A Yanqui in Havana:

A Peek Behind the Cuban Healthcare Curtain



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Forward

In October 2009, I travelled to Cuba with the full approval of the U.S. State Department as a member of a four-person research team from the University of Rhode Island (URI). Our purpose was to peek inside the Cuban healthcare system with a particular focus on health and wellness.

During the visit, we met with leadership from the Ministry of Health along with highly placed officials representing the specific needs of children, the elderly and women. We also met the Director of the Health & Wellness Center at the University of Havana (a program with a 20-year history of training health professionals in disease prevention, health promotion, early detection and early intervention), the Director of a polyclinic, administrators from the National School of Public Health, UNICEF officials and a U.S. physician who went to medical school in Havana 28 years ago and chose to stay and practice medicine in Cuba.

M. Samuelson



Over the past thirty plus years --- from Boston to Brussels, London to Louisville, Pittsburg to Paris and Hattisburg to Havana --- Michael Samuelson has lectured on leadership, health promotion, health policy, disease prevention and the dynamics of behavior change. An author of five books and numerous articles on leadership and behavior change, his work has been featured on the ABC News program, 20/20, The CBS Morning Show, CNN and MSNBC

as well as numerous national print publications. Michael, a graduate of the university of Michigan with a Master's degree in education, is a Viet Nam Era veteran of the US Air Force (1967 - 1971) and a recipient of the Commander's Coin of Excellence from the US Army Center for Health Promotion and Preventive Medicine.

His writings, audio work and behavior change programs have been distributed to millions throughout the world and have been publicly endorsed by scientists, politicians, advocacy organizations, business leaders and media personalities including: George H.W. Bush (41), Betty Ford, C. Everett Koop, Jim Prochaska, Dee Edington, Ken Blanchard, The Lance Armstrong Foundation and Larry King.

Practicing what he preaches, Michael is an avid world trekker with mountain adventures logged in Asia, Europe, Africa, Alaska and the U.S. lower forty-eight.

Part I: Initial Thoughts and Reflections...

I am well aware that our every move was observed and that much of what we saw and heard was orchestrated. That being said, third party healthcare organizations, including WHO and UNICEF, support Cuba's stated position that — when it comes to disease prevention and health promotion — they have achieved remarkable results with scarce resources. After the fall of the Soviet Union in December of 1991 and the tightening of the embargo/blockade, these resources shrank to the level of the world's poorest nations.

...We are a small country, but we have been able to show how much can be done when it is wanted to if human resources from any place can be well used.

- Fidel Castro Ruz

Even though I quote Castro, don't think for a moment that I am sympathetic to the Fidelistas and Raulistas. When it comes to human rights, the leaders of the Cuban Communist Party have been bloody, ruthless and repressive. Yes, of course, prior to the 1959 "Triumph of the Revolution," so was Batista, but without Castro's concern for the basic needs of women, children, rural and working class Cubans. This, however, is not the time for that discussion.

In the 2009 Cuba that I researched and experienced, there is no free speech, no freedom of assembly, no freedom to travel outside the country (very few personal fishing boats... people flee the island), no freedom of the press and little opportunity for individual advancement based on merit. As for their economy. beyond the embargo and blockade (I am opposed... it doesn't work and the people are the ones who suffer). Castro's economic planning and vision has been shortsighted. The fall of the Soviet Union – and with it, the U.S.S.R.'s \$5 billion annual subsidy to Cuba and Cuba's access to Soviet trading partners ushered in the "Special Period" that continues today. Soviet oil and oil byproducts, sold to Cuba at prices below world market, had accounted for an estimated 90 percent of Cuban energy needs. In addition, prior to the fall, Socialist bloc merchant vessels had carried 85 percent of Cuba foreign trade with costs usually assigned to the island's debt. This overdependence on Soviet support, failure to develop any level of economic independence and an intensification of the embargo/blockade, plunged Cuba into economic depths that match the world's poorest nations. Long blackout periods were enforced in the early years and, still today, basic foodstuffs and hardware are rationed and difficult to obtain.



water, water everywhere... no boats

On the flipside, does Cuba have remarkable health outcomes in the areas of infant mortality, eradication and control of infectious disease and expanded life expectancy? Yes. Does everyone in Cuba have free and accessible healthcare? Yes. Are seniors respected and well cared for? Yes. Has the Cuban government virtually wiped out illiteracy? Yes. Does the Cuban government have a commendable health missionary program? Yes. Does Cuba represent a nation where nobody profits (benefits) from sickness and disease and everybody profits (benefits) from wellness and health? Yes! That being said, remember that Mussolini kept the trains running on time, Hitler built the Autobahn and Huey Long paved rural roads and gave away free textbooks.

At what point in the social contract negotiations are we willing to exchange personal freedoms for guaranteed health, shelter and education? Or, how about this question: Are we willing to fight for a country where individual freedoms include guaranteed health, shelter and education? Do we have the individual desire and passion needed to push the political will in a direction that benefits all of our citizens? The current U.S. healthcare discussion centers around how to pay for sickness with token mention on how to prevent disease and improve individual health. Given the fact that of the \$2.8 trillion annual U.S. healthcare spend, less than 5 percent is for primary prevention, early detection and early intervention, it is clear that the current political will is more about protecting and growing the sickness industry than it is about advancing the health and wellbeing of the people. Unlike Cuba, where health and wellness - led by primary care medical professionals – is an economic as well as moral imperative, the U.S. healthcare system, in order to survive and profit, requires and reinforces sickness and disease. This lack of meaningful action toward disease prevention and health promotion makes it clear that we agree with Gordon Gekko: "...sickness is good" [sic] for the U.S. economy and there is no political will to fundamentally change and transform the system.

We are leading with the wrong question. The primary question should not focus on whether or not we should provide universal healthcare. With all of our riches, that should be a given. The concentration needs to be on how we can expand every person's quality of life and how do we compress illness. With another head nod (this time to former president Bill Clinton), the rallying cry should be: "It's morbidity, stupid!" [sic]



senior center in Havana

No Sense of Urgency

In the United States, we don't really care about elevating the health of our communities. Not really. If we did, we would leave the rhetoric behind and take meaningful action. We know what to do. We have the color templates outlining the science of life and what needs to be done to protect it. It's the art of living that challenges and confuses us. When we look at our poor health outcomes relative to our tax dollars spent and at the frightful statistics on childhood obesity, we should all be frothing and shaking like Howard Beale. We should be running to the window and shouting out that we're mad as hell and we're not going to take it anymore! But we don't. Why? Because we don't really care about improving the quality of life in our communities. Or, perhaps better said, we care more about not upsetting the status quo, more about not making a fuss, more about protecting economic self-interests, more about not offending anyone, more about waiting for someone else to fight the battle than we care about the health of all of our children. While that's not okay, it is what it is. So, go to the window and shout out loud: "I don't really care about changing the health of my community!"

Now ask yourself: "Why?" In part, your answer will be some version of "I'm really busy right now; someone else will take care of healthcare and it's probably not that bad, anyhow." You feel no sense of urgency. For you the healthcare crisis (it truly is a crisis) is intellectual and somewhat—and at certain times—emotional, but it isn't visceral. You don't feel it in your gut. Unlike the Cuban people, you are certain that you will always have food on the table, you are certain that your lights will stay on, you are certain that your children will grow up strong and healthy, you are certain that "Someday" is a viable strategy. And, you think Howard Beale is simply an annoyance and a delusional madman. Look at the data below and then tell me you're not mad as hell...

Unless someone like you cares a whole awful lot, nothing is going to get better. It's not.

The Once-ler from The Lorax by Dr. Seuss

Comparative Health Statistics – USA & CUBA (World Health Organization)

USA

CUBA

Statistics:

Total population: 302,841,000

Gross national income per capita (PPP international \$): 44,070

Life expectancy at birth m/f (years): 75/80

Healthy life expectancy at birth m/f (years, 2003): 67/71

Probability of dying under five (per 1 000 live births): 8

Probability of dying between 15 and 60 years m/f (per 1 000 population): 137/80

Total expenditure on health per capita (Intl \$, 2006): 6,714

Total expenditure on health as % of GDP (2006): 15.3

Figures are for 2006 unless indicated, Source: World Health Statistics 2008

Statistics:

Total population: 11,267,000

Gross national income per capita (PPP international \$): not available

Life expectancy at birth m/f (years): 76/80

Healthy life expectancy at birth m/f (years, 2003): 67/70

Probability of dying under five (per 1 000 live births): 7

Probability of dying between 15 and 60 years m/f (per 1 000 population): 127/82

Total expenditure on health per capita (Intl \$, 2006): 363

Total expenditure on health as % of GDP (2006): 7.1

Figures are for 2006 unless indicated, Source: World Health Statistics 2008

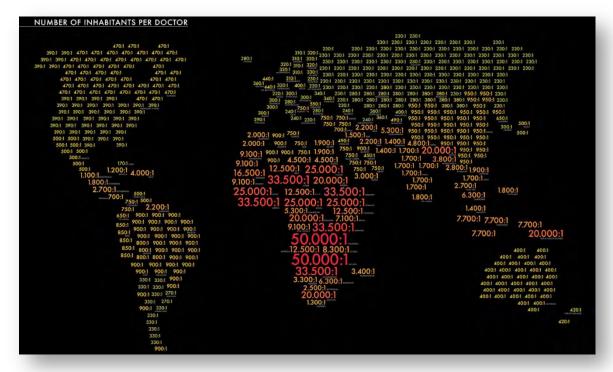
Just imagine what we could accomplish if we cut out the waste, improve efficiency, eliminate medical errors, initiate meaningful medical tort reform and shift just 10 percent of the current healthcare spend to PRIMARY PREVENTION, EARLY DETECTION & EARLY INTERVENTION: WELLNESS

American Cars and Cuban Healthcare...



You have probably read about and seen pictures of the beautifully maintained old American cars still operational in Cuba. Up until the Revolution in 1959, Cuba was the largest importer of American cars and they loved the big gas-guzzler best of all. Of course, for Americans these beauties are a total luxury driven only on beautiful summer days, and the rest of the year we drive one of the other two cars parked in our driveway or garage. However, due to the trade embargo/blockade, in Cuba, ANY car is a luxury and the skills needed to keep them on the road are often family secrets passed along from father to son for generations. Cubans with these skills and cars often use them as taxis driving tourists around. Driving these cabs can earn a Cuban up to \$50 a day in a society where the average income is approximately \$15–20 a month!

When it comes to cars in Cuba, preventative maintenance is an economic imperative. Their livelihood and – it's not a big stretch to say – their very lives depend upon keeping them tuned and in running order, day in and day out. The same goes for the physical health of the Cuban people. Because of their finite resources, it is critical that they not only take care of their own health and the health of their families, it is also critical that they take care of everyone. Cuba has the highest physician/patient ratio in the world with 1 doctor for every 170 Cubans (U.S. is about 1:390). The emphasis is on family medicine with each physician required to practice two years of primary care before applying for a specialty. The physicians live in the neighborhoods and are placed in the factories. In addition, every urban area has a free polyclinic within walking distance for every citizen.



Source: World Health Report 2006



Polyclinic in Havana City, October, 2009

Part II: Transformation via Revolution—A Fifty-Year March Toward Integrated Health Management & Patient-Centered Medical Home

In Part I, I shared initial thoughts and impressions including my reflections on the current U.S. healthcare system. Rather than simply list facts and commentary, Part II places health and wellness in the context of everyday life. Of course, an understandable argument can be made that it is "Yanqui Arrogant" and horribly presumptuous to suggest that a quick visit qualifies me to present everyday life in Cuba. Noted and accepted. That being said, over 30 years of health and wellness field experience, considerable travel to underdeveloped nations, hours and hours of research into Cuba's healthcare system, several in-country interviews and the trained sensitivities of a writer give me comfort in presenting this brief fictitious sketch of Anna, Tatiana and Pedro. ¹

CUBA: Integrated Health Management & Patient Centered Medical Home

Anna:

Anna is a handsome fifty-something professional working in Havana. Her smile fills a room with its warmth and goodwill, while her eyes betray a life lived with little margin beyond protection and survival.

She grew up the Virtudes barrio in Artemisa, a city of approximately 81,000. Artemisa is in the Havana province about 80 miles outside of Havana City. It is said that Ernest Hemingway once told tall fish tales and drank daiquiris at the Hotel Campoamor bar. Of course, prior to his sudden departure from Cuba on July 25, 1960, Papa drank many daiquiris and told many tall fish tales in many bars... in many Cuban cities. But that's another story.

Anna earned a degree in education at the University of Havana in 1972 and now lives in Havana City with her elderly father, Pedro. Pedro, retired from the sugarcane fields, is currently recovering from a stroke. When not teaching at Escuela Unificada Felipe Poey in central

Integrated Health Management (IHM) and Patient-Centered Medical Home (PCMH)... Defined:

The Trizetto Group, Inc., an integrated health management company, <u>defines IHM as</u>: "...the systematic application of processes and shared information to optimize the coordination of benefits and care for the healthcare consumer."

The American Academy of Family Physicians defines PCMH in the following way: "A patient-centered medical home integrates patients as active participants in their own health and well-being. Patients are cared for by a physician who leads the medical team that coordinates all aspects of preventive, acute and chronic needs of patients using the best available evidence and appropriate technology. These relationships offer patients comfort, convenience and optimal health throughout their lifetimes."

TRANSLATION:

Under IHM and PCMH models, virtually all aspects of an individual's health promotion, disease prevention and medical treatment are monitored, linked and coordinated. The family practice doctor is the point person and the patient is an active partner.

Due to historical and urgent circumstances, Cuba has several years of experience with IHM and PCMH.

¹ The depiction of the Cuban healthcare system is based upon data supported by third party world health organizations. "Anna" and her family is a blend of many individuals with whom I met and spoke in Havana.

Havana, she conducts tours at the Museum of the Revolution and takes tourists on shopping trips to old Havana. Often, the visitors spend more in an hour than she will make in a year. She watches, waits, patiently answers questions and – when asked – offers advice. Her English, French and Portuguese are as flawless as her beautiful ebony skin.

In 1976, Anna's young husband, Ernesto, was called to national service and was sent immediately to Angola. He, along with 47 of his comrades, was killed in an ambush. Anna was left a widow with their two-year-old son, Diego, and never remarried. Diego, now thirty-five, is the night manager at Hotel Nacional. He has two children, a twelve-year-old son, Fernando, and a seventeen-year-old daughter, Tatiana.



Eternal flame honoring Ernesto and the other Cuban revolutionaries who lost their lives — wreckage of U.S. plane shot down during the Cuban Missile Crisis can be seen behind the monument...

Tatiana:

Tatiana was born in December 1992 just as the Soviet Union collapsed and, along with it, Cuba's lifeline of cash subsidy and trade partners. That same year, the U.S. Congress approved the Torricelli Bill, which ordered U.S. subsidiary companies operating in third world countries to refrain from trading with Cuba... including food, medicines and medical supplies. In 1996, the Helms-Burton Act threatened economic sanctions against any foreign firms entering into commercial relations with Cuba.

These world events and internal measures brought isolation and profound dislocation for Cuba, resulting in strict rationing and a "Special Period" of intense austerity for all Cuban people. Due to this overdependence on the Soviets, poor administration on the part of the Castro government and the tightening of the blockade, many children born at this time were malnourished. And, some, including Tatiana, suffered mental and physical retardation. Tatiana is currently a resident receiving treatment and training at La Castellana Psycho-Pedagogical Health Center. All aspects of Tatiana's physical, emotional and mental health are monitored, coordinated and tended to by the staff and her family (staff patient ratio of 1:6). She is loved, well cared for and appears to be happy and content. Tatiana's family members visit her weekly and she goes on weekend home visits with either her parents or her grandmother, at least once a month.



It truly does "take a village" to bring health and wellbeing to everyone.

Photos taken at La Castellana Psycho-Pedagogical Health Center

(Notice the ubiquitous photo of Che Guevara in the upper left...)

Pedro:

Pedro, born in the province of Pinar del Rio in the late 1920s (poor record keeping makes it difficult to pinpoint the exact date), is the grandson of African slaves brought over in the mid 1840s to work the sugarcane fields. Just like his father, and his father before him, Pedro worked most of his life – sixteen hours a day – in the fields digging holes or swinging machetes to cut the cane. These long days in the oppressive heat, hunched over with few breaks, took its toll on Pedro. A heavy cigar smoker, he had a heart attack in his early sixties. After surgery he moved to Havana City to live with Anna and his grandson, Diego. Now in his eighties, he recently suffered a stroke and spends his days at the Atencio Complex for the Elderly. At Atencio, he receives rehabilitation and enjoys social time with other seniors.





Cutting Cane on a Cuban Sugar Plantation

Photo Credit: Unknown



Complejo de Atencio Integral Al Adulto Mayor

As with all health services in Cuba, Pedro does not have to pay for the attention he receives at the senior center. When he first arrived, he entered a thirty-day probationary period to evaluate his needs. Onsite professional services include speech therapy, occupational therapy, social work, psychological counseling, physical therapy and a full-range practice of natural and traditional medicine. All of Pedro's treatments are monitored and continuously evaluated by his entire medical team, which is led by his primary care physician who he continues to see on a regular basis.

CUBA: Family Practice, IHM & PCMH *

Family physicians in Cuba and the United States operate within very different health systems. Cuba's health system is notable for achieving developed country health outcomes despite a developing country economy. The authors of this study traveled to Cuba and reviewed the literature to investigate which practices of Cuban family physicians might be applicable for U.S. family physicians wishing to learn from the Cuban experience. We found that community-oriented primary care (COPC) and complementary and alternative medicine (CAM) are well developed within the Cuban medical system. Because U.S. family medicine professional bodies already recommend COPC and CAM, U.S. family physicians may want to learn from the Cuban experience and perhaps incorporate elements into their individual practices.

Healthcare was nationalized after the 1959 Cuban revolution. Healthcare statistics from before the Cuban revolution in 1959 reveal a national profile common to impoverished third world countries. The current model of primary healthcare evolved from evaluations conducted since the 1960s. Identified deficits that led to the current model are similar to those facing **U.S. healthcare providers today: emphasis on curative rather than preventive services, lack of collaboration within the health system, fragmented care, patient discontent related to the inconsistent quality of care, excessive use of emergency rooms, and shortages of primary care physicians.**

Today in Cuba, primary care is provided in consultorios (clinics), secondary care in policlinicos (specialty clinics), and tertiary care in hospitales and institutos (hospitals and medical institutes). Consultorios address approximately 80 percent of the health problems and emphasize health promotion.

The current system of family medicine based in neighborhood consultorios was established in 1984. Family physicians, paired with nurses, serve approximately 600 patients or 150 families in a defined geographic area surrounding their consultorio. The family physician and nurse live in housing units adjacent to their consultorio and are integrated into the community they serve. **Health promotion and disease prevention are emphasized, in that public health concepts are integrated with clinical practice.** In the mornings, family physicians typically attend patients in their consultorio; "afternoons are reserved for home visits to patients with acute care needs, rehabilitation of chronic conditions, and primary prevention."

^{*&}quot;Family Medicine in Cuba: Community-Oriented Primary Care and Complementary & Alternative Medicine"
Lee T. Dresang, MD, Laurie Brebrick, FNP, Danielle Murray, MD, Ann Shallue, DO and Lisa Sullivan-Vedder, MD

Part III: So What? Lessons Learned

In Part I, I reported my initial impressions of what I saw and heard during our URI research mission and my professional reflections on the current challenges facing the US healthcare system. In Part II, I presented a short scenario featuring Cuba's version of integrated health management and the patient-centered medical home. In Cuba, they refer to this model as "Community-Oriented Primary Care" (COPC). In this final section, I'll address the "So What?" question and explore possible lessons we can pull from Cuba and the global healthcare experience.

In New England – and throughout the northeast – colonial symbols and the notion of revolution, patriotism and the value of a melting pot society are everywhere. I live within a stone's throw of the American Revolutionary war hero Major General Nathanael Greene's birthplace in Warwick, Rhode Island. I cheer for the New England Patriots football team, the New England Revolution professional soccer team, and, over the years, I've solved all of the world's problems many times while sharing a pint or two of Sam Adams Boston Ale with the likes of Smith, Mancini, Dobrowolski, Lowndes, O'Donnell, Dempsky, Tavares, Ramirez, Chang, Rosenfelt, Johnson and Swenson.



Nathanael Green, Major General, American Revolutionary Army

Crass commercialism aside, it is time to evoke that same 1776 spirit of passion, cooperation and disruptive innovation as we advance healthcare reform; or perhaps better stated, healthcare **Revolution**. The answer to our current crisis is not to assimilate into – or adopt – Cuba's or anyone else's system but to observe, listen, filter, import, incorporate and blend the best evidence-based global successes into the USA. Our country, with our unique abundance of natural resources, international heritage, political freedom, "Can-Do" spirit and entrepreneurial energy stands second to none when it comes to potential for greatness. We've been there; we've done that... beginning with 1776.

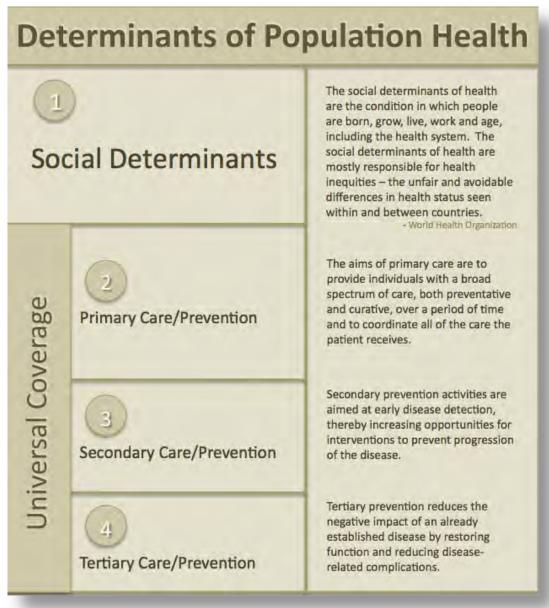
So, what can we possibly learn from a poor, fascist, island government nation located less than one hundred miles off the coast of Miami? What can we learn from a dictator who quotes Thomas Jefferson and honors both Vladimir Lenin and Abraham Lincoln? What can we learn from a government that denies freedom for the individual under the banner of social security for all?

The Cuba experience has left me in a twilight zone world of mixed and confused emotions and reactions. On the one hand, I totally reject Cuba's dictatorial and repressive regime. And, at the same time, I am completely aligned with their

determination that, before all else, people must have adequate food, shelter, education and universal access to basic healthcare.

I am also impressed with how much they have achieved with so little. Where we squander one in every three dollars spent on healthcare, international health agencies tout and applaud Cuba's efficient use of limited resources.

More than anything else, the trip to Cuba provided an expanded context and a curious framework showing the potential value of a population health management system focused on addressing and advancing social determinants of health, universal coverage and primary, secondary and tertiary prevention.



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Observations: Cuba and Beyond



Mortality Amenable to Healthcare

When it comes to sickcare, Dorothy was right, there's no place like home. *Nobody does treatment better than we do*. However, when it comes to primary prevention, universal access, medical efficiency and affordability, we move far to the back of the industrial pack.

The study on the right compared trends in deaths considered amenable to health care before age 75 between 1997-98 and 2002-03 in the U.S. and in 18 other industrialized countries. Such deaths account, on average, for 23 percent of total mortality under age 75 among males and 32 percent among females. The decline in amenable mortality in all countries averaged 16 percent over this period. The U.S. was an outlier, with a decline of only 4 percent. If the U.S. could reduce amenable mortality to the average rate achieved in the three top-performing countries, there would have been 101,000 fewer deaths per year by the end of the study period. The authors also note "it is difficult to disregard the observation that the slow decline in U.S. amenable mortality has coincided with an increase in the uninsured population."

"Cross-national studies conducted by The Commonwealth Fund indicate that our failure to cover all Americans results in financial barriers that are much more likely to prevent many U.S. adults from getting the care they need, compared with adults in other countries," said Commonwealth Fund President Karen Davis.

Mortality Amenable to Health Care, 1997-98 and 2002-03 For selected countries, ranked by country, lowest to highest mortality

		% Deaths per 100,000 Population	
Rank	Country	2002-03	1997-98
1	France	65	76
2	Japan	71	81
2	Australia	71	88
3	Spain	74	84
3	Italy	74	89
4	Canada	77	89
5	Norway	80	99
6	Netherlands	82	97
6	Sweden	82	88
7	Greece	84	97
7	Austria	84	109
8	Germany	90	106
9	Finland	93	116
10	New Zealand	96	115
11	Denmark	101	113
12	United Kingdom	103	130
12	Ireland	103	134
13	Portugal	104	128
14	United States	110	115

Source: "Measuring The Health Of Nations: Updating An Earlier Analysis", Ellen Nolte and C. Martin McKee, Health Affairs, 27, no. 1 (2008): 58-71.

How Do We Pay for Sickness?

Again, this is the wrong Question. The lead question should be: How do we keep all of us healthy and well for as long as possible and, once sick, how do we shorten the length of illness? In other words: How do we expand quality of life and compress morbidity? The temptation here is to simply scream that the solution is health promotion and WELLNESS! However, without clear definition and context, the word, "wellness" is amorphous, dangerous and distracting.

"Wellness," when used as an antonym for sickness, loses punch and significance because it's not measurable. How does "wellness" translate into dollars? argument goes something like this: "I get that "sickness" means missing work, incurring medical expenses and running-up pharmacy costs, but what are the savings – or, absence of cost – that comes with being well?" It's too slippery to measure, so anything called "wellness" is often the first to feel the blade of budget cutback. Far from fluff and waste. WELLNESS is an umbrella descriptor for programs, policies and initiatives that promote health. prevent certain diseases and compress morbidity. Wellness is also an objective and subjective incremental state of well being with infinite variations.

Wellness

"Wellness is a dynamic objective and subjective progression toward a state of complete physical, intellectual, emotional, spiritual and social well-being and not merely the absence of disease or infirmity. Incremental improvements can occur from pre-conception up to and including a person's last breath."

- The Health & Wellness Institute

The superior doctor prevents sickness; the mediocre doctor attends to impending sickness; the inferior doctor treats actual sickness.

-Chinese Proverb

Invariably, when discussing prevention, someone will present the argument that disease is inevitable; that you can manage but you cannot prevent all disease. Assuming a "natural" death, something – heart disease, stroke or cancer – is going to get you in the end. No argument. The issue isn't eventual disease. The issue is avoidable, early onset, or premature disease associated with toxic environments (psychological as well as physical) and elected lifestyle behavior. An extension of that is expanded quality of life for the individual and, if you are an employer, enhanced worker productivity.

Then and Now

There was a time when disease had a predictable and fairly uniform path. In 1900, U.S. life expectancy was about 47 years with minimal disability prior to death. At that time, individuals died at home and, for the most part, their families picked up the tab. In 1935, when President Roosevelt signed the Social Security Act, a newborn baby girl could expect to live until the age of 63, a baby boy, 59. As for infectious illness and disease, once it struck, there was little science to combat the quick advance of tuberculosis, cancer, diabetes, pneumonia, hepatitis, polio, influenza and heart disease. Same for life-extending/saving organ transplants.

Today, science and technology are such that – foregoing certain cancers, congenital catastrophes and dramatic events such as war, homicide and accidents – a child born in the U.S. can expect to live to 79 or 80 preceded by about two years of disability. Even with a lifetime of unhealthy habits, most people can expect to live well past the age of 70. Organ transplants, kidney dialysis, bronchial dilators, insulin, gastric bypass surgery, a full spectrum of antibiotics, chemotherapy and other assorted machines, drugs and procedures can counter or delay much of the damage caused by tobacco, poorly managed stress, poor diet, obesity and a sedentary lifestyle. They will die in a hospital and Medicare will pick up most of the cost. Increasingly, fragile health and complex care accompany the years just prior to death. According to the Centers for Medicare & Medicaid Services, one-quarter of Medicare dollars are spent in the last year of a patient's life.

The result is a life characterized by compressed quality and expanded morbidity. On the other hand, wise lifestyle choices fostered and practiced in healthy work, home, school and community environments result in expanded quality of life and compressed morbidity. Not a great deal of difference in years but how about in the cost of sustaining those years gained since 1935? Huge.

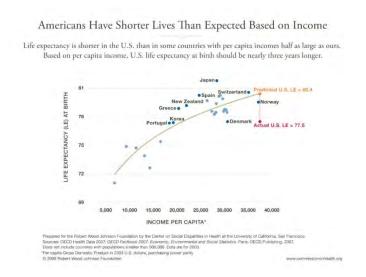
So, who pays for the \$300,000 lung transplant, the \$200,000 liver transplant, the \$250,000 heart transplant, the \$20,000 gastric bypass, the \$100,000 specialty drug bills and the \$28,000,000,000 (billion) annual cost of type II diabetes in the U.S.? Of course, you know the answer: all of us, independent of how we live our lives. It's time to reverse the trend of compressed quality of life and expanded morbidity (and cost) to one of expanded quality of life and compressed morbidity.

The next time someone talks about the need to prevent sickness, improve productivity, slow the surge of healthcare costs, recruit top talent, retain key employees and improve the overall quality of life for your community... THINK WELLNESS. And, then, tell me "wellness" is fluff.

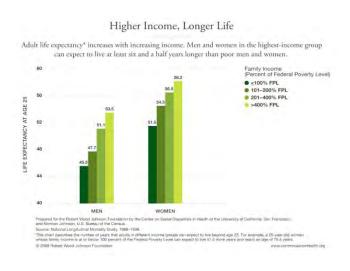
That Being Said... How Do We Pay for Sickness?

Eliminate the true fluff and waste.

Healthcare costs double every seven years. Given the projected spend in 2009 of 2.8 trillion, we're looking at 5.6 trillion in 2016 and 11.2 trillion in 2023. We can slow the rate of burn significantly through improvements in efficiency and effectiveness. Currently, it is estimated that approximately one-third of our annual healthcare spend is wasted on unnecessary treatments, redundant tests, fraud, errors and superfluous activities and procedures that do nothing to improve the nation's health. That equates to around \$700 billion in 2009. Cut that figure by half and there would be more than enough money to offer top-notch care to every one of America's 46 million uninsured.

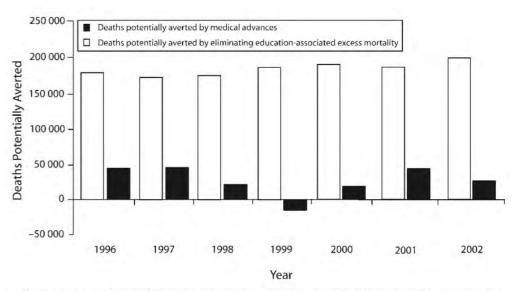


That is, of course, as long as you are educated and insured. Without education and the corresponding income, a person's quality of life suffers and they are apt to lose approximately six and a half years of life expectancy.



ROI: Medical Advances vs. Social Advance

Increasingly, we are a health-for-wealth nation. Researcher Steven Woolf, from the Robert Wood Johnson Foundation, and his colleagues published a study in the *American Journal of Public Health* (Am J Public Health. 2007;97;679-683. Doi:10.2105/AJPH.2005.084848) showing that medical advances from 1996–2002 averted a maximum of 178,193 deaths. However, their research concluded that correcting disparities in education-associated mortality rates would have saved 1,369,335 lives during the same period, a ratio of 8:1. This advances the notion that social change will save more lives than medical advances.



Note. The graph demonstrates that elimination of education-associated excess mortality (white bars) would save considerably more lives than would medical advances (black bars). Cumulatively during 1996-2002, elimination of education-associated excess mortality would avert 1 369 335 deaths, whereas medical advances would avert 178 193 deaths. The estimate of deaths averted by eliminating education-associated excess mortality applies only to adults aged 18-64 years, whereas deaths averted by medical advances include all age groups (see the online supplement to this article for more information).

FIGURE 2—Deaths potentially averted per year in the United States by medical advances and by eliminating education-associated excess mortality: 1996–2002.

Enlightened Self-Interest*

What improves the circumstances of the greater part can never be regarded as inconveniency to the whole. No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable.

- Adam Smith, Wealth of Nations, 1776

In a world of finite resources the question becomes: Do we finance incremental improvements in the health of a few or, do we focus our resources on the social determinants that influence the health and wellbeing of all of our citizens?

^{*} Enlightened Self-Interest is an ethical philosophy which states that persons who act to further the interests of others (or the interests of the group or groups to which they belong), ultimately serve their own self-interest.

Influences on Health: Broadening the Focus

Health is shaped by many influences, including age, sex, genetic make-up, medical care, individual behaviors and other factors not shown in this diagram. Behaviors, as well as receipt of medical care, are shaped by living and working conditions, which in turn are shaped by economic and social opportunities and resources.



Social Reform, Prevention & Universal Coverage: A Winning Formula

As indicated in the RWJ graph, above – and earlier in this paper – economic and social opportunities impact our living conditions and, in turn, our living conditions impact our behaviors as well as our overall medical care. Until we focus on the core determinants of health, including health literacy, "prevention," like "wellness," is just another amorphous word out of context. The third leg of this three-legged stool is universal healthcare.

"Universal healthcare" or "universal coverage" means that all residents of a defined community are covered for basic healthcare services, and no one in that community is denied care. Access does not necessarily translate to quality, however. According to the Institute of Medicine, the U.S. is the only wealthy, industrialized nation that does not ensure all its citizens have access to health care as part of a universal system. That being said, a strong case can be made for anointing U.S. healthcare research and delivery as the best in the world.

The reform movement is not a reaction to poor quality, it is driven by the belief that access to affordable healthcare is a basic human right and — as stated throughout this report — by the fact that U.S. per capita expenditures for health care are almost twice as much as any other industrialized nation, yet, life expectancy and infant mortality rates lag behind those countries.

It's time for a new social contract...

Health Management: A Social Contract

Society (government, healthcare providers, employers) must take the lead role when it comes to responsibility and accountability. This is a partnership, a social contract whereby – we, the people – voluntarily subjugate the freedom of action we have under the natural state (a state of existence that is not contingent upon man-made laws or beliefs) in order to obtain the benefits provided by the formation of social structures. Building on the philosophy of Aristotle, Thomas Hobbs, Jean-Jacques Rousseau and John Locke who said that "no one ought to harm another in his life, health, liberty, or possessions," Thomas Jefferson, et. al., framed our government's responsibility under the umbrella of securing inalienable (natural) rights including "life, liberty and the pursuit of happiness." By obeying man-made laws and complying with accepted standards and mores, we implicitly agree to our part of the social contract. In turn, we have the legal. moral and ethical ground to demand that the custodians and protectors of our natural rights (our elected officials, medical providers and employers) be held accountable. This speaks directly to the issue of healthcare access and affordability.



An Allegory of the Revolution with a Portrait Medallion of Jean-Jacques Rousseau by Nicolas Henri Jaurat de Bertry

In its simplest form, our social contract requires that society provide:

- awareness of the consequence and benefits of lifestyle choices
- education needed to initiate and sustain healthy living
- access to affordable primary, secondary and tertiary healthcare
- evidence-based medicine and prevention measures
- supportive infrastructure (city planning, parks, healthy worksites, recreation, green, etc.)

When provided with all of the above, individuals representing themselves and their minor dependants are responsible for:

- making healthy choices
- self exams (paying attention to changes in personal health)
- · keeping up with recommended clinical screenings
- seeking timely and appropriate medical attention
- complying with evidence-based recommendations and directives involving lifestyle habits, medications, lab work and rehabilitation protocols

Respon	nsibilities	
Society (Government/Medical Providers/Employer)	Individual	
Awareness	Healthy Choices	
Education	Self-Observation/Care	
Access	Evidence-based Screenings	
Supportive Infrastructure	Timely & Appropriate Attention	
Evidence-Based Medicine and Prevention	Compliance	
Pen	alties	
Society	Individual	
Removal from Public Office (Government)	Increased Financial Obligation	
Fines (Employer)	Compressed Quality of Life/Expanded Morbidit	
Reduced Reimbursements (Medical)	Potential Criminal Charges (re: care of minors)	
Rew	vards	
Society	Individual	
Re-Election (Government)	Expanded Quality of Life/Compressed Morbidit	
Tax & Insurance Rate Credits (Employer)	Favorable Insurance and Co-Pay Rates	
Higher Reimbursements (Medical)	Happier/Healthier Dependants	

Closing Thoughts...

Revolution

- John Lennon

You say you want a revolution
Well, you know
We all want to change the world
You tell me that it's evolution
Well, you know
We all want to change the world
But when you talk about destruction
Don't you know that you can count me out?

You say you've got a real solution Well, you know We'd all love to see the plan You ask me for a contribution Well, you know We are doing what we can

But if you want money for people with minds that hate

All I can tell is, brother, you'll have to wait

You say you'll change the constitution
Well, you know
We all want to change your head
You tell me it's the institution
Well, you know
You'd better free your mind instead
But if you go carrying pictures of Chairman Mao
You ain't gonna make it with anyone anyhow



Statue of John Lennon in John Lennon Park, Havana, Cuba Inscribed on the bench are the words:

You may say that I'm a dreamer But I'm not the only one...

- Imagine, by John Lennon

Part III began with a reference to the American Revolution and to the value of a melting pot society. We have a great and wonderful country. There is no place I'd rather call home. My love for this country isn't some reflexive response spun from political rhetoric, holiday symbols or stadium ceremony. My feelings are bio-cellular driven anchors and reflections that come with age, unique opportunity, time in the military, fulfilled dreams, family experience and extensive travel. Travel has taken me to over 200 U.S. cities and to all of our fifty states, as well as to horribly repressed and poorly developed countries in Asia, Africa, Central America and the Caribbean. I've witnessed enough to know what can happen if we take too much for granted, if we let our standards drop and if we try to hush the voices of those who seek to uphold and maintain the idealistic notions of Lexington and Concord.

I close "A Yanqui in Havana" by stating, once again, that we need 1776 levels of passion, cooperation and disruptive innovation if we are to advance healthcare reform. We also need to study and learn from the individual and collective experience of our international neighbors... all of them, the good, the bad and the truly ugly.

Post Script...

For an educator who has studied healthcare throughout the world and continues to promote the moral, ethical and economic power of primary prevention, the Cuba experience was an absolute treasure. The spirit and beauty of the country and its people will stay with me forever.

- M. Samuelson, 2009



The birds in rich plumage and the verdure of the fields render this country of such marvelous beauty that it surpasses all others in charms and graces as the day dusts the night in luster. I have been overwhelmed with the sight of so much beauty that I have not known how to relate it.