American Healthcare: A Profile in Shortages

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You are a physician, or maybe a nurse. Your aged mother, beloved by you, your spouse, and your children, who call her Muggie, has been taken by ambulance by the emergency medical technicians (EMTs) from her rural home to the only hospital within 50 miles. She was not conscious when she arrived there at midnight. The only emergency room physician had gone home with the flu, and only a physician's assistant was on duty. It is a pretty typical hospital. About 15 years ago, there were five emergency room docs, but three have gone on to other jobs.[1] Now there are only two, and a part-time contractor who comes in occasionally; they cannot fill the posts. The physician assistant calls for help and an hour later a specialist arrives. He has driven in from his farm. He prescribes a drug, but the hospital pharmacy has had it on back order for weeks so he is forced to make a more problematic choice. You are on the phone with him, and based on what he is saying the diagnosis seems straightforward, one drug being clearly indicated. They have given her something else he says, an apology in his tone. They had no choice. Complications arise. Your mother dies.

A story from a developing nation? No. An all too frequent occurrence in American hospitals, particularly rural hospitals, which are now experiencing a largely unremarked but astounding shortage of physicians and nurses, and which are plagued by drug shortages. I mean that literally. Some common drug that is suddenly unavailable.

In the United States we spend 17.6% of our nation's Gross Domestic Product (GDP), about 18 cents out of each dollar, on healthcare. It is a so disproportionate as to be an outlier—a thing unto itself. The data on the rest of the world's developed countries shows healthcare costs within a general range. According to the Organization for Economic Co-operation and Development (OECD) the per capita average spent on health care among the 33 developed OCED countries is $3268. In the United States it is $8223.[2] France, which according to WHO has the best healthcare in the world, spends only 11.2% of its GDP on its health system. And what does our grossly disproportionate expenditure buy us?

The World Health Organization reports, "The U.S. health system spends a higher portion of its gross domestic product than any other country but ranks 37 out of 191 countries according to its performance."[3] The Commonwealth Fund, which incorporates the assessments of both patients and medical staff in its calculations concludes "the United States ranks last overall among 11 industrialized countries on measures of health system quality, efficiency, access to care, equity, and healthy lives." Like OCED the fund also estimates the costs of the American health system and comes up with similar figures. Commonwealth: "While there is room for improvement in every country, the U.S. stands out for having the highest costs and lowest performance—the U.S. spent $8508 per person on health care in 2011, compared with $3406 in the United Kingdom, which ranked first overall."[4] The other countries in the Commonwealth study were Australia, Canada, France, Germany, the Netherlands, New Zealand Norway, Sweden Switzerland, and the United Kingdom.

When you assess the costs and the outcomes it is obvious something is deeply awry. To produce this outcome some other priority must trump wellness as the goal of health service. I think the answer is that profit is the essence of the American healthcare system, that uniquely we have an illness profit system. And that it is failing us dramatically.

The proof of this can be found in another major defining characteristic of the American system: Shortages. The U. S. system is one defined by its shortages.

Start with physicians: According to the OECD the average number of physicians per thousand people in the 33 developed nations belonging to the OECD is 3.1. In the Unites States it is 2.4. How does this translate in terms of actual practicing doctors? According to the Association of American Medical Colleges Report, *The Complexities of Physician Supply and Demand: Projections from 2013 to 2025*, "Demand for physicians continues to grow faster than supply, leading to a projected shortfall of between 46,100 and 90,400 physicians by 2025."[5] This is not spread equally across medicine, "Projected shortfalls in primary care will range between 12,500 and 31,100 physicians by 2025, while demand for non-primary care physicians will exceed supply by 28,200–63,700 physicians."[4]

The physician shortage remains especially problematic in rural areas, where more than 20% of the U.S. population resides but only 10% of physicians practice, according to the Association of American Medical Colleges.[5]

The MD shortage however is producing an interesting unintended consequence: The transformation of Osteopathic

The Schwartzreport tracks emerging trends that will affect the world, particularly the United States. For EXPLORE it focuses on matters of health in the broadest sense of that term, including medical issues, changes in the biosphere, technology, and policy considerations, all of which will shape our culture and our lives.

Medicine. Only two types of physicians are fully licensed in the United States, Osteopathic, and Allopathic using two related but distinct medical models. Osteopathic physicians, for most of the profession's history, have been strongly associated with Osteopathic Manipulative Treatment (OMT) as it is called. While still taught it has fallen away as osteopathic colleges have structured their educational model to focus on primary and family care.

In January 1995, a one-page questionnaire was mailed to 2000 randomly selected osteopathic family physicians who were members of the American College of Osteopathic Physicians. About half returned usable responses. Of these, 6.2% said they treated more than half of their patients with OMT, 39.6% said they used it on 25% or fewer of their patients, and 32.1% said they used OMT on fewer than 5% of their patients. The study also found that the more recent the date of graduation from osteopathic school, the lower the reported use.[6]

What Osteopathic physicians do continue is their interest and use of Integrative Therapies, the data on the efficacy of which grows day-by-day, including in the pages of *Explore*. This is good news for patients, who will be offered alternatives to a rigid pharmaceutical medicine.

This trend seems likely to continue and the Osteopathic Schools have been quick to pick up on it and to build new colleges placed near the areas where the doctors are needed. The report notes, "The osteopathic medical schools developed during the last decade are strategically located in areas where they can significantly improve the overall health of their communities."[7]

And the physician population is exploding: "The number of osteopathic physicians practicing in twelve states has more than doubled over the past decade," the report notes, adding they are training physicians where they are most needed as the profession records a 62% growth rate for the same period. It is one of "the fastest growing disciplines in health care in the U.S."[7]

In my view a 10-year projection will see the primary care physician deficit made up by DOs, and a rural healthcare system arising based on osteopathic physicians, Nurse Practitioners, and PAs. I think this would be significantly assisted by the conversion to a wellness-oriented single payer system that is grounded in healthcare as a birthright.

But that is the future; let us keep going with the present. For instance the oldest continuous component of a hospital: the beds. The number of hospital beds in the United States when last measured in 2009 was 2.6 per 1000. The OECD *average* is 3.4. And this is most acute in the treatment of mental health.

More than 500,000 men, women, and children suffering from serious mental illnesses who undeniably ought to be treated wander our streets. Their interaction with healthcare occurs mostly in emergency rooms or jails—or morgues. According to a *USA Today* investigative report, "Nearly 40% of adults with "severe" mental illness—such as schizophrenia or bipolar disorder—received no treatment in the previous year, according to the 2012 National Survey on Drug Use and Health. Among adults with any mental illness, 60% were untreated."[8]

Representative Tim Murphy, R-Pa, a child psychologist leading an effort to create an effective and humane mental health system, could not make it any clearer, "We have replaced the hospital bed with the jail cell, the homeless shelter and the coffin. How is that compassionate?"[9]

And what about nurses to care for the people who do get beds? In the July/August 2009 Health Affairs, Dr. Peter Buerhaus and coauthors found "that despite the current easing of the nursing shortage due to the recession, the U.S. nursing shortage is projected to grow to 260,000 registered nurses by 2025. A shortage of this magnitude would be twice as large as any nursing shortage experienced in this country since the mid-1960s."[10]

And then in a category all by itself are the drug shortages. This has reached such a preposterous stage that the FDA maintains a website, *FDA Drug Shortages: Current and Resolved Drug Shortages and Discontinuations Reported to FDA,* alerting medical personnel about drug availability.[11] It runs to well over a thousand drugs. The Illness Profit System business model mandates that low profit drugs, or drugs designed for illnesses only a small percentage of people have, should be restricted or curtailed.

Following the business model companies just stop making them, or make a very limited amount. Or in a new twist, as in the recent case of Turing Pharmaceutical and their change in the price of Daraprim, an established antiparasitic drug used to treat or prevent malaria and particularly as a treatment for toxoplasmosis when used with other medicines (e.g., folinic acid). It works by killing the parasites or preventing their growth. And, as it turns out it can be useful "off label" for the treatment of HIV/AIDS.[12]

Overnight Turing raised the tablet price from $13.50 to $750 a pill. Why? Then Turing president Martin Shkreli spelled it out, "We raised the price from $1700 per bottle to $75,000 … So 5,000 paying bottles at the new price is $375,000,000—almost all of it is profit and I think we will get 3 years of that or more. Should be a very handsome investment for all of us. Let's all cross our fingers that the estimates are accurate." To the company's chairman he wrote, "Very good, nice work as usual. $1bn here we come."[13]

This drug rationing situation has become so critical that hospitals, medical centers, and other institutions operate in a kind of semi-controlled drug crisis, that is almost unknown outside the hospital professional staff. Some hospitals let individual physicians make the decision, or even drug company representatives, depending on what is available. Other more responsible entities have created formal standing committees to deal with the issue. At their most enlightened these committees are made up of medical ethicists, physicians and nurse representatives, as well as pharmacists. It is not an easy call. On what basis does an ethical hospital withhold a drug, or substitute a drug known to be less efficacious or to have difficult side effects?

From *Becker's Hospital CFO*: "Other criteria are used to decide which patients will receive drugs. For instance, researchers have found obese patients required nearly three times the amount of an antibiotic before surgery than average-size patients, but they were given only a standard dose at the Cleveland Clinic