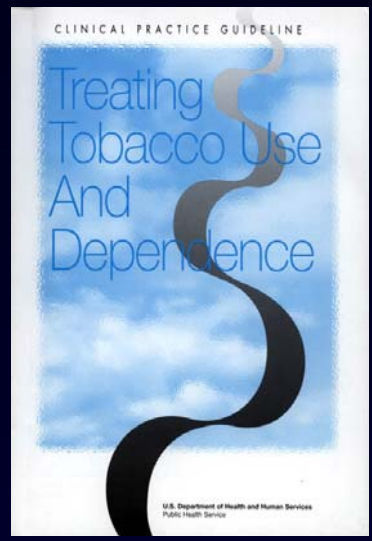
Smoking Cessation Strategies: the 2008 Public Health Service Guideline



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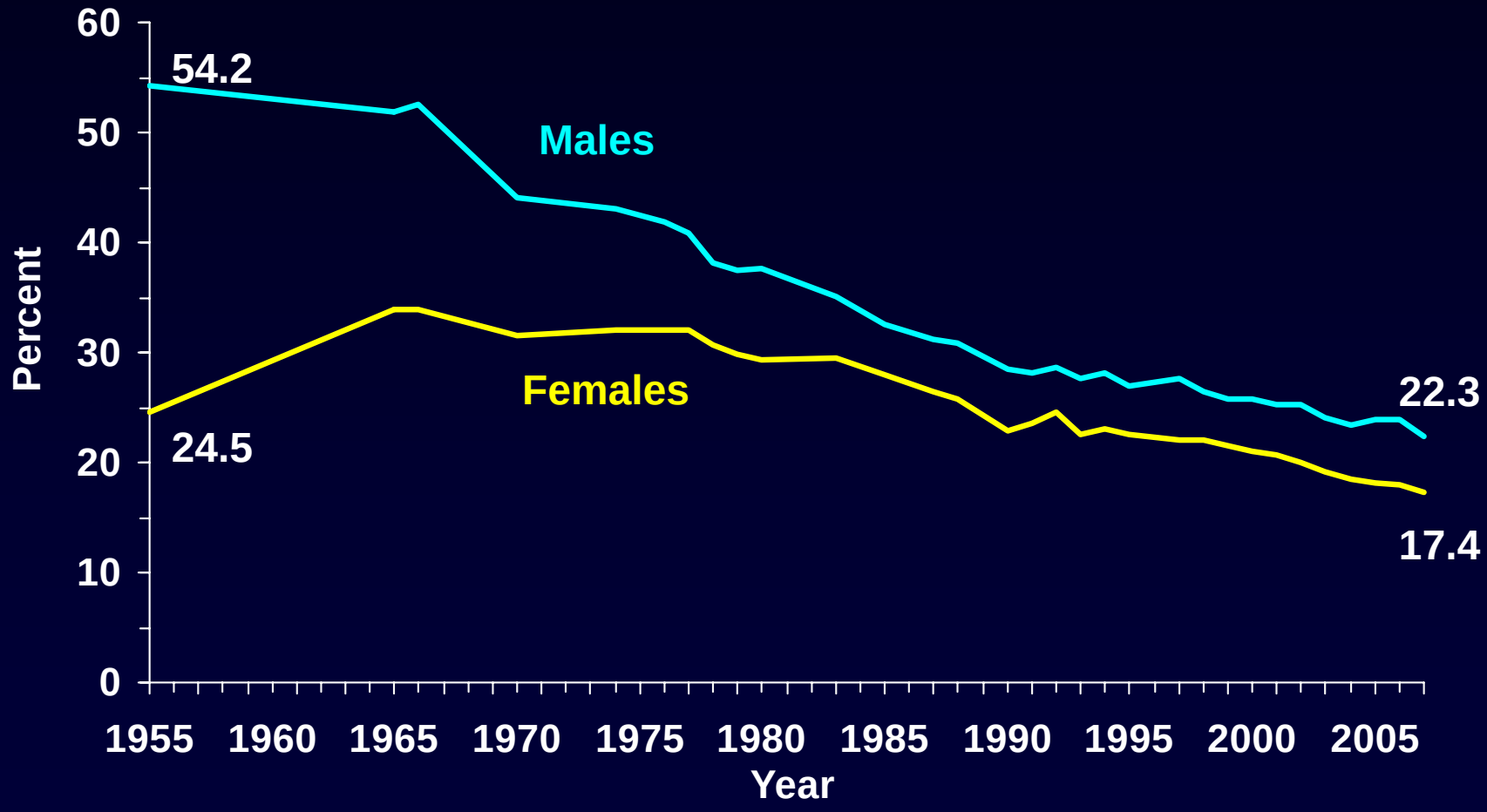
Background – Public Health Burden

- 19.8% of adults and 20% of youth smoke
- 443,000 annual deaths
  - 160,000 from cancer
  - 128,000 from CVD
  - 103,000 from respiratory diseases
- $193 billion per year in health care costs and productivity losses

Cigarette Smoking* among Adults by Sex—United States, 1955-2007



*Estimates since 1992 include some-day smoking.
Sources: 1955 Current Population Survey; 1965-2007 National Health Interview Survey.

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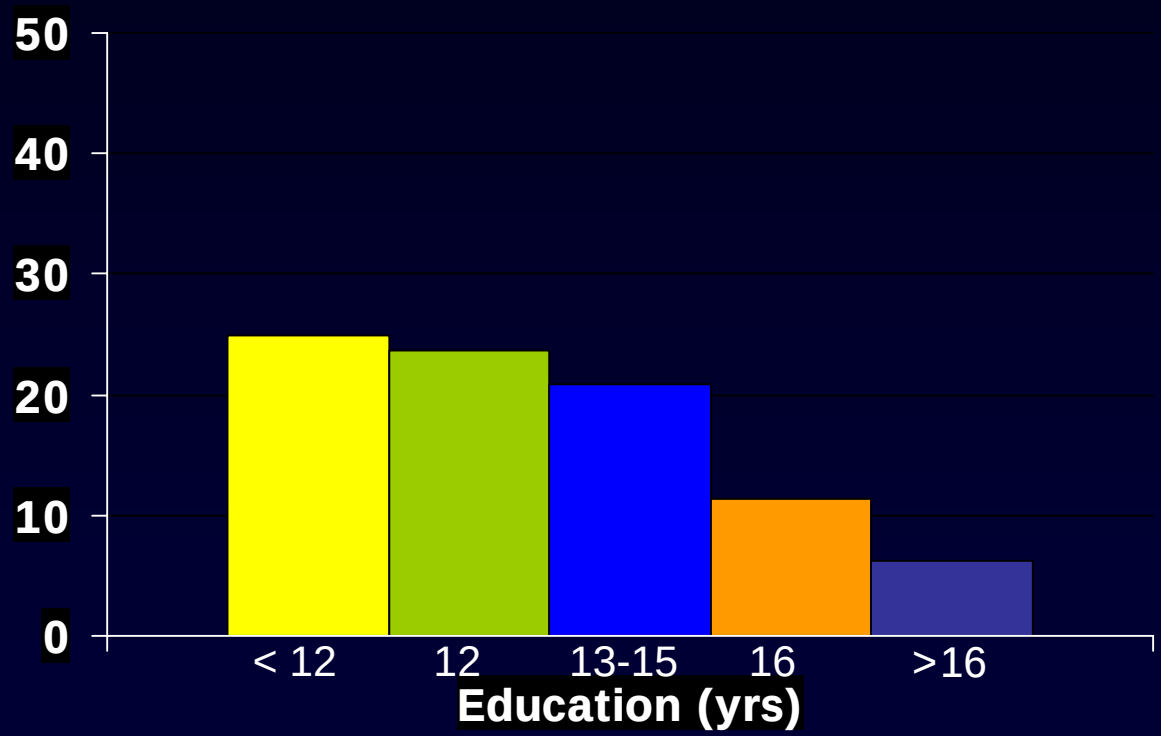
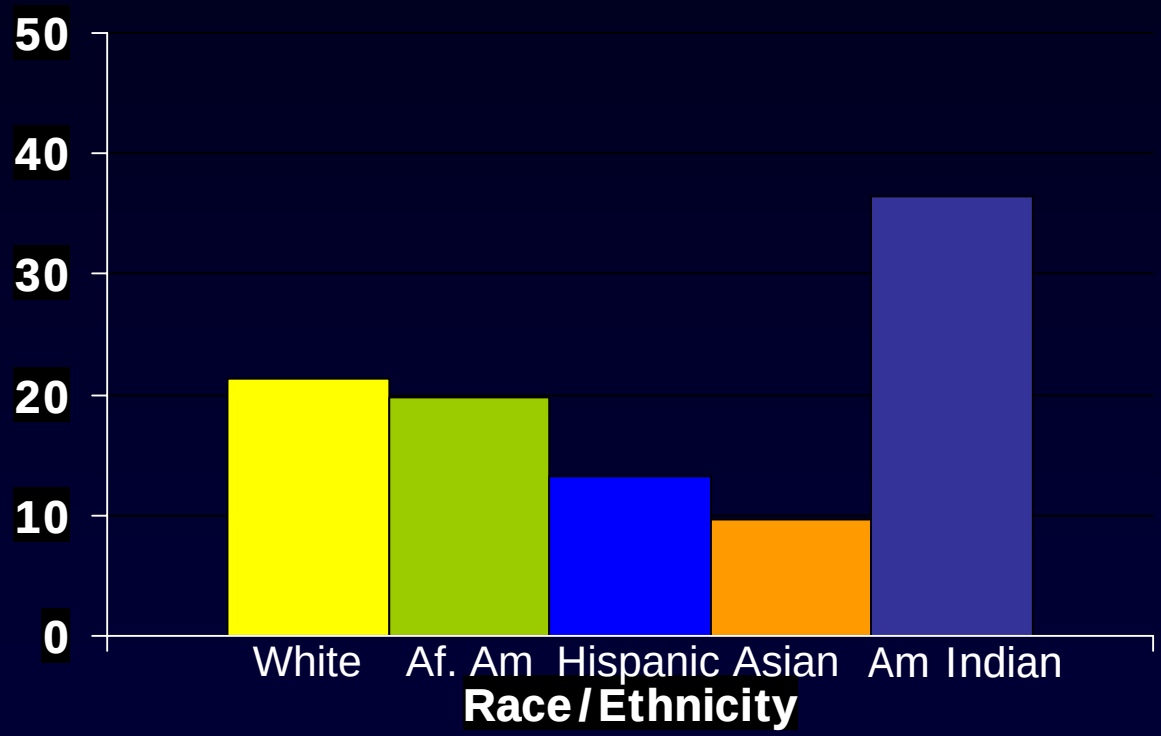
Cigarette Smoking among Adults Age 18+ by Education —United States, 2007



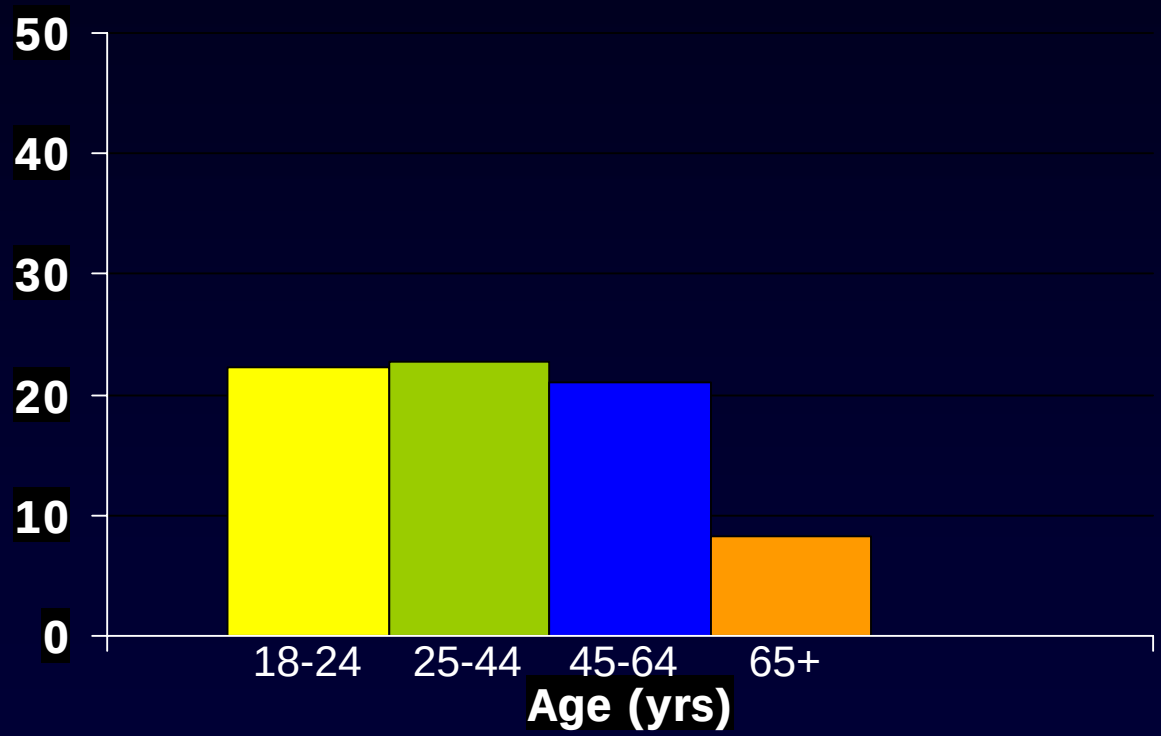
Source: 2007 National Health Interview Survey

Cigarette Smoking among Adults Age 18+ by Race/Ethnicity —United States, 2007



Source: 2007 National Health Interview Survey

Cigarette Smoking among Adults Age 18+ by Age —United States, 2007

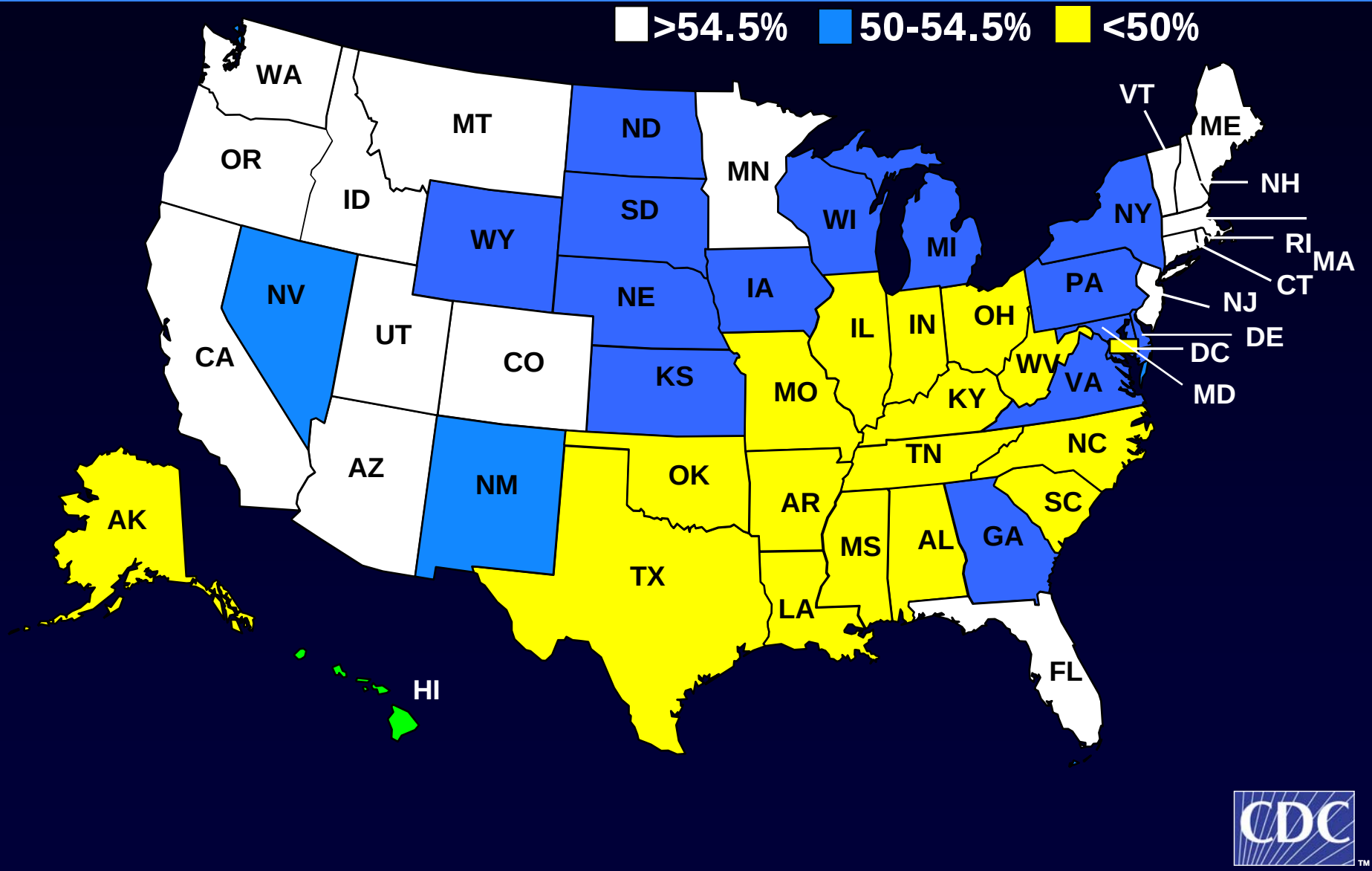


Source: 2007 National Health Interview Survey

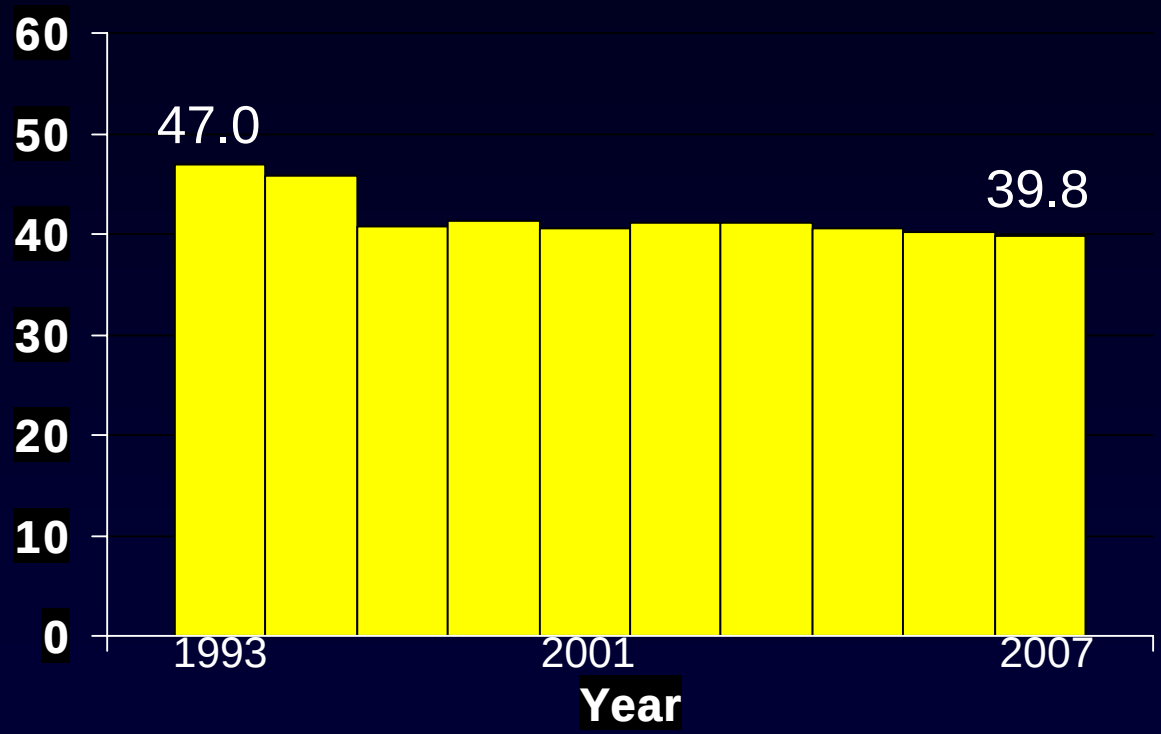
Background – Smoking Cessation

- Smoking cessation has major and immediate health benefits for men and women of all ages. (SGR 1990)
- Smokers who quit before age 35 years have a life expectancy similar to never smokers (Doll, BMJ 2004)
- 70% want to quit, 40% try each year to quit, 4%-7% are successful
- Over 50% of ever smokers have quit.

State Prevalence of Ever Smokers who have quit smoking, 2004

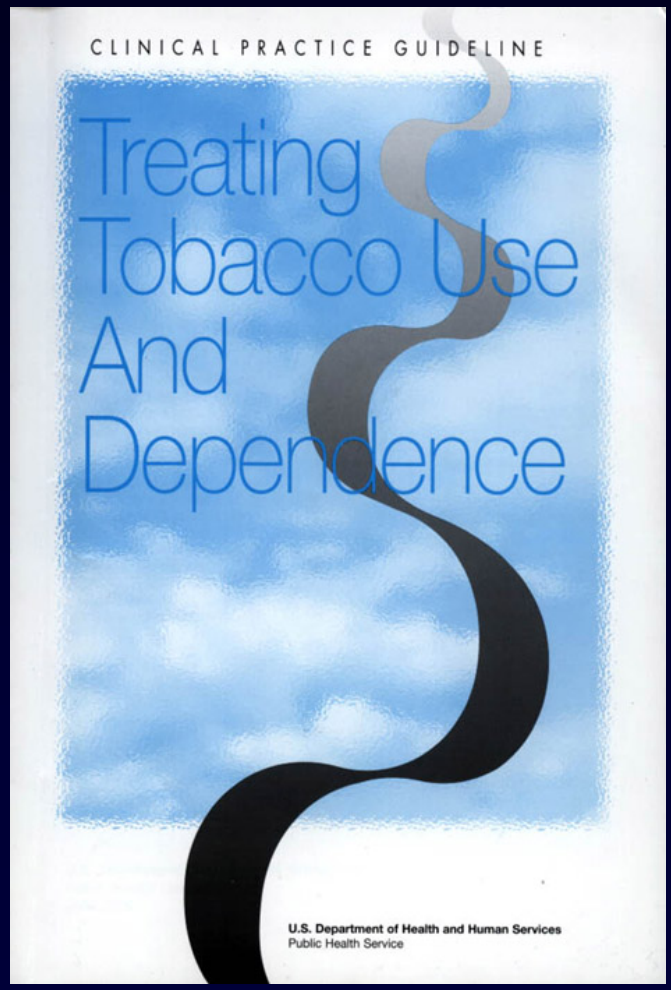


Percentage of Smokers who Tried to Quit for >1 day in the Past Year, Ages 18+ —US, 1993-2007



Source: 1993-2005 National Health Interview Surveys

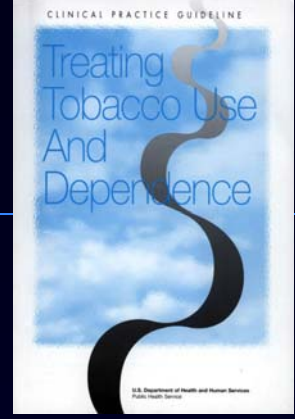
What Works?


CLINICAL PRACTICE GUIDELINE
Treating Tobacco Use And Dependence
U.S. Department of Health and Human Services
Public Health Service

Community Interventions that Increase Cessation

- Increasing the price of tobacco products (tobacco taxes)
- Smokefree policies
- Media campaigns
- Reducing out of pocket costs for treatment
- Telephone cessation quitlines

Criteria for Recommendations: Inclusion Criteria



- Study reported the results of a randomized, placebo/comparison controlled trial of a tobacco-use treatment randomized on the patient level
- Study provided follow-up results at least 5 months after the quit date
- Study was published in a peer-review journal
- Study was published between January 1975 and June 2007
- Study was published in English

Criteria for Strength of Evidence Recommendations

A Multiple well-designed randomized clinical trials, yielded a consistent pattern of findings

B Some evidence from randomized clinical trials supported the recommendations, but the scientific support was not optimal. (few, inconsistencies, etc.)

C Reserved for important clinical situations where the panel achieved consensus on the recommendation in the absence of relevant randomized controlled trials

2008 PHS Guideline Summary Recommendations

- Tobacco dependence is a chronic condition that often requires repeated intervention. However, effective treatments exist that can significantly increase rates of long-term abstinence

The Quitter's Journey

2008 PHS Guideline Summary Recommendations

- It is essential that clinicians and healthcare delivery systems consistently identify and document tobacco use status and treat every tobacco user seen in a health care setting
- Tobacco dependence treatments are effective across a broad range of populations. Every patient willing to make a quit attempt should be offered the counseling and medications recommended in this Guideline.

2008 PHS Guideline Summary Recommendations

- Brief tobacco dependence treatment is effective. Every patient who uses tobacco should be offered at least brief treatments (Less then 3 mins increases quitting by 30%)
- Individual, group, and telephone counseling are effective and their effectiveness increases with treatment intensity
  (31 – 90 mins total contact time 26% quit)

5 A's

- Ask about tobacco use
- Advise to quit (All physicians OR = 1.3)
- Assess willingness to make a quit attempt
- Assist in a quit attempt
- Arrange follow-up

2008 PHS Guideline Summary Recommendations

- There are numerous effective medications for smoking cessation. Except in the presence of contraindications, these medications should be used with all patients for whom they have been proved effective
  - Seven first-line medications reliably increase long-term smoking cessation rates:
    - Bupropion SR
    - Nicotine gum
    - Nicotine inhaler
    - Nicotine lozenge
    - Nicotine nasal spray
    - Nicotine patch
    - Varenicline
  - Clinicians should also consider the use of certain combinations of medications as recommended in this Guideline

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Efficacy of medication and medication combinations compared to placebo at 6-months post-quit

N=87 studies: Combination Therapies

	Number of arms	Estimated Odds Ratio (95% C.I.)	Abstinence Rate (95% C.I.)
Combination therapies			
Patch (long-term; >14 weeks) + ad lib NRT (gum or Spray)	3	3.6 (2.5, 5.2)	36.5 (28.6, 45.3)
Patch + Bupropion	3	2.5 (1.9, 3.4)	28.9 (23.5, 35.1)
Patch + Nortriptyline	2	2.3 (1.3, 4.2)	27.3 (17.2, 40.4)
Patch + Inhaler	2	2.2 (1.3, 3.6)	25.8 (17.4, 36.5)
Second generation antidepressants (paroxetine, venlafaxine) & patch	3	2.0 (1.2, 3.4)	24.3 (16.1, 35.0)

2008 PHS Guideline Summary Recommendations

- The combination of counseling and medication is more effective than either alone. Thus counseling and medication should be routinely offered to individual making a quit attempt.

Efficacy of combination of counseling and medication vs counseling alone

N = 9 studies

Type of Pharmocotherapy	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Cessation Rate (95% C.I.)
Counseling	11	1.0	14.6
Medication and counseling	13	1.7 (1.3, 2.1)	22.1 (18.1, 26.8)

Efficacy of combination of counseling and medication vs medication alone

N = 18 studies

Type of Pharmocotherapy	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Cessation Rate (95% C.I.)
Medication alone	8	1.0	21.7
Medication and counseling	39	1.4 (1.2, 1.6)	27.6 (25.0, 30,3)

2008 PHS Guideline Summary Recommendations

- Quitline counseling is effective with diverse populations and has broad reach. Therefore, clinicians and healthcare delivery systems should both ensure patient access to quitlines and promote quitline use.

Efficacy of proactive telephone counseling compared to minimal intervention, self-help or no counseling

N = 16 studies

Type of Pharmocotherapy	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Cessation Rate (95% C.I.)
Minimal or no counseling or SH	11	1.0	8.5
Quitline counseling	11	1.6 (1.4, 1.8)	12.7 (11.3, 14.2)

Efficacy of proactive telephone counseling and medication compared to medication alone

N = 6 studies

Type of Pharmocotherapy	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Cessation Rate (95% C.I.)
Medication alone	6	1.0	23.2
Medication and quitline counseling	6	1.3 (1.1, 1.6)	28.1 (24.5, 32.0)

2008 PHS Guideline Summary - Quitlines

- Toll free access to Quitlines is available through 1-800 Quit-Now. Many states have active physician referral (fax-to-quit) programs

2008 PHS Guideline Summary Recommendations

- Among smokers currently not willing to make a quit attempt, clinicians should use the motivational treatments to increase future quit attempts.
- Tobacco dependence treatments are highly cost-effective relative to other clinical interventions. Providing coverage for these treatments increases quit rates. Insurers and purchasers should ensure that all insurance plans include the counseling and medication identified as effective in this Guideline as covered benefits.

Estimated *receipt of intervention* for individuals who had smoking cessation interventions as a covered benefit

N = 16 studies

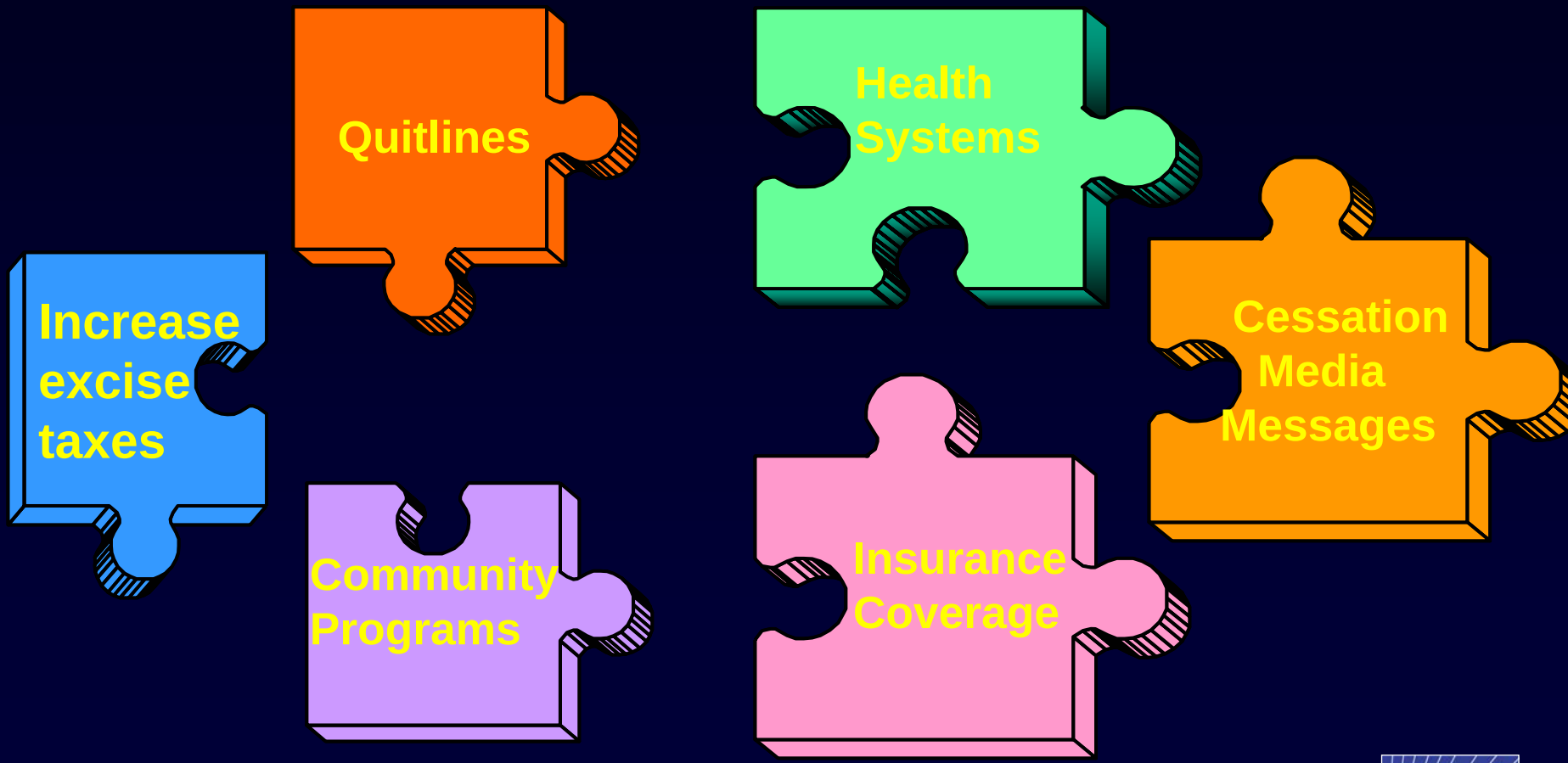
Treatment	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Rate (95% C.I.)
Individuals with no covered benefit	3	1.0	8.9
Individuals with the benefit	3	2.3 (1.8, 2.9)	18.2 (14.8, 22.3)

Estimated *abstinence rates* for individuals who had smoking cessation interventions as a covered benefit

N = 16 studies

Treatment	Number of Arms	Estimated Odds Ratio (95% C.I.)	Estimated Cessation Rate (95% C.I.)
Individuals with no covered benefit	3	1.0	6.7
Individuals with the benefit	3	1.6 (1.2, 2.2)	10.5 (8.1, 13.5)

Need to Support Community Interventions that Increase Cessation

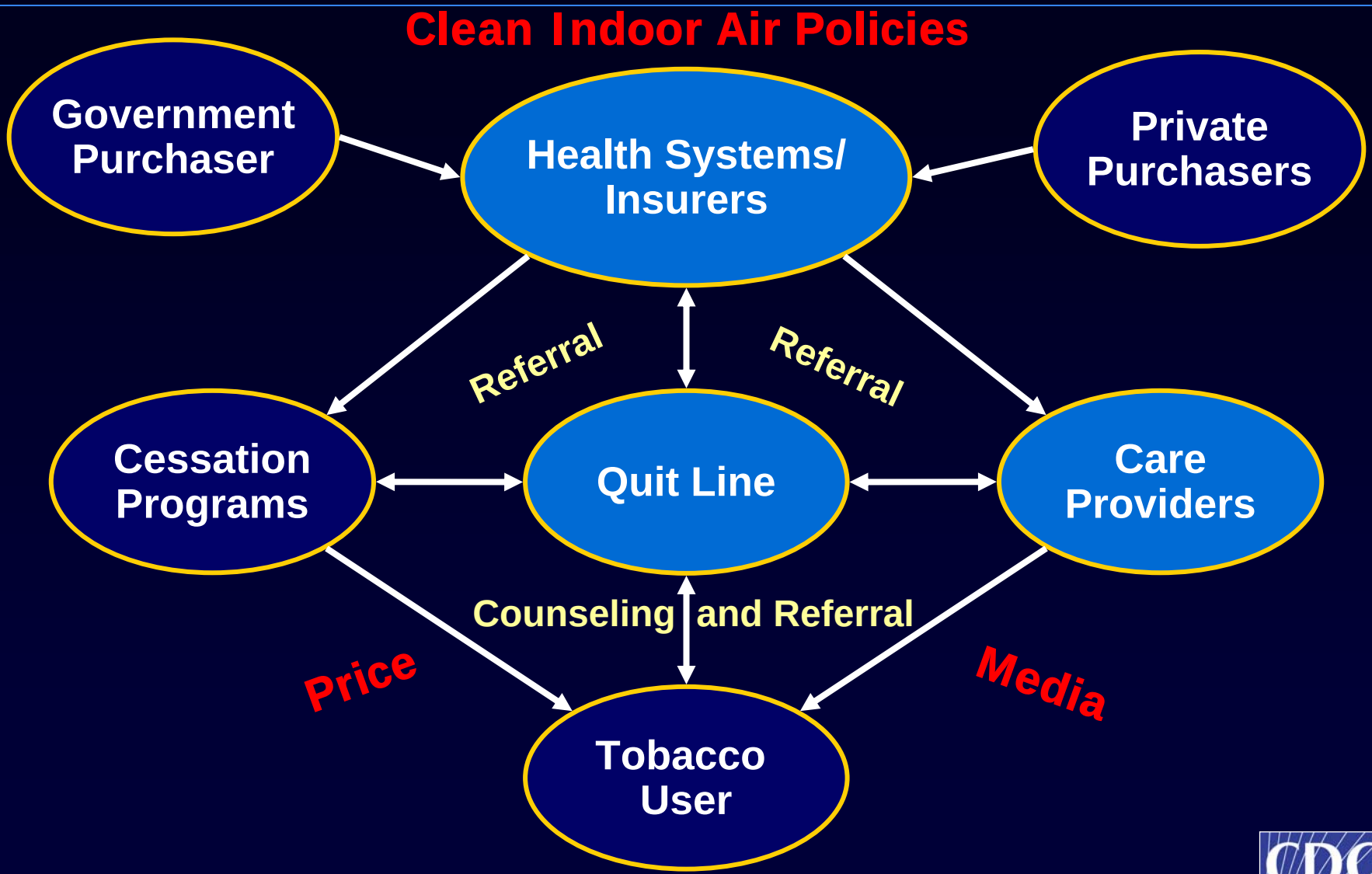


Group Health Cooperative

Effect of adding quitline counseling, first dollar insurance coverage, and promotion of cessation:

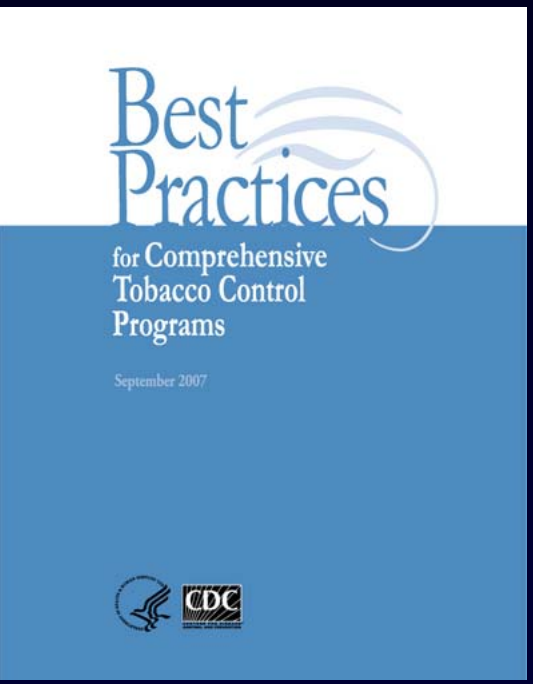
- Increased use of intensive counseling from 0.5% to 10%
- 20-fold increase in reach and impact

Integrated Approach to Tobacco Cessation



Source: Oregon Department of Human Services-Tobacco Prevention and Education Program

Best Practices for Comprehensive Tobacco Control Programs: Cessation



- Continue to Implement Comprehensive Tobacco Control Programs including Measures that Increase Cessation
- Best Practices Budget Recommendations
  - PHS 2008 Guidelines: Health care screening and brief interventions
  - Quitlines – media promotion, physician referral, NRT (2-4 weeks)(serve 6% of tobacco users)
  - $3.49 ($2.04-$5.24) per capita on Cessation

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