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SENATE FINANCE COMMITTEE

**"PREPARE FOR LAUNCH:
HEALTH REFORM SUMMIT"**

Concurrent Session:

**"SUBCOMMITTEE: DELIVERY SYSTEM REFORM – THE NEED FOR TRANSPARENCY,
PAYMENT REFORM, AND IMPROVED CARE COORDINATION"**

Co-Chair: Senator Ron Wyden

Senate Finance Committee Chairman Senator Max Baucus
and Ranking Member Senator Chuck Grassley
United States Senate

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Senator Wyden, Senator Baucus, Senator Grassley, distinguished colleagues, thank you very much for the privilege of being here today. My name is Dr. Dean Ornish, founder and president of the non-profit Preventive Medicine Research Institute and Clinical Professor of Medicine at the School of Medicine, University of California, San Francisco (UCSF). I appreciate the opportunity to appear today before this Committee.

The theme of my presentation today is this: if we want to make affordable health care available to the 47 million Americans who most need it, then we need to address the more fundamental causes of health and illness and to provide incentives for healthy ways of living rather than reimbursing only on drugs and surgery that literally or figuratively “bypass” the problems.

Heart disease, diabetes, prostate/breast cancer, and obesity account for 75% of health care costs, and yet these are largely preventable and even reversible by changing diet and lifestyle.

Our research has shown that your body has a remarkable capacity to begin healing itself, and much more quickly than we had once realized, if we address the lifestyle factors that often cause these chronic diseases.

For the past 31 years, I have directed a series of research studies showing that changes in diet and lifestyle can make such a powerful difference in our health & well-being, and how quickly these changes may occur, and how dynamic these mechanisms can be.

Many people tend to think of breakthroughs in medicine as a new drug, laser, or high-tech surgical procedure. They often have a hard time believing that the simple choices that we make in our lifestyle—what we eat, how we respond to stress, whether or not we smoke cigarettes, how much exercise we get, and the quality of our relationships and social support—can be as powerful as drugs and surgery, but they often are. Often, even better.

We used high-tech, state-of-the-art measures to prove the power of simple, low-tech, and low-cost interventions. In earlier studies, we showed that comprehensive lifestyle changes may stop or even reverse the progression of coronary heart disease, diabetes, hypertension, obesity, hypercholesterolemia, and other chronic conditions. Two years ago, we published the first randomized controlled trial showing that these lifestyle changes may slow, stop, or even reverse the progression of prostate cancer, which may affect breast cancer as well.

In our randomized controlled trials, published in the *Journal of the American Medical Association*, *The Lancet*, and other major medical and scientific journals, we found that 99% of people with severe coronary heart disease were able to stop or reverse it by making comprehensive lifestyle changes, without drugs or surgery. There was some reversal of coronary atherosclerosis after one year and even more improvement after five years, and there were 2.5 times fewer cardiac events. Most of the patients with severe angina (chest pain) became pain-free within only a few weeks, and quality of life improved dramatically.

Later today, the *Proceedings of the National Academy of Sciences* will be publishing our newest study showing, for the first time, that improved nutrition, stress management techniques, walking, and psychosocial support changed the expression of over 500 genes in men with early-stage prostate cancer. We found that genes associated with cancer, heart disease, and inflammation were downregulated or “turned off” whereas protective genes were upregulated or “turned on.”

As Craig Venter will discuss in his presentation over lunch, his pioneering work has shown that one way to change your genes is to make new ones. Our research is showing that another way to change your genes is to change your lifestyle.

Our “health care system” is primarily a disease care system. Last year, \$2.1 trillion were spent in this country on medical care, or 16.5% of the gross national product, and 95 cents of every dollar were spent to treat disease after it had already occurred. At least 75% of these costs were spent on treating chronic diseases such as heart disease and diabetes that are preventable or even reversible.

Incentives are often perverse. For example, insurance companies pay more than \$30,000 to amputate a diabetic foot even though most amputations are preventable by scrupulous foot care which is usually not covered by insurance. A RAND study projected nearly \$81 billion in annual national health expenditure savings due to prevention and disease management programs.

The INTERHEART study, published in *The Lancet*, followed 30,000 men and women in six continents and found that changing lifestyle could prevent over 90% of heart disease. Thus, the disease that accounts for more premature deaths and costs than any other illness is almost completely preventable simply by changing diet and lifestyle. And the same lifestyle changes that can prevent or even reverse heart disease also help prevent or even reverse many other chronic diseases as well.

When I lecture, I often begin by showing a slide of doctors busily mopping up the floor around an overflowing sink, but no one is turning off the faucet. Similarly, Dr. Denis Burkitt (who discovered Burkitt’s lymphoma) once described that paying for ambulances and a hospital at the base of a cliff is not as smart as building a fence at the top to keep cars from falling off.

It’s important to treat not only the problem but also its underlying causes. Otherwise, the same problem often recurs (for example, bypass grafts or angioplastied arteries often clog up again), a new set of problems may occur (such as side-effects from medications), or there may be painful choices.

Sen. Ron Wyden has sponsored the visionary Healthy Americans Act, which emphasizes prevention and has bipartisan support. Sen. Barack Obama’s health plan states, “This nation is facing a true epidemic of chronic disease. An increasing number of Americans are suffering and dying needlessly from diseases such as obesity, diabetes, heart disease, asthma and HIV/AIDS, all of which can be delayed in onset if not prevented entirely.” Sen. Hillary Clinton’s health plan calls for a “focus on prevention: wellness not sickness.... Insurers must cover high priority preventive services that

experts agree are proven and effective. This focus on prevention will improve health and lower costs in the long run.” Sen. John McCain states on his campaign web site that “We can improve health and spend less, while promoting competition on the cost and quality of care, taking better care of our citizens with chronic illness, and promoting prevention that will keep millions of others from ever developing deadly and debilitating disease.”

Given this consensus, many people were surprised by some recent articles questioning the value of prevention. As David Brown wrote earlier this month in *The Washington Post*, “Studies show it's often cheaper to let people get sick.... Even when prevention greatly reduces future cases of a particular illness, overall cost to the health-care system typically goes up when lots of disease-preventing strategies are put into practice.” For example, he questioned the value of taking cholesterol-lowering drugs:

Consider a 50-year-old male smoker whose total cholesterol is in the "high" range (over 240); whose HDL, or desirable cholesterol fraction, is "low" (below 40); and who has untreated moderate hypertension.... If the prevention strategy is taking a statin -- a very effective cholesterol-lowering drug -- it will cost \$160,000 *for every year of life saved* among men with the above-described risk profile. For women, it will be even pricier: \$240,000 for every year of life saved, according to a study published in the *Annals of Internal Medicine* in 2000.

Even if this analysis were true—and there are several fallacies in his calculations—it ignores the fact that most people can significantly lower their cholesterol levels and blood pressure by making comprehensive lifestyle changes that are free rather than by taking a lifetime of drugs that are costly.

In our research, we found that improved nutrition, moderate exercise, stress management techniques, and social support caused a 40% average reduction in harmful LDL-cholesterol levels in men and women during the course of a year without drugs. Last year, over \$20 billion were spent in this country on cholesterol-lowering drugs such as Lipitor, so the potential cost savings would be significant if more people made comprehensive lifestyle changes in lieu of drugs. While cholesterol-lowering drugs have clear therapeutic benefits, patients should also be offered more intensive diet and lifestyle interventions that have been proven to lower LDL-cholesterol by approximately the same amount at a fraction of the costs and with similar therapeutic benefits.

Cost savings can be greatest and can be seen most quickly in those who are at highest risk or who have chronic diseases. For example, my colleagues and I at the non-profit Preventive Medicine Research Institute conducted a demonstration project in collaboration with eight hospitals to determine if comprehensive lifestyle changes could be a safe and effective alternative to bypass surgery or angioplasty in those who were eligible to receive it.

After one year, almost 80% of people were able to safely avoid heart surgery or angioplasty, and Mutual of Omaha calculated saving almost \$30,000 per patient in the first year. In a second demonstration project with Highmark Blue Cross Blue Shield, these comprehensive lifestyle changes reduced total health care costs in those with coronary heart disease by 50% after only one year and by an additional 20-30% when compared to a matched control group.

In our third demonstration project of more than 1,000 patients enrolled our lifestyle intervention at 22 hospital sites, we showed dramatic improvements in angina in more than 83% of patients reporting angina symptoms, and most became completely pain-free. This study was just published in the *American Journal of Cardiology*. These reductions are even greater than those achieved by coronary bypass surgery or angioplasty/stents. Direct health care costs of angina alone cost over \$1 million per person over a lifetime. Clearly, if relatively simple lifestyle changes achieve similar or even greater reductions in angina pain than costly invasive surgical procedures, the potential savings are enormous.

An ounce of prevention really is worth a pound of cure.

In 2001, more than one million coronary angioplasty procedures were performed at a cost of more than \$30 billion, and more than 500,000 coronary bypass operations were performed at a cost of another \$30 billion. 1,314,000 diagnostic cardiac catheterizations were performed in the United States at a cost of more than \$23 billion.

Despite these costs, a recent randomized controlled trial published in *The New England Journal of Medicine* found that angioplasties and stents do not prolong life or event prevent heart attacks in stable patients (i.e., 95% of those who receive it). Coronary bypass surgery prolongs life in less than 3% of patients who receive it. So, Medicare and others pay for surgical procedures like angioplasty and bypass surgery that are usually dangerous, invasive, expensive, and largely ineffective, yet very little, if any, for comprehensive lifestyle changes that have been proven to reverse and prevent most chronic diseases that account for at least 75% of health care costs.

The rapid growth of companies offering personalized genetic testing such as Navigenics, 23&Me, and deCODE Genetics, makes it possible to identify people who are at highest risk for chronic disease and to tailor prevention prescriptions to those who most need it. Finding out you're at higher risk for illnesses such as heart disease or diabetes is a powerful motivator for making comprehensive lifestyle changes. Also, those at high risk are more likely to show cost savings from prevention.

Prevention is also cost effective in healthier people, although the cost savings per person are not as high. For example, three years ago, Steve Burd (CEO of Safeway) realized that health care costs for his employees were exceeding Safeway's net income--clearly, not sustainable. We discussed redesigning the corporate health plan for his employees in ways that emphasized prevention and wellness, provided incentives for healthful behaviors, and paid 100% of the costs of preventive care.

Overall health care costs decreased by 15% in the first year and have remained flat since then. Many other worksite wellness programs have shown cost savings as well as a happier and more productive workforce. This approach is bringing together Democrats and Republicans, labor and management.

In each of these studies, significant savings occurred in the first year—medically effective *and* cost effective. Why? Because there is a growing body of scientific evidence showing how much more dynamic our bodies are than had previously been believed.

Many patients say that there is no point in giving up something that they enjoy unless they get something back that's even better—not years later, but weeks later. Then, the choices become clearer and, for many patients, worth making. They often experience that something beneficial and meaningful is quickly happening.

The benefit of feeling better quickly is a powerful motivator and reframes therapeutic goals from prevention or risk factor modification to improvement in the quality of life. Concepts such as “risk factor modification” and “prevention” are often considered boring and they may not initiate or sustain the levels of motivation needed to make and main comprehensive lifestyle changes.

In our experience, it is not enough to focus only on patient behaviors such as diet and exercise; we often need to work at a deeper level. Depression, loneliness, and lack of social support are also epidemic in our culture. These affect not only quality of life but also survival. Several studies has shown that people who are lonely, depressed, and isolated are many times more likely to get sick and die prematurely than those who are not. In part, this is mediated by the fact that they are more likely to engage in self-destructive behaviors when they feel this way, but also via mechanisms that are not well-understood. For example, many people smoke or overeat when they are stressed, lonely, or depressed.

What is sustainable is joy, pleasure, and freedom, not deprivation and austerity. When you eat a healthier diet, quit smoking, exercise, meditate, and have more love in your life, then your brain receives more blood and oxygen, so you think more clearly, have more energy, need less sleep. Your brain may grow so many new neurons that it may get measurably bigger in only a few months. Your face gets more blood flow, so your skin glows more and wrinkles less. Your heart gets more blood flow, so you have more stamina and can even begin to reverse heart disease. Your sexual organs receive more blood flow, so you may become more potent—the same way that drugs like Viagra work. For many people, these are choices worth making—not just to live longer, but also to live better.

In other words, the debate on prevention often misses the point: the mortality rate is still 100%, one per person. So, it's not just how *long* we live but also how *well* we live. Making comprehensive lifestyle changes significantly improves the quality of life very quickly, which is what makes these changes sustainable and meaningful.

Biographical Sketch

Dean Ornish, M.D., is the founder and president of the non-profit Preventive Medicine Research Institute in Sausalito, California, where he holds the Safeway Chair. He is Clinical Professor of Medicine at the University of California, San Francisco. Dr. Ornish received his medical training in internal medicine from the Baylor College of Medicine, Harvard Medical School, and the Massachusetts General Hospital. He received a B.A. in Humanities summa cum laude from the University of Texas in Austin, where he gave the baccalaureate address.

For over 30 years, Dr. Ornish has directed clinical research demonstrating, for the first time, that comprehensive lifestyle changes may begin to reverse even severe coronary heart disease, without drugs or surgery. Recently, Medicare agreed to provide coverage for this program, the first time that Medicare has covered a program of comprehensive lifestyle changes. He recently directed the first randomized controlled trial demonstrating that comprehensive lifestyle changes may stop or reverse the progression of prostate cancer. His current research showed that comprehensive lifestyle changes affect gene expression, “turning on” disease-preventing genes and “turning off” genes that promote cancer and heart disease.

He is the author of six best-selling books, including New York Times’ bestsellers Dr. Dean Ornish's Program for Reversing Heart Disease, Eat More, Weigh Less, Love & Survival, and his most recent book, The Spectrum. He writes a monthly column for Newsweek magazine.

The research that he and his colleagues conducted has been published in the Journal of the American Medical Association, The Lancet, Circulation, The New England Journal of Medicine, the American Journal of Cardiology, and elsewhere. A one-hour documentary of their work was broadcast on NOVA, the PBS science series, and was featured on Bill Moyers' PBS series, Healing & The Mind. Their work has been featured in all major media, including cover stories in Newsweek, Time, and U.S. News & World Report.

Dr. Ornish is a member of the boards of directors of the U.S. United Nations High Commission on Refugees and the San Francisco Food Bank and the advisory board of The Quincy Jones “Project Q” at the Harvard School of Public Health. He was appointed to the White House Commission on Complementary and Alternative Medicine Policy and elected to the California Academy of Medicine. He is Chair of the PepsiCo Blue Ribbon Advisory Board and the Safeway Advisory Council on Health and Nutrition and consults with the CEO of McDonald’s and Mars to make more healthful foods and to provide health education to their customers in this country and worldwide.

He has received several awards, including the 1994 Outstanding Young Alumnus Award from the University of Texas, Austin, the University of California, Berkeley, “National Public Health Hero” award, the Jan J. Kellermann Memorial Award for distinguished contribution in the field of cardiovascular disease prevention from the International Academy of Cardiology, a Presidential Citation from the American Psychological Association, the Beckmann Medal from the German Society for Prevention and Rehabilitation of Cardiovascular Diseases, the “Pioneer in Integrative Medicine” award from California Pacific Medical Center, the “Excellence in Integrative Medicine” award from the Heal Breast Cancer Foundation, the Golden Plate Award from the American Academy of Achievement, a U.S. Army Surgeon General Medal, and the Bravewell Collaborative Pioneer of Integrative Medicine award. Dr. Ornish was a physician consultant to President Clinton (1993-2000) and to several bipartisan members of the U.S. Congress and consulted with the chefs at The White House, Camp David, and Air Force One to cook more healthfully. He is listed in Who’s Who in Healthcare and Medicine, Who’s Who in America, and Who’s Who in the World.

Dr. Ornish was recognized as “one of the most interesting people of 1996” by People magazine, selected as one of the “TIME 100” in integrative medicine, and chosen by LIFE magazine as “one of the fifty most influential members of his generation.”