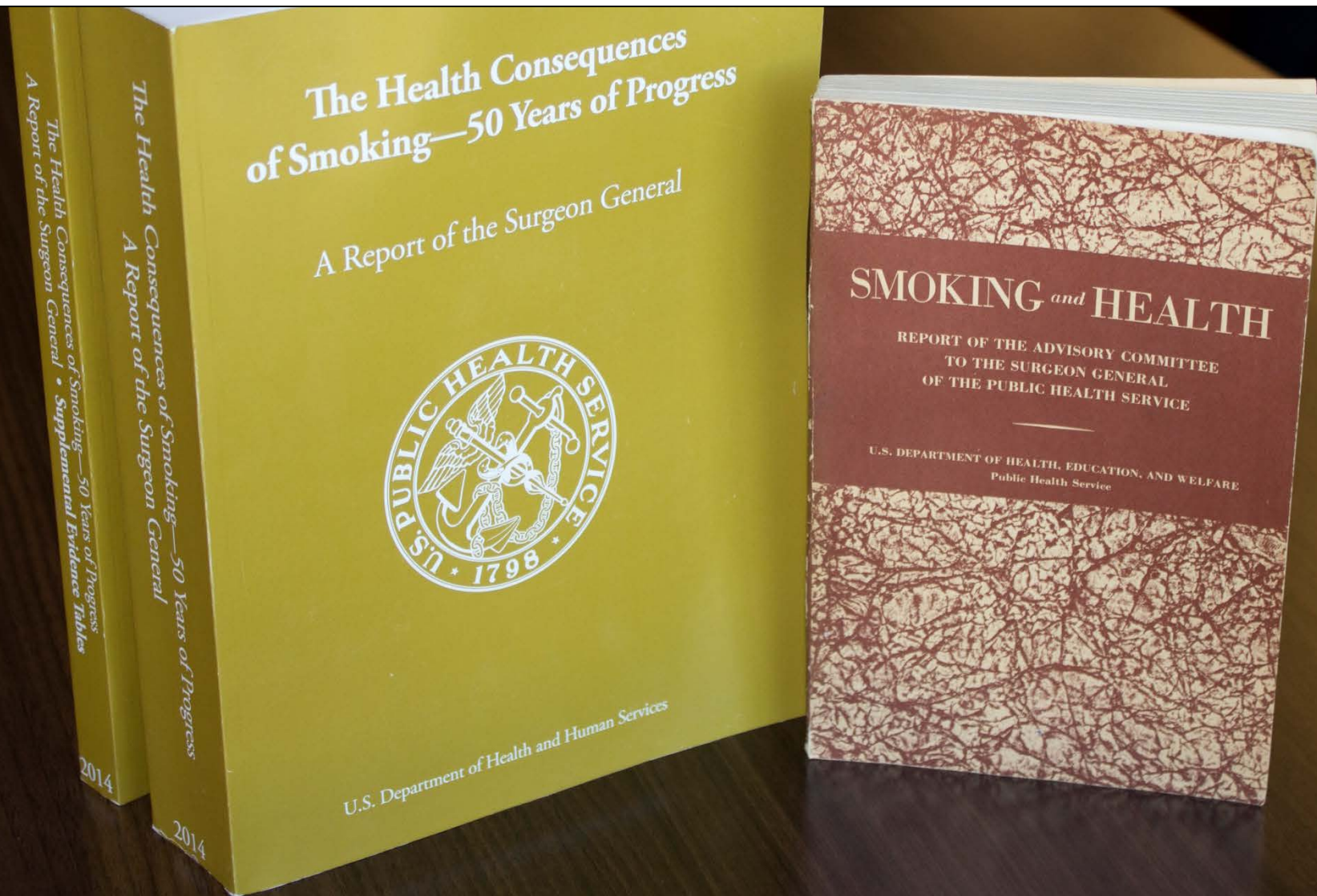


# **The U.S. Surgeon Generals' Reports: Past and Present**

**Jonathan M. Samet, MD, MS**  
**Distinguished Professor and Flora L. Thornton Chair**  
**Department of Preventive Medicine**  
**Keck School of Medicine of USC**  
**Director, USC Institute for Global Health**

**Texas Tobacco Summit**  
**MD Anderson Cancer Center**  
**Houston, June 26, 2014**

# 50 years in 30 minutes!



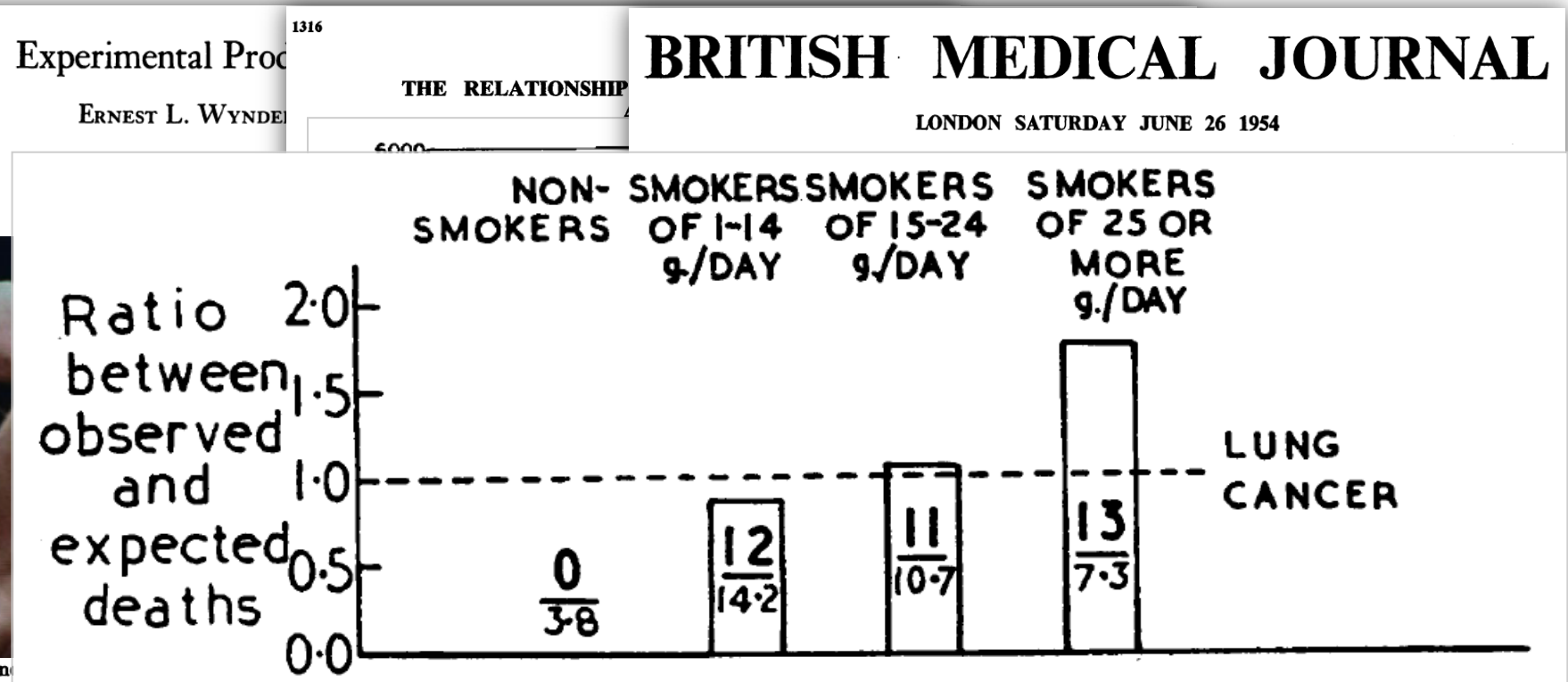
**BEFORE 1964**

# 1950: Key Case-Control Studies

- Morton Levin publishes a study linking smoking and lung cancer in *JAMA*
- Ernst L. Wynder and Everts A. Graham publish study in *JAMA* in which 96.5% of lung cancer patients interviewed were smokers
- Richard Doll and Bradford Hill publish study in *BMJ* finding that heavy smokers are 50 times more likely to get lung cancer; follow-up in 1954



# 1953-1954: The Evidence Mounts



production of cancer of the larynx and esophagus. Although the studies are not so complete as those for lung cancer, the collected data are...  
The increasing incidence of lung cancer and the available evidence to it and possibly to cancer of the esophagus and larynx are... This investigation is directed in laboratory animals whether genetic factors in cigarette smoking...

age.  
An analysis of information now available that the over-all death rate, the death rate from lung cancer, and the death rate from other causes...

among patients with other diseases. With one exception (the difference between the proportions of non-smokers found by McConnell, Gordon, and Jones) these differences are large enough to be important. While, therefore, the various authors have all shown...

replying to the questionnaire. The ex-smokers were asked similar questions but relating to the time at which they had last given up smoking.

The questionnaire was intentionally kept short and simple in the hope of encouraging a high proportion of replies. The inquiry must have failed. The subjects were invited to give any habits or history which they had prior to last giving up smoking (if they had ever smoked). It was, of course, possible that adult life might well have been spent with the most recent habits. But the subjects had been asked...

Wynder et al. Cancer Research 1953;13:855-864  
Hammond and Horn. JAMA 1954;155:1316-28  
Doll and Hill. BMJ 1954;1(4877):1451-5

PREVIOUS INVESTIGATION... one finally selected for use was the four p...

# Industry Tactics

## A Frank Statement to Cigarette Smokers

### A Frank Statement to Cigarette Smokers

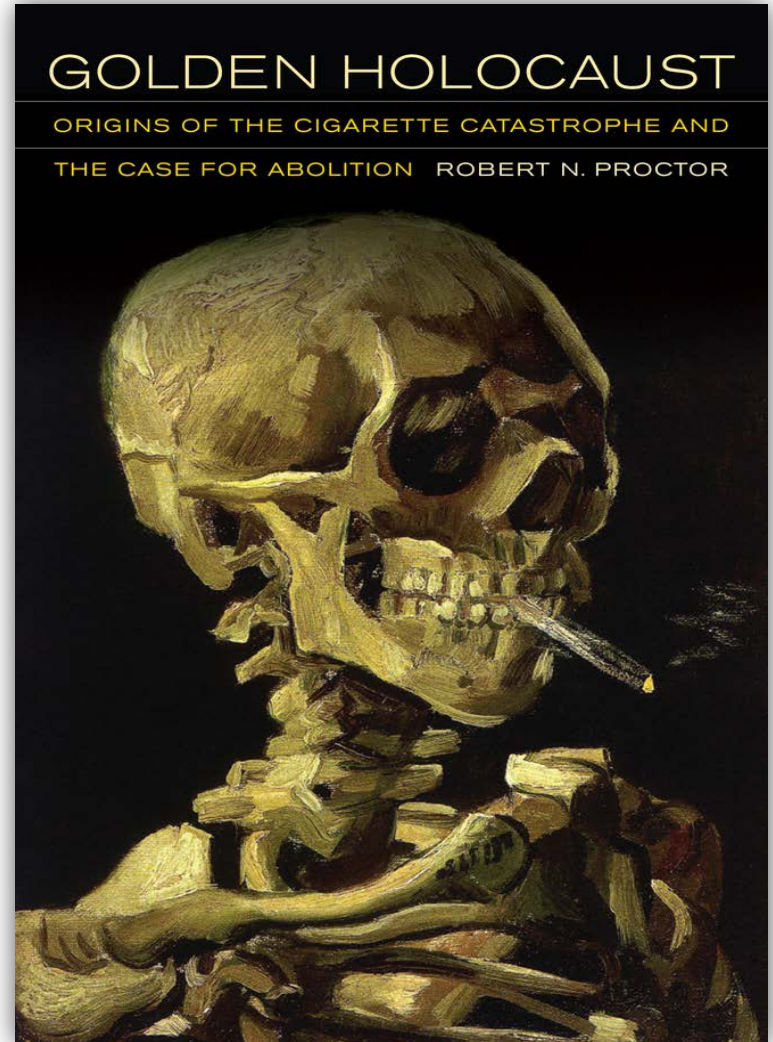


TRIAL EXHIBIT  
14,024

"We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business."

"We believe the products we make are not injurious to health."

"We always have and always will cooperate closely with those whose task it is to safeguard the public health."



# Burney's Two Statements

STATEMENT BY SURGEON GENERAL LEROY E. BURNLEY  
**Excessive Cigarette Smoking**

The Public Health Service is, of course, concerned with broad factors which substantially affect the health of the American people. The Service also has a responsibility to bring health facts to the attention of the health professions and the public.

In June 1956, units of the Public Health Service joined with two private voluntary health organizations to establish a scientific Study Group to appraise the available data on smoking and health. We have now reviewed the report of this Study Group and other recent data, including the report of Dr. E. C. Hammond and Dr. Daniel Horn on June 5 to the American Medical Association in New York.

In the light of these studies, it is clear that there is an increasing and consistent body of evidence that excessive cigarette smoking is one of the causative factors in lung cancer.

The Study Group, appraising 18 independent studies, reported that lung cancer occurs much more frequently among cigarette smokers than among nonsmokers, and there is a direct relationship between the incidence of lung cancer and the amount smoked. This finding was reinforced by the more recent report by Dr. Hammond and Dr. Horn.

Many independent studies thus have confirmed beyond reasonable doubt that there is a high degree of statistical association between lung cancer and heavy and prolonged cigarette smoking.

Such evidence, of course, is largely epidemiological in nature. It should be noted, however, that many important public health advances in the past have been developed upon the basis of statistical or epidemiological information. The Study Group also reported that in laboratory studies on animals at least five independent investigators have produced malignancies by tobacco smoke condensates. It also reported that biological changes similar to those which take place in the genesis of cancer have been observed in the lungs of heavy smokers. Thus, some laboratory and biological data provide contributory evidence to support the concept that excessive smoking is one of the causative factors in the increasing incidence of lung cancer.

At the same time, it is clear that heavy and prolonged cigarette smoking is not the only cause of

lung cancer. Lung cancer occurs among non-smokers, and the incidence of lung cancer among various population groups does not always coincide with the amount of cigarette smoking.

The precise nature of the factors in heavy and prolonged cigarette smoking which can cause lung cancer is not known. The Public Health Service supports the recommendation of the Study Group that more research is needed to identify, isolate, and try to eliminate the factors in excessive cigarette smoking which can cause cancer.

The Service also supports the recommendation that more research is needed into the role of air pollution and other factors which may also be causes of lung cancer in man.

To help disseminate the facts, the Public Health Service is sending copies of this statement, the Study Group report, and the report of Dr. Hammond and Dr. Horn to State health officers and to the American Medical Association with the request that they consider distributing copies to local health officers, medical societies, and other health groups.

While there are naturally differences of opinion in interpreting the data on lung cancer and cigarette smoking, the Public Health Service feels the weight of the evidence is increasingly pointing in one direction: that excessive smoking is one of the causative factors in lung cancer.

The Service notes that the Study Group found that more study is needed to determine the meaning and significance of any statistical association between smoking and heart disease. The Study Group reported there is no convincing biological or clinical evidence to date to indicate that smoking per se is one of the causative factors in heart disease. Although the report by Dr. Hammond and Dr. Horn has since provided additional data on this subject, the Service feels that more statistical and biological data are needed to establish a definite position on this matter.

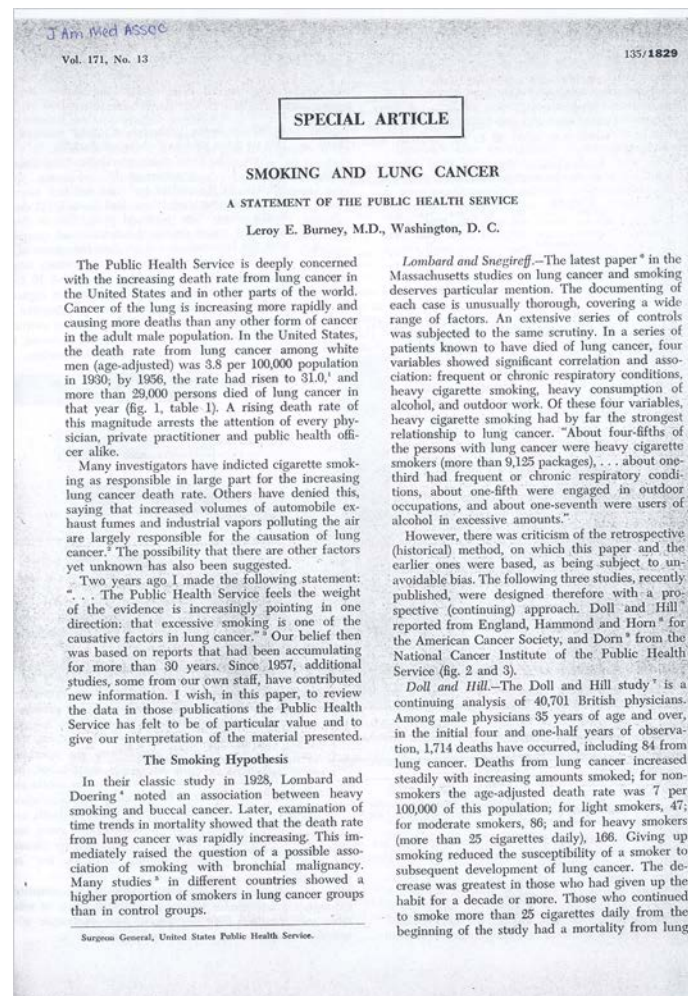
July 12, 1957

*Copies of the report Smoking in Relation to Death Rates, by Dr. E. C. Hammond and Dr. Daniel Horn, and the Joint Report of the Study Group on Smoking and Health are available from the Division of Public Inquiries, Public Health Service.*

Public Health Reports  
 1957, 72(9)

786

Source: Public Health Rep. 1957 September

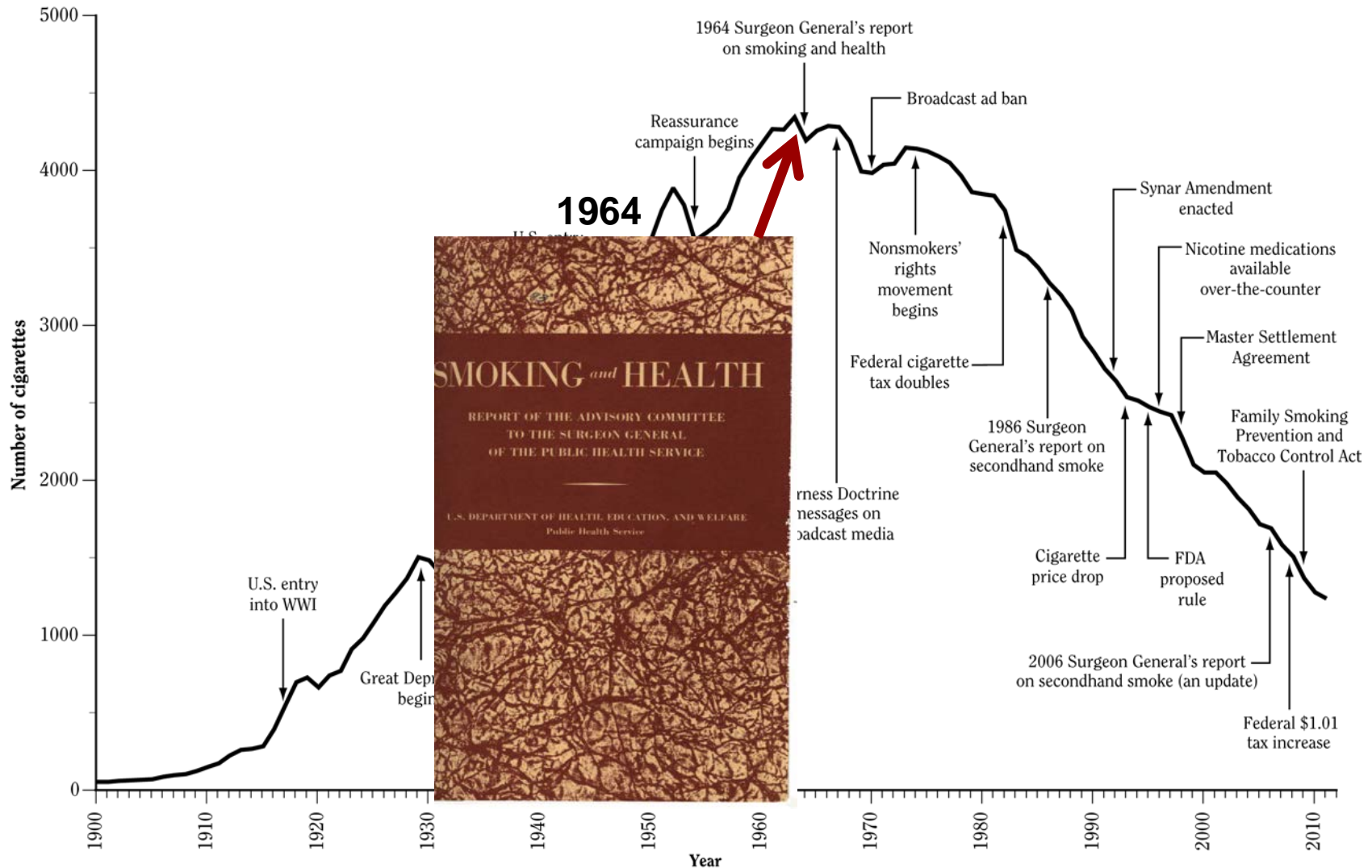


Source: JAMA. 1959 November

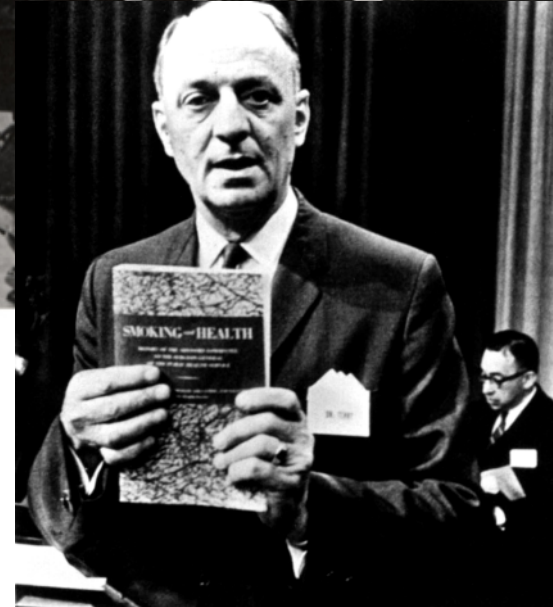
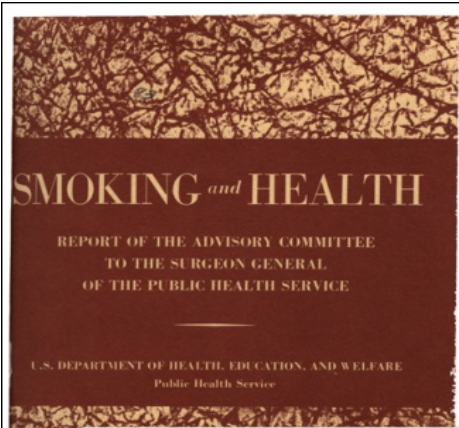
1964



# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# 1964 Surgeon General's Report



(not members)

Burdette  
Seevers

Hickham  
Farber

Baynes-Jones  
Hundley

Guthrie

Schuman

**LeMaistre**

Cochran

Fieser

Furth



**Surgeon General's Committee on Smoking and Health 1963**

"Three of the members smoked cigarettes, and two others smoked pipes or cigars. Terry, himself a smoker, served as the nominal Chairman of the group, but it was agreed that he would not participate in any of its deliberations or conclusions."

ash trays

# Charles LeMaistre, MD



- President of MD Anderson Cancer Center, 1978-1996
- Youngest member of the first US Surgeon General's Advisory Committee on Smoking and Health, 1964
- Chaired the 1981 National Conference on Smoking or Health and 1985 Int'l Summit on Smoking Control Leaders

The Charles A. LeMaistre Page

www.smokershistory.com/LeMaistr.htm

## The Charles A. LeMaistre Page

**Enron director was prime organizer of ACS, AHA, ALA et al. anti-smoking activities; was also involved in previous corporate looting**

**His connections with Congress undoubtedly made him a major asset to Enron**

LeMaistre got his MD in 1947 from Cornell, and joined the US Public Health Service Epidemic Intelligence Service. In 1952, he and his wife "lived briefly in Atlanta, then moved to New York City for Dr. LeMaistre to continue his research, teaching and patient care responsibilities.... During what he describes as a 'fascinating' two-year stint, his family and friends thought he was an instructor of medicine at Cornell - and he was - but he also handled several highly confidential assignments, including research dealing with defense of possible germ warfare and a secret mission to contain a strange pulmonary epidemic" on an Indian reservation. In 1954, he joined the Emory University School of Medicine in Atlanta, and became chairman of its Department of Preventive Medicine and Community Health. In 1959, he joined the faculty of the University of Texas Southwestern Medical School in Dallas. "[H]e treated patients at several hospitals, including Parkland Memorial. He also was medical director of Woodlawn Hospital's Chest Division. In 1965, he became associate dean of the UT Southwestern Medical School, a post that provided a springboard to becoming vice chancellor for health affairs at the UT System in Austin a year later." He "advanced quickly to executive vice chancellor, then chancellor-elect and, from 1971 until 1978, he served as the system's chancellor - the only physician in the University's history to hold that high post." He credits UT Chancellor Harry Hunt Ransom for his career direction. In 1978, he was named president of MD Anderson Cancer Center.

"One of the highlights of his Dallas period was serving as the youngest member of the first U.S. Surgeon General's Advisory Committee on Smoking and Health, which in 1964 issued its landmark report identifying cigarettes as a major cause of lung cancer.... When he saw how a physician can affect public policy, Dr. LeMaistre dedicated himself to making a difference about smoking....No one has campaigned more tirelessly - or eloquently - for more than three decades to educate millions of Americans about the dangers of smoking. He chaired the 1981 National Conference on Smoking OR Health and a 1985 International Summit on Smoking Control Leaders, both milestone meetings. While national president of the American Cancer Society in 1986, he traveled widely to promote the growing good news about cancer prevention [sic], in particular how many malignant diseases could be avoided if people never used tobacco."

[LeMaistre biography / University of Texas](#)  
[LeMaistre bio / State of Alabama](#)

### The Urban Air Toxics Board

"The US Congress has appointed nationally recognized authorities [i.e., true-believing hacks -cast] in science, medicine and environmental issues to the Board of Directors of the Mickey Leland National Urban Air Toxics Research Center. The NUATRC was created by the Clean Air Act Amendments of 1990 in response to increasing public concern about the impact of air toxics on public health in urban areas throughout the country [drummed up by the Lasker propaganda machine despite the fact that pollution levels have declined -cast]. The Center is located at the University of Texas-Houston School of Public Health in the Texas Medical Center.... Since its establishment, the NUATRC has been led by an interim Board of Directors, chaired by Dr. Charles A. LeMaistre...." [M. David Low](#), the Lasker Society's chief for Community Issues, was appointed to its Board of Directors by the Speaker of the House. (Quoted from The UT-Houston Health Sciences Center, 1994, Aug 8.)

# Statement on Methods

- “A plan was adopted at the first meeting...”
- “...a major general requirement was that of making the information available...”
- “...made decisions or judgments at three levels...”: 1) validity of a publication or report; 2) validity of interpretations and conclusions of authors; and 3) conclusions of the committee.
- Criteria for causal inference

# Causal Criteria

Statistical methods cannot establish proof of a causal relationship in an association. The causal significance of an association is a matter of judgment which goes beyond any statement of statistical probability. To judge or evaluate the causal significance of the association between the attribute or agent and the disease, or effect upon health, a number of criteria must be utilized, no one of which is an all-sufficient basis for judgment. These criteria include:

- a) The consistency of the association
- b) The strength of the association
- c) The specificity of the association
- d) The temporal relationship of the association
- e) The coherence of the association

# Smoking and Mortality, 1964

TABLE 2.<sup>1</sup>—*Expected and observed deaths for smokers of cigarettes only and mortality ratios in seven prospective studies*

Underlying cause of death	Expected deaths	Observed deaths	Mortality ratio
Cancer of lung (162-3) <sup>2</sup> .....	170.3	1,833	10.8
Bronchitis and emphysema (502, 521.1).....	89.5	546	6.1
Cancer of larynx (161).....	14.0	75	5.4
Oral cancer (140-8).....	37.0	152	4.1
Cancer of esophagus (150).....	33.7	113	3.4
Stomach and duodenal ulcers (540, 541).....	105.1	294	2.8
Other circulatory diseases (451-68).....	254.0	649	2.6
Cirrhosis of liver (581).....	169.2	379	2.2
Cancer of bladder (181).....	111.6	216	1.9
Coronary artery disease (420).....	6,430.7	11,177	1.7
Other heart diseases (421-2, 430-4).....	526.0	868	1.7
Hypertensive heart (440-3).....	409.2	631	1.5
General arteriosclerosis (450).....	210.7	310	1.5
Cancer of kidney (180).....	79.0	120	1.5
All causes <sup>3</sup> .....	15,653.9	23,223	1.68

<sup>1</sup> Abridged from Table 26, Chapter 8. Mortality.

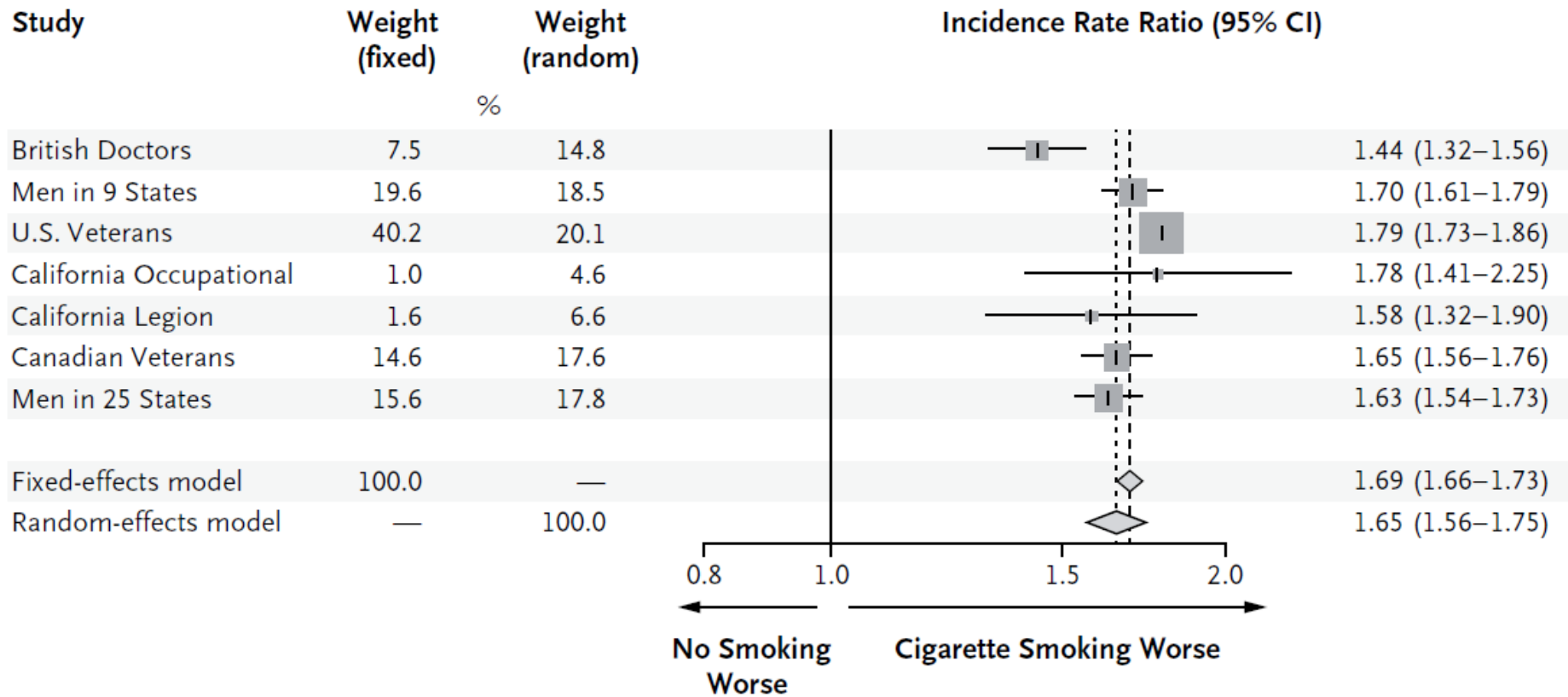
<sup>2</sup> International Statistical Classification numbers in parentheses.

<sup>3</sup> Includes all other causes of death as well as those listed above.



# Smoking and Mortality, reconstructed in 2014

## A Death from Any Cause



## The Committee's judgment in brief:

**Cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action.**

- Cigarette smoking is **causally related to lung cancer in men**; the magnitude of the effect of cigarette smoking far outweighs all other factors. The data for women, though less extensive, point in the same direction.
- Cigarette smoking is the most important of the causes of **chronic bronchitis** in the United States, and increases the risk of dying from chronic bronchitis.
- Male cigarette smokers have a **higher death rate from coronary artery disease** than non-smoking males, but it is not clear that the association has causal significance.
- Cigarette smoking is associated with a 70 percent increase in the age-specific death rates of males, and to a lesser extent with increased death rates of females. The total number of excess deaths causally related to cigarette smoking in the U.S. population cannot be accurately estimated. In view of the continuing and mounting evidence from many sources, it is the judgment of the Committee that **cigarette smoking contributes substantially to mortality from certain specific diseases and to the overall death rate.**

# Sur Industry Is Still Prospering

Special to  
WASHINGTON  
Following is the  
summary of the  
Federal and  
report, "Sm  
issued today  
Health Serv.

## CIGARETTE SALES CONTINUE TO RISE

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Earnings Increase in Face  
of a Decade of Reports  
Indicting Smoking

By ALEXANDER R. HAMMER

The \$8 billion tobacco industry has not only weathered many a critical blast in recent years, but has actually prospered in both sales and earnings.

It is one of the major paradoxes in the history of American business. The controversy, of course, centers around cigarettes and their possible effect on health.

The controversy is dated by some industry officials from December, 1953. At that time a meeting of New York dentists was told that there was a link between smoking and lung cancer. Since then, there have been many similar reports associating cigarettes with cancer, cardiovascular diseases and other illnesses.

The latest such report was that of the Surgeon General's Advisory Committee in Washington, issued yesterday.

Some striking statistics tell how large the tobacco industry is and how significant in the nation's economy. For example, in 1963, about 70 million Americans—more than half the adult population—bought more than 523 billion cigarettes, some 14 billion more than in 1962.

They also bought more than 7.1 billion cigars, up 115 million from the year before. Last year Americans consumed 69.5 million pounds of smoking tobacco, nearly 64.8 million pounds of chewing tobacco and more than 32.5 million pounds of snuff.

Of the \$8 billion spent on tobacco products last year, \$3.3 billion went for Federal, state and local government excise taxes.

## Report Not Convincing To a Scientist at Yale

NEW HAVEN, Conn., Jan. 11 (AP)—Dr. Harry S. Greene of Yale University is one scientist who is not convinced there is an association between smoking and lung cancer.

The Government has only statistics, the chairman of Yale's department of pathology said tonight, "and a statistical association has to be interpreted."

It might show cause and effect or it might show happenstance," he said.

"But the results must be subjected to a laboratory test. They've been doing that for 15 years and have come up with absolutely nothing."

# ERIL HEALTH, CONCISE SMOKER IN STREET LARGELY DEFIANT

But Some Concede They're  
Frightened by the Report

By DOUGLAS ROBINSON

Confessions of a lack of will power and sheer defiance were among the most frequent reactions yesterday to the Federal report finding the use of cigarettes a peril to health.

There were exceptions. "The report frightens me." . . . "It scares the hell out of me." . . . "I'm through." . . . "I guess I'll cut down" were some of the minority reports.

Many of those interviewed refused to give their names and said they considered the matter of smoking a private affair.

Underlying the responses of many was the unstated certainty that, after all, the odds were really against that popular

Associated Press Wirephoto  
REPORT: Dr. Luther Terry, the  
... conference held in Washington.

# oking and Health

RETTE SMOKING  
THE U.S.  
BER PER CAPITA

the lung-lining layer and impair alveolar (air-sac) stability. Alveolar phagocytes ingest tobacco smoke components and assist in their removal from the lung. This phagocytic clearance mechanism

pack of cigarettes a day for 20 years.

Joseph Bernard of Manhattan said that he, too, had tried to stop smoking several times.

"It's a difficult habit to break, but I might try again," he said, reaching into his pocket for one of the 40 cigarettes a day he smokes.

An unidentified working girl smiled proudly and said she had stopped smoking for six hours after having read the report.

The manager of a tobacco shop at 46th Street and Broadway, Edwin Shelansky, said that "so far, the talk of cancer hasn't cut our business at all." He said he expected a temporary drop in business.

Mr. Shelansky said he smoked both a pipe and cigarettes and would continue.

Norman Clark of Elmhurst, Queens, said the report didn't frighten him.

"Everybody needs a certain amount of pleasure," he said, "and smoking is a little pleasure I think I'll continue."

### Four Packs a Day

Characterization of  
Tobacco Habit

habitual use of tobacco is primarily to psychological drives, reinforced by the pharmacological actions of nicotine on the central nervous system. Nicotine-free tobacco or other materials do not satisfy the needs of those who acquire the tobacco habit.

Tobacco habit should be treated as an addiction.

represented in these studies, and declines with increasing age. The same effect appears to hold for the ratio of the death rate of heavy smokers to that of light smokers. In the studies that provided this information, the mortality ratio of cigarette smokers to nonsmokers was substantially higher for men who started to smoke under age 20 than for men who started after age 25. The mortality ratio was increased as the number of years of smoking increased. In two studies which recorded the degree of inhalation, the

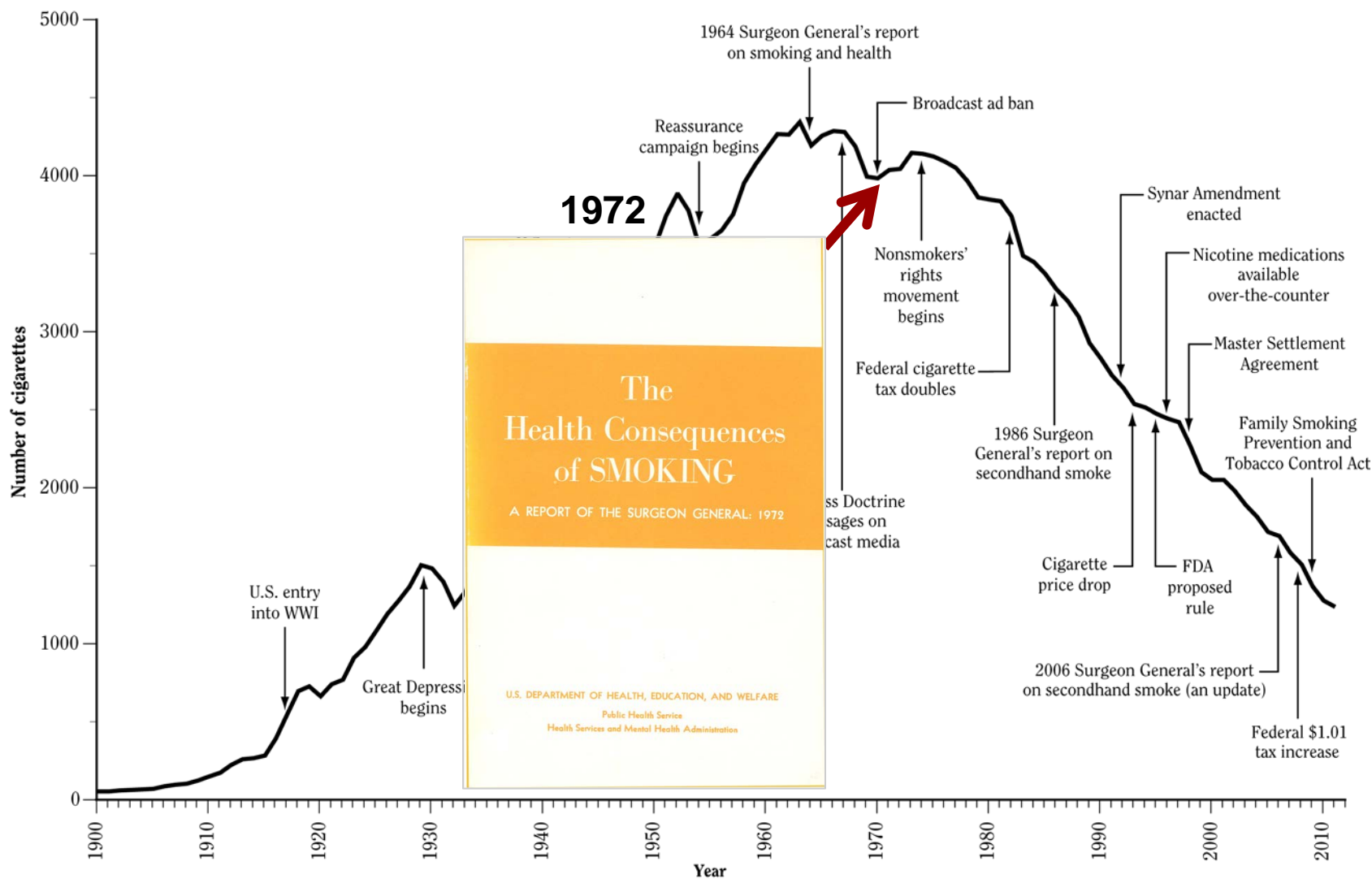
# KEY REPORTS SINCE 1964

# U.S. adult per-capita cigarette consumption, 1900-2012 and SGRs 1964-2014

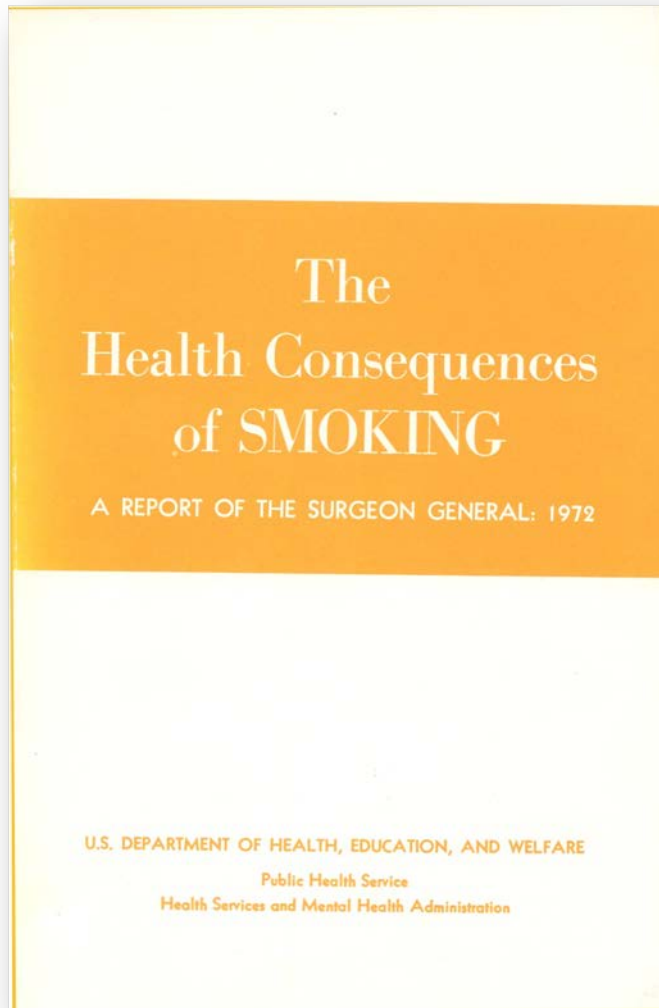


2014

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The 1972 Surgeon General's Report

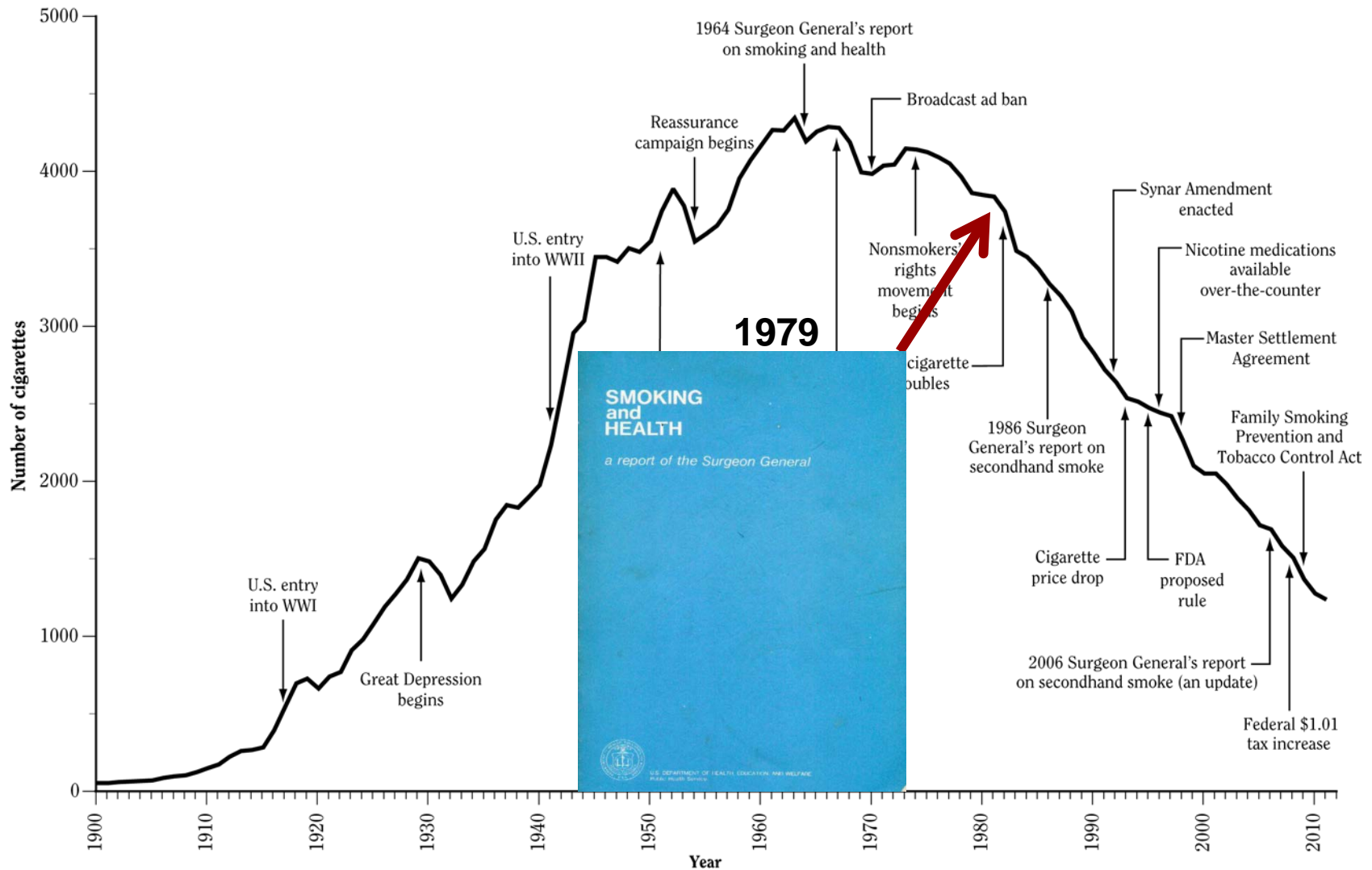


**First to comment on  
secondhand smoke:  
“Tobacco Smoke  
Pollution”**



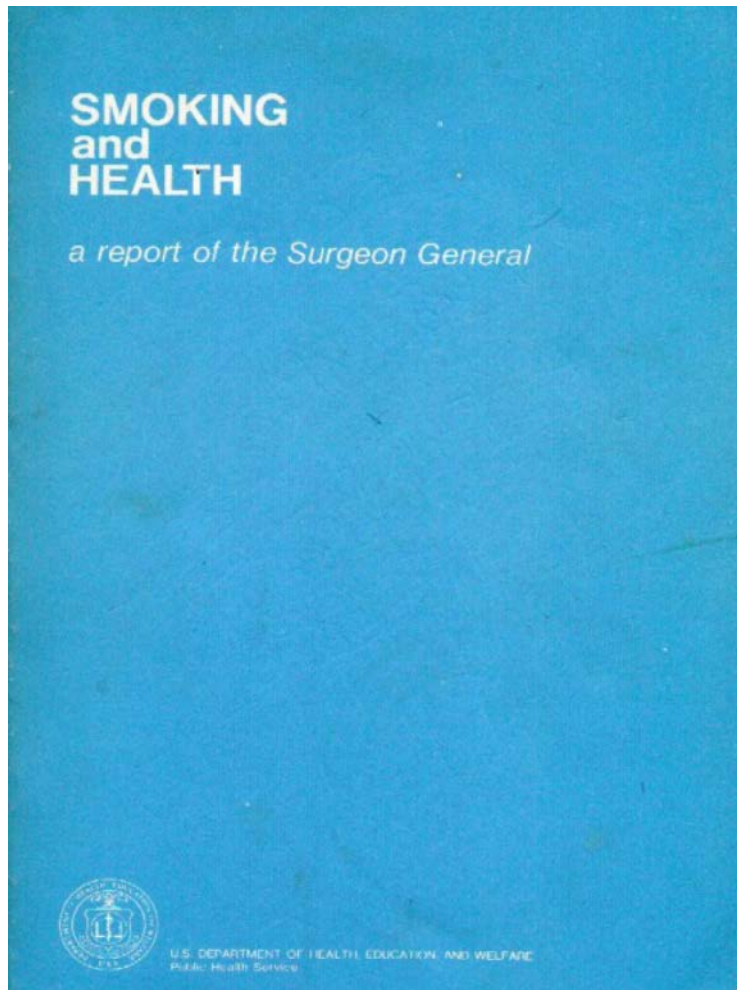
**Jesse L. Steinfield, MD**  
**Surgeon General, 1969-1973**  
*Source: National Library of Medicine  
and US Public Health Service*

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



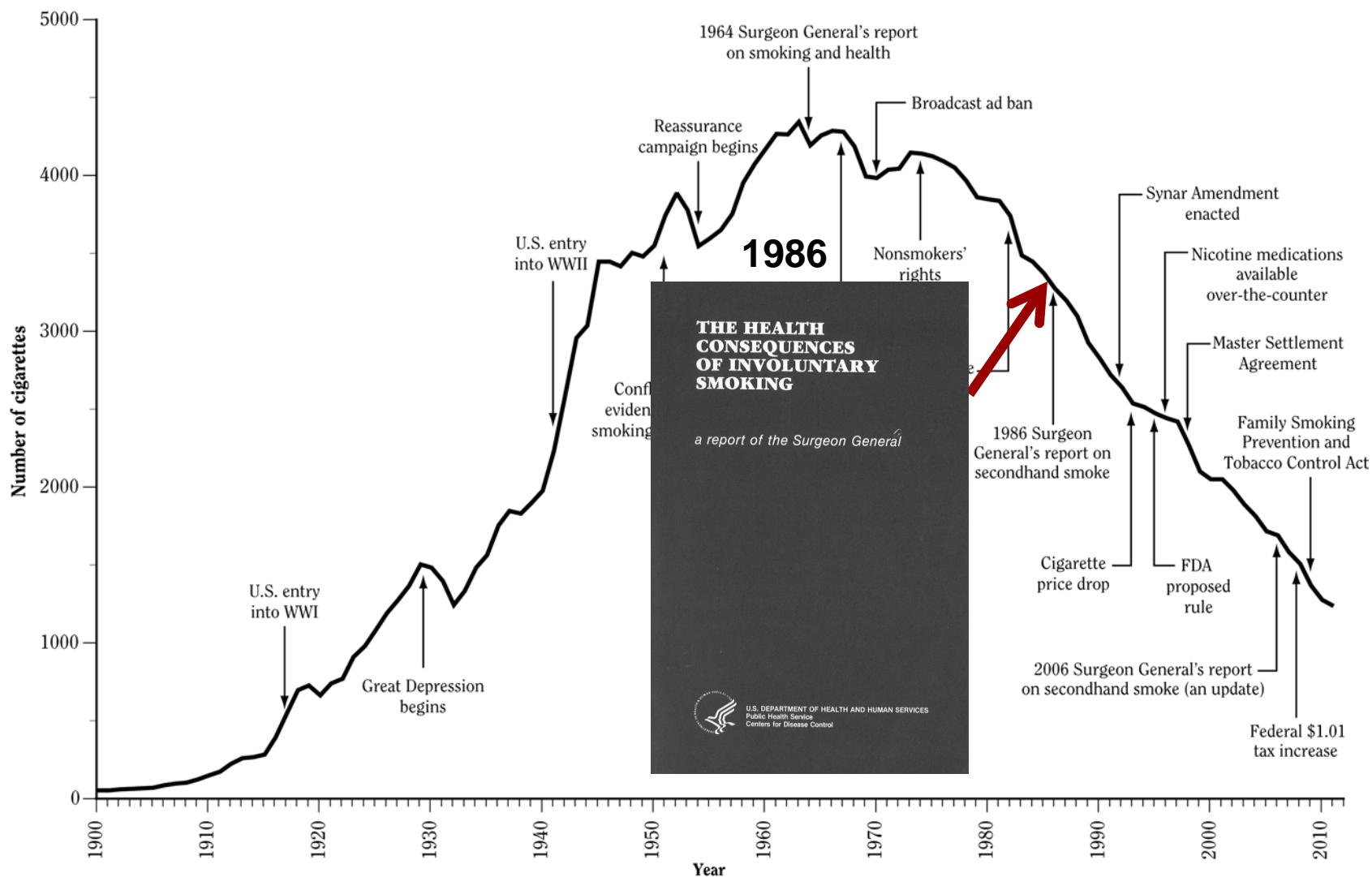


# The 1979 Surgeon General's Report



- **15<sup>th</sup> Anniversary Report**
- Presented most comprehensive review of health effects of smoking ever published, and first Surgeon General's report to carefully examine behavioral, pharmacologic, and social factors influencing smoking.
- **Also first report to consider role of adult and youth education in promoting nonsmoking.**
- First report to review health consequences of smokeless tobacco.
- **Many new sections, including one identifying smoking as "one of the primary causes of drug interactions in humans" (p. 12-22)**
- Also first report to use term "**involuntary smoking**"

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The House of Koop-1986



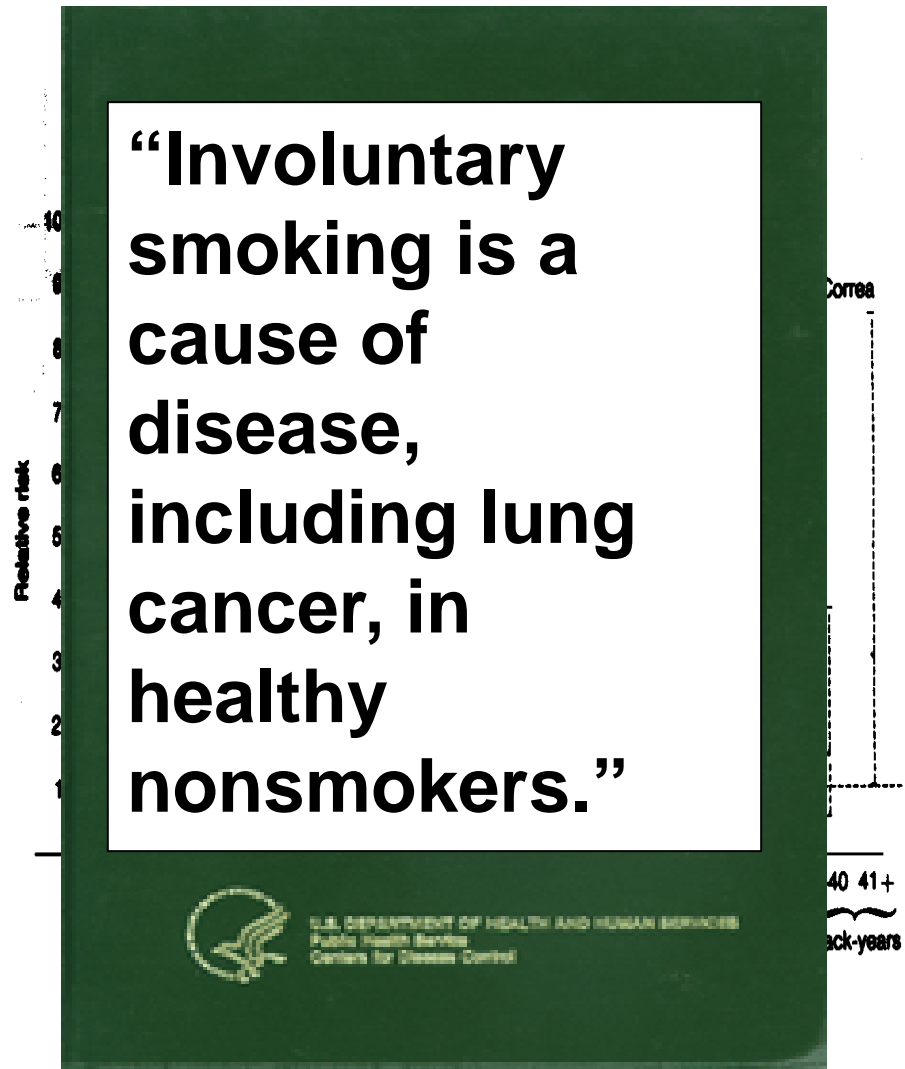
**Bill Lynn (OSH), Dave Burns (Senior Editor), and Don Shopland (OSH)–Part of the 1986 SG Report team – in front of Dr. Koop’s house on the NIH campus.**

*Source: Jon Samet’s personal collection*

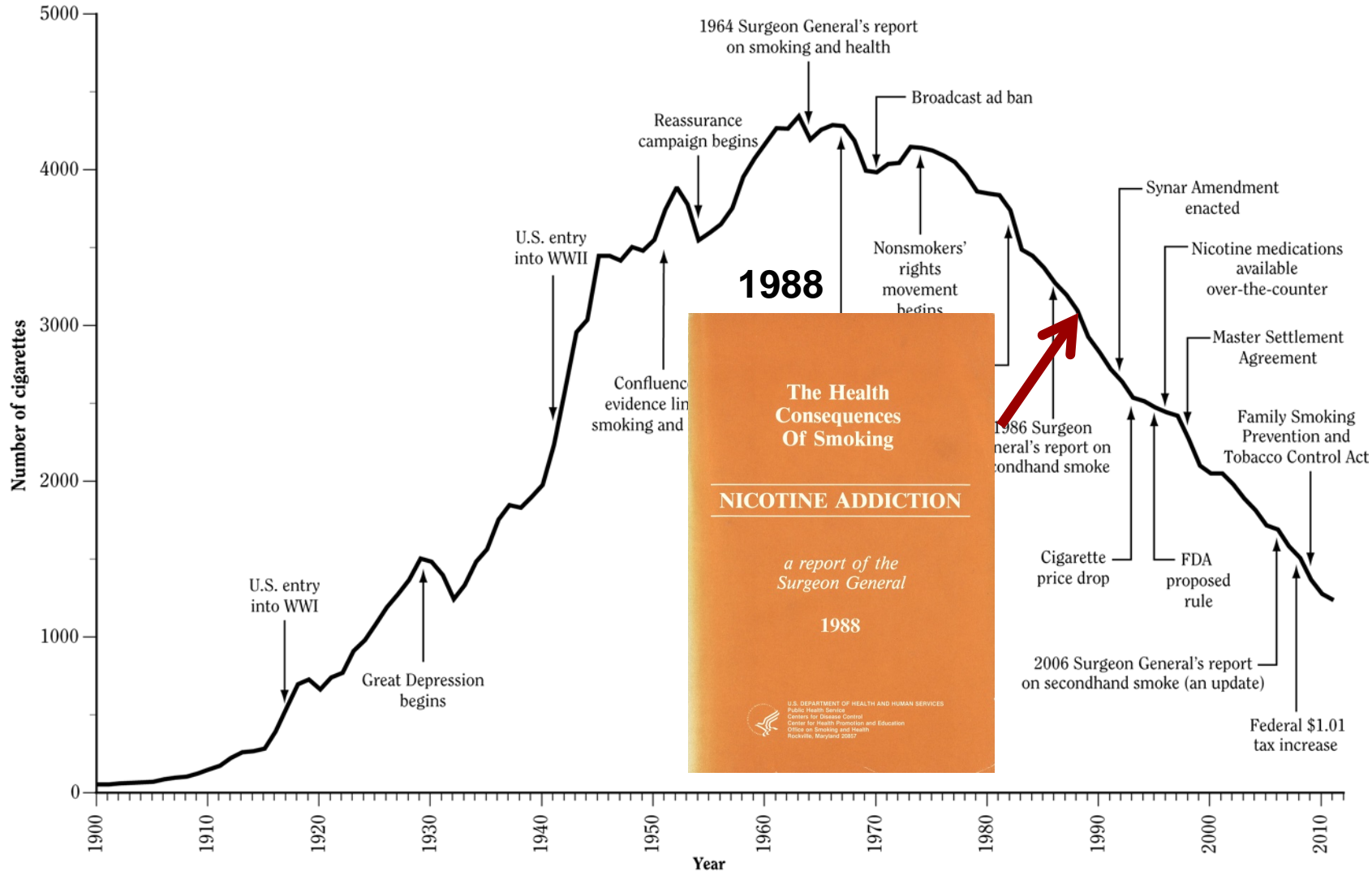
# The 1986 Surgeon General's Report



**C. Everett Koop, MD, DSc  
Surgeon General, 1982-89**



# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The 1988 Surgeon General's Report

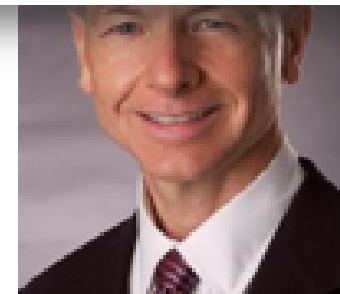
## Major Conclusions

1. Cigarettes and other forms of tobacco are addicting.
2. Nicotine is the drug in tobacco that causes addiction.
3. The pharmacologic and behavioral processes that determine tobacco addiction are similar to those that determine addiction to drugs such as heroin and cocaine.

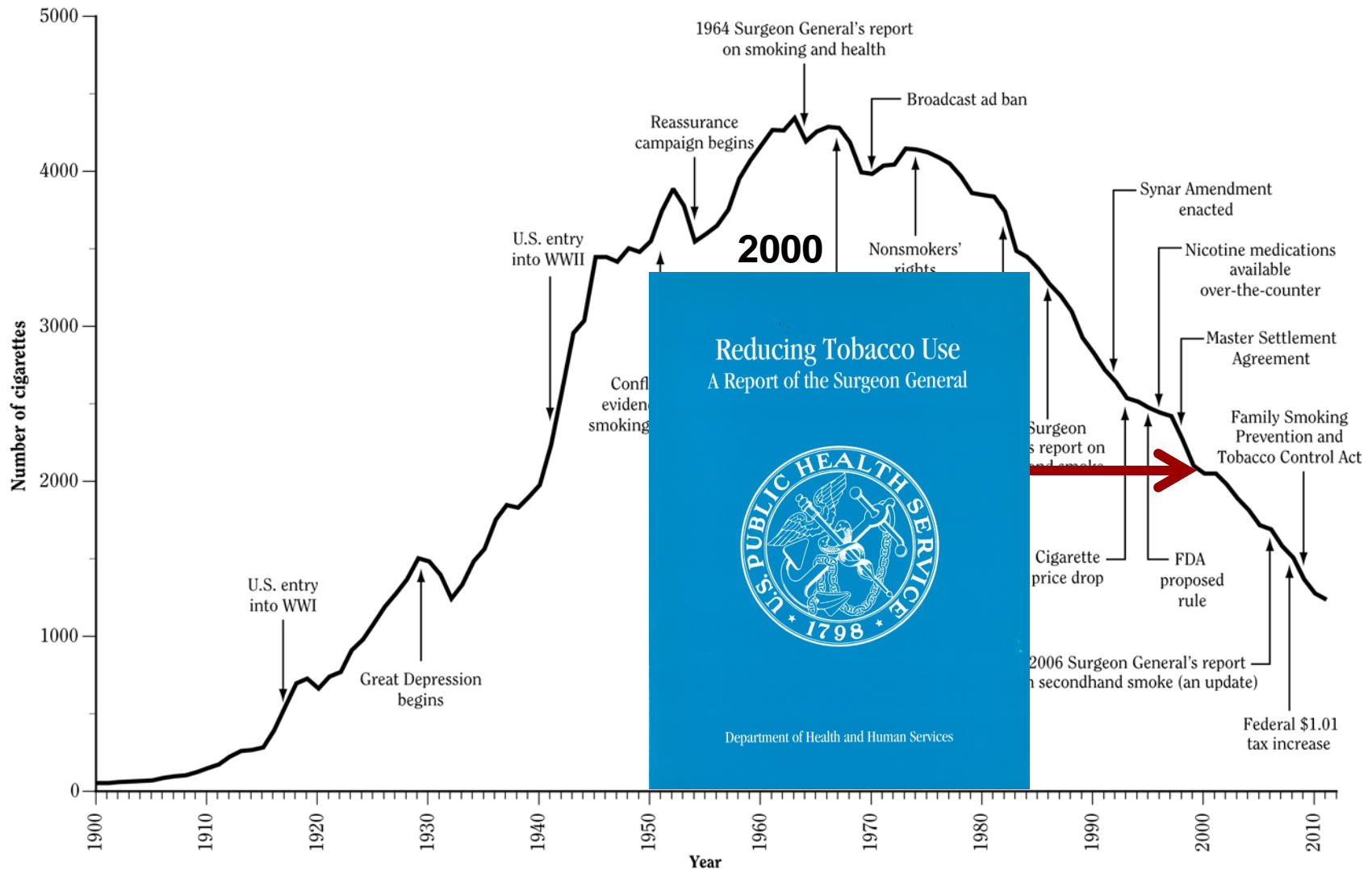


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
Center for Health Promotion and Education  
Office on Smoking and Health  
Rockville, Maryland 20857

**Jack  
Henningfield**



# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The 2000 Surgeon General's Report

## Reducing Tobacco Use A Report of the Surgeon General

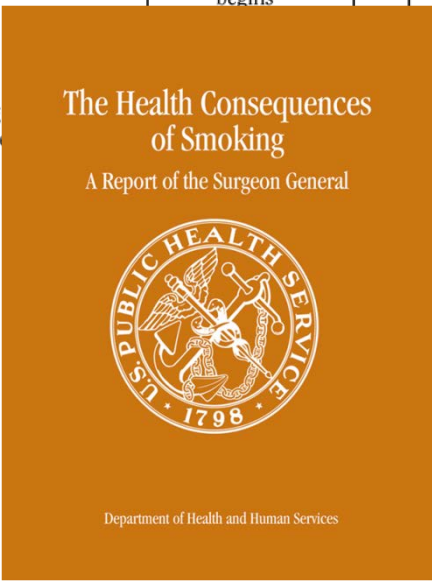
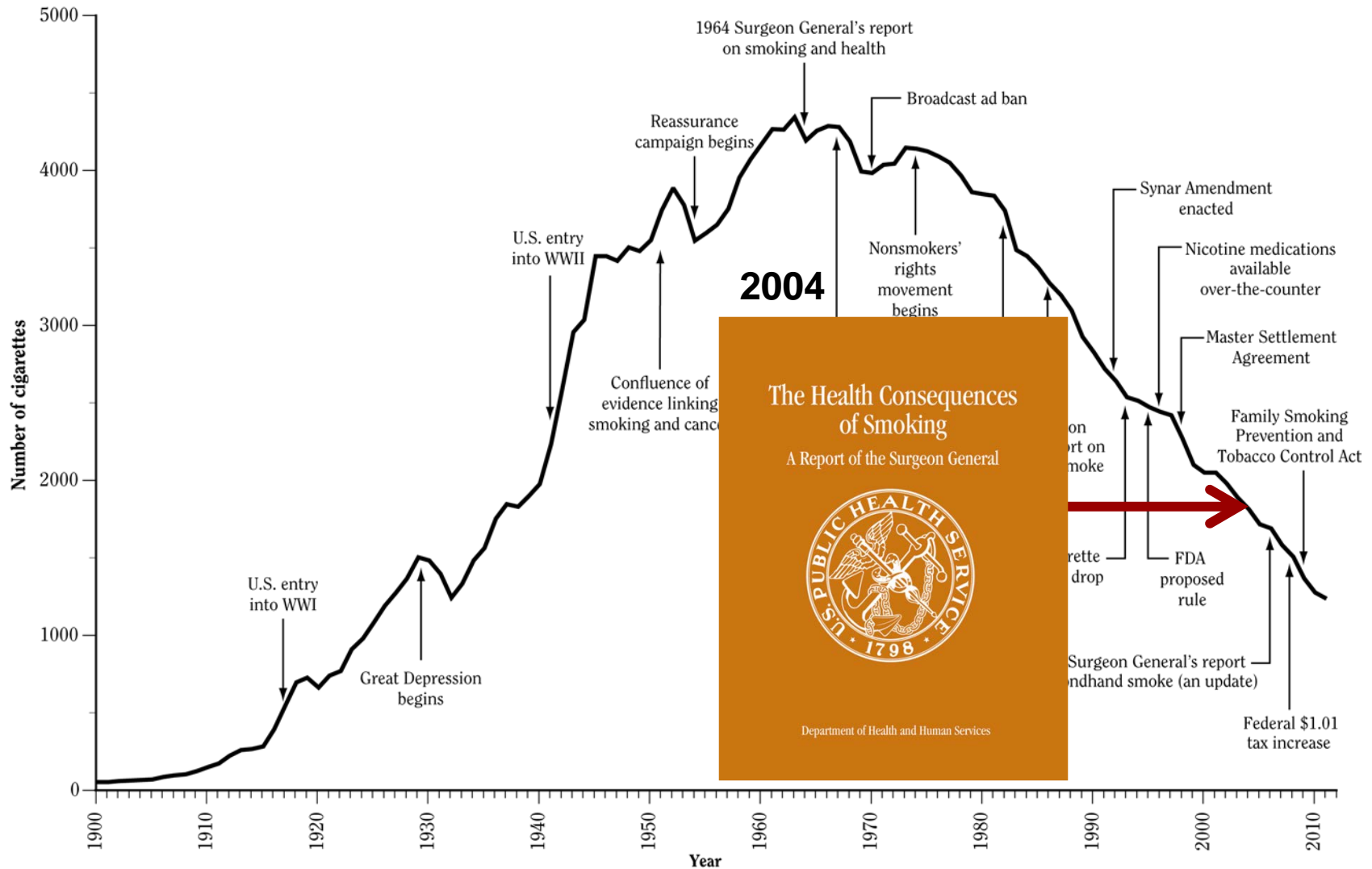


Department of Health and Human Services

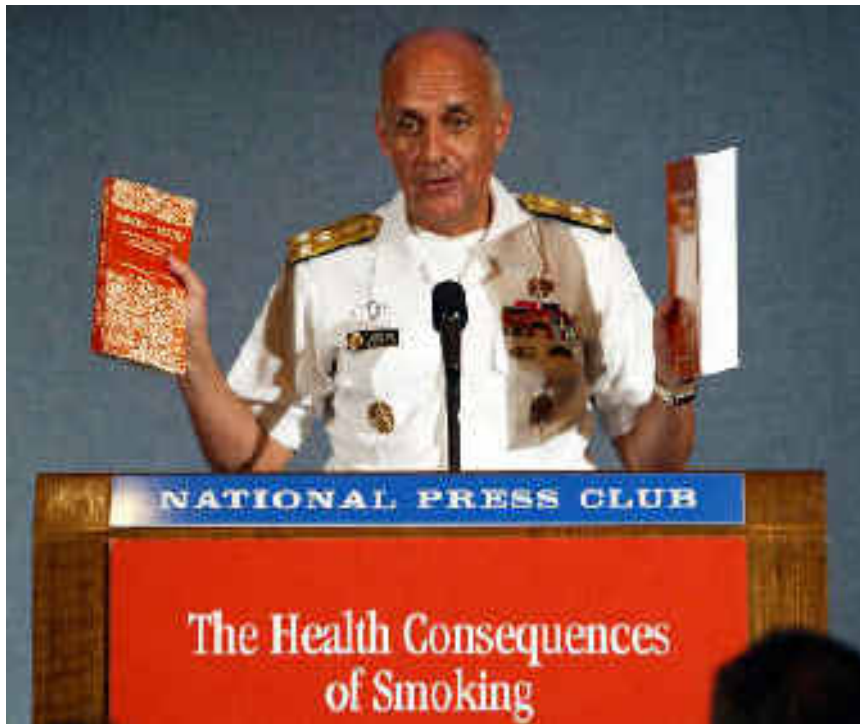
- **First report to offer a composite review of the various methods used to reduce and prevent tobacco use.**
- Evaluates each of the five major approaches to reducing tobacco use:
  - **Educational**
  - **Clinical**
  - **Regulatory**
  - **Economic**
  - **Comprehensive programs**



# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The Release of the 2004 U. S. Surgeon General's Report



“I hope this Report will inform, galvanize, and inspire our nation, states, and communities to reduce the terrible toll of smoking and to secure a healthy future for America.”

**Richard H. Carmona, MD, MPH, FACS**  
**Surgeon General, 2002-2006**

# The 2004 SGR: It Takes a Village....



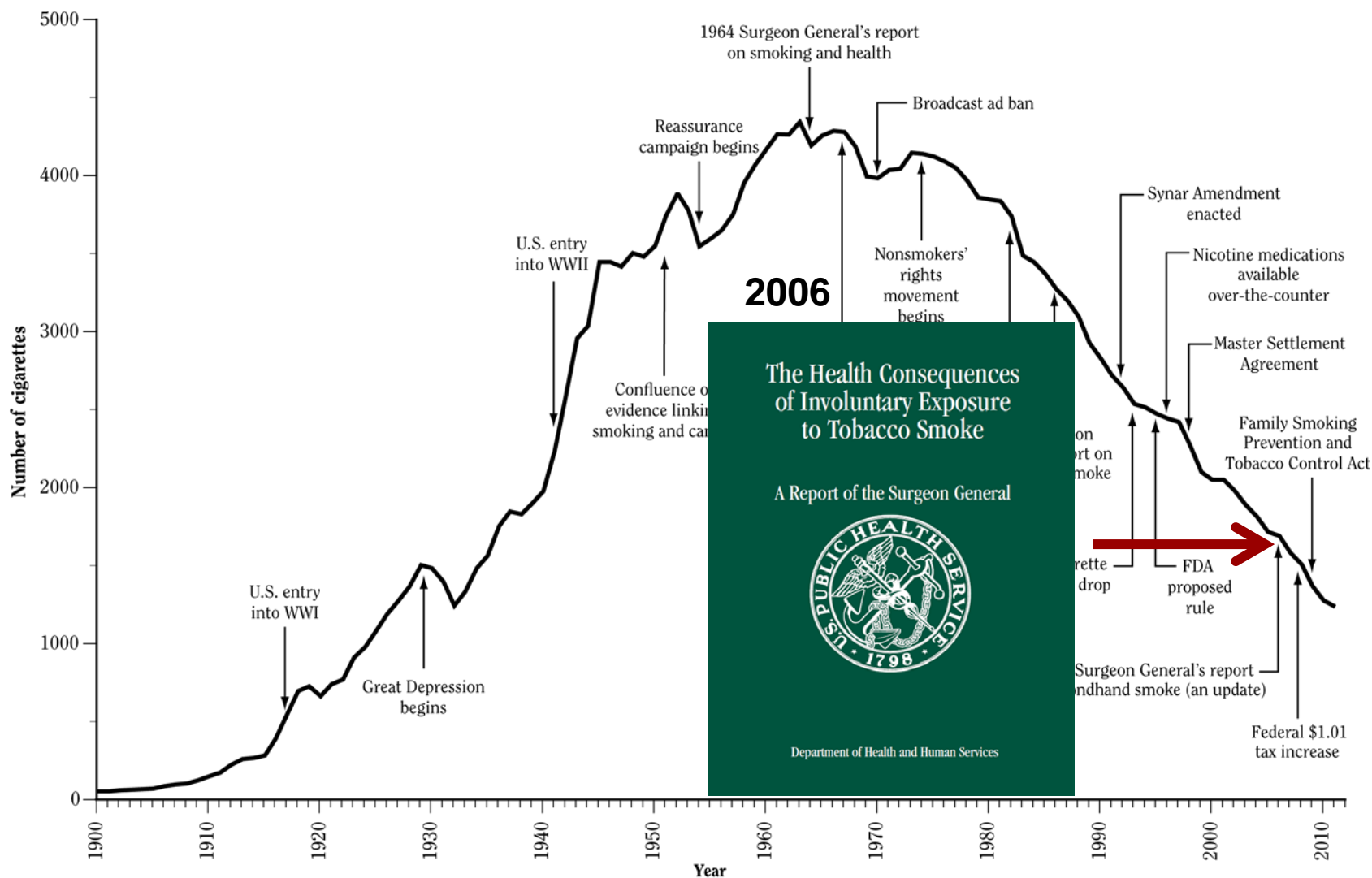
# 2004 Surgeon General's Report:

## Major Conclusions

1. Smoking harms nearly every organ of the body, causing many diseases and reducing the health of smokers in general.
2. Quitting smoking has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general.
3. Smoking cigarettes with lower machine-measured yields of tar and nicotine provides no clear benefit to health.
4. The list of diseases caused by smoking has been expanded to include abdominal aortic aneurysm, acute myeloid leukemia, cataract, cervical cancer, kidney cancer, pancreatic cancer, pneumonia, periodontitis, and stomach cancer.

*Source: U.S. Surgeon General's Report, 2004*

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# The 2006 Surgeon General's Report

The Health Consequences  
of Involuntary Exposure  
to Tobacco Smoke

A Report of the Surgeon General



Department of Health and Human Services

The Surgeon General's Report that we are releasing today, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, documents beyond any doubt that secondhand smoke harms people's health. In the course of the past 20 years, the scientific community has reached consensus on this point."

*Vice Admiral Richard H. Carmona, M.D.,  
M.P.H, FACS, U.S. Surgeon General  
U.S. Department of Health and Human  
Services, June 27, 2006*

# The 2006 SGR: The Release, June 27, 2006



# Conclusions: 2006 Report

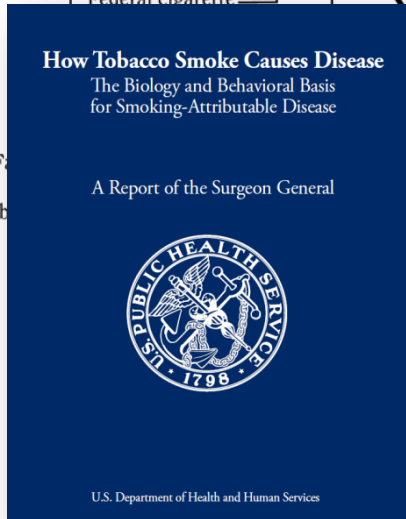
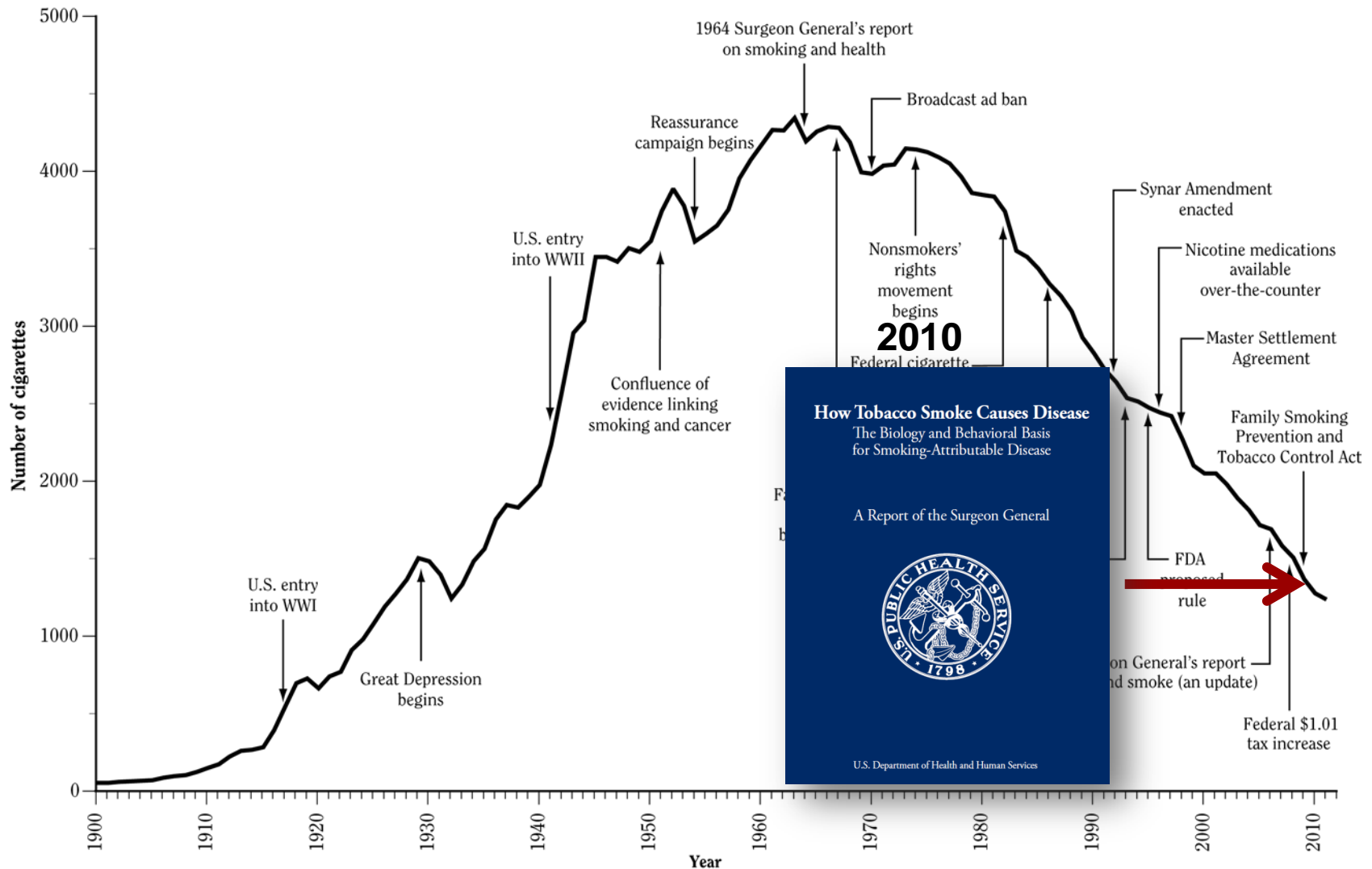
1. Secondhand smoke causes premature death and disease in children and in adults who do not smoke.
2. Children exposed to secondhand smoke are at increased risk for sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, and more severe asthma (smoking by parents causes respiratory symptoms and slows lung growth in their children).
3. Exposure of adults to secondhand smoke has immediate adverse effects on the cardiovascular system and causes coronary heart disease and lung cancer



# Conclusions: 2006 Report

4. The scientific evidence indicates that there is no risk-free level of exposure to secondhand smoke
5. Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces, despite substantial progress in tobacco control
6. Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke (separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposure of nonsmokers to secondhand smoke)

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# SGR 2010: Major conclusions

The scientific evidence supports the following major conclusions:

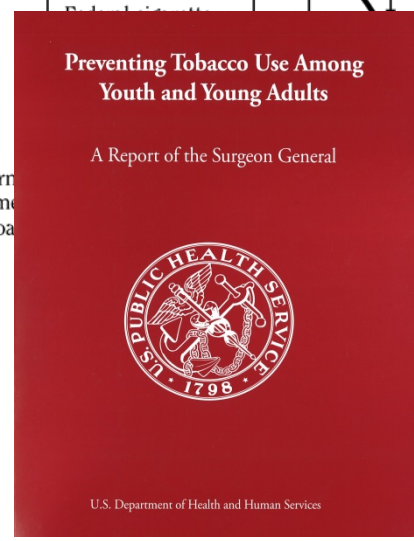
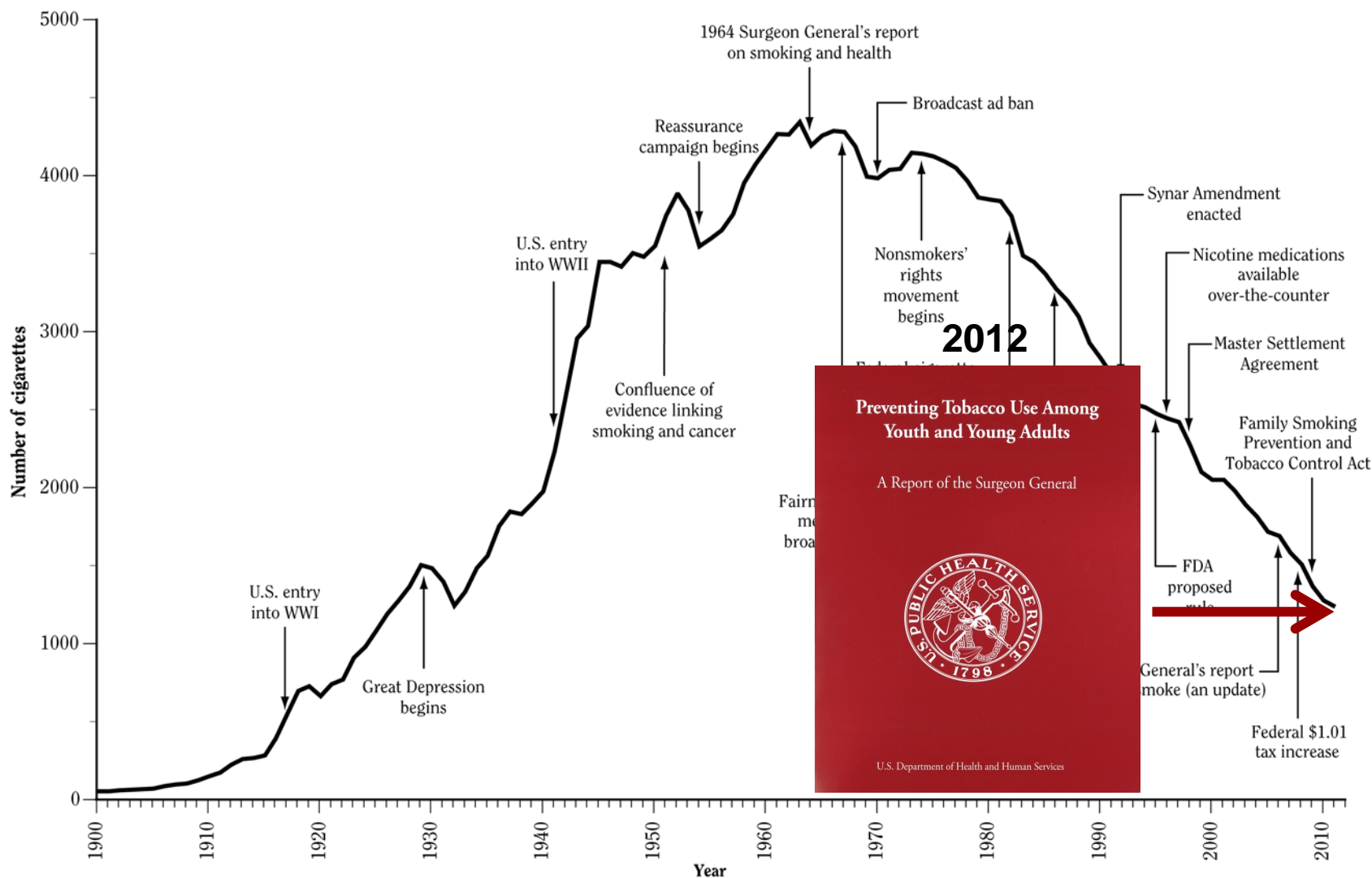
1. The evidence on the mechanisms by which smoking causes disease indicates that there is no risk-free level of exposure to tobacco smoke.
2. Inhaling the complex chemical mixture of combustion compounds in tobacco smoke causes adverse health outcomes, particularly cancer and cardiovascular and pulmonary diseases, through mechanisms that include DNA damage, inflammation, and oxidative stress.
3. Through multiple defined mechanisms, the risk and severity of many adverse health outcomes caused by smoking are directly related to the duration and level of exposure to tobacco smoke.
4. Sustained use and long-term exposures to tobacco smoke are due to the powerfully addicting effects of tobacco products, which are mediated by diverse actions of nicotine and perhaps other compounds, at multiple types of nicotinic receptors in the brain.
5. Low levels of exposure, including exposures to secondhand tobacco smoke, lead to a rapid and sharp increase in endothelial dysfunction and inflammation, which are implicated in acute cardiovascular events and thrombosis.
6. There is insufficient evidence that product modification strategies to lower emissions of specific toxicants in tobacco smoke reduce risk for the major adverse health outcomes.



2010 Surgeon General's Report  
Press Conference,  
December 9, 2011,  
National Press Club in  
Washington, DC

**Regina M. Benjamin, MD, MBA  
Surgeon General, 2009-2013**

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



# Preventing Tobacco Use Among Youth and Young Adults

A Report of the Surgeon General



U.S. Department of Health and Human Services

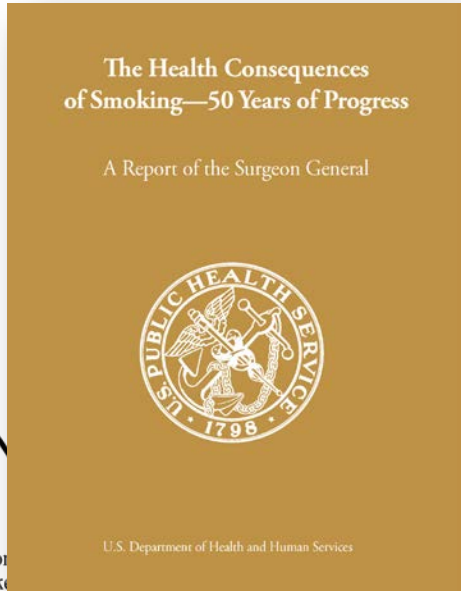
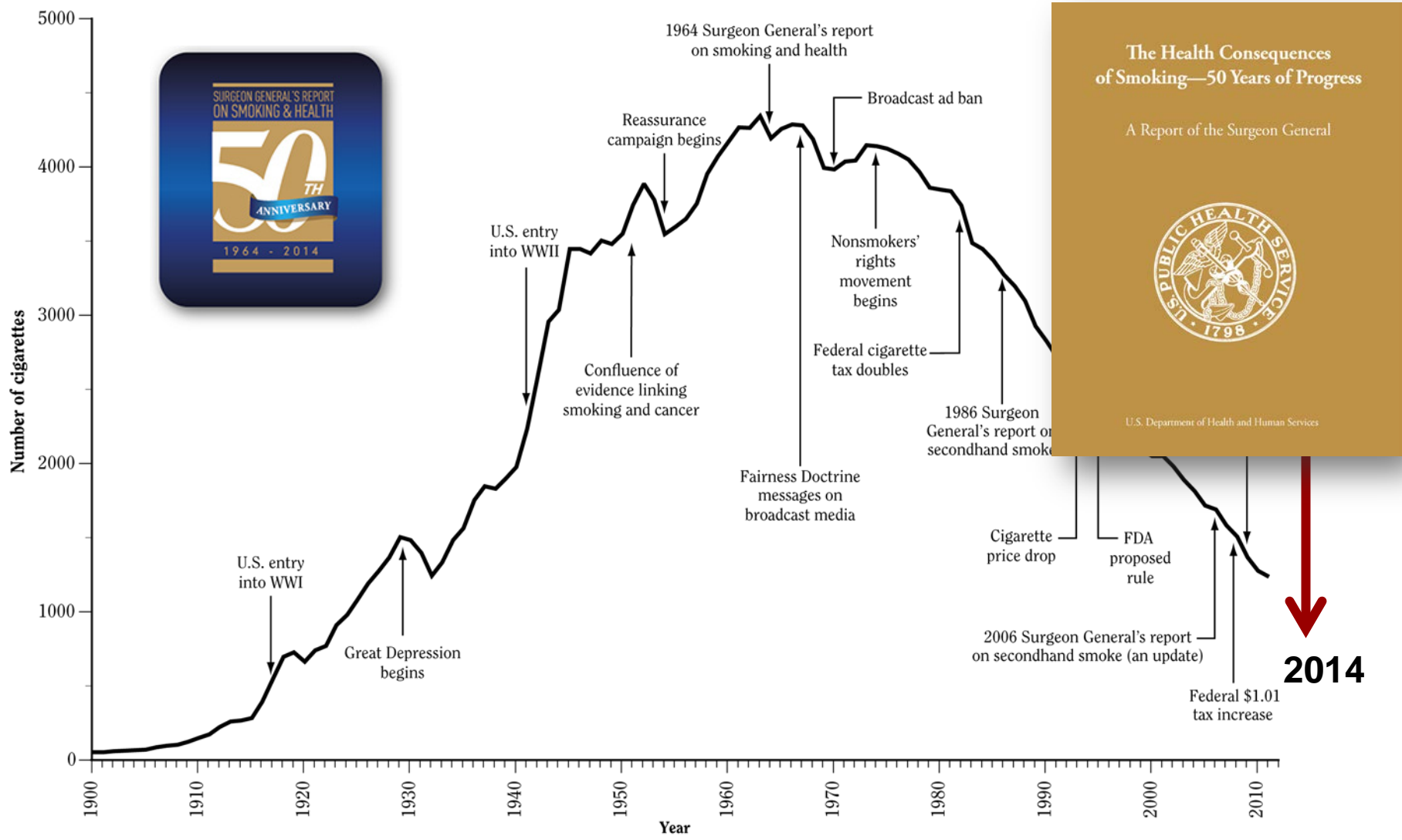
**USDHHS 2012**

## Understanding youth and young adults' tobacco use: The 2012 Report of the U.S. Surgeon General

- Reviews health consequences of tobacco use by young people
- Examines social, environmental, advertising, & marketing influences
- Evidence for prevention & reduction of youth tobacco use

2014

# Adult per-capita cigarette consumption and major smoking and health events, US, 1900-2012



**2014**



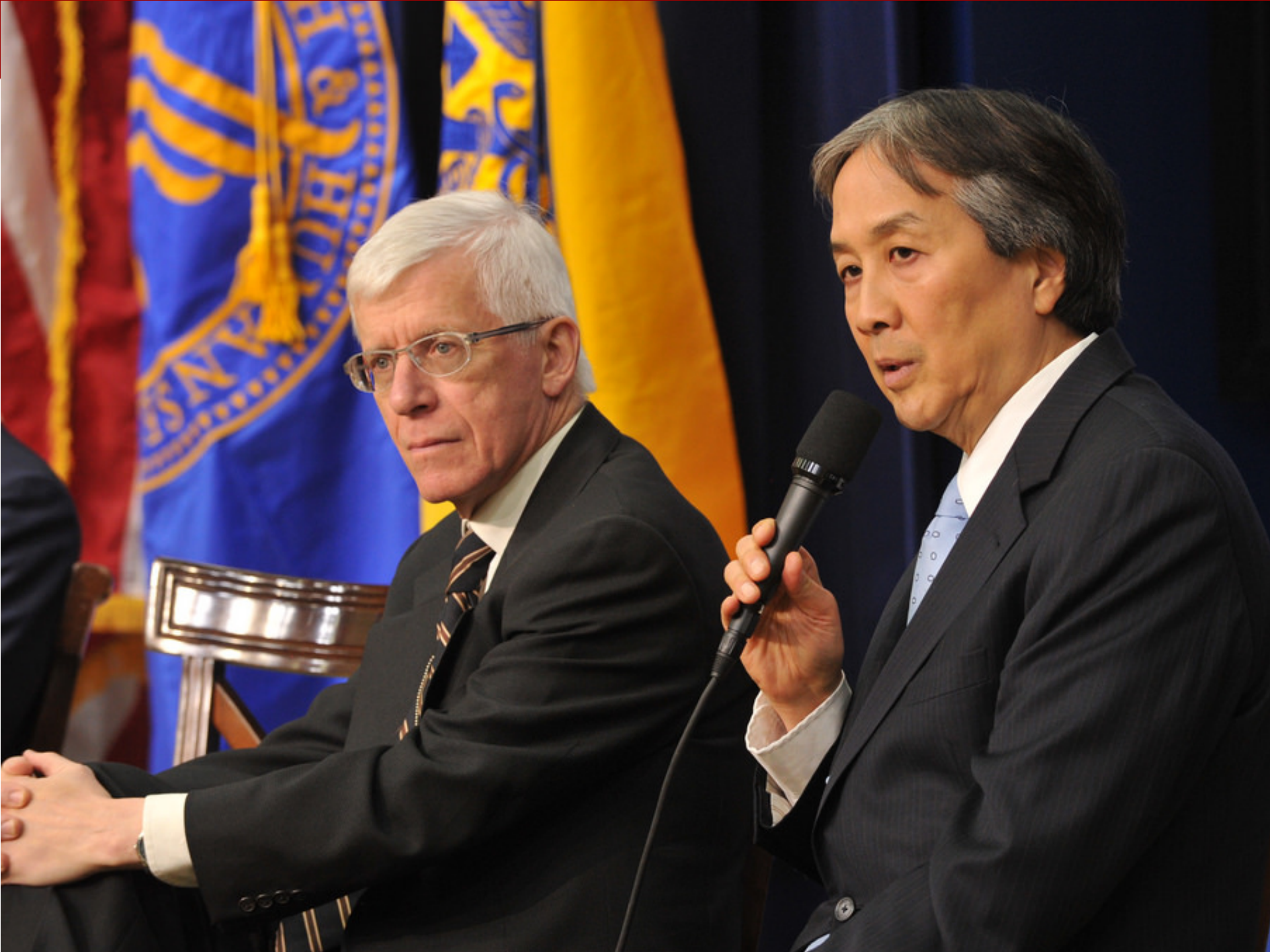
# The SGR 2014 Team



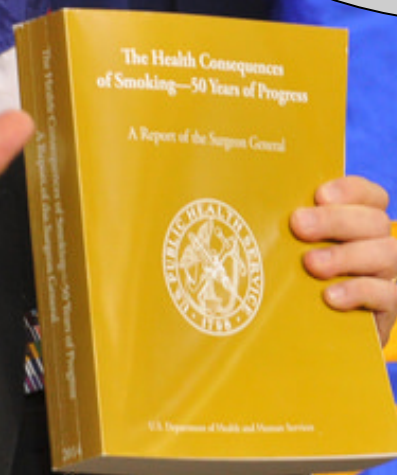


The Health  
Consequences  
of Smoking —  
50 Years





**ENOUGH IS  
ENOUGH!!!**



Click for clip of press conference:  
[http://youtu.be/yr\\_HID2IUUU?t=31m38s](http://youtu.be/yr_HID2IUUU?t=31m38s)

## Major Conclusions from the Report

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1. The century-long epidemic of cigarette smoking has caused an enormous avoidable public health tragedy. Since the first Surgeon General's report in 1964 more than 20 million premature deaths can be attributed to cigarette smoking.
2. The tobacco industry has sustained a profitable business despite the risks to public health.
3. Since the first Surgeon General's report in 1964, all organizations and individuals have a responsibility to use the information provided in the report to reduce tobacco use, including in the workplace, and to support public health actions to reduce tobacco use in the home and in public places.
4. Exposure to tobacco smoke during pregnancy and in infancy and childhood is causally linked to a number of serious diseases, including cardiovascular disease, cancer, and chronic obstructive pulmonary disease.
5. The disease risks from smoking by women have risen sharply over the last 50 years and are now equal to those for men for lung cancer, chronic obstructive pulmonary disease, and cardiovascular diseases.
6. In addition to causing multiple diseases, cigarette smoking has many other adverse effects on the body, such as causing inflammation and impairing immune function.
7. The tobacco industry has spent billions of dollars on advertising and promotion to increase tobacco use, particularly among youth.
8. The tobacco industry has spent billions of dollars on lobbying to prevent or delay public health actions to reduce tobacco use.
9. The tobacco industry has spent billions of dollars on litigation to avoid or delay public health actions to reduce tobacco use.
10. For 50 years the Surgeon General's reports on smoking and health have provided a critical scientific foundation for public health action directed at reducing tobacco use and preventing tobacco-related disease and premature death.

### ***Conclusion #1:***

**The century-long epidemic of cigarette smoking has caused an enormous avoidable public health tragedy. Since the first Surgeon General's report in 1964 more than 20 million premature deaths can be attributed to cigarette smoking.**

## Major Conclusions from the Report

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10. For 50 years the Surgeon General's reports on smoking and health have provided a critical scientific foundation for public health action directed at reducing tobacco use and preventing tobacco-related disease and premature death.

### ***Conclusion #2:***

**The tobacco epidemic was initiated and has been sustained by the aggressive strategies of the tobacco industry, which has deliberately misled the public on the risks of smoking cigarettes.**

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## Major Conclusions from the Report

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### ***Conclusions #3-6:***

**Since the 1964 Surgeon General's report, cigarette smoking has been causally linked to diseases of nearly all organs of the body, to diminished health status, and to harm to the fetus. Even 50 years after the first Surgeon General's report, research continues to newly identify diseases caused by smoking, including such common diseases as diabetes mellitus, rheumatoid arthritis, and colorectal cancer.**

**Exposure secondhand tobacco smoke has been causally linked to cancer, respiratory, and cardiovascular diseases, and to adverse effects on the health of infants and children.**

**The disease risks from smoking by women have risen sharply over the last 50 years and are now equal to those for men for lung cancer, chronic obstructive pulmonary disease, and cardiovascular diseases.**

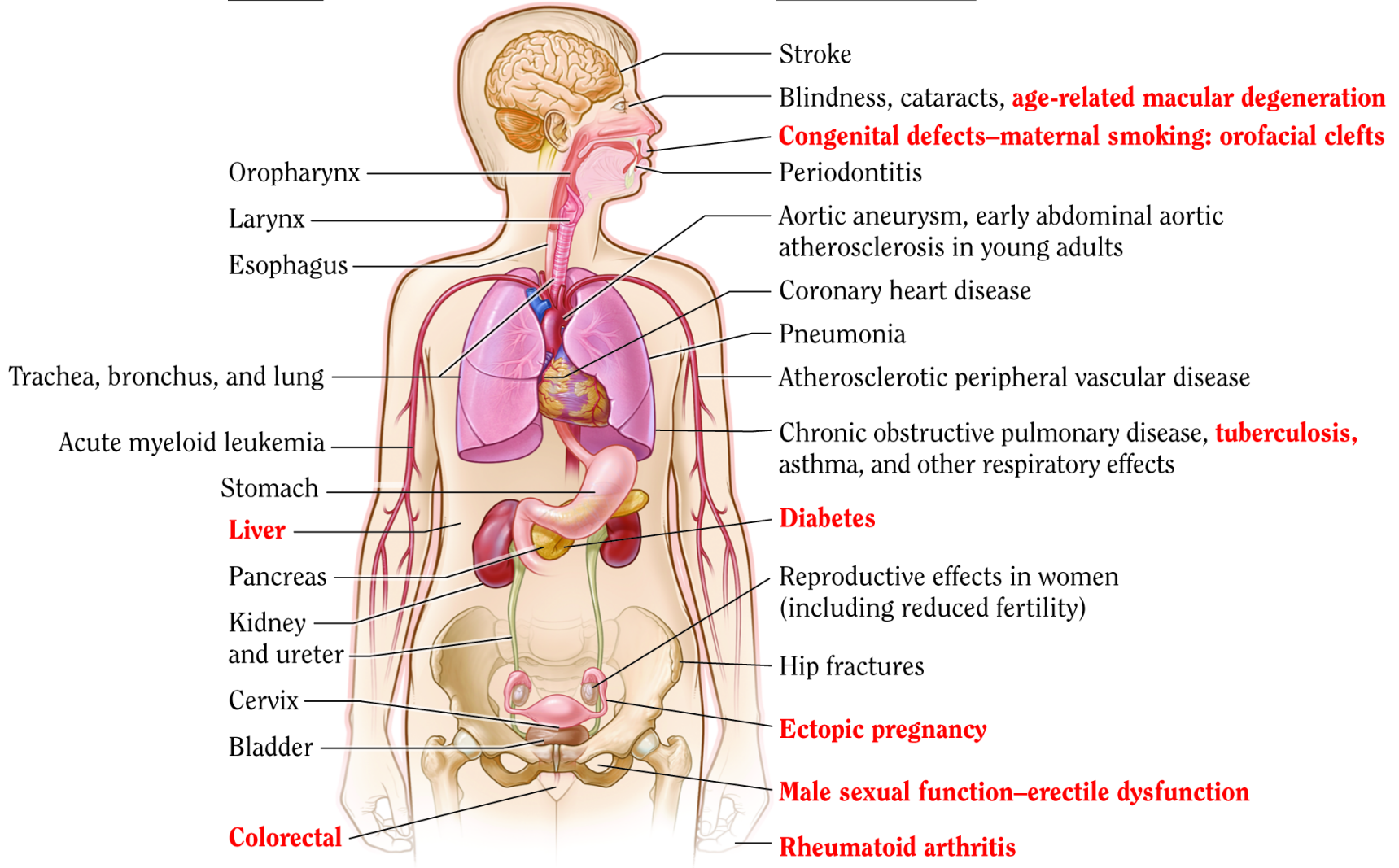
**In addition to causing multiple diseases, cigarette smoking has many other adverse effects on the body, such as causing inflammation and impairing immune function.**



# Active Smoking

## Cancers

## Chronic Diseases



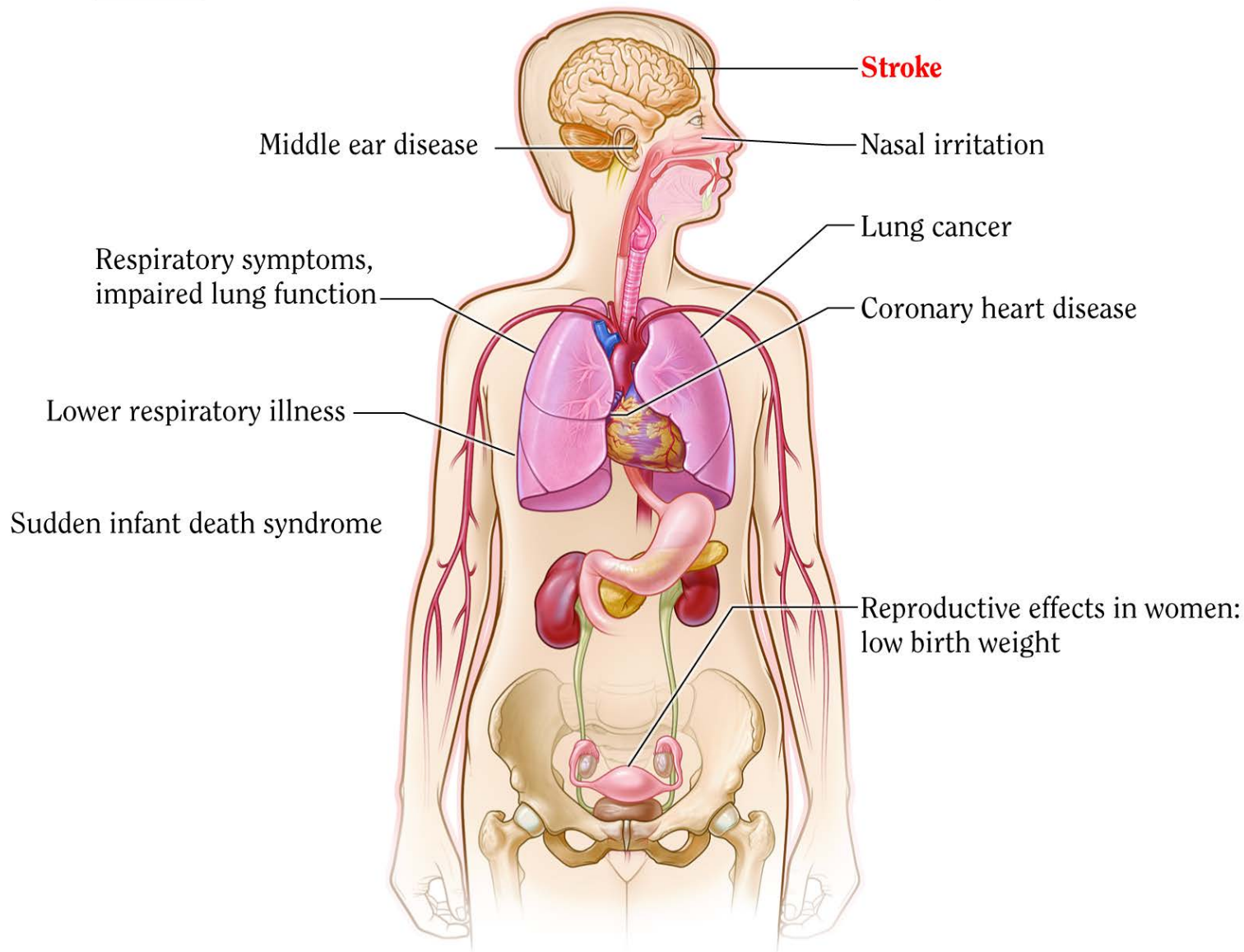
## **Immune function**

Overall diminished health

# Passive Smoking

## Children

## Adults



## Major Conclusions from the Report

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### ***Conclusions #7-9:***

**Although cigarette smoking has declined significantly since 1964, very large disparities in tobacco use remain across groups defined by race, ethnicity, educational level, and socioeconomic status and across regions of the country.**

**Since the 1964 Surgeon General's report, comprehensive tobacco control programs and policies have been proven effective for controlling tobacco use. Further gains can be made with the full, forceful, and sustained use of these measures.**

**The burden of death and disease from tobacco use in the United States is overwhelmingly caused by cigarettes and other combusted tobacco products; rapid elimination of their use will dramatically reduce this burden.**

*pulmonary disease, and cardiovascular diseases.*

# Chapter 15

## The Changing Landscape of Tobacco Control— Current Status and Future Directions

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### *Chapter Conclusions:*

1. Together, experience since 1964 and results from models exploring future scenarios of tobacco control indicate that the decline in tobacco use over coming decades will not be sufficiently rapid to meet targets. The goal of ending the tragic burden of avoidable disease and premature death will not be met quickly enough without additional action.
2. Evidence-based tobacco control interventions that are effective continue to be underutilized and implemented at far below funding levels recommended by the Centers for Disease Control and Prevention. Implementing tobacco control policies and programs as recommended by *Ending the Tobacco Epidemic: A Tobacco Control Strategic Plan* by the U.S. Department of Health and Human Services and the *Ending the Tobacco Problem: A Blueprint for the Nation* by the Institute of Medicine on a sustained basis at high intensity would accelerate the decline of tobacco use in youth and adults, and also accelerate progress toward the goal of ending the tobacco epidemic.
3. New “end game” strategies have been proposed with the goal of eliminating tobacco smoking. Some of these strategies may prove useful for the United States, particularly reduction of the nicotine content of tobacco products and greater restrictions on sales (including bans on entire categories of tobacco products).

# Chapter 16

## A Vision for Ending the Tobacco Epidemic: Toward a Society Free of Tobacco-caused Death and Disease

### ***Key policy messages:***

- Counteracting industry marketing by sustaining high impact national media campaigns like the CDC's Tips from Former Smokers campaign and FDA's youth prevention campaigns at a high frequency level and exposure for 12 months a year for a decade or more;
- Raising the average excise cigarette taxes to prevent youth from starting smoking and encouraging smokers to quit;
- Fulfilling the opportunity of the Affordable Care Act to provide access to barrier-free proven tobacco use cessation treatment including counseling and medication to all smokers, especially those with significant mental and physical comorbidities;
- Expanding smoking cessation for all smokers in primary and specialty care settings by having health care providers and systems examine how they can establish a strong standard of care for these effective treatments;
- Effective implementation of FDA's authority for tobacco product regulation in order to reduce tobacco product addictiveness and harmfulness;
- Expanding tobacco control and prevention research efforts to increase understanding of the ever changing tobacco control landscape;
- Fully funding comprehensive statewide tobacco control programs at CDC recommended levels; and
- Extending comprehensive smokefree indoor protections to 100% of the U.S. population.

# Looking Ahead: Chapter 16

- Rapid reduction of combustible products
- Reduction of nicotine content in cigarettes
- Role of non-combustible products
  - Under Tobacco Control Act
  - Individual harm reduction vs. Population risk
- Using all strategies better and in concert

# THE NEXT 50 YEARS

IF WE COULD HELP EVERY SMOKER TO QUIT SMOKING AND KEEP YOUNG PEOPLE FROM STARTING IN THE FIRST PLACE, THE RESULTS WOULD BE STAGGERING.



Despite all our progress, there is more work to be done. Every day 3,200 youth under 18 smoke their first cigarette, and another 2,100 youth and young adults who have been occasional smokers become daily smokers.

## Saving Millions of Lives

- There are many ways to reduce smoking rates quickly and dramatically. Among the strategies proven to work are:
- Affordable smoking cessation treatments that are easily available to people who want to quit;
  - Comprehensive smokefree and tobacco-free policies in public places that protect nonsmokers and make smoking the exception rather than the norm;
  - Higher prices on cigarettes and other tobacco products that discourage young people from starting in the first place and that encourage adult smokers to quit;
  - Continued mass media campaigns that inform people of the dangers of smoking and tell them about resources to help them quit; and
  - State and community programs that help integrate tobacco control into medical, retail, education, and public health environments that reach groups of people who might not otherwise be exposed to tobacco control initiatives.

## The New York Times

THE NEW YORK TIMES NATIONAL FRIDAY, JANUARY 17, 2014

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A15

# List of Smoking-Related Illnesses Grows Significantly in U.S. Report

By SABRINA TAVERNISE

WASHINGTON — In a broad review of scientific literature, the nation's top doctor has concluded that cigarette smoking — long known to cause lung cancer and heart disease — also causes diabetes, colorectal and liver cancers, erectile dysfunction and ectopic pregnancy.

In a report to the nation to be released on Friday, the acting surgeon general, Dr. Boris D. Lushniak, significantly expanded the list of illnesses that cigarette smoking has been scientifically proved to cause.

The other health problems the report names are vision loss, tuberculosis, rheumatoid arthritis, impaired immune function and cleft palates in children of women who smoke.

Smoking has been known to be associated with these illnesses, but the report was the first time the federal government concluded that smoking causes them.

The finding does not mean that smoking causes all cases of the

health problems and diseases listed in the report, but that some of the cases would not have happened without smoking. The surgeon general has added to the list of smoking-related diseases before. Bladder cancer was added in 1990 and cervical cancer in 2004.

The report is not legally binding, but is broadly held as a standard for scientific evidence among researchers and policy makers.

Experts not involved in writing the report said the findings were a comprehensive summary of the most current scientific evidence, and while they might not be surprising to researchers, they were intended to inform the public as well as doctors and other medical professionals about the newest proven risks of smoking.

"I thought the science was very well done and up to date," said Dr. Robert Wallace, a professor of epidemiology and internal medicine at the University of Iowa, who helped review the re-

port.

The report comes 50 years after the pivotal 1964 surgeon general's report in which the government concluded for the first time that smoking caused lung cancer. That report was credited with starting to change public attitudes toward smoking, which has declined sharply. In 1965, about 43 percent of adults were smokers; in 2012, about 18 percent were.

But that decline has slowed in recent years, and the new report calls for stronger action in combating smoking. Smoking is the largest cause of premature death in the country, killing more than 400,000 people a year. The report notes that far more Americans have died prematurely from cigarette smoking than in all the wars ever fought by the United States.

The report concluded that the evidence was insufficient to say that smoking caused prostate cancer. The evidence was suggestive, but not definite, that smoking causes breast cancer.



JULIO CORTEZ/ASSOCIATED PRESS

The document also celebrates the public health success of smoking's decline since Dr. Luther Terry, the surgeon general in 1964, released his landmark finding. Smoking was deeply embedded in American culture at the time. Half of adult men were smokers, and a third of women. Even doctors smoked.

That report was so controversial that it was released on a Saturday when Congress was on recess to minimize the political repercussions, said Dr. Richard D. Hurt, a professor of medicine at the Mayo Clinic.

Dr. Judith Fradkin, a diabetes

scientist at the National Institutes of Health, who was not involved in the report, said the evidence that smoking increases the risk of Type 2 diabetes had been gathering for about 20 years.

While smoking causes most cases of lung cancer, it causes only a small fraction of liver and colorectal cancers. A current smoker is 25 times as likely to develop lung cancer as someone who has never smoked, but only about 1.5 times as likely to develop liver cancer.

"It's a fairly modest association, but because so many people smoke, it's still an important

Smoking is the largest cause of premature death in the United States.

cause of these cancers," said Neal Freedman, an epidemiologist at the National Cancer Institute.

He pointed out that the surgeon general last looked at the effect of smoking on liver cancer in 2004, and found the evidence only suggestive. Since then, 90 new studies have been published allowing the surgeon general to conclude smoking is a cause.

The report also finds that the risks of lung cancer are far higher today than in past decades, even though smokers today consume fewer cigarettes. In 1959, women who smoked were 2.7 times as likely as women who never smoked to develop lung cancer, and by 2010, the additional risk had jumped nearly tenfold. For men, the risk doubled over the same period. The report said changes in cigarettes' design, namely to the filter, contributed to the increased deadliness.

"It is stunning that the risk of a premature death from smoking is greater than it was 50 years ago," said Matthew Myers, head of the Campaign for Tobacco-Free Kids, an advocacy group.



## THE WALL STREET JOURNAL.

POLITICS AND POLICY

## Cigarettes Tied to More Deaths, Types of Illness

*U.S. Surgeon General Report Warns Smoking Is Linked to 10 More Conditions, Including Diabetes and Arthritis*

By MIKE ESTERL

Updated Jan. 17, 2014 12:01 a.m. ET

Cigarettes are deadlier and linked to more diseases than previously thought, according to a new report from the U.S. surgeon general being released 50 years after the government first warned that smoking kills.

In the report to be released Friday, the nation's top doctor warned that smoking is linked to the deaths of about 480,000 Americans annually. That's a substantial increase over the government's previous estimate of 443,000 deaths, despite the fact that fewer Americans are lighting up and those who do smoke are lighting up less often.



Cigarettes are deadlier and linked to more diseases than previously thought, according to a new report from the U.S. surgeon general being released 50 years after the government first warned that smoking kills. Mike Esterl reports. Photo: Getty Images.

Cigarettes are a causal factor in 10 diseases and conditions they hadn't previously been definitively linked to, including diabetes, colorectal cancer, arthritis and erectile dysfunction, the report said—bringing the total number to more than 30.

In 1964, a landmark surgeon general report pinpointed smoking as a cause of lung and laryngeal cancers as well as bronchitis. That report precipitated health warnings on cigarette packs, advertising bans and other regulations. Since then, such restrictions have contributed to a decline in U.S. smoking rates, though the pace has slowed in recent years. An estimated 18.1% of U.S. adults, or 42 million people, smoked in 2012, down from 42% in 1965.

Friday's report suggests the design and composition of today's cigarette is more dangerous than the 1950s equivalent because of the introduction of ventilated filters and rising levels of cancer-causing chemicals in recent decades. Cigarettes with ventilated filters were initially marketed as safer, though smokers tend to cover up the filters and inhale more deeply, pushing toxins farther into the lungs.

"I think they are more harmful today. We're certainly worried," Surgeon General Boris Lushniak said in an interview.



**Sheelah A. Feinberg** ♥ Become a fan  
Executive Director, NYC Coalition for a Smoke-Free City

HUFF  
POST

## The Surgeon General's Report: New Strategies to Reach Communities Who Continue to Smoke

Posted: 01/30/2014 6:14 pm EST | Updated: 01/30/2014 6:59 pm EST



This month, the U.S. Surgeon General's report on [The Health Consequences of Smoking](#) reminded us just how far we've come over the last 50 years in our efforts to control tobacco use and prevent our youth from smoking. Smoking rates are dramatically lower than in 1964 when the first Surgeon General's report about the dangers of smoking was released ([42 percent](#) compared to [18 percent](#) in 2012).

Tobacco control and prevention efforts have saved [eight million Americans](#) .

Despite these significant gains, our fight to reduce tobacco use is far from won, and the Surgeon General's report tells us just how much is at stake. Despite tremendous progress, cigarette smoking kills even more Americans than previously estimated (about [480,000](#) a year, up from 443,000) and causes more deadly cancers and chronic diseases than we thought 50 years ago. Because of changes in how they are made and what chemicals are added to them, cigarettes are even deadlier and more addictive now than when they were first introduced. The risk of developing the most common type of lung cancer has increased substantially since we first learned that smoking causes lung cancer.

# The Health Consequences of Smoking: 100 Years of ?????

A Report of the Surgeon General



U.S. Department of Health and Human Services