5.1 Cost-effective Cancer Prevention Strategies

Many cancer prevention strategies have proved cost-effective relative to comparable uses of medical care dollars. Breast cancer was associated with $6.5 billion in medical care costs in the United States in 1990, more than the costs of any other cancer (Brown and Fintor 1995). In 1997, almost 44,000 deaths and over 180,000 new cases of breast cancer were expected (American Cancer Society 1997). Screening, however, can reduce the mortality attributed to breast cancer by 20 to 30 percent. Breast cancer screening through mammography has been found to cost approximately $60,000 per life-year gained (Elixhauser 1991; White et al 1993). The combination of annual mammograms and clinical breast exams that are followed by appropriate treatment can cost from $22,000 to $84,000 per life-year (US$ 1984) gained in women 55 to 65 years of age, depending on the effectiveness of the screening program (Eddy 1989).

Cervical and colorectal cancers present further opportunities for secondary prevention. In 1997, the United States had 4,800 deaths and 14,500 new diagnoses of cervical cancer, with one-third of women dying within 5 years of diagnosis (American Cancer Society 1997). Screening of asymptomatic, average-risk women ages 20 to 75 every 3 years for cervical cancer costs $14,000 per life-year gained, and annual screening costs $40,000 per life-year gained (US$ 1987) compared to no screening (Eddy 1990). Colorectal cancer was associated with 47,700 deaths and 131,600 new cases diagnosed in 1998 (American Cancer Society 1998). Targeted annual screening for colorectal cancer in a population 65 years or older costs $35,000 (US $ 1989) per life-year gained (Wagner 1991).


