



HEALTH COSTS OF SMOKERS vs. FORMER SMOKERS vs. NON-SMOKERS AND RELATED SAVINGS FROM QUITTING

The best available source for estimates of the difference in the average health costs of smokers versus nonsmokers is still Hodgson, TA, "Cigarette Smoking and Lifetime Medical Expenditures," *Milbank Quarterly*, 70(1):81-115, 1992. The following table shows the Hodgson study estimates of the excess average healthcare costs for male and female smokers compared to nonsmokers. Using the current ratio of male to female smokers of 56:44 produces the related weighted averages for all smokers. These estimates are all in 1990 dollars.

Higher Smoker Health Costs (1990 \$)	Lifetime	Next Five Years
Males	\$8,638	\$2,525
Females	\$10,119	\$2,069
Weighted Average	\$9,292	\$2,324

Note: The different lifetime costs for smokers vs. non-smokers fully takes into account the fact that smokers, on average, do not live as long.

Updating the Hodgson Study Estimates

Until more recent reliable estimates are available, it makes sense to update the Hodgson estimates to account for inflation and to make them more comparable to other smoking-caused healthcare cost estimates that are being used by policymakers and researchers. That is done using the same methodology as the U.S. Centers for Disease Control & Prevention (CDC), which uses the consumer price index (CPI) for medical care to adjust healthcare costs for inflation. The CDC formula produces the following updated Hodgson estimates in 2009 dollars – with each medical care dollar in 1990 equal to \$2.31 in 2009 dollars, and all totals rounded down to be conservative and avoid overstating the healthcare cost reductions from reducing smoking.

Higher Smoker Health Costs (2009 \$)	Lifetime	Next Five Years
Males	\$19,929 ⇒ \$19,500	\$5,825 ⇒ \$5,500
Females	\$23,346 ⇒ \$23,000	\$4,773 ⇒ \$4,500
Weighted Average	\$21,438 ⇒ \$21,000	\$5,362 ⇒ \$5,000

Estimates for Former Smokers

The Hodgson study did not estimate the health costs of smokers who quit – which are, on average, between the smoker and nonsmoker costs – and no specific data on that has been found. But CDC estimates that smokers have a 50% chance of dying from smoking, with former smokers having a 10% to 37% chance. [MMWR 45(44):971-974, November 8, 1996, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00044348.htm>.] Applying that death-risk ratio to the above health costs suggests that a former smoker's excess health costs would be 10/50 to 37/50 of a smoker's, producing the following estimates, with rounded down averages.

Former Smokers Cost-Savings (2009 \$)	Lifetime	Next Five Years
Former Smokers Excess Costs	\$4,287 to \$15,864 ⇒ \$10,000	\$1,072 to \$3,967 ⇒ \$2,300
Savings from Quitting	\$5,574 to 17,150 ⇒ \$11,000	\$1,394 to \$4,289 ⇒ \$2,500

For related supporting studies, see, e.g., Nusselder, W, et al., "Smoking and the Compression of Morbidity," *Epidemiology & Community Health*, 2000; Warner, K, et al., "Medical Costs of Smoking in the United States: Estimates, Their Validity, and Their Implications," *Tobacco Control* 8(3):290-300, Autumn 1999, <http://tc.bmjournals.com/content/vol8/issue3/index.shtml>.

Campaign For Tobacco-Free Kids / Ann Boonn, December 18, 2014