

Will the Baby Boom Bust Healthcare?

America leads the world in creating new healthcare therapies but is last out of 19 industrial countries in preventable deaths. How could this paradox have arisen given its overall wealth?

By Barry Calogero and Anne Marie Halfmann

The business of healthcare is underpinned by the free market system: prices are regulated by the forces of supply and demand, coupled with the power of competition and access. The free market system is in turn regulated by the tort system to ensure that failings in the efficacy of drugs, medical devices, and medical services are adequately penalized. However, the free market system is only partially in play, resulting in an imbalance that cannot be corrected without structural changes. Currently, 45 cents of every

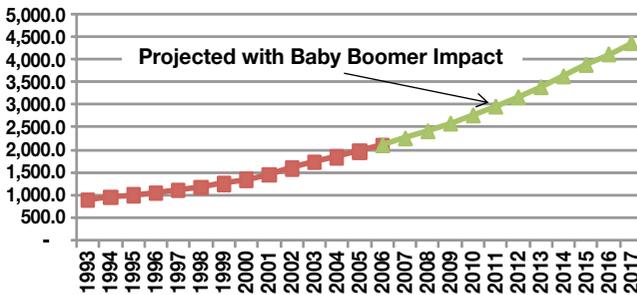
dollar of healthcare reimbursement come from the government. In addition, governments control the establishment of capacity, placing another non-market restriction on the ability of hospitals to respond to changes in the demand for healthcare. The underlying components of competition and demand management are regulated and fixed outside of the market itself. As a result, healthcare providers have virtually no ability to manage prices. Profit margins are consequently negligible for most hospitals, with average net

income rates in the 2%-4% range, and many urban institutions are either closing or in financial distress. Meanwhile, healthcare costs are growing at a staggering rate. According to the National Coalition on Health Care, \$2 trillion was spent on healthcare in 2005 (\$6,700 per person), which is 16% of GDP. That year total national healthcare expenditure rose by 6.9% - double the rate of inflation. Yet 47 million Americans have no medical insurance and that number will only increase as costs rise further.



Figure – 1

U.S. Healthcare Expenditures 1993-2017



Source: U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, "National Health Expenditure

The lack of insurance has been cited as a contributing factor in the preventable death rate. Without insurance, patients have no access to basic medical care, prevention, and early diagnosis of disease. In addition to the access and cost crunch, the U.S. health-care system is beset with quality challenges. The wide variation in treatments can translate into big differences in death rates and surgical complications. In Pennsylvania alone, the mortality rate during a hospital stay for heart surgery varies from zero in the best-performing hospitals to nearly 10% at the worst performer, according to the Pennsylvania Health Care Cost Containment Council. Academic medical centers also vary in how they care for patients. Patients at New York University Hospital had 76 doctor visits per person in the last six months of life, while those at the Mayo Clinic

in Rochester, Minnesota, had 24.

The practice that dominates the regulation of quality practices is the tort system. Every day doctors, hospitals, pharmaceutical companies, and medical device firms are sued. The cost of defensive medicine is staggering: Ten percent of every dollar spent on healthcare is attributed to the costs of liability and defensive medicine. Doctors routinely adopt practices that have developed "out of fear of being sued or losing a lawsuit... 79% of doctors said that there have been times when they have ordered more tests than was medically necessary." The chief of emergency medicine of one of the busiest emergency departments in Maryland recently estimated that 50% of all tests performed in his unit are unnecessary.

Cost, quality, and access are being impacted simultaneously. What happens when

baby boomers get added to this equation?

Stretched to the breaking point

The "Baby Boomer" period, from 1946 to 1964, refers to a bubble of growth in the U.S. population. About 76 million baby boomers were born. At present older Americans (65 and older) make up about 12% of the U.S. population. By 2030, when the baby boomers retire, the number of Americans aged 65 and older will more than double to 71 million or roughly 20% of the U.S. population. The impact on the consumption of healthcare services will be devastating. What does this mean from a cost standpoint? At the current pace, healthcare spending will double in 10 years, rising to over \$4 trillion by 2017. Healthcare costs will then be 20% of the gross domestic product. Medicare and Social Security will nearly double as a share of the economy by 2035 (7% of U.S. GDP today to almost 13% of GDP by 2030 and to more than 15% of the nation's output by 2050). As these costs grow, the problem of uninsured Americans will worsen. The growing number of uninsured Americans is exacerbating the gap between the cost growth and diminishing reimbursement by hospitals. As depicted in Figure 1, the slope of this growth portends potential disaster for the U.S. economy. At this pace, if healthcare spending contin-

ues on its same trajectory, within a few decades, theoretically the U.S. would reach the point where every penny of the annual increase in gross domestic product would have to go for healthcare. There would be less and less money for other things such as education, environmental protection, scientific research and national security. Governmental budgets will face this crisis even sooner. States are already complaining that they have to crimp other vital activities, like education, to meet rising Medicaid costs, and federal spending on Medicare and Medicaid is surging upward at rates that will cause the deficit to soar. Politicians will have to raise taxes, severely cut a wide range of other governmental programs, or chop back the health programs themselves.

What can be done to reverse this trend and make high-quality healthcare affordable for all Americans?

Curing healthcare

The U.S. is confronted with two fundamental choices: replace our system with a single-payer system or make structural and process changes to the system. While the single-payer system, a.k.a., socialized medicine, has some advantages from an access standpoint, there would be direct, negative impacts to the development of new therapies. It is not possible to replace one

major aspect of the current healthcare system without unintended consequences. A system operates like a series of interconnected gears – replace one and the system may cease to function. Single-payer may seem fairer, but it does not address cost and quality issues.

We believe the answer lies in the following changes:

- Reform the tort system
- Mandate use of best practices
- Drive systematic process improvement

Implementing tort reforms

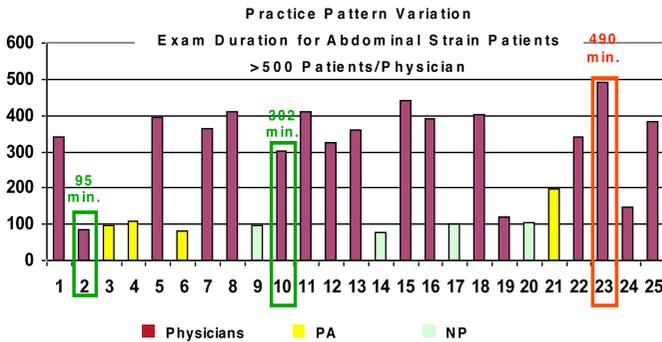
Regulating quality of care through threat of lawsuit is not effective. The purpose of regulating quality is to identify procedural problems, make them visible, and punish the offender so that the faulty service is not repeated. But it isn't working. Caregivers are engaging in unnecessary procedures and concealing problems to avoid consequences, rather than conducting root cause analysis.

Industrial sectors learned that to eliminate recurrence of quality problems, it is necessary to make them visible and confront them. In the Toyota production system, employees are required to identify errors, document them, and put preventative actions in place to eliminate the source of variation.

This is not happening in healthcare. In 2004, tort costs totaled \$28.7 billion with no

America leads the world in creating new healthcare. Our devotion to research and innate natural American competitiveness serves the global community by driving our scientific commitment to disease management. Yet the economic realities of the healthcare system result in the United States rating last out of nineteen industrial countries in preventable deaths with over 100,000 unnecessary American deaths per year

Figure – 2



correlation to improved quality. All the tort system does is provide monetary rewards for attorneys and patients who experienced this quality variation. "Health Courts" made up of peer reviews and independent analysis of procedural errors would be a much more effective mechanism for overseeing quality. The report Health Courts: A Better Approach to Malpractice Reform proposes a new system with judges with expertise in healthcare. The courts would rely on neutral outside experts to help make decisions about the standard of care in malpractice cases. Non-economic damages would be awarded in accordance with a schedule of benefits providing predetermined amounts for specific types of injuries. Moreover, damages would be proportional to the mistake and would differentiate between negligence and human error. Judges would make rulings about the standard of care as

a matter of law. To help health court judges reach consistent decisions from case to case, judges would consider clinical practice guidelines based on evidence-based practice standards. The key advantage is reducing the cost of insurance, lawsuits, and defensive medicine to a minimum. Using conservative data, we have estimated that 15% of the total cost of healthcare today could be eliminated. At the same time, a reporting system would be put into place to make quality issues visible so they could be eliminated in the future. Therefore, based on 2005 spending data, this change would eliminate up to \$300 billion of the cost of healthcare, while simultaneously improving the quality of care delivered.

Mandate use of best practices
A significant percentage of healthcare costs are paid for at fixed prices by government entities. Many feel that increased competition and

access to pricing information would support free market pressures, resulting in patient choice using cost as a major criteria. These forces would, theoretically, align all healthcare providers to provide comparable care at better prices. However, these theories are divorced from the reality of patient choice and practice utilization today. Also, the reimbursement system has led to widely divergent results on a regional basis in the U.S. If all hospitals were as efficient as the best low-cost areas, spending on hospitals and physicians could fall by about 30% a year, say researchers. Pioneering studies at Dartmouth have shown enormous disparities in healthcare expenditure from one region to another, with no discernible difference in health outcomes. Doctors in high-cost areas use hospitals' costly technology and platoons of consulting physicians more often than doctors in low-cost areas, yet their patients fare no better, on average. There are hints that they may even do worse because they pick up infections in the hospital, and because having a horde of doctors can mean no one is in charge. Prices charged by hospitals are just a small part of total spending: chronically ill patients in high-spending areas get more physician visits, hospitalizations and diagnostic tests, driving up spending. Even so, patients in high-spending areas have slightly

shorter life spans and are less satisfied with their care. The problem is waste and over-use in high-rate states, regions and hospitals — not under-use and healthcare rationing in low-rate areas and institutions.

Therefore, insight on what hospitals charge per procedure is meaningless. What would help is to define a series of quality and access standards and hold caregivers accountable for delivering healthcare using best known practices and protocols. Tefen USA has conducted extensive studies and found dramatic variation among physicians within the same hospital, with even greater variation between institutions.

When we evaluated a number of factors in Emergency Departments, including ancillary service utilization, length of stay, billing practices, and treatment patterns, we found a variation of up to 4:1 between individual physicians (see Figure 2). Since all physicians had a large patient population to normalize for acuity between patient groups, these results were startling. Similar patterns exist in many specialties, e.g., Obstetrics, where length of stay, cesarean delivery rate, and induction rate vary drastically.

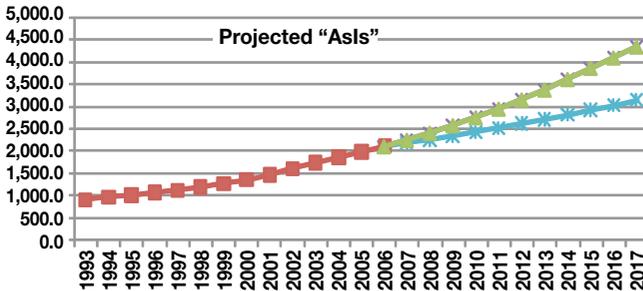
In institutions with strong medical leadership, it is possible to gain a glimpse of what is possible. The least-expensive

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Figure – 3

U.S. Healthcare Expenditures 1993-2017



hospital in the nation's least-expensive state was the 25-bed Cassia Regional Medical Center in rural Burley, Idaho, owned by Intermountain Health Care. Ken Harman, CEO at Cassia, credits it to his medical staff and paying attention to the latest evidence on what treatments work and what may be unnecessary care.

We estimate that the use of best practices in health-care can reduce healthcare spending by 10% to 25%, significantly improve quality and dramatically reduce the preventable death rate. These savings, estimated at between \$200 billion to \$500 billion, will be enabled by tort reform and the transformation of the role of insurance companies. It will require physicians to work together in teams to implement these changes in their institutions and their practices. They are not ceding control, as some argue: quite the opposite. When doctors take away decisions about the norm, they can focus more

attention on the exceptions, knowing they are always using the best medical procedures possible.

Drive systematic process improvement

The best way to describe the state of care-giving in the U.S. is that it functions similarly to the way craftsmen perform their art. There are similarities in style and substance from one piece of art to the next, but each project is treated uniquely. The same is true in health-care. Each patient receives specifically tailored care, with widely different methods for treating the same symptoms. The care-giving process is highly variable with an enormous amount of built-in waste. This waste manifests itself in excessive wait times for patients, extended length of stay, inefficient use of nurse capacity, and high supply costs. Tefen USA has found numerous opportunities to transform processes from serial to parallel, eliminating wait times,

while at the same time eliminating unnecessary activities in the care giving process. A recent study performed by Tefen USA found that only about 25% of a nurse's time at a major academic medical center was actually spent giving care in a patient's room. Nurse shortages abound, yet the current processes in place are taking nurses away from patients rather than placing them in a patient's room.

If wasteful processes could be optimized and value-added time increased for nurses, the gap anticipated by the shortage of nurses would be much smaller and manageable by the industry. We have demonstrated the ability to more than double the time nurses spend in giving care, with the attendant improvements in quality of care. We see these same opportunities in ancillary services, such as labs, radiology, and pharmacy, to increase the productivity of the staff and improve utilization of equipment. Typically, a laboratory is able to increase the number of tests performed by at least 20%, often with fewer resources.

Scheduling is another area teeming in opportunity. In Surgical Suites, the standard practice has been block scheduling of OR time for groups or individual physicians. Unfortunately, when physicians do not utilize this time, valuable surgical capacity goes unused while surgical support staff sits idle. We have reached the point



where new demand-based scheduling methods are necessary to gain better use of this valuable capacity. This not only improves utilization of scarce resources, but it also helps hospitals smooth out variation in patient census to improve consistency of care and people management. The cost to add a new operating room is roughly \$1.5 million, which is a percentage of the overall cost to staff and operate a surgical suite. Leveraging existing capacity better will be crucial to support the surge of Baby Boomers and free up critical capital to develop the facilities necessary to meet the needs of the growing population of the aged. Lastly, overall length of stay (LOS) in U.S. hospitals is unsustainable. Patients are languishing in hospitals due to poor care management and inefficient management practices. This LOS anomaly consumes critical resources and capacity, while driving up the overall cost of healthcare. Due to the stovepipe nature of these institutions, systematic efforts to reduce LOS can have dramatic effects on the efficiency of all hospitals. If all hospitals across the U.S. were to undergo an intense focus on operations excellence, the cost benefits would reach a range of 10%-15% of the total cost of healthcare, or \$200 billion to \$400 billion per year. While it would take several years to realize this total benefit, the improvements in quality and access would

result in the elimination of thousands of hours of patient wait times with improved clinical outcomes.

An ounce of prevention

The American healthcare system is beset with significant structural and process challenges. With the onslaught of Baby Boomers, there is a high probability that the system will break under the weight of this challenge. Since the cost of providing healthcare for an older American is three to five times greater than the cost for someone younger than 65, there is a moral, social, and economic imperative to transform the healthcare system. As depicted in Figure 3, it is possible to maintain the core components of the system while making it an efficient and effective delivery mechanism. The healthcare system can become robust and healthy – eliminating up to 50% of wasted resources. With the slope of the line returned to the level of economic growth, the U.S. economy can absorb and support the healthcare system and reap the benefits of improved quality and access.

Providing universal insurance coverage is important; providing universal, cost effective high quality of care is an imperative.

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