

Waste, Economists and American Healthcare

Gaspillage, économistes et services de santé aux États-Unis

ROBERT G. EVANS

Abstract

Twenty-five years ago, Uwe Reinhardt pointed out that sheer bureaucratic waste, particularly in the private sector, accounted for much of the extraordinarily high cost of American healthcare. Last year an expert panel of the Institute of Medicine reconfirmed his point, estimating that in 2009, administrative waste accounted for \$190 billion out of a total of \$765 billion in various forms of waste – 31% of overall American spending on healthcare. Reinhardt recently noted a peculiar schizophrenia among American economists, simultaneously deploring this monumental waste while celebrating the contribution of healthcare, and particularly medical research, to the American economy. The apparent paradox may arise from a confusion between the meanings of “value” in economic and everyday language, and from economists’ tendency to create pseudo-aggregates of diverse and non-commensurate entities.

Résumé

Il y a vingt-cinq ans, Uwe Reinhardt indiquait que le simple gaspillage bureaucratique, en particulier dans le secteur privé, constituait une des principales causes du coût exorbitant des services de santé aux États-Unis. L’année dernière, un panel d’experts de l’Institute of Medicine reconfirmait cette affirmation en estimant qu’en 2009, le gaspillage administratif comptait pour 190 milliards des quelque 765 milliards de dollars attribués au gaspillage sous toutes ses formes, soit 31 % de l’ensemble des dépenses pour les services de santé aux États-Unis. Reinhardt observait récemment un étrange comportement schizophrénique chez les économistes américains, qui déploraient cet énorme gaspillage tout en encensant l’apport des

services de santé, et particulièrement de la recherche médicale, à l'économie américaine. Ce paradoxe apparent vient sans doute d'une confusion sur le sens du mot « valeur » dans le milieu économique et dans la vie de tous les jours, ainsi que de la tendance des économistes à créer des pseudo-totaux à partir de diverses entités qui ne peuvent se comparer entre elles.

HE'S AT IT AGAIN. TWENTY-FIVE YEARS AGO, THE NOTORIOUS PRINCETON HEALTH economist and crypto-Canadian (as he then was) Uwe Reinhardt wrote a characteristically cheeky piece in the *Washington Post* called "On the B-Factor in American Health Care" (Reinhardt 1988). He pointed out that a major contributor to the extraordinarily high cost of American healthcare (relative to every other country in the world) was an unusually large administrative bureaucracy. Unproductive paper-pushing adds tens of billions to both public and private costs, without any detectable benefits (at least, none for patients). This observation was very rude of him because, although perfectly true, it challenged two of Americans' fundamental articles of faith: that the American healthcare system is the finest in the world (that's why it costs so much), and more fundamentally, that profit-driven private-sector organizations are necessarily and, by definition, lean and efficient. Only public-sector organizations are choked with wasteful and incompetent bureaucracies. Everybody knows that.

More recently, in the *New York Times*, Professor Reinhardt has revisited the theme of excessive administrative costs in American healthcare (Reinhardt 2013).

This time, he is backed by the Institute of Medicine of the National Academy of Sciences (IOM 2012). He presents a table adapted from the IOM's report, providing estimates of the principal sources of waste in the American healthcare system, and their relative magnitudes in 2009. Professor Reinhardt focuses in particular on the estimate of \$190 billion in excessive administrative costs (see Table 1).

TABLE 1. Sources of excess costs in the US, 2009: 31% of total health spending of \$2.5 trillion

1. Unnecessary services	\$210 billion
2. Inefficiently delivered care	\$130 billion
3. Excess administrative costs	\$190 billion
4. Excessively high prices	\$105 billion
5. Missed prevention opportunities	\$55 billion
6. Fraud	\$75 billion
TOTAL	\$765 billion

Source: Based on data in *Best Care at Lower Cost* (Institute of Medicine 2013), Table 3-1: http://nap.edu/catalog.php?record_id=13444. Reprinted with permission from the National Academies Press, Washington, D.C.

This is not a trivial sum; it amounts to about a quarter of the IOM's total estimate. It is sufficient to pay for the extension of universal healthcare coverage to the entire American population – a relationship that has been noted many times before. Yet, although Professor Reinhardt has been to many conferences on evidence-based medicine, or related topics, “I cannot recall a conference on the topic of ‘evidence-based best administrative practice,’ although I may have missed it.”

Now, any economist could quibble with the IOM's estimates, and I would guess that pretty much any economist would. (Failure to quibble might result in professional disqualification.) Apart from the fact that these estimates are merely generated by an expert panel, the \$105 billion in excess prices is a cost only to payers. To suppliers it is a benefit, a transfer payment (a sort of involuntary gift), and so nets out across the society as a whole. There is no opportunity cost, no using up of scarce resources. The same is true of the \$75 billion cost of fraud; it is simply a transfer from payers to fraudsters, except insofar as real resources are used up in perpetrating fraud and in catching and penalizing the fraudsters.¹

On the other hand, the excess administrative costs that Professor Reinhardt focuses on look far too low. Woolhandler and Himmelstein have been studying administrative costs in the American healthcare system for many years (e.g., Woolhandler et al. 2003), and estimate that the excess administrative costs associated with the private health insurance system amounted to about 15% of total American spending, or about double the IOM's estimate. A possible explanation might be that the IOM is counting only excess administration in the healthcare system itself, while Woolhandler and Himmelstein include estimates of the excess overhead costs of the insurance system. If so, then an IOM undercount of total administrative waste, by about \$200 billion, would roughly match the \$180 billion transferred from payers to fraudsters and price gougers that they have called a “cost.”

Yet again, there are the very real costs of time, energy and frustration imposed on participants, both patients and providers, by an absurdly complex system of financing. These are very hard – in effect, impossible – to measure. But to fail to include them is in fact to assign them a cost of zero. That is obviously wrong. Reinhardt quotes a recent study estimating that the average amount of time wasted annually by clinicians in dealing with the vagaries of the American payment system is worth about \$83,000 each. This would add further tens of billions to the real costs of excess administration.

And so it goes. But so it has gone, for decades. That the American healthcare system is absurdly expensive, and that most, if not all, of those excess costs represent various forms of waste, is not exactly news. But nothing changes; the massive waste goes on. And anyway, it is an American problem, is it not? Thank goodness we are so much more efficient here in Canada. So apart from new numbers, and the opportunity to reference, yet again, Uwe Reinhardt's work, what justification is there for an “Undisciplined Economist” column on the subject?

Well, perhaps the same reason that Reinhardt is publishing the same message after 25 years – to try to keep alive public awareness of the issue of massive waste. So much nonsense

is talked, on both sides of the border, about the underfunding of healthcare and the crisis of an aging population that it is incumbent on those of us who actually watch the numbers to try to provide some counterpoise. In Canada in particular, one finds endless claims about the superiority of private healthcare delivery and finance, coming from those who should know better – and, I believe, in some cases do. (Poorer performance at higher cost? What’s not to love? Sign us up!) We also have the example of the Canadian system of finance for pharmaceuticals and dentistry – in essence, Little America – that displays exactly the same inequities and excessive costs as its American cousin.

But again, this is not news. What I think is more intriguing is the role of economists in the American debate. That role is profoundly conflicted, as Professor Reinhardt shows at the outset of his article:

Give [American] economists a drink – or not – and with a straight face they will tell you that the American health-care system is one of the highest value-added sectors in the economy (see, for example, the book *Measuring the Gains from Medical Research* edited by Kevin M. Murphy and Robert H. Topel). Give [American] economists another drink – or not – and with the same straight face they will tell you that our system is alarmingly wasteful.

To illustrate, he quotes Harvard economist David Cutler (2007), who asserts as “two fundamental facts” that “the average value of medical advance is very high,” and yet “most estimates suggest that about 20 percent to 30 percent of medical spending [in the United States] could be eliminated with no adverse effects on patient outcomes.”

So which is it? High-value or alarmingly wasteful? Cutler’s fundamental facts are a bit difficult to pin down; an epidemiologist might well ask for the denominator from which his average value of medical advances is calculated. (If it isn’t high value, it isn’t an advance?) And a waste range for the United States of 20% to 30% looks low if the excessive administrative overhead alone is 15%. But these are quibbles.

Reinhardt offers a possible reconciliation through the consideration of diminishing returns. Using a hypothetical relationship between resources devoted to healthcare and corresponding health outcomes, he suggests that as spending rises, the health gain from further spending becomes progressively smaller, and eventually becomes zero and then negative – too much healthcare reduces health.

There is no question but that this relationship holds for particular healthcare goods and services; indeed, it is difficult to think of any that are not actually damaging to health if overprovided or provided in inappropriate circumstances. That fairly obvious reality underlies most of the complex regulatory structure that surrounds healthcare. Whether it applies to the system as a whole, however, requires a somewhat more extended analysis. But this relationship does suggest a possible explanation for the coexistence of highly valued services alongside the useless and harmful – clear waste.

An alternative approach, however, is suggested by the reference to “high value-added services” quoted by Reinhardt. This term derives from the national income accounting framework, and suggests that the apparent paradox of highly valued waste has its roots in inconsistent accounting frameworks, or standards of value.

The gross domestic product (GDP) of a country or geographic region is a measure of the aggregate amount of economic activity within that region. (The gross national product, by contrast, is the total economic activity of the citizens of that region, wherever carried out.) Economic activity is represented by the vast array of different commodities, goods and services that are generated by that activity, and these must be given weights so that they can be aggregated into a single measure. Those weights are defined with the dimension of [currency unit/unit of commodity] – or simply, prices.

These prices are then observed in markets, or in the many cases where no market prices exist, they are imputed by various techniques to approximate what a market price might have been, if there were a market.

Some of these imputed prices are quite plausible, such as the rental value of owner-occupied housing. Others, such as the prices for non-priced public services, are simply based on costs of production. (In some cases, such as the “household production” of homemakers’ services, the national income accountants simply duck the issue. This amounts to imputing a price of zero – obviously wrong – but in some ways understandable.)

But one cannot simply add up all the commodities produced in an economy, weighted by their market or imputed prices, because most commodities are what are called “intermediate goods,” produced and then used in the production of other goods. It would be double-counting to include the steel that goes into an automobile, or the flour that goes into a loaf of bread, and then count the automobile and the bread as well. To avoid this, one can calculate the “value added” at each stage of production, by netting off from the products at that stage the intermediate products used up in that stage. This process is the basis for “value-added” taxation, or the VAT now common in European countries.

There is a great deal more that could be, has been and will be said on this topic, but not by me and certainly not here. What I would emphasize is that in the process of computing an estimate of aggregate economic activity, and in many countries a tax base, the word “value” has become attached to what is in many major sectors of the economy simply a measure of expenditure, of cost of production. In healthcare, there may be prices for some commodities that look as if they were analogous to market prices, but are not generated by anything remotely resembling competitive market processes. And this is just as true in the United States, where Uwe is writing, as in more “socialist” systems.

This point is fundamental, because the justification typically given for representing prices as “values” is that those prices do correspond to the values that informed “consumers,” making choices in open and competitive markets, attach to different commodities. It is pretty obvious that this theoretical framework does not apply to, say, military procurement, or to public services in general. Citizens (not consumers!) express their preferences, however well or badly, through the political process, because that is all there is. And the same is true for healthcare

services, although the reality may be obscured by the presence of pseudo-markets displaying pseudo-prices.

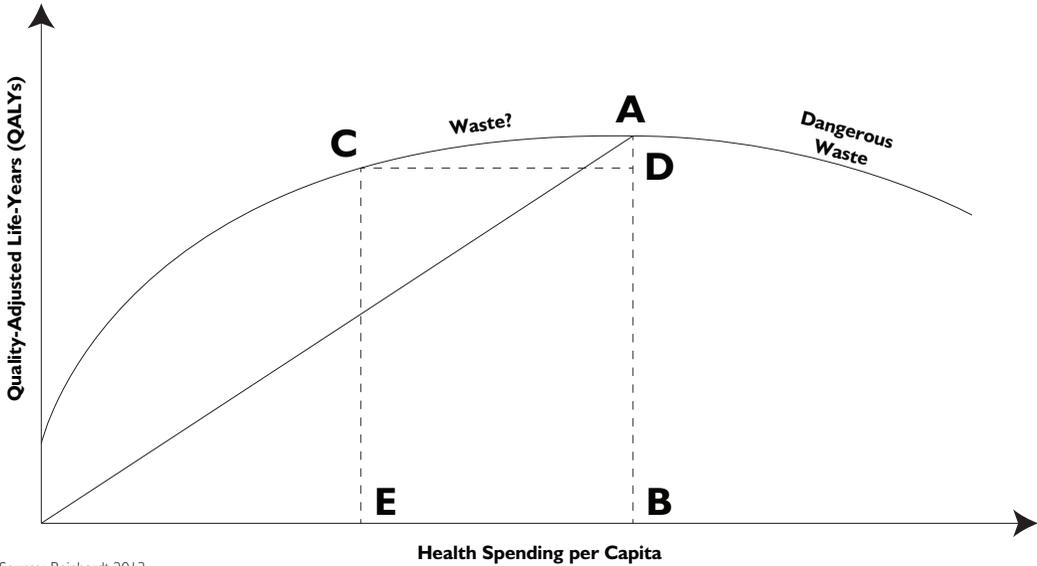
The yawning gap between cost and value in American healthcare has been captured nicely elsewhere by Professor Reinhardt in his quip that in the United States the finest healthcare in the world costs twice as much as the finest healthcare in the world. He was referring to the finding by Wennberg and his colleagues at the Dartmouth Institute for Health Policy & Practice that among American academic medical centres of universally acknowledged excellence, some (Harvard, Johns Hopkins, UCLA) generated costs per patient in the American Medicare system that were roughly double those in others (the Mayo Clinic, the Cleveland Clinic). Those cost differences are all duly included by the national income accountants as differences in the “value added” to the economy by those different centres. But they do not represent any differences in value provided to American patients. If anything, the higher costs may represent a reduction of value, because as any experienced patient can tell you, excessive intervention has a very direct negative impact on patient well-being, apart from any risks to health.

This is not the fault of the national income accountants. Practitioners of that discipline have made it clear from its inception that what is measured is economic activity, not value – welfare or well-being in some broader sense. Sometimes more is better; sometimes it isn't. When such activity in the healthcare sector adds nothing to health, or worse, reduces it, more is not better. The apparent paradox of highly valued waste thus arises from a confusion of labels, from taking the word “value,” which has a very narrow and particular meaning in the context of national income accounting, and assuming that it has the same meaning as its ordinary-language counterpart. (Economists have a bad habit of doing this – of trying to impose their technical jargon on ordinary-language discussions. The results are confusing at best, and at worst downright misleading. Consider “allocative efficiency”; other examples on request.)

Another layer of complexity is added, however, if one considers the value of medical advances, of new knowledge embodied in changes in technology or practices. Both the sources referenced by Reinhardt are actually addressing the payoff to medical research and the value of diagnostic and therapeutic advances, then juxtaposing these against the continuing very high level of waste and inefficiency in the American system. Yet, there is no obvious reason why continuing medical advances necessarily depend upon a correspondingly high level of provision of ineffective or harmful services, produced by inefficient organizations and charged at excessive prices. The money wasted does not go back into medical research!

Technical advances cannot, however, be represented as movements (to the right) along Reinhardt's curve linking resource inputs to population health status (see Figure 1); rather, they shift the curve upwards. Such a shift implies the potential for greater health benefits at some levels of resource input. But the relation to resource requirements and costs can go either way. If the new advances raise the curve towards its right-hand end, that implies new opportunities to improve health that would require more resources and greater health spending. But that is still no excuse to waste money on ineffective services. On the other hand, if medical advances raise the payoff curve towards its left-hand end, health gain becomes possible at lower cost.

FIGURE 1. Average vs. marginal productivity in health spending



Source: Reinhardt 2013.

The physician and medical essayist Lewis Thomas expressed this idea more elegantly years ago as the three stages of medical technology. At the first stage, the disease or condition is not well understood, and there exists no effective treatment. Patients may receive various forms of care, at greater or lesser expense, but with little or no (positive) effect on the outcome. (Think of the death of Charles II of England, attended by the leading physicians of his day, who deployed an amazing array of completely useless or actively harmful interventions before the poor man was allowed to depart in peace.) As knowledge advances, treatment shifts into an intermediate phase in which interventions are available that mitigate the condition, but not very effectively and at considerable effort and expense. Finally, when the disease or condition is fully understood, effective technologies can be developed, outcomes are much better and costs go down dramatically.

Polio is a good example. The early stage was marked by few effective treatments; the development of the iron lung was an intermediate technology, and the discovery of a vaccine the tertiary phase. Cancer, in at least some forms, has over the last generation been slowly shifting from the early to the intermediate stage. Tuberculosis, once an example of a decisive, third-stage intervention, may be sliding backwards, as a result of human behavioural factors and mutation of the bacillus.

Advances in surgery offer other examples of medical progress lowering resource requirements – lens implantation, for example, or keyhole surgery. And diagnostic procedures have shown major improvements in effectiveness with declining cost. All this is well known. But equally well known is that new advances extend the range of the treatable, raising the curve at its right-hand end, pointing yet more sharply to the question of appropriateness of intervention. Advances in cataract surgery, for example, have greatly lowered the threshold for

intervention (e.g., Bassett et al. 2005). While for most patients the intervention is unquestionably beneficial, the expected benefits inevitably decline with the threshold for intervention. The risks do not. When the threshold is low enough, the marginal net benefits turn negative.

The attempt to estimate some aggregate payoff to medical advances is thus probably a meaningless exercise. Which advances, as deployed by whom, where and in what context? It is not, however, a fool's errand. The need for such an aggregate value, preferably large, is perfectly understandable in the context of the public budgetary process. And where there is a demand (backed with money), there will be a supply.

As J.K. Galbraith has said, economists predict the future, not because they know what is going to happen, but because people ask them. You want an estimate of the aggregate economic payoff to medical research? You'll get one. What does it mean? Well, it means you should spend more money on medical research. Next question?

The apparent paradox addressed by Reinhardt, of simultaneous assertions of large payoffs to medical advances but vast waste, thus has its roots in two besetting sins of economic analysis, the misuse of language and the aggregation of the un-aggregatable.

Words from ordinary language are given special, precisely defined meanings, as in "value added," and then carried back into common discourse, where they mean something quite different. The value added in the healthcare industry has nothing to do with the value to you or to me of a medical intervention.

There is, of course, a good reason for such precise technical concepts. Among other things, they permit consistent aggregation into such constructs as gross domestic product or national health expenditure, and their various components. But these are measures of expenditure, not value.

And no such precise technical framework supports the label of "medical advance" or "medical progress." One can imagine the development of such a framework, but it would have to focus on gains in health status, variously defined, and is a task for epidemiologists and clinicians, not for economists. It is not obvious that attaching dollar values to such an aggregate measure would serve any useful purpose.

Note

1. The author is aware that excessive prices (and fraud) can in some settings create "welfare burdens" but leaves such considerations to those with a taste for triangle-mongering and counting angels.

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