THE BLOOD SUGAR SOLUTION

The UltraHealthy Program for Losing Weight, Preventing Disease, and Feeling Great Now!

- Reverse prediabetes and diabetes
- Eliminate the leading causes of heart disease, cancer, and obesity
  - Increase your energy
  - Cure your sugar cravings and get thin fast
A Hidden Epidemic: The United States of Diabetes

Diabesity, the continuum of health problems ranging from mild insulin resistance and overweight to obesity and diabetes, is the single biggest global health epidemic of our time. It is one of the leading causes of heart disease, dementia, cancer, and premature death in the world and is almost entirely caused by environmental and lifestyle factors. This means that it is almost 100 percent preventable and curable.

Diabesity affects over 1.7 billion people worldwide. Scientists conservatively estimate it will affect 1 in 2 Americans by 2020, 90 percent of whom will not be diagnosed. I believe it already affects more than 1 in 2 Americans and up to 70-80 percent of some populations.

Obesity (almost always related to diabesity) is the leading cause of preventable death in the United States and around the world. Gaining just 11 to 16 pounds doubles the risk of type-2 diabetes, while gaining 17 to 24 pounds triples the risk. Despite this, there are no national recommendations from government or key organizations advising screening or treatment for pre-diabetes. We are becoming the United States of Diabetes.

The prevalence of type-2 diabetes in America has tripled since the 1980s. There are now 27 million Americans with diabetes (25 percent of whom are not diagnosed) and 67 million with pre-diabetes (90 percent of whom are not diagnosed). African Americans, Latin Americans, and Asians have dramatically higher rates of diabesity than Caucasians do. By 2015, 2.3 billion
people will be overweight and 700 million will be obese. The number of diabetics will increase from 1 in 10 Americans today to 1 in 3 by the middle of this century.

A Childhood Problem

Perhaps most disturbing, our children are increasingly affected by this epidemic. We are raising the first generation of Americans to live sicker and die younger than their parents. Life expectancy is actually declining for the first time in human history.

Here are some startling statistics:

- One in two children are overweight in America.
- Childhood obesity has tripled from 1980 to 2010.
- There are now more than two million morbidly obese children above the 99% percentile in weight.
- In New York City, 40 percent of children are obese.
- One in three children born today will have diabetes in their lifetime.
- Childhood obesity will have more impact on life expectancy of children than all childhood cancers combined.
A Global Problem

Diabetes is just as widespread in other parts of the world: In 2007, it was estimated that 240 million people worldwide had diabetes. It is projected to affect 380 million by the year 2030, about 10 times the number of people affected by HIV/AIDS. Sadly this is a gross underestimate. Estimates in 2011 put the worldwide total at 350 million. In China alone, rates
of diabetes were almost zero 25 years ago. In 2007, there were 24 million diabetics in China, and scientists projected that by 2030 there would be 42 million diabetics in China. However, by 2010, there were 93 million diabetics and 148 million pre-diabetics in China, almost all of whom were previously undiagnosed. Imagine if we had 148 million new people with AIDS overnight in one country.

Sixty percent of the world’s diabetics will eventually come from Asia because it is the world’s most populous region. The number of individuals with impaired glucose tolerance or pre-diabetes will increase substantially because of increased genetic susceptibility to the harmful effects of sugar and processed foods. Interestingly, people in this Asian population (who are uniquely susceptible to diabetes even though they may not be obese) are increasingly affected as they adopt a more Western diet. Weaker environmental laws and regulations also expose them to increasing levels of toxins, which, as we will see later, are a significant cause of diabesity.3

Ponder this: From 1983 to 2008, the number of people in the world with diabetes increased seven-fold, from 35 to 240 million. In just three years, from 2008 to 2011, we added another 110 million diabetics to our global population. Shouldn’t the main question we ask be why is this happening, instead of what new drug can we find to treat it? Our approach must be novel, innovative, and widely applicable at low cost across all borders. Billions and billions have been wasted trying to find the “drug cure,” while the solution lies right under our nose. This is a lifestyle and environmental disease and won’t be cured by a medication.
Diabesity: The Major Cause of Chronic Disease and Decreased Life Expectancy

Diabesity is one the leading causes of chronic disease in the 21st century, including heart disease, stroke, dementia, and cancer. 4

Consider the following:

- One-third of all diabetics have documented heart disease.5
- It is estimated that nearly everyone else with type-2 diabetes has undiagnosed cardiovascular disease.
- People with diabetes are four times more likely to die from heart disease, and the rate of stroke is three to four times higher in this population.
- Those with pre-diabetes are also four times more likely to die of heart disease. 6 So having pre-diabetes isn’t really “pre” anything in terms of risk.
- There is a four-fold increased risk for dementia in diabetics. 7 And pre-diabetes is a leading cause of “pre-dementia,” also known as mild cognitive impairment.
- The link between obesity and cancer is well documented and is driven by insulin resistance.8
- Diabesity is the leading cause of high blood pressure in our society. Seventy-five percent of those with diabetes have high blood pressure.
- Diabesity is also the leading cause of liver failure from NASH (non-alcoholic steatohepatitis), also known as fatty liver. It affects 30 percent of our general population (about 90 million)
and 70 to 90 percent of those who have diabesity. Those with fatty liver are at much greater risk of heart attack and death.\textsuperscript{9}

- Diabesity is an important cause of depression and mood disorders. Women with diabetes were 29 percent more likely to develop depression, and women who took insulin were 53 percent more likely to develop depression.\textsuperscript{10}

- Nervous system damage affects 60 to 70 percent of people with diabetes, leading to a loss of sensation in the hands and feet, slow digestion, carpal tunnel syndrome, sexual dysfunction, and other problems. Almost 30 percent of people age 40 or older with diabetes have impaired sensation in their feet, and this frequently leads to amputations.

- Diabesity is also the leading cause of blindness among people aged 20 to 74.

- Diabesity is the leading cause of kidney failure—accounting for 44 percent of new cases each year.

- People with poorly controlled diabetes are three times more likely to have periodontal or severe gum disease.

A recent remarkable study in the \textit{New England Journal of Medicine} examining 123,205 deaths in 820,900 people found that diabetics died an average of 6 years earlier than non-diabetics and 40 percent of those did not die from heart disease or the usual diabetes-related causes.\textsuperscript{11} They died from other complications not obviously related to diabetes, complications most wouldn’t necessarily correlate with the disease. Yet it makes perfect sense given that diabesity is the underlying cause that drives most chronic illnesses.
Diabetes: A Major Global Threat to Economic Development

Direct health care costs in the U.S. over the next decade attributable to diabetes and pre-diabetes will be $3.4 trillion, or one in every ten health care dollars spent. Obese citizens cost the U.S. health care system 40 percent more than normal weight citizens. In a sample of 10 million commercial health plan members, those without diabetes cost $4,000 a year compared to $11,700 for those with diabetes, and $20,700 for those with complications from diabetes.

Diabesity places a large economic burden on our society. The direct and indirect costs of diabetes in America in 2007 amounted to $174 billion. The cost of obesity is also significant, and amounts to $113 billion every year. From 2000 to 2010, these two conditions have already cost us a total of $3 trillion. That’s three times the estimated cost of fixing our entire health care system!  

Are we getting our money’s worth? Is our current approach winning the battle against these completely preventable and curable diseases? Clearly the answer is NO!

The Impact of Diabesity on Developing Nations

Diabetes is not just a problem for rich countries with too much food; it is also a disease of poverty that is increasing in developing countries as well. In India, diabetes carries a greater risk of death than infectious disease. In the Middle East, nearly 20 to 25 percent of the
population is diabetic. When I helped in Haiti (the poorest country in the Western hemisphere) after the earthquake in 2010, I asked the director of Haiti’s main public hospital what the major medical problems were prior to the earthquake. His answer surprised me: heart disease, high blood pressure, and diabetes—all caused by diabesity.

By 2020, there will be fewer than 20 million deaths worldwide from infectious disease, but more than 50 million deaths from chronic preventable lifestyle diseases—heart disease, diabetes, and cancer. These are all fueled by the same preventable risk factors: high blood pressure, overweight, physical inactivity, high blood sugar, high cholesterol and smoking. But strikingly, 95 percent of private and public efforts and funding focus almost exclusively on combating communicable or infectious disease.\textsuperscript{15}

**The Solution: Take Back Our Health**

There is a solution available, one that is accessible and scalable, one that is available to everyone and prevents, treats, and reverses diabesity at a fraction of the cost. This book provides that solution for individuals, communities, and nations. It will require significant change at all levels, but each of us has the power to transform this problem.

In addition to curing diabesity on an individual level, we need a movement. I call it *Take Back Our Health*, and in Part V, I explain how we can all join this movement so we can get healthy together. It starts with the individual, but moves into families, communities, workplaces,
schools, faith-based organizations and filters through us to government and corporations.
Get Healthy Together: Creating a Social Movement

Our health has been hijacked from us, taken from us slowly, quietly, over the past century. Our current food, social, family, school, work, faith-based, and community environments, healthcare institutions, and government polices make it hard for us to make healthy choices. We are presented with choices that foster bad habits. But together, getting and staying healthy is possible given the right information, tools, support, and collective action to take back our health.

Our food choices are influenced by government subsidies for agricultural mass production of poor-quality fats and sugars. The government food pyramid reflects industry interests, not science, although the 2010 Dietary Guidelines report and the new “my plate” initiative take a step in the right direction, recommending a plant-based, whole foods diet with less meat, sugar, and refined foods. On the other hand, the Food and Drug Administration (FDA) has not protected us from harmful pharmaceutical influence. Avandia, the number one diabetes drug in the world, has been allowed to stay on the market in the United States, even after it has been shown to cause 47,000 deaths from heart disease since it was introduced in 1999.

During the health reform process, Dr. Dean Ornish, founder of the Preventive Medicine Research Institute, Dr. Michael Roizen, Chief Wellness Officer of the Cleveland Clinic, and I helped Senators Harkin, Wyden, and Cornyn introduce the Take Back Your Health Act of 2009, designed to reimburse patients with heart disease, diabetes, and pre-diabetes for intensive
lifestyle treatment. Net savings in direct health care costs were estimated at $930 billion over 10 years. The bill was left on the cutting-room floor of the Senate in last-minute horse-trading. Afterwards, in a two-hour meeting with Senator Harkin, I implored that our only goal was to have policy reflect science. He paused for a moment and remarked, “That would make too much sense.”

Health is a human right that is neglected and undervalued. It is time to take it back.

No single change will help us take back our health. Pharmaceutical companies continually promise the next breakthrough on diabetes, obesity, and heart disease, yet we inevitably end up disappointed by new drugs’ meager benefits or disillusioned by their unexpected harm. The food and diet industry promise slick new quick fixes: just eat this one thing or do this one super exercise and your problems and pounds will melt away. But there will never be one quick fix.

It is the hundreds of little choices we make every day that will transform our collective health – and have some good side effects such as preventing economic collapse, climate change, and environmental degradation; reinvigorating families, communities, and faith-based organizations; and reversing the epidemic of obesity and chronic disease weighing down our planet. By making choices as individuals, families, and communities we can force change. Demand for healthier food, for example, has convinced the giant retailer Walmart to offer organic and lower-sugar and -fat products. It’s that kind of pressure that forces change in large
swaths of the economy (including food growers and producers) and reduces the toxic burden on the environment.

Through our collective action and online tools we can communicate with our elected representatives and link to resources to help us create change at the local and national level. Here are some specific steps we can take or demand through our words, actions, and votes.

**Take Action! It is Time to Take Back Our Health for Our Bodies**

One in two Americans has pre-diabetes or diabetes. One in three children born today will have diabetes. Chronic lifestyle-preventable and -treatable diseases kills 50 million people a year. It is time to take action.

- **Follow the six-week plan in The Blood Sugar Solution** to create health through food, supplements, exercise, development of stress-management tools, and reducing exposure to toxins. Balance your body’s systems.

- **Vote every day with your fork.** What you put on your fork has the most impact on your health, our economic prosperity, and the health of the environment.

- **Cut down on screen time** and invest more time in self-care, learning how to cook, taking a walk, dancing in your living room, trying yoga, practicing deep breathing exercises, or connecting with your loved ones or friends.
Take Action! It is Time to Take Back Our Health for Our Families

You have total control over what you bring into your home, and what you choose to do there. Small changes can have a big impact on your family’s health and happiness and on the food industry, agriculture, and marketing practices.

- **Eat at home.** In 1900, two percent of meals were eaten outside the home. In 2010, 50 percent were eaten away from home. One in five eat breakfast from McDonald’s. Family meals happen about three times a week, last less than 20 minutes, and are spent watching television or texting while each family member eats a different microwaved “food” made in a different factory. We complain of not having enough time to cook, but Americans spend more time watching cooking on The Food Network, than actually preparing their own meals.

- **Eat together.** No matter how modest the meal, create a special place to sit down together, and set the table with care and respect. Family meals are a time for empathy and generosity, a time to nourish and communicate. Research shows that children who have regular meals with their parents do better in every way, from better grades to healthier relationships to staying out of trouble, and are 42 percent less likely to drink, 50 percent less likely to smoke, and 66 percent less likely to smoke pot. Regular family dinners protect girls from bulimia, anorexia, and diet pills. Family dinners reduce the incidence of childhood obesity. In a study on household routines and obesity in American preschool-aged children, kids as young as four had a lower risk of obesity if they ate regular family dinners, had enough sleep, and didn’t watch TV on weekdays. Taking back our family dinners will help us learn how to find and prepare real food
quickly and simply, teach our children how to connect, and build security, safety, and social skills, meal after meal, day after day.

- **Reclaim your kitchen.** Throw out foods with high fructose corn syrup, hydrogenated fats, and sugars or fat as the first or second ingredient on the label. Fill your kitchen with real, fresh, whole, local foods whenever possible. Join a community-supported agricultural network to get a cheaper supply of fresh vegetables, or shop at nearby farmer’s markets.

- **Plant a garden.** It’s the tastiest, most nutritious, most environmentally friendly food you will ever eat. You can create a small garden in a box on your roof or porch if you have limited space.

- **Conserve, compost, and recycle.** Bring your own shopping bags to the market and recycle your paper, cans, bottles, and plastic. Start a compost bucket (and find out where in your community you can share this rich fertilizer).

**Take Action! It is Time to Take Back Our Health in Our Communities**

We live in communities without sidewalks, or where it is not safe to walk down the street, or where we must walk 5 miles to find a vegetable. Many live in communities where the only “grocery store” is the convenience store at a gas station. We must navigate miles of aisles in grocery stores filled with different variations of sugar, fat, salt, and coloring disguised as food,
all of which are scientifically proven to cause disease and premature death. There are ten McDonald’s within 10 miles of my house, and I live in a remote country location.

- **Get healthy together.** Small groups are the catalyst that will make everything easier. Create your own group of friends; co-workers; church, mosque, synagogue, or community members to support your journey to wellness.

- **Start a dinner or cooking club,** where you take turns with other families or friends to cook healthy, tasty meals once a week.

**Take Action! It is Time to Take Our Back Our Health from Media and Food Industry Marketing Practices**

The average kid spends seven and a half hours a day in front of a screen watching billions of dollars in advertising for foods of the poorest nutritional quality.\(^1\) Overweight kids eat 50 percent of their meals in front of the television. Teaching our children every day about healthy nutrition cannot compete with the marketing onslaught. Thomas Frieden, MD, director of the Center for Disease Control, recommends that we prohibit food marketing to children.

- **Restrict all media marketing of liquid calories, fast food, junk food, and processed food, especially to children.** Our senses are inundated with food industry marketing practices that mostly succeed in convincing us that their health-sapping options are easy, fun, and affordable and will make us stronger and happier. We have taken the bait. One billion cans of Coca Cola are
consumed every day around the world. In communities without health care, education, running water, or enough food, there is Coke! Food marketing directed at children should be banned (through the Federal Trade Commission). This has been done in over 50 countries across the globe, including Australia, the United Kingdom, the Netherlands, and Sweden. We should follow suit.

- **Restrict unproven health claims on labels.** Foods with health claims on the label are often the least healthy. Adding a little fiber to a sugary cereal doesn’t make it healthy. Will Vitamin Water or Gatorade, made cool by Kobe Bryant and Lebron James, make our kids super athletes or just super fat? The FDA should restrict health claims.

- **Do a media fast** for a week (or two) with your family, or create a media fast group at work or school.

**Take Action! It is Time to Take Back Our Health in Our Schools**

Schools have become hazardous zones full of empty calories, junk food, and stripped-down physical education programs. When most school kitchens have only deep fryers, microwaves, and displays for candy and junk food at the checkout counters, how can children stay healthy? When the food served is as addictive as heroin or cocaine, who is accountable? General Jack Keane, former Vice Chief of Staff of the U.S. Army, shared with me that 70 percent of applicants for the military are unfit to serve. The school lunch program was started in 1946 because military recruits were too thin to serve in the military; now, in part because of our school lunch program, our children are too fat to serve.
• **Help reinvent school lunch programs.** The Healthy, Hunger-Free Kids Act of 2010 removes junk food from schools by applying nutrition standards to *all* foods sold in schools (including vending machines in hallways), and supports access to fresh produce through farm-to-school networks, the creation of school gardens, and the use of local foods. It doesn’t solve the void in education for self-care and nutrition, but it is a beginning. Watch the movie *Two Angry Moms* to learn how to take back the lunchroom.

• **Support schools as safe zones,** where there is access only to foods that promote health and optimal brain functioning.

• **Support changes in zoning laws** that prevent fast food and junk food outlets from operating next to schools.

• **Build school gardens.** Teach children about the origins of food and let them experience the sensory delight of real, garden-fresh fruits and vegetables.

• **Support the integration of self-care and nutrition curriculum** into schools. Work with your local or regional school boards to introduce programs like Mehmet Oz’s HealthCorps into schools around the country.

• **Bring back basic cooking skills** to schools as part of a curriculum that includes essential life tools.

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**Take Action! It is Time to Take Back Our Health in Our Workplaces**

Workplaces are dangerous environments. Bowls of chips, fridges full of sugar-laden caffeinated sodas, cafeterias with hardly a vegetable in sight, drawers full of candy, and high stress environments all fuel our ill health. Email and blackberries tether us mentally and physically to
work 24/7. One large company human resources director told me they were planning on blocking employees’ access to email when they went on vacation.

When Starbucks spends more on health care than on coffee beans and General Motors spends more on health care than on steel, something has to change. Corporations have the most to gain by investing in creating healthier environments, building wellness programs, and allowing for default choices that support health.

- **Identify and train wellness champions** within the workplace to lead support groups for employees to get healthy together by following *The Blood Sugar Solution* online curriculum.

- **Improve workplace food culture by improving snack areas and cafeteria offerings** (more real, fresh food; less processed, sugary foods). Support workplace lunch potlucks to share the burden and cost of creating healthy lunches and strengthen community within organizations.

- **Develop incentives (including financial) for employees to participate in wellness programs.** Safeway’s Steve Burd implemented financial incentives for healthy lifestyle change for his employees called Healthy Measures.² If this type of program was implemented nationally, it would shave $550 billion a year off our health care bill.

- **Support development of work-based self-care and group support programs.** Companies are starting to understand that solving the problem of poor health is not a cost or liability but an investment opportunity. *Presenteeism*, being at the job but not on the job, costs companies two to three times its direct medical costs, mostly from lost productivity due to obesity and depression-related symptoms like fatigue, brain fog, and low motivation. Globally, companies lose $2 trillion a
year in productivity from lifestyle-preventable conditions. Workplace wellness efforts can yield 1,000-2,000 percent returns on investment. The World Economic Forum created a Wellness App to show companies how much they can save by creating wellness programs (http://wellness.weforum.org).

Take Action! It is Time to Take Back Our Health in Our Places of Worship

"Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God? You are not your own; you were bought at a price. Therefore honor God with your body." (1 Cor. 6:19-20)

Pastor Rick Warren of Saddleback Church, a congregation of 30,000, made a radical assertion as we launched The Daniel Plan (see Chapter 16). God wants us to be healthy. In his sermon, he pointed out that in the world’s major Western religious traditions – Judaism, Christianity, and Islam --- there are teachings on ethics, compassion, spirituality, supporting the mind and spirit. But in synagogues, churches, temples, and mosques around the world, health and the body are rarely discussed. No rabbi, priest, minister, pastor, or imam encourages care of the body as well as the soul. Church and temple functions are centers of community activity, yet they provide an abundance of poor-quality, calorie-rich, starchy, sugary foods that help their members get to heaven early.
• **Encourage care of the body as well as the soul.** Social change often begins in faith-based organizations – abolition, civil rights, and human rights. But health is the most neglected of all human rights. The community, connections, and social networks that already exist within faith-based organizations can support health of the mind, spirit, and body.

• **Add “body study” to bible study groups.** Incorporate “body” and soul into small support and study groups within faith-based communities. You can study a healthy lifestyle curriculum like The Daniel Plan ([www.danielplan.com](http://www.danielplan.com)).

• **Create a culture of wellness** within faith-based organizations. Encourage healthy food at gatherings and events. Create fitness activities to do together. Follow some of the examples we used at Saddleback Church ([www.danielplan.com](http://www.danielplan.com)).

**Take Action! It is Time to Take Back Our Health in Our Democracy.**

I was invited along with other experts in prevention and wellness to the White House Forum on Prevention and Wellness in June 2009. As part of our effort to create true health care change we advocated for an inter-agency council to support, coordinate, and develop health promotion and wellness movements across all government agencies. In June 2010, President Obama established the National Council on Prevention, Health Promotion, and Public Health, and Senator Tom Harkin nominated me for a presidential appointment to a 25-person group to advise the administration and the new council. This is a step in the right direction. But there is more we can do.
Send letters and e-messages to your elected representatives to support health initiatives such as:

- **Eliminating unhealthy foods from all schools, child-care, and health care facilities, and all government institutions.** The government must establish rigorous standards for school nutrition consistent with current science (through the USDA). Similarly, we need to create nutrition programs for other public and government-run institutions like the military, the Veteran’s Administration, Indian Health Service, and community health centers.

- **Supporting lobby reform.** We must change campaign finance laws so that corporate political donations from entities like Big Food, Big Farming, and Big Pharma can no longer control the political process.

- **Subsidizing the production of fruits and vegetables.** Change the Farm Bill. Agricultural policies should support public health and encourage the production of fruits and vegetables, not commodity products like corn and soy. Eighty percent of government subsidies presently go to soy and corn, which are used to create much of the junk food we consume. We need to rethink subsidies and provide more for smaller farmers and a broader array of fruits and vegetables.

- **Incentivizing supermarkets to open in poor communities.** Poverty and obesity go hand in hand. One reason for this is the food deserts we see around the nation. Poor people have a right to high-quality food, too. We need to create ways to provide it to them.

- **Building the real cost of industrial food into the price.** Include its impact on health care costs and lost productivity.

- **Taxing sugar.** We tax cigarettes and alcohol, and this helps pay for prevention and treatment programs. Sugar is at least as addictive, if not more so. Scientists suggest a penny-an-ounce tax on sugar-sweetened beverages. This would reduce sugar consumption, obesity, health care
costs, and provide revenue to support programs for the prevention and treatment of obesity and chronic disease.

- **Creating a public health advertising campaign** that makes being healthy cool and sexy and exposes the subversive practices of Big Food, Big Farming, and Big Pharma. Use the advertising techniques that best speak to the emotional needs of the consumer and our children.

- **Supporting the creation of a health corps** to train 1 million health workers and champions in communities around the country by 2020. Through the act of getting healthy together we can create a double revolution—change the medicine we do (lifestyle and functional medicine) and change how we do medicine (in small support groups). This new workforce of community health workers would “accompany” and support individuals in making better food and lifestyle choices and cleaning up their homes, workplaces, schools, faith-based organizations, and environment.

**Take Action! It is Time to Take Back Our Health from the “Sick Care” System**

Marcia Angell, former editor-in-chief of the *New England Journal of Medicine*, wrote a scathing analysis of the infiltration of Big Pharma into medical research, education, and health and drug policy. Aside from the $30 billion a year spent on marketing pharmaceuticals to physicians (known as “continuing medical education”), Big Pharma has turned many academic researchers into hired hands. Thought leaders from academic medical centers are provided grants to do research “contracted for” by Pharma, and the research is often designed, executed, and ghostwritten by the funders. The conflict of interest statements of authors on research articles
now often run several pages long. These authors receive not only grants but also sit on corporate advisory boards, receive large speaking fees, and enter into patent and royalty agreements with Pharma.

It would appear that our evidence-based medicine isn’t based on very good evidence. We have the power to change that.

- **Fix perverse financial incentives in healthcare reimbursement.** In New York City, a very successful diabetes prevention and treatment program was implemented. It resulted in fewer complications, hospitalizations, and amputations. But the program was stopped by the hospital because its revenue dropped. Cutting off a diabetic toe and receiving $6,000 from Medicare is better than being reimbursed $100 for a nutrition consult. The system profits from having more sick and fat patients.

- **Support real healthcare reform** that changes not only insurance regulation, but also the type of medicine we do (lifestyle and functional medicine) and how we deliver health care (in small groups, in communities, and in health care organizations). During the health reform process in Washington, DC, Dean Ornish, Michael Roizen, and I were asked what organization we represented. We replied simply that we didn’t represent anyone but the patients or anything but the science. They accepted it, but looked perplexed. No wonder. During health care reform, the pharmaceutical industry had three lobbyists for every member of Congress and spent over $600,000 a day to make sure their needs were represented in the legislation.

- **Mandate nutrition and lifestyle medicine training in medical schools and residency programs.** As we know, all of the major drivers of disease and health care costs are lifestyle-preventable factors.
If these factors were addressed, we could eliminate 90 percent of heart disease and diabetes. Yet only one in four medical schools has a nutrition course, and only 28 percent of schools meet the minimum 25 hours of nutrition education recommended by the National Academy of Sciences.

Most of those nutrition hours address diseases of nutritional deficiency such as scurvy and rickets. If we were successful in reducing heart disease by half or reducing diabetes (along with its complications) by 80 percent, hospitals would go bankrupt, pharma would see their profits plummet, and many physicians would be forced to start “institutes of lifestyle medicine” not more heart surgery hospitals.

- **Support and develop a modular scalable nutrition curriculum** to address the lack of supply of adequate experts (scale existing programs such as the Institute for Functional Medicine).

- **Provide reimbursement for lifestyle treatment of chronic disease.** Despite the support of nearly all of the major medical societies who joined in publishing a review of the scientific evidence for lifestyle medicine, for the prevention and *treatment* of chronic disease, this approach is still not part of medical training or practice. We need to have lifestyle treatments like the one outlined in this book paid for if they are going to become a part of mainstream medical practice.

- **Develop more funding for nutritional science.** Congress should mandate greater funding for nutritional science, and examine and test innovative treatment models. Responsibility for dietary policy should be placed with an independent scientific group such as the Institute of Medicine instead of with the politically and corporately influenced US Department of Agriculture. They advised a low-fat diet food pyramid with at least 8-11 servings a day of bread, rice, pasta, and cereal in the 1980s, which coincided with the rapid increase in obesity and diabetes. It was lethal to mix politics and health recommendations.
• **End irresponsible relationships between medicine and industry.** Public health organizations like the American Heart Association and the American Dietetic Association should avoid partnerships, endorsements, or financial ties with industry that compromises their independence and credibility. Coca-Cola sponsoring events at the American Dietetic Association, or the American Heart Association promoting sugary cereals as heart healthy because they have a few grains of whole wheat—is this credible?

**Take Back Our Health: Be Part of the Movement**

Any one act by any one individual or organization will not be enough to create change. I am reminded of what Mother Theresa once said. *“There are no great acts, only small acts done with great love.”*

One step, one choice, one change at a time. One word, one action, one vote at a time.