

Congressional Budget Office

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Raising the Excise Tax on Cigarettes: Effects on Health and the Federal Budget

Presentation to the 30th International Congress of Actuaries

James Baumgardner, Ph.D.
Deputy Assistant Director
Health, Retirement, and Long-Term Analysis Division

This presentation provides information published in *Raising the Excise Tax on Cigarettes: Effects on Health and the Federal Budget* (June 2012), www.cbo.gov/publication/43319.

Goal of This Project

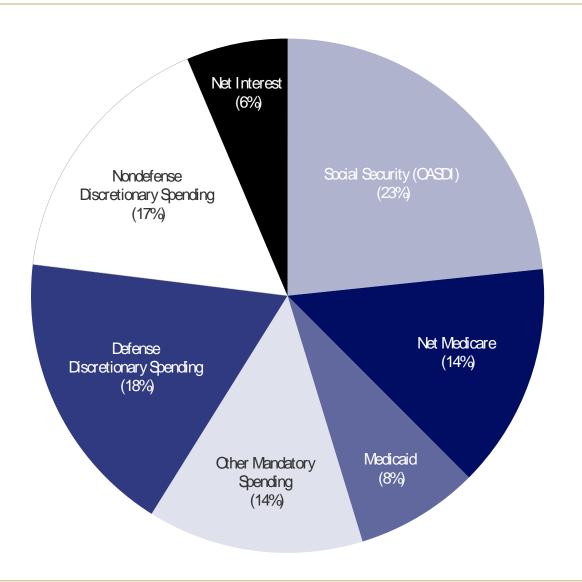
Assess the effect on the federal budget of a policy to improve health through changes in behavior

- Consider a 50-cent increase in the federal excise tax on cigarettes,
 indexed for inflation and growth in income
- Focus on changes in outlays and revenues resulting from changes in health because of the policy
- Estimate effects for the usual 10-year "budget window" and the longer term

Caveats

- Policymakers' decisions depend on considerations other than the budget.
- Other policies to improve health would be likely to have different effects on the budget.

Federal Outlays, 2013

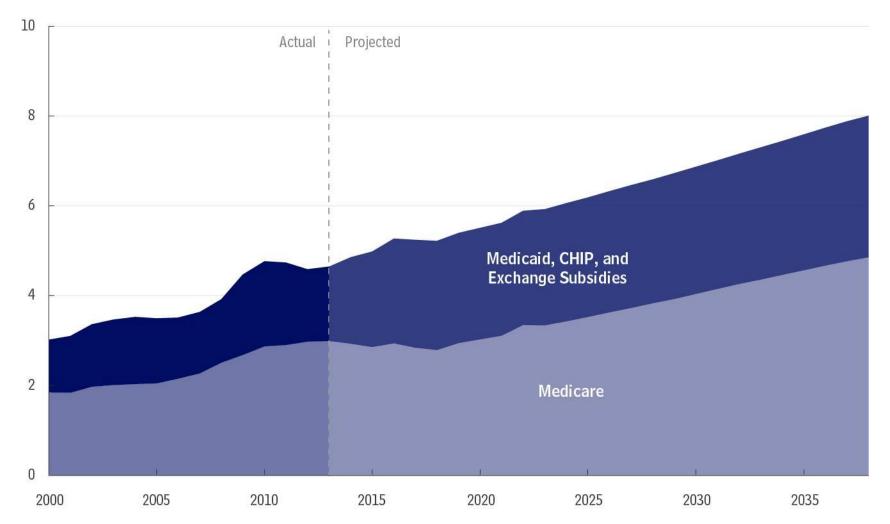


Spending and Revenues Projected in CBO's Baseline (February 2014) and Extended Baseline (September 2013)

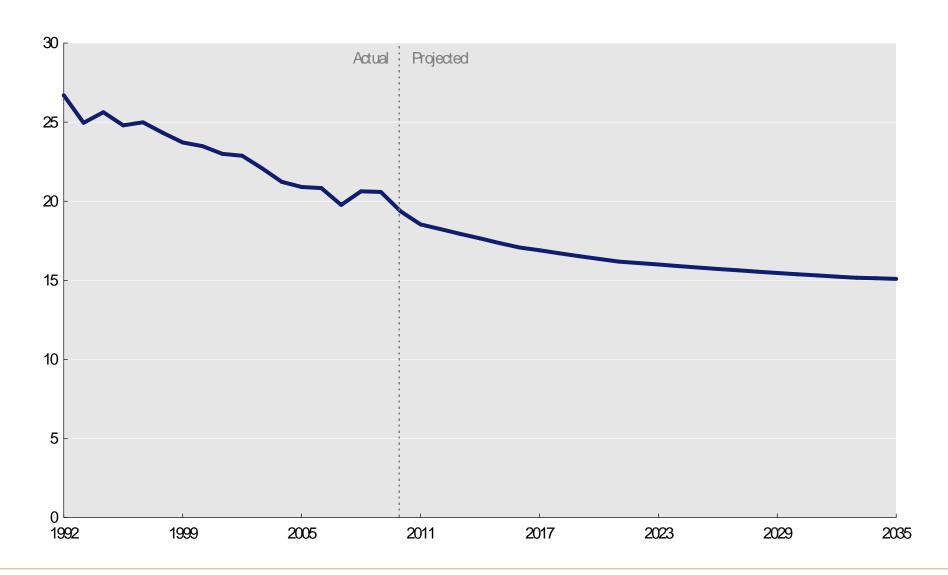
(Percentage of gross domestic product) Social Major Health Care Other Noninterest Security **Programs** Spending Net Interest 3.7 1.0 1974 12.0 1.4 2014 4.9 4.8 9.4 1.3 5.6 6.1 2024 3.3 7.4 6.2 8.0 2038 7.1 4.9 **Total Outlays Total Revenues** Deficit 17.7 1974 18.1 -0.4 17.5 2014 20.5 - 3.0 2024 22.4 18.4 2038 26.2 19.7

Federal Spending on Major Health Care Programs, by Category, Under CBO's Extended Baseline (September 2013)

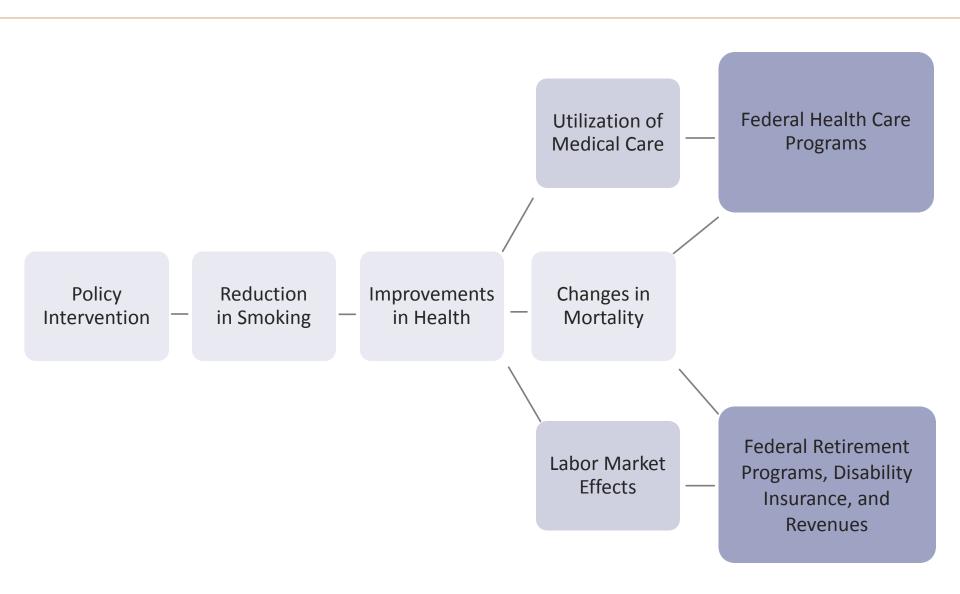
(Percentage of gross domestic product)



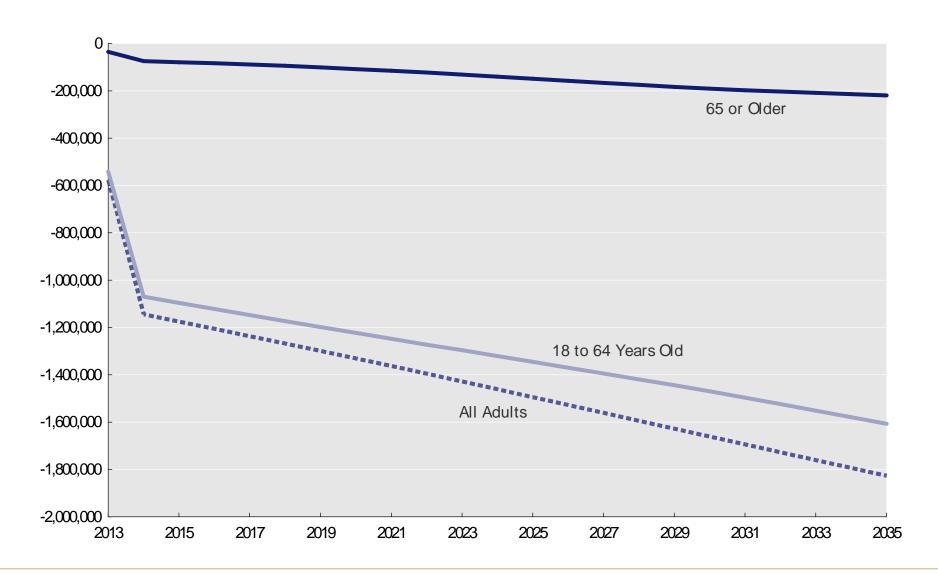
Percentage of U.S. Adults Who Smoke Cigarettes



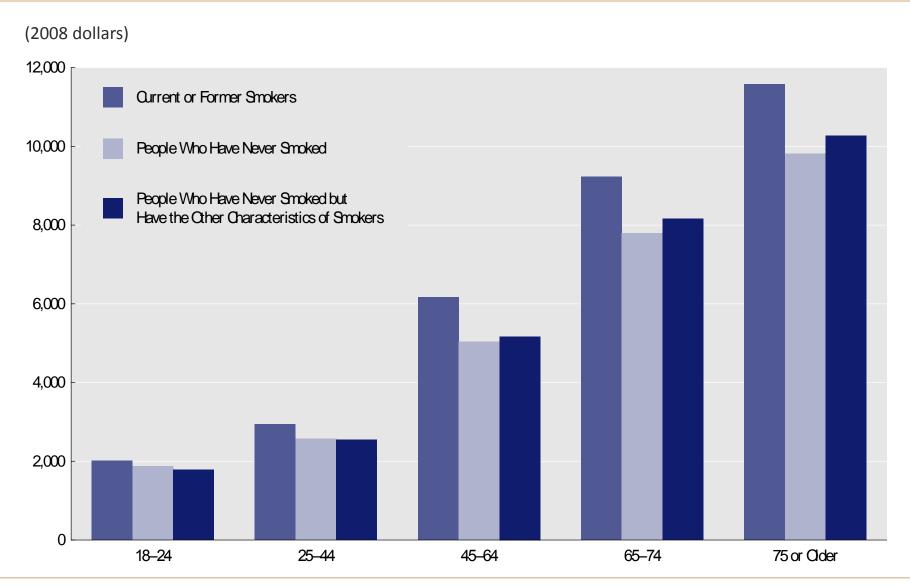
General Analytic Approach



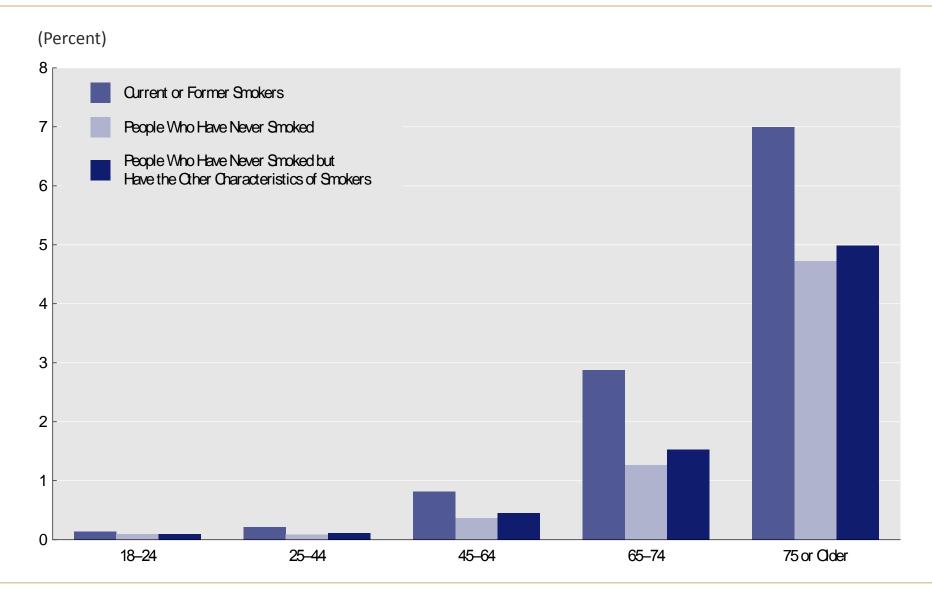
Cumulative Reduction in the Number of Smokers Because of the Illustrative Increase in the Cigarette Tax



Annual Spending on Health Care for Smokers, Nonsmokers, and Nonsmokers Who Otherwise Resemble Smokers, by Age Group



Probability of Dying in the Next Year for Smokers, Nonsmokers, and Nonsmokers Who Otherwise Resemble Smokers, by Age Group



Smoking and Earnings

- Possible effects of reduced smoking
 - Reduced working-age mortality (yes)
 - Higher working-age labor force participation (yes)
 - Later retirement (yes)
 - Increased work hours when employed (no)
 - Reduced absenteeism (inferred from earnings)
 - Improved productivity (inferred from earnings)
- CBO concluded that smoking reduces earnings by 4 percent to
 7 percent, depending on people's age

CBO's Simulation Model

- Projects smoking rates under current law
- Identifies people affected by the policy (smokers and would-be smokers)
- Projects health care spending, longevity, and earnings
 - Under current law (taking into account that some people would quit even without the policy change)
 - With the illustrative tax increase

Projecting Health Care Spending per Capita

Analysis focuses on people who, under current law, either smoke or will take up smoking—considered in two categories:

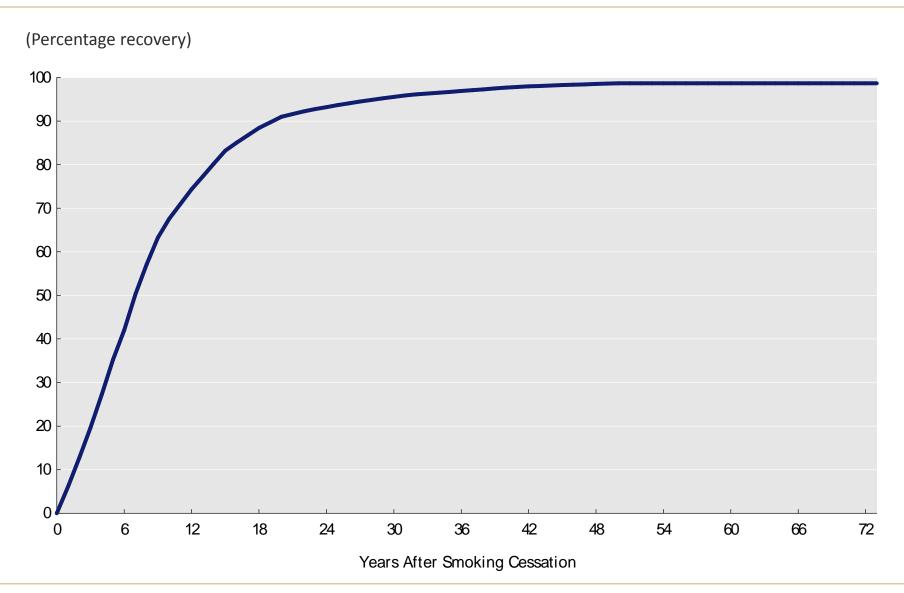
- People who smoke until death, or
- People who will quit regardless of whether there is a tax increase (spontaneous quitters)

Of those, it addresses the effects on spending for people who, because of the tax increase, would either stop or never start smoking:

- For smokers who would stop, projected spending transitions from currentlaw spending to spending for people who've never smoked
- For people who never smoke because of the policy, projected spending is the same as spending under current law for people who've never smoked

Longevity and earnings are projected in a similar way

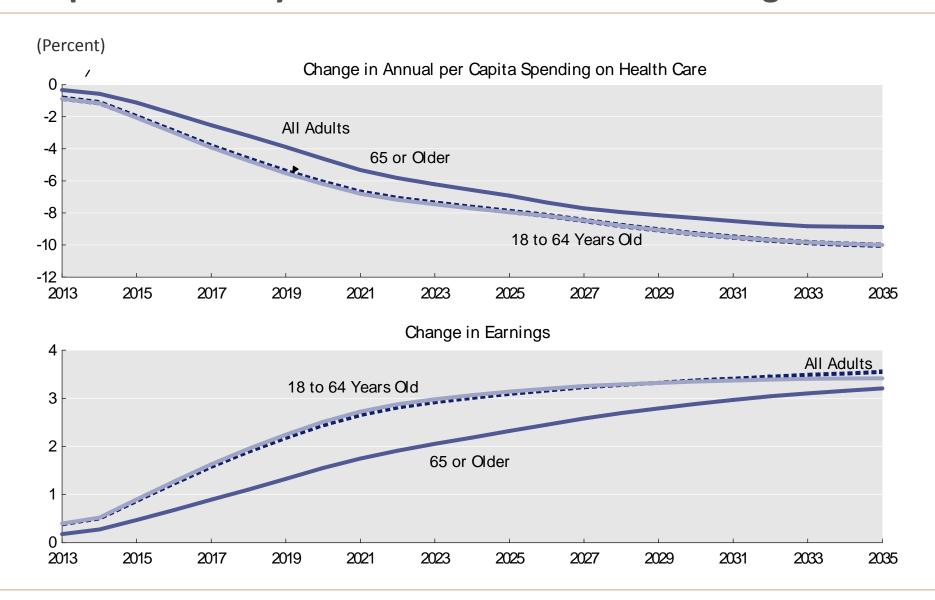
Rate at Which Former Smokers' Longevity and Health Care Spending Approach Those of People Who Have Never Smoked



Population Increase Resulting from the Illustrative Increase in the Cigarette Tax

(Number of additional people) 70,000 60,000 All Adults 50,000 40,000 65 or Older 30,000 20,000 18 to 64 Years Old 10,000 2013 2015 2017 2019 2021 2023 2025 2027 2029 2031 2033 2035

Average Changes in Health Care Spending and Earnings for People Affected by the Illustrative Increase in the Cigarette Tax

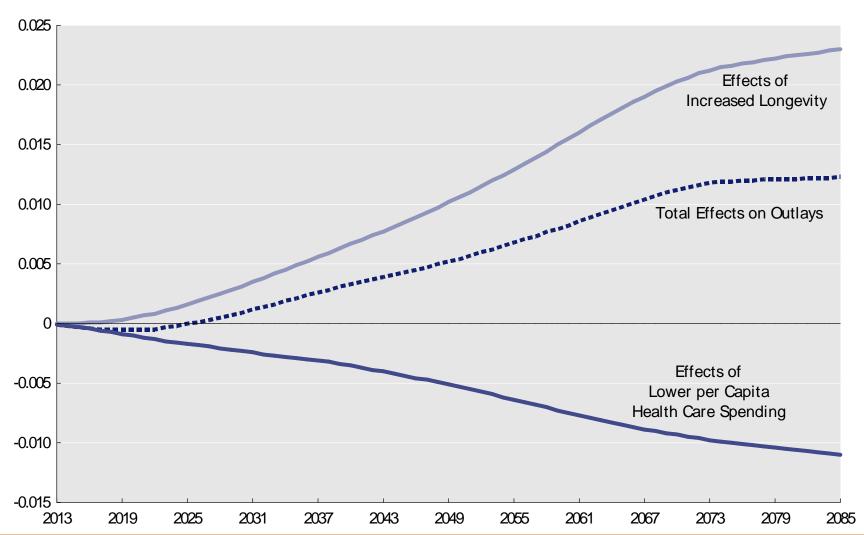


Effects of the Policy on the Budget

- Outlays are reduced because of better health.
- Outlays are increased because of greater longevity.
- Revenues are increased because of better health.
- Revenues are increased because of additional excise tax collections.

Effects on Outlays of the Illustrative Increase in the Cigarette Tax

(Percentage of gross domestic product)



Effects on Outlays of the Illustrative Increase in the Cigarette Tax, by Program

(Percentage of gross domestic product) 0.0025 Total 0.0020 0.0015 Social Security 0.0010 Medicare 0.0005 Other Medicaid and Subsidies -0.0005Through Health Insurance Exchanges -0.0010 2015 2017 2019 2021 2023 2025 2027 2029 2031 2033 2035 2013

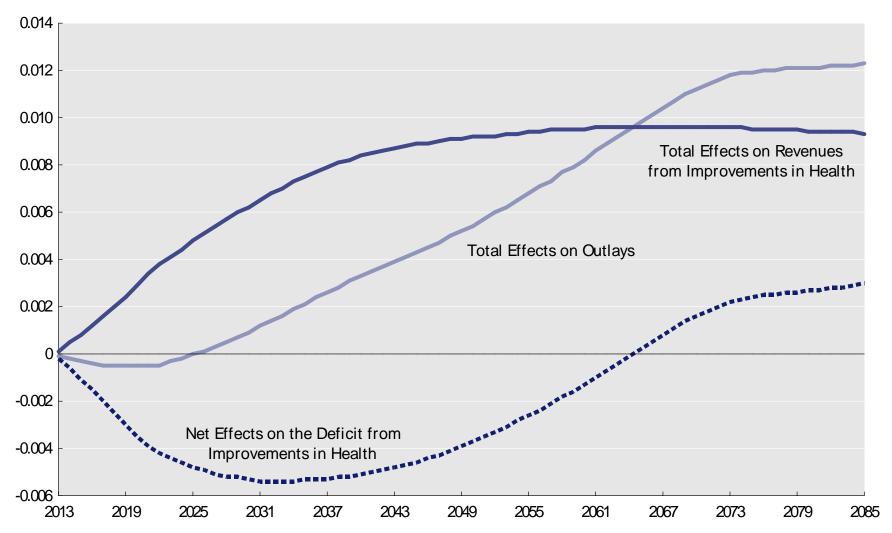
Health-Related Effects on Revenues of the Illustrative Increase in the Cigarette Tax

(Percentage of gross domestic product) 0.012 Total Effects on Revenues from Improvements in Health 0.010 0.008 Effects of Changes in Labor Earnings per Capita 0.006 Effects of Increased Longevity 0.004 0.002 Effects of Lower Health Insurance Premiums and Related Factors -0.002 2019 2025 2031 2037 2043 2055 2013 2049 2061 2067 2073 2079 2085



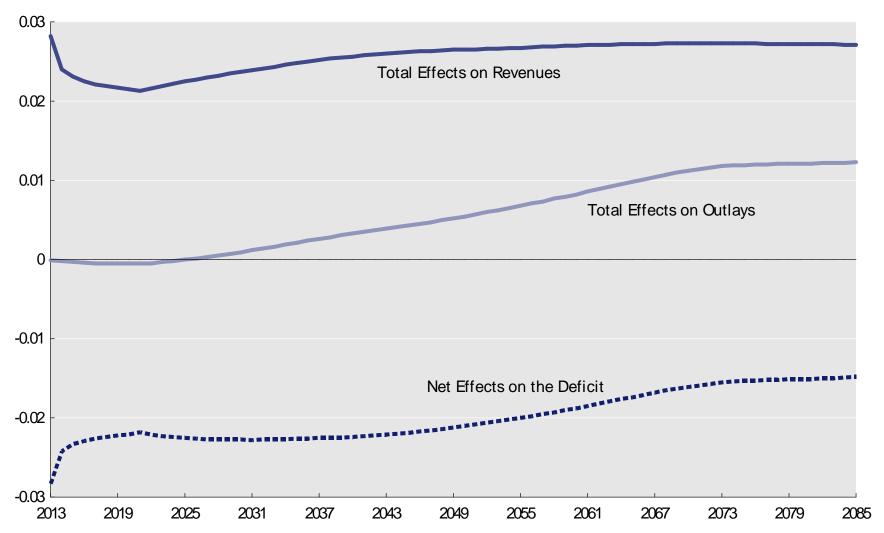
Health-Related Effects on Revenues, Outlays, and the Deficit of the Illustrative Increase in the Cigarette Tax

(Percentage of gross domestic product)



Total Budgetary Effects of the Illustrative Increase in the Cigarette Tax

(Percentage of gross domestic product)



Conclusions

- Changes in federal spending from improved health would be quite small relative to the size of the programs affected.
- Federal spending would be reduced throughout the first decade but would increase in the second or third decade.
- Improved health would cause increases in revenues on an ongoing basis.

Conclusions (Continued)

- The health effects as a whole would produce very small net declines in the deficit for roughly five decades; the declines would peak about 20 years into the policy.
- The increased excise tax receipts from the policy would exceed the policy's health-related effects on both revenues and outlays for at least 75 years, with an overall result of a net decrease in the deficit.