

Why Is Health Care so Expensive?



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We currently spend about \$8,000 per person per year on health care. This is two or three times what countries like Canada, France, Germany or Britain spend.

Why do we spend so much?

Gary Fradin, President of HealthInsuranceCE, suggests six answers:

- Moral Hazard
- Medical Arms Race
- Ineffective Chronic and Preventive Care
- Treatment Variation
- Poor Care Quality and Safety
- Inefficient General Hospitals

(He intentionally doesn't discuss the seventh—our high rate of uninsured—as HIU readers are sufficiently familiar with this.)

Gary's written an article on each topic above. We'll print one per month.

We hope you use these articles in two ways:

First, as a lens through which to view health care reform proposals. Which proposals address all these issues? Which address only some?

Second, to help you improve our health care system. How do your activities—as professional brokers—address or ameliorate one or more of these problems?

We hope you find this series informative, interesting and useful. We also hope it stimulates your own thinking. Please let us know.

The Medical Arms Race

The Medical Arms Race describes competition among hospitals for physician referrals and patients. Hospitals compete with each other by offering the latest in medical technologies and most modern facilities, often at great expense and sometimes without indications that the newest technologies significantly improve outcomes.

Why Do Hospitals Compete Based on Treatment Inputs?

Physicians want to refer to the most up-to-date facility, patients want treatment at the 'best' hospitals, and malpractice lawsuits may be lost for failure to use the latest technologies. No one wants to use a hospital with old machines or old technologies—even if these work perfectly well.

When a new machine or technology becomes available, all hospitals in a competitive environment purchase it for fear that, if they don't and their competitors do, their referral sources will dry up and they'll go out of business.

Our fee-for-service or cost-plus insurance reimbursement formulas encourage this proliferation of costly medical technologies.

Under fee-for-service, as a hospital's costs increase, so can its fees (assuming it has the market clout to impose its fees on financiers). Under cost-plus reimbursement, the "plus" calculation is generally a fixed percentage of cost. So as a hospital's costs increase, so does its plus reimbursement—and it makes more money.

Interestingly, hospitals do not compete on results—mortality rates by operation or by surgical team, 30-day readmission rates after surgery, post-operative infection rates, etc. Rather they compete based on inputs—machinery, technology or staffing ratios, for example.

This type of competition differentiates health care from other parts of our economy. The auto industry, for example, competes on price and quality. We typically purchase a car knowing its miles per gallon and resale estimate—both outcome measures.

We typically care less about (or don't even know) the type of metal used in the engine or frame. Nor do we typically know about the brake line construction, the wheel bearing design or how the exhaust is fastened to the chassis. We only care how well these components work together and the outcome we can expect from our investment.

But the health care industry operates differently. It does not publish—and often does not even know—outcome measures of medical interventions. As a consequence, hospitals compete on inputs, using these as a proxy for quality.



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The Start of the Arms Race

The Medical Arms Race was perhaps initially identified in 1985 when economists James Robinson and Harold Luft discovered that hospitals with more competitors had higher costs of care, staffing levels and high-tech medical equipment than hospitals without competitors.¹ This is exactly the opposite of businesses that compete on results or outcomes.

Robinson and Luft also found, surprisingly, that these competitive hospitals sometimes had higher mortality rates (i.e., poorer outcomes) than non-competitive hospitals. Here's why: Surgeons, surgical teams and hospitals with the most experience with a particular treatment get the best outcomes, and those with the least experience generate the highest mortality rates. In other words, practice makes perfect in medicine.

Health care commentators call this the "volume-outcome relationship"—the higher the hospital's volume of a particular procedure, the better the patient outcomes.

If all hospitals in a competitive environment use the same technologies to perform the same treatments, there may be too few patients with a given condition for all hospitals to become experts.

In other words, the Medical Arms Race may reduce the amount of experience of each hospital or team—leading to poorer outcomes.²

Case study: Indianapolis Coronary Surgery Investments³

In 2002, insurance payments for coronary bypass surgery generated an average hospital bottom line of about 23%—quite good for any business.

To take advantage of these margins, the Heart Center of Indiana opened a new 60-bed cardiac unit. This triggered their medical arms race.

Between 2002 and 2004, Indianapolis's four other major hospital systems invested \$220 million to renovate, expand and add 15% to 20% new cardiac capacity.

Unfortunately, there was no evidence of need: Open-heart volumes had been falling from 4,377 procedures in 2000 to 3,310 in 2002. Not to worry, suggested Tom Malasto, executive director of the Cardiac and Vascular Care Center at St. Francis Hospital in 2004: "The most recent CDC statistics place Indiana as one of the top five states for obesity and prevalence of smoking."

The Indianapolis facilities chose to wait for—or induce—demand for expensive heart surgeries. They invested in expensive surgical facilities rather than in obesity prevention, low-cost treatments or smoking-secession programs.

Had this been normal economic competition, we would expect the various producers to segment their market—one supplier aiming at expensive procedures, another at low-cost alternatives, still another focusing on prevention—and then advertising for customers.

Or, if all suppliers aimed at the expensive market segment, we would expect prices to fall.

But prices don't fall when hospitals compete. Insurance payments maintain price levels. With the profit margins noted above, even a small number of coronary procedures can enhance the hospital's bottom line.

Once the Heart Center of Indiana opened its new 60-bed facility in 2002, all the other hospitals *had* to follow. They needed to keep their cardiac surgeons happy or feared losing them—and their patients—to the new Heart Center.

But spreading a *decreasing* number of coronary procedures over an *increasing* supply of providers risks patient outcomes.

Here's a benchmark: The Leapfrog Group, a respected medical industry think-tank that monitors hospital quality and safety, recommends a 450 coronary bypass surgery (CABG) and 120 aortic valve replacement annual hospital minimum. Below that, they suggest, mortality rates increase.

Here's the July 2009 data—seven years and hundreds of millions after the cardiac investment began—as reported on the Leapfrog Group website:

Hospital	# CABG	% of recommended	# Aortic Valve	% of recommended
Clarian Health – Methodist	498	110%	183	152%
St. Francis	317	70%	66	55%
St. Vincent Hospital	368	82%	69	58%
St. Vincent Heart Center	676	150%	93	78%
Indianapolis Heart Hospital	did not report to Leapfrog			

Two hospitals were below the minimum safety recommendations on CABG and three below on aortic valve replacements.

The Medical Arms Race forces American hospitals to invest huge amounts of money in (unnecessary?) technologies and perhaps increase mortality risks for patients, while tragically ignoring alternative treatment options.

A Second Version of the Medical Arms Race: Radiological Screening

There are many versions of the Medical Arms Race occurring in every U.S. city every year. Here is a second example.

Hospitals invest in expensive new high-tech screening tests designed to spot cancers early—often far more than they invest in nutrition and exercise programs. Carriers reimburse well for these tests and investments, hospitals keep their patients coming and—theoretically—patients benefit.

Here's an indication of the size and growth of the radiological screening business (not all CT scans are related to cancer):⁴

Year	# CT scans performed
2000	40 million
2004	65 million
2005	76 million
2010	100 million (estimate)

Two Screening Problems

First, the cost/cancer diagnosis is high and the cost per marginal lifesaving diagnosis is extremely high. A marginal lifesaving diagnosis is the problem that an existing technology would miss with negative patient outcomes but a new technology finds with positive outcomes. Often the existing technologies would pick up the problem in time for treatment.

Second, these expensive new technologies lead to many false positives—results that indicate patients might have cancer when, in fact, they do not.

Patients consequently undergo stressful, expensive follow-up tests and procedures. Doctors annually perform some 2 million biopsies on healthy female breasts and male prostate glands as a result. In addition, more than 500 women with no symptoms of ovarian cancer underwent unnecessary abdominal surgery because tests wrongly indicated they had the disease.⁵

“There is a vast ocean of potentially diagnosed, but clinically meaningless cancers,” says Dr. James Talcott, director of the center for outcomes research at the cancer center at Massachusetts General Hospital. “The more you [test], the more of

those meaningless cancers you're going to find.”

In this version of the Medical Arms Race, we invest huge sums to gain a marginal diagnostic advantage, then more money to explore the false positives. Hospitals all compete to offer these “newest, greatest” tests and keep their physician network referring.

Interestingly, the hospital can bill two or three times per test:

First, to perform the actual cancer screen

Second, to explore the false positives, via surgery or otherwise

Third, to readmit the patient after surgical complications (we run a national 18% +/- readmission rate within 30 days of discharge)

The tragedy: We could save more lives and improve more people's quality of life by investing in prevention and chronic disease treatment for the masses. But that's now how hospitals compete.

Conclusion

In the Medical Arms Race, hospitals compete based on treatment components—machinery, technologies, staffing ratios, etc—rather than on outcomes or cost. This is extremely expensive and makes health care unlike most other businesses in our economy.

Increasing medical component costs does not necessarily improve patient outcomes; it may, in fact, worsen them. This form of hospital competition is a huge problem for our health care system. **FHU**

1 J. Robinson and H. Luft, “The Impact of Hospital Market Structure on Patient Volume, Average length of Stay and the Cost of Care,” *Journal of Health Economics* 4 (1985): 333-56

2 David Dranove, “The Economic Evolution of American Health Care,” Princeton University Press, 2000, page 47

3 Maggie Mahar, “Money-Driven Medicine,” Collins, 2006, pp. 40-42. All quotes and data come from this source unless otherwise indicated.

4 Shannon Brownlee, “Overtreated,” page 144

5 Boston Globe, “Scares Grow as Cancer Screening Rises,” September 30, 2007, pages A-1, A-20