

# BENEFITS OF A SMOKE-FREE WORKPLACE



## Costs to Employers

Despite peer-reviewed reports and a high level of public knowledge of the adverse effects of smoking, tobacco use remains the leading preventable cause of disease, disability, and death in the United States. Each year, an estimated 443,000 people die prematurely from smoking or exposure to secondhand smoke, with an additional 8.6 million smoking-related illnesses. In 2009, 26% of Kentucky adults reported being current smokers compared to the U.S. national average of 18%. Among adults ages 35+, over 7,800 died as a result of tobacco use per year, on average, during 2000-2004. This represents a smoking-attributable mortality rate of 370.6 per 100,000.

The average annual healthcare cost associated with tobacco use in Kentucky is over \$2 billion. To effectively address adult smoking, the Kentucky Tobacco Program has adopted an aggressive action plan to work with employers to lower adult smoking rates and the associated economic burden of tobacco use. Employee wellness programs are proven to reduce chronic disease risks from smoking, as well as promote healthy habits. As highlighted below, employee tobacco use results in significant direct and indirect costs to employers:

Financial Costs when Employees Smoke	
Absenteeism	On average, smokers miss 60% more days of work per year due to sickness (including smoking-related chronic conditions), compared to non-smokers.
Workers' Compensation payments	Businesses pay an average of \$2,189 in workers' compensation costs for smokers, compared with \$176 for nonsmokers.
Smoke Breaks	Employees who take four 10-minute breaks per day to smoke actually work one month less per year than workers who don't take smoke breaks.
Health Insurance Costs and Claims	The American Cancer Society estimates that employees who smoke have an average insured payment for health care of \$1,145, compared to an average of \$762 among nonsmokers.
Maintenance costs	The Organization for Economic Cooperation and Development estimates that maintenance costs are 7% higher in buildings that allow smoking.
Accidents and Fires	The National Fire Protection Association found that, in 1998, smoking materials caused 8,700 fires in non-residential structures, resulting in a direct property damage of \$60.5 million.

Employers with smoke-free policies experience:

- ✓ **Decreased** absenteeism among non-smoking employees.
- ✓ **Decreased** housekeeping and maintenance costs.
- ✓ **Decreased** insurance costs and smoking-related fires.

There is a heavy price tag associated with tobacco use, resulting in costs of \$770 per non-smoking adult, nearly \$3,400 per tobacco user, and over \$157 billion in total economic losses annually.

In 2009, 26% of Kentucky adults were smokers. If the rate of tobacco use among your employees is the same as the average rate, these are the attributable costs:

Total Employees	Total Smokers (26%)	Total Annual Costs (x \$3,400)
100	26	\$ 88,400
500	130	\$ 442,000
1,000	260	\$ 884,000
5,000	1300	\$ 4,420,000

How much does tobacco cost employers?

Based on the Centers for Disease Control and Prevention's (CDC) estimate that each smoker costs employers \$3,400 annually, the following formula provides insight into determining the smoking attributable costs in your business.

Step 1: To calculate the percentage of employees who smoke, either multiply the percentage of adult Kentuckians who smoke (26%) or multiply the total number of employees times the estimated percentage of employees who smoke. The resulting number provides an estimate of the total number of smokers in your workplace.

Step 2: Multiply the total number of smokers times the CDC estimate of the cost (\$3,400) per smoker:

What does smoking cost your company?

$$\begin{aligned}
 & \text{_____ Total number of employees} \\
 \times & \text{_____ Estimated \% of employees who smoke (26\%)} \\
 = & \text{_____ Total number of smokers} \\
 \times & \text{_____ \$3,400 cost per smoker} \\
 = & \text{_____ Employers estimated cost of smoking per year}
 \end{aligned}$$

## Cost to Employees

An extensive body of epidemiologic data has consistently linked tobacco usage to a variety of adverse health outcomes. Smokers have been found to incur an increased relative risk of morbidity and mortality from coronary heart disease, stroke, lung cancer, chronic obstructive pulmonary disease (COPD), and a wide variety of neoplastic diseases. There is also strong evidence that smoking is related to infertility,

low birth weight, stillbirth, preterm delivery, and sudden infant death syndrome (SIDS).

Unfortunately, the harmful effects of smoking do not end with the smoker. Even brief exposure to secondhand smoke can be dangerous, as nonsmokers inhale many of the carcinogens and toxins in cigarette smoke.

### The Health Risks Associated With Tobacco Use

Mouth, Lip, Throat, Larynx	increased risk of cancer, inflammation, laryngitis
Respiratory System	bronchitis, emphysema (Chronic Obstructive Pulmonary Disease - COPD), lung cancer
Circulatory System	heart disease, heart attack, high blood pressure, coronary artery disease (poor circulation in the legs causing ulcers, pain, and sometimes the need for amputation)
Bones	brittle bones (osteoporosis)
Immune System	depressed immune response, increased infections
Brain	increased risk of brain hemorrhage (stroke), women using the contraceptive pill have an even greater risk of stroke
Stomach and Intestines	lining becomes tender leading to bleeding, ulcers, and may lead to cancer
Pancreas, Kidney and Bladder	increased risk of cancer
Reproductive System (Male and Female)	decreased sperm count, lower sex drive, egg damage, irregular menstrual cycle and altered hormone levels, cancer of the cervix, penis and anus, early onset of menopause, increased risk of breast cancer
Pregnancy and Babies	lower than average birth weight, high risk of Sudden Infant Death Syndrome (SIDS), increased risk of premature birth, higher increased risk of miscarriage and still births, increased risk of impairment in mental and physical development, nicotine carried to baby in breast milk
Oral health	oral cancer, tooth loss, bone loss, gum recession, mouth sores, oral fungal infection

According to the International Agency for Research on Cancer:

- Nonsmokers exposed to secondhand smoke in the workplace have a 16-19% increased risk of lung cancer
- Nonsmokers exposed to secondhand smoke from their spouses have an increased risk of lung cancer that is 30% for men and 20% for women
- Involuntary smoking increases the risk of an acute coronary heart disease event by 25-35%

Each year secondhand smoke causes:

- 3,000 deaths from lung cancer of otherwise healthy nonsmokers
- Up to 62,000 deaths from cardiovascular disease of otherwise healthy nonsmokers
- Up to 300,000 lower respiratory tract infections (such as pneumonia and bronchitis) in U.S. infants and children younger than 18 months of age
- An increase in the number of asthma attacks and the severity of asthma in up to one million asthmatic children

The U.S. Environmental Protection Agency classifies secondhand smoke as a “Group A” carcinogen along with asbestos, benzene, arsenic and radon. There is no safe exposure level for Group A carcinogens. Secondhand smoke kills more people than all other Group A carcinogens combined.

Chemicals in Cigarettes	Common Use
Carbon Monoxide	Gas in car exhausts
Copper	Electric wiring
Tar	Road Surfaces
Nicotine	Pesticide
Acetone	Paint stripper
Ammonia	Cleaning agent
Arsenic	Rat poison
Benzene	Gasoline fumes
Butane	Lighter fluid
Hydrogen cyanide	Poison in gas chamber
Methanol	Rocket fuel
Methane	Swamp gas
Toluene	Industrial solvent
DDT	Banned insecticide
Radon	Radioactive gas
Polonium	Radioactive fallout

Resources:

Centers for Disease Control and Prevention. (2010). Smoking and tobacco use. Retrieved: November 9, 2010. Available at: <http://www.cdc.gov/tobacco/>

International Agency for Research on Cancer. (2002). Tobacco smoke and involuntary smoking summary of data reported and evaluation, 83.

National Cancer Institute. (1999). Health effects of exposure to environmental tobacco smoke: the report of the California Environmental Protection Agency. Retrieved: November 9, 2010. Available at: [http://cancercontrol.cancer.gov/tcrb/monographs/10/m10\\_complete.pdf](http://cancercontrol.cancer.gov/tcrb/monographs/10/m10_complete.pdf)

Service, R., Lippman, H. et al