

# **Tobacco Surveillance in the United States**



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# Outline of Presentation

- Public health surveillance
- Tobacco surveillance
- Conceptual models
- Historical, current, and emerging systems
- Data
- Key areas for surveillance

# Public Health Surveillance

## Definition

**The ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and improve health.**

**Data disseminated by a public health surveillance system can be used for immediate public health action, program and policy planning and evaluation, and formulating and testing research hypotheses.**

# Evolution of Surveillance in the 20th Century

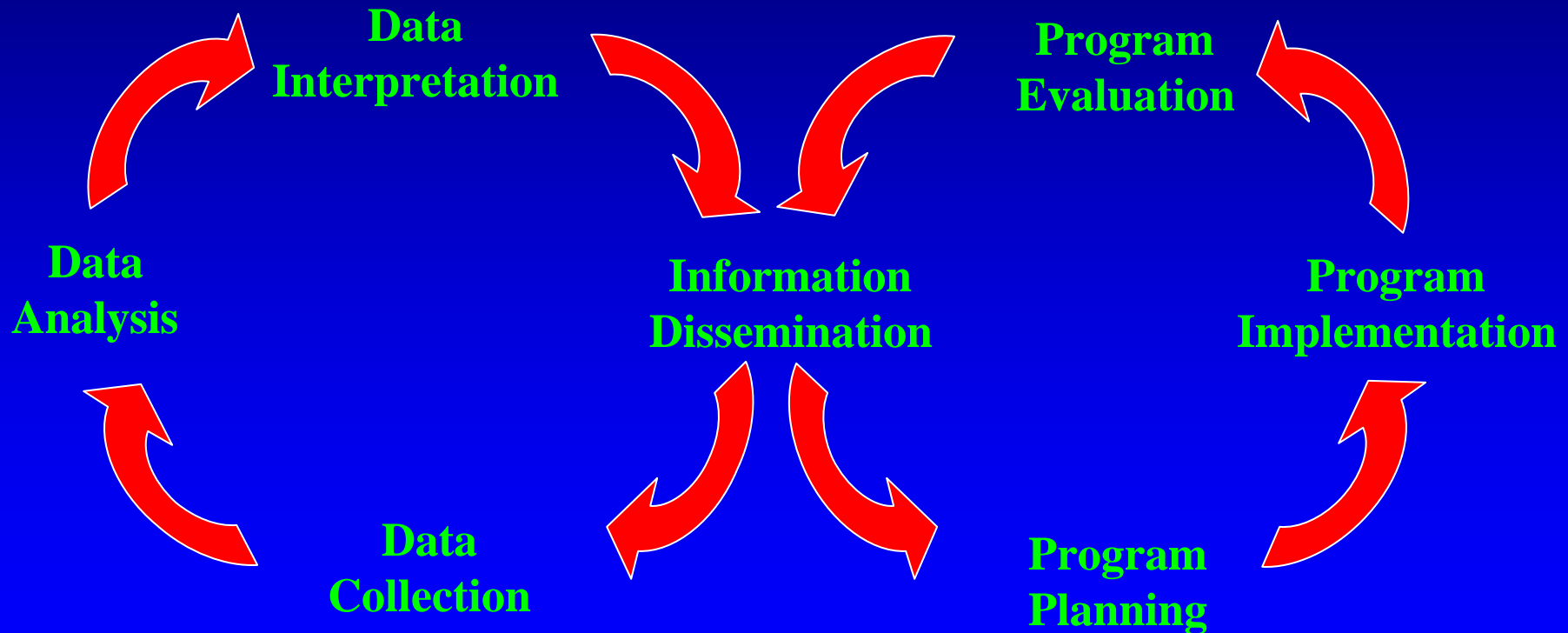
**1900s – Individual contacts of infected persons**

**1950s – Communicable diseases**

**1970s – Selected chronic diseases**

**1950s-present – Behavioral, occupational, and  
environmental risk factors**

# Organizational Model for State-Based Chronic Disease Surveillance Programs



# Purposes of a Tobacco-Related Surveillance System

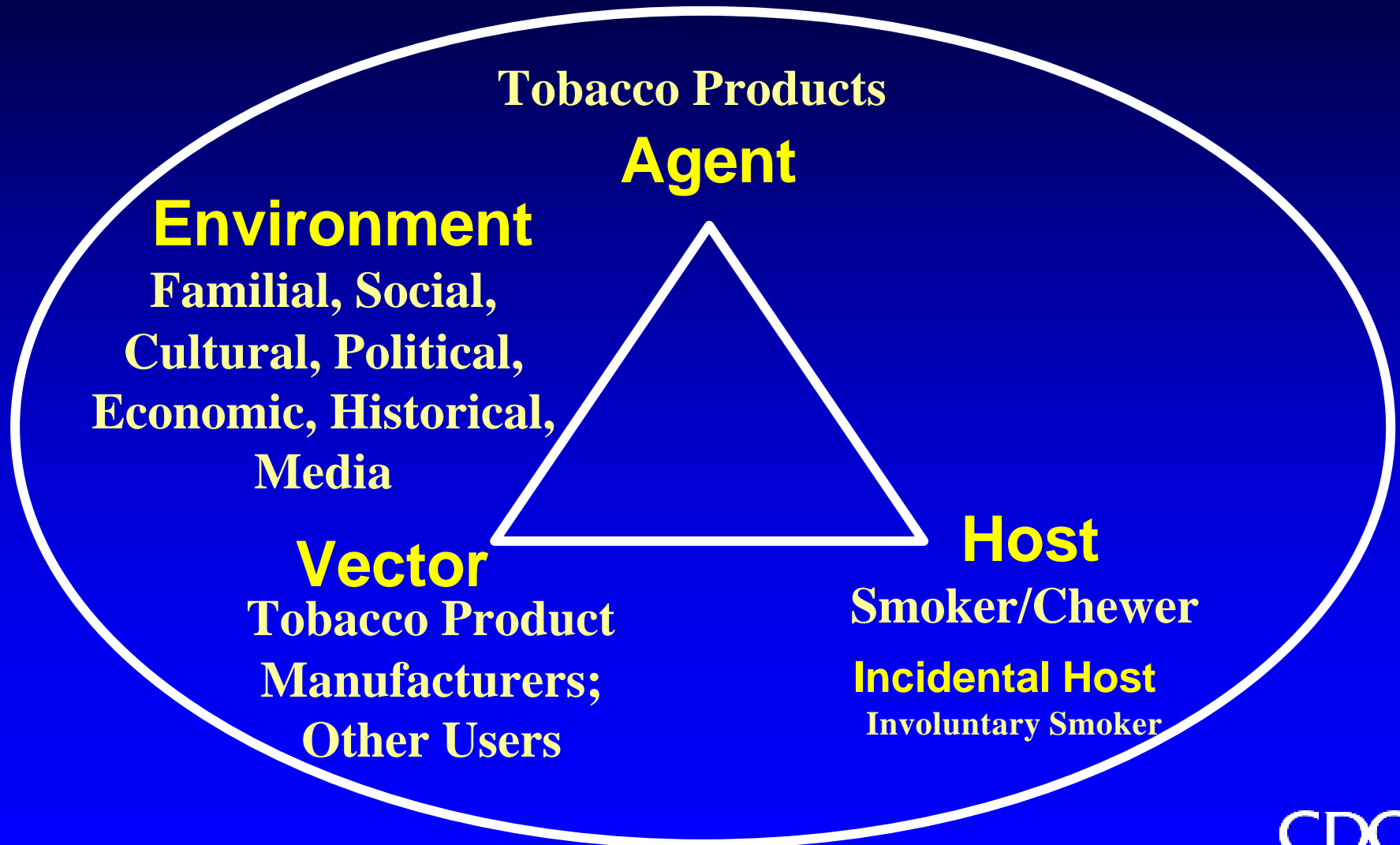
**To provide timely information from populations on:**

- **prevalence of use of various products (tobacco and pharmaceutical)**
- **factors that influence their use**
- **incidence, prevalence, and mortality from tobacco-attributable diseases**
- **impact of tobacco control programs and policies on relevant outcomes**

# Uses of Tobacco Surveillance Data

- **Learn about nature of the problem**
- **Justify policies, programs, and legislation**
- **Monitor and evaluate these**
- **Set realistic objectives**
- **Identify high risk groups**
- **Justify research initiatives**
- **Conduct research**

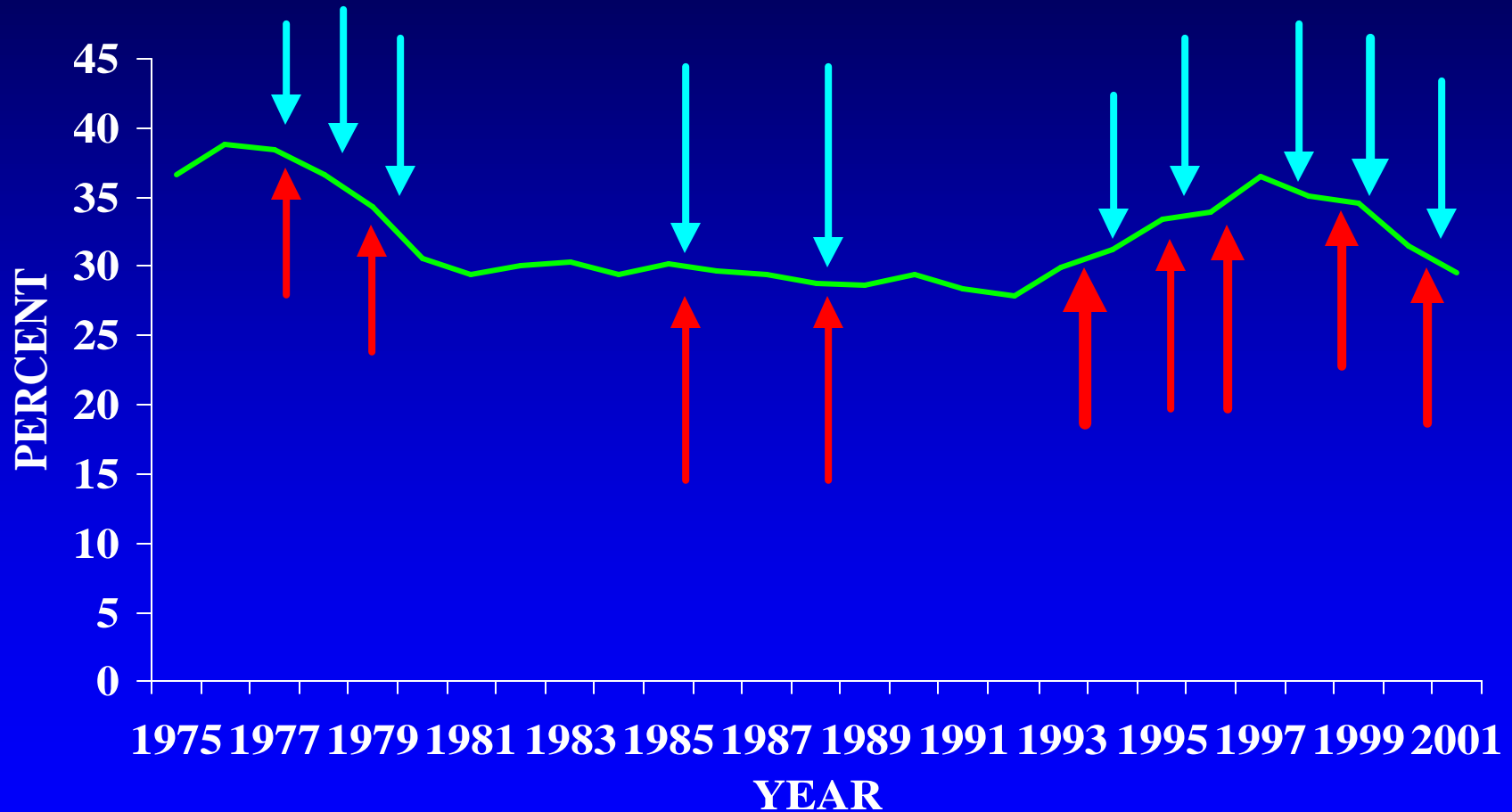
# Epidemiologic Model of Tobacco Addiction and Control



Source: Orleans & Slade, 1993



# Conceptual Model of Factors Influencing Trends in Adolescent Smoking – United States, 1975-2001

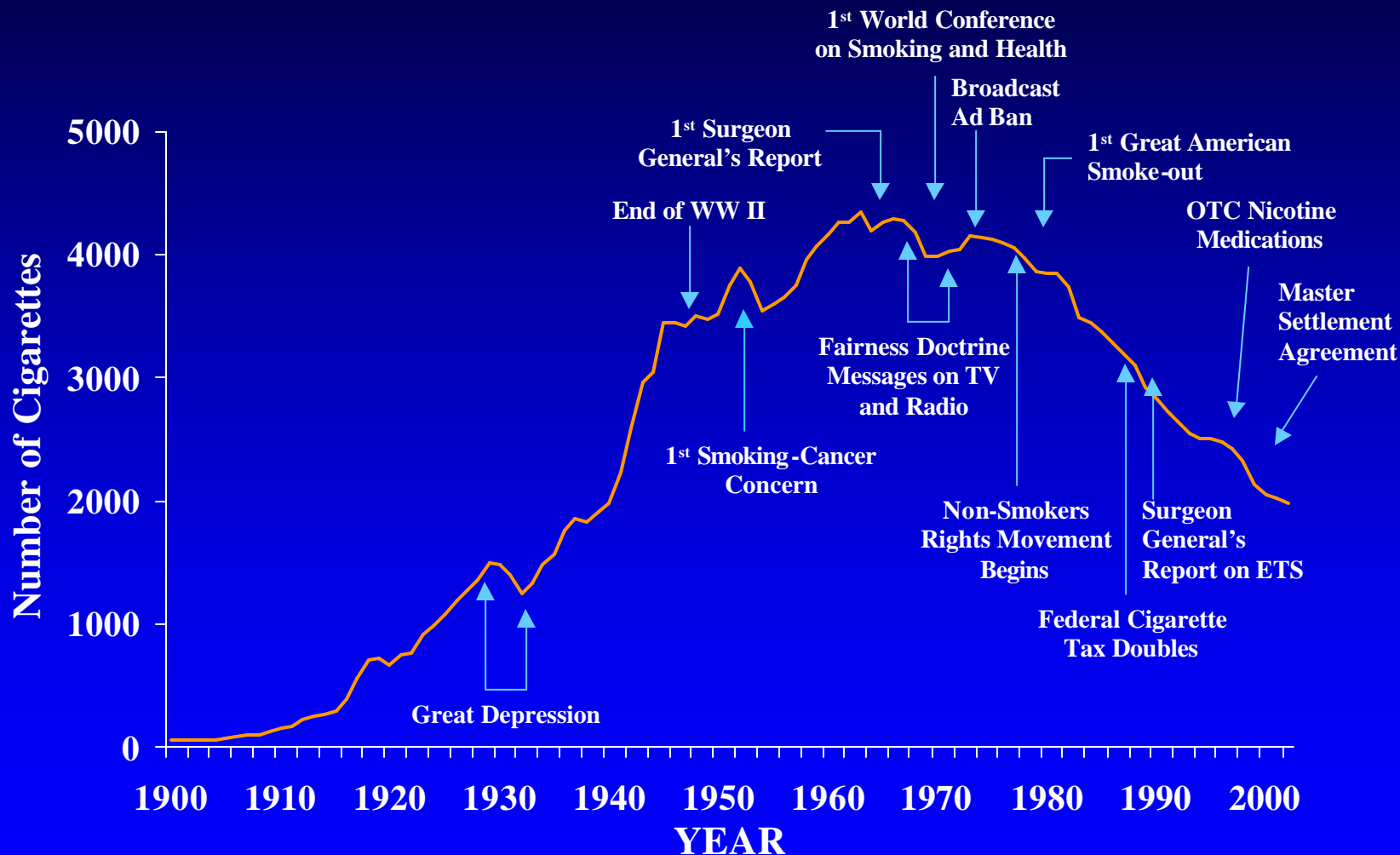


# **Major Sources of Data on Tobacco Use in the United States**

## **Consumption Data**

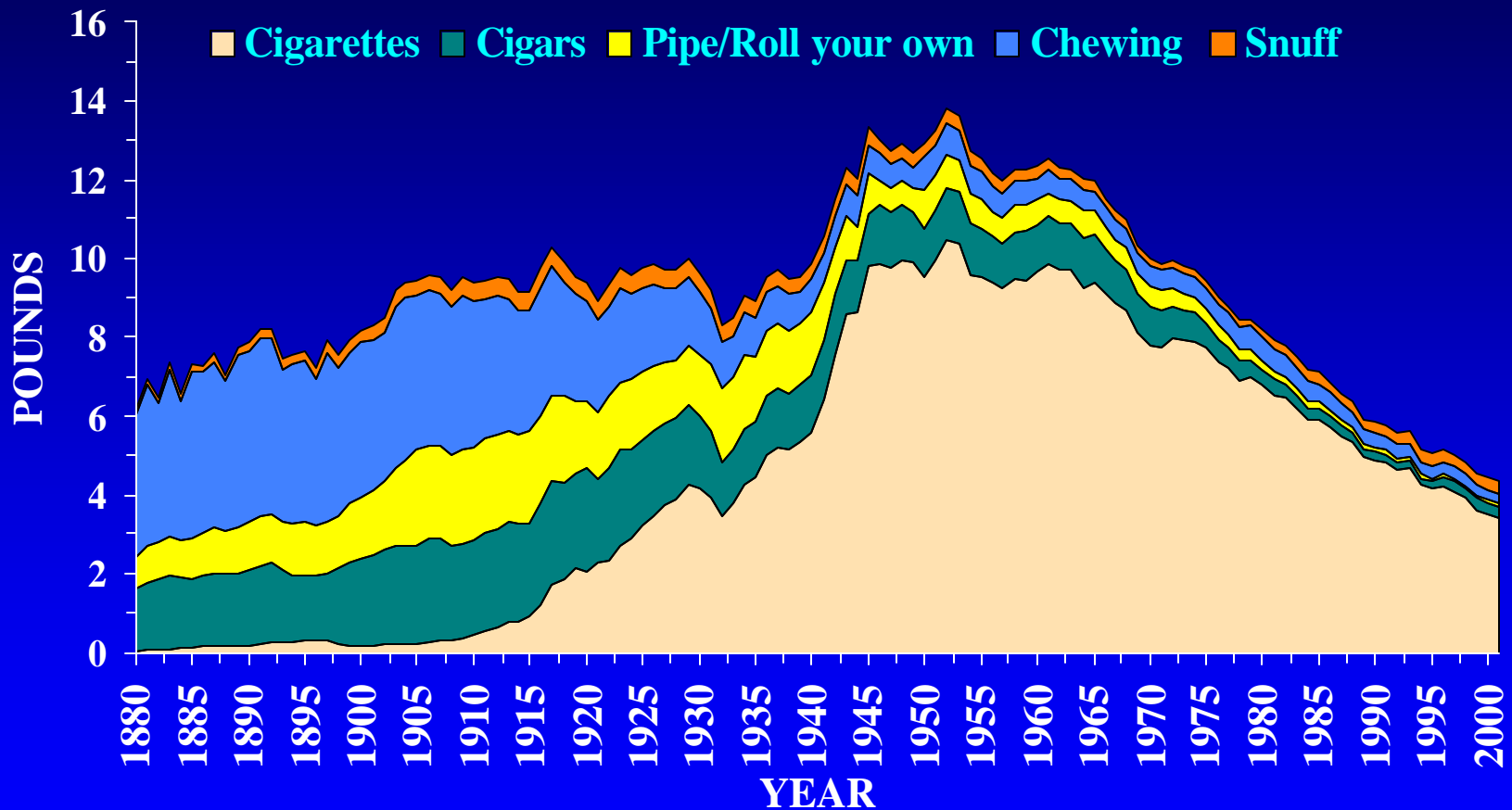
- **U.S. Department of Agriculture (USDA)**
- **Federal Trade Commission (FTC)**
- **State-specific data**

# Adult Per Capita Cigarette Consumption and Major Smoking and Health Events – United States, 1900-2002



Source: United States Department of Agriculture

# Trends in Per Capita Consumption of Various Tobacco Products – United States, 1880-2001

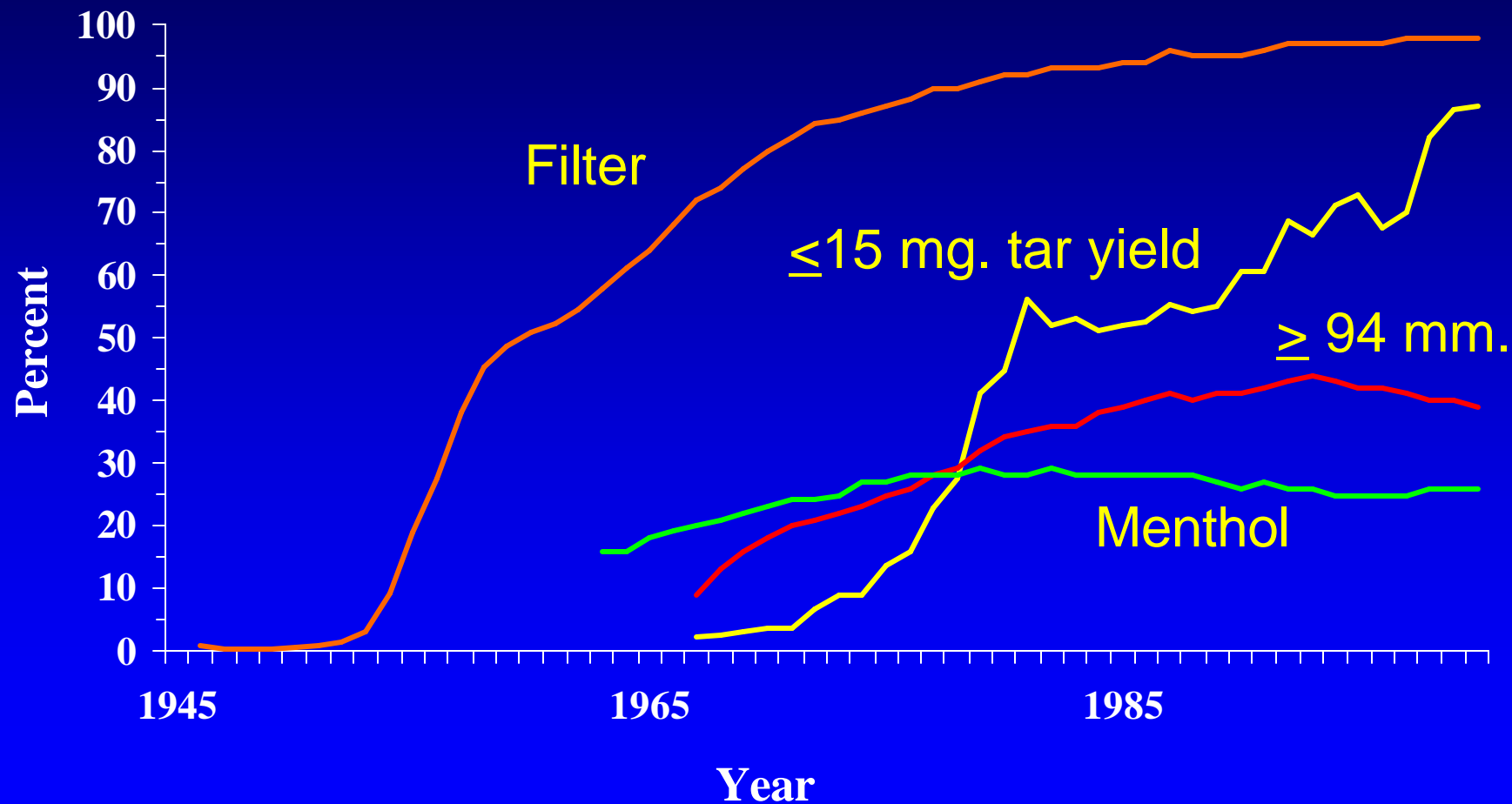


Source: Tobacco Situation and Outlook Report, U.S. Department of Agriculture, U.S. Census

Note: Among persons >18 years old.

Beginning in 1982, fine-cut chewing tobacco was reclassified as snuff.

# Domestic Market Share of Cigarettes by Tar Yield, Filter Status, Length, and Menthol Status: United States, 1963 - 2000



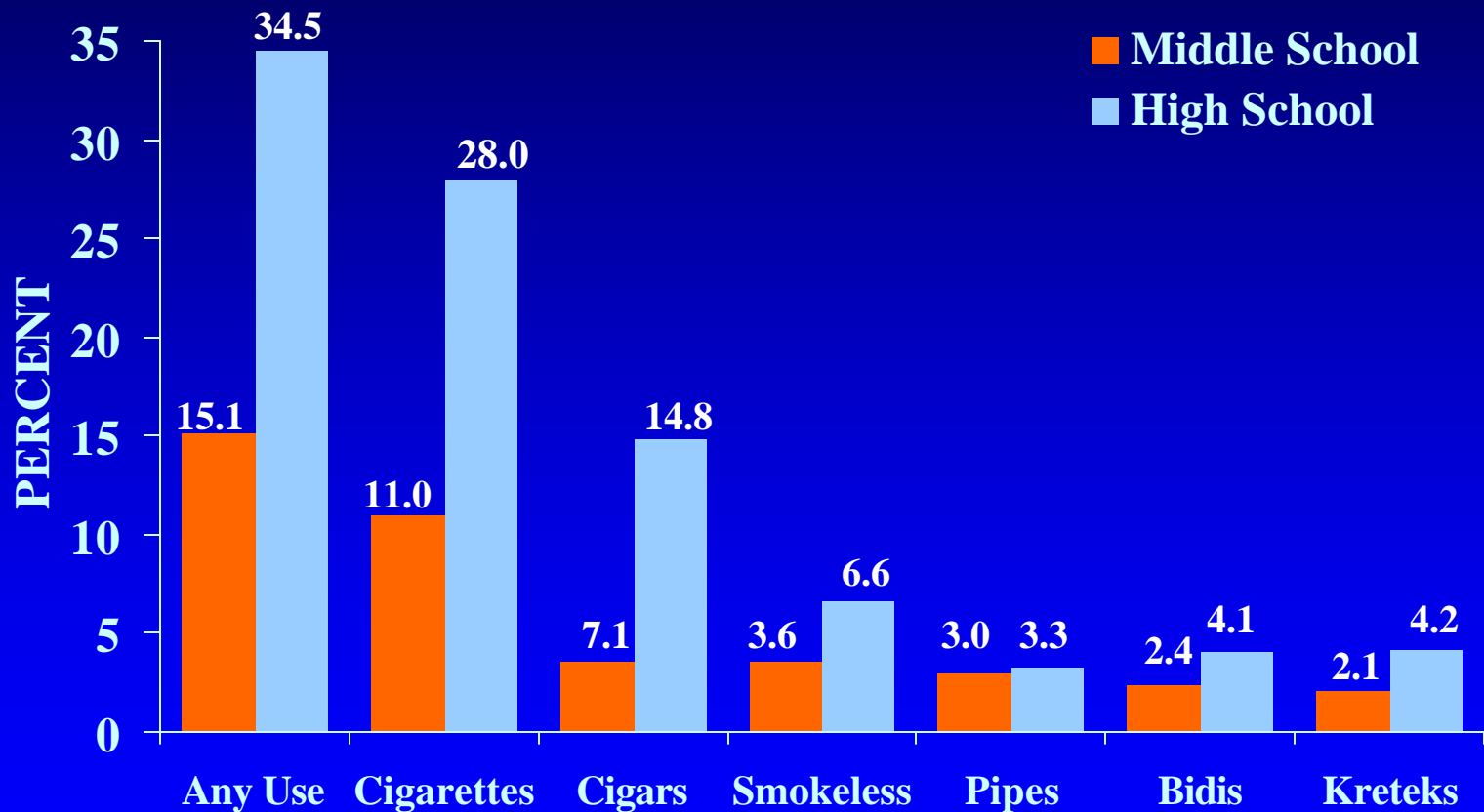
Source: United States Department of Agriculture, 1962; Federal Trade Commission, 2001

# Major Sources of Data on Tobacco Use in the United States

## Surveys of Young People

- **Monitoring the Future Surveys (MTFS)**
- **National Household Survey on Drug Abuse (NHSDA)**
- **National Health and Nutrition Examination Survey (NHANES)**
- **Youth Risk Behavior Surveillance System (YRBSS)**
- **National Youth Tobacco Survey (NYTS)**
- **Youth Tobacco Survey (YTS)**
- **Global Youth Tobacco Survey (GYTS)**
- **Legacy Media Tacking Surveys**

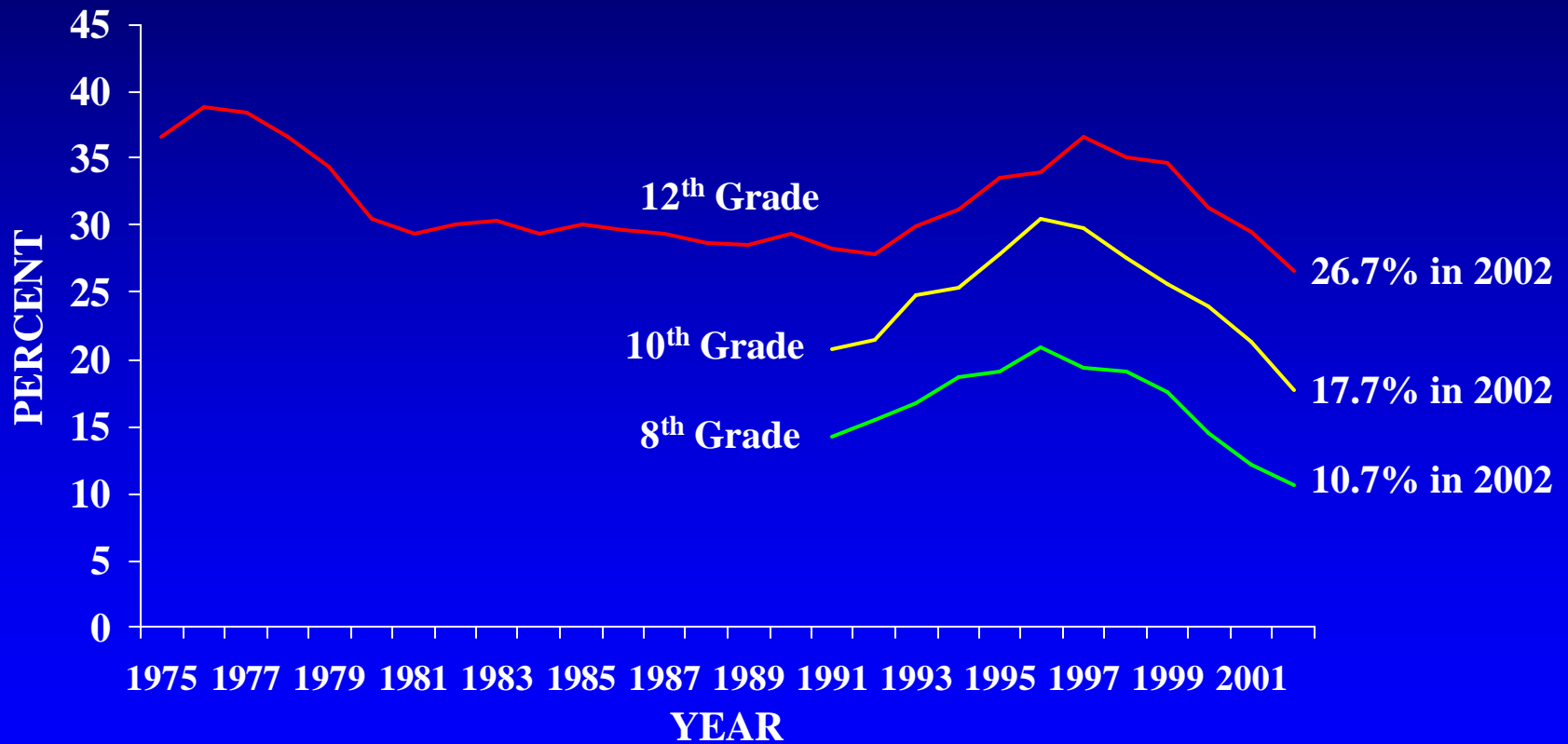
# Current Use Among Middle and High School Students by Type of Tobacco Product – National Youth Tobacco Survey, 2000



Note: Used tobacco on <sup>3</sup> 1 of the 30 days preceding the survey

Source: American Legacy Foundation, National Youth Tobacco Survey

# Trends in Cigarette Smoking Anytime in the Past 30 days by Grade in School – United States, 1975-2002



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

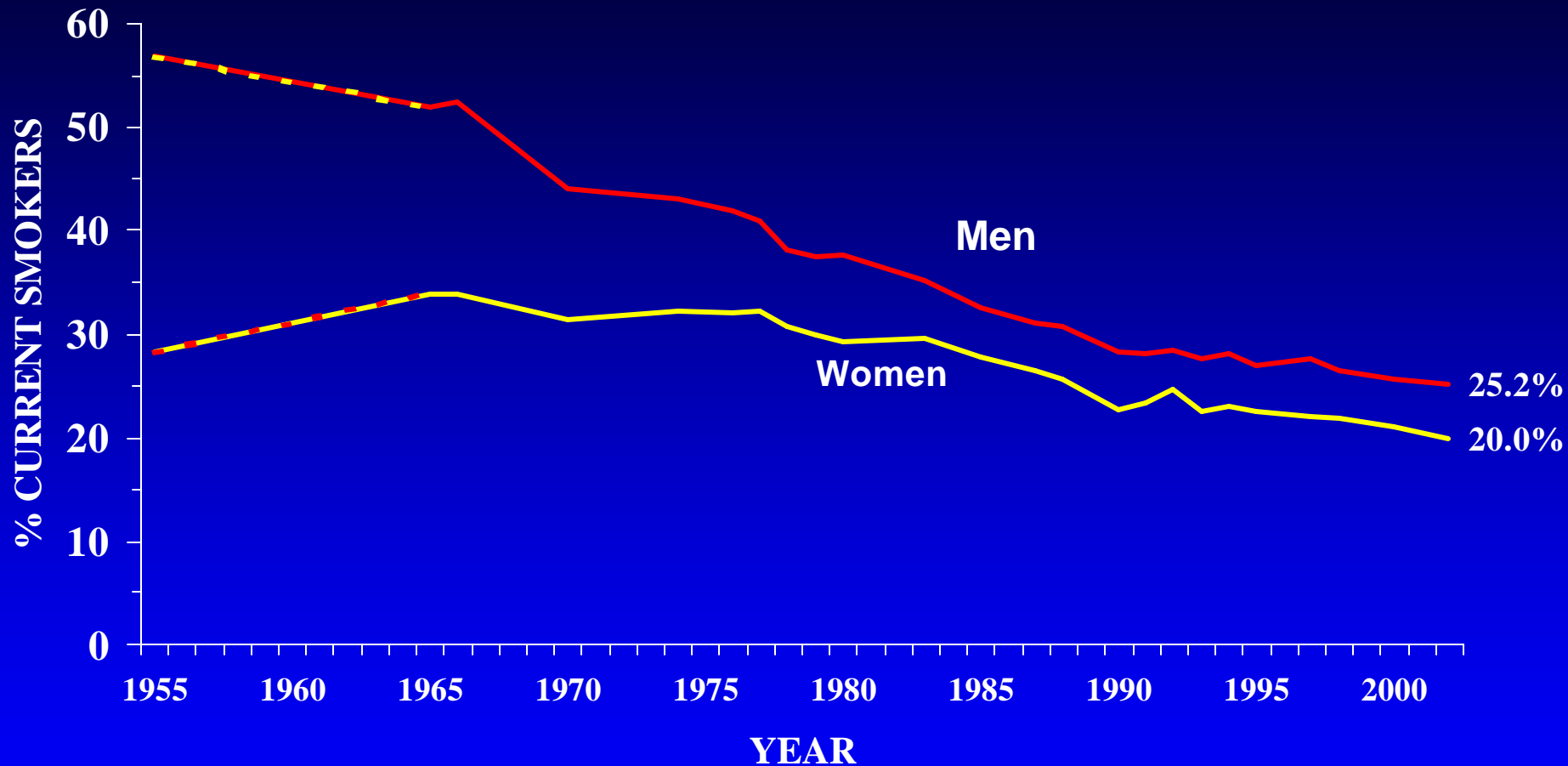


# Major Sources of Data on Tobacco Use in the United States

## Surveys of Adults

- **Current Population Surveys (CPS)**
- **Adult Use of Tobacco Surveys (AUTS); Adult Tobacco Surveys (ATS)**
- **National Health Interview Survey (NHIS)**
- **National Household Survey on Drug Abuse (NHSDA)**
- **National Health and Nutrition Examination Survey (NHANES)**
- **Behavioral Risk Factor Surveillance System (BRFSS)**
- **American Smoking and Health Survey (ASHES)**

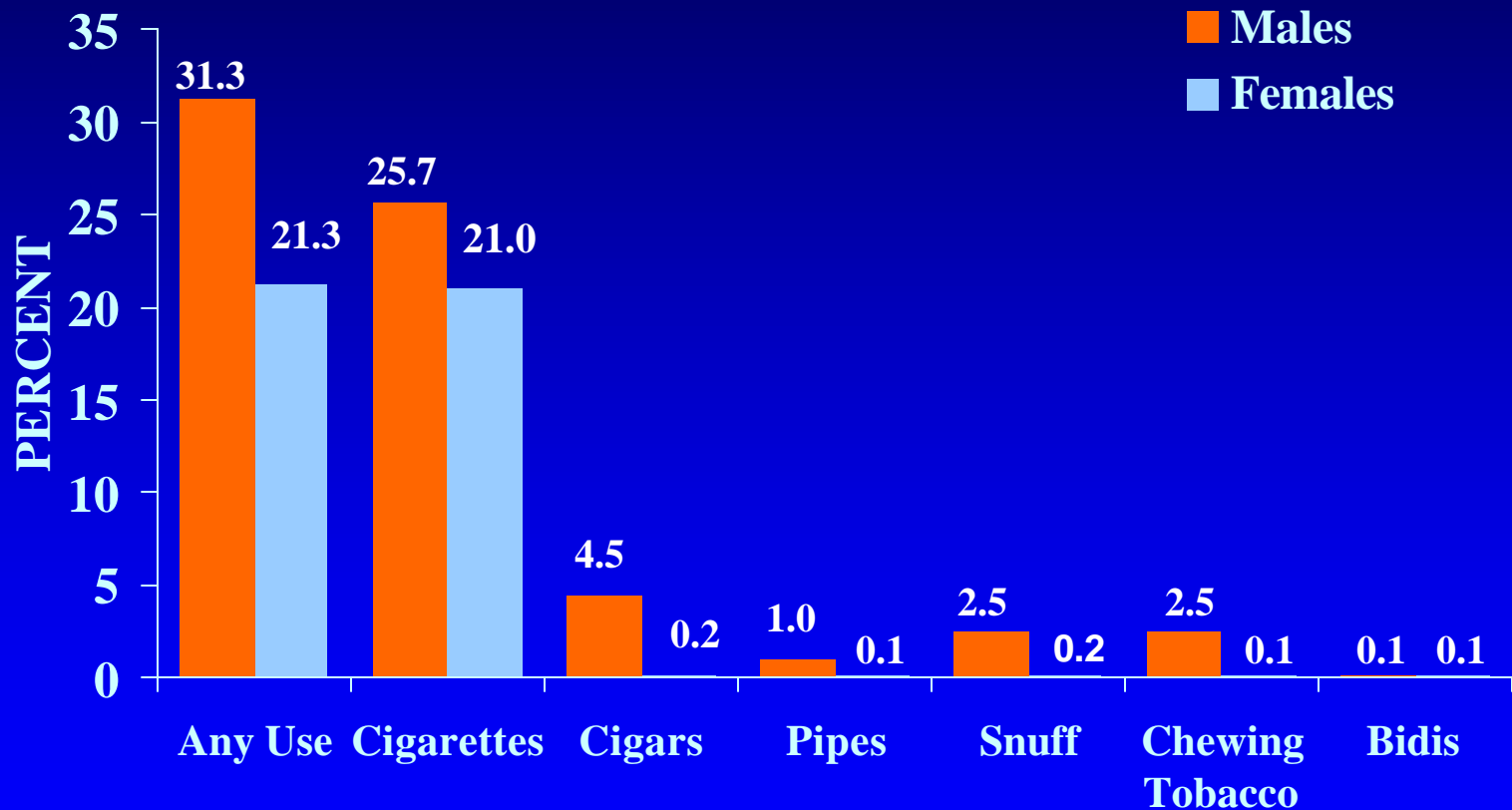
# Trends in cigarette smoking\* among adults aged $\geq 18$ years, by sex - United States, 1955-2002



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

Source: 1955 Current Population Survey; 1965-2002 National Health Interview Survey

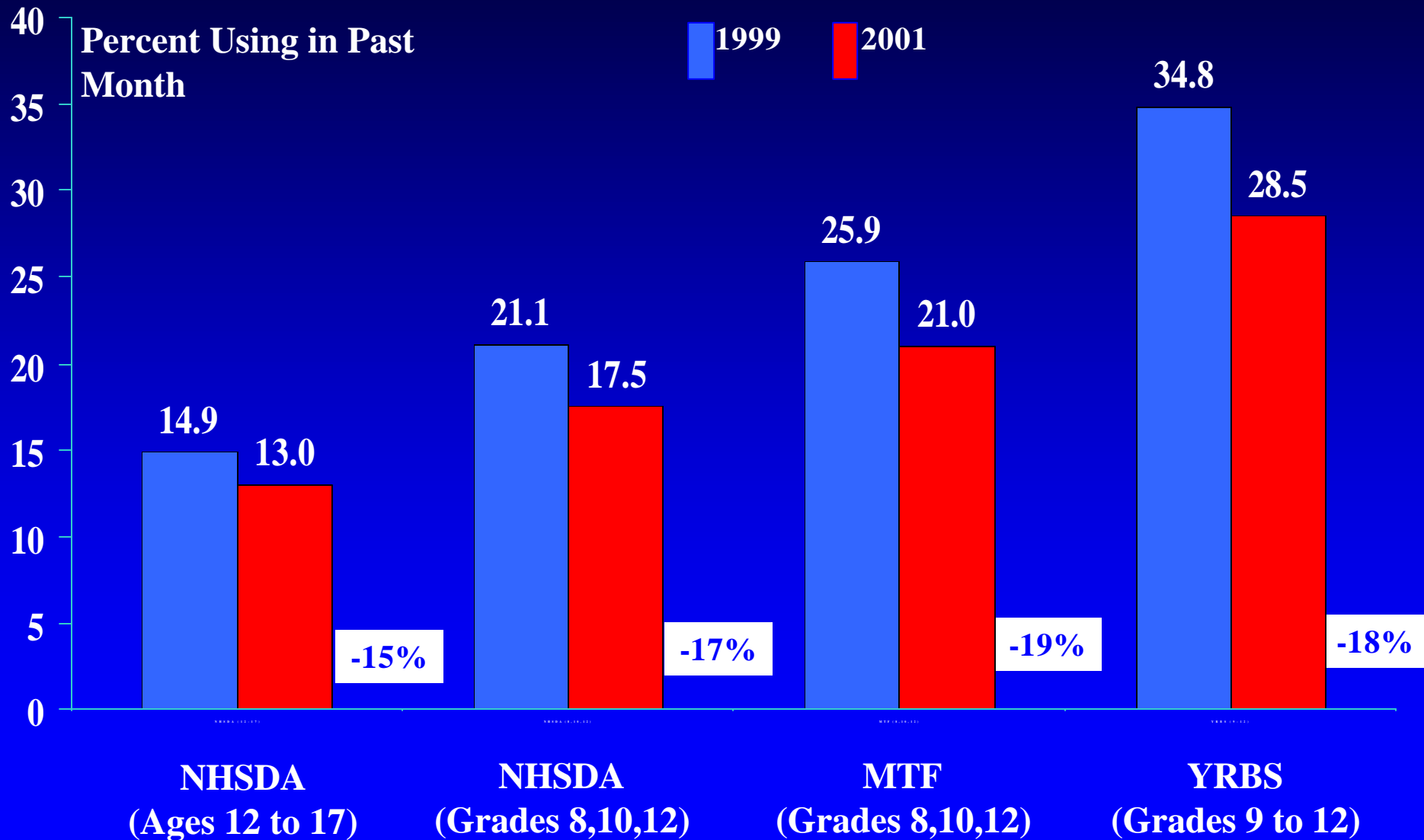
# Current Use Among U.S. Adults of Various Tobacco Products, by Sex – National Health Interview Survey, 2000



Note: Current users report using either every day or on some days

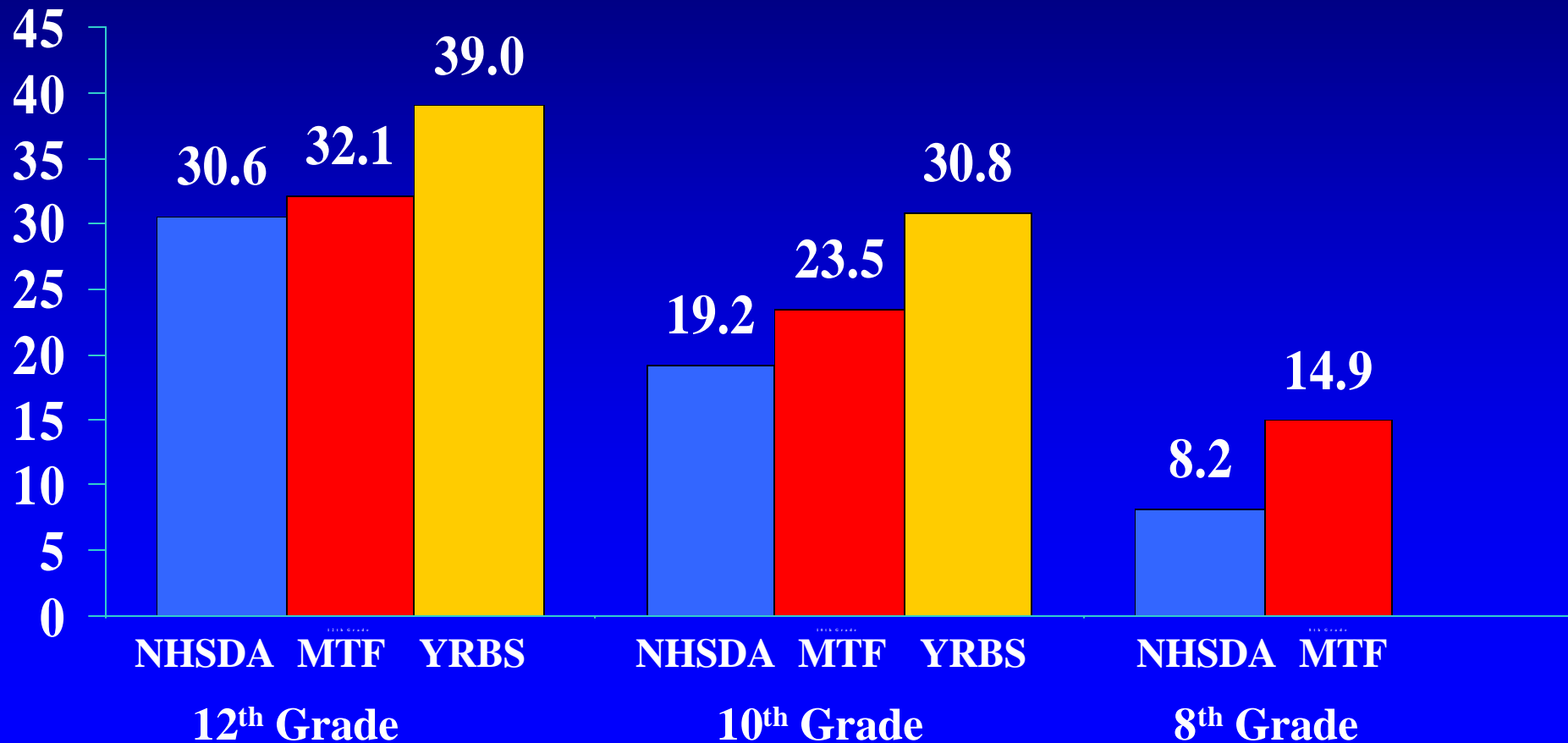
Source: National Center for Health Statistics

# Cigarette Use Trends Among Youths: NHSDA, MTF, and YRBS



# Comparison of Current Cigarette Use Prevalences from NHSDA, MTF, and YRBS, by Grade: 1999 and 2001 Averages

Percent Using in Past Month



# Potential Reasons for Differences in Survey Estimates

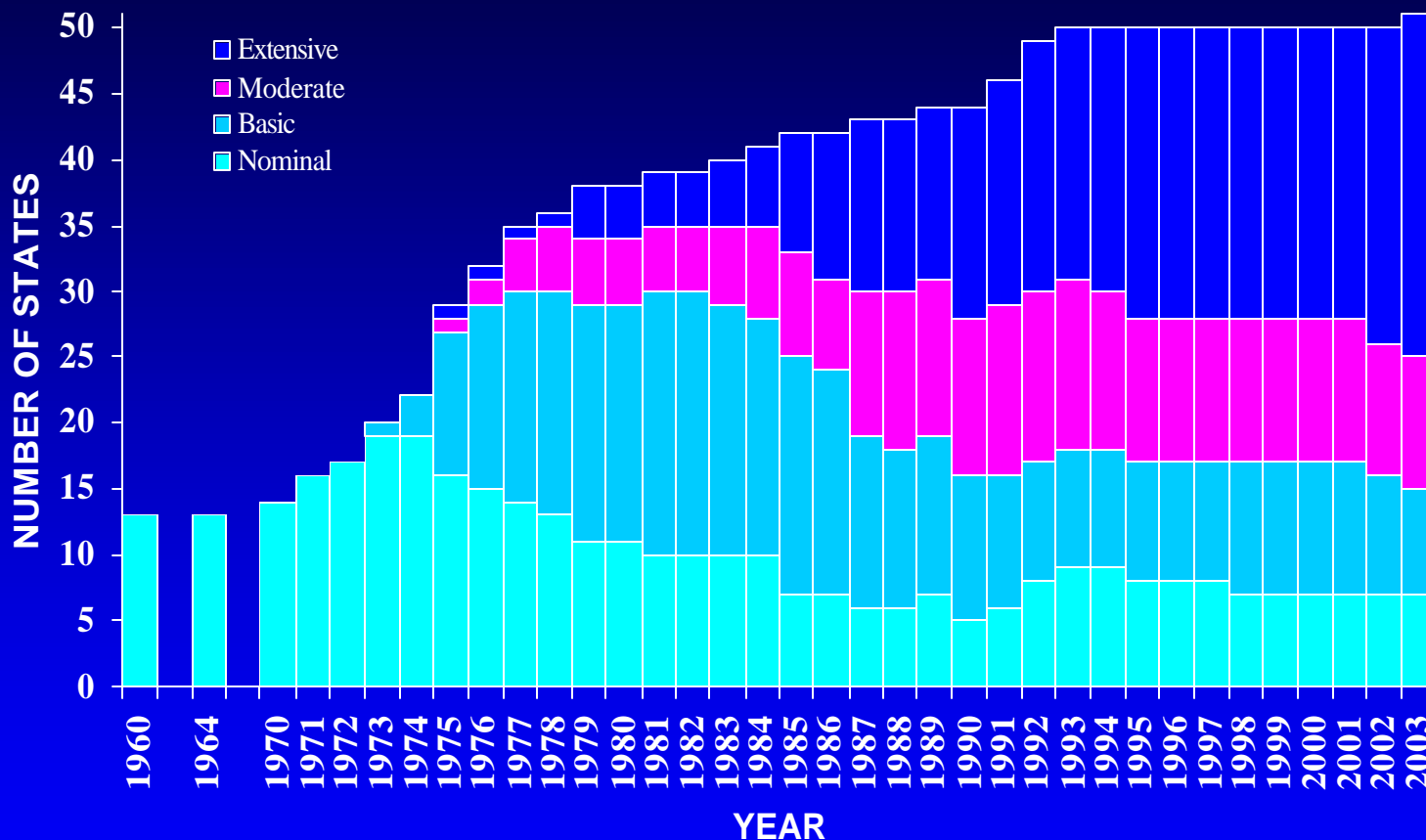
- Setting
- Mode of Administration
- Questionnaire content
- Definitions used
- Sample design
- Editing procedures
- Perception about biochemical validation
- Consent procedures
- Response rates

# Major Sources of Legislative Data on Tobacco Issues in the United States

## Legislation

- **Americans for Nonsmokers' Rights (ANR)**
- **State Cancer Legislative Data Base (SCLD)**
- **State Legislated Actions on Tobacco Issues (SLATI)**
- **State Tobacco Activities Tracking and Evaluation System (STATE)**
- **ImpacTeen/Roswell Park Cancer Institute**

# Restrictiveness Of State Laws Regulating Smoking In Public Places – U.S., 1960-2003\*

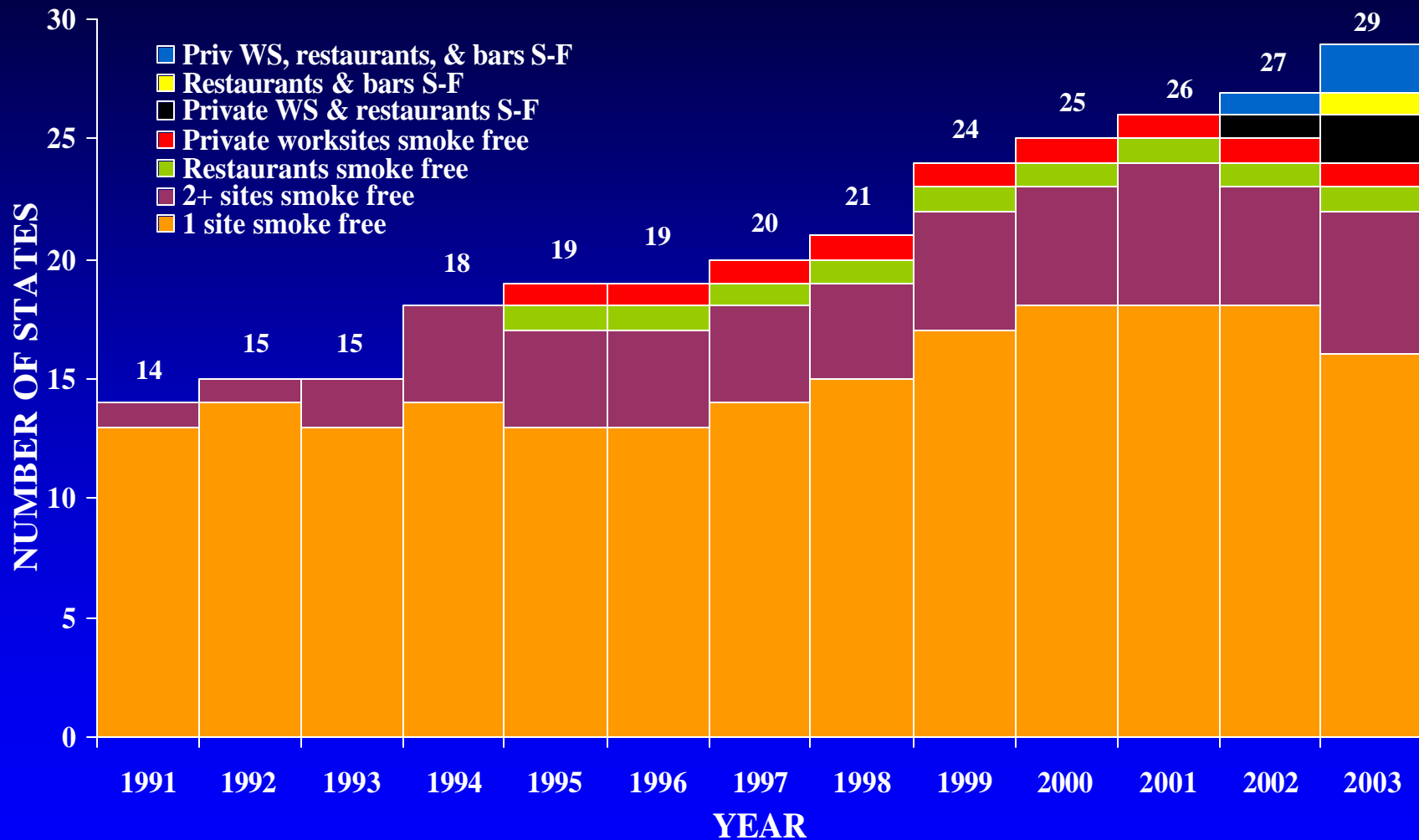


Sources: 1989 Surgeon General's Report, ALA's SLATI, CDC's STATE system, MayaTech Corporation, Roswell Park Cancer Institute. Note: Includes the District of Columbia;

\* 2003 data are represented for the first three quarters of the year.

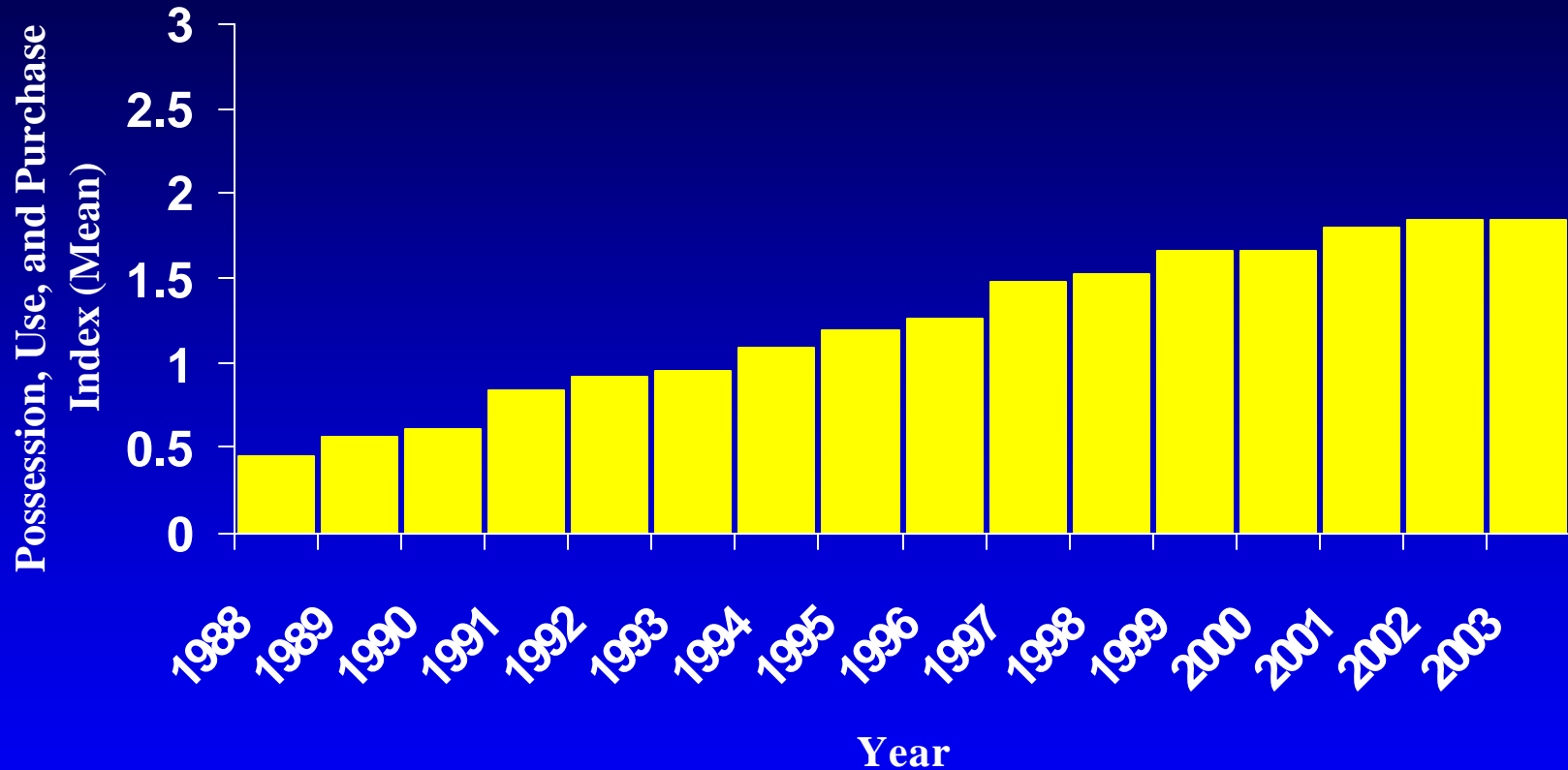


# Smoke-Free Air Legislation in the 50 States and the District of Columbia -- United States, 1991-2003



Sources: ALA's SLATI, CDC's STATE system, the MayaTech Corp., and the Roswell Park Cancer Institute.

# Mean Number of Possession, Use, and Purchase Laws per State\* -- United States, 1988-2003\*\*



\*Includes the District of Columbia; Theoretical Range = 0-3; Includes 1<sup>st</sup> quarter of 2003 only.

\*\*Sources: ALA's SLATI, CDC's STATE system, the MayaTech Corporation, and the Roswell Park Cancer Institute.

# Emerging Systems

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- **Bridging the Gap**
- **National Youth Smoking Cessation Survey**
- **Beliefs About Nicotine Dependence (BAND) survey**
- **International Tobacco Control (ITC) Policy Evaluation Survey**

# Emerging Issues

- **CDC lab and NCI resources to better characterize the product.**
- **California and other systems to monitor vector. Often involves proprietary data.**
- **Environmental monitoring - legislation, media, price. Often involve proprietary data.**

# **Key Areas for Surveillance**

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- **Evaluating Tobacco Control Programs in a Multi-variate World**
- **Surveillance for Tobacco Harm Reduction**
- **Understanding Natural Histories**
- **Understanding Trends**

# Lessons Learned

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- **“Why?” is inevitable**
- **Timeliness matters**
- **Analyses and reporting take time and resources**
- **Categorical surveys are needed**
- **Relationships count**