



**small is beautiful**

*the key to 21st*

**m**any years ago, as punishment for disruptive behavior, students in public schools were often forced to write, "I will not talk in class," 100 times on the blackboard. Today, actuaries, economists, and public policy experts should be forced to type, "There are no more economies of scale in health care," 1,000 times on their personal computers as punishment for their equally disruptive and destructive behavior over the past several decades.

Policy wonks searching for economies of scale in the delivery of health care services are like alcoholics searching for happiness at the bottom of a whisky bottle. Not only are they looking in the wrong place, but their thinking is completely backwards: They need less, not more, of what they're pursuing to achieve the result they ultimately desire.

First and foremost, people forget that economy of scale is an identifiable and measurable economic phenomenon, and not an abstract Freudian concept. If there really were untapped gains to be reaped from economies of scale, General Motors would have the lowest

characteristics reveals where they come from, how they're measured, and why they don't apply to health care.

■ **Savings: reduced marginal production costs**—The first copy of Microsoft's Windows 95 operating system cost tens of millions of dollars to produce, while the second copy cost less than \$1.00. The reason for this economy of scale is that none of the labor required to produce the first copy was needed to produce the second copy. Because millions of other people also want a copy of Windows 95, you're able to purchase one for a minuscule fraction of the cost of making the first one. Many can make a market, where few can't.

■ **Synergy: increased production output**—Four workers are able to lift and carry a piano to a moving van in 15 minutes, while one worker won't make any progress in an hour. But assigning eight workers to the task instead of four just means that half of them will end up watching the others, because they're not needed and would only get in the way. Many can do the work that one can't.

■ **Synchronization: reduced transaction costs**—Domino's Pizza will offer to sell you a second pizza at half price. It does so, not because the second pizza is cheaper to make than the first, but because it's delivering both pizzas to the same address at the same time. If you want the second pizza delivered to a different address, or next Thursday, the offer doesn't apply. Time is money; and timing is everything.

■ **Selection: reduced information costs**—If you represent a group of 50 people who want to take a Caribbean cruise, you'll be able to negotiate a much better rate than if you represent only two people, say you and your spouse. Here the advantage of scale is not the number of people but the specific organized information about those people. They all want to enjoy the same vacation cruise. Because you have done some of the work by expending the time, money, and effort to assemble, organize, and deliver the information about those 50 people to the travel agent, she is willing to cut you in on a share of the savings. If what you don't know can hurt you, telling someone else exactly what he or she wants to know can help you.

#### **Why Economies of Scale Don't Exist in Health Care**

Now imagine a city with 10 businesses, each employing 500 persons. And consider the effects on health care delivery when they're viewed as one large group of 5,000, 10 medium-sized groups of 500, or separately as 5,000 unique individuals. Obviously, some will have babies. Some will be diabetics. Some

## *century health care*

**Economies of scale may work for selling pizzas and Caribbean cruises, but they don't work for health insurance.**

**Here's why.**

per capita health care costs of any employer in the United States.

The plethora of health care policy initiatives highlighting economies of scale under the guise of "risk pooling" or "risk sharing" looks like an amateurish "mine's bigger than yours" game of one-ups-manship to see whose proposal can gain the most media exposure by threatening (or promising, depending on which side of the transaction you're on) the largest bloc of voters with an ultimatum. In 1993, Hillary Clinton finally terminated this silly bidding hysteria by proposing the largest possible scenario for economies of scale in health care purchasing—the entire nation of 270 million people.

Economies of scale resemble alcohol in another key dimension: Behind every example of the benefits of economies of scale inevitably lurks the more insidious and dangerous diseconomies of scale. Two drinks may be better than one, and three may even be better than two. But 20 drinks isn't 10 times better than two. It's more like 10 times worse.

#### **Economies of Scale Defined**

There are four general categories of economies of scale: savings, synergy, synchronization, and selection. A survey of their char-

will develop cancer. And some will have accidents. Look back over the four categories of economies of scale and you'll easily see why none of them apply to health care.

Let's say that among this aggregate population of 5,000, 50 women will have a baby, 50 will be diabetic, 10 will develop cancer and 10 will be involved in auto accidents. Is there any labor savings (pun partially intended) for an obstetrician in delivering two babies instead of just one? Does he not have to sterilize the instruments for the second mother's delivery? Can he record his coaching instructions to the mother during the first delivery and play them back on tape during the second mother's delivery (perhaps while he's out on the golf course)?

Is there any synergy in the delivery room because the mother belongs to a 5,000-employee group instead of a group of only 500, or even five? Is there any synchronization involved? Do expectant mothers in larger employer groups conspire to go into labor in a precisely ordered sequence to maximize the use of the hospital's maternity ward equipment? Do 50 people agree to get sick in ordered succession, thus facilitating office appointments grouped together to get a volume discount?

But the biggest reason for exploding the myth of economies of scale in health care is that an employee group of 500 contains no more information than the first 500 names in the phone book, or even the first 5,000. There might be 50 pregnant women in either group. There also might be 50 people who want to take that Caribbean cruise. The problem is identifying, organizing, and delivering them to the vendor. This is where the real value and savings from economies of scale lie: selection, or reduced information costs. Otherwise, obstetricians might as well pick names out of the phone book at random.

### Diseconomies of Scale

If the 10 companies that embrace these 5,000 employees were located in the same business district, there would be a huge potential for collective savings if everyone had the same Big Mac, fries, and Coke for lunch every day. McDonalds would be able to share the savings from its economies of scale because of the specific organized information about the market for lunchtime meals. And lunch is only the beginning of the massive savings from economies of scale. We could all save a huge amount on clothes if everyone agreed to wear the same clothes every day. We could all agree to drive the same car, watch the same movies, and buy the same furniture.

But does everyone want a Big Mac, fries, and Coke for lunch? And does anyone want that for lunch every day? Do we all want to dress like Maoist soldiers of the cultural revolution? Do we all have the exact same health care needs? And do we all want



**D**o we all have the exact same health care needs? Obviously not.

the same health care services delivered in the same way, at the same time, in the same place, in the same amount? Obviously not.

The reason we don't is that economic wealth is not maximized by providing the same goods and services to everyone, at the same time, in the same place, in the same amount, at the same price, for the benefit and convenience of the vendor; it's maximized by providing individually tailored goods and services, at different times, in different places, in different amounts, at different prices, for the benefit and convenience of the customer.

The problem with employer-provided health care is that the laws require employers to buy the same package of benefits, most of which their employees don't want and will never use. For example, most people aren't at risk of getting pregnant, yet they're all required to buy that coverage. This twisted logic asserts that if you can force enough people to buy something they don't want and can't use, eventually even the most incompetent person will be able to figure out a way to save some money by not providing that portion that doesn't represent real demand and can't physically be consumed. In other words, if you build an excessive amount of waste into the system at the front end, you'll be able to find some savings on the back end.

### One-to-One Health Care

Reviewing the fundamentals of economies of scale reveals that the first three categories are saturated. Health care services can't be replicated as quickly, easily, and cheaply as CD-ROM copies of Windows 95. No one has any revolutionary ideas for new untapped synergies of reorganizing health care personnel in the operating room. And if people had the ability to get sick and seek treatment in organized synchronization, then instead of providing health care services, medical science would be able to develop a cure.

Fortunately, selection, the last category of economies of scale, represents a huge untapped source of potential health care savings. Unfortunately, most people's minds are closed to the ideas and methods necessary to reap the rewards waiting here. Because selection—or the exchange of information between buyers and sellers—in the health care arena is called underwriting. And underwriting—for all practical purposes—is illegal.

Just as there are huge savings from economies of scale to be realized by identifying and delivering 50 people who want to take a Caribbean cruise to a travel agent, there are also huge savings to be reaped from identifying and delivering 50 pregnant women or 50 diabetics to health care providers. Unfortu-

nately, most people operate under the false assumption that this information should be kept secret and not shared with health care providers, because they fear it will be used against them to charge them more.

This makes about as much sense as refusing to tell a waiter what you'd like to order for dinner because you fear he might use that information against you and bring you the one item on the menu you hate the most. Is the waiter going to serve you prime rib if you tell him you're a vegetarian? Can a doctor, hospital, and the medical community at large provide you with cost-efficient high quality health care services if you make them guess about your health status and you wait until the last possible moment to provide them with the vital information they need to treat your specific condition?

Imagine all the excess expense and waste there would be in the rental car industry if Hertz was prohibited from asking its customers to provide their drivers license (can they drive?), a credit card (can they pay?), proof of auto insurance (are they covered?), and driving record (have they been convicted of drunk driving?). Would the rental car industry be more or less productive? Would rental car rates be lower or higher? And would "those who can't afford it" be able to rent a car if the industry were structured that way?

Yes, pork bellies are cheaper by the pound if you buy them in bulk. But you'll lose all of what you save, and a whole lot more, if you're feeding a diverse group of people that includes a significant number of orthodox Jews, Hindus, and vegetari-

ans. And since health care services are more unique and varied than dietary preferences, it's obvious that we need less, not more, economies of scale in health care.

### The Trojan Horse of Risk Pooling

**T**he mythical panacea of health care savings from economies of scale often is a Trojan horse disguised under the name of risk pooling or risk sharing. Actuaries should know all about the principles of risk pooling and risk sharing. If you can amass enough specific, identifiable, and verifiable information about a group of like individuals (such as 30-year-old, non-smoking, married, gainfully employed males), then you can reap economies of scale by pooling this group of individuals together and sharing their like risks. This is the economies of scale from selection, or reduced information costs, noted above.

But health care risk pooling not only abandons this concept of economies of scale; it moves in the opposite direction, producing the naturally opposite consequences. Instead of identifying similar risk characteristics of individuals (to reap the economies of scale from selection), it openly pursues the opposite extreme of grouping together individuals with little or nothing in common. And since the local phone company has already done this, this represents a complete waste of effort. Because risk pooling and risk sharing have value only if the risks are similar—like those of the 30-year-old males noted above.

Note that there are no products or services that produce savings from economies of scale by grouping random customers,

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with differing needs, consuming different goods and services, at random times, in different places, in different amounts. If you combine a healthy 30-year-old male, who uses \$1,000 in health care services, with a 58-year-old diabetic female, who uses \$5,000 in health care services, the result still totals \$6,000. There are no benefits from any one of the economies of scale categories: savings, synergy, synchronization, or selection.

There are examples of savings in health care from the economies of scale. But you won't find them in the organized health care system. You'll find them in borderline ad hoc groups of people who have come together to share their common health care risks and conditions, such as Alzheimer's or Parkinson's disease support groups, breast cancer patients, or Alcoholics Anonymous. The economies of scale here are no different from a trade association of electrical contractors: a group of individuals with similar characteristics, who are willing to exchange and share their commonalities for the purpose of pooling their resources to reap the benefits of savings, synergy, synchronization, and selection.

That's why it's cheaper to vaccinate first grade children en masse before they start the school year. The vaccinations are done at the same time, in the same place, in the same manner,



**T**he road to recovery in health care will not be a pleasant journey at the start.

to a homogeneous group for the same purpose. Unfortunately, vaccinations are one of the few health care services that can be delivered in this way.

In grade school, they teach children that three plus three is the same as two plus four and one plus five. The basics of the math don't change just because you're talking about health care. Actuaries, physicians, and patients are no more above the laws of economics than airline pilots, physicists, and skydivers are above the laws of gravity. Just like physics, if you aggregate a large amount of disorganized and unrelated information about health care, you haven't magically produced a solution; you have just wasted your time and increased the potential for disaster—especially if other people take you seriously.

#### One Small Step for Health Care

**a** final word to the wise: There's one more analogy to draw between health care and alcoholism. In his book, *Money Mischief*, economist Milton Friedman compares inflation to alcoholism, noting the similarities of both destructive habits. On the road to ruin, the good effects come first (easy credit and partying) and the bad effects come later (inflation and hangovers). While on the road to recovery, the bad effects come first (fiscal restraint and withdrawal) and the good effects come later (economic expansion and sobriety).

The road to recovery in health care will not be a pleasant journey at the start. But one thing is certain. We cannot continue to entertain a parade of health care policy proposals touting some new form of grouping together health care purchasers under the guise of economies of scale. This amounts to nothing more than trying to avoid a hangover by staying drunk. Like inflation and alcoholism, the road to health care recovery is actually very simple. It just requires a lot of courage to take the first step. ●

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