

# The Washington Post

## In the Balance

### Some Candidates Disagree, but Studies Show It's Often Cheaper To Let People Get Sick

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An ounce of prevention may have been worth a pound of cure in households down through the ages, but in the world of health economics the adage, alas, is not true.

An ounce of prevention is sometimes worth more than an ounce of cure (although rarely worth 16 times as much, or the equivalent of a pound). Usually, an ounce of prevention is worth considerably less. Often it is worth (to mix measures) only a gram of cure. Or even just a milligram.

This is a seemingly illogical truth. Most of us naturally assume that preventing a disease is cheaper than waiting for the disease to appear and then treating it. That belief is especially dear to politicians, who often view prevention as an underused weapon in the battle against health-care costs.

The campaign Web site for Sen. Hillary Clinton (D-N.Y.) notes that her health-care plan is "targeting the drivers of health-care costs, including our back-ended coverage of health care that gives short shrift to prevention." Rival Sen. Barack Obama (D-Ill.) asserts that American families can save up to \$2,500 a year each if five cost-containing strategies are implemented, one of which is "improving prevention and management of chronic conditions." (The presumed Republican nominee, Arizona Sen. John McCain, generally has not pushed prevention as a way to control expenses.)

Even when prevention greatly reduces future cases of a particular illness, overall cost to the health-care system typically goes up when lots of disease-preventing strategies are put into practice. This is usually true whether treating the preventable diseases is cheap or expensive.

### Taking the Long View

In 1986, a health economist named Louise B. Russell published "Is Prevention Better Than Cure?," in which she concluded that prevention activities tend to cost more than they save. Since the book's appearance, her observation has been borne out by studies of hundreds of interventions -- everything from offering mammograms to all women and prescribing drugs to people with high cholesterol to requiring passenger-side air bags in cars and shortening the response time of ambulances.

On closer look, this isn't so surprising. Nor is it reason for despair. After all, you get something from prevention -- less disease, for starters -- which is worth a lot even if it doesn't come cheap.

There are many reasons prevention usually doesn't save money. Perhaps the most important is that prevention activities target many more people than will ever come down with the disease being prevented. The reason (thankfully) is that people tend to stay healthy for most of their lives, no matter what they do.

Take the example of lowering cholesterol to prevent heart attacks.

The vocabulary of cardiac risk uses such terms as "normal," "high" and "very high." But in reality, most people even in the "very high" risk category don't suffer heart attacks over quite long time horizons.

Consider a 50-year-old male smoker whose total cholesterol is in the "high" range (over 240); whose HDL, or desirable cholesterol fraction, is "low" (below 40); and who has untreated moderate hypertension. Sounds like a walking time bomb!

It turns out his chance of having a heart attack in the next 10 years is only 25 percent. For a woman with the same profile, the chance of having a heart attack is 11 percent. Almost nine out of 10 such people will dodge the bullet by . . . doing nothing.

Preventing those heart attacks is expensive because everyone fitting the risk profile needs to get the intervention. Why? Because there's no way to know in advance who the 1-in-4 unlucky men or 1-in-9 unlucky women are.

If the prevention strategy is taking a statin -- a very effective cholesterol-lowering drug -- it will cost \$160,000 *for every year of life saved* among men with the above-described risk profile. For women, it will be even pricier: \$240,000 for every year of life saved, according to a study published in the *Annals of Internal Medicine* in 2000. (That total bill includes the cost of physician visits and lab tests).

It seems like a lot to pay. But who among us would choose 1-in-4 or 1-in-9 odds of having a heart attack if the alternative is to reduce the odds dramatically by taking a pill every day (especially if you don't have to pay for the pill yourself)?

In the answer to that question lies both the appeal of our increasingly prevention-oriented health-care system and the reason why prevention tends to drive costs up over the long run.

### **Calculating the Odds**

Prevention can be expensive even when it doesn't involve taking drugs or undergoing procedures. Even giving information can be uneconomical. That's because giving information takes time, and the yield in terms of behavior change that leads to less disease is very low -- as anyone who has been told to eat less and exercise more knows.

For example, Australian researchers tried out a program in which general practitioners watched a video and read a booklet about how to help their patients lower their heart attack risk. The patients were then given a series of videos and a self-help booklet on the same topic.

How cost-effective is this instruction? When it is provided for women at low risk of heart disease, \$9.8 million has to be spent for every year of life saved in the prevention of premature heart attack deaths.

Of course, there are situations in which prevention is the economical choice, even if it still adds to the total spent on health care.

Take smoking.

Smoking cigarettes is probably the most unhealthful legal thing a person can do. Nevertheless, most lifelong smokers will make it to age 70 without paying the ultimate price. This was borne out in a study published two years ago.

Medical researchers in Norway observed the experience of 50,000 Norwegian men and women over a 25-year period. Of the men who smoked more than a pack of cigarettes a day the entire time, 41 percent died between age 40 and 70. Among similarly heavy-smoking women, 26 percent died. (For people who never smoked, the mortality was 14 percent for men and 9 percent for women). Even for heavy smokers, the odds favor survival.

Nevertheless, doing almost anything to help people quit smoking is likely to be a good investment. That's because even though most people get to age 70, lots don't -- but might if they didn't smoke.

In just one example of dozens of cost-effectiveness studies examining strategies to reduce smoking deaths, a team of British researchers in 2002 calculated that providing brief counseling, nicotine replacement and the anti-craving drug bupropion to smokers would save one year of life for every \$1,300 spent -- an incredible bargain.

There are also some disease-preventing activities that save money, although they are relatively rare. Childhood vaccinations are the classic examples.

Many of the infections they protect against -- chickenpox, measles, mumps -- are ones nearly every child would get if not for the shots. Even though few of those cases put children in the hospital or cost much to treat, virtually all that expense (and a few lives) are saved with universal childhood immunization. If vaccines are cheap and easy to administer, the total cost of vaccination is actually less than the cost of treating the cases of illness that would occur in their absence.

Toward the other end of life, providing a single colonoscopy to men 60 to 64 years old also saves money. Even though the procedure costs more than \$1,000, it takes such a huge bite out of expensive, painful, life-shortening colon cancer mortality that it costs less to test everybody than to treat the people who would otherwise develop the disease.

"In order to crack this nut [of controlling health-care spending], careful thought and analysis has to go into evaluating what things work, how well things work and how much they cost," said

Joshua T. Cohen of the Institute for Clinical Research and Health Policy Studies at Tufts Medical Center in Boston.

### **And in the Long Run?**

Similar to the finding that prevention rarely saves money is the calculation that people in good health probably rack up higher lifetime medical costs than their less-healthy brethren.

The reason? Healthy people tend to live longer.

The Framingham Heart Study has followed more than 5,000 people in a town outside Boston since 1948. An analysis published in 2003 found that obese women smokers lost 13.3 years of life, and obese men smokers lost 13.7 years, compared with normal-weight nonsmokers. This loss of longevity can make a big economic difference because people who miss old age miss the high medical costs associated with it.

In the journal PLoS Medicine last month, Dutch researchers led by Pieter H.M. van Baal used mathematical modeling to compare the medical expenses (starting at age 20) of healthy people, obese people and non-obese smokers.

Up to age 56, an obese person's annual medical costs are higher than a smoker's, mostly because of problems that often come along with obesity, such as diabetes, arthritis and lower back pain. Healthy people have the lowest annual cost.

But over a lifetime, the researchers calculated, healthy people incur the most cost, followed by the obese and then smokers, who die the earliest.

Does that mean we shouldn't try to get people to quit smoking or lose weight?

Of course not, says Louise Russell, the "Is Prevention Better Than Cure?" author who is now a research professor at Rutgers University in New Jersey.

"People are important, their health is important, and we want to make their lives better in a variety of ways," Russell said. "The point of the medical-care system is to serve people. It is not the point of people to serve the medical-care system."

Prevention can be a great investment, but it's still an investment. Nothing in the modern health-care economy is cheap.

Not even health. ·

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