

Chapter Twelve

Prevention

MYTH NO. 12: A SINGLE-PAYER NATIONAL HEALTH CARE SYSTEM WOULD LOWER HEALTH CARE COSTS BECAUSE PREVENTIVE HEALTH SERVICES WOULD BE MORE WIDELY AVAILABLE

A common argument for national health insurance is that when care is “free” at the point of service people will more readily seek preventive services. Consequently, it is argued, money will be saved when doctors catch conditions in their early stages, before they develop into more costly-to-treat diseases. Yet, it turns out that patients in government-run health care systems do not get more preventive care than Americans do. And even if they did, that would not save the government money.

PREVENTION VERSUS PREVENTIVE CARE

A distinction should be made between “prevention” and “preventive medical care.” Anything that can prevent a disease can be labeled prevention. This can include eating a proper diet, getting adequate exercise, losing excess weight, abstaining from smoking, drinking only in moderation and proper personal sanitation. Preventive medical care, on the other hand, is a much narrower concept. It includes regular exams and screening tests designed to catch a disease or a health problem in its early stages. It also covers medical interventions, such as vaccinations, designed to protect against disease. Most of the time, preventive care is like a *consumer good* that creates benefits in return for a cost; it is not like an *investment good* that promises a positive economic rate of return.

Poor lifestyle choices are responsible for a significant portion of the burden of disease on society. Better choices reduce the incidence of disease and disability. National health expenditures would be lower if everyone practiced prevention through adopting healthy lifestyles. For example, we now know that prevention of heart disease and strokes through lifestyle changes is possible. The same is appears to be true of much diabetes and many cancers.

Most of the greatest public health triumphs in the twentieth century relate to prevention. In fact, according to public health experts, most of the increases in life expectancy over the last 100 years have resulted from improvements in public health rather than advances in medicine. These include such public health efforts as providing clean drinking water and improving sanitation. Worldwide, only a few medical advances, such as vaccination, have contributed to an overall increase in longevity.¹

DO PREVENTIVE SERVICES SAVE MONEY?

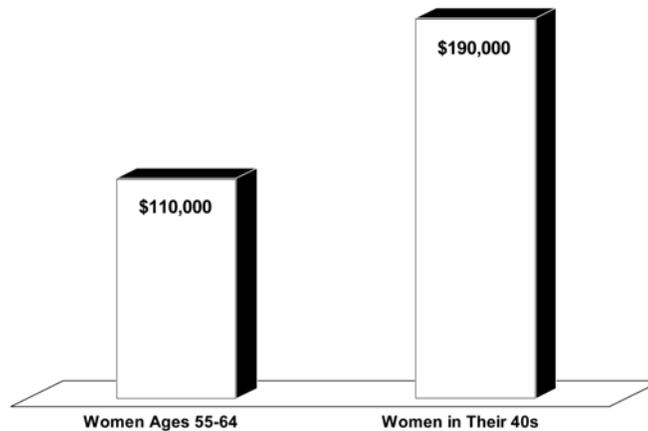
Careful studies show that preventive medicine generally raises rather than lowers overall health care costs. As one observer put it, “nearly every aspect of preventive care has crashed upon the rocky shore of added costs.”² These include vaccination, which is one of the few preventive medical interventions that saves more money than it costs.³ Very few medical procedures, including preventive or diagnostic procedures, pay for themselves in terms of a net lifetime reduction in total health care costs.⁴ A study by the U.S. Office of Technology Assessment found only three kinds of preventive care save money: prenatal care for poor women, tests in newborns for certain congenital disorders and most childhood immunizations.⁵ Other studies indicate that smoking cessation advice is another.⁶

However, Pap smears do not save money. Nor do mammograms. Nor do most other tests.⁷ It is true that diagnosing cancer early lowers treatment costs for the patient found to have the disease. But in order to find that patient through screening, the diagnostic test must be given to thousands of healthy patients. When all costs are considered, the extra costs of screening the healthy swamp the reduced costs of treating the few found to have the disease.⁸

That preventive care usually adds to overall health care costs does not mean that it is not valuable. For instance, diagnostic tests showing that no disease is present benefits patients by relieving anxiety and creating reassurance of health. But we need to compare the money spent with the benefits received. Take breast cancer, for example. Figure 12.1 shows the cost of screening, including the costs of treatment for those discovered to have cancer, per

FIGURE 12-1

Yearly Mammograms: Cost per Year of Life Saved



Source: Tammy O. Tengs et al., "Five Hundred Lifesaving Interventions and Their Cost-Effectiveness," *Risk Analysis*, June 1995.

year of life saved as a result of the screening and subsequent treatment for breast cancer. As the figure shows, giving regular mammograms to women age fifty-five to sixty-four costs about \$110,000 for every year of life saved as a result of the screening, when all costs are considered. For women in their forties, the costs jump considerably, to \$190,000 for each year of life saved.

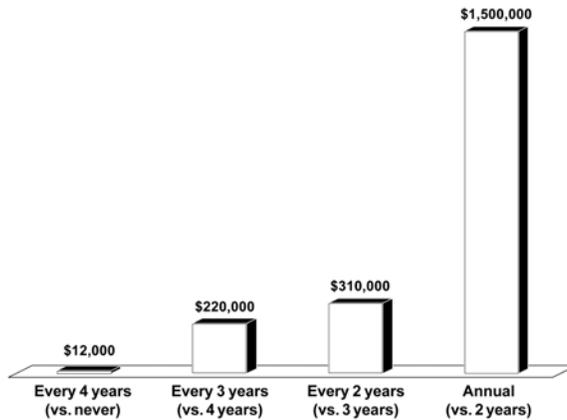
This does not mean that mammograms are wasteful. To the contrary, they are a reasonable investment for many women. Economists have found that the price people are willing to pay to avoid various risks is in the range of \$75,000 to \$150,000 for each year of life saved.⁹ Note that this is not the amount of money people are willing to pay to purchase an extra year of life. These numbers are *implied* by the amounts people are willing to pay to avoid risk when the risk is small and the amount of money also is small, such as the extra wages required to induce people to work in riskier jobs. Since the trade-offs for mammograms shown in the figure are near or in this range, regular mammograms are probably worthwhile for most women.

Similar considerations apply to some Pap smear exams for cervical cancer. Figure 12.2 shows the following:

- Screening young women every four years for cervical cancer costs less than \$12,000 for each year of life saved.

FIGURE 12-2

**Cervical Cancer Tests:
Cost per Year of Life Saved**
(Women age 20)



Source: Tammy O. Tengs et al., "Five Hundred Lifesaving Interventions and Their Cost-Effectiveness," *Risk Analysis*, June 1995.

- More frequent screening causes the costs to soar from about \$220,000 per year of life saved at three-year intervals (as opposed to four-year intervals) to about \$310,000 at two-year intervals (as opposed to three).
- Giving Pap smears every year (as opposed to every other year) is really expensive: almost \$1.5 million per year of life saved.

Pap smear screening, even every fourth year, costs money; it does not save money. However, four-year cervical cancer tests are a very good buy in the business of risk avoidance. To put this figure in perspective, we note that there is a better payoff from wearing seatbelts in automobiles. But four-year cervical cancer testing is a better buy than air bags. More frequent screenings, however, make the costs rise rapidly in relation to the benefits. Despite the preference of many doctors for annual screening, the trade-off is well outside the range of choices people make to avoid risk in other walks of life.

Now suppose we ignore costs and ask: What is the right number of Pap smears from a purely medical point of view? There is no right answer. Four-year Pap smears produce a medical benefit. Annual Pap smears produce a bigger benefit. One presumes that monthly Pap smears would further enhance the benefit. Medical science alone cannot justify one frequency over any other, unless one adopts the untenable position that people should obtain any and all diagnostic tests that offer any possible medical benefit.

PREVENTIVE CARE IN THE UNITED KINGDOM

One might suppose that a system of “free” public health care would offer more preventive medicine. After all, if people face no financial deterrent to doctor visits, they should be more likely to take advantage of diagnostic tests that can detect diseases in their early states. Yet, there is no evidence that this happens. For example, estimates are that one out of every two diabetics goes undiagnosed¹⁰ both in the United States and in Britain.

Preventive care may, in fact, be less available under a single-payer system because care *is* free. A comparison of American and British physicians in the 1990s found that the British saw a physician almost as often as Americans (about six times a year).¹¹ Yet, when Americans did see a doctor, the consultation was six times as likely to last more than twenty minutes (see figure 12.3).¹² A recent survey of 200 British GPs and more than 2,000 consumers found that 87 percent of smokers want more advice and help in quitting from their GPs. But 93 percent of GPs say they lack the time to give such advice.¹³ A similar problem apparently exists in all countries. An *American Journal of Public Health* study concluded that if general internists with an average panel of adult patients provided all the recommended preventive care, that care would consume most of their days.¹⁴

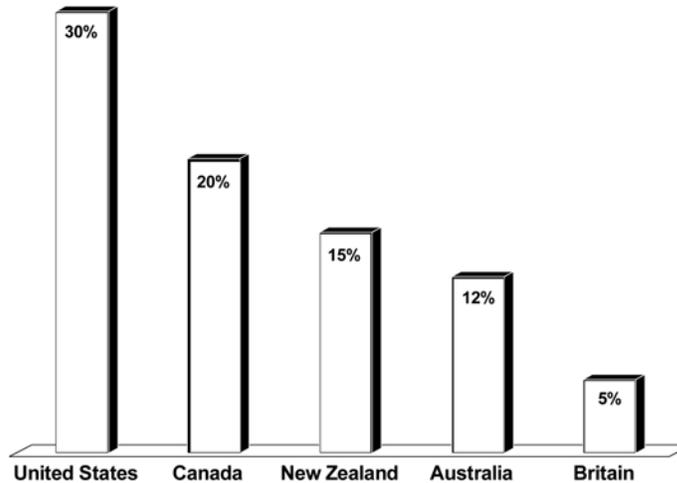
Because Britons perceive doctor visits to be free, an inordinate proportion of their physician visits are for trivial complaints. To handle the caseload, British doctors spend less time with each patient. Moreover, as discussed above, British physicians have much less access to diagnostic equipment and must send their patients to hospitals even for chest X-rays and simple blood tests. Britain did not offer breast cancer screening until the late 1980s to early 1990s. The high breast cancer mortality rate in Britain may to some extent reflect the lack of screenings in the past.¹⁵

PREVENTIVE CARE IN CANADA

Physician time constraints are also a problem in Canada. On a per capita basis, Canadians visit physicians 10 percent more often than Americans do, but it is not clear that they receive more services. Apparently, more Canadian physician time is spent on (arguably) trivial conditions such as colds, sore throats or upset stomachs.¹⁶ As figure 12.3 suggests, patients spend more time with physicians in the United States than in Canada.¹⁷ Also, in Canada, fee structures are designed to discourage physicians from providing office-based procedures. The only office-based work physicians can bill for is the time they spend examining and evaluating patients. They cannot bill for diagnostic tests.¹⁸

FIGURE 12-3

Patients Spending More than 20 Minutes with Their Doctor



Note: Reflects most recent doctor visit.

Source: Karen Donelan et al., "The Cost of Health System Change: Public Discontent in Five Nations," *Health Affairs*, May/June 1999.

The amount of preventive care people get under single-payer systems appears to be based more on socioeconomic status and education than on whether medical care is free or not. For example, studies comparing women in Ontario and in two areas of the United States found that in both countries their chances of receiving a Pap smear or clinical breast cancer screening increased with education and income regardless of whether a woman had health insurance.¹⁹

INTERNATIONAL COMPARISON OF CANCER PREVENTION

International comparisons are difficult at best, but there is evidence that problems exist in many countries with socialized health care systems. One international measure is "potential years of life lost" (PYLL) per 100,000 population.²⁰ This measure attempts to calculate the years of life lost needlessly because of a lack of preventive care. At 211 years of life lost for every

TABLE 12-1

Potential Life Years Lost To Breast Cancer
(per 100,000 people)

Canada	211
United States	214
France	224
Australia	226
Germany	232
United Kingdom	263
Netherlands	288
New Zealand	291
Ireland	291
Denmark	305

Note: Data is for 1997

Source: *OECD Health Data 2002*.

100,000 people, Canada edges out the U.S. rate of 214. At 224, 226 and 232, respectively, France, Australia and Germany are trailing. And many countries fare far worse, including 263 “life years” lost in Britain, 288 in the Netherlands, 291 in New Zealand and Ireland, and 305 in Denmark. As noted in chapter 6, a far higher proportion of women with breast cancer succumb to the disease in other countries than in the United States. The reasons for this are many, but poor screening programs may contribute.

NOTES

1. “10 Public Health Triumphs,” *Nursing Library* (March 2000): 1; “Ten Great Public Health Achievements—United States, 1900–1999,” *Morbidity and Mortality Weekly Report* 48, no. 12 (April 02, 1999): 241–43. For an in-depth review of each achievement, see the CDC’s Web site at www.cdc.gov/od/oc/media/tengpha.htm.

2. Scott Gottlieb, “For HMOs, Preventive Medicine Doesn’t Pay,” *American Medical News* 44, no. 30 (August 13, 2001).

3. For a discussion of lifestyle changes that increase health and life expectancy, see N.B. Belloc and L. Breslow, “Relationship of Physical Health Status and Health Practice,” *Preventive Medicine* 1 (1972): 409–21; Jack A. Meyer and Marion E. Lewin, “Introduction.” In Meyer and Lewin, eds., *Charting the Future of Health Care* (Washington, D.C.: American Enterprise Institute, 1987), 5; Bruce Bower, “Health Aging May Depend

on Past Habits,” *Science News* 159, no. 24 (June 16, 2001); G.E. Vaillant and K. Mukamal, “Successful Aging,” *American Journal of Psychiatry* 158 (June 2001): 839; Patricia Andersen-Parrado, “6 Strategies to Help You Live Longer and Better,” *Better Nutrition* (April 2000); Hirofumi Shigeta, “Lifestyle, Obesity, and Insulin Resistance,” *Diabetes Care* (March 2001); and Andrew Baum, “Health Psychology: Mapping Biobehavioral Contributions to Health and Illness,” *Annual Review of Psychology* (1999).

4. Ashley B. Coffield et al., “Priorities among Recommended Clinical Preventive Services,” *American Journal of Preventive Medicine* 21, no. 1 (2001). For a comprehensive list of lifesaving interventions and their costs, see Tammy O. Tengs, “Dying Too Soon: How Cost-Effectiveness Analysis Can Save Lives,” National Center for Policy Analysis, NCPA Policy Report No. 204, May 1997; and Tammy O. Tengs et al., “Five Hundred Lifesaving Interventions and Their Cost-Effectiveness,” *Risk Analysis* 15, no. 3 (June 1995): 369–90.

5. U.S. Congress, Office of Technology Assessment, *Benefit Design in Health Care Reform: Report #1-Clinical Preventive Services* (Washington, D.C.: U.S. Government Printing Office, September 1993).

6. Tengs et al., “Five Hundred Lifesaving Interventions.”

7. See “Is Preventive Medical Care Cost-Effective?” NCPA Brief Analysis No. 188, National Center for Policy Analysis, November 9, 1995. The Office of Technology Assessment (OTA) studied the cost-effectiveness of adding coverage for several preventive measures—including flu and pneumonia vaccines and screening tests for cervical and colon cancer—to the federal Medicare insurance program for the elderly. None of the preventive measures was found to cut costs. See U.S. Congress, Office of Technology Assessment, *Preventive Health Services for Medicare Beneficiaries: Policy and Research Issues* (Washington, D.C.: U.S. Government Printing Office, February 1990); and U.S. Congress, Office of Technology Assessment, *The Cost and Effectiveness of Colorectal Screening in the Elderly* (Washington, D.C.: U.S. Government Printing Office, September 1990).

8. See also “Is Preventive Medical Care Cost-Effective?” NCPA; and Louise B. Russell, *Is Prevention Better Than Cure?* (Washington, D.C.: Brookings Institution, 1986).

9. W. Kip Viscusi, “The Value of Risks to Life and Health,” *Journal of Economic Literature* 31, no. 4 (December 1993): 1912–46; and George Tolley, Donald Kendel and Robert Fabian, eds., *Valuing Health for Policy: An Economic Approach* (Chicago: University of Chicago Press, 1994).

10. “Diabetes: Disabling, Deadly, and on the Rise, at a Glance 2002,” National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, 2002, available at www.cdc.gov/diabetes/pubs/glance.htm. Also see Robin Turner, “Diabetes Test Aims to Trace Army of People Unaware that They are Sufferers,” *Western Mail* (June 10, 2002); and “Who Get Diabetes and What Causes it?” *Diabetes U.K. 2000*, available at www.diabetes.org.uk/diabetes/get.htm.

11. Gerald F. Anderson and Jean-Pierre Poullier, “Health Spending, Access, and Outcomes: Trends In Industrialized Countries,” *Health Affairs* 8, no. 3 (1999).

12. See Edward W. Campion, “A Symptom of Discontent,” *New England Journal of Medicine* 344, no. 3 (January 18, 2001): 223–25; and John G. R. Howie et al., “Qual-

ity at General Practice Consultations: Cross Sectional Survey," *British Medical Journal* 319, no. 7212 (September 18, 1999): 738–43. Note that the average general practitioner (GP) consultation was eight minutes in Britain, whereas the average consultation across all specialties in the United States was 18.3 minutes. See also David Mechanic, Donna D. McAlpine and Marsha Rosenthal, "Are Patients' Office Visits with Physicians Getting Shorter?" *New England Journal of Medicine* 344, no. 3 (January 18, 2001): 198–204.

13. "Challenging Nicotine Addiction," Smoking Cessation in Primary Care (SCRAPE), August 2001, reported in "U.K. Physicians Lack Time to Help Patients Quit Smoking," Reuters Health, August 23, 2001.

14. See Sandeep J. Jauhar, "That Ounce of Prevention Grew Too Big," *New York Times*, December 2, 2003; and Kimberly S. H. Yarnall et al., "Primary Care: Is There Enough Time for Prevention?," *American Journal of Public Health* 93, no. 4 (April 2003): 635–41.

15. J. Patnick, "Breast and Cervical Screening for Women in the United Kingdom," *Hong Kong Medical Journal* 6 (2000): 409–11.

16. Larry M. Greenberg, "Take Two Tablespoons of Mustard and Call If You Don't Feel Better," *Wall Street Journal*, February 22, 1994, cited in Rexford E. Santerre and Stephen P. Neun, *Health Economics: Theories, Insights, and Industry Studies* (Chicago: Irwin, 1996), 60.

17. Victor R. Fuchs and James S. Hahn, "How Does Canada Do It? A Comparison of Expenditures for Physicians' Service in the United States and Canada," *New England Journal of Medicine* (September 27, 1990): 884–90.

18. Patricia M. Danzon, "Hidden Overhead Costs: Is Canada's System Really Less Expensive?" *Health Affairs* 11, no. 1 (Spring 1992): 27.

19. See S. J. Katz and T. P. Hofer, "Socioeconomic Disparities in Preventive Care Persist Despite Universal Coverage: Breast and Cervical Cancer Screening in Ontario and the United States," *Journal of the American Medical Association* 272 (August 17, 1994): 530–34.

20. Potential years of life lost is a calculation that attempts to quantify preventable deaths and is weighted by age at death, with 70 being the maximum. If a person dies of a preventable death at 60, the potential numbers of life years lost would be 10. From *OECD Health Data 2002*.

