

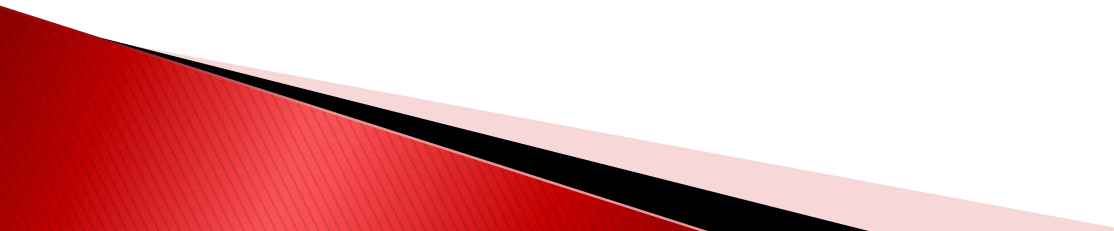
50 Years of Tobacco Control: A Look at the 2014 Surgeon General Report on Smoking & Health



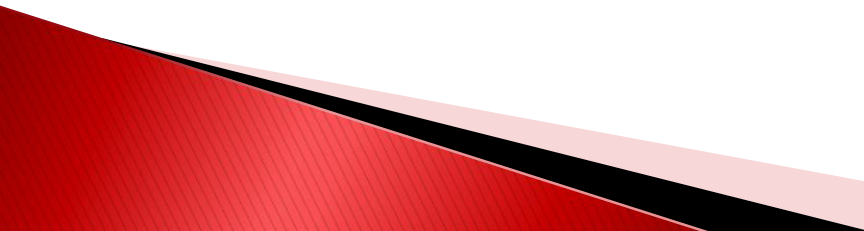
MDQuit Best Practices Conference

William C. Tilburg, J.D.
January 23, 2014

Overview

- ▶ Scientific Evidence Pre-1964
 - ▶ The 1964 Surgeon General Report
 - ▶ Other Notable Surgeon General Reports
 - ▶ The 2014 Surgeon General Report
 - ▶ How to Use the SGR to Effect Policy Change
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Pre-1964

- ▶ Tobacco is a native plant to the Americas; widely used by American Indians for several thousand years
 - ▶ Within 150 years of Columbus's voyage tobacco is used around the globe.
 - ▶ **17th Century** – praised for pleasurable and medicinal qualities, while simultaneously condemned as “foul-smelling” and “harmful to the brain and lungs.”
 - ▶ **18th and 19th Centuries** – pipe smoking; snuff (snort)
 - ▶ **19th Century** – rise in cigar use
 - ▶ **Post-Civil War** – mass produced cigarette
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Pre-1964

- ▶ **1930s** – Researchers in Germany find a *statistical correlation* between smoking and cancer
- ▶ **1938** – Dr. Raymond Pearl (Johns Hopkins) studies the life histories of 7,000 people and determines smokers do not live as long as non-smokers
- ▶ **1952** – Reader's Digest publishes "Cancer by the Carton" detailing the dangers of smoking, including:
 - *"The more a person smokes the greater is the risk of developing cancer of the lung, whereas the risk was small in a nonsmoker or a light smoker."*
 - Lung cancer deaths increase **more than 10 times** from 1920–1948
- ▶ **1954** – Tobacco manufacturers form the Tobacco Industry Research Council (TIRC), which develops filtered and low tar cigarettes – sales begin to rise again
- ▶ **Early 1960s** – Surgeon General Advisory Committee on Smoking and Health convenes at request of President Kennedy

Smoking and Health: Report of the Advisory Committee of the Surgeon General of the Public Health Service (1964)

- ▶ January 11, 1964, Dr. Luther L. Terry, a lifelong smoker, releases first Surgeon General report on smoking and health
- ▶ Report reviewed more than 7,000 articles related to smoking and disease
- ▶ 1964 Smoking Statistics:
 - **70 million Americans** smoked regularly
 - Per capita cigarette consumption rose from **less than 50 to nearly 4,000 per year** (at least 15 yr. old)
 - **52% of male** and **32% of female** population smoke regularly

January 12, 1964 - New York Times

CIGARETTES PERIL HEALTH, U. S. REPORT CONCLUDES; 'REMEDIAL ACTION' URGED

CANCER LINK CITED

Smoking Is Also Found
'Important' Cause of
Chronic Bronchitis

Committee's findings
highlighted, Pages 61-62

By WALTER SULLIVAN

Special to The New York Times

WASHINGTON, Jan. 11 The long-awaited Federal report on the effects of smoking found today that the use of cigarettes contributed so substantially to the American death rate that "appropriate remedial action" was called for.

The report dealt a severe blow to the rear-guard action for in recent years by the tobacco industry. It dismissed, one by



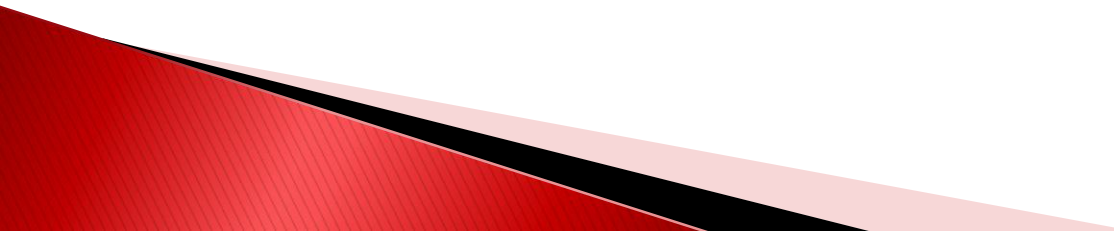
DISCUSS - SMOKING REPORT: Dr. Luther Terry, the Surgeon General, at news conference held in Washington.

Smoking and Health: Report of the Advisory Committee of the Surgeon General of the Public Health Service (1964)

Report Highlights:

- ▶ Smoking *causes* lung cancer and laryngeal cancer in men; the effect of cigarette smoking *far outweighs* all other factors
 - Smokers have **10 to 20 fold risk** of developing lung cancer
- ▶ Smoking *likely* causes lung cancer in women
- ▶ Smoking is a cause or significant factor in:
 - Oral cancer
 - Cancer of the larynx
 - Cancer of the esophagus
 - Cancer of the bladder
 - Bronchitis
 - Coronary artery disease
 - Lower birth weight

Other Notable Surgeon General Reports

- ▶ 1986 – use of smokeless tobacco is harmful
 - ▶ 1988 – nicotine is addictive
 - ▶ 1994 – Prevalence of youth use and addiction
 - ▶ 2004 – smoking impacts nearly every organ of the body
 - ▶ 2006 – there is no risk-free level of exposure to secondhand smoke
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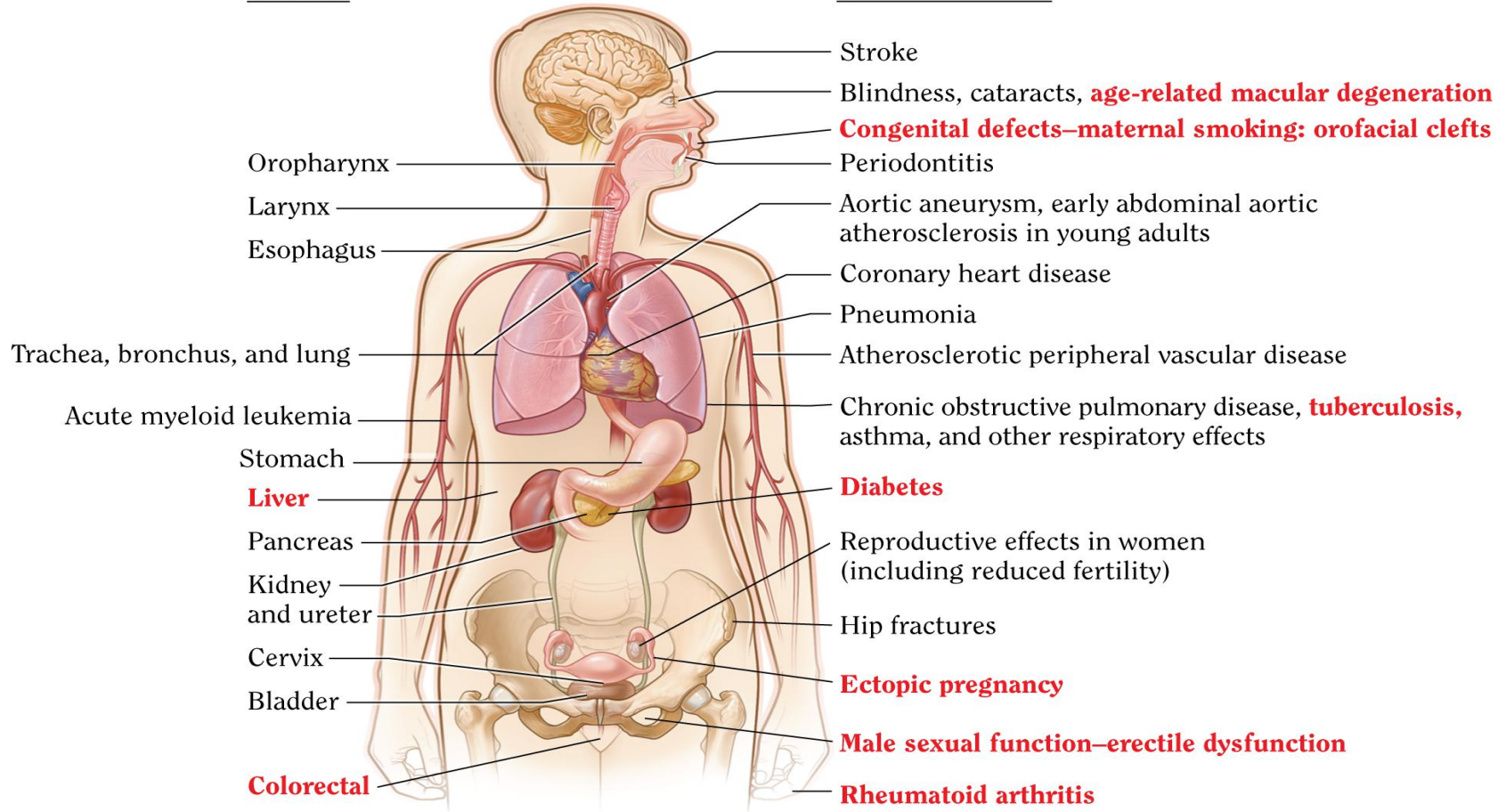
2014 Surgeon General Report: New Findings

- ▶ Cigarette Smoking Causes:
 - Diabetes
 - Colorectal cancer
 - Liver cancer
 - Rheumatoid Arthritis
 - Macular Degeneration
 - Erectile Dysfunction
- ▶ Exposure to SHS causes:
 - Increased risk of stroke (20–30% increase)
- ▶ Smoking increases the risk of dying from cancer or other diseases (i.e. increased risk of disease and death from disease)

Health Consequences Causally Linked to Smoking

Cancers

Chronic Diseases



Colorectal

Rheumatoid arthritis

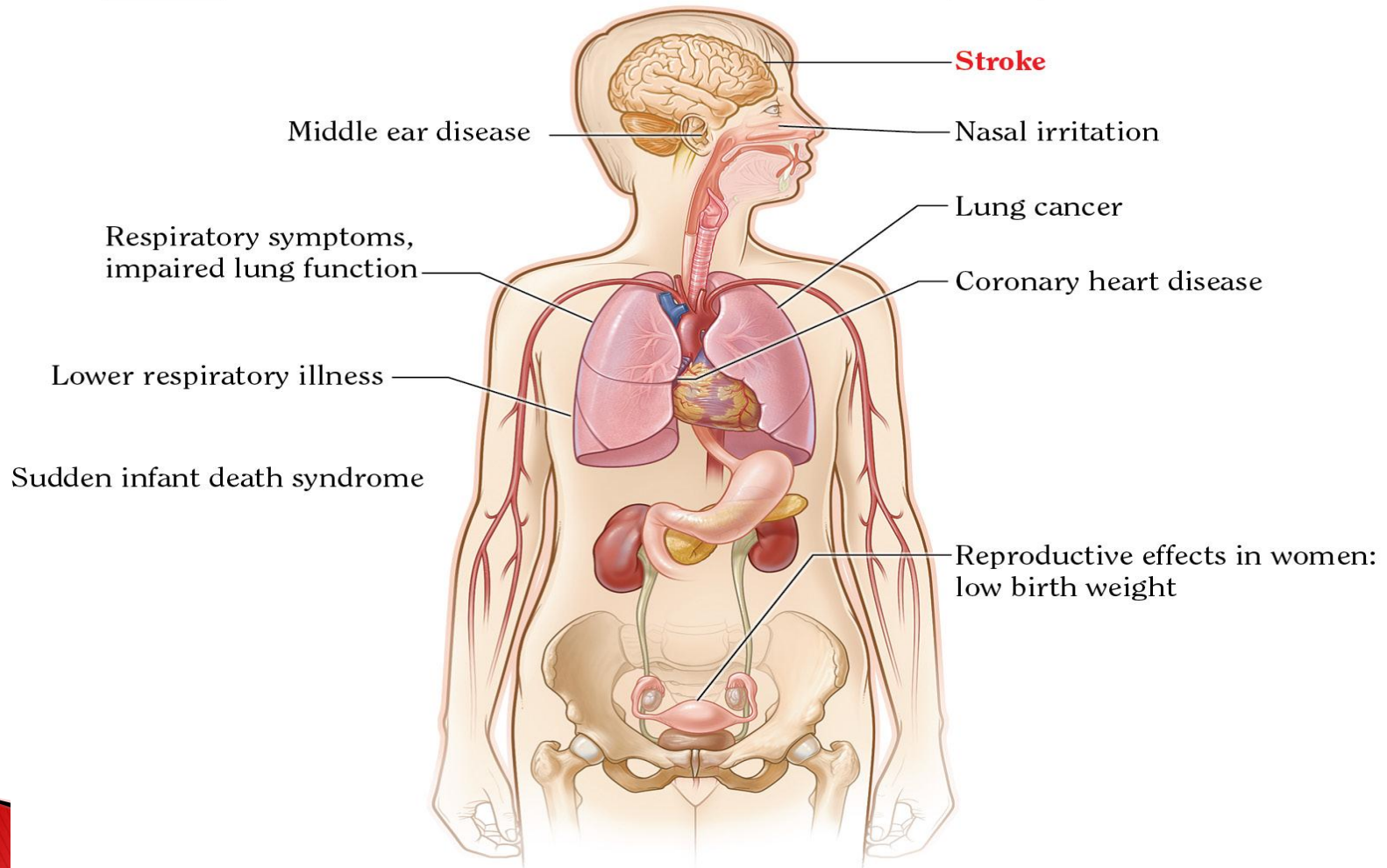
Immune function

Overall diminished health


Health Consequences Causally Linked to Exposure to SHS

Children

Adults



2014 Surgeon General Report: Major Conclusions

- ▶ Toll of Smoking Since 1964
 - ▶ Smokers Today Have a Greater Risk of Developing Lung Cancer than Smokers in 1964
 - ▶ Female Smokers are as Likely as Men to Die from Smoking
 - ▶ Human and Economic Costs of Smoking
 - ▶ Youth Tobacco Use and Future Smoking Rates
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Since 1964...

- ▶ More than 20 million Americans have died because of smoking – 2.5 million as a result of exposure to secondhand smoke
- ▶ Another 16 million suffer from smoking-related illness
- ▶ More than 100,000 babies have died due to complications as a result of prenatal smoking
- ▶ An estimated 480,000 Americans die each year from smoking-related causes
- ▶ In the U.S., smoking causes:
 - 87% of lung cancer deaths
 - 32% of coronary heart disease deaths
 - 79 % of COPD cases

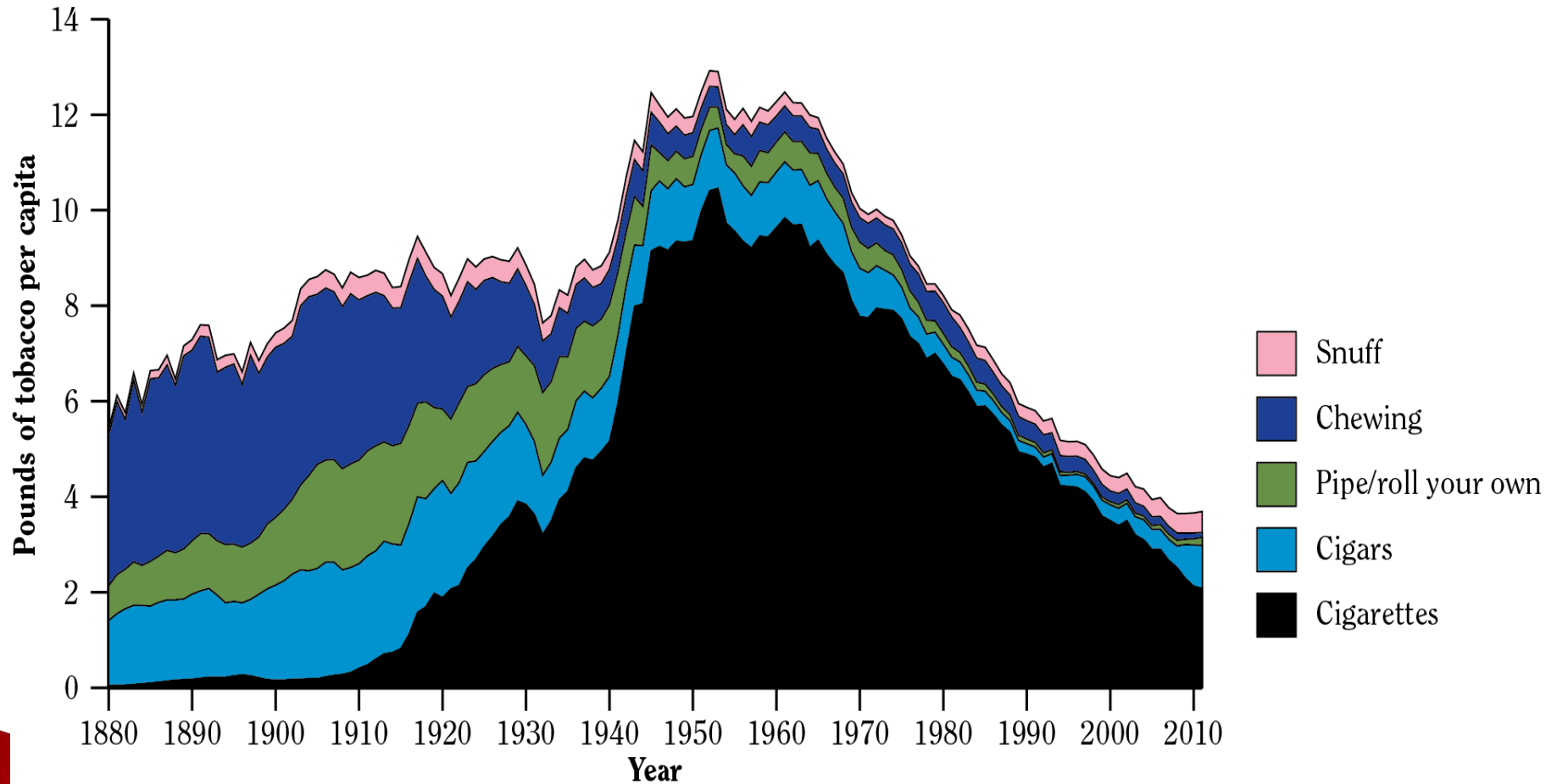
Premature Deaths Caused by Smoking and Exposure to Secondhand Smoke, 1965–2014

Cause of Death	Total
Smoking-related Cancer	6,587,000
Cardiovascular and Metabolic Diseases	7,787,000
Pulmonary Diseases	3,804,000
Conditions Related to Pregnancy and Birth	108,000
Lung Cancers caused by exposure to secondhand smoke	263,000
Coronary heart disease caused by exposure to secondhand smoke	2,194,000
Residential Fires	86,000
TOTAL	20,830,000

Increased Risk of Lung Cancer

- ▶ “Smokers today have a greater risk of developing lung cancer than they did when the first Surgeon General’s report was released in 1964.” – *Acting Surgeon General, Boris Lushniak, M.D., M.P.H.*
- ▶ Even though today’s smokers smoke fewer cigarettes than 50 years ago, they are at a higher risk of developing lung cancer
- ▶ **Potential Reasons:**
 - Better diagnosis of lung cancer
 - Ventilated filters – enable smoker to inhale more vigorously, thereby drawing carcinogens more deeply into lung tissue
 - Levels of some chemicals (including some carcinogens) have increased as manufacturing processes have changed

Per Capita Consumption of Different Forms of Tobacco, 1880–2011



Increased Risk to Female Smokers

- ▶ Women's risk of disease from smoking has risen sharply over the last 50 years
- ▶ 20 years ago *male smokers were about twice as likely as female smokers* to die early from a smoking-related disease
- ▶ Today, women are *as likely as men* to suffer from smoking-related lung cancer, COPD and cardiovascular diseases
 - Note: more women than men suffer from COPD
- ▶ From 1959 to 2010 the lung cancer risk for female smokers *increased 10 times* (risk only doubled for men)

Human and Economic Costs of Smoking

▶ Annual Costs

- \$130 billion in direct medical care
- \$150 billion for lost productivity due to premature death – \$5 billion from premature death due to SHS

▶ Current Use

- 42 million adults
- 3.5 million middle and high school students
- The % of adults (18+) smoking cigarettes, cigars or roll-your-own tobacco has remained steady (25–26%) since 2009 and declined only slightly since 2002

Percentage of Tobacco Product Use, 2002–2012

Table 2 Percentage of tobacco product use in the past month among persons 18 years of age and older, 2002–2012

Substance	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total tobacco products ^a	30.8 ^b	30.2 ^b	29.6 ^b	29.9 ^b	30.1 ^b	29.2 ^b	28.8 ^b	28.1	27.8	26.9	27.3
Cigarettes ^c	25.8 ^b	25.2 ^b	24.7 ^b	24.7 ^b	24.8 ^b	24.1 ^b	23.7 ^b	23.0 ^d	22.6	21.7	22.0
Smokeless tobacco	3.5	3.4	3.1 ^b	3.3	3.5	3.3	3.6	3.5	3.6	3.3	3.6
Cigars	5.5	5.5	5.8	5.8	5.7	5.5	5.5	5.4	5.4	5.2	5.4
Pipe tobacco	0.8	0.7 ^b	0.8 ^d	0.9	1.0	0.8	0.8 ^d	0.8	0.9	0.8	1.0
Cigarettes ^c or cigars	28.5 ^b	27.9 ^b	27.6 ^b	27.7 ^b	27.7 ^b	27.0 ^b	26.4 ^b	25.8 ^d	25.5	24.6	24.8
Cigarettes, ^c cigars, or pipe tobacco	28.8 ^b	28.2 ^b	27.9 ^b	28.0 ^b	28.0 ^b	27.3 ^b	26.7 ^b	26.1	25.8	24.9	25.2

Source: Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002–2012.

^aTobacco products include cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco.

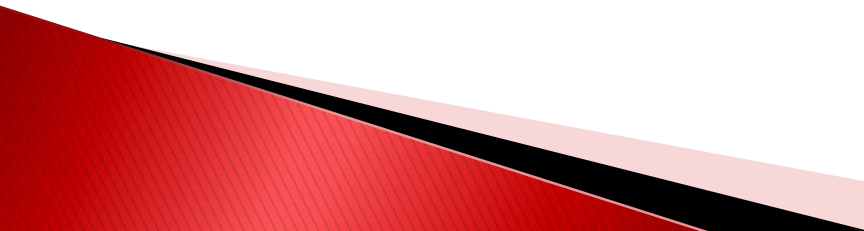
^bDifference between estimate and 2012 estimate is statistically significant at the 0.01 level.

^cPast month cigarette use is defined as smoking during the 30 days preceding the survey and smoking 100 cigarettes or more in a lifetime. Respondents with an unknown lifetime number of cigarettes smoked were excluded from the analysis.

^dDifference between estimate and 2012 estimate is statistically significant at the 0.05 level.

Youth Tobacco Use

▶ Current Statistics

- Youth smoking rates *declined from 36% in 1997 to 18% in 2011*
 - Each day, 3,200 youth (under 18) smoke their first cigarette and 2,100 youth and young adults (18–26) become daily smokers
 - Each year, for every adult who dies prematurely, more than TWO youth or young adults become replacement smokers
 - Prevalence of youth smoking is only *slightly* declining and the *actual* number of youth and young adults starting to smoke has increased since 2002 (1.9 vs. 2.3 million)
 - 88% of smokers began before age 18
- ▶ If the status quo continues (i.e. slight decline):
- Smoking rate will level off at 13.5–15% by 2050
 - Approximately **5.6 million American children alive today** – or one out of every 13 children under age 18 – will die prematurely from smoking-related diseases
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“What Steps are Needed to End the Tobacco Epidemic?”

- ▶ Fully implement evidence-based strategies that reduce youth use:
 - Increase price – \$10+ most effective
 - Fully funded comprehensive statewide tobacco control programs (CDC recommended levels)
 - Comprehensive Smokefree Indoor Air Laws/Policies – smokefree laws reduce SHS exposure and active smoking rates
 - “High-Impact” Mass Media Campaigns – year-round exposure for 10+ years
 - Expand Availability of Tobacco Cessation Treatments (including counseling)

Additional Tobacco Control Measures

- ▶ “End-Game” Strategies
 - Reduce Nicotine levels – FDA has authority over product standards, but can’t remove nicotine 100%
 - Reduce toxicity levels of cigarettes – FDA may set allowable levels of chemicals, including carcinogens
 - Substitute nicotine delivery system
 - State/Local governments ban sale of certain tobacco products
 - Adopt high-tech cigarette excise tax stamp – CA saw 37% reduction in tax evasion

Acknowledgements

U.S. Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General (2014)*.

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Questions?

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