care and safety is unparalleled.

Recommendation 6: Obesity exhibits significant gender and racial disparities. Federal efforts should be focused on culturally sensitive issues. Federal involvement in Native American affairs provides a special opportunity.

As indicated above, there are significant differences in the prevalence of obesity across racial, gender and ethnic categories. Variations in diseases may be due in part to the different rates of obesity. Intervention studies, unfortunately, often fail to adequately include various racial, gender and ethnic groups; middle age Caucasian women tend to dominate in such studies. Greatly enhanced research, supported by more

comprehensive electronic health databases may help resolve many of the gaps in our current knowledge about variations across all groups.

Where there are opportunities to improve specific populations, special efforts should be made. For example, twenty to thirty years ago, of the many issues faced by Native Americans, hunger, malnutrition and alcoholism were most important. Now, obesity has to be added to that list. According to a study published last year based on the Indian Health Service data, obesity was common and increasingly prevalent among persons with type 2 diabetes. Increases in BMI were observed across all age groups but greatest among younger age groups.<sup>21</sup> The Indian Health Service should provide obesity interventions based on the NIH guidelines and amended as indicated for the unique needs of Native Americans. Likewise community health centers should be supported to expand their provision of nutrition education and obesity prevention and reduction strategies in culturally appropriate ways.

Recommendation 7: Employer-based wellness programs should be supported but only if they provide incentives for employee participation and not penalties for failure to meet unattainable goals. Over reliance on employer-based wellness programs should be avoided as there is insufficient evidence that they will significantly improve health.

In recent years, employers, mainly large ones, have developed wellness programs designed to promote healthier lifestyles among their employees while at the same time reducing their health care expenses. These are positive and welcomed developments. Recently though, questions have arisen: Are such programs incentives or penalties? Do they work? What about employee privacy?

Safeway, for example, has been promoting their plan called Health Measures. This plan gives employees reduction in their insurance premiums if they are, and stay, within certain limits on four medical risk factors: smoking, obesity, blood pressure and cholesterol. Rebates for achieving the goals total nearly \$800 for an employee or \$1,600 for a family. People who test within the limits get lower health premiums at the outset of the year. An employee who fails the obesity test i.e. has a BMI over 30 can get a retroactive payment if he or she loses 10% of his or her body weight by the end of the year. But if the person's BMI is still over 30 at the beginning of the following year, the payment is withheld until the employee reaches the permanent goal of under a BMI of 30.<sup>22</sup>

Legally, the Safeway program may be pushing the envelope. Under the Health Insurance Portability and Accountability Act of 1996 (HIPPA), no person can be denied or charged more for coverage than other similarly situated person (e.g. full time, part time) because of health status, genetic history, evidence of insurability, disability or

claims experience. HIPPA “makes it easy for health plans to reward members for participating in health-promotion programs but difficult to reward them for achieving a particular health standard,” according to Mello and Rosenthal. In one allowable category for wellness programs, employee rewards are based solely on participation. The second category allows rewards based on attainment of a specific standard, such as losing a specific amount of weight, but the financial incentive is limited to less than 20% of the cost of the employee’s coverage. If the person cannot meet the standard if it is unreasonably difficult or medically inadvisable, that person must be offered a reasonable alternative standard. Other federal and state laws also apply to this situation.<sup>23</sup>

Safeway President Steven Burd has called for overturning the HIPPA 20% rule and the provisions of the Americans with Disabilities Act which prevent companies from being more aggressive about employees reaching specific personal targets.

This is a highly sensitive issue for several reasons:

1. As addressed above, obesity is caused by a multitude of factors few of which are under an individual’s control. By the time a person enters the workforce, the number of fat cells (adipose tissue) has been established and will not change no matter what the intervention, including bariatric surgery. Genetic predisposition and an environment overwhelmingly favoring the easy availability of food are two extremely strong factors for an individual to try to overcome. It is therefore of some concern that the person who designed the Safeway program, Ken Shachmut, Senior VP for Strategic Initiatives, indicated, “I want to be clear – we were adamant about designing this program to cover only those things for which our employees had control and which were clearly behavioral in nature. We do not differentiate for genetics and we did everything prospectively and transparently so that everyone had equal opportunity to improve their behaviors.”<sup>24</sup> (Emphasis added). This is incorrect on two counts. First, obesity has a strong genetic basis. A Google search for “obesity genetics” turned up 3, 000,000 results; Google Scholar found 191 papers for “obesity genetics.” PubMed, the medical search engine of the National Library of Medicine, found 15,780 articles (all accessed May 25, 2009). According to the CDC:
  - a. Biological relatives tend to resemble each other in many ways, including body weight. Individuals with a family history of obesity may be predisposed to gain weight.

- b. Different responses to the food environment are largely due to genetic variation between individuals.
- c. Fat stores are regulated over long periods of time by complex systems that involve input and feedback from fat tissue, the brain and endocrine glands like the pancreas and the thyroid.<sup>25</sup>
- d. The tendencies to overeat and be sedentary, the diminished ability to use dietary fat as fuel and enlarged, easily stimulated capacity to store body fat are all genetically influenced. The variation in how individuals respond to the food rich environment and the differences in acquiring obesity related comorbid conditions are also genetically determined.<sup>26</sup> Since 1997, published studies have found that variation in BMI is largely due to heritable genetic differences, with estimates ranging from 55% to 85%. A 2008 study found that 77% of the adiposity in preadolescent children born since the start of the obesity epidemic was due to genetic inheritance compared to 10% for the environment.<sup>27</sup>

Second, Mr. Shachmut may overstate the level of individual control over the three other factors – smoking, blood pressure and cholesterol. What makes these risks controllable has little to do with behavior and more to do with a variety of drugs for their control. Obesity does not have such products.

- 2. Employers already discriminate against persons with obesity in firing, promotion and hiring decisions. A recent paper addressed 32 experimental studies in weight discrimination in employment. The findings demonstrated that overweight and obese individuals are disadvantaged in workplace interactions, evaluations, and employment outcomes as a result of negative weight stereotypes.<sup>28</sup> Another recent study for the negative association between BMI and wages is larger in occupations requiring interpersonal skills with presumably more social interactions. This wage penalty increases as employees get older. This study demonstrates that being overweight and obese penalizes the probability of employment across all race and gender groups except for black men and women.<sup>29</sup> Furthermore, obese employees in firms which provide employer paid health care are paid less than their peers for the same work. This indicates that employers are offsetting the higher health care costs of obese employees with lower wages.<sup>30</sup>
- 3. The difficulties of weight loss and maintenance of weight loss need to be understood. About 1/3 of American adults are engaged in weight loss efforts

at any given time. Yet, obesity increases. Why is that? Some dieters do succeed in weight loss but few, 5-10% manage to keep the weight off over the long term.<sup>31</sup> The best behavioral weight loss programs consider a loss of 18-20 pounds a success but also report that only 60% of the initial weight loss is retained one year after treatment.<sup>32</sup> Maintaining weight loss is extremely difficult. As soon as weight starts to decrease, energy expenditure also drops in obese individuals. Not only is resting metabolic rate decreased; non-resting energy expenditure is also less because less mass is being moved. Take the situation with persons with type 2 diabetes, a common chronic disease highly correlated with obesity. Weight loss in this population is very difficult. Typically, patients lose weight over 4-6 months then plateau. Patients generally lose about 4-10% of their baseline weight. Hypothalamic signals in defense of body weight increase and intervene to prevent further weight loss. This initiates a regain of the lost weight. Neurotransmitters are activated to such an extent that the signal levels of increased hunger and decreased satiety become extremely difficult to ignore. Also, most diabetic patients are on anti-diabetes medications, many of which, like insulin, actually cause weight gain.

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4. Employer wellness programs, as they apply to obesity, are not defined. What are the components of the program? Are they individually tailored? Who provides the advice or counseling? Are they integrated with the employer paid health insurance? At present these plans encompass a variety of approaches and do not have a standardized format. It does appear that most provide advice on nutrition and physical activity and perhaps the ill effects of obesity. As such, they would be similar to the behavioral format used as standard therapy for control groups in randomized intervention clinical trials. Such interventions have not been particularly effective.<sup>34</sup> However structured, it is impossible to think that an employer wellness program would be as intense and well-funded as the National Institutes of Health Diabetes Prevention Program (DPP). In this study over 3,000 non-diabetic persons with elevated fasting and plasma glucose concentrations (but not diabetes) were assigned to placebo, metformin (a drug to treat diabetes) or an intensive life-style modification program with the goal of at least a 7% weight loss and at least 150 minutes of physical activity per week. "The lifestyle modification intervention reduced the incidence of diabetes by 58% compared to 31% in the metformin group. The advantage of lifestyle intervention over metformin was greater in older persons and those with a lower body-mass index than in younger persons and those with higher body-mass index." The weight loss difference between the lifestyle group and the metformin group was barely 4

pounds after 4 years. Only 10 million persons in the United States resemble the participants in the DPP.<sup>35</sup>

5. Employer wellness programs do have adequate evidence of their effectiveness at long term weight loss and maintenance. A CDC Report evaluating such programs determined that insufficient evidence existed to determine the effectiveness of single-component worksite interventions focused on nutrition, physical activity, or other behavioral interventions among adults.”<sup>36</sup> More recently, Goetzel and Ozminkowski looked at the health and cost benefits of work site health-promotion programs. Commenting on a 2007 systematic literature review they observed, “Health and productivity outcomes from these interventions were reported from 50 studies qualifying for inclusion in the review. The outcomes included a range of health behaviors, physiologic measurements, and productivity indicators linked to changes in health status. Although many of the changes in these outcomes were small when measured at an individual level, such changes when measured at a population level were considered substantial.”(Emphasis added.)<sup>37</sup>
6. Wellness programs may also need to align their internal goals. It is not uncommon to see programs stress smoking cessation and weight loss. Rarely, however, do they seem to address the perception that smoking cessation will lead to weight gain. A 1991 study by the Centers for Disease Control published in the New England Journal of Medicine found mean weight gain after smoking cessation was 2.8 kg for men and 3.8 for women. Major weight gain of over 13kg occurred in 9.8% of the men and 13.4% of the women.<sup>38</sup> Weight control advice was not associated with reduction in weight gain after cessation.<sup>39</sup>
7. To the extent that wellness programs which shift costs to employees create stress, they may actually lead to weight gain. We know that chronic stress is a contributor to obesity and the metabolic syndrome.<sup>40</sup> Overweight women experience more stressful life events than normal women. Obese and extremely obese men and women are more likely to report several specific stressful life events and more stressful life events overall compared to normal weight individuals.<sup>41</sup> What do people do when faced with the need for rapid weight loss? Many will turn to dietary supplements for weight loss, like Hydroxycut, which was recently implicated by the Food and Drug Administration in a number of adverse events and at least one death. [FDA Warns Consumers to Stop Using Hydroxycut Products](#). Consumers, especially women making under \$35,000 per year, trying to achieve unrealistic weight loss are likely to turn to such products<sup>42</sup> (regularly sold in nutrition stores, pharmacies and grocery

stores, like Safeway) for quick weight loss but will be disappointed in the inability of such products to produce the desired effect. [Over-the-counter weight-loss pills: Do they work? - MayoClinic.com](#)

8 Expanded and more punitive employer wellness programs are likely to operate like a tax on overweight employees. Compliance with any weight loss regimen involves both time and money. While employers may bear some of this in their programs, the economic burden is likely to fall mainly on overweight/ obese employees, who have already paid a penalty in their wages for their largely inherited status.

For example, successful maintainers who have lost at least 30 lbs. for an average of five years expended an average of 1.5 hours a day on exercise.<sup>43</sup>

A recent collaborative position paper explains the relevant issues of money and time:

### **The Role of Money**

One hypothesis linking SES variables and childhood obesity is the low cost of widely available energy-dense but nutrient-poor foods. Fast foods, snacks, and soft drinks have all been linked to rising obesity prevalence among children and youth. Fast food consumption, in particular, has been associated with energy-dense diets and to higher energy intake overall. Calorie for calorie, refined grains, added sugars and fats provide inexpensive dietary energy, while more nutrient-dense foods cost more, and the price disparity between the low-nutrient, high-calorie foods and healthier food options continues to grow. Whereas fats and sweets cost only 30% more than 20 years ago, the cost of fresh produce has increased more than 100%. More recent studies in Seattle supermarkets showed that the lowest energy density foods (mostly fresh vegetables and fruit) increased in price by almost 20% over 2 years, whereas the price of energy-dense foods high in sugar and fat remained constant.

Lower cost foods make up a greater proportion of the diet of lower income persons. In U.S. Department of Agriculture (USDA) studies, female recipients of food assistance had more energy-dense diets, consumed fewer vegetables and fruit, and were more likely to be obese. Healthy Eating Index scores are inversely associated with

body weight and positively associated with education and income... .

### **The Poverty of Time**

The loss of manufacturing jobs, the growth of a service economy and the increasing number of women in the labor force have been associated with a dramatic shift in family eating habits, from the decline of the family dinner to the emerging importance of snacks and fast foods. The allocation of time resources by individuals and households depends on socioeconomic status.

The concept of “time poverty” addresses the difficult choices faced by lower income households. When it comes to diet selection, the common tradeoff is between money and time. One illustration of the dilemma is provided by the Thrifty Food Plan (TFP), a recommended diet meeting federal nutrition recommendations at the estimated cost of \$27 per person per week. While this price is attractive, it has been estimated that TFP menus would require the commitment of 16 hours of food preparation per week. By contrast, a typical working American woman spends only 6 hours per week, whereas a non-working woman spends 11 hours per week preparing meals. Thus, TFP may provide adequate calories at low cost, but requires an unrealistic investment in time. <sup>44</sup>

It is useful to consider that weight management is not the only thing people have to do. Time taken for physical activity and nutritional improvement is going to be time taken away from other activities, such as care for self and others, self-improvement, community activities and volunteering, time with children and family members, and recreation (including television viewing and using a computer/Internet).

9. Intrusive wellness programs have the potential to interfere with the employees’ right to privacy and complicate the doctor-patient relationship. Under the Safeway plan, for example, an employee can request an exception on recommendation of a physician. To whom the employee can request this is not clear. Nor is it clear under what circumstances the exception would be granted. Look at two common scenarios:

- a. The employee has a disease like HIV/AIDs or cancer in which weight loss is common and his or her physician does not want the employee to lose any weight if they can help it. Would the employee have to reveal these conditions to get an exception?
- b. The employee has common diseases like type 2 diabetes or depression. The physician has recommended drugs which actually cause weight gain. Does the employee have to disclose this? What if the employer decides that another medication could be used? Does now the doctor, patient and often managed care plan have to discuss medical alternatives with Human Resources? In other words, will the employee's health be endangered by the effort to live a healthy lifestyle?

10. Is anyone disadvantaged by employer wellness program? Programs such as Safeway's may have unintended discriminatory effects. The biometrics used in such programs, to the extent they include obesity, elevated triglycerides and blood pressure, are part of what is known as the metabolic syndrome. Approximately 34% of adults meet the National Cholesterol Education Program's criteria. Older males and females from 40-59 years of age are about 3 times as likely as those 20-39 to meet the criteria for the metabolic syndrome. Males and females over 60 were more than 4 and 6 times respectively to meet the criteria. Overweight and obese males were 6 and 32 times as likely as normal weight males to meet the criteria and overweight and obese females were 5 and 17 times as likely to meet the criteria.<sup>45</sup> Therefore, we can expect that such programs deliver little in the way of improvements in individual's body weight, while having a disproportionate impact on minorities, the elderly and those with serious health conditions. To the extent that these employees see a reduction in their health insurance (possibly to the point of zero if the 20% limitation is totally removed), they will only increase the ranks of the uninsured, thereby frustrating the whole purpose of health care reform.

Persons with mental illness are also likely to be adversely affected. Up to 60% of individuals with schizophrenia and 68% of those with bipolar disorder are overweight or obese.<sup>46</sup>

The National Business Group on Health has proposed as part of health care reform that the tax code be amended so that the expense of the employer-sponsored program is not taxed as income to the employee when provided off-site.<sup>47</sup> Likewise, employees would be able to use their own health spending accounts for fitness and weight management. These recommendations deserve inclusion in the health reform legislation but not to the extent that wellness programs can become punitive and affect patient privacy rights. Realistic goals for such programs should be (a) participation and possibly (b) weight loss of between 5% to 10%.

Recommendation 8: Strengthening the role of Primary Care and addressing chronic care, especially obesity, will require specific focus and support.

The Baucus Plan rightly recognizes that primary care delivery has to vastly improve to meet the goals of health care reform and improvements in quality. In the context of obesity, the education and training of physicians and other health care professionals fall far short of what is needed to address this problem. A new study analyzing data on 696 million doctor visits found that BMI and obesity status could not be computed in half of office visits because of missing height or weight data. 70% of persons with obesity were not diagnosed and 63% received no counseling for lifestyle changes.<sup>48</sup> Rates were even low for obesity patients with related comorbid conditions. Congress should include specific provisions for the training and identification of physicians and other health care providers to address the health needs of persons with obesity.

Recommendation 9: Congress should proceed with caution on changing the itemized deduction for medical expenses.

As mentioned earlier, in 2000, the Internal Revenue Service issued a revenue ruling allowing the expenses for weight control which were recommended by a physician to be deductible as a medical expense. While the scope of this ruling is constrained by the limitation that such expenses must exceed 7.5% of adjusted gross income, it is nevertheless the only federal financial support for treatments for obesity outside of the Medicare coverage of bariatric surgery (which is limited to Medicare elderly and non-elderly disabled populations). As such, it should not be modified or repealed unless Congress mandates the benefit package described in Recommendation 2, above.

Recommendation 10: The Senate Finance Committee policy options have included an option for a tax on sugar sweetened beverages. This option needs to

be better defined. Taxing “Cadillac” health plans may unintentionally reduce obesity interventions.

The role of sugar sweetened beverages in the increase of obesity, particularly childhood obesity, has been well documented. The evidence from epidemiological and experimental studies indicates that a greater consumption of sugar sweetened beverages is associated with weight gain and obesity.<sup>49</sup> Replacing sugar sweetened beverages with water could result in an average reduction of 235 calories per day.<sup>50</sup> The latest research implicates sugar-sweetened beverage as a risk factor for coronary heart disease.<sup>51</sup>

The Senate Finance Committee options, however, do not indicate the level of taxation under consideration. Only a significant tax level is likely to affect consumption and its effect on obesity is predicated on the sugar sweetened beverage not being replaced by foods or beverages of similar caloric value. A significant tax, however, is likely to presage decline in consumption over time with an accompanying decline in tax revenue over that time. Therefore, its contribution to financing tax reform would be offset by its value in reducing obesity. As no state or jurisdiction has undertaken this policy option, there is no way of knowing with some certainty whether obesity levels would fall. This may not be a reason not to impose such a tax.

Also, proposals have been made to treat as income to employee the costs of “Cadillac” health insurance plans, i.e. those that have extensive benefit packages, very low copayments or deductibles or both. In regard to obesity, probably most of the health insurance plans which now cover surgery, drugs and behavioral modification for persons with obesity would be regarded as such a plan. To tax the employee for these benefits may undo the goals of obesity prevention and reduction.

### *Conclusion*

Now is the intersection of significant changes in the financing and delivery of health care with the growing prevalence of obesity and morbid obesity in the population of the United States. This is the time for bold action, based on sound scientific findings, to create a new culture to address obesity across the age, gender, ethnicity and body weight spectrum. If such bold actions are not taken, our society may never again be able to affect the course of the obesity epidemic. Full inclusion of obesity in health care reform is just one piece of the puzzle. Expanding research at the federal level, creating a federal “obesity impact”<sup>48</sup>

statement for federally funded projects, improving Food and Drug Administration review of drugs and devices for the treatment of obesity, and greatly expanding nutritional education are among other, pieces of the puzzle.

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