

HOMICIDE BY SUGAR WITH CORPORATE AND GOVERNMENT SUPPORT?

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July 23, 2016

This is a call for personal, family, community, and political action to stem or reverse the diabesity epidemic that is killing millions of people globally and threatens to overwhelm the health care system. If present trends continue, in two decades, 95% of the people in this country will be either obese or overweight, and by 2050, one out of three people will have diabetes. Now for the first time in history, more people in the world are dying of obesity than of starvation. For the first time in U.S. history, life expectancy is starting to decline because of obesity. Currently 75% of health care costs are related to the consequences of overweight, obesity, diabetes, and the metabolic syndrome (pre-diabetes).

The food industry (by that term I include the food and beverage industry) has for decades taken the easy way out by blaming people for eating too much and not exercising enough, clinging to the seductively simplistic, patronizing, condescending explanation that a healthy weight can be maintained by balancing energy consumed with energy burned, “calories in, calories out.” The evidence disproves this concept, because a certain amount of calories from one type of food lowers the metabolic rate, but the same number of calories from a different food does not. So with exercise or with a certain length of time, fewer calories from the first food are burned than with the second. For example, as explained by Dr. Lustig in the documentary video “Fed Up,” 160 calories from almonds is slowly metabolized and can be used for energy, but 160 calories from high fructose corn syrup goes directly to the liver, which has no choice but to turn it into fat. This one concept is the crux of the whole obesity epidemic, and the food industry’s responsibility in the matter hinges on this one premise. The industry can no longer shirk its role in the epidemic with any logical explanation, no matter how much they try to spin the evidence and lie. The people can see through it.

Five premises prove that the industry is at fault and must soon reverse course or face criminal and civil liability. It can no longer cover up the evidence, as the tobacco companies did about nicotine:

1. Sugar makes people fat.
2. Sugar is addictive
3. Childhood obesity leads to decades of chronic disease and shortened lifespan.
4. Deceptively marketing a harmful or defective product to adults is fraudulent, false advertising.
5. Marketing a harmful product to children is abusive, as they are maimed for life by childhood obesity, and they don’t have the maturity to make such life-altering decisions.

That, in a nutshell, is the premise of this article. It would be helpful to have some background and some documentation of the evidence and some explanations from the experts in the field. What follows will be in three parts. First will be a presentation of various health professionals’ and health journalists’ writings, with my comments, in this

month's article. Next month's article will review the documentary video, "Fed Up," on which much of this month's article is based. I plan to do a review of Dr. Robert Lustig's book Fat Chance, in the third month, with some closing comments.

In his book, Fat Chance, Dr. Robert Lustig, pediatric endocrinologist at UCSF Benioff Children's Hospital, notes that in nature, pure sugar hardly ever exists. It is always linked to fiber in whole foods, and honey is protected by bees. Birth weight is up by 250 grams all over the world over the last 25 years, and it is entirely fat. Gestational weight gain and diabetes is up all over the world. Studies show that 25% of all diabetes comes from dietary sugar irrespective of calories or obesity. He says both the low fat and low carbohydrate diets of Dr. Ornish and Dr. Atkins are helpful because they both have fiber and they are both low in sugar, and if you eat real food, you don't need a diet. The fiber in whole fruit slows the entry into the blood of the sugar in the fruit and produces satiety. There is a limit to how much whole fruit you can eat at once, but there is practically no limit on how much juice you can drink, and it can be as harmful as sugared soda.

Dr. Mark Hyman, author of Eat Fat, Get Thin, points out that diet sodas do not help people lose weight any more than regular sodas because the artificial sweeteners signal the body to put out more insulin, and that makes the brain think you are starving and increases appetite.

A recent issue of the Journal of the American Medical Association June 7, 2016 (315), 21, outlines trends in obesity in the U.S. It also features a viewpoint by Dr. David Ludwig, M.D., Ph.D., at Boston Children's Hospital and Harvard University (who also contributed to the documentary, "Fed Up.") The article is entitled, "Lifespan Weighed Down by Diet." He notes that from 1963 to 1983, life expectancy increased consistently throughout the country, and no county had a decline. Then, from 1983 to 1999, life expectancy declined for men in 11 counties and for women in 180 counties, in those areas most severely affected by the obesity epidemic. For the first 9 months of 2015, age-adjusted death rates increased over the same period in 2014, primarily deaths related to obesity. Obesity and poor quality diet predispose to all the major chronic diseases. Modern technological advances, while not making people well, prolong life with drugs, surgery, dialysis, etc. We may be reaching a tipping point when the technology no longer can keep up with the increasing severity of disease burden. Especially now, our children are getting diabetes type 2 (previously almost unheard of), and the disease burden is initiated at much younger ages than previously (when it used to be obesity at 45, diabetes at 55, and heart disease at 75).

My comment is that it is a relatively novel occurrence for an article in a major medical journal to question the premise of "calories in, calories out." Dr. Ludwig makes the point that calorie restriction for most people does not result in a long term weight loss because of decreasing metabolic rate and increasing hunger (JAMA 2014(311) 21: 2167-2168. For example, in one study, fat calories consumed resulted in 325 more calories burned than the same number of carbohydrate calories consumed. (JAMA) 2012 (307) 24: 2627-2634. Not all calories are the same. The type of food consumed affects genetic expression, hormone function, and hunger. He cites studies showing that sugary food,

refined grain products, and other high carbohydrate foods lead to weight gain and diabetes risk, whereas calorie-dense fatty food like nuts and olive oil show opposite results. (New England Journal of Medicine 2011 (364) 25: 2392-2404. The high carbohydrate meals do not limit appetite with satiety as high fat foods do, thus the addictive nature of the junk foods. Sugar produces a “high” followed by a “low” later that produces craving for more sugar. Junk food also increases rates of depression, which does not make it any easier to make rational food choices.

I would note that Dr. Jeffrey Bland, founder of the Institute For Functional Medicine and author of The Disease Delusion (see my book report, Feb 2015) has contended for decades, that “a calorie is not a calorie,” that food is information that signals our cells, tissues, and organs to function in a certain way, and he predicted years ago that children being born then would have a shorter life expectancy than their parents, precisely because of the rise in obesity and diabetes from eating poor quality food. Jeffrey Bland and Functional Medicine have been derided as unconventional and “alternative medicine,” and we M.D.’s who practice functional medicine have been categorized as quacks. Now his science and predictions are being validated in mainstream, peer reviewed medical journals.

Dr. Ludwig points out that the public health approach to obesity is still tied to the same old paradigm of calories in, calories out. The 2015 Dietary Guidelines for Americans is to “choose...an appropriate calorie level to help achieve and maintain a healthy body weight.” (I wonder how much of the Guidelines document was influenced by the food industry.) Dr. Ludwig notes that the food industry takes advantage of this by exerting its political influence, lobbying against sensible regulations such as taxing sugary beverages and limiting advertising that target children for unhealthy products. He also recommends eliminating subsidies for corn and wheat and to promote whole foods, vegetables, nuts, etc. Parents and health professionals need to model healthful eating and to educate and train children in food choices. I would here insert a report from Emory’s Rollins School of Public Health featured in the July 5 online edition of JAMA Internal Medicine that “Higher consumption of foods derived from currently-subsidized commodities is associated with higher risks of diabetes and cardiovascular disease,” and from Public Health Nutrition: 19(8), 1348-1357, “Over 50% of energy in U.S. diets is derived from federally subsidized commodities.” The largest subsidies were for corn, soybeans, wheat, rice, sorghum, dairy, and livestock.

In the same issue, the editor of JAMA, Howard Bauchner, M.D., along with Jody W. Zyllke, M.D., write about the alarming problem of obesity. “Parents determine what and where children eat; thus prevention has to encompass entire families...However, even motivated parents may have trouble feeding their families nutritious food. Low-income neighborhoods often lack grocery stores. Balancing work, family, and other obligations means few parents have time to prepare meals at home regularly. Fast foods and prepared foods are a part of life in 2016. Although some aspects of obesity prevention are a matter of individual responsibility, families need help.” This editorial notes that it has not been helpful that scientists and physicians have been giving conflicting advice. For example, they note the advice to provide skim milk instead of whole milk in the

National School Lunch Program. They cite a study in Archives of Diseases in Children 2013 (98) 5: 335-340, showing that whole milk in school lunches was associated with less weight gain in children than skim milk. They go on to call for collaboration among medical and public health communities and the food and restaurant industries to market healthful foods.

I would recommend reading these two whole articles for a fuller survey of the issues.

I would like to address this issue of balancing individual, family, health care providers, industry, and government responsibility for this problem. We all have to take charge and work together.

Many, including the food industry, blame fat people for eating too much or eating badly. From one point of view, individuals do have choices. If we all lived in rural areas where we each had ample space to grow our gardens and farms and could feed ourselves mainly from what we, or neighbors, and farmers markets could provide for us, and if we each had small businesses, local jobs, or cottage industries and crafts, that could sustain our basic needs, with part time jobs connected to the larger economy and urban areas, then as individuals, families and communities, we could be in charge of our food choices and could assume primary responsibility for it. In fact I do recommend a revitalization of this type of agrarian culture and economy and a relinquishing of the drive to acquire more and more material stuff and technology.

For most people in modern society, that lifestyle is not available, as pointed out in the editorial. Many farmers throughout the world have lost their land through plummeting prices for their produce due to global “free trade” and many unfair trading practices designed to favor global corporations. Many have had their land confiscated by corporations by legal and illegal means. As a result most people have to earn their living in an urban or suburban environment with high costs for housing and transportation, with many in this country requiring increased income by taking two jobs or with both parents employed in order to stay one step out of homelessness. This doesn’t leave much time for food preparation, cooking, food processing, and meal planning, even if abundant farmers markets were available. Work often involves travel, which puts up obstacles to preparation of healthful whole foods.

For children to survive in a high tech mass media culture, and in the public education system, parents now have less control over the massive bombardment of ads for junk food aimed directly at children. Parents have limited direct control over what children eat when junk food machines are available in schools and cafeteria lunches are of poor quality. What are parents to do, put their kids in “straight-jackets,” keep them isolated from their peers, monitor their every move at school with electronic surveillance, or home- school them? We can see that it is ludicrous to put the blame primarily on the children and their parents for being fat. The mass media society and the food industry have to share the responsibility. As Dr. Boucher mentioned in the editorial, even motivated parents in modern society have a difficult time providing nutritious food for their families.

The food industry may contend that sugar is not addictive. Now if we define addiction as going around doing stealing, breaking and entering, armed robbery, etc. in order to get a fix, maybe sugar is not addictive. (Maybe people would do those things if sugar were illegal.) If we look at addiction as including a dependency, physical or psychological, then sugar as well as starchy foods and many Rx drugs would be included. The more you eat, the more you want, with no satiety. That definitely fits the pattern for sugar, especially fructose. What makes the addiction worse is the yeast (*Candida*) overgrowth in the gut that comes from feeding them sugar, and then the yeasts put out substances that cause the person to crave more sugar. One obese child in “Fed Up” said that if there are sugary snack foods nearby, it is like an alcoholic sitting next to bottles of liquor. The cocaine-addicted mice in “Fed Up” preferred sugar to cocaine.

Since individuals and families have had to give over food production to industrial economy as a trade-off for having to do other work in the economy (division of labor), then that responsibility for providing food that does not poison or make sick, a most essential necessity of life, after air and water, is a sacred trust that the food industry must fulfill. Unfortunately, the food industry has squandered that trust in the pursuit of short-term profits and shareholder value (the expectation and the holy grail to which corporations are bound in a capitalist “free market” economy). If corporations had a social conscience, as most people do, we wouldn’t need regulations. Since food and tobacco (and other) corporations are responsible only to profitability for their shareholders who are concerned only about the bottom line, regardless of the social and environmental costs, including getting children hooked on sugary foods and beverages, is it not reasonable that there should be laws to curb those excesses and to protect the safety of the food? To the libertarians who complain about the “food police,” would you want me to sell apples on the street that are rotten inside, telling people they are good apples, trusting the free market to stop me when people find out that I have defrauded them? I could move on to other towns and defraud others, on and on. I think we could mostly agree that there need to be laws to protect against that kind of fraud, with consequences to the seller. On a small scale it is easier to stop fraud of that kind when people know each other in a small community, but it is much easier for corporations to commit fraud with obesigenic and diabetogenic foods and get away with it, because the results are delayed, and people take a long time to catch up to them, all the more reason for tough regulation. Government agencies and politicians are bought off to reduce “big government job-killing regulations,” since the Supreme Court has decided it is OK for corporations to bribe politicians, calling it “free speech.” So not only do we have “big government” but also big government owned and paid for by food and other corporations, because the voters (and the people who don’t vote) give their approval. Think of how long it took to get regulation of tobacco when the tobacco industry withheld damaging information about cigarettes causing cancer and other diseases, and targeted children to get them hooked. The Federal Trade Commission is supposed to prosecute fraud and false advertising, and it has abdicated its responsibility. People who are concerned about their food and about their children’s health now and for future decades need to get politically active as well as personally responsible for choosing healthful foods even if they cost more, as they are not subsidized like the junk food. So now we already have the

“food police” with government promoting junk food with subsidies, and crowding out the healthful foods.

Another factor that may be causing a large part of the obesity and diabetes scourge is the extent of chemical pollution of food, water, and air. Dr. Walter Crinnion, N.D., a foremost authority in detoxification, author of Clean, Green, and Lean, has had extensive experience in detoxifying people, with weight coming off naturally and diabetes reversing. He cites numerous studies giving evidence that toxic chemicals, now ubiquitous, promote obesity and diabetes. This is another area of government abdication, and industry’s irresponsibility. In Europe, the precautionary principal is used, requiring new chemicals to be proven to be safe before being released into the environment. Not so here.

Another thing promoting obesity is an imbalance in the gut microbiome. Some bacteria promote weight loss and other bacteria promote weight gain. Antibiotics can disrupt the gut bacterial balance for months after exposure. They are given extensively to animals raised for food when they don’t have infections, to make them fatter. What do the antibiotics do for our fatness if we eat the animals? The glyphosate in Roundup, now considered by many agencies to be carcinogenic, is sprayed willy-nilly on food crops, especially the GMO products, and glyphosate was originally studied for its use as an antibiotic. See Jeffrey Smith’s book and documentary, Genetic Roulette.

I think that sweet beverages (including fruit juices) and some prepared foods that have more than a designated % of daily value of sugar should be taxed heavily like cigarettes, and every can or bottle of sweetened drink should carry this warning label, as suggested in “Fed Up:” “This product is addictive and can lead to cancer, diabetes, fatty liver, and shortened life expectancy.” Government subsidies to the agribusiness mentioned above should stop, and subsidies should be given for organic farming and for the training of inexperienced farmers to grow food sustainably. School cafeteria lunches should stop providing high sugar and refined starch offerings. Some complain that when healthful foods are offered in school cafeterias the children don’t eat them. It is possible to make good foods taste good. In the documentary, Where To Invade Next, by Michael Moore, where he “invades” other countries to take their ideas back home, he shows a school lunch in France where the children sat down to a several course gourmet meal with table cloth, etc. When the children were shown pictures of food served in the U.S in school cafeterias, they turned up their noses, and asked, “What is that?” It is possible with proper training and investment of time and the will to do it, to provide good quality meals for school lunches.

Regarding personal responsibility in the matter, calories by themselves, and total food consumed do make a difference, and there are many personal habits that affect that, some things that we, as individuals and families have some control over. Appetite does matter, and different people have different reasons for eating. The natural cue to eat is when the stomach feels empty. Many people take other cues such as time of day, environment, company, emotional state, etc. Dr. Brian Wansink, Ph.D., in his book, Mindless Eating, Why We Eat More Than We Think, notes that the size of the plate or cup, the size of the

serving, how convenient or inconvenient it is to go for seconds, and many other factors affect how much we eat at that particular time. When people eat at a buffet, thinner people often survey the whole buffet to see what they want to choose before picking up a plate. Overweight people often don't plan ahead but start at the beginning and go along the line, taking a little of each thing that they want, not knowing how much it is going to be altogether. It is an excellent book to make eating more conscious and less driven by visual and other cues of which we are not aware.

Some other factors that affect fat gain or loss and appetite and eating behaviors are stress, dehydration, inflammation, yeast overgrowth in the gut, nutrient deficiencies, sleep, food sensitivities, and unrecognized hypothyroidism.

Readers are encouraged to read Michael Pollan's book Food Rules, (See my article about it in the archives.), for a succinct, clever method of choosing real food, not "edible substances resembling food." "Eat food, mostly plants, not too much" is the essence.

So in the absence of proper regulation of the food industry, limiting the marketing of harmful products to minors and truth in advertising, what is a person or family to do? Make an effort to buy and prepare whole foods (organic when available), plan to take your own food along when traveling, make time for the family to sit together to eat, train children when very young to taste healthful foods and lead by example. Limit children's exposure to junk food ads. Make changes gradually, as we are driven mostly by habits. Parents who are addicted to sugar may want to join a 12-step group like OA. Some people form food co-ops, start urban community gardens, move to the country, raise vegetables, chickens and goats, home school their children, or form cooperative private schools.

In the next two months I plan to give more extensive coverage to "Fed Up" and Fat Chance, with plenty of eye-opening, startling documentation of the history of the problem and what to do about it.