Sustainable Heath Care

An Inside Look at the Health Care Crisis to Find the Real Solutions

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Cardiovascular Disease is the number one cause of mortality in the United States. Disease rates have continued to increase and the epidemic does not show any signs of slowing down. By the time cardiovascular problems are usually detected by physicians, the disease has already progressed to a detrimental stage and it is too hard to change high-risk behaviors that have been established throughout life. Everyone in the US is significantly effected by an overwhelming amount of stress in their daily life. The current problem is that health education and medical practices are overlooking the benefits of stress management in the primary prevention of Cardiovascular Disease. This huge burden can be lifted off the US Health Care system by having parents adopt and model certain stress management techniques to their children at an early stage. If our proposal is implemented effectively, Americans will be able to prevent cardiovascular disease altogether.
Cardiovascular Disease (CVD) is the most costly and widespread health problem facing our nation today. The most common types are Coronary Heart Disease, Stroke, Peripheral Artery Disease, and Congestive Heart Failure. Controlling risk factors by maintaining a healthy lifestyle can largely prevent Cardiovascular Disease. The major modifiable risk factors for Cardiovascular Disease include tobacco use, high blood pressure, high cholesterol, physical inactivity, excessive body fat, and diabetes.

The economic impact of Cardiovascular Disease on our nation’s health care system will significantly increase as the U.S. population ages. The United States does not have the time or financial capability to continue to support the health care system as it currently exists. A major change is needed in U.S. health care to encourage approaches that address behaviors that are relatively easy to modify, compatible with American medical practices, and are financially stable.

Conventional medical practices currently use technological intervention and prescription drug treatments to cure Cardiovascular disease; but they are just a way to temporarily alleviate the patient of their symptoms. This is exactly why more effort must be directed toward prevention of the disease. Overall, prevention not only enhances the quality of life for the individual, but also costs less than pharmacology and expensive routine procedures in the hospital.

For most Americans today, stress is an inevitable fact of life. The pace of life as we know it continues to accelerate with technological advances, such as email and cell phones, creating continuous engagement to stressors at work and in personal life. We continue to take on too many responsibilities and the time we allow ourselves to rest and engage in physical activities ceases to exist, perpetuating the cycle of increasing stress. Drugs and Food are used as a default coping mechanism and individuals spiral into a pattern of unhealthy lifestyle behaviors including poor sleep and lack of exercise. The stress and associated coping behaviors make us feel physically overworked and psychologically exhausted, and ultimately, we increase our risk of developing life-threatening chronic diseases, CVD foremost among them.

With the motto of Health Promotion and Disease Prevention being, “it’s never too late,” it is hard to legitimize early prevention and address in health education that cardiovascular disease starts to develop in childhood. A focus on establishing and maintaining healthy lifestyle behaviors earlier in life would decrease the demand for medical treatment later. The question is, “What can the average American do in their everyday life to prevent Cardiovascular Disease?”

Introduction -
The overwhelming burden of Cardiovascular disease (CVD) on the U.S. health care system is not getting any better. The continuing epidemics of obesity and diabetes represent major public health challenges that are likely to increase the morbidity and mortality of CVD. On top of that, Americans are becoming less active, eating less nutritional food, and depending more on pharmaceuticals to cope with life.

Eighty million American adults have at least one type of Cardiovascular Disease. According to the American Heart Association, the combined direct and indirect costs of Cardiovascular Disease for 2009 are estimated to be around $475 billion. Direct costs include the cost of physicians and related specialists, hospital and nursing home services, medications, and home health care. But, the true cost of lost lives and human suffering is immeasurable.

The indirect costs associated with Cardiovascular Disease, mainly the loss of productivity, are unacceptable and provide a starting point for eliminating the majority of the burden on the Health Care system. Employees with Cardiovascular disease risk factors work less efficiently and must take time off to address symptomatic issues and treat emergency events. Employers assessing the worth of their companies’ health care plan need address CVD prevention and management in the workplace and determine its importance to be crucial. The quality and quantity of cardiovascular preventative programs need to be improved so that lives can be saved and the quality of life can be enhanced.
Additional Problems…

Providing health care services for Americans of all ages will be the biggest challenge faced by America in the 21st century. The aging of the American population will continue to adversely affect the health care system. It is anticipated that the percent of the population that is over 55 years old will substantially increase in the next few decades. More treatment services will be in demand for the management of complex health conditions, which will increase the price and waiting time to be treated.

The American Heart Associations’ perspective on disease prevention is to promote healthy lifestyle modification, then add medications to the process if it is not going fast enough. Some physicians might not believe in the patients’ capability or willingness to change their own behavior in a timely manner and will choose to prescribe them medication before it’s too late. The physician usually prescribes lifestyle modifications, but the health education needed to realistically promote the behavior change and effectively decrease the risk of CVD is usually not given. Most physicians are also financially motivated to prescribe medication by their pharmaceutical company of choice. When people go to the doctor they are looking for a quick fix, not a long-term behavior modification plan that they could find on the internet.

The use of therapeutic and diagnostic procedures in hospitals are increasing dramatically and the average charges for them have are continuing on the same path. Given the number of medical practitioners in the United States and the current trends in Cardiovascular Disease, if the demand is not significantly reduced, an even bigger problem of delays in delivering services will have to be faced. A focus on behavior modification will inevitably lead to a more sustainable health care system.

“We know that stress is a fact of life and the high stress levels that many Americans report experiencing can have long-term health consequences, ranging from fatigue to heart disease.”

- Russ Newman

Most primary prevention objectives are to decrease the risk factors associated with Cardiovascular Disease. All agree on the risk factors of CVD, but most do not acknowledge the advantages of using stress management as a way to effectively prevent the disease. The American Heart Associations’ perspective on stress management is that, “Managing stress makes sense for your overall health. But current data doesn’t yet support specific recommendations about stress reduction as a proven therapy for cardiovascular disease.” There have been numerous studies to validate that stress management has the ability to decrease, if not eliminate, many of the risk factors associated with Cardiovascular Disease. Russ Newman, from the American Psychological Association points out that, “We know that stress is a fact of life and the high stress levels that many Americans report experiencing can have long-term health consequences, ranging from fatigue to heart….”
Until the 1850’s, American health care was an eclectic mix of midwives, chiropractors, botanical healers, and homeopaths. In the late 19th century, with the proposal of the germ theory, came significant scientific advances in antiseptic techniques and surgery. It was at this time that medical education was being revolutionized to help scientific medicine evolve into the dominant health care system we find in America today.

With the discovery of hormones and antibiotics, conventional medicine had established its place as the prominent form of health care in the U.S. Although most other health care systems did not disappear, the public and mainstream physicians considered them to be outdated and unscientific.

As more sophisticated diagnostic techniques and ways to manage chronic illnesses developed, there was a substantial increase in the cost of care. With increasing rates of chronic illnesses, increasing health care costs, and the beginning of the whole foods movement, alternatives to conventional medicine began to be re-explored in the U.S. As interest and use of non-conventional health care practices increased, the ways to describe contemporary and alternative practices have evolved accordingly to focus on what they are and how they can be effectively used.

Many unconventional therapies are now currently being used to complement, and some are being used instead of, mainstream care. With the creation of the National Center for Complementary and Alternative Medicine (CAM), an emphasis within the United States government was placed on merging CAM and traditional medicines. Now, medical schools are teaching future healthcare providers objective facts about the practices of complementary and alternative medicine.

While it appears that CAM has had a long history in the US, these practices actually have roots near the beginning of ancient civilizations. From primitive, to Traditional Chinese, to Indian Ayurvedic medicine, CAM systems have been established as powerful and reliable ways to treat chronic illness for many past centuries. Classic techniques utilized in CAM include meditation, acupuncture, yoga, and massage.

Historically, the main focus of health care has been to treat disease through prescription medication and surgical procedures. But, this is a very exciting time in Health promotion and Disease prevention because they are experiencing an urgent need to shift the big picture of what health care in the U.S. should represent. President Obama has recently made prevention and public health initiatives a priority in public policy and federal funding. The American Recovery and Reinvestment Act will allow the U.S. Department of Health and Human Services to make a $1 billion dollar investment in prevention that will help reduce preventable diseases across the nation.
Psychologically stressful conditions, such as financial issues or social strains, activates the Hypothalamus-Pituitary-Adrenal (HPA) Axis in the Brain. In an effort to maintain homeostasis, the adrenal glands secrete adrenaline and cortisol to provide immediate physiological responses to either “fight or flight” the situation. Chronic stress can lead to over secretion of these hormones, decreasing the amounts of secretory immunoglobulin (S-Iga), resulting in significant immunodeficiencies, and leading to chronic illnesses.

Research indicates that stress-reducing techniques such as meditation, sleep, and exercise can significantly decrease the response to stress induced by the HPA-Axis. These techniques can modify the hearts response to stress and reduce the amount of damage caused by a single stressful event.

There are numerous types of meditation in which the beneficial effects are endless. Some of the most popular forms of meditation include yoga, biofeedback, visualization, and deep breathing. Meditation directly effects cardiovascular health by significantly decreasing arterial wall thickness, blood pressure, and heart rate, along with increasing blood circulation throughout the body. Dr. Herbert Benson of Harvard has found that a 20-minute period of meditation produces an overall relaxation response cycle that leads to slowed breathing, muscle relaxation, a quieter mind, and return of stress hormones to their baseline levels.

Sleep is a crucial part of maintaining a hormonal equilibrium, as sleep has an inverse relationship with cortisol levels. Many Professionals in Health Promotion warn that meditation and sleep should not be substituted for each other; that each needs there own specified amount of time. Physiological studies being conducted at Harvard University show that lack of sleep puts the body into a state of high alert, increasing production of cortisol and adrenaline, and contributing to the risk of developing CVD. The recommendation for healthy sleeping is seven to nine hours of sleep at approximately the same time every night.

During exercise, cortisol levels temporarily become elevated along with blood pressure and heart rate. But, progressively continuing to exercise allows the body to adapt to stress more efficiently. Exercise actually trains your muscles and tissues to produce less cortisol for a given amount of stress. Not only does exercise help directly relieve you of stress, it also creates a stronger heart that is less at risk for developing CVD. The recommendations for exercise from the American College of Sports Medicine are engaging in 30 minutes of moderately intense aerobic activity five days per week. With this volume of exercise, the chronic adaptations of the heart include increased cardiac output, improved red blood cell count and oxygen delivery to the muscles, lowered heart rate, and decreased blood pressure.
The development of CVD has been proven to begin in childhood and control of risk factors, such as sedentary lifestyle and high blood pressure, are the most important part of prevention. If parents learn to adopt and model certain stress management techniques to their children at an early stage, Americans of all ages will be able to prevent Cardiovascular Disease. If we teach the next generation how to properly engage in healthy behavior and maintain their overall health, then we have helped them to avoid issues the U.S. health care system is currently drowning in.

Disease prevention is a shared responsibility; individuals and families, school system, employers, the health workforce, and the governments all have a shared interest. Bringing together all of the aforementioned stakeholders and aligning policy so that insurance companies provide coverage for these therapies will have a positive impact on the health of Americans while providing a model to reduce preventable disease and decrease associated costs.

A crucial part of the strategy to promote the sustainability of health care needs to be focused on appropriate public health investment to prevent disease in our communities, and we should hold our policy makers accountable for such outcomes. Ideally, our policymakers will shape our health care system based not on outside agendas or special interests, but on data and science. As individuals, we each have a role in living a healthy lifestyle ourselves; as a community, we should elect lawmakers who genuinely seek to invest in the health of all of us.
Call to Action -

My personal prescription to the healthcare industry is to focus funding on validating stress management, through experimental research, as a way to decrease risk factors associated with Cardiovascular Disease. This can begin by teaching medical students complementary medical techniques and changing the interrelationship between patients, physicians, and pharmaceutical companies. The American people should realize that we can rescue this indispensable industry by emphasizing sustainability through early disease prevention and decreasing the demand on health care by adopting healthy behaviors. All aspects of the community need to focus on adopting and modeling healthy stress management techniques to American children to make sure that they survive the epidemics of today. By learning how to integrate meditation, sleep, and exercise into our busy lifestyle, we can take the power of living a healthy and balanced life into our own hands.

If you have any questions, comments, or concerns, feel free to contact me:
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References -
