SUSTAINABLE MEDICINE Emergence & Vision

By

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"We are witnessing the twilight of the future." ⁱ
Octavio Paz, Nobel Prize address, 1990

We are experiencing a crisis of the essential ideas and beliefs that have guided Western thought for over two centuries. This profound crisis in values, beliefs, and view points presages eminent changes which are evident in nearly every aspect of society. Medicine is no exception.

There is an old Chinese saying, "crisis implies opportunity." However, the opportunity implied in this crisis assumes there is an evolution of principles and ideas; an inherent nature that evolves from, as well as in response to, crisis. Nature strives towards balance. A cat lands on its feet. Humans prefer equilibrium to chaos. If this is correct, then contrary to popular opinion, the natural evolution of medicine is not exclusively based upon technological advances, as is the general consensus, but moves forward primarily for the greater good of society and the individual patient in response to a multiplicity of pressures. Therefore the outcome of the current crisis in modern medicine, where challenges arise daily, must lead to an eventual return to a common ground based upon the understanding and treatment of disease; the understanding of how each individual patient is vulnerable to disease; the use of appropriate therapies, close evaluation of the response to treatment, and prevention of reoccurrence, all under the Hippocratic maxim of "physician do no harm."

Progress has two faces, according to Octavio Paz: evolution and revolution. Evolution is the progressive improvement, though not necessarily linear, of biological things, ideas, and phenomena. In China, this concept was well know thousands of years ago, and was originally presented in the Confucian Analectsⁱⁱ as the need for continual observation and study of the evolving phenomena of the natural world, human behavior, and ideas — concepts that we might

be well advised to incorporate into modern rational thinking. Revolution is radical change, and at times departure from a norm that is overly resistant to evolution. Both of these faces are present in the current climate of modern medicine. Therefore, realistic progress in medicine occurs slowly through a natural evolutionary process over a period of several decades, while at the same time revolutionary changes may occur to dissolve existing obstacles and to keep the attained momentum moving forward.

In this paper I'd like to sketch a horizon where the known — the past and immediate present — blends into the unknown — the not so distant future and beyond — and suggest the emergence of a new integrated and sustainable medicine based upon a humanized technology that serves the individual patient, society, the health of future generations, and the planet upon which we live.

Modern Medicine

Modern medicine, as practiced in the second half of the twentieth century is based, for the most part, on continual accelerated technological advances combined with market economic principles supported by scientific studies. Currently, in the industrialized countries, especially the United States, medicine primarily for the benefit of the individual patient and the greater good of the population does not exist. In essence, due to this "for profit" mentality, it is a "sick care system" rather than a health care system."

In this system, more and more people are without health care benefits or have no access to medical care, and many are often financially devastated if they do require care. There are over 100,000 deaths annually directly related to adverse reactions to medications in the United States alone. Many cancers, including breast cancer in women, are on the rise. Chronic viral diseases are on the rise. Approximately four million Americans, nine million Europeans, and a hundred and seventy million people world wide are infected with hepatitis C.vi Malaria has become epidemic again world wide, especially in areas of deforestation and rapidly increasing human population. Antibiotic resistant strains of lethal bacteria now have neutralization capabilities that can occur in a matter of weeks.

Many of the advances in modern medicine have occurred during war time; therefore we have excellent life-saving surgical techniques, antibiotics, analgesics. However, medications for viral and fungal disease are only in their infancy. Understanding of the immune system, neurology, and endocrinology have also lagged behind. A system that only looks at one disease and for one cure, fails to comprehend chronic and multiple systems diseases and the

degenerative dysfunctions of aging. Preventive medicine, especially nutritional therapy, was ignored wholesale until the last decade.

In addition, the underlying philosophy of modern medicine is based on a mechanistic view of the natural world; one in which mankind, or even an individual man, can dominate all aspects of the more feminine amorphous world of earthy biological phenomena. Modern Western, or allopathic medicine, with its emphasis on pathology has largely ignored the importance of structure (like chiropractic and osteopathy), life-style, and optimal nutrition, and has virtually denied the existence of bioenergetic phenomena (such as acupuncture). Therefore, for fundamental change to occur it will have to be rooted in a more complex theory of nature, disease, life and death; the social view by which medicine is practiced will have to shift from a for-profit system to a system that predominately serves society and the individual patient; from a limited national view to a global perspective; and from an expensive form to one of reasonable cost and sustainable modalities.

Alternative Medicine

There is a saying in Ayurvedic medicine, "if the doctor doesn't find the right treatment, the patient will find the right doctor." If the premise is true that medicine itself, at a deeper level, is motivated by greater principles and values than market economics, and if the current practice of modern medicine is power and profit motivated rather than concerned with appropriate care, then individual patients whose needs are not being met will seek care else where. Once the system becomes so imbalanced towards treatment for profit, as is happening today, society itself will turn away from the system of medicine that is not addressing their needs and towards alternatives. Numerous recent studies clearly define this trend. Vii Viii The public is seeking and demanding alternative care and are also self-medicating with natural over-the-counter remedies in ever increasing numbers. The information revolution helps to fuel this trend. The internet provides considerable information on every aspect of health care. Books and magazines abound with self-help information, many written by medical doctors. Health store clerks are more than eager to offer advice on the latest products. Unfortunately, this alternative medicine trend has attracted profit motivated individuals and companies, and in a largely unregulated arena, the benefits to the consumer are ephemeral, if they exist at all.

Alternative medicine developed during the sixties and seventies from isolated grass roots movements to a ground swell in the eighties and a rising high tide in the nineties. Isolated non-medically trained individuals studied Chinese medicine and acupuncture in Taiwan or

urban Chinatowns; herbal medicine with Mormon lay practitioners in Utah or in the rural South; and structural therapies like Chiropractic and massage in the Midwest and San Francisco. However, it is becoming increasing clear that most of these alternatives are no alternative at all. Though offering some solutions to a few specific conditions, while primarily supporting the general function of the body, they do not constitute the comprehensive practice of medicine. On the contrary, they are often no more than wishful, though relatively safe, treatments without an adequate foundation of theoretical principles or scientifically proven methodology. Chinese medicine and acupuncture is the only alternative system that has an extensive history, comprehensive theoretical framework, and scientific support for its practice. However, the current educational climate for this system as taught in the United States and Canada is rudimentary, fragmented, and full of opinions that in many cases clash with traditional Chinese medical and philosophical thought. Though each of the alternative systems have contributed substantially to the welfare of countless individual patients who found no help in the conventional system of medicine, they have also disappointed an equal number.

After careful scrutiny of these therapies, one comes to the conclusion that there is no direct replacement for modern medicine, no matter how bad the current system is. Obviously traditional Chinese medicine, chiropractic, and all of the other systems are not alternatives. Therefore the obvious answer is for modern medicine to adapt by becoming more open, and conversely, for the alternative systems to embrace certain aspects of modern medicine: hence a movement from conflict and antagonism towards cooperation and integration.

The Emergence of a New Medicine

No society can endure for long without a system of medicine that understands and meets the needs of its citizens and that maintains the well-being of the people at optimal levels. In a world out of balance, we desperately need a system of medicine that is sustainable, sane, and harmonious with life on earth. Health is not simply a matter of the elimination of disease, or the absence of pain or symptoms, but a condition of being that is energetic, complete, whole, and alive. A new system of medicine is not only necessary but is essential to the future of the planet with far reaching implications such as the protection of tropical biodiversity, expansion of organic farming of herbal medicines, and reduction in costs due to iatrogenic causes.

Such a system of medicine should look towards long-term solutions, not merely symptomatic relief. These solutions must come from within the individual, be culturally significant, and be acceptable according to the beliefs and philosophy of the individual patient

and the community and culture from which that individual comes from. They must also be sustainable and environmentally sound. The philosophy and practice of a new medicine must be consistent with the new biology of systems theory and deep ecology. It must have as its ultimate goal the restoration of balance within the individual and harmony between the individual and the environment, as well as the treatment and cure of disease. It must be inclusive rather than exclusive, and not only have diagnosis and treatment based on pathology but on function as well.

Complementary Phase

The first phase of this new medicine is in the formative stage. After years of individual use, alternatives are being investigated and evaluated. When appropriate they may be added into the total treatment plan for the patient. For example: acupuncture for post-stroke recovery, nutritional supplements to prevent complications of chronic cardiovascular disease. Successful alternatives are being recognized and accepted for simple conditions: chiropractic for chronic back pain, homeopathy for the common cold, and acupuncture for nausea in morning sickness or from chemotherapy, and vitamins and herbs for premenstrual syndrome. The phase for this stage has been called complementary and alternative medicine (CAM), where the best of all treatments are applied. However, this method requires additional providers, is more complicated to manage, and requires a greater amount of patient education, making it a cumbersome system which may ultimately drive costs up.

Integrative Phase

A phase that is in its infancy in this country, but has a solid and extensive history in China, and a running start in Cuba, is that of integrative medicine. The system employed in China begins with medical school education. All medical students have the same subjects in the first two years: biochemistry, anatomy, physiology. In the third year they begin the process of differentiation into categories of traditional Chinese medicine, acupuncture, or Western medicine. The final years, fifth and sixth, includes a specialty focus, internship, and residency. It is also based on free coverage for all residents, and therefore the profit motive is largely eliminated. Individual physicians and surgeons, and medical researchers are therefore free to find effective and cheaper, rather than more expensive, i.e. more profitable, solutions.

In Cuba though conventional modern medicine is the primary means of healthcare, another system has been added. Every municipality is required to have a clinic for acupuncture and natural therapies. Hospitals must have a department of integrated medicine. Organic community gardens are grown in large vacant lots in the middle of the city and research facilities

work with shark cartilage extracts for childhood leukemia. In Cuba, as in China, natural medicine and Western medicine work side by side without conflict.

In the United States, integrative medicine refers to a clinical approach that combines the strengths of conventional and alternative medicine, with an emphasis and respect for an evidence based and minimum risk therapeutic course. ix This integration, rather than diluting medicine: humanizes it, enhances it, and makes it more functional and fundamentally more appropriate to a world vision of sustainable economy and planetary culture, by reducing costs, side-effects and iatrogenic diseases, while improving outcome and quality of life.

A Sustainable Vision

When a vision is shared a synthesis takes place by which shape and form is given to what was once an idea or a dream in the mind of only a single person. Each individual dream then forms a larger dream. In order to give creative life to the emerging shape and form of the greater dream, one must have a determined will to see it manifested in the complex world of people, events, other ideas and things, and the energy to see it through to the end.

William Irwin Thompson said, "Now you can not simply be Sartre in Paris or Heidegger in the Black Forest, thinking big thoughts about being and nothingness, for no single person, no single city, and no single language or discipline is adequate to bring forth the pattern that connects cognitive domains in a global geometry of behavior that is the distributive lattice of the new planetary culture." In this age, it is not one great scientist, or philosopher, or prophet who will guide us, but creative and concerned individuals: the organic farmer in the field looking into the morning sky for inspiration, the astute clinician with a case load of patients whose observations become the basis for future research, the poet and musician, the visionary and writer, the team of young academics or researchers who together find solutions to former problems, and the far-thinking businessman, along with others who dare to cry out, who dare to change, and who collectively work to create this new culture of which medicine is a significant part.

Sustainable medicine begins with a new vision of human values: of how we regard and care for each other and all things alive and non-organic in our world, and not just how we distribute goods and make money. Postmodern humanity will define itself based on these new principles.

We are now entering the time between the lightening and thunder: that threshold where crisis fosters opportunity and the time before the rain that will eventually nourish the seeds we

plant. How people cope with illness, aging, birth and death, and how disease is treated will fundamentally and dramatically need to change for this new vision to be successful. Modern medicine is too expensive to deliver and to maintain with its focus on end-stage diagnosis and dramatic intervention. A true preventive medicine must develop along the lines of functional diagnostics while retaining the best of conventional medicine. To begin with, there are three areas of such a new medicine that have great practical importance. One of those is the investigation of ancient sustainable techniques, such as acupuncture, that are effective, have few side-effects and that are cheap to provide and maintain. Secondly, a "green" medicine of effective botanical and nutritional therapies could replace many of the current expensive chemical drugs. And third, new research into advanced biological pharmaceuticals such as human antibody therapy to replace antibiotics must take place. xi

Eight Points of Sustainable Medicine

- 1. New Standards of Care: A consensus of how to practice this new model will have to be reached after much exploration into both systems of medicine. First, the careful scrutiny by an independent agency of existing expensive high-tech methods of diagnosis and treatment for usefulness and potential side-effects and the abandonment of those that do not meet the new standards of care, should be undertaken to evaluate real risks versus patient benefits. This may include a drastic reduction in the use and dependency on expensive pharmaceutical drugs, which will in turn reduce iatrogenic side-effects and their consequences. Of great importance will be the avoidance of the over use of antibiotics, while funding an accelerated research program on anti-microbial alternatives. Alternative therapies will also have to be carefully evaluated using the same disciple and methods as used in conventional medicine. However, there should not be two standards, but fair and equal standards for both systems. New means and methods of evaluation may need to be developed for "green" therapies, where safety is less of a concern than effectiveness, and where alternative therapies are compared against conventional ones for real costs and risks. Greater regulation of over-thecounter herbal and nutritional supplements may need to be implemented to protect consumers from unscrupulous suppliers.
- 2. Appropriate Sustainable Technologies: The development of appropriate sustainable technologies that have a low impact on resources but a high return in clinical usefulness, should be given priority over expensive high profit medications and procedures. This includes: the utilization

of modern methods in assessing the safety and efficacy of natural products and to make those that are safe and effective immediately available to all as over-the-counter medications; the establishment of a "green medicine" for the use of natural botanical, animal, and sea products to include organic agriculture, sustainable gathering, and increased ethnobotanical field research; and the widespread use of acupuncture for the treatment and management of pain conditions such as arthritis and neuralgia.

- 3. Medical Education: A re-structuring of medical school education towards better hands-on clinical skills for the general practitioner and the movement away from medical schools as elite institutions for the wealthy only, including the creation of a new integrated medical degree for general practitioners and the establishment of rural "barefoot doctor" programs, including midwifery, delivering a minimal standard of care to all individuals in improvised rural and inner city areas. A universal requirement for one year of humanitarian service to any under privileged part of the world. Physicians of this medicine will be a benediction to those served; and become not only highly paid technicians but also as shamans and healers.
- 4. Preventative Medicine: An aggressive preventive medicine and education program involving diet and exercise for arthritis, diabetes, heart disease, and cancer, is extremely necessary in the developed countries. Preventive medicine should also extend to pre-conceptual care, as it does today for pre and post-natal care. Another area of importance is an understanding of the processes and diseases of aging and their prevention rather than today's exclusive dependence on intervention. Honorable and humane death and dying should be understood as part of a life well lived, and not as a failure of medicine and science. Self-care, under proper educational guidelines, should be encouraged and a proactive partnership between doctor and patient fostered.
- 5. *Understanding of Human Nature*: Thought the nature and biology of humans has been essentially the same for thousands of years, there is still much to know about how we think and behave. Adapting modern psychotherapeutic combined with the meditative eastern philosophical models is an important issue and could be available to all individuals in order to improve the understanding of human nature in the home, school, and society as a whole. In addition, the study of human science should extend to the area of bioenergetic phenomena.
- 6. *Environmental Health*: An extensive program for the evaluation of environmental health risks and for the study of increasing immuno-compromised conditions caused by continuous toxic

exposure is a vital aspect of this new medicine. An aggressive research program is needed to protect newborns, infants, and others particularly vulnerable to chemical pollution. Clinical ecology and environmental medicine are of great importance and we would be well served if physicians were encouraged to go into these specialties.

- 7. *Research*: Substantial funding needs to be made available for the ideas listed above, both from governmental and private sources. One of the most important research areas is in the investigation of viral illnesses and the development of preventative and treatment measures.
- 8. *Delivery System*: Without a delivery system for this new medicine that makes it universally available, all the best research, new medications, and preventive medicine measures will be useless. Adapting current successful models while advocating innovation new methods must be encouraged and implemented. Encouraging doctors and nurses to work closer to home, in their immediate communities, and developing a system of smaller university teaching clinics for hands-on training would not only serve the students but patients as well.

Conclusion

A sustainable medicine based on holistic, integrative principles requires considerably more than merely adding additional providers schooled in alternative therapies. It will have to be based on a deeper understanding of the principles and philosophies of human nature and the natural world, as well as disease, resulting in a fundamental paradigm shift. I have a vision of a planetary culture where no child goes hungry, where all women are loved and respected and given equal opportunity, where no young man goes to war needlessly, where the earth and all things upon it are revered, and where medicine serves life and not death. However disease changes, human physiology and the nature of human kind remains essentially the same. We now have enough medical technology and knowledge for every physician to assist in accomplishing this vision. Like a piano with a set number of black and white keys, we can compose an infinite number of beautiful musical compositions. There is a way beyond centralized government, industrial power, university controlled science, and centralized medicine, but it is not an easy road. It is, however, a path with heart, and one of the paths to the future of a humanistic, sustainable green medicine.

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