Tobacco-related Costs to Utah:

Average Annual Smoking-Attributable Medical Expenditures (SAEs)*, Utah 2004

	SAEs* ($)
Ambulatory	$54,000,000
Hospital	$200,000,000
Nursing Home	$19,000,000
Prescription Drugs	$59,000,000
Other	$37,000,000
Total	**$369,000,000**

Note: *Excess personal health care expenditures attributed to diseases where cigarette smoking is a primary risk factor among adults aged 18 years and older. For more details see Note below

Source: National Center for Chronic Disease Prevention and Health Promotion. (2008). *2008 Tobacco Control Highlights Utah.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved February 8, 2010 from http://www.cdc.gov/tobacco/data_statistics/state_data/index.htm

Average Annual Smoking-Attributable Productivity Losses*, Utah 2000-2004

	Productivity Losses ($)
Men	$210,985,000
Women	$82,610,000
Total	**$293,595,000**

Note: *Average annual total, among adults aged 35 years and older, and do not include burn or secondhand smoke deaths.

Source: National Center for Chronic Disease Prevention and Health Promotion. (2008). *2008 Tobacco Control Highlights Utah.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved February 8, 2010 from http://www.cdc.gov/tobacco/data_statistics/state_data/index.htm

Combined Annual Smoking-Attributable Medical Expenditures and Productivity Losses in Utah: $663 million

Direct Medicaid Costs Attributable to Smoking, Utah 2004

Annual Medicaid Costs Attributable to Smoking	$104,000,000

Source: National Center for Chronic Disease Prevention and Health Promotion. (2006). *Data Highlights 2006.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved February 8, 2010 from http://www.cdc.gov/tobacco/data_statistics/state_data/index.htm

Other Preventable Outcomes of Smoking and Tobacco Use That Contribute to Tobacco's Health and Economic Burden for Utahns:

Youth –

- Tobacco use in adolescence is associated with a range of health-compromising behaviors, including being involved in fights, carrying weapons, engaging in higher-risk sexual behavior, and using alcohol and other drugs.[1]
- Smokers are likely to be less committed to their education, less competent in learning, and less successful academically than their nonsmoking peers.[1]

Pregnant Women / Unborn Babies –

- Smoking during pregnancy is linked to pre-term delivery, low birth weight, other obstetric complications, infant respiratory diseases, other infant illnesses, and infant death.[2]
- Cost of tobacco cessation intervention per pregnant woman: $24-$34.[3]
- Costs saved per woman who quits during pregnancy: $881.[4]
- Medicaid savings per low income pregnant woman who quits smoking during pregnancy: $1,274.[4]

Adults –

- Smoking causes bladder, esophageal, laryngeal, lung, oral, and throat cancers; cervical, kidney, pancreatic, and stomach cancers; aortic aneurysm; acute myeloid leukemia; cataracts; pneumonia; periodontitis; chronic lung disease; and coronary heart and cardiovascular disease. [3]

- Higher healthcare costs for smokers vs nonsmokers (lifetime average): $17,973[4]
- Average number of years of life lost due to smoking for adult male and female smokers: 13.2 and 14.5 years of life respectively[5]
- Average number of Utahns who die from smoking each year: 1,156[6]
- Combined medical and productivity cost per pack of cigarettes, Utah 2004: $7.70[7]

Secondhand Smoke –

- Children exposed to secondhand smoke are at increased risk for sudden infant death syndrome, acute respiratory infections, ear problems, and more severe asthma.[8]
- Average number of Utah adult nonsmokers who die due to secondhand smoke exposure each year: 230.[9]

Effects of Cigarette Tax Increases:

- Every 10 percent increase in the real price of cigarettes reduces overall cigarette consumption by approximately three to five percent, reduces the number of young-adult smokers by 3.5 percent, and reduces the number of kids who smoke by six or seven percent.[10]

Tobacco-related Costs vs. Revenue:

- In 2009, Utah collected $60 million in tax revenue annually for smoking and smokeless tobacco (three million allocated to tobacco prevention and control).[11]
- In 2009, Utah collected $45 million in Master Settlement Agreement restitutions funds (four million allocated to tobacco prevention and control).[12]
  Sub-total: $105 million
- The fiscal note on Sen. Christensen's 2010 tobacco excise tax bill (SB 40) predicts revenue up to $53 million[13]; Rep. Ray's (HB 196) up to $23 million.[14]

Total revenue to address tobacco-related costs with a proposed 2010 tax increase (at most, using Sen. Christensen's fiscal note): $158 million

- At $158 million (combined total current tax + annual MSA payments + proposed tax increase), Utah is only re-cooping 24% of the $663 million in healthcare cost and productivity losses that are attributable to smoking. The Medicaid program alone spends $104 million annually to cover treatment for tobacco-related health problems.

Combined Annual Smoking-Attributable Medical Expenditures and Productivity Losses: $663 million

Note: Smoking-attributable health care expenditures (SAEs) are the excess personal health care costs of smokers and former smokers compared with those of never smokers.

The Adult SAMMEC application includes pre-calculated national and state-level expenditure data for adults aged 18 years and older. The pre-calculated estimates include:

Annual total expenditures for 1998 and 2004

Annual smoking-attributable fractions (SAFs) of expenditures

Annual smoking-attributable expenditures (SAEs) for 1998 and 2004

Total personal health care expenditures were obtained from the state health care expenditure files provided by the Centers for Medicare and Medicaid Services (CMS), and are available at http://www.cms.hhs.gov/NationalHealthExpendData/. Adult SAMMEC provides estimates for each of five expenditure categories: ambulatory care, hospital care, prescription drugs, nursing home care, and other care (including home health, nonprescription drugs, and nondurable medical products). Expenditures for dental care and vision care products are excluded from the totals.

The expenditure smoking-attributable fractions (SAFs) denote the proportion of annual personal health care expenditures that could be avoided if smoking were eliminated from the population. Adult SAMMEC uses expenditure SAFs from Miller et al. (1999) for each of the five expenditure categories.

Miller et al. calculated expenditure SAFs of expenditures for ambulatory care, hospital care, prescription drug, and other care (including home health care, vision care, and durable and nondurable medical equipment) by using models that alternatively included and excluded the influence of smoking history on expenditures. Expenditures were estimated by using a two-step econometric model specified by Duan et al. (1983) to account for the large proportion of individuals who have no medical expenditures in any given year. First, the probability of a person having positive expenditures for each category was estimated on

the basis of that person's smoking history, demographic characteristics, other risk behaviors, and other variables. Second, given that expenditures were positive, the levels of expenditures for each category were estimated.

Two sets of estimates were used to calculate the SAF for each expenditure category. The first set of estimates were for all individuals, including smokers. The second set of estimates were calculated after setting the smoking history variables to zero and holding all other factors constant. This generated expenditure estimates as if smoking were eliminated from the study population. SAFs were derived by dividing the difference in the expenditure estimates by the estimates that included smoking history.

Models for each expenditure category were applied to data from the 1987 National Medical Expenditure Survey (NMES). The national expenditure estimates were translated to state-specific estimates using 1992–1993 survey data from the TUS of the Current Population Survey (CPS), 1993 income and insurance data from the March CPS, and 1993 BRFSS data (1994 for Wyoming).

Miller et al. (1999) estimated nursing home expenditure SAFs using the nursing home component of the NMES. Smoking-attributable expenditures were derived from a preliminary model that estimated the probability of people being admitted to a nursing home, given their smoking history. Because of data limitations, multiple admissions and length of stay were not considered.

---

[1] U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Young People: A Report of the Surgeon General.* 1994. U.S. Department of Health and Human Services.
[2] U.S. Department of Health and Human Services. (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*. Washington, DC: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health.
[3] Fiore, M.C., Jaén C.R., Baker T.B., et al. 25 (2008). *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline.* Rockville, MD: U.S. Department of Health and Human Services. Public Health Service.
[4] Campaign for Tobacco-Free Kids. (2008). *Lifetime Health Costs of Smokers vs. Former Smokers vs. Nonsmokers* Retrieved February 8, 2010 from http://www.tobaccofreekids.org/research/factsheets/pdf/0277.pdf.
[5] MMWR. *Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs --- United States, 1995—1999.* April 12, 2002 / 51(14);300-3
[6] National Center for Chronic Disease Prevention and Health Promotion. (2008). *2008 Tobacco Control Highlights Utah.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved February 8, 2010 from http://www.cdc.gov/tobacco/data_statistics/state_data/index.htm.
[7] National Center for Chronic Disease Prevention and Health Promotion. (2006). *Data Highlights2006.* Atlanta, GA: U.S. Department of Health and Human Services. Retrieved February 8, 2010 from http://www.cdc.gov/tobacco/data_statistics/state_data/index.htm.
[8] U.S. Department of Health and Human 18 Services. (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke. A Report of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health.
[9] Campaign for Tobacco-Free Kids. (2010). *The Toll of Tobacco in Utah.* Retrieved February 8, 2010 from http://www.tobaccofreekids.org/reports/settlements/toll.php?StateID=UT.
[10] Campaign for Tobacco-Free Kids. (2009). *Raising Cigarette Taxes Reduces Smoking, Especially Among Kids.* Retrieved February 8, 2010 from http://www.tobaccofreekids.org/research/factsheets/pdf/0146.pdf.
[11] Utah State Tax Commission. Tax Collections Report.
[12] Campaign for Tobacco-Free Kids. (2009). *Actual Tobacco Settlement Payments Received by the States.* Retrieved February 8, 2010 from http://www.tobaccofreekids.org/research/factsheets/pdf/0218.pdf.
[13] Utah Office of the Legislative Fiscal Analyst. (2010). *SB0040 - Cigarette and Tobacco Tax Amendments.* Retrieved February 8, 2010 from http://le.utah.gov/lfa/fnotes/2010/sb0040.fn.htm.
[14] Utah Office of the Legislative Fiscal Analyst. (2010). *HB0196 - Tobacco Tax Revisions.* Retrieved February 8, 2010 from http://le.utah.gov/lfa/fnotes/2010/hb0196.fn.htm.