Findings from the 2012 Surgeon General’s Report: Preventing Tobacco Use Among Youth and Young Adults

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Surgeon General’s Reports

Releasing the first Surgeon General’s Report on Tobacco Use, 1964
The 20th Century of Smoking

- 1st Surgeon General's Report
- Broadcast Ad Bans
- End of WW II
- Fairness Doctrine Ads
- 1st Smoking-Cancer Concern
- Non-Smokers' Rights Movement Begins
- 1st Smoke-Free State (DE)
- Master Settlement Agreement
- Surgeon General's Report on ETS
- Federal Cigarette Tax Doubles
- Federal Cigarette Tax Increases 42%
- Great Depression
Releasing the 2012 Surgeon General’s Report on Youth Tobacco Use

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Chapter 3

The Epidemiology of Tobacco Use Among Young People in the United States and Worldwide
Overview

• Age of initiation
• Trends
• Current prevalence
• Concurrent use of tobacco products
• Emerging tobacco products
Major Conclusion of the Report

Prevention efforts must focus on both adolescents and young adults because among adults who become daily smokers, nearly all first use of cigarettes occurs by 18 years of age (88%), with 99% of first use by 26 years of age.
Age of Initiation

Source: National Survey on Drug Use and Health, 2010
Chapter 3 Conclusion

Among adolescents and young adults, cigarette smoking declined from the late 1990s, particularly after the Master Settlement Agreement in 1998. This decline has slowed in recent years, however.
Current Cigarette Smoking
9th to 12th grade students

Source: Youth Risk Behavior Survey (YRBS)
Chapter 3 Conclusion

Use of smokeless tobacco and cigars declined in the late 1990s, but the declines appear to have stalled in the last 5 years. The latest data show the use of smokeless tobacco is increasing among White high school males, and cigar smoking may be increasing among Black high school females.
Current Smokeless Tobacco Use
9th to 12th grade students

Source: Youth Risk Behavior Survey (YRBS)
Current Cigar Use
9th to 12th grade students

Source: Youth Risk Behavior Survey (YRBS)
Almost one in four high school seniors is a current (in the past 30 days) cigarette smoker, compared with one in three young adults and one in five adults.
Current Cigarette Smoking, 2009

Sources: High School Seniors – 2009 Youth Risk Behavior Survey (YRBS); Young Adult and Adult – 2008-2009 National Survey on Drug Use and Health
Current Use of Other Tobacco Products, 2009
9th to 12th grade students

Source: 2009 National Youth Risk Behavior Survey (YRBS)
Chapter 3 Conclusion

Significant disparities in tobacco use remain among young people nationwide. The prevalence of cigarette smoking is highest among American Indians and Alaska Natives, followed by Whites and Hispanics, and then Asians and Blacks. The prevalence of cigarette smoking is also highest among lower socioeconomic status youth.
Current Cigarette Smoking, by Race/Ethnicity
9th – 12th grade students

Source: 2009 National Youth Risk Behavior Survey (YRBS)
Current Smokeless Tobacco Use, by Race/Ethnicity

9th – 12th grade students

Source: 2009 National Youth Risk Behavior Survey (YRBS)
Current Cigar Use, by Race/Ethnicity
9th – 12th grade students

Source: 2009 National Youth Risk Behavior Survey (YRBS)
Chapter 3 Conclusion

Concurrent use of multiple tobacco products is prevalent among youth. Among those who use tobacco, nearly one-third of high school females and more than one-half of high school males report using more than one tobacco product in the last 30 days.
Concurrent Tobacco Use, 2009
High School Male Tobacco Users

Source: National Youth Risk Behavior Survey (YRBS) 2009
Emerging Tobacco Products
Efforts to Prevent and Reduce Tobacco Use Among Young People
Major Conclusion of the Report

Coordinated, multi-component interventions that combine mass media campaigns, price increases including those that result from tax increases, school-based policies and programs, and statewide or community-wide changes in smoke-free policies and norms are effective in reducing the initiation, prevalence, and intensity of smoking among youth and young adults.
Effective strategies

• Tobacco product taxes
• Smoke-free legislation
• Mass media campaigns
• School-based programs
Tobacco product taxes
Taxes on tobacco products

Price of cigarettes and youth cigarette smoking

Taxes on tobacco products

Figure 1: Quitline calls nationally by month. The x-axis indicates the months from January 2005 to June 2010.

Taxes on tobacco products

• Affects both youth and adult smoking
  – Reduces prevalence of use
  – Reduces intensity of smoking (i.e., 10% → 3-5%)
  – Has largest effects on youth (i.e., 2-3X more)

• Affects multiple transitions in smoking
  – Increases cessation among young adults
  – Reduces initiation among young people
  – Prevents progression to higher intensities

• Know less about effects of taxes on other products
Taxes on tobacco products

Federal excise taxes on tobacco products

Dollars per pack (cigs/cigars) or per can/pouch (smokeless tobacco)

- Cigarettes (pack of 20)
- Small cigars (pack of 20)
- Chewing tobacco (3-oz pouch)
- Snuff (1-oz can)

Source: Orzechowski & Walker, 2010; US Department of Treasury, 2009
Evaluation strategies

• Combining existing survey data with site-specific cigarette prices
  – Account for tax avoidance

• Surveillance and monitoring system to regularly gather data on:
  – Tobacco use among youth and adults
  – Tobacco product taxes and prices
  – Price-reducing marketing efforts of tobacco companies
  – Tax avoidance practices
  – Tax administration and enforcement activities

Sources: Chaloupka et al., 2010; Ross & Chaloupka, 2003
Smoke-free legislation
Smoke-free legislation

• **Different levels**
  – Local policies
  – State policies
  – Federal policies
  – Institutional policies

• **Different contexts**
  – School policies
  – Worksite policies
  – Restaurants and bars
  – Home policies
Smoke-free legislation

• Affects both youth and adult smoking
  – Reduces prevalence of smoking
  – Reduces smoking experimentation
  – Delays transition to daily smoking
  – Increases cessation in young adults

• Policies likely achieve these effects via
  – Lower visibility of role models who smoke
  – Fewer opportunities to smoke alone/socially
  – Diminished social acceptability of smoking
Smoke-free legislation

SOURCE: Campaign for Tobacco Free Kids (laws as of January, 2012)
Evaluation strategies

• Approach is determined by the **level** and **context** of legislation of interest
  – Local, state, federal or institutional?
  – School, worksite, or home?

• Linking existing survey data with site-specific data on smoke-free laws or policies
Evaluation strategies

• Outcome measures
  – Exposure to environmental tobacco smoke in workplace
    • Self-reported or biological measures
  – Smoking behavior
    • Initiation, intensity, and cessation

• Exposure measures
  – Existence of smoke-free laws/policies
  – Enforcement of smoke-free laws/policies
  – Self-reported smoke-free workplace/home
Mass media campaigns
Mass media campaigns

• Began with the FCC’s Fairness Doctrine (1 per 3)
• Have evolved to become part of state programs
  – Change social norms (e.g., California; 1990)
  – Emphasize effects (e.g., Massachusetts; 1994)
  – De-legitimize tobacco industry (e.g., Florida; 1997)
• Include many forms of media (e.g., print, radio)
• Can reduce tobacco use by 30-40% among youth
Mass media campaigns

• Are most successful if the campaign
  – Shows consequences of smoking
    • Graphically, dramatically, emotionally
  – Focuses on tobacco industry deception
    • Negative emotions better than humor
  – Incorporates key structural elements
    • Edits/cuts, loud music, intense imagery
  – Is of “sufficient” intensity and duration (≥4)
  – Encourages discussion, especially among youth
I miss my lung, Bob.
What if cigarette ads told the truth?

FORGET ALL THE HEALTH RISKS. If The Beautiful People Do It, It Must Be Okay!
AMMONIA IS GREAT FOR CLEANING TOILETS

AND INCREASING THE IMPACT OF NICOTINE IN CIGARETTES.
Mass media campaigns

Results from Florida’s ‘truth’ campaign

Past month cigarette use (among smokers)

1998
2000

Evaluation strategies – Florida’s “truth” campaign

• Outcome evaluation
  – Tobacco use behaviors
  – Anti-tobacco attitudes/beliefs
  – Self-reported awareness of anti-tobacco ads, messages, and “truth” brand
  – Receptivity to anti-tobacco ads

• Often difficult to assess specific media effects within broader programs
Evaluation strategies

• Process evaluation
  – Type(s) of mass media used
  – Where and when media were shown
  – How often media were shown
  – Estimated reach and penetration of campaign messages to target audience
School-based programs and policies
School-based programs

- Exemplary programs
- Discusses prevention, risk/protective factors
  
http://www.nida.nih.gov/prevention

- Reviews programs
- Provides information program training, costs
  
http://www.drugstrategies.com

School-based programs

- Are most successful if the program
  - Is interactive, not didactic
  - Engages peers in implementation
  - Involves community (e.g., parents)
  - Is based on social influences model
  - Is conducted across multiple years
  - Provides adequate training and support

- Can reduce tobacco use by 25-40%
School-based programs

Results from studies of *Life Skills Training*

School policies

- Provide rationale for policy
- Prohibit any tobacco use
  - Students, teachers, staff, visitors
  - School property, school vehicles, functions
- Prohibit tobacco advertising
- Prohibit possession and distribution

SOURCE: Barnett et al., 2007; CDC, 1989; CDC, 1994; WHO, 2008
School policies

- Communicate policy effectively
  - Students, parents, staff, visitors
- Ensure policy is effectively enforced
  - Do not enforce policy punitively
  - Instead, enforce policy proactively
- Ensure students perceive enforcement

SOURCE: Hamilton et al, 2003; Kumar et al., 2005; Lovato et al., 2007; Murnaghan et al., 2008
School policies

- Create healthier environments
- Easier upkeep of school facilities
- Limit related discipline problems
- Reduce tobacco use among youth

Evaluation strategies

• **Outcome evaluation**
  – Tobacco use behaviors
    • Immediate and long-term
    • Individual-level and school-level
  – Mediating variables
    • Tobacco and skills-related knowledge
    • Attitudes towards tobacco use
    • Normative expectations
    • Self-efficacy to resist social influences to use tobacco
    • Perceived enforcement of anti-tobacco policies
Evaluation strategies

• Process evaluation
  – Fidelity of implementation
    • Classroom observation of teachers
  – Reach and dose
    • How many students participated in intervention activities?
    • In how many activities did each student participate?
  – Implementation and enforcement of policies restricting tobacco use
Statewide programs
Statewide programs

• Coordinated strategies
  – Prevent initiation among youth
  – Promote cessation among adults
  – Eliminate exposure to secondhand smoke
  – Reduce disparities among sub-groups

• Program components
  – Community interventions
  – Counter-marketing techniques
  – Public policy and regulation
  – Surveillance and evaluation
Statewide programs

• Inspired aggressive industry response
  – Attempts to limit funding, scope
  – Increased lobbying at state, local levels
  – More intensive marketing efforts
  – Promotion of state pre-emption of laws

• State programs are most successful if
  – Are comprehensive (i.e., multi-strategy)
  – Are coordinated, with integrated goals
  – Have sufficient funding ($15-$20/capita)

• Can reduce tobacco use by 40 to 60%
Statewide programs

State funding for tobacco control programs, 2012

Source: Campaign for Tobacco Free Kids, 2012
Case Study: New York
Statewide programs: New York

• Funding sources
  – From MSA and state excise tax
  – Ranged 50-90% of CDC minimum

• Program components
  – Included multiple components
  – Varied over time (2000-present)

• State-wide program goal
  – To affect adult smoking norms/behavior
  – To, in turn, reduce smoking among youth
Statewide programs: New York

– Tobacco product taxes
  • $4.35/pack of cigarettes
  • Ranks 1\textsuperscript{st} in US for state tax
  • Average price per pack: $10.14

– Smoke-free legislation
  • *Clean Indoor Air Act* 2003
  • 100\% smoke-free statewide
Statewide programs: New York

Mass media campaign, New York, 2012
State-wide programs: New York

School-based policies, New York

SOURCE: http://www.tobaccofreepolicy.org/
Statewide programs: New York

Past month cigarette use

Results from New York’s statewide program

SOURCE: RTI (2007)
Conclusions

• Tobacco use by youth and young adults is prevalent
  – Decline in cigarette smoking has stalled in recent years
  – Prevalence of smokeless tobacco and cigar use has increased in subpopulations
  – There is a need for surveillance of emerging tobacco products (e.g., hookahs, snus, etc.)

• We know what works to reduce youth tobacco use
  – Tobacco product taxes
  – Smoke-free policies
  – Mass media campaigns
  – School-based programs/policies
Health Consequences

Surgeon General’s Public Service Announcement
http://www.youtube.com/watch?v=wm0Vz0pceLU
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