

# **Tobacco Control: The Need for a Sustained Commitment**

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# **Cigarette smoking causes 30% of cancer deaths**

**Lung**

**Larynx**

**Pancreas**

**Kidney**

**Stomach**

**Oral cavity**

**Esophagus**

**Bladder**

**Uterine Cervix**

**AML**

# **Cigarette smoking interacts with other risk factors to synergistically increase cancer risk**

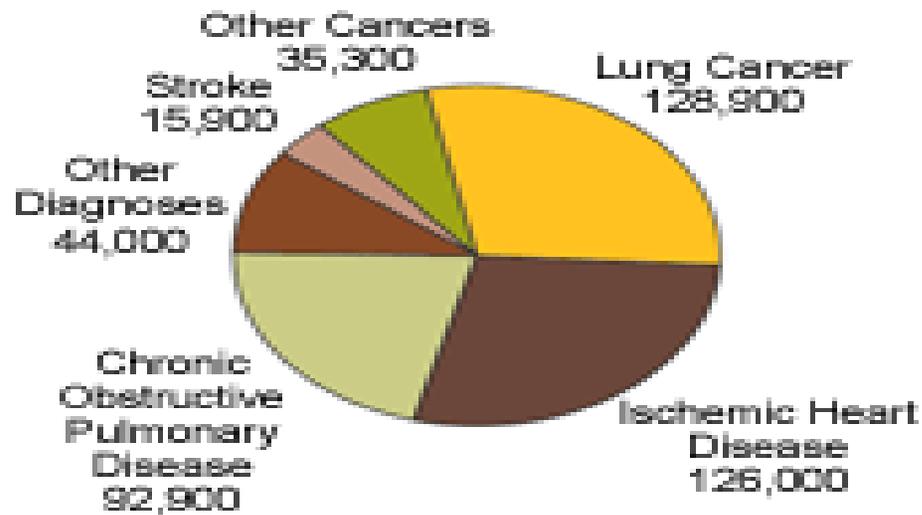
- **Alcohol**
- **Arsenic**
- **Asbestos**
- **Radon**

**Cigarette smoking: a major cause of diseases of almost every major organ system**

- **Cardiovascular disease**
- **Respiratory disease**
- **Adverse reproductive effects**
- **Bone, teeth, eyes**

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

**About 443,000 U.S. Deaths Attributable  
Each Year to Cigarette Smoking\***



\* Average annual number of deaths, 2000–2004.  
Source: *MMWR* 2006;57(45):1226–1228.

# The Health Consequences of Involuntary Exposure to Tobacco Smoke

A Report of the Surgeon General

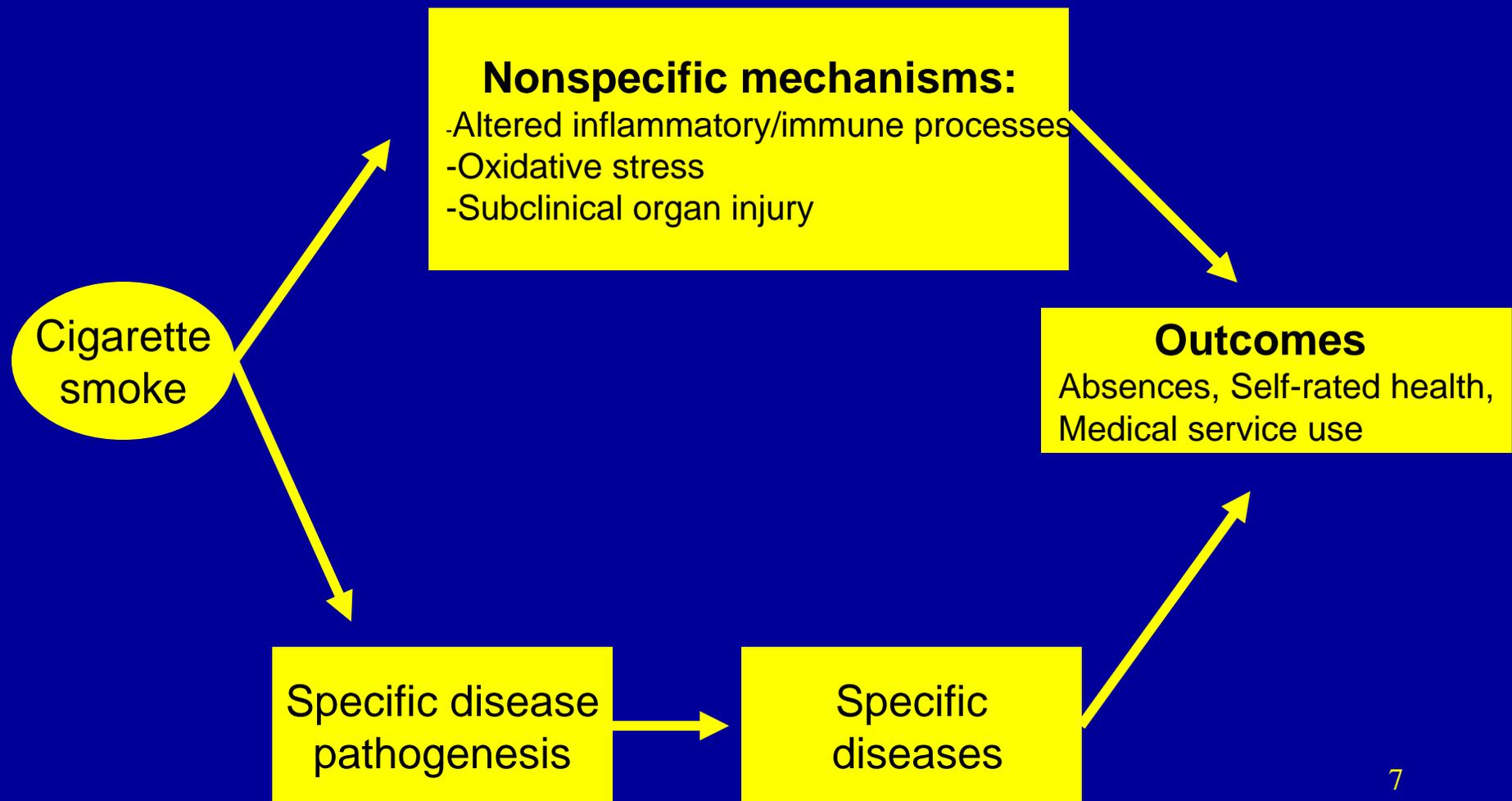


Department of Health and Human Services

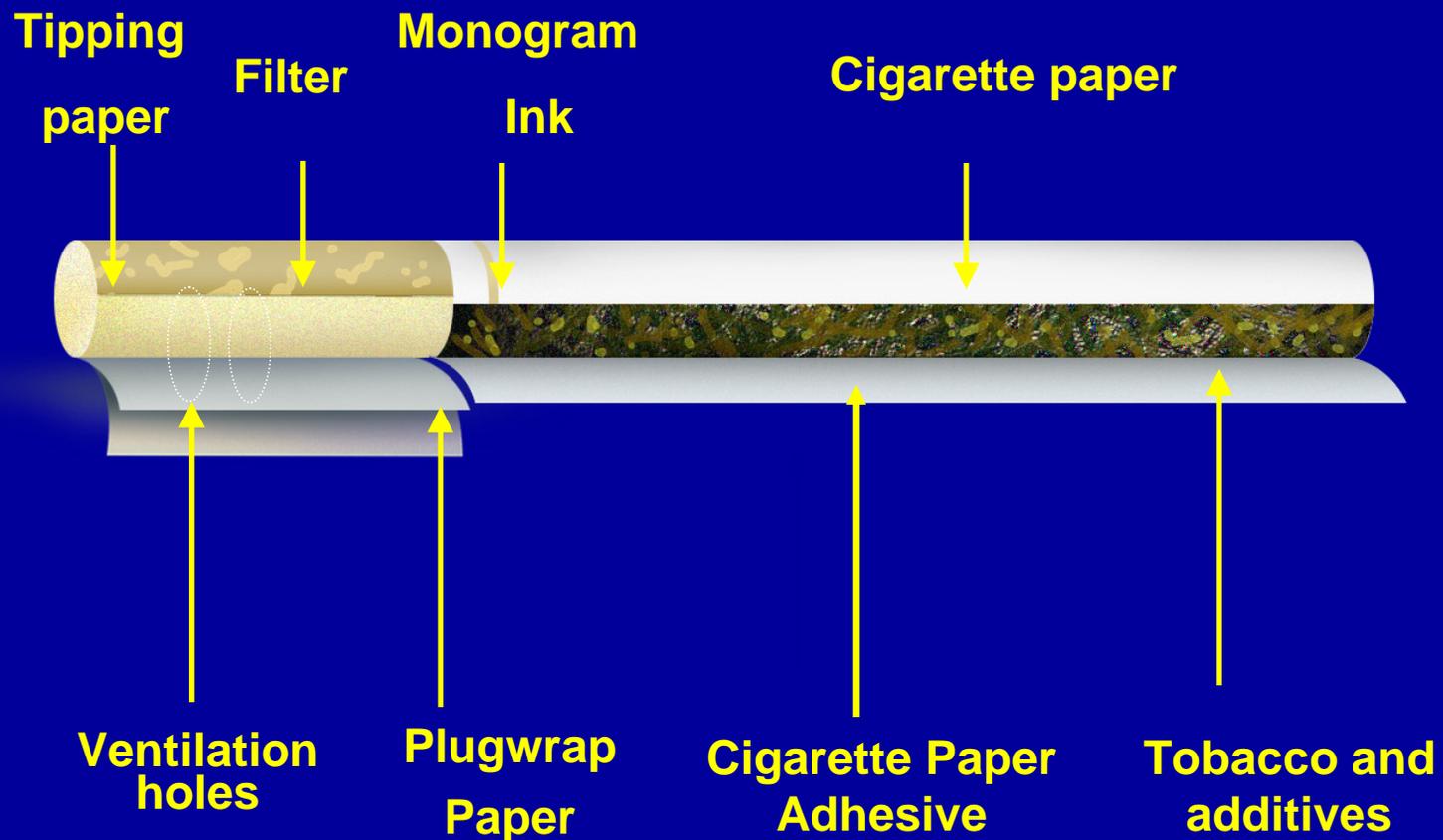
## 2006 SG Report:

- Lung cancer:  
living with smoker  
increases risk  
20-30%
- Cervical cancer:  
inadequate to infer  
presence/absence of  
causal relationship
- Breast cancer:  
suggestive but not  
sufficient

# Active and passive smoking as a cause of “diminished health status”



# Over time, cigarettes have become even riskier



# RR for Adenocarcinoma of the Lung ACS CPS I and CPS II

	CPS I <u>(59-61)</u>	CPS II <u>(82-84)</u>
Men	4.6	19.0
Women	1.5	8.1

Source: Thun et al, 1997

# RR for 'Other Cancers'

## ACS CPS I and CPS II

	CPS I <u>(59-61)</u>	CPS II <u>(82-84)</u>
Men	<b>2.7</b>	<b>3.5</b>
Women	<b>1.8</b>	<b>2.6</b>

Source: Thun et al, 1997<sub>10</sub>

# The changing cigarette: bladder cancer

ORs compared to referent category of never smokers

<b>Period</b>	<b>Former</b>	<b>Current</b>
<b>1994-98</b>	<b>1.4</b>	<b>2.9</b>
<b>1998-2001</b>	<b>2.0</b>	<b>4.2</b>
<b>2001-04</b>	<b>2.6</b>	<b>5.5</b>

Source: Baris D, et al. J Natl Cancer Inst, November 18 2009

# **Cigarette Smoking and Bladder Cancer: A New Twist in an Old Saga?**

Anthony J. Alberg, James R. Hébert

J Natl Cancer Inst, November 18 2009

**Need for more research, including pinpointing the role of additives.**

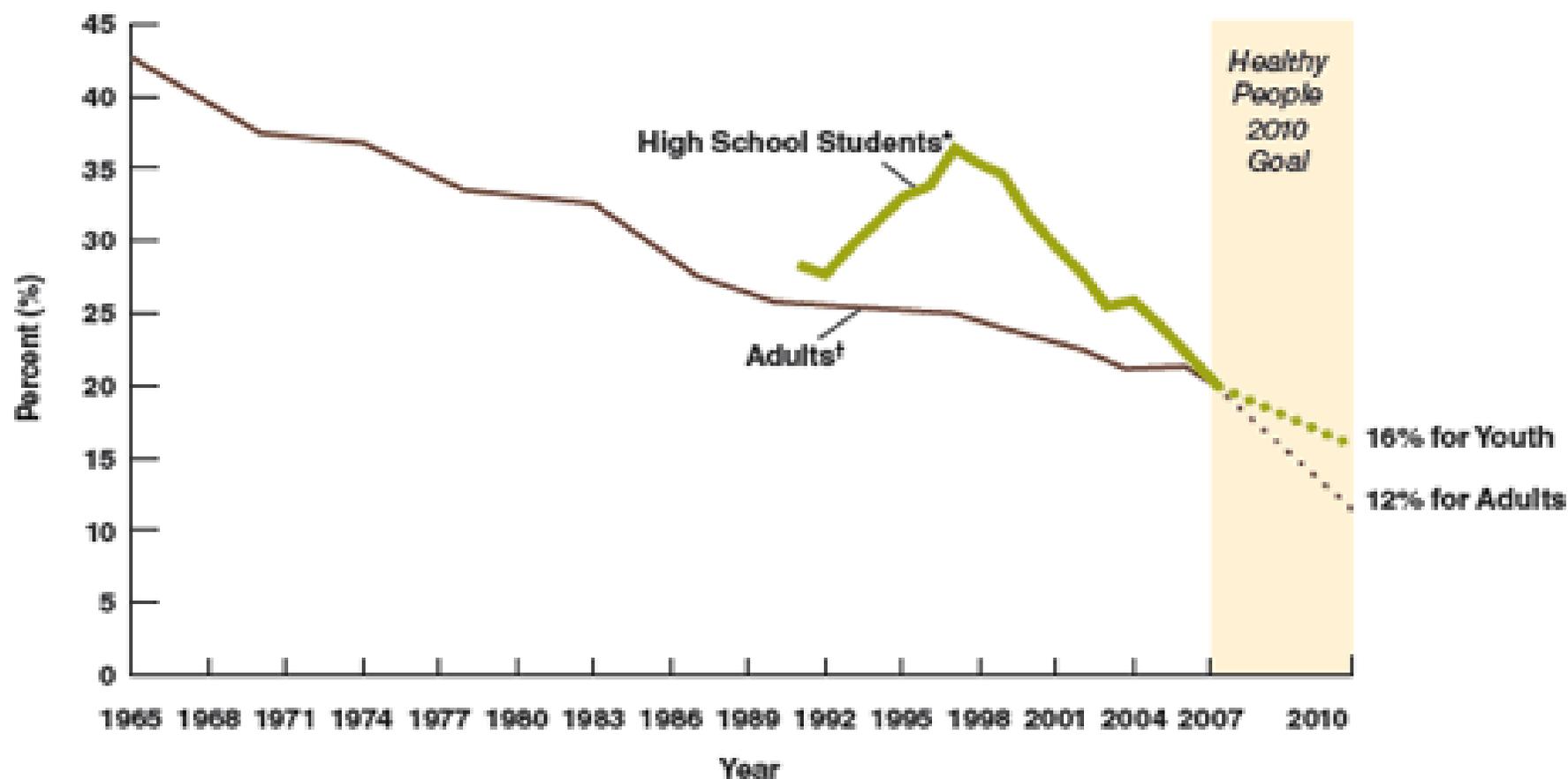
**Highlights need to monitor the impact of the changing cigarette design and content on disease risk.**

**The public health implications of the changing cigarette are potentially severe.**

# **The increased health risks of the changing cigarette**

**For any increase in smoking prevalence, increases in smoking-caused morbidity and mortality may be magnified due to cigarettes becoming even riskier.**

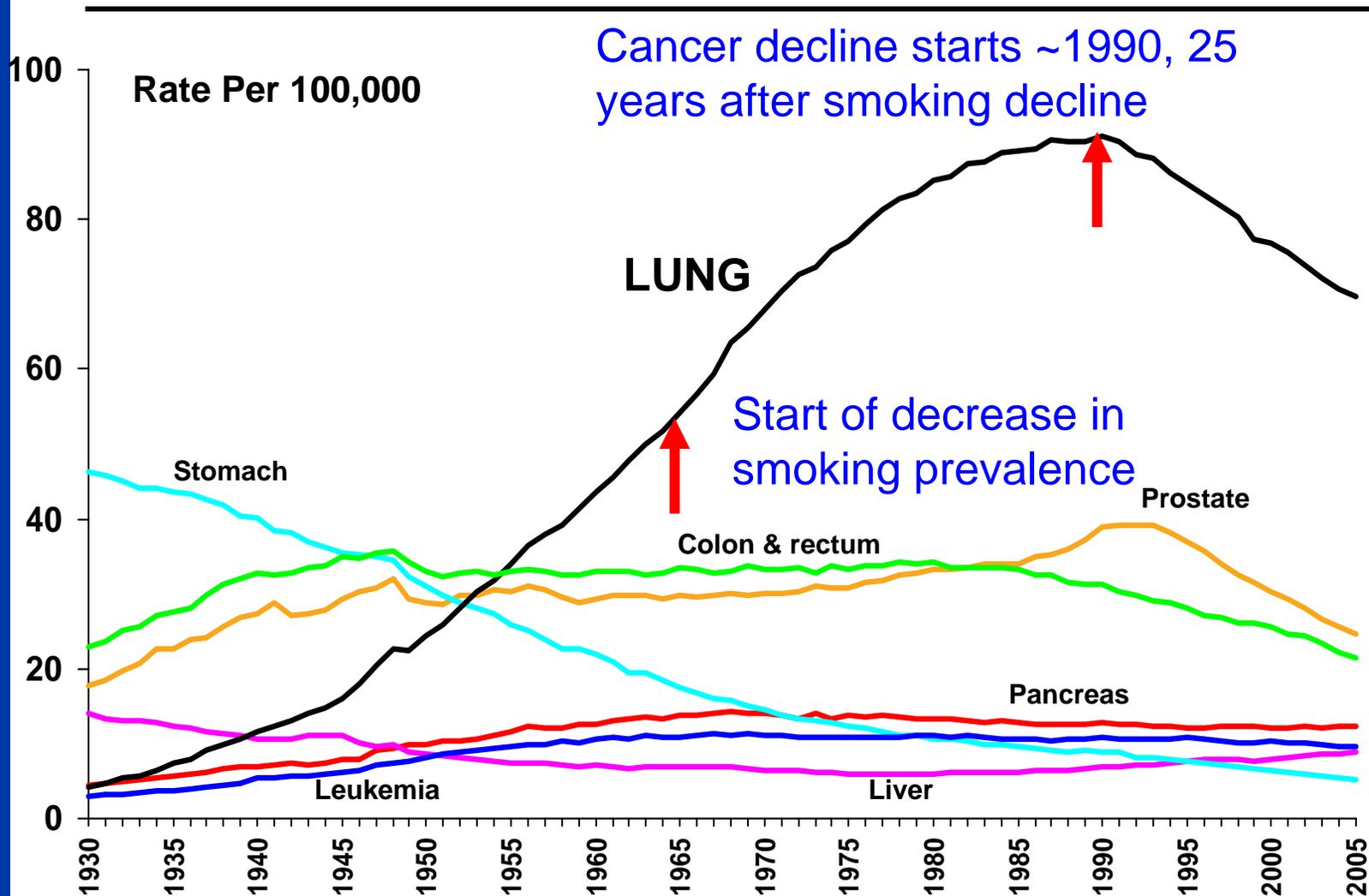
## Trends in Current Cigarette Smoking Among High School Students\* and Adults,† United States, 1965–2007



\* Percentage of high school students who smoked cigarettes on 1 or more of the 30 days preceding the survey. Data first collected in 1991. (Youth Risk Behavior Survey, 1991–2007).

† Percentage of adults who are current cigarette smokers (National Health Interview Survey, 1965–2007).

## Cancer Death Rates\* Among Men, US, 1930-2005



\*Age-adjusted to the 2000 US standard population.

Source: US Mortality Data 1960-2005, US Mortality Volumes 1930-1959,

National Center for Health Statistics, Centers for Disease Control and Prevention, 2008.

## **The current downward trends in lung cancer occurrence:**

- largely reflect past reductions in smoking prevalence**
- will continue for many more years**
- will not last unless we achieve further reductions in smoking prevalence**

STATE AND NATION

# Smoking on the rise

**Critics: South Carolina doesn't take problem seriously**

Source: By SCHYLER KROPF

*The Post and Courier*

Sunday, November 22, 2009

## Smoking in South Carolina

--High school students who smoke: 17.8 percent

--Youths under 18 who become new daily smokers annually: 5,500

--Adults in South Carolina who smoke: 20 percent

--Adults who die each year from their own smoking: 6,100

## **An erosion of tobacco control efforts may lead to:**

- **Increased smoking prevalence**
- **Leading to substantial increases in morbidity and mortality**
  - **Full impact not seen for many years**
- **Toll may be greater than anticipated due to increased risks of modern cigarettes**



**Need a sustained commitment  
to tobacco control**

# **Further, the tobacco industry will capitalize on any erosion in tobacco control efforts**

- **The likely increases in smoking prevalence will be exacerbated by sustained industry investment**
- **This includes introduction of new products: eg, Camel Snus**

*Table III: An overview of tobacco control strategies.*

Level	Affects tobacco supply	Affects tobacco demand
Legislative/ Regulatory	Limit access: -Tobacco taxes (economic barrier) -Prevent purchase by minors (access barrier) -Smoke-free workplace laws (access barrier)	Restrict industry advertising Mass media for prevention
Litigation	Punitive damages	Restrict industry advertising
Influence individual behavior	Not applicable	Prevent smoking initiation Promote smoking cessation

Source: Alberg AJ. *Drugs of Today* 2008

# **The situation in South Carolina**

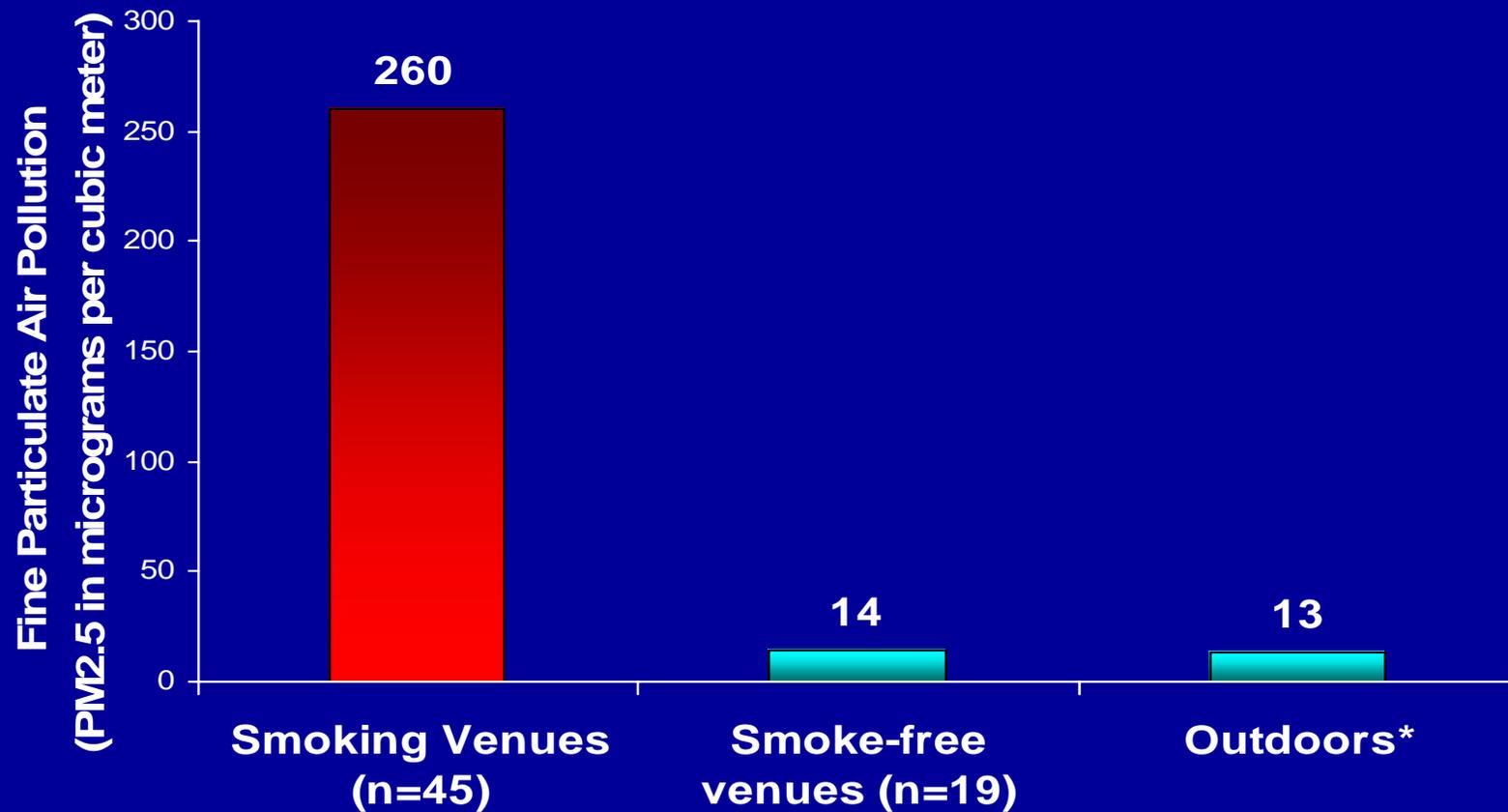
**Tobacco-producing state**

**Cigarette tax: by far the lowest in the nation at 7 cents per pack**

**Smoke-free workplace legislation: 30% of population now covered, major challenges remain**

**Translating evidence  
into policy:  
SHS exposure**

# Fine particulate air pollution in Charleston bars/restaurants according to smoking policy



Source: Carter CL, Carpenter MJ, et al. J SC Med Assoc 2008

# Smokers losing places to light up

Source: The Post and Courier, Charleston, SC January 11, 2007

## Charleston OKs smoking ban



**When:** Smoking prohibitions would begin six months after the City Council ratifies the ordinance. Ratification requires three votes at two or more meetings.

**Penalties:** Fine not exceeding \$500 or jail term not exceeding 30 days, or both.

### Where:

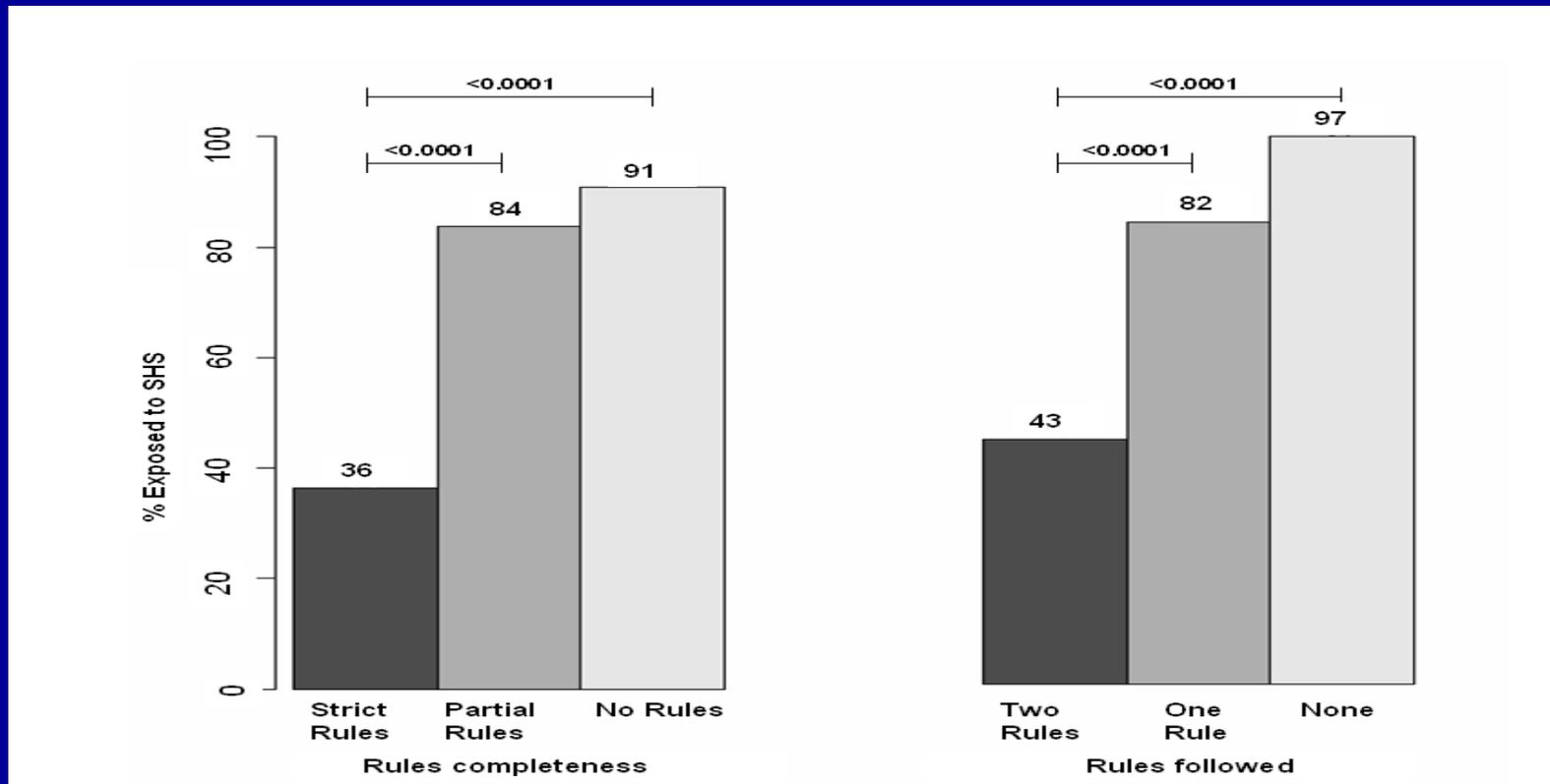
**BANNED AREAS:** If Charleston's workplace smoking ban is ratified by City Council, smoking would be banned in workplaces, including bars, restaurants, offices, retail stores, and private clubs. Smoking would also be banned within 15 feet of any indoor area where smoking would be prohibited.

**SMOKING AREAS:** Smoking would be permitted in private residences, in up to 25 percent of the rooms in a hotel or lodging establishment, in retail tobacco stores as part of a theatrical production, as part of a religious ceremony and in medical research facilities.

Source: The Post and Courier, Charleston, SC January 10, 2007

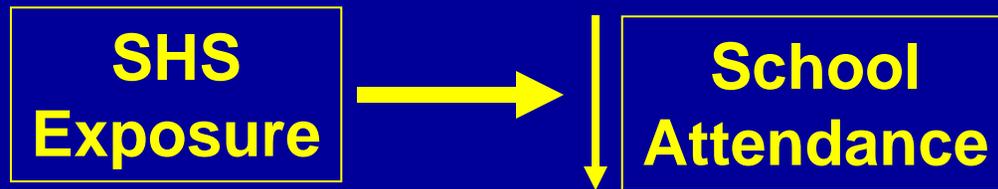
# SHS exposure in SC youths, 2006

- 40% of non-smoking SC middle and high school students exposed to secondhand smoke (SHS)
- Of these, 85% were exposed to SHS in cars



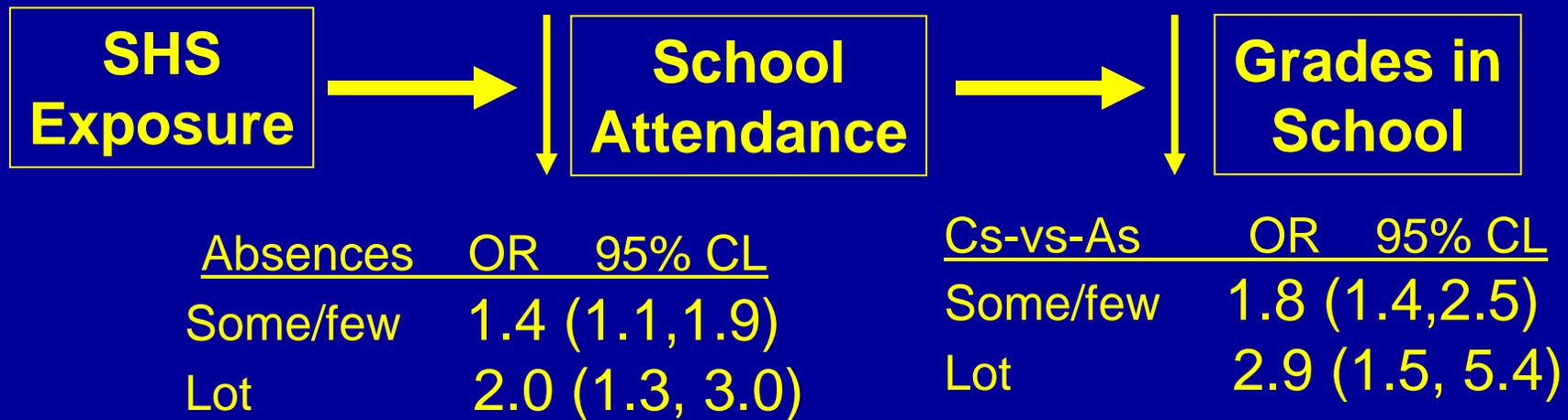
Source: Cartmell K, et al (Submitted)

# Influence of SHS exposure on school attendance and grades in SC youth

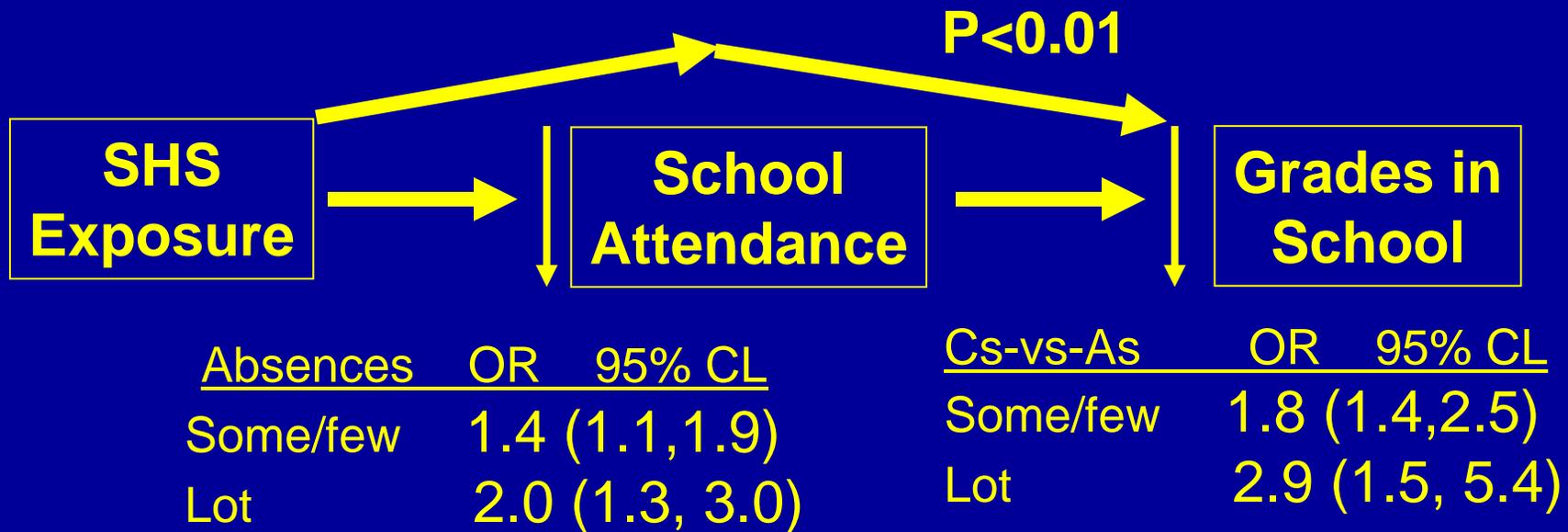


<u>Absences</u>	<u>OR</u>	<u>95% CL</u>
Some/few	1.4	(1.1, 1.9)
Lot	2.0	(1.3, 3.0)

# Influence of SHS exposure on school attendance and grades in SC youth



# Influence of SHS exposure on school attendance and grades in SC youth



- SHS exposure may have a detrimental impact on student attendance, and in turn on school performance.

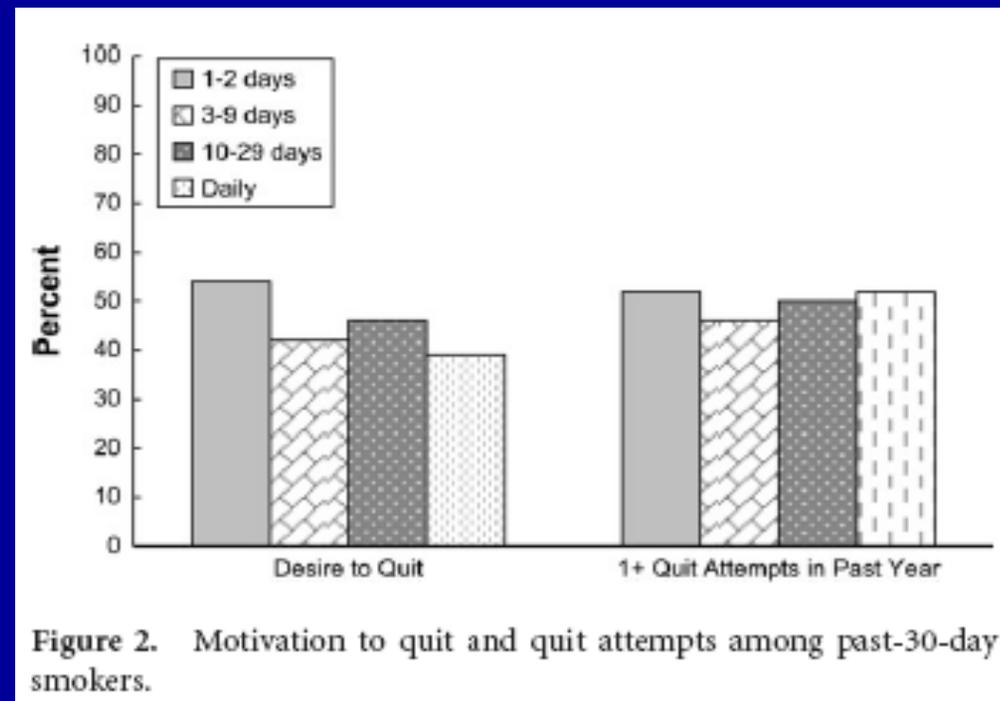
# **From evidence to action: Minimizing SHS exposure**

- **Smoke-free homes**
- **Smoke-free cars**
  - **Opportunity for legislation**

**Translating evidence  
into action:  
Smoking cessation**

# Occasional Adolescent Smokers: Receptive to Cessation, SC Youth Tobacco Survey

- Teens who smoke rarely resemble chronic smokers, and are more likely than heavier smokers to want to quit and to try to quit
- Suggests cessation services should be offered early
- Valuable data for SC Tobacco Control program



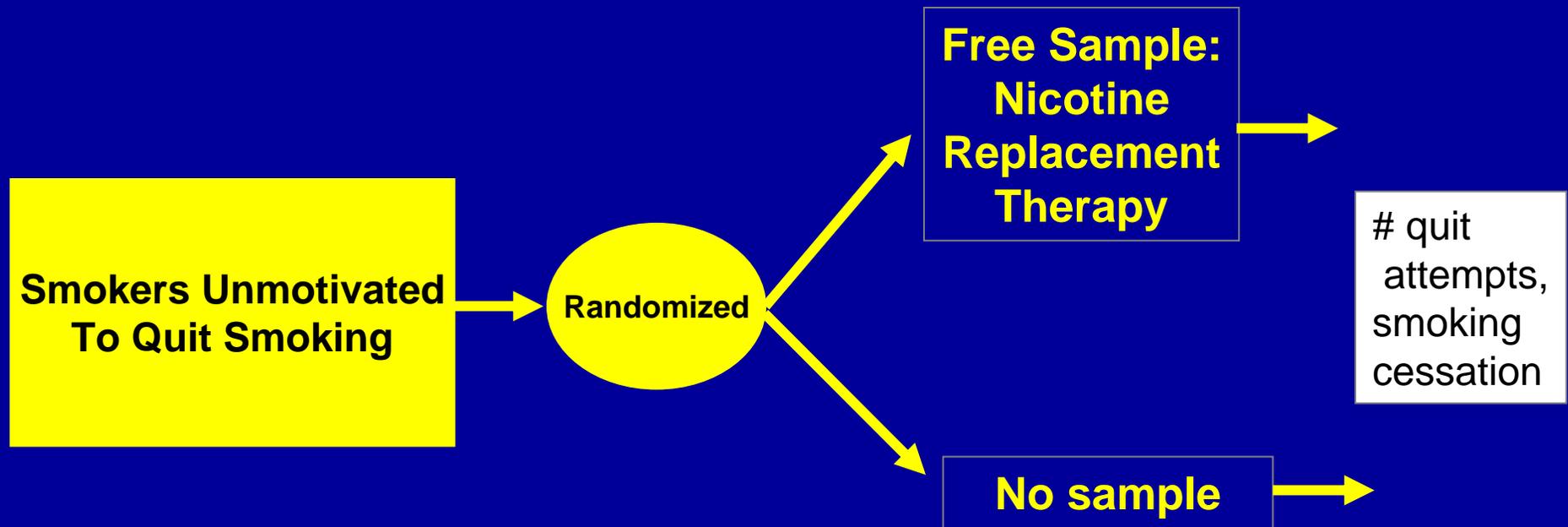
# **Smoking cessation pharmacotherapies are under-used**

- **Ethnic-specific focus groups**
- **All groups: general lack of knowledge**
- **African Americans: strong suspicion of pharmaceutical industry and government oversight**
- **Latinos: less suspicion, but strong cultural belief in personal responsibility to quit**

Source: Carpenter MJ, et al (Submitted)

# A Novel Treatment to Boost Quit Attempts and Cessation among Smokers who are Unmotivated to Quit

(R01DA021619, Matthew J. Carpenter PI)



# Partnering to bring smoking cessation services to the underserved

- Education on evidence-based cessation to staff at federally qualified health centers
- Assess patients' smoking status, refer smokers to state Quit Line
- Academic-state partnership funded by SC Tobacco Collaborative



# Summary

- **Clear need for sustained tobacco control efforts**
- **Erosion of investment in tobacco control would result in an enormous public health toll**
  - may be greater than anticipated due to increased risks of modern cigarettes
  - full impact would not be immediate → may lead to complacency
  - toll exacerbated to by continued tobacco industry investment
- **Continual need for evolution of tobacco control strategies, eg:**
  - protect children from SHS exposure
  - bring efficacious cessation services to minorities, underserved, teenagers
- **Optimize limited resources by developing partnerships**