Healthcare Reform 2010—A Surgeon's Perspective

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The Patient Protection and Affordable Care Act (PPACA) was signed into law by President Barack Obama in March 2010. From the standpoint of a clinical surgeon, Dan Ullyot examines healthcare reform of the US system and asks: What is healthcare reform? Do we need it? What would ideal reform look like? And to what extent does the PPACA approach ideal reform? This article is a primer for understanding the salient features of this complex piece of federal legislation, which will have an enormous influence on the lives of this generation and those of the future.

More than a year ago, a dozen of us were sitting after a golf tournament and the conversation turned to healthcare reform. "What do the doctors think?" one of the golfers asked me and the radiologist at the table. The question got me thinking that while we were hearing a great deal from politicians, economists and health policy folks about reform, we were not hearing much from doctors. Organized medicine views healthcare reform as tort reform and preservation of physician reimbursement. Healthcare reform, although poorly understood, is of great importance to all of us, and the public really wants to know what we, their doctors, think about reform.

So I began my putting my thoughts together, culminating in a paper emphasizing the importance of technology assessment (TA) in healthcare reform, which was published in December 2009.[1] In the paper I noted that the increasing costs of healthcare in the US are unsustainable, that new medical technology is driving medical cost inflation, and that the key to healthcare reform is rigorous TA and educating the public about why we must impose reasonable limits on our use and expectations of medical technology.

Just a word about the title, *A Surgeon's Perspective*. My specialty is cardiothoracic surgery, a subspecialty that relies on some of the most sophisticated and complex technology in all of medicine. I have spent many years on the California Technology Assessment Forum (CTAF), which meets three times a year in public session to evaluate new medical technology, and I represented the American College of Cardiology (ACC) in the national debate about healthcare reform in the mid-1990s, when 'Hillary-care' was the policy proposal of the Clinton administration.

Since that summer of 2009, federal healthcare reform legislation has been enacted. The Patient Protection and Affordable Care Act 2010 (PPACA) was signed into law by President Barack Obama on March 23, 2010. The legislation is complex, more than 2,000 pages in length, and will be phased in gradually over several years. This, then, is a good time to talk about healthcare reform: What is it? Do we need it? What should ideal reform look like? And to what extent does the PPACA conform to the ideal?

What Do We Mean by 'Healthcare Reform'?

By 'healthcare' we really mean 'medical care,' i.e. those things we do to diagnose, treat, and prevent illness. And as Kenneth Arrow, the Nobel-Prize-winning US economist points out: "The causal factors in healthcare are many, and the provision of medical care is only one".[2] That said, medical care in the US is a very big deal that currently comprises 16% of the $14.8 trillion economy.

The fundamental unit of healthcare is the interaction between a patient with a real or perceived health problem

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and a physician with the training, experience, skill, and ethical commitment to address the problem. All else is ancillary in support of this fundamental encounter including drugs, devices, financing, spaces (including hospitals, clinics, and nursing homes), and all other elements of the huge enterprise we call healthcare. If we look at healthcare as a delivery system we can describe it in terms of quality, access, and cost. As we talk about healthcare reform, we must keep in mind these three elements. We can all agree that the optimal expression of these elements would be good, fast, and cheap.

Healthcare Reform—Do We Need It?

One often hears the statement, "America has the best healthcare in the world." This is probably true if one has an illness for which the diagnosis and treatment require complex medical technology, and if one happens to be wealthy or have good medical insurance. Currently in the US, medical insurance is available mostly through one's employer for working-age Americans and via Medicare for those 65 and older. But others are not so sure that the US has the best healthcare system. Victor Fuchs, the Stanford Health economist, asks several questions:[3]

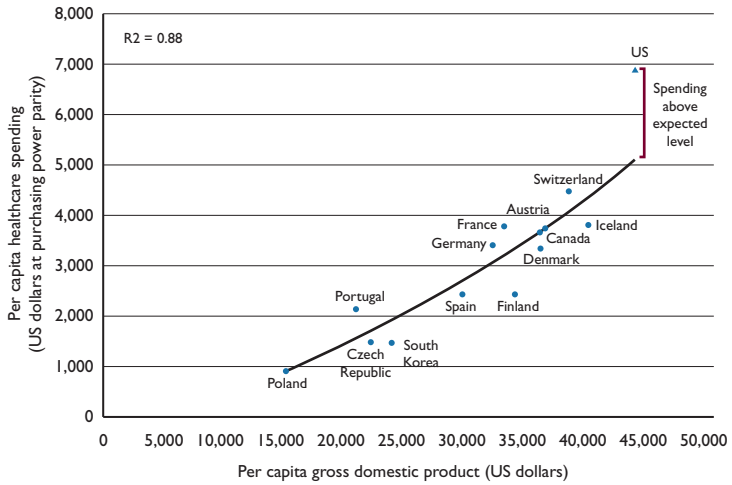
- Why is the US the only high-income country without universal health insurance?
- Why does the US spend twice as much on healthcare as European countries, whose citizens live as long or longer than those of the US?
- Why is there so much overuse, underuse, and misuse of medical technology?
- Why has healthcare coverage become the flashpoint for labor/management disputes and the primary cause for so many costly strikes?
- Why does such a large percentage of the US healthcare dollar go toward administration and marketing, duplication of services, and expensive interventions of little or no value to patients?

Professor Fuchs is certainly not alone in his criticism. So let us take a look at access, quality, and cost/affordability more closely and see whether reform of the US healthcare system is really necessary.

Access

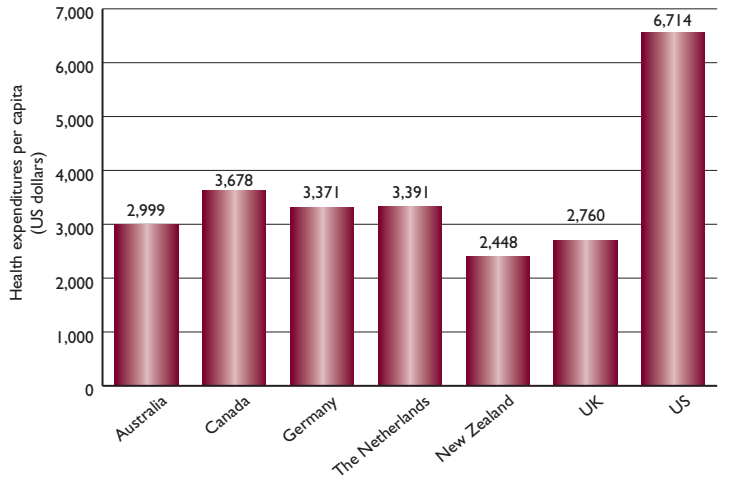
An estimated 61 million US citizens have problems of access to the healthcare system, 45 million are uninsured (including nine million children), and 16 million underinsured. 'Uninsured' is defined as without health insurance for all or part of the year, and 'underinsured' relates to the whole year, but out-of-pocket costs amount to 10% of income or greater. Approximately two-thirds of the uninsured are regularly employed workers. We can argue whether healthcare is a 'right' or a 'privilege.' There are always a significant number of 'free riders' who choose not to buy health insurance in addition to those who cannot afford health insurance. And it is also true that those without insurance do not die in the streets following treatable emergencies, such as acute appendicitis. Instead they receive care paid for by cost-shifting to those of us who are insured. Nonetheless, we must concede that in this affluent country access to healthcare is a problem for a large and growing number of US citizens.

Figure 1: Per Capita Healthcare Spending in Various Countries in 2006, According to the Country's Relative Wealth



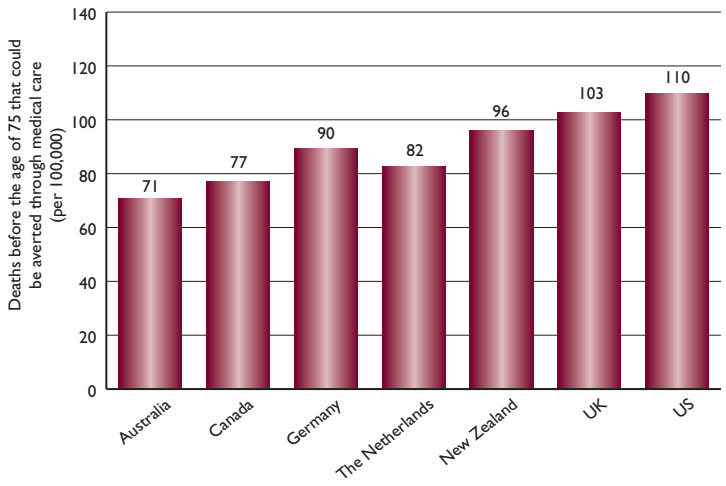
Source: Iglehart JK, 2009.[4]

Figure 2: Health Expenditures per Capita



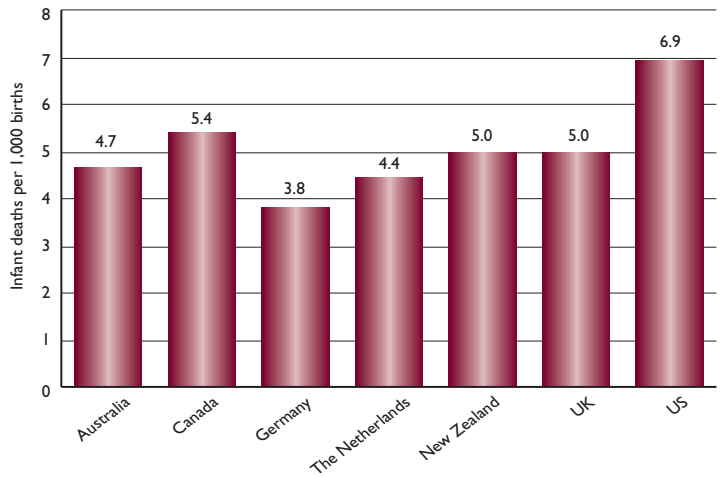
Source: Davis K, 2008.[5]

Figure 3: Rates of Death that Could be Averted Through Medical Care



Source: Davis K, 2008.[5]

Figure 4: Rates of Infant Deaths



Source: Davis K, 2008.[5]

Quality

There are also definite problems with quality: deaths due to medical errors, hospital-acquired infections, high hospital re-admission rates, and wide regional variation in medical practice are the most frequently cited issues. The Institute of Medicine (IOM) published two reports on quality: *To Err is Human* (1999) and *Crossing the Quality Chasm* (2001), which estimated 44,000–98,000 hospital deaths occur each year due to medical errors. These reports stimulated a broad discussion of quality improvement in healthcare in the US.

Cost

But of the three elements by which we judge our healthcare delivery system, i.e. access, quality, and cost, cost is by far the most critical. Basic healthcare has become increasingly unaffordable for an increasing number of Americans, not just the poor. Indeed, affordability is inextricably related to access (the greater the cost, the fewer who have access).

In 2007 we spent $2.2 trillion on healthcare, which is 16% of gross domestic product (GDP) and amounts to $7,420 for every man, woman, and child in the US. Healthcare costs have risen on average 2.5 times the consumer price index (CPI) per year, and have done so since 1970.

Healthcare costs are hurting our competitive position in the global economy. Approximately 46% of healthcare expenditures are funded by government, and a heavy tax burden is expected to be placed on future generations due to healthcare-related entitlements. Medicare is projected to become insolvent by 2017. There is an interesting relationship between healthcare spending and wealth. *Figure 1* shows increasing per capita spending on healthcare with increasing per capita wealth in several affluent countries. The US is a conspicuous outlier in this comparison, spending some $648 billion more than would have been anticipated by the spending/wealth relationship seen in other developed countries.

The US spends more per capita than those in other so-called 'first-world' countries (see *Figure 2*), and US healthcare outcomes are no better that those in countries that spend less than half per capita than we do (see *Figure 3*). Our infant mortality rates are higher than those in other developed countries (see *Figure 4*). The conclusion from these examples is we do not receive good value for our healthcare dollar. Glenn Hubbard, a US economist and Chairman of the Council of Economic Advisors under President George W Bush, states: "The big issue for healthcare reform is high costs relative to the value of healthcare received."[6]

Atul Gawande is a general and endocrine surgeon at the Brigham & Woman's Hospital in Massachusetts, and the author of several articles in the *New Yorker*. Often quoted in the current debate about healthcare reform, his judgment is even harsher: "… the result is the most wasteful and least sustainable healthcare system in the world."[7]

By far the greatest driver of healthcare cost inflation is new medical technology, a statement with which all health economists agree. With the advance of medical science more and more of life has become 'medicalized,' i.e. amenable to medical intervention. Examples include: infertility, attention deficit disorder (ADD), erectile dysfunction (ED), depression and anxiety, and laser *in situ*

keratomileusis (LASIK) surgery to obviate the need for eyeglasses or contact lenses. And with more and more of everyday life subject to medical intervention, the desire for healthcare becomes insatiable and ultimately unaffordable.

Ideal Healthcare from Reform

The ideal healthcare reform goal for this country would be, first and foremost, to lower the inexorable rise of costs, increases that are unsustainable and are having negative consequences for all of us and for future generations. 'Bending the cost curve' is the often-heard mantra. The key to this would be to somehow limit the adoption of new medical technology to those technologies whose effectiveness and safety are based on good scientific evidence, and whose benefits are in some reasonable proportion to cost. This would require sound TA, the introduction of cost-effectiveness analysis, and the adoption of a culture in which medical practice is firmly based on scientific evidence. Such a culture is difficult, because Americans love technology, especially new medical technology ('newer is better') and when the costs are perceived to be free, i.e. when true costs are obscured by private or government insurance (moral hazard).

Victor Fuchs put it well when he said: "The role of new medical technology deserves special attention in thinking about future healthcare spending because biomedical innovations as a whole have been the primary source of both improvements in health and increasing expenditures. On the one hand, it is fiscally irresponsible to continue to accept innovations regardless of cost, even if they pass tests of safety and efficacy—and it is particularly irresponsible when the interventions are provided at public expense. On the other hand, we must avoid an innovation policy that cuts off new interventions prematurely. Some interventions that are not cost-effective at first may prove to be so over time and with greater experience in implementing them."[8]

Under ideal healthcare reform, access to at least a basic set of essential medical services would be extended to all Americans. If accomplished in the context of a private insurance system, all would be compelled to participate so the system would be actuarially sound. Universal access via a private health insurance system must include subsidies for the poor and compulsion to participate for the young and healthy. The alternative to universal access to health insurance provided by the private sector is a public plan, a 'single-payer' healthcare system financed and run by the government.

Under ideal healthcare reform, incentives would be in place for continuous quality improvement, including new payment systems that reward performance, i.e. improved, patient-centered clinical outcomes, rather than conventional reimbursement for services rendered.

To What Extent Does the Patient Protection and Affordable Care Act 2010 Conform to Ideal Reform?

Any analysis of the PPACA is difficult because of its complexity (the bill is more than 2,000 pages). It is to be phased in over four years (2010–14), and many provisions are couched in vague terms such as "… the Secretary of the Department of Health and Human Services (HHS) shall …," leaving much to the discretion of Secretary Kathleen Sebelius and her successors. Parts are of the bill are already being litigated over their constitutionality, especially the 'individual mandate,' which compels individuals to purchase health insurance under the power granted to the congress under the Commerce Clause. The Commerce Clause is an enumerated power listed in the United States Constitution (Article I, Section 8, Clause 3). The clause states that the US Congress shall have power "to regulate commerce with foreign nations, and among the several States, and with the Indian Tribes." The purchase of health insurance in this bill falls under the power of Congress to regulate commerce among the several states. The Accountable Care Act is fundamentally an access bill and secondarily an insurance reform bill.

Patient Protection and Affordable Care Act 2010 Access

The PPACA promises to make available or compel health insurance coverage for an additional 32 million American citizens beginning in 2014. One half of the increased access to health insurance coverage will result from Medicaid eligibility expansion affecting an estimated 16 million US citizens and legal residents. Medicaid coverage is expanded to cover individuals and families up to 133% of the federal poverty level (FPL). Those not currently insured and not eligible for Medicaid coverage will be required, as of 2014, to purchase health insurance in compliance with the 'individual mandate,' a mandate facilitated by subsidies and penalties. State-based insurance exchanges will be created where insurance policies are offered for purchase, and subsidies are available for individuals and families whose incomes are between 133 and 400% of FPL. The penalties for not purchasing (individuals) or not providing (businesses) health insurance will be administered by the Internal Revenue Service (IRS) as punitive taxes. If and when this expansion of coverage takes place, serious healthcare workforce issues will be raised as the industry seeks to care for these additional insureds, especially around providing the large numbers of additional primary care physicians that

will be needed. The PPACA not only improves access to health insurance but also mandates significant changes in new insurance products and in the conduct of the insurance industry itself. Required changes beginning immediately include: no pre-existing condition exclusions for children, parents policies to cover children up to age 26, expansion of insurance to uninsured with pre-existing conditions through high-risk pools, $250 subsidies for those having high prescription drug costs, and new tax credits to small businesses (fewer than 25 employees with average wages less than $50,000) for buying health insurance for employees. For new plans enrolling people after 2014 the rules include: no pre-existing condition exclusions, standard benefit packages, no dropping people when they get sick, waiting period for coverage less than 90 days, preventive care provided with no co-pays, and no lifetime caps on insurance payouts. Moreover, the medical loss ratio (MLR), i.e. the percentage of the premium dollar spent on medical care, as opposed to that spent on administrative costs and other expenditures, must reach at least 85% for large group and 80% for individual plans.

Patient Protection and Affordable Care Act 2010 Quality

The incentives to improve quality include payment penalties for sub-standard care, greater transparency in healthcare delivery as a result of information technology and, most importantly, substantial resources directed toward comparative effectiveness research (CER). Incentives to encourage improved quality include, for example, reimbursement penalties for high, risk-adjusted hospital re-admission rates within 30 days of discharge, and high rates of hospital-acquired infections and other avoidable conditions. The American Recovery and Reinvestment Act (ARRA) of 2009, otherwise known as the $787 billion 'stimulus package,' included $20 billion for health information technology (HIT) and electronic health records (EHR). The PPACA depends on HIT to integrate quality improvement efforts going forward and to improve coordination of care. CER is given great emphasis both for quality improvement and cost control. The quality issues in American healthcare delivery, in my opinion, are related in significant degree to the overuse, underuse and misuse of technology, rather than incompetence or venal exploitation of patients. And with better TA, as contemplated with CER, and appropriate dissemination into clinical practice, quality should improve.

Patient Protection and Affordable Care Act 2010 Cost

The often-heard critique of the PPACA is that it increases access to care without corresponding cost controls. This notion is rebutted by Peter Orszag, PhD, former director of the Office of Management and Budget (OMB), and Ezekiel Emanuel, MD, PhD, special advisor on healthcare policy to the OMB and brother of President Obama's former chief of staff, Rahm Emanuel. In an article entitled Health Care Reform and Cost Control, published in the *New England Journal of Medicine* in 2010,[9] the authors divide their analysis into (i) PPACA cost reduction and (ii) PPACA cost growth reduction.

They assert that the PPACA will reduce costs as follows. (i) Measures against fraud and abuse: $7 billion reduction over 10 years; (ii) administrative simplification by creating uniform electronic standards for private insurers, Medicare and Medicaid, thereby reducing unnecessary paperwork: $20 billion over 10 years; (iii) ensuring a pathway for the approval of generic biologic agents: $7 billion over 10 years; (iv) altered payments for complex medical imaging: $1.1 billion; and (v) a phased elimination of the 'unjustified' subsidies to Medicare Advantage plans: $135 billion over 10 years. Twenty-five percent of Medicare beneficiaries are currently enrolled in Medicare Advantage plans.

They argue that cost growth will be reduced (bending the cost curve) by: (i) imposing an excise tax on 'cadillac' health insurance plans; (ii) measures to cause a direct change in the way healthcare is delivered, i.e. developing a coordinated care model; and (iii) Medicare payment reform.

Beginning in 2018, a 40% excise tax will be imposed on cadillac plans, i.e. plans that charge more than $27,500 for families of four and $10,200 for individuals. After 2020 the premium threshold for the tax will increase no higher than CPI. This will encourage employers to offer more cost-effective plans with lower premiums. Federal tax revenues will benefit from both the excise tax and the increased income tax revenue resulting from the shift of tax exempt insurance coverage to increased wages.

According to the authors, the coordinated care model will lower healthcare costs through improvements and greater use of information technology (IT) in these models. They argue that IT will improve the flow of information throughout the healthcare system with more accurate information about patients, checks on drug interactions and decision support to adopt best practices, i.e. more efficient, less costly care. The Mayo, Cleveland and Geisinger Clinics are examples of multispecialty clinics noted for high-quality, coordinated care. Coordinated care, according to the authors, reduces cost by implementation

of best practices and eliminating errors and unnecessary duplication resulting from poor communication among physicians and lack of accountability.

The PPACA creates three new agencies: the Patient-Centered Outcomes Research Institute (PCORI), the Innovation Center in CMS and the Independent Payment Advisory Board (IPAB), the combined effects of which should bend the cost curve downward. The fact that Medicare payment decisions in turn affect payments in private markets needs emphasis, because Medicare reimbursement policies are soon adopted by the entire healthcare delivery system.

The PCORI is a public–private, non-profit enterprise that will fund CER. PCORI is itself funded by a dedicated trust fund from Medicare and contributions from private insurers. The Institute will attempt to disseminate results of CER into clinical practice, thereby promulgating more rational use of new medical technology. It should be noted, however, that the PPACA explicitly prohibits the use of quality-adjusted life-years (QALYs), a widely accepted means of cost-effectiveness analysis, as a basis for coverage decisions and practice recommendations.

The Innovation Center in CMS will develop new policies and programs to enhance quality of care and cut costs for Medicare beneficiaries. The secretary of HHS is empowered to develop and extend pilot programs for innovative payment policies, for example, bundled payments for chronic disease management (for example, heart failure and diabetes), and payment-for-performance (as opposed to the current system of payment for services rendered). Pilot programs do not require congressional approval, in contrast to 'demonstration projects,' which do, and therefore give the Secretary flexibility and authority to pursue cost savings measures in Medicare without going back to congress to seek enabling legislation.

The IPAB is perhaps the most radical and politically volatile provision in the PPACA. Beginning in 2014, the IPAB will monitor Medicare's per capita costs and develop formulae to reduce payments to the extent that they exceed certain thresholds. Beginning in 2018, this threshold is 1% above general inflation (CPI). Recalling that healthcare cost inflation has averaged 2.5% above CPI per year since 1970, this cap on Medicare spending, and by extension the cap on all healthcare spending is very significant, if not draconian policy. The legislation is written such that the Secretary of HHS must implement the policies recommended by the IPAB, unless Congress enacts legislation for alternative policies that lead to equivalent savings.

During the debate in Congress leading up to passage of the PPACA, the Congressional Budget Office (CBO) estimated that as a result of the legislation the federal deficit would be reduced by $100 billion over the first decade and by $1 trillion between 2020 and 2030.

Conclusion

The American healthcare system at its best is very good, but it is not without its faults and clearly is in need of major reform. Our spending on healthcare is unsustainable, and we are not getting good value for our money. Reform of one sixth of our $14.8 trillion economy is a tall order, and is made more difficult by the fact that any savings reduction represents someone else's lost income. Healthcare also is not like any ordinary consumer purchase. There is an emotional component (how should we treat Grandma?), a philosophical debate about whether healthcare is a right or a privilege (in the UK comprehensive healthcare is a right), and there are vast asymmetries of knowledge between patients and doctors. All these factors make shopping for care at the best price unlikely. In fact, controversy exists among health economists as to whether the free market works at all for healthcare. Certainly the private sector has performed a miserable job in constraining the inexorable rise in costs over the past several decades.

The PPACA is ambitious in its goals, but it is impossible at this point to understand the full implications of the legislation, much less predict its success. Much of the language in the bill is vague; reform is designed to evolve in a continuously changing healthcare environment, and changes will be phased in over many years. So, taking our cue from George W Bush: "Stay tuned!" I close with a quote from HL Menken: "There is always an easy solution to every human problem—neat, plausible, and wrong." ■

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