

# Challenge to the Insurance Industry: A Solution to Significantly Reduce Health Care Costs

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A cynical point of view would say the insurance industry benefits from high health care costs because these rising costs are simply passed on to both individuals and employers in terms of higher premiums and insurers take a fixed percentage of these premiums as increasing profits. As such, insurers have not done as much as they could to help reduce health care costs because lower costs would hurt their bottom line. While this author does not share that cynical view, the fact remains that after many sincere (past and ongoing) efforts on the part of insurers (both private companies and government entities) health care costs have continued to rise at a rate much greater than that of overall inflation.

But is there a solution that the insurance industry can help implement that will realistically solve this apparently intractable problem? What if there was a medication that could successfully treat and even reverse heart disease, type 2 diabetes, high blood pressure and many other chronic conditions without any negative side effects and offered the promise of dramatically reduced health care costs. Imagine all the advertising there would be promoting this medication and the large price tag likely to go along with it. Then what if you were told this medication exists today, is available to everyone in unlimited quantities at a low cost, but the vast majority of the American public has never heard about it. Confused?

Before exploring this topic further, a brief review of U.S. health care costs is in order. Total expenditures exceed \$2.5 trillion and have grown from 5% of GDP in 1960 to about 18% of GDP today.<sup>1</sup> Heart disease remains the most common and costly condition, with over 1,000,000 bypass surgeries or angioplasties annually.<sup>2</sup> Nearly half of individuals 65 and over are taking prescription drugs for high cholesterol and the total direct cost of treatments for cardiovascular disease (including high-blood pressure) is approximately \$200 billion.<sup>3</sup> About 45% of the U.S. population was overweight in the early 1960's compared to 75% today, with the proportion of obese individuals up nearly 200% over the same time period.<sup>4</sup> This has contributed to an increase in the incidence of diagnosed diabetes from less than 1% in 1960 to nearly 7% in 2010 resulting in annual direct costs of over \$175 billion.<sup>5</sup> In total, about 85% of health care spending is for individuals having one or more chronic conditions.<sup>6</sup>

Although the answer to this health care cost crisis is not found in any one single medication there is a

solution that has been proven to rapidly eliminate symptoms, stop the progression, and in many cases even reverse numerous chronic and other conditions. The solution is to use food as medical treatment. Specifically, the right types of food without calorie limits or complicated diet plans. Studies are released on a regular basis concluding that one food or another is either good or bad for health, but rather than relying on a handful of academic studies this approach is based on the many years of both research and real world experiences of millions in the U.S. and around the world that demonstrate the benefits of consuming a whole food plant-based diet. What does that mean? It simply means eating foods made from plants with a minimal amount of processing. Some examples are rice, beans and other legumes, whole-grain products including pasta and bread, potatoes, fruits, and vegetables. Excluded from the diet are animal products such as meat, dairy and eggs as well as foods containing artificial ingredients or extracted plant components, such as vegetable oils.

Over the past several decades, there has been a constant stream of various fad diets so the question arises, how is this any different? Most importantly, this approach should not be thought of as a diet at all, where short-term changes are made to achieve certain weight goals, but rather a permanent lifestyle change to optimize health outcomes. While "permanent lifestyle change" may sound drastic, for someone living with a chronic health condition who has already experienced a negative impact to their lifestyle, a whole food plant-based diet provides a positive opportunity do much more than just lose a few pounds. It allows the patient to take control over their health, which today is often dictated by a battery of pills, many with harmful side effects. A whole food plant-based diet has (1) no limits on calories or number of meals per day, (2) no proprietary packaged food, drinks, or formulas to buy, and (3) no specialized exercise equipment or rigorous fitness regimes. While diets requiring participants to eat less or limit calories lead to food cravings and are unsustainable long-term, a plant-based approach encourages consumption of as much whole plant-based foods as desired, without targeting any exact proportion of carbohydrates, fat or protein. In fact, nutrition science researcher and biochemist T. Colin Campbell argues against precision, writing "virtually nothing in biology is as precise as we try to make it seem" and that eating in this way "eliminates the need

to worry about the details. Just eat lots of different plant foods; your body will do the math for you!"<sup>7</sup> While there may be a perception that a plant-based diet consists mainly of salads or vegetables, nothing could be further from the truth. Fruits and vegetables are certainly an important component of the diet, but these alone do not satisfy most appetites.<sup>8</sup> Many favorite traditional dishes such as burgers, pizza, sloppy joes, mashed potatoes, lasagna, and burritos can be prepared consistent with and can be at the center of a whole food plant-based diet.

There are now a small, but growing number of physicians who use a whole food plant-based diet as a primary form of treatment in their daily practice. While the diet can easily be adopted by anyone without formal guidance from physicians or nutritionists, it is helpful to review a few examples from some of the established physician-supervised programs that help individuals with chronic disease understand and implement such a change in diet and lifestyle. Arguably the most prominent of such programs was developed by Dr. Dean Ornish, who for nearly 40 years has treated patients with what has become known as "lifestyle medicine" rather than drugs and surgery. His program is currently available at a number of hospitals across the country and consists of 18 four hour sessions, where patients are provided instruction on the benefits and practical implementation of a plant-based diet, along with stress reduction techniques, moderate exercise, and social support.<sup>9</sup> Although this may seem like a large commitment, an analysis of nearly 4,000 patients enrolled in the program found that the adherence rates exceeded 85% after one year.<sup>10</sup> Evidence from a controlled trial showed 99% of patients assigned to the Ornish program had either stopped the progression or reversed their existing heart disease after five-years and had 2.5 times fewer cardiac events than the control group.<sup>11</sup> A different study of those who were eligible for either bypass surgery or angioplasty showed participation in the Ornish program saved nearly \$30,000 per patient over a three-year period compared to the control group.<sup>12</sup> After review of this and other evidence, the Centers for Medicare and Medicaid Services (CMS) concluded the Ornish program was effective as it showed "significant regression" or reversal of coronary atherosclerosis, reduced the need for bypass or angioplasty and led to significant reduction in all of the following cardiac risk factors: (1) LDL cholesterol, (2) triglycerides, (3) Body Mass Index (4) blood pressure, and (5) required medications.<sup>13</sup> While the Ornish program has been covered by some private insurers for about 20 years, this determination in 2010 made the program eligible for reimbursement for Medicare beneficiaries with heart conditions meeting certain criteria.<sup>14</sup>

Another program, developed independently of Ornish, found similar results. Dr. Caldwell Esselstyn, a successful surgeon, who by the mid-1980s felt the medical profession's traditional focus on drugs and surgery was doing little to prevent disease, began his work with high-risk heart patients who had been told by their doctors there was little else that could be done for them. Esselstyn, like Ornish, prescribed a whole food plant-based diet, but did not include the other elements such as stress reduction and exercise. Esselstyn has used a single five hour seminar providing instruction on why a plant-based diet is effective, practical implementation advice, recipes, and an actual meal. After the seminar, participants were provided with additional assistance by phone or email. A study that followed his patients over an average of nearly four years showed that 89% adhered to the program and of those 94% showed improvement in symptoms with 22% demonstrating actual reversal of their existing heart condition. Less than 1% of the patients had a subsequent cardiac event after starting the program. Esselstyn observed, "the present cardiovascular medicine approach...can neither cure the disease nor end the epidemic and is financially unsustainable. The safety, diminished expense, and prompt, powerful, and persistent results in treating the cause of vascular disease by whole-food plant-based nutrition offer a paradigm shift from existing practice."<sup>15</sup>

An additional program was developed by Dr. John McDougall, who began a traditional medical practice in Hawaii. He treated multiple generations of families and noticed many of the older generation who were originally from Asian countries accustomed to a plant-based diet, had very few of the medical problems that afflicted their children and especially their grandchildren who were raised on the standard American diet. Based on this experience, he has used a plant-based diet as the primary means of treatment and has had numerous patients with not only heart disease, but many other conditions including diabetes, obesity, rheumatoid arthritis, and cancer who reversed or dramatically improved their condition.<sup>16</sup> McDougall, among other methods, uses a 10-day program hosted at a hotel where participants receive daily instruction on diet and meal preparation and are provided unlimited plant-based meals. Opportunities for moderate exercise are available, but not required. Of the approximately 1,600 patients participating in this program from 2002-2011, cholesterol was reduced by 29%, blood pressure by 18%, and triglycerides by 48% in only seven days. About 86% of those taking blood pressure medications and 90% of those taking diabetes medications were able to reduce or stop them in this short time frame.<sup>17</sup>

The intent of highlighting the three programs presented here is not to endorse these or any other

specific programs, but to illustrate there are various methods that have been successful in reducing health care costs using a whole food plant-based diet. An additional purpose is to demonstrate the basic research has been done with clear outcomes and to offer the suggestion it is not productive to spend additional time waiting for the results of every last study, trial or investigation. As an analogy, the first federal government report linking smoking and disease was issued in 1964 and even after countless subsequent studies and research, tobacco executives testified before Congress thirty years later that evidence showing smoking causes lung cancer and other health conditions was inconclusive.<sup>18</sup> There will always be those who say more study or evidence is needed, but in this case the goal is not to prove with clinical certainty which specific foods cause certain diseases, but rather to determine the best way to reduce health care costs and save individuals and governments from financial ruin. For example, in auto and homeowners insurance as there is strong correlation between credit scores and loss experience, the scores are widely used in rate classification even though no one suggests that adverse loss experience is caused by poor credit scores. In this same way, while there is legitimate debate about which foods or other factors may cause disease, there is now overwhelming evidence of a strong correlation between a whole food plant-based diet and improved health and decreased costs, especially among those with chronic disease. As such, it is only logical to see that all patients with or at risk for a chronic health condition are educated about a plant-based diet as a realistic treatment option as soon as possible. However, in order for such an effort to be successful on a large scale, it is first necessary to understand, address and solve some of the existing obstacles to implementation.

One of the main barriers is simply the current widespread belief that once someone has a chronic condition, such as heart disease or type 2 diabetes, there is very little that can be done to actually reverse the disease and the best outcome possible is to maintain the condition so that it does not get any worse. The fact that a whole food plant-based approach provides a safe, effective, low-cost alternative to eliminate symptoms and potentially reverse the underlying condition without drugs or surgery is unknown to a vast majority of Americans. In contrast to the pharmaceutical industry that spends large sums to market new drugs, the sales of which rightfully compensate investors who provided R&D funding, there are not big profits in promoting a plant-based diet. Grocery stores will earn essentially the same margin regardless of the type of food consumers buy and none of the research in this area was funded by investors demanding returns. But even though there are not vast financial resources available for mass media advertising, the inherent

advantage of a plant-based diet is it can be effectively implemented using a one-on-one physician to patient approach that does not require large capital investment, sophisticated technology, and lengthy training. It simply requires physicians to accept the concept, provide it as an option to their patients, and support those patients who are willing to make these changes.

However, many physicians and other health care providers, even those who may be familiar with the benefits of whole food plant-based diet, feel that since it differs significantly from the average American diet it is too extreme or would be a radical change for patients to accept. Esselstyn, who often faced this criticism in the course of his practice using a plant-based diet responded,

*But as far as the words "extreme" or "radical," I would say that change is significant. But the truth is, the nutrition that is extreme or radical is the one that results in 1.2 million coronary stents being done per year in this country; 500,000 bypass operations where your entire chest is divided in half, veins are taken off your leg and put in your heart. And they may last several years and at the end of that, you will have to have another procedure. Or, maybe it's a little bit more extreme or radical when you spend \$25 billion in statin drugs, \$5 billion on stents, an epidemic of obesity, an epidemic of diabetes, an epidemic of heart disease. This is the diet that's radical and extreme.<sup>19</sup>*

In terms of receptiveness of patients to these changes, the evidence from the programs previously described suggest they are more easily accepted than commonly believed, especially as patients begin to quickly experience improvement in their personal health. As such, health care providers and others involved in coordinating and supporting chronic care delivery can be confident in recommending the diet, but must be clear in the way it is presented and the language used. Often, insurers and health care providers give their patients non-specific dietary advice such as "eat healthier", "eat more fruits and vegetables" or "consume less fat." This vague language does little to motivate patients, especially in an environment of confusion caused by numerous studies that often seem to provide contradictory information on the benefits of eating healthy. An illustrative example is the Women's Health Initiative (WHI) trial that involved 48,000 women over an average eight year period. One goal was to determine the impact on cardiovascular disease as a result of intensive counseling that advised increasing consumption of fruits and vegetables and reducing the amount of fat in the diet to 20% of calories from the group's current 38% level. In comparison, roughly 10% of calories from fat results naturally for those following a varied whole food plant-

based diet. The WHI trial showed the group receiving dietary counseling increased their intake of fruits and vegetables and reduced their level of fat to about 29% of calories, but were significantly short of the 20% goal of the study. The study found there were no significant differences in the incidence of cardiovascular disease between the group that received dietary counseling and the control group that did not, leading to headlines declaring there are no benefits from eating healthy.<sup>20</sup> This is just one of many studies that confuses the public and offers little motivation to change existing dietary patterns, demonstrating it is not sufficient to advise eating "more fruits and vegetables" to facilitate disease prevention and reversal. It requires clear direction from physicians and other health care providers that the goal is not really to "eat healthier" but to offer a specific, achievable, comprehensive solution that allows patients to feel better, have more energy, reduce or eliminate medications and ultimately regain control over their health.

Health care providers can best do this by providing examples of actual patients who reversed their chronic health conditions or were able to reduce or eliminate their use of prescription drugs. Sharing real life examples and explaining in simple terms why these lifestyle changes achieved such remarkable results is a powerful message to patients, many of whom have been told they must be on multiple medications for the rest of their lives. One significant step in this direction was a 2013 article by physicians from Kaiser Permanente that reviewed the evidence and concluded "[p]hysicians should consider recommending a plant-based diet to all their patients, especially those with high blood pressure, diabetes, cardiovascular disease, or obesity."<sup>21</sup> Kaiser has followed up with user friendly guides (freely available online) for both physicians and patients explaining the benefits and practical aspects of implementing a plant-based diet.<sup>22</sup> Ideally, each patient facing a bypass surgery, new medications, or a lifetime of insulin shots would be presented with the benefits and risks of both traditional methods and the plant-based diet treatment approach. Even if only a minority of patients would select the plant-based approach, a significant reduction in health care costs could be realized just by offering it as a legitimate option. While there will always be those who just want to take a handful of pills rather than make lifestyle changes, Campbell advises we:

*should not be ignoring ideas just because we perceive that the public does not want to hear them. Consumers have the ultimate choice of whether to integrate our findings into their lifestyles, but we owe it to them to give them the best information possible with which to make that decision and not decide for them.*<sup>23</sup>

Although Kaiser's integrated care and payment model is not entirely applicable to more traditional insurers and providers, it does highlight the fact that the issue of provider payment is the final and arguably most important hurdle that must be addressed in making sure every patient has an opportunity for treatment using the plant-based approach. Ornish observed in his work that there was no "shortage of motivated patients" that were receptive to lifestyle changes as an alternative to drugs or surgery but rather "the primary limiting factor has been the lack of widespread insurance coverage."<sup>24</sup> He concluded, "no matter how good a program is clinically, if it's not reimbursable, it's not sustainable."<sup>25</sup> While physicians such as Ornish have identified this important barrier to making lifestyle medicine a more common practice over more traditional approaches, even comic strip writers have observed the sometimes painful truth about the current system. (See <http://ornishspectrum.com/wp-content/uploads/wizard-of-id.jpg> and <http://www.gocomics.com/nonsequitur/2014/11/19> )

While Medicare and some private insurers reimburse the Ornish and another similar program, it often is limited to heart patients meeting strict criteria. There are still no direct financial incentives for physicians to educate the millions of patients not eligible for these programs about the benefits of a plant-based diet. However, in recent years there has been a movement toward the use of incentives in value-based provider payment models, including efforts by CMS and private insurers to develop innovative payment and service models, such as Accountable Care Organizations (ACOs). While these are worthwhile programs and should be continued, often their stated goal, as with ACOs is "to help slow the growth of health care costs."<sup>26</sup> However, even if these efforts could reduce the growth in health spending to the level of overall economic growth, it still leaves an unacceptably high 18% of GDP consumed by health care costs. As such, incentives should primarily be focused on methods that will actually reduce total health care costs instead of just slowing growth. Since 85% of health care spending is due to chronic conditions, many of which are attributable to poor food choices, even the most optimized payment and service models are unlikely to reduce health care costs unless a specific and effective dietary component is employed. With the proper financial incentives, a plant-based treatment approach can be widely incorporated into both traditional fee for service as well as value-based payment models.

There are numerous ways to structure provider incentives, but two key principles for any large scale implementation of a plant-based diet to treat chronic

and other conditions are (1) incentives that work with existing provider payment structures and (2) opportunities for additional income for physicians, without requiring capital expenditures on their part. One possible implementation, consistent with these principles, is for insurers, both public and private, to first provide educational material about the benefits of a whole food plant-based diet directly to their insured members. Much in the same way prescription drugs are advertised today as "Ask your doctor if drug XYZ is right for you" insureds would be prompted to ask their physician about the ability of plant-based diet to reduce or eliminate prescription drug use and reverse disease. Of course these materials would also have to list all side effects such as increased energy, lower blood pressure, and improved digestion, all while eating unlimited quantities of satisfying food. Physicians would receive a per capita fee from the insurer for each patient that is "prescribed" a plant-based diet treatment approach. In addition, physicians could be eligible for additional compensation based on certain health outcomes of the patients that choose this option. Both of these financial incentives for physicians would not replace their existing fee for service or value-based payment contracts, but would be above and beyond those amounts. The plant-based "prescription" would be "filled" by the patient attending an educational seminar such as the Esselstyn model previously described. While this is only one possible approach, it shows that without a large capital investment, an intensive one-day seminar, focused solely on diet and providing participants a clear, practical and motivating demonstration can be highly effective. While these seminars would be the financial responsibility of the insurer, rather than the physician or patient, they could likely be developed more quickly and cost effectively by independent third-parties serving all insurers. To encourage highly effective seminars, insurers could also compensate seminar providers using incentive payments based on patient health outcomes.

While the political fires of the Affordable Care Act are still smoldering, its cornerstone in providing access to insurance regardless of pre-existing conditions will almost certainly remain. Even though the access problem has been solved the challenge of affordability persists and with the wave of baby boomers entering

the prime years for complications from heart disease, diabetes, obesity, high blood pressure and many other chronic conditions a financial tsunami is approaching. The time is near where even with employer or government subsidies, the cost of health insurance will be out of reach for middle-income Americans, which is likely to cause the entire insurance system to collapse. When insurers calculate premium rates that accurately reflect existing health care costs it serves an important need, but is insufficient to guarantee the long-term viability of the insurance system. Insurers--whether that be private commercial carriers or public entities like Medicare or Medicaid--have an obligation to society to develop financially stable insurance systems for the long-term. In fact, actuaries, who are responsible for the calculation of health insurance premium rates are bound by a Professional Code of Conduct that requires them to "act...in a manner to fulfill the profession's responsibility to the public" and places that responsibility ahead of any they may have to an employer or industry.<sup>27</sup>

Often professionals, whether it be actuaries, economists, physicians, or any number of others that are working to reduce the growth of health care costs feel that sophisticated mathematical and financial models or the latest medical technology and drugs are the only way to solve large problems such as this. However, in this instance, it can be more useful and effective to take a simpler approach even if traditional education and training may suggest a more complex intervention. The evidence is overwhelming that a whole food plant-based diet provides the best opportunity to not only reduce the growth in spending, but actually decrease total health care costs more than any drug, medical procedure, insurance reform, or provider payment model could hope to. The insurance industry faces a tremendous challenge and responsibility in helping society solve this ever mounting problem, but the solution is clear and delaying implementation should be avoided. By developing financially sound incentives that support and motivate a critical mass of health care providers to integrate this proven approach into their daily practice as a routine treatment option made available to all patients and especially those with chronic conditions, the health care cost crisis can be solved.

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