
Gary A. Giovino, PhD, MS
School of Public Health and Health Professions
University at Buffalo, SUNY

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“Cigarette smoking is a health hazard of sufficient importance to warrant remedial action”
- 1964 Report of the Advisory Committee to the U.S. Surgeon General
“We have won the war on smoking. The rest is mopping up.”

1978 Statement of Dr. Daniel Horn
(outgoing Director of the National Clearinghouse on Smoking and Health)
to John Pinney
(incoming Director of the Office on Smoking and Health)
# Smoking and Tobacco Smoke

Pollution Damage Every Part of the Body

## Smoking

<table>
<thead>
<tr>
<th>CANCERS</th>
<th>CHRONIC DISEASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larynx</td>
<td>Stroke</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>Blindness, Cataracts</td>
</tr>
<tr>
<td>Oesophagus</td>
<td>Periodontitis</td>
</tr>
<tr>
<td>Trachea, bronchus or lung</td>
<td>Aortic aneurysm</td>
</tr>
<tr>
<td>Acute myeloid leukemia</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>Stomach</td>
<td>Pneumonia</td>
</tr>
<tr>
<td>Pancreas</td>
<td>Atherosclerotic peripheral vascular disease</td>
</tr>
<tr>
<td>Kidney and Ureter</td>
<td>Chronic obstructive pulmonary disease (COPD), asthma, and other respiratory effects</td>
</tr>
<tr>
<td>Colon*</td>
<td>Hip fractures</td>
</tr>
<tr>
<td>Cervix</td>
<td>Reproductive effects in women (including reduced fertility)</td>
</tr>
<tr>
<td>Bladder</td>
<td></td>
</tr>
</tbody>
</table>

## Tobacco Smoke Pollution

<table>
<thead>
<tr>
<th>CHILDREN</th>
<th>ADULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain tumours*</td>
<td>Stroke*</td>
</tr>
<tr>
<td>Middle ear disease</td>
<td>Nasal irritation, Nasal sinus cancer*</td>
</tr>
<tr>
<td>Lymphoma*</td>
<td>Breast cancer*</td>
</tr>
<tr>
<td>Respiratory symptoms, Impaired lung function</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>Asthma*</td>
<td>Lung cancer</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome (SIDS)</td>
<td>Atherosclerosis*</td>
</tr>
<tr>
<td>Leukemia*</td>
<td>Chronic obstructive pulmonary disease (COPD)<em>, Chronic respiratory symptoms</em>, Asthma*, Impaired lung function*</td>
</tr>
<tr>
<td>Lower respiratory illness</td>
<td>Reproductive effects in women: Low birth weight; Pre-term delivery*</td>
</tr>
</tbody>
</table>

* Evidence of causation: suggestive
Evidence of causation: sufficient

Source: Adapted from reference 9.
Adult Per Capita Cigarette Consumption and Major Smoking and Health Events – United States, 1900-2005

Source: United States Department of Agriculture; Centers for Disease Control and Prevention
Trends in Per Capita Consumption of Various Tobacco Products – United States, 1880-2004
Trends in Cigarette Smoking Anytime in the Past 30 Days by Grade in School – United States, 1975-2008

Source: Institute for Social Research, University of Michigan, Monitoring the Future Surveys (25)

*See note 19.


*Before 1992, current smokers were defined as persons who reported having smoked ≥100 cigarettes and who currently smoked. Since 1992, current smokers were defined as persons who reported having smoked ≥100 cigarettes during their lifetime and who reported now smoking every day or some days. 

Source: various National Health Interview Surveys from 1970 - 2006, National Center for Health Statistics


Source: various National Health Interview Surveys from 1983 - 2007 (5,20).
Epidemiologic Model of Nicotine Addiction and Tobacco Control

**AGENT**
Tobacco Products

**ENVIRONMENT**
Familial, Social, Cultural, Political, Economic, Historical, Media

**VECTOR**
Tobacco Product Manufacturers; Other Users

**HOST**
Smoker/Chewer
Incidental Host
Involuntary Smoker

Source: Orleans & Slade, 1993; Giovino 2002
Cigarette Smoking Prevalence and Policies in the 50 States: An Era of Change

Prepared by the Departments of Health Behavior at the University at Buffalo School of Public Health and Health Professions and the Roswell Park Cancer Institute
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Co-authors:
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- Anne Hartman
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**ARIZONA**

**Trends in Cigarette Smoking Among Adults**

- Percent Current Smokers
  - Arizona: 20.1%
  - USA: 17.7%

**Percent of Adult Ever Smokers Who’ve Quit**

- Arizona: 20.8%
- USA: 18.6%

**Cigarette Use Among Adolescents and Young Adults**

- Arizona: 11.3%
- USA: 10.6%
- Arizona 19-21 yrs: 14.2%
- USA 19-21 yrs: 11.4%

**Smoke-Free Homes and Work Places in Arizona**

- 2007: 41.7%
- 2008: 40.0%

**Tax as Percentage of Retail Price, 1970 - 2007**

- 1970: 4.0%
- 2007: 71.3%

**Total Cigarette Sales and Real Cigarette Prices**, Arizona, 1970 - 2007

- Real Cigarette Price: 1970: $0.26, 2007: $1.02

**Real Average State Cigarette Excise Tax Rate** and Real State Cigarette Tax Revenues, **Arizona**, 1970 - 2007

- Tax Rate: 1970: $0.01, 2007: $0.75
- Tax Revenue: 1970: $100,000, 2007: $1.00 billion

**Legislation**

**Protection From Tobacco Smoke Pollution in AZ**

- 1991: Private Workplace - Yes, Restaurants - Yes, Bars - Yes
- 2008: Private Workplace - Yes, Restaurants - Yes, Bars - Yes

**Minors' Access Laws in Arizona**

- Private Premises: 2008 - Yes, 1991 - Yes
- Use: 2008 - Yes, 1991 - Yes
- Purchase: 2008 - Yes, 1991 - Yes
- Prevention for Minors: 2008 - Yes, 1991 - Yes
- Prevention for Seniors: 2008 - Yes, 1991 - Yes
- Statewide Enforcement: 2008 - Yes, 1991 - Yes
- Random Inspection: 2008 - Yes, 1991 - Yes
- Clean Label: 2008 - Yes, 1991 - Yes

**Health and Economic Costs**

**The Annual Costs of Cigarette Smoking in Arizona**

- 2004: Smoking-Attributable Mortality & Morbidity: $475 million
- 2005: Years of Potential Life Lost: 14,376
- 2000: Person Living with a Smoking-Attributable Disease: 145,000
- 2004: Smoking-Attributable Economic Costs: $1 billion
- 2000: Adult Health Care Costs: $215 million
- 2004: Productivity Costs: $1.5 billion

**Arizona Tobacco Revenues** and **Tobacco Control Investment** in 2002 and 2007

- Tobacco Settlement Revenue: 2002 - $1.2 billion, 2007 - $1.2 billion
- Cigarette Excise Tax Revenue: 2002 - $950 million, 2007 - $1.5 billion
- Total Tobacco Control Funding: 2002 - $52 million, 2007 - $157 million
- State Settlement & Tax Funding as a Percent of Settlement & Tax Revenue in 2002: 13.8%, 2007: 15.3%

**Racial/ethnic Disparities in Tobacco-Related Mortality and Morbidity**

- African American: 134.2 deaths per 100,000
- American Indian: 163.4 deaths per 100,000
- Other: 101.6 deaths per 100,000

For more information, visit our website at [http://www.impactteen.org/tobaccocontent.htm](http://www.impactteen.org/tobaccocontent.htm)
Accessing the Chart Book:

• One copy for every 2009 NCTOH attendee
• For a pdf of the chart book: http://www.impacteen.org/chartbooks.htm
• For the data in the chart book: http://www.impacteen.org/tobaccodata.htm
• For additional copies of the chart book, e-mail Leah Rimkus at the University of Illinois at Chicago: lrimkus@uic.edu
Prevalence
(and Smoking-Attributable Mortality)
Trends in Cigarette Smoking Among Persons ≥18 Years Old – US, UT, and KY (1992/93 to 2006/07)

Source: Tobacco Use Supplements to the Current Population Survey

- **Kentucky**: 38.5% in 1992/93, 36.2% in 2006/07
- **United States**: 26.4% in 1992/93, 21.8% in 2006/07
- **California**: 20.0% in 1992/93, 14.4% in 2006/07

See note 86.

**Source:** Tobacco Use Supplements to the Current Population Survey.
Trends in Cigarette Smoking Among Persons ≥30 Yrs Old – US, UT, and KY (1992/93 to 2006/07)

See note 86.

**Source:** Tobacco Use Supplements to the Current Population Survey.
Current Cigarette Smoking (%) Among Adults – 2006/07

Note: Estimates represent the percentage of persons ≥ 18 years old who have ever smoked ≥ 100 lifetime cigarettes and currently smoke either daily or occasionally.
1. Among persons age 35 years and older; **Source:** Tobacco Use Supplement to the Current Population Survey, 2001-2002; 2. Average annual deaths among persons aged 35 yrs and older during 2000-2004l not including burn and tobacco smoke pollution deaths.
Average Annual Smoking-Attributable Mortality Rates – 2000-2004

Source: Centers for Disease Control and Prevention (97).
Note: Average Annual Age-Adjusted SAM Rate Per 100,000 among adults aged 35 years and older.
Trends in Age-Standardized Lung Cancer Death Rate for the US and Selected States by Sex, 1975-2005

Source: Reference 75. Reprinted with author’s permission. Solid lines represent fitted values based on joinpoint analyses. Squares represent observed rates. Data are from the National Center for Health Statistics, 2005 Mortality Special Research File.

Legend
Percentage of adolescents 12-17 years old who smoke cigarettes
- 7.11 – 10.1
- 10.2 – 11.0
- 11.1 – 12.4
- 12.5 – 15.7

Note: Estimates represent the percentage of persons 12-17 years old who have smoked all or part of a cigarette during the preceding 30 days.
Current Cigarette Smoking (%) Among Young Adults – 2005/2006

Legend
Percentage of young adults 18-25 years old who smoke cigarettes
- 27.7 – 37.0
- 37.1 – 40.6
- 40.7 – 43.0
- 43.1 – 49.5

Note: Estimates represent the percentage of persons 18-25 years old who have smoked all or part of a cigarette during the preceding 30 days.

Source: Tobacco Use Supplement to the Current Population Survey

Legend
Percentage of 18+ year olds who have ever smoked ≥ 100 lifetime cigarettes and who reported they no longer smoke

Note: Estimates represent the percentage of persons ≥ 18 years old who have ever smoked ≥ 100 lifetime cigarettes who reported they no longer smoke.
Programs and Policies
Economics
State Cigarette Excise Tax Rates (in cents) – as of June 30, 2009

Source: Reference 48

Source: Reference 165, and authors’ calculations.

Source: Reference 165, and authors’ calculations.
Median Household Income and Cigarette Excise Tax Rate, by State – United States, 2006/07

Source: US Census Bureau and Campaign for Tobacco-Free Kids.
Economic Argument is Flawed

- Annual number of tobacco-caused jobs < annual number of tobacco-attributable deaths
- 14 years of life lost for every year of tobacco employment
- Tobacco-caused jobs are replaceable – tobacco-caused deaths are not
- Decreasing tobacco sales stimulates job creation in the United States
Smoke-free Air
Major Smoke-free Air Legislation in the 50 States and the District of Columbia – 1991-2008

Source: The MayaTech Corporation.
Notes: data are for effective laws through 9/30/2008.
States Providing Strong Protection from Tobacco Smoke Pollution in Private Worksites, Restaurants and/or Bars – as of April 30, 2009

Legend:
- No ban
- Priv. Worksite ban
- Restaurant ban
- Priv. Worksite & Restaurant ban
- Restaurants & Bars ban
- Priv. Worksites, Restaurants & Bars ban

Source: The MapaTech Corporation.
States that Preempt Local Jurisdictions from Passing Stronger Smoke-free Air Laws – as of September 30, 2008

Legend
- State law preempts local smoke-free air laws
- No preemption of local smoke-free air laws

Source: The MayaTech Corporation.
Preemption prevents local jurisdictions from providing stronger protection to residents and visitors in various locations.
Median Household Income and Smoke-free Air Index, by State – United States, 2006/07

Source: US Census Bureau and Campaign for Tobacco-Free Kids.
Percentage of Indoor Workers Who Work in a Smoke-free Work Place – 2006/07

Legend
Percentage of employed adults who work in a smoke-free work place

Note: Estimates represent the percentage of persons ≥18 years old who mainly work indoors and report that smoking is not allowed in any indoor areas.
Trends in the Percentage of Smokers Living in a Smoke-free Home – US, UT, and WV (1992/93 to 2006/07)

See note 86.

Trends in the Percentage of Nonsmokers Living in a Smoke-free Home – US, UT, and KY (1992/93 to 2006/07)

- **Utah**
  - 1992/93: 80.8%
  - 2006/07: 95.9%

- **United States**
  - 1992/93: 53.5%
  - 2006/07: 87.6%

- **Kentucky**
  - 1992/93: 34.4%
  - 2006/07: 74.8%

See note 86.

**Source:** Tobacco Use Supplements to the Current Population Survey.
Percentage of Adults Living in a Smoke-free Home – 2006/07

Legend
Percentage of adults living in a smoke-free home
- 60.8 - 73.2
- 73.3 - 78.0
- 76.1 - 82.0
- 82.1 - 92.2

Note: Estimates represent the percentage of persons ≥ 18 years old who live in a home where smoking is not allowed.
Tobacco Control Programming
Per Capita Funding for State Tobacco Control Programs

Source: See pages 217 and 218.
Tobacco Control Funding from Settlement and Cigarette Excise Tax as a Percentage of Settlement and Tax Revenues – 2007

Legend
State (Tax+Settlement) Funding as a % of State Cigarette Revenues

- 0 - 0.9
- 1.0 - 2.9
- 3.0 - 5.0
- 5.1 - 14.5

Source: References 2, 85, 165; Table 12.
State Tobacco Control Funding (in millions of dollars) – United States, 1986-2005

Sources: Project ImpacTEEN, CDC/OSH, RTI, CFTFK, UIC, UB; data are in July 2007 dollars.
Tobacco Industry Marketing vs. Tobacco Control Spending (in millions of dollars) – United States, 1986-2005

Source: FTC 2005 and Project ImpactTEEN; data are in July 2007 dollars.
Cessation
Trends in the Percentage of Smokers Who Received Advice to Quit From a Physician During the Previous Year – US, MA, and UT (1992/93-2006/07)

See note 86.

**Source:** Tobacco Use Supplements to the Current Population Survey.
Trends in the Percentage of Smokers Who Received Advice to Quit From a Dentist During the Previous Year – US, OR, and ND (1992/93-2006/07)


See note 86.
Provision of Tobacco Dependence Treatment Services to Medicaid Recipients – 2006

Legend
Treatment Provided
- None
- Counseling only
- Medications only (NRT, Varenicline, or Bupropion HCl)
- Medications & Counseling

*Coverage for pregnant women only. C* = Counseling for pregnant women only.
Source: Reference 40.
Establishment of Quitline Services in the 50 States and DC: 1991-2006

Source: North American Quitline Consortium.
States Offering Free/Discounted Cessation Medication to Eligible Smokers – as of September 30, 2008

Source: North America Quitline Consortium and University at Buffalo School of Public Health and Health Professions.
“Hard-Core” Analyses
Where Prevalence Levels Off is a Function Of:

• % of population that is hard-core
• Industry fighting for its economic survival
• Governments’ willingness to support tobacco control programs and policies and potentially lose revenues from taxes
Data represent past 30-day smoking among high school seniors, from the Monitoring the Future Surveys, Institute for Social Research, University of Michigan.
Fagerström Test for Nicotine Dependence Score and Cigarette Smoking Prevalence – by Country

Percentage of Cigarette Smokers Who Smoke Within 30 Minutes of Waking and Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Source: Tobacco Use Supplement to the Current Population Survey, 2006/07

Note: Estimates represent the percentage of current cigarette smokers ≥ 25 years old who smoke within 30 minutes of waking.
Mean Number of Cigarettes Smoked/Day Among Current Smokers and Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Source: Tobacco Use Supplement to the Current Population Survey, 2006/07
Percentage of Cigarette Smokers Who Smoke Every Day and Smoking Prevalence, by State – United States, Ages 25+ Years Old, 2006/07

Percentage of Cigarette Smokers Using Any Other Tobacco Product and Cigarette Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Hypothetical Relationship Between Smoking Prevalence and Indicators of Willingness to Quit if Population is Hardening
Percentage of Cigarette Smokers Who Plan to Quit Within 30 Days and Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Smokers Planning to Quit (%) vs. Smoking Prevalence (%)

Rho = -0.531
P < 0.001
N = 51

Percentage of Current Smokers Who Have a Strong Interest in Quiting and Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Source: Tobacco Use Supplement to the Current Population Survey, 2006/07
Percentage of Current Smokers Who Believe They Would be Very Likely to Succeed if They Tried to Quit and Smoking Prevalence, by State – US, Ages 25+ Yrs Old, 2006/07

Source: Tobacco Use Supplement to the Current Population Survey, 2006/07

Source: Current Population Survey, 2006/07
Estimated Adult Smoking Prevalence from the System Dynamic Model (2005 to 2050) – Assuming No Change in the Tobacco Control Environment (Status Quo Scenario)

Source: Institute of Medicine, 2007 (34)
System Dynamic Model Estimated Adult Smoking Prevalence Assuming the US Reaches California’s 2004 Initiation and Cessation Rates by 2010

Source: Institute of Medicine, 2007 (34)
Comparison of SimSmoke Estimates of Adult Smoking Prevalence 2005-2025 Under the Best Case, Status Quo, and Worst Case Scenarios

Source: Institute of Medicine, 2007 (34)
We Need To:

- Enact evidence-based programs and policies
- Promote increased funding in all states
- Try promising interventions – especially in low-prevalence states
- Understand that we won’t hurt the national economy while saving lives
Mop Well
Paradigm for Tobacco Control

- Pro-tobacco marketing

- Price/economic incentives
- Smoke-free air
- Counter marketing
- Cessation activities
- Prevention activities
- Product regulation
- Liability

INDIVIDUAL

TOBACCO ADDICTION

SOCIETY