

## **CHAPTER VII: INTEGRATIVE MEDICINE**

### The Evolution of Disease

Now, this is one of the most important parts of the talk, and the concept that I want to discuss in the time that I have remaining, and that is the evolution of disease, and the capability to alter our basic thinking about disease. If we think of either an individual's life and disease burden over time, or an individual developing a chronic disease -- any one that you wish to choose. Pick your institute, pick your chronic disease, and think about the disease burden.

It develops over time, depending on the chronic disease. And, as time goes by, it tends to increase its disease burden and decrease its reversibility. And it tends to cost more in terms of treating it.

Now, what I think is very sad about our current health care system is that if we aggregate in this cartoon-like figure, when are we currently intervening with most of our health care dollars, I think you'll agree it's to the far right hand portion of this curve, where acute episodes of disease occur, whether it's a myocardial infarction or an individual with severe effects of diabetes needing hemodialysis, we tend to have interventions for acute episodes of chronic disease. Very costly, low reversibility.

Now, if we did nothing other than focus our attention in a different way, we could intervene earlier because there is an earlier capability to detect things clinically. If we had a more organized health care system with better access.

But look at where we're going now. If we think about diseases developing, and the capability with gene expression, proteomics, metabolomics, the ability to determine when molecular events are occurring that are involved in the pathway of the development of a disease, we could actually begin focusing on determining earlier on when a disease is going to develop.

But this is also an incredibly important point. Initiating events and baseline risks. All of us are born with our genomes, our environmental factors that create a series of baseline risks for various disease, and they are individualized. They're based on who we are.

Then depending on initiating events, those risks can be converted into disease itself, or not disease, based on what we're able to do about it. And then we have the ability potentially to detect it.

But one of the points that relates to integrative medicine is that on this life curve, most of the time is spent prior to the disease developing. So most of the time is spent during the time of either risk or initiating events. And these, to a degree, are in the control of the individual and potentially in the control, or can be ameliorated, by the health care system.

So we are doing nothing, virtually nothing, as a health care system in this entire space, and that's wrong. I firmly believe, having been responsible for 15 years of one of the largest integrative academic medical centers in the world, in making rounds as other attendings do, and seeing our institution -- and I know the power of the seduction -- that science and technology cures everything.

And it is not true. As a practicing rheumatologist, I can tell you: it is not true. We need to be thinking more out in this space in dealing with people as people and understanding what are the needs that they have to improve their health and wellness whether with a disease or not, and what can we do to help prevent them and maintain wellness.