Can we stop the golden egg from killing the goose? 

Health care costs and the future of biomedical research

by David Meltzer, MD, PhD

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In 1960, Americans spent about $73 billion on health care, or $350 per person. Today, it's about $1.8 trillion — roughly $6,000 per person. As a percentage of gross domestic product, health care spending has risen from 7 percent to almost 16 percent, and this will only increase as the baby boomers reach old age.

At the same time, the financial outlook for Medicare is poor, and U.S. firms find health care costs undermining their international competitiveness, while ever more Americans lack health insurance. Other countries seem to achieve comparable health outcomes with lower levels of spending.

It's clear we have a major problem with health care costs. This problem presents profound challenges to the future of medical research and, with it, the health of people today and in the future. Research has produced unprecedented improvement in human welfare and has the potential to continue to do so. Technology is a modern golden egg and biomedical research, the goose that has laid it. However, unless we learn to control the costs of the treatments, we run the risk of destroying our capacity to produce further health care innovation. Can we find a way to prevent the costs of health care technology from destroying biomedical research? Can we stop the golden egg from killing the goose?

Spending more because we're doing more

Although the popular press often talks of prices as a major cause of growing health care spending, most economists have now concluded that the quality-adjusted price of health care in the United States actually is falling. Much of what appears to be higher prices is actually higher quality. Simply put, we are spending more because we are doing more. Increments in quantity of care can't be attributed to the population getting older or sicker; the aging of the baby-boom generation has yet to affect health care costs substantially, and Americans at every age are healthier than ever before.

The evidence suggests that the cost of new technology is driving our health care costs. Heart attacks are an excellent example. The cost of every heart-attack treatment — medical management, angioplasty and bypass — is either rising less than the overall inflation rate or even falling. Despite this, the cost of treating heart attacks is rising rapidly because we are shifting toward more expensive treatments, such as angioplasty and bypass.

The immediate implication is that if we want to control health care costs, we have to control how we use technology. This is dangerous work because much of this technology produces health benefits worth at least as much or more than its costs. Indeed, using estimates of how much people will pay to increase their life expectancy, University of Chicago economists Kevin Murphy, PhD, and Robert Topel, PhD, and others have found that new medical technology produces value far in excess of its cost. Even using conservative estimates of the dollar value of longer life spans, the increase in life expectancy since 1970 has contributed as much to increasing welfare as has the increase in per capita income over the same period. Thus, simply slowing the rate of technological advance is not a good solution to rising costs.

That said, while advances in health care are worthwhile on average, much medical innovation does not produce benefits in excess of its costs. One example is the pap smear, a low-cost screening that increases the detection of cervical cancer. However, unless we learn to control the costs of the treatments, we run the risk of destroying our capacity to produce further health care innovation. Can we find a way to prevent the costs of health care technology from destroying biomedical research? Can we stop the golden egg from killing the goose?

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