

Testimony of Mark Hyman, M.D.  
Founder and Medical Director  
The UltraWellness Center  
Vice-Chairman, Institute for Functional Medicine

SENATE HEALTH REFORM TESTIMONY  
INTEGRATIVE CARE: A PATHWAY TO A HEALTHIER NATION  
Senate Committee on Health, Education, Labor and Pensions

Chairman: Senator Edward M. Kennedy  
Ranking Member: Senator Michael B. Enzi  
Senator Tom Harkin & Senator Barbara Mikulski  
United States Senate

Senate Dirksen Building  
Washington, DC  
February 26, 2009

## **Reforming the United States Health Care System: Mastering the Challenge of Chronic Disease**

### **Executive Summary: Testimony of Mark Hyman, MD**

#### **Effective Health Care Reform: Addressing the Drivers of Costs and Chronic Disease**

- The current medical and scientific paradigm of acute care medicine has been unable to effectively address the epidemic of chronic disease and its associated costs.
- There is a new paradigm which addresses the fundamental underlying causes of chronic disease, and can form the basis for a more effective model of medical education, practice, and research that over time will generate dramatic cost savings.
- There are specific initiatives and strategies based on this new paradigm that can help transform our sick care system into a health care system.

#### **The Right Solution for the Problem of Chronic Disease**

- This new paradigm is personalized, preventive, participatory, predictive, and patient centered. It is proactive rather than reactive. It is based on addressing the causes of disease and optimizing biologic function in the body's core physiologic systems, not only treating the symptoms.
- It based on systems biology or medicine. That model exists today, and is called ***Functional Medicine***.
- Functional medicine is a system of personalized care, a **new “operating system”** that directly addresses **how environment and lifestyle influence our genes to create imbalances in our core biologic systems that, over time, manifest as disease**. It is this kind of medicine that is needed to create real successes in 21<sup>st</sup> century medicine.
- Even if we get everything else right in health care reform, it won't matter unless we address the underlying causes of illness that drive both costs and the development of chronic disease.

#### **Clinical Examples: Systems Medicine in the Clinic**

- Case examples of Functional medicine in chronic disease in autoimmune, digestive, behavioral, and hormonal disorders illustrating the power and implications for transforming the quality of our health care and reducing the economic burden of chronic disease.
- Report on pilot program for children using functional medicine showing a 16-fold reduction in costs from dramatically better health outcomes with integrated health care teams based on Functional medicine.

#### **Key Avenues for Change: Recommendations**

1. Re-tooling medical education and research to match the science of systems medicine. This would involve funding the development of training programs in medical schools and residencies, and supporting initiatives for certification and training in functional medicine for existing practitioners through establishing a fully funded university affiliated Institute for Lifestyle and Systems Medicine.
2. Creation of Functional medicine demonstration projects in federally funded community health centers, with integrated health care teams focusing on treating chronic disease and providing

education about lifestyle and wellness. These would form the foundation for the development of clinical practice networks of Functional medicine for education and research.

## **Reforming the United States Health Care System: Mastering the Challenge of Chronic Disease**

**Testimony of Mark Hyman, MD**  
**Before the Senate Committee on Health, Education, Labor and Pensions**  
February 26, 2009

Chairman Kennedy, Ranking Member Enzi and distinguished members of the Committee: Thank you for this opportunity to share the dramatic changes in medical thinking and practice that must be the central focus of health care reform. My name is Dr. Mark Hyman. I am a practicing physician and vice chair of the Board of Directors of the Institute for Functional Medicine. As a practicing functional medicine physician, I am on the front lines of a scientific medical revolution.

### **Effective Health Care Reform: Addressing the Drivers of Costs and Chronic Disease**

My testimony will show that:

- The current medical and scientific paradigm of acute care medicine has been unable to effectively address the epidemic of chronic disease and its associated costs.
- There is a new paradigm which addresses the fundamental underlying causes of chronic disease, and can form the basis for a more effective model of medical education, practice, and research that over time will generate dramatic cost savings and improved health outcomes.
- There are specific initiatives and strategies based on this new paradigm that can help quickly transform our sick care system into a health care system.

Even if we get everything else right in health care reform, it won't matter unless we address the underlying causes of illness that drive both costs and the development of chronic disease. This innovative approach to chronic disease cannot only prevent but also more effectively TREATS chronic disease.

**We must change not only the WAY we do medicine, but also the medicine we DO.** We must improve not only financing and delivery of health care, but also our fundamental scientific approach to chronic disease—an epidemic that now affects 133 million Americans and accounts for 78% of health care costs.

This way of doing medicine, or Functional medicine, is a system of personalized, patient centered care based on **how our environment and lifestyle choices act on our genes to create imbalances in our core biologic systems. Those imbalances show up as the signs and symptoms we call disease.**

**It is best solution for our health care crisis. The solution is not our current acute care model, which though extremely effective for acute disease, leads to worse outcomes and higher costs when applied to chronic disease because it doesn't address WHY people are sick.**

This new paradigm is personalized, preventive, participatory, predictive, prospective, and patient centered. It is proactive rather than reactive. It is based on addressing the causes of disease and optimizing biologic function in the body's core physiologic systems, not only treating the symptoms. It based on systems biology or medicine. That model exists today, and is called *Functional Medicine*.

### **The Right Solution for the Problem of Chronic Disease**

Our current model of medicine is unsustainable because it cannot stem the rising tide of chronic disease. Relying only on reforms in access, financing, electronic records, malpractice, reduction in medical errors, coordination of care, and research on new drug therapies – while retaining the acute-care model – will be untenable. These reforms are necessary but not sufficient to avoid the collapse of our health care system that may soon mirror our current financial crisis. These reforms do not alter the fundamental approach to prevention and treatment. If we focus on improving the way we practice the medicine of the past, we will still have the medicine of the past. If we improve the wrong type of care, then we will simply be doing the wrong things better.

Acute-care medicine is designed for acute illness, trauma, and end-stage disease for which it is the best in the world. It is disease-, drug- and procedure-based. Our current medical education focuses on sickness rather than health; journals publish about disease management not causality. Disease based acute care medicine is the WRONG model to address chronic illness, because it doesn't address WHY people are sick, or the underlying mechanisms and biologic causes. That is why we spend more than any other industrialized nation and are near the bottom of the list for all major health outcomes, and are witnessing a decline in life expectancy for the first time in history.

Functional medicine is not a new treatment, test, or procedure but a new **“operating system”** or method for problem solving and processing complex clinical information. It is a fundamentally different WAY OF THINKING about the origins and mechanisms of illness. It encompasses all the TOOLS of healing and medicine, both conventional and integrative. And it provides a common language, a map or GPS system for navigating through the puzzle of chronic illness. A growing coalition of practitioners, educators, and scientists is dedicated to advancing this model. We have introduced 20,000 physicians and health care providers to functional medicine since 1991, and we wrote the *Textbook of Functional Medicine* in 2005 to describe both the underlying science and the practical clinical strategies and tools that comprise this new model.

We have begun a certification program in functional medicine and are building key educational programs for residencies throughout the country. We are partnering with Harvard

in strategic research to document the extent and scope of practice as well as the efficacy of this model as a better roadmap for chronic disease.

Through a scholarship program funded by one of my patients, we have trained over 50 academic faculty and fellows from major institutions who are part of the Consortium of Academic Health Centers for Integrative Medicine (funded by the Bravewell Collaborative) including Harvard, Yale, Duke, Johns Hopkins, USCF, and the University of Arizona. We are also collaborating with the American Academy of Family Practice and the American Dietetic Association. We collaborate and advance the foundational work of James Gordon, MD at the Center for Mind Body Medicine and Dean Ornish, MD at the Preventive Medicine Research Institute.

### **Clinical Examples: Systems/Functional Medicine in the Clinic**

Let me illustrate how this works with real people.

#### **A Pilot Program For Functional Medicine: Reducing Costs 16 Fold in Sick Children**

At the University of Minnesota, Dr. Anne Kelly developed a model of care based on Functional medicine called the *U Special Kids* program. It was for the 5% of the sickest children who generated 60% of the total costs, mostly from unplanned hospitalizations. In one year, the costs incurred by that population dropped from \$4 million to \$250,000, or more than \$50,000 per enrollee, or a 16-fold decrease in costs. Yet the program was cancelled in November 2008 after one year because less than 10% of the high science, low tech, and high touch approach was reimbursable.

We cannot control costs by reducing access to effective programs. We must increase access to integrated health care teams that include a variety of health professionals, all of whom are trained in the appropriate chronic disease model. Both the science and methodology exist to utilize functional medicine for such teams on a wide scale.

Reform must also encompass re-structuring financing and financial incentives to prioritize health care, not just sick care. We cannot afford incremental change. The health our nation, our future generations, and the health of our economy depend on addressing the explosion of chronic disease and associated health care costs.

#### **A Woman with Treatment Resistant Autoimmune Disease**

Cris Scoufos, a 40-year-old woman came to see me after 5 years of uncontrolled ulcerative colitis with bloody diarrhea, joint pain and cystic acne, which started after 4 rounds of antibiotics for respiratory infections. She was treated unsuccessfully at the Mayo Clinic with the most advanced, dangerous and expensive immunosuppressive therapies. Just before returning to Mayo to start a new investigational drug, she saw me. We simply eliminated common food sensitivities, treated yeast infections, and normalized the function of her digestive tract with probiotics, digestive enzymes, fish oil, and vitamin D. After just 6 weeks of treatment she went back to Mayo and was found to have a completely normal bowel, and

her joint pain, fatigue, and cystic acne resolved by treating the upstream triggers instead of the downstream symptoms. We cannot get to the solution for chronic disease with our current methods of diagnosis and treatment.

Here is her email to me shortly after her visit to Mayo Clinic. Her before and after photos are attached.

*Dear Dr. Hyman,*

*I am so thankful for all that you are helping me with. I prayed for God to guide me to someone who could show me how to properly care for my body so that I could heal and that the honor and glory would belong to Him. Instead of asking for God to just heal me, like I had for four and a half years, I asked for guidance on what I needed to do.*

*After failing all conventional drug treatments I was told I would have to go into an investigational drug study next. My trip to Mayo Clinic had been planned and I was nervous about the choices I was going to have to make. My colonoscopy in April 2008 showed 45cm of ulceration.*

*The trip to see you the last week of August was planned in one week and everything fell together so easily. It seems like it was meant to be. I started following your recommendations right away, even though I haven't incorporated all of the supplements in yet, the change has been amazing.*

*My colonoscopy at the Mayo Clinic in Rochester, Minnesota was last Monday, October 13th. My physician Dr. Sandborn, who is highly regarded in the gastroenterology field as one of the best in the country, told me that there is no ulceration left in my large intestine and there was only some scarring. I have completely healed! It is amazing! I was still bleeding just two months ago and now I am completely healed. It has been a very long five years and I thought you would want to know just how much your help has made in my life. Thank you very much. You have been the instrument that God has sent into my life for healing.*

*Unending blessings to you and your loved ones,*

*Cris Scoufos*

### **A Doctor with Autoimmune Arthritis**

A 57-year-old vascular surgeon was seen with debilitating autoimmune psoriatic arthritis that had been unsuccessfully treated with Humira, methotrexate, and NSAIDs; he also had migraines, reflux, constipation, and fatigue. He was symptom free and off all medications only 6 weeks after changing his diet, fixing nutritional deficiencies, and addressing imbalances in his digestive system, which is home to more than 70% of the immune system.

### **A Woman with Multiple Chronic Diseases**

A 46-year-old woman, having seen a dozen doctors over a dozen years, came to me with 29 different diagnoses, including depression, hypertension, obesity, polycystic ovarian syndrome, migraines, heavy uterine bleeding, asthma, sinusitis, irritable bowel syndrome, fibromyalgia, osteoarthritis and psoriasis. Each disease was treated with the best available conventional treatment. But she was still sick, despite 9 medications.

Of course, she didn't have 29 separate diseases. She had imbalances in a few core networks of physiologic function – digestive, immunologic, and hormonal – that gave rise to all her symptoms. The underlying cause of all her “diseases” was an autoimmune response to gluten, leading to autoimmune thyroid disease and severe vitamin D deficiency because of malabsorption. Six weeks after eliminating gluten, improving her diet, replacing thyroid hormone and vitamin D, her 29 diseases were completely gone, along with 21 pounds.

### **A Boy with Attention Deficit Disorder and Asthma and Allergies**

Clayton Lampert was a 12-year-old boy with severe attention deficit hyperactivity disorder, behavior problems, and poor school performance on Ritalin for years. He also had illegible handwriting or dysgraphia. He also had apparently “unrelated” problems of asthma, allergies, hives, stomachaches, headaches, insomnia, muscle cramps, and anxiety. He had a history frequent infections and antibiotics. He had seen 5 specialists (lung, GI, allergist, psychiatrist and neurologist) and was on 7 medications for allergies, asthma, pain, and ADHD. No one asked how everything was connected, or how his diet of junk food and sugar made him sick.

His immune system was activated, his digestion not working and he was nutritionally deficient in zinc, omega 3 fats, magnesium and vitamin B6. We simply normalized his function by removing impediments to health (junk food diet, food sensitivities, overgrowth of yeast, and lead) and providing the ingredients necessary for optimal biologic function - whole foods diet, additional nutrients including B6, magnesium, zinc, omega 3 fats and probiotics. In two months he returned without any physical or psychiatric symptoms and was off all his medication. How many children suffer needlessly when we have the solutions to these problems? Here is his mother's email to me about his progress. And below is his handwriting sample before and two months after treatment.

*Dear Dr. Hyman,*

*We had a 504 meeting at Clayton's school this morning (where the teachers, school counselor, parents, and principal all get together to review “the plan” for kids with special educational needs—in Clayton's case prompted by the ADHD diagnosis). This was the first time in his entire schooling history that everything seems to be going well. The input from his teachers was that he is “a different kid” than they saw in the first half of the year and that they're amazed by the difference. The school nurse hasn't seen him since March (and he used to be in her office several times a week). The school psychologist said his social skills are very good, age appropriate, and that she sees no problems at all. She also noted that Clayton seems very proud of himself and his new health and that he's taking good ownership of all the*

*changes in his diet. He even seems to be shrugging it off when the other kids at school tell him he's an "alien" because he doesn't drink soda.*

*This was just such a fantastic meeting and I wanted to pass along the good news and say Thank You!*

*Audrey Meyer Lampert*

### **Recovery from Dementia**

The power of this approach is that it can be often applied without the intervention of a trained professional. Below is the story of a woman's whose husband recovered from dementia by following the principles of Functional medicine. This recovery was likely due to a reversible nutritional cause. Other causes of dementia, which is not a homogenous disease, may respond differently, however the social and economic impact of this method can no longer be ignored.

*Eight years ago, at the age of 42, I met and married the love of my life, Robert Foster. We both have felt that "we" were absolutely "meant to be together". Two years ago I began worrying whether or not the "moments" of forgetfulness meant the beginning of dreaded Alzheimer's disease. I began to educate myself obsessively, and came to the conclusion that the traditional route of pharmaceutical drugs was the wrong approach to combat this beast. I would not accept that the "only" outcome was a horrible death sentence. My beloved husband's cognitive function took a sudden and alarming spiral downward this past fall. The formal diagnosis of "Alzheimer's" was no less heartbreaking, but I felt lucky to have had those two years to do the precious research and reading, where I was given the extraordinary gift of awareness and respect for Functional Medicine.*

*Knowing instinctively that this was the only answer to the war we needed to fight – it was here that I sought help. I was made aware of Dr. Hyman by another Functional Medicine doctor a couple of years ago, and have followed his work and have read several of his books. Having a program to follow, was the answer to a prayer.....literally. The actual "turnaround" has been so dramatic that I have been hesitant to share the results, not wanting to offer unwarranted "hope" to others, as it sounds "too good to be true". I do not want this to sound like "hype" – or as the "magic pill" that cured Alzheimer's, but I do think it would be irresponsible not to share our astounding results.*

*The bottom line--five days after starting the program, my husband had gone from not being able to hold a thought, constantly misplacing any number of objects, repeating questions and thoughts, and not being able to drive (as he would get lost), to the normal functioning man I married. The "comeback" is NOT 100%-- it IS over 90%. He is able to hold his concentration on a project for hours at a time. He is able to get into the car and run errands flawlessly. He carries out a conversation and relates to it hours or days later. He is able to recall telephone numbers and addresses. I have my husband back. I have no doubt the change in diet, addition of specific supplements, the detox program, and the addition of regular exercise, are responsible for these results. I pray that the miraculous results are multiplied a million times over, and others feel the joy and relief that I have had. Dr. Hyman – our eternal thanks and gratitude.*



## **Key Avenues for Change: Recommendations**

While there are many questions still to be answered, and research to be done, it is time to act. Based on the aforementioned considerations, I submit that public and private sector investment must be made in the following areas:

1. Re-tooling medical education and research to match the science of systems medicine. I recommend the establishment a sustainably funded university affiliated *Institute for Lifestyle and Systems Medicine/Functional Medicine*. This would be the national center and prototype for the development of training programs in medical schools, residencies, and postgraduate certification and training in Functional medicine for existing practitioners and ancillary health professionals. Sixty seven percent of the 250,000 primary care doctors are currently dissatisfied with medicine and 80% are seeking new ways to practice based on this emerging model of medicine. The goal should be 20,000 fully trained practitioners in five years.
2. Creation of Functional medicine *demonstration projects in federally funded community health centers*, with integrated health care teams focusing on treating chronic disease and providing education about lifestyle and wellness. These would form the foundation for the development of clinical practice networks of Functional medicine for education and research.
3. The establishment of a *White House and/or Congressional Office for Health and Wellness* to coordinate all efforts in this area as detailed in the WIN proposal submitted by Dr. Wayne Jonas.

## **Conclusion**

Most chronic disease today is not necessary. While conventional medicine has been great for acute disease, Functional medicine is the model for easing the heavy burden of chronic disease from which our society—indeed, the whole world—suffers today.

Thank you.

Mark Hyman, MD  
Institute for Functional Medicine  
45 Walker Street  
Lenox, MA 01240  
(413) 637-9991  
[mark@drhyman.com](mailto:mark@drhyman.com)





Name Clayton Lampert Date 1/13

Chapter 7 Lesson 2 Notes

New Taxes for the Colonists

What bothered the colonists the most was the sugar act  
: tax on goods that said colonists had to  
pay for a tax on goods brought

loyalists - Tories

mercy Otis, Mary, and James Otis

The Stamp Act

Stamp Act

Representation

When people put a stamp on paper goods  
→ to slow down they pay taxes  
no one acting or speaking  
• Treason - working against them  
• Public opinion of what people do  
• more people bought stuff  
• Less than a year after with  
went to effect the stamp

People Protest in Different Ways

Petitions

The groups that had their issues listed were

Liberty

requests for actions  
by many people  
of liberty, freedom to make our own  
• boy cotons refuse to buy  
~~King ignored the colonists~~

King ignored the colonists

~~Clayton Lampert~~  
Clayton

CLAYTON LAMPERT

- Clayton Lampert 136
1. I wrote this sentence.
  2. I have several radios.
  3. Since when do you have an X box?
  4. I am thinking of something.
  5. I am better at math than my sister.
  6. Though the cat was old, it was still very playful.
  7. We're all in this together.
  8. The water was calm until the alligator attacked.
  9. Usually it is quiet in my room.
  10. I am very happy most of the time.
  11. While you were at school, I went skiing.
  12. You ate the whole cake!!
  13. I went on a cruise on the English canal.
  14. I am good at mathematics.
  15. I listen to music a lot.
  16. My Dad took a physical.
  17. I have an education.
  18. The old man was not very