

Smokeless Tobacco Cessation: Review of the evidence

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Tobacco Summit 2007

MDQuit.org

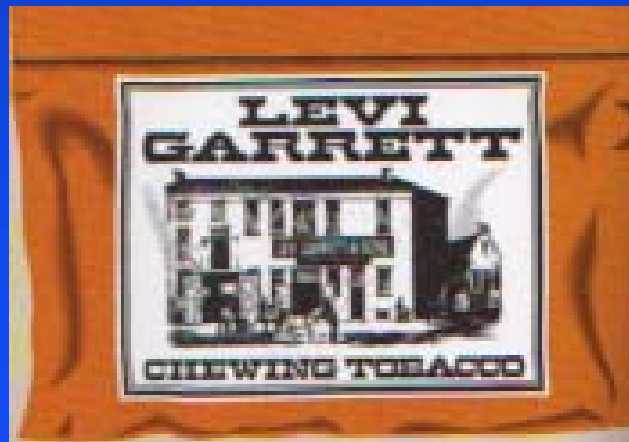
Previous Reviews of ST evidence

- Hatsukami and Boyle (1997)
 - Evidence base is limited by small sample sizes and lack of control groups
- Ebbert et al. (2007)
 - A Cochrane review
www.thecochranelibrary.com
 - Behavioural treatments may help people stop using ST

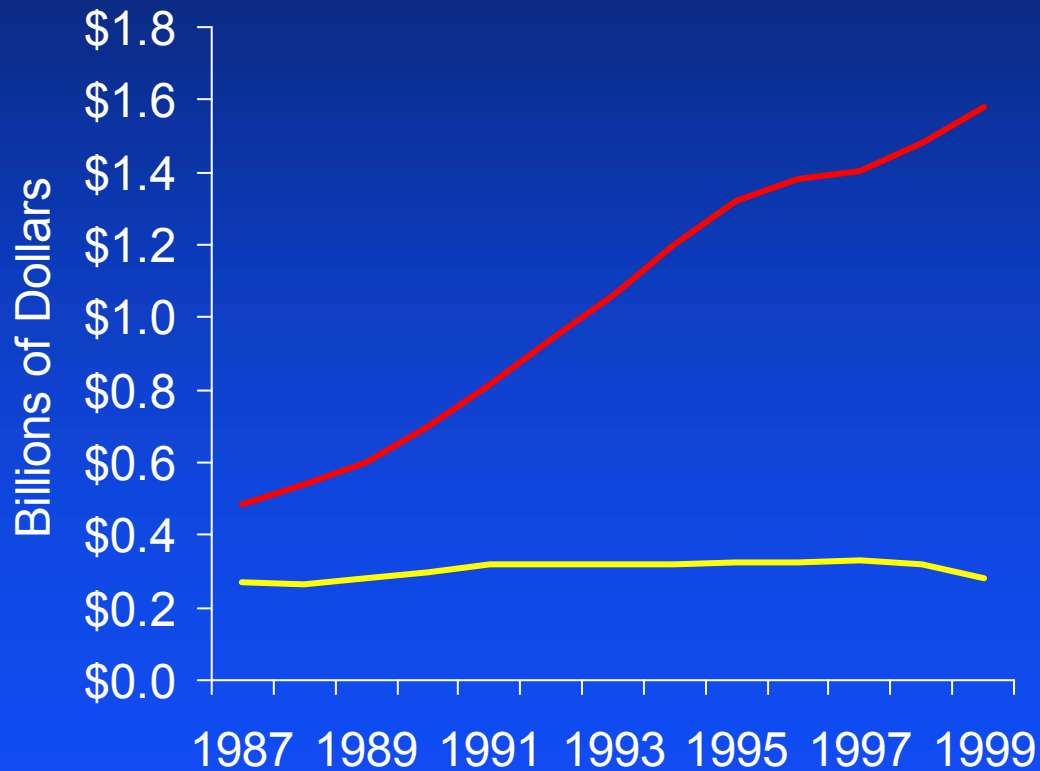
Presentation Goals

- To review the current status of ST use in the United States
- To review the behavioral and pharmacologic evidence for ST cessation
- To discuss the debate of ST as a method for smoking cessation

Smokeless Tobacco (ST) Products



Sales of Smokeless Tobacco in Dollars United States, 1987-1999



- Moist snuff
- Loose Leaf Chewing Tobacco

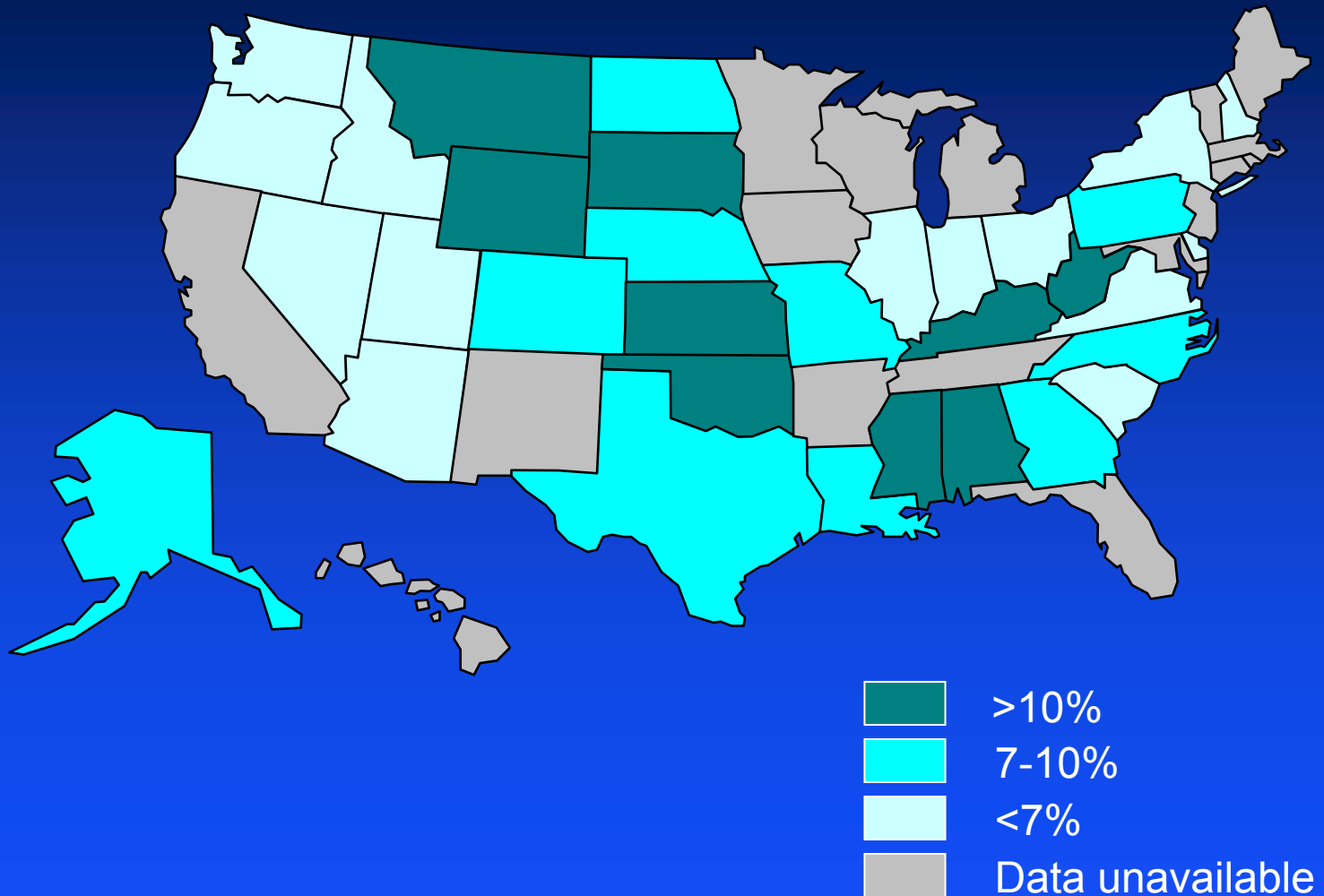


Source: FTC Report to Congress, 2001

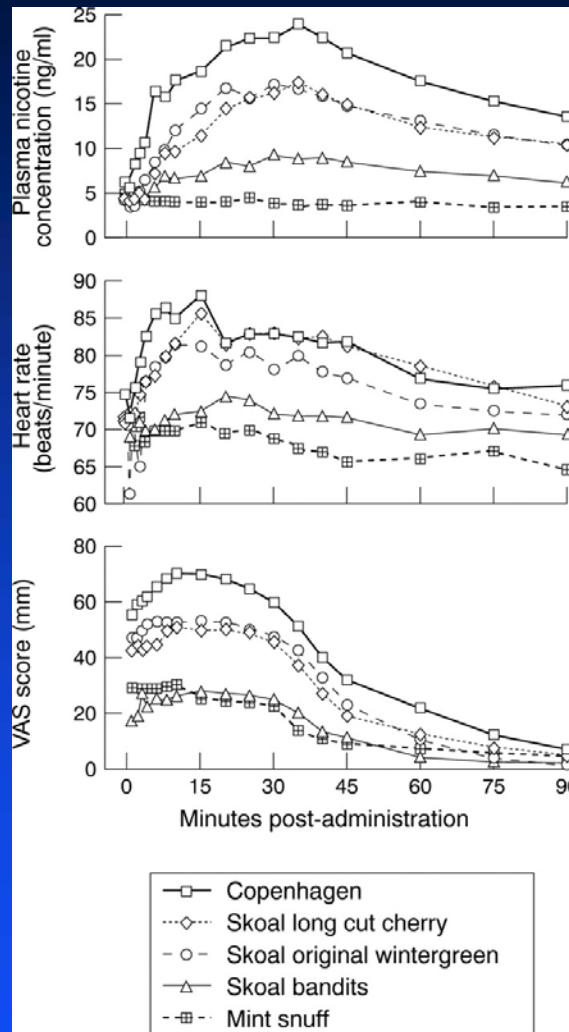
Adverse Health Effects of ST Use

- Oral and pharyngeal cancer
- Smokeless tobacco keratosis / leukoplakia
- Gingival recession
- Dental caries
- Cardiovascular diseases
- Nicotine addiction

Current ST Use by Males Aged 18+ Yrs BRFSS, 1995-1999



Nicotine plasma concentrations, HR, and subjective ratings of drug strength



Fant, R. V et al. *Tob Control* 1999;8:387-392

Pharmacotherapy for ST Use:

What is Known

Goals of Pharmacotherapy

- Increase abstinence (quit rates)
- Control symptoms
 - Craving
 - Withdrawal

Medications Tried for ST Use

- Nicotine gum
- Nicotine patch
- Bupropion SR
- Nicotine lozenge

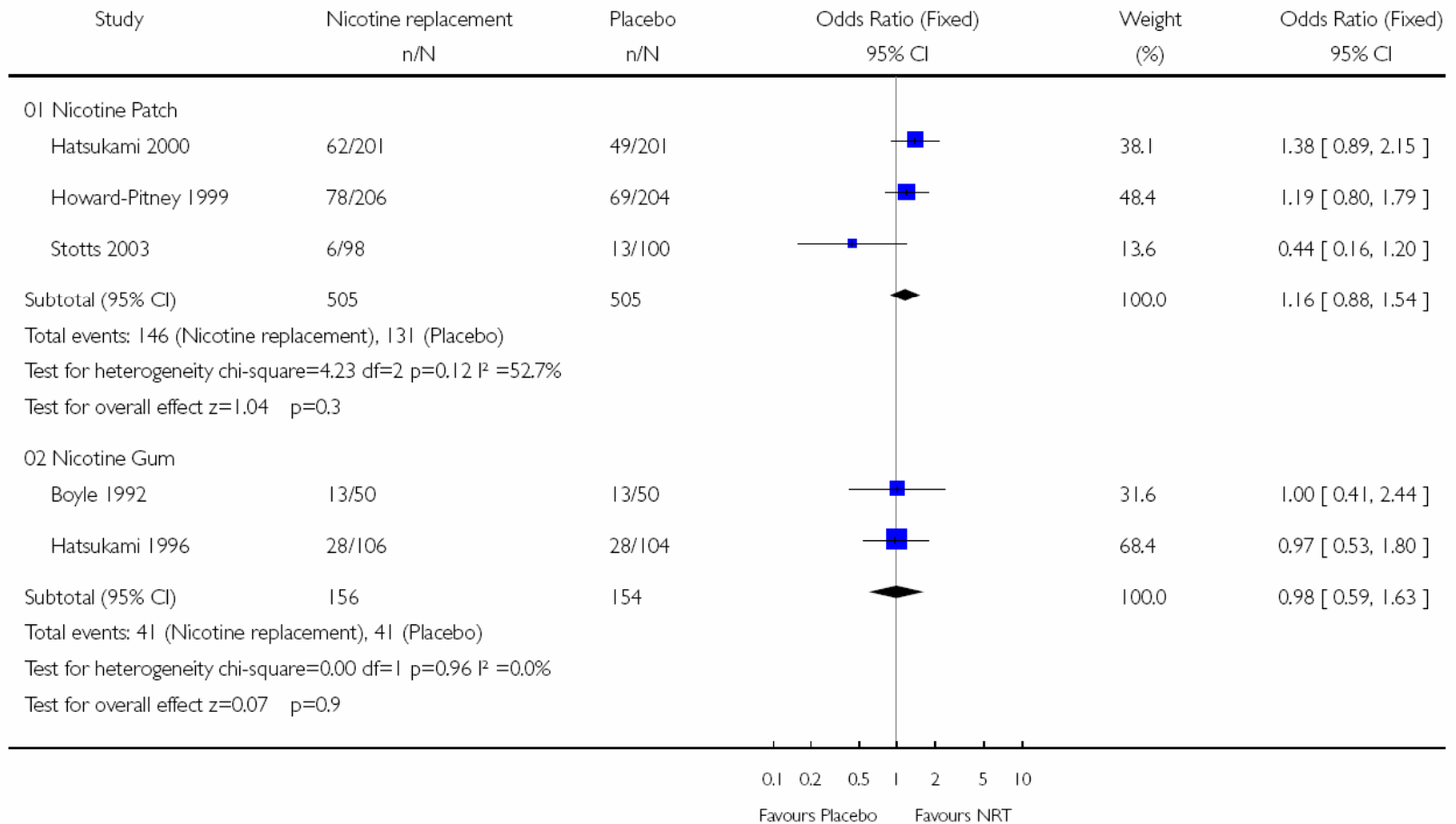
Efficacy

Analysis 02.01. Comparison 02 Pharmacotherapy: NRT versus placebo, Outcome 01 6 months or greater abstinence, strictest criteria

Review: Interventions for smokeless tobacco use cessation

Comparison: 02 Pharmacotherapy: NRT versus placebo

Outcome: 01 6 months or greater abstinence, strictest criteria



Symptom Control: Craving & Withdrawal

- Nicotine gum (2 mg/d)
 - Reduces craving^A
 - Reduces withdrawal symptoms^A

- Nicotine patch (21 mg/d)
 - Reduces craving^B
 - Reduces withdrawal symptoms^B

^A Hatsukami et al. *J Consult Clin Psychol*. Feb 1996;64(1):153-161.

^B Hatsukami et al. *J. Consult. Clin. Psychol*. 2000;68(2):241-249.

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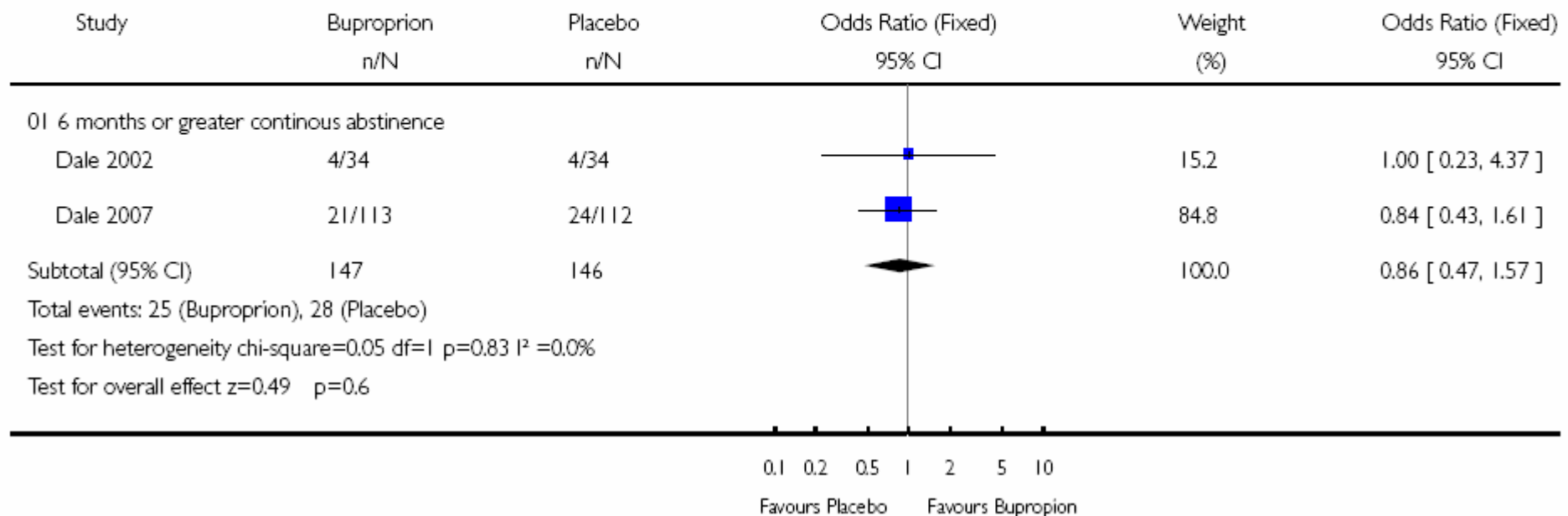
Efficacy

Analysis 01.01. Comparison 01 Pharmacotherapy: Bupropion versus placebo, Outcome 01 All tobacco abstinence at longest follow-up

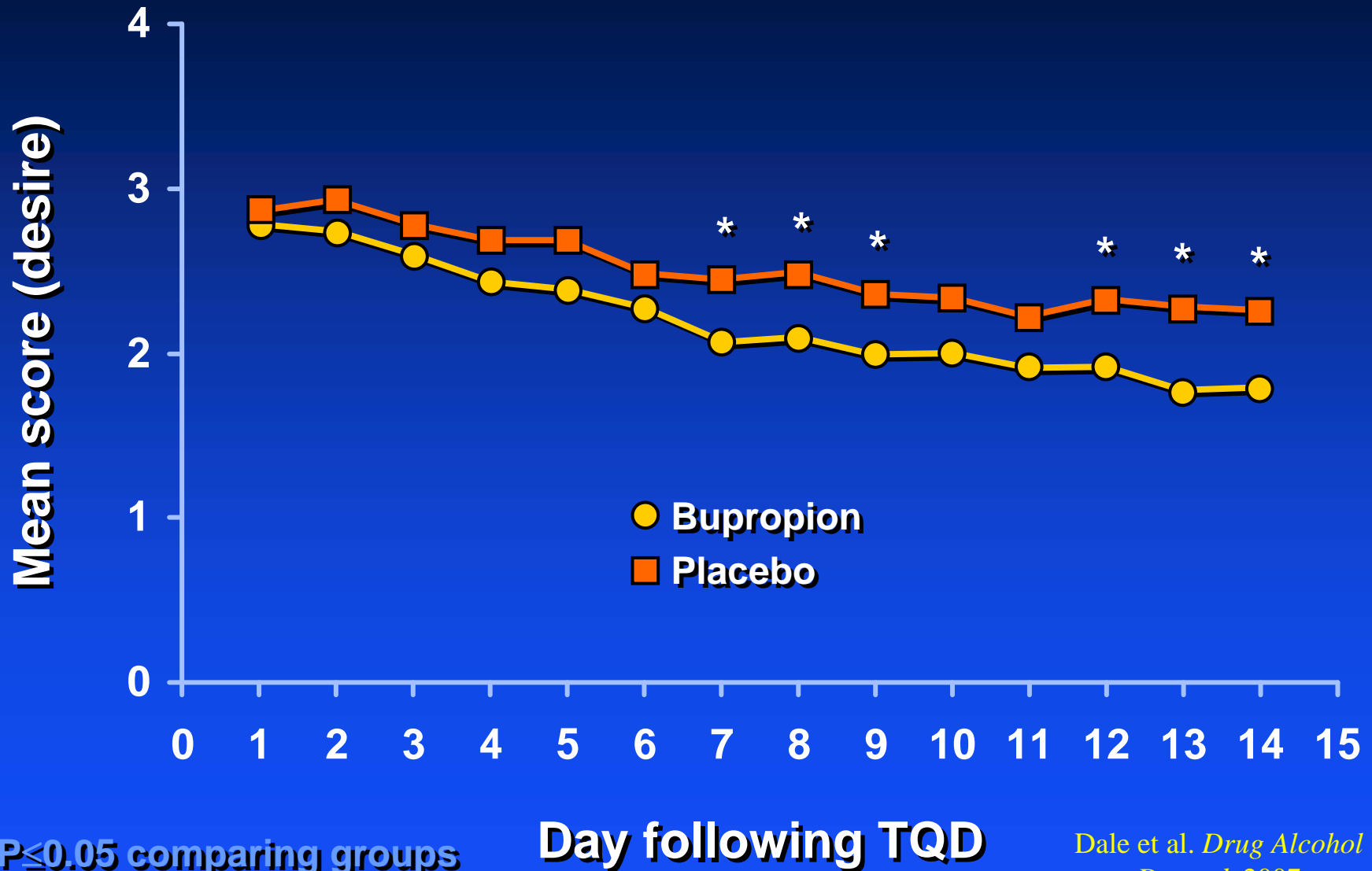
Review: Interventions for smokeless tobacco use cessation

Comparison: 01 Pharmacotherapy: Bupropion versus placebo

Outcome: 01 All tobacco abstinence at longest follow-up



Desire to Use Tobacco

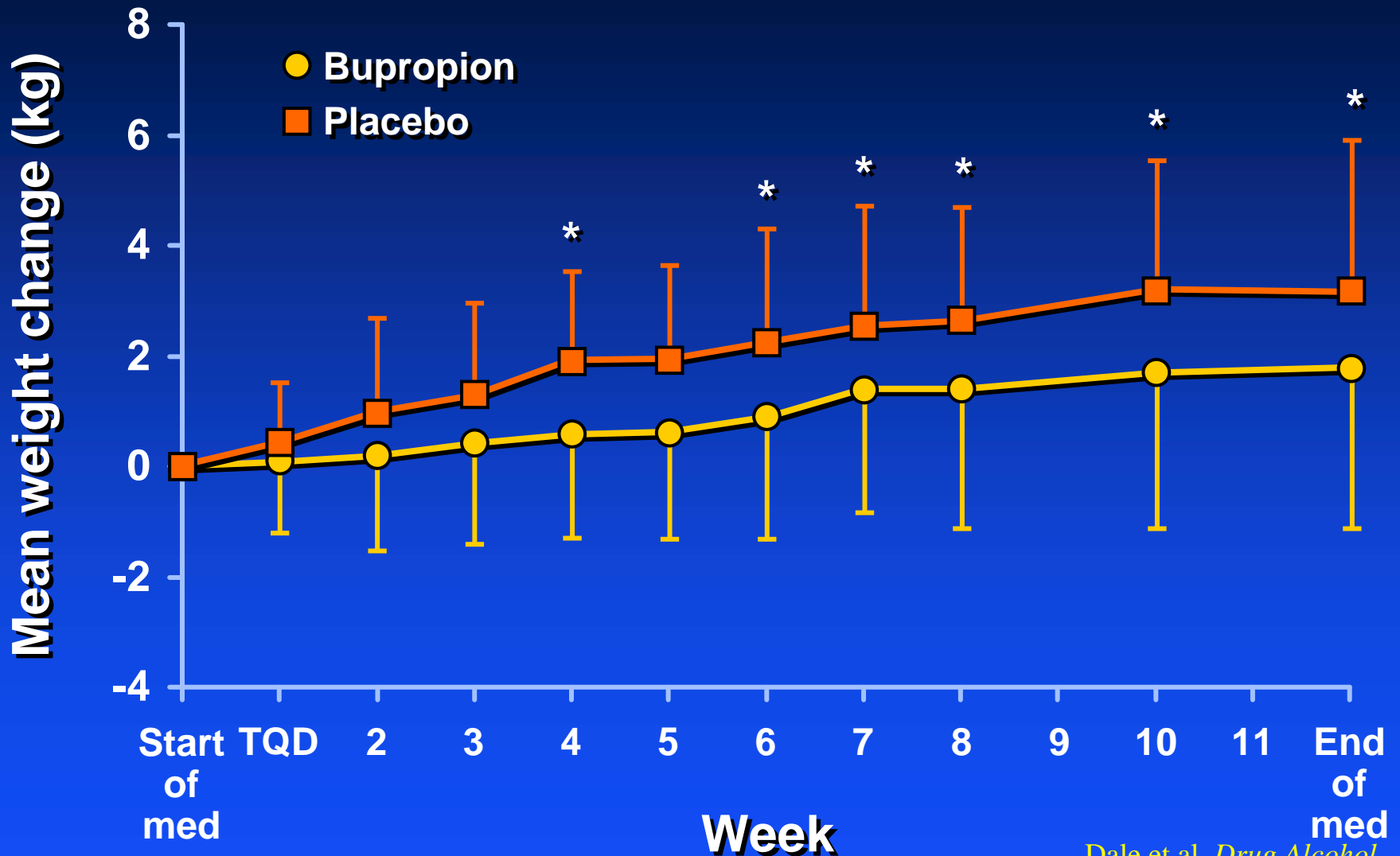


* $P \leq 0.05$ comparing groups

Day following TQD

Dale et al. *Drug Alcohol Depend.* 2007

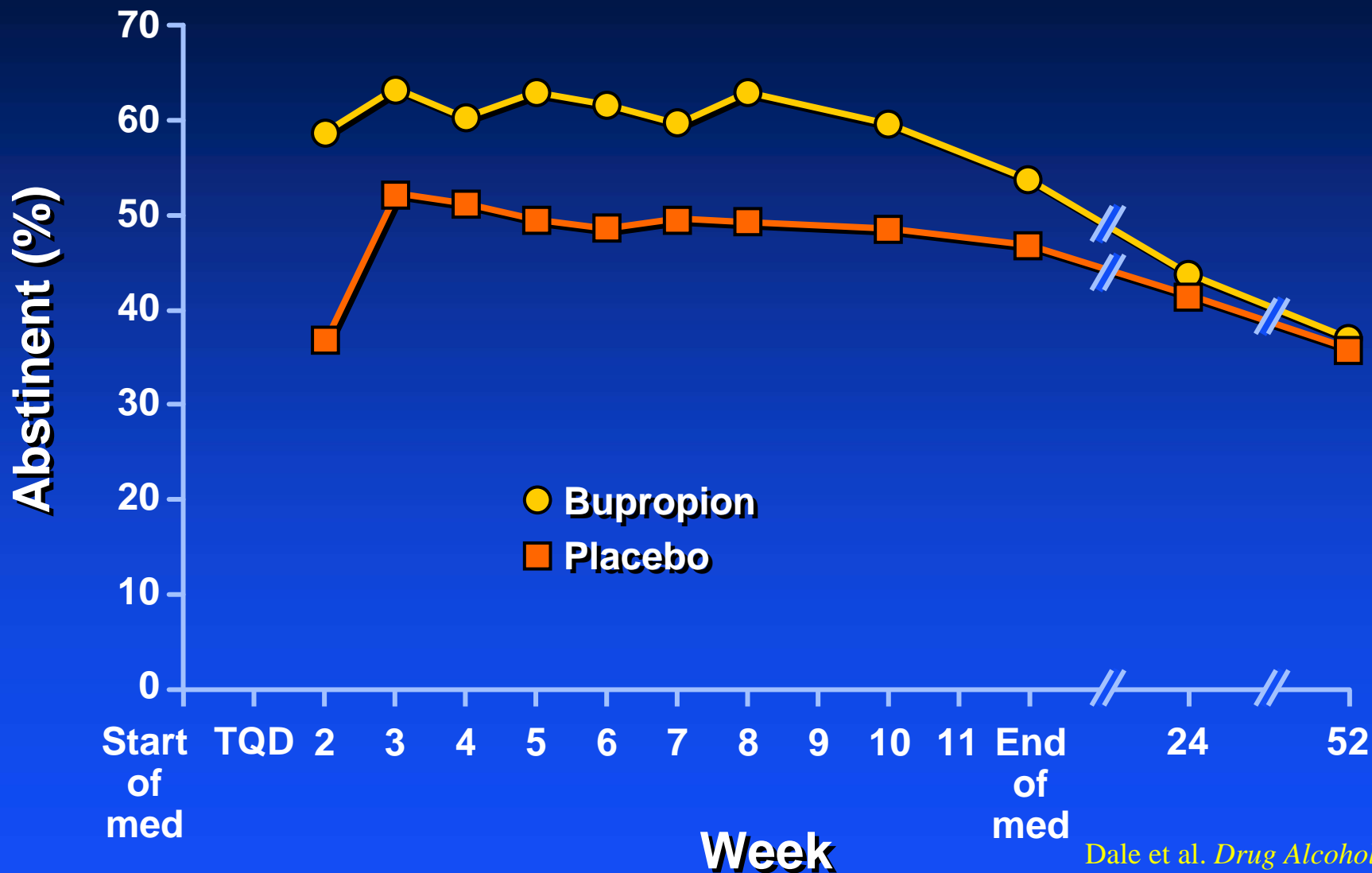
Weight Change During Medication Phase



Dale et al. *Drug Alcohol Depend.* 2007

*P<0.05 bupropion compared to placebo

7-Day Point Prevalence Abstinence



Dale et al. *Drug Alcohol Depend.* 2007

Bupropion SR Study Conclusions

- Bupropion SR is effective for:
 - Decreasing craving
 - Attenuating weight gain
- Bupropion SR is not effective for:
 - Increasing long-term ST abstinence rates
 - Decreasing withdrawal symptoms

Nicotine Lozenges for ST Users

Nicotine Lozenge Study

	Goal lozenges/day	Max lozenges/day
Weeks 1-6	20	20
Weeks 7-9	8	20
Weeks 10-12	4	20

Nicotine Lozenge Study

- ST users:
 - ≥ 18 years of age
 - Daily use for the 6 months
- 4 mg nicotine lozenge
- 30 subjects

Nicotine Lozenge Study Conclusions

- Nicotine lozenge may be effective for addressing:
 - Craving
 - Withdrawal
- Conclusions must be interpreted with caution
 - About 47% quit
 - Placebo-controlled study is ongoing

ST Behavioral interventions randomized by organization

Analysis 03.01. Comparison 03 Behavioral interventions, Outcome 01 Abstinence from all tobacco use (where reported) at 6 months or more

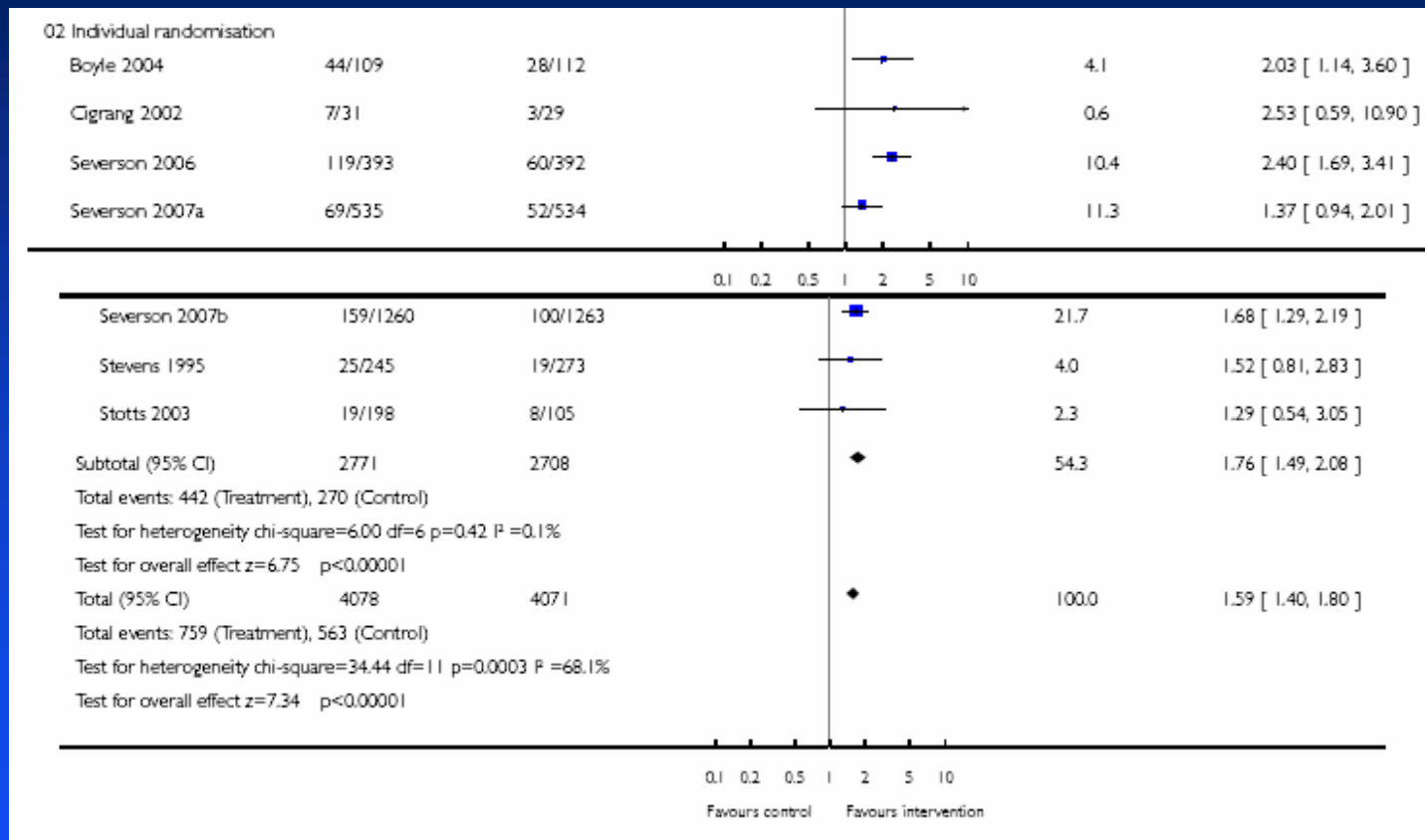
Review: Interventions for smokeless tobacco use cessation

Comparison: 03 Behavioral interventions

Outcome: 01 Abstinence from all tobacco use (where reported) at 6 months or more

Study	Treatment n/N	Control n/N	Odds Ratio (Fixed) 95% CI	Weight (%)	Odds Ratio (Fixed) 95% CI
01 Randomisation by organisation					
Cummings 1995	76/316	102/417		16.6	0.98 [0.70, 1.38]
Gansky 2005	103/285	130/352		18.4	0.97 [0.70, 1.34]
Severson 1998	40/394	8/239		2.2	3.26 [1.50, 7.10]
Walsh 1999	60/171	30/189		4.6	2.86 [1.74, 4.73]
Walsh 2003	38/141	23/166		3.8	2.29 [1.29, 4.08]
Subtotal (95% CI)	1307	1363		45.7	1.38 [1.15, 1.67]
Total events: 317 (Treatment), 293 (Control)					
Test for heterogeneity: chi-square=24.43 df=4 p=<0.0001 I ² =83.6%					
Test for overall effect: z=3.38 p=0.0007					

ST behavioral interventions randomized by individual



ST Behavioral Interventions: Evidence Summary

- The Cochrane review identified 8 RCTs
- Positive, strong effects are seen for
 - Telephone counseling
 - Dental team advice
 - Self-help materials (web, video, manual)
 - Interventions with athletic teams

Recommended Treatment Approach

1. Behavioral treatment
 - Oral examination
 - Oral replacement products
 - Reducing/blending
 - Telephone based CBT
2. Consider tailored nicotine therapy
 - Patch/gum/lozenge for self-titration

The ST harm reduction debate

A product is harm reducing if it lowers total tobacco-related mortality and morbidity even though continued use may involve exposure to tobacco toxins (Stratton et al. 2001)

Brad Rodu, DDS

1992

TSNAs

Snus vs. Snuff

Cigarette companies enter the market

CAMEL
SNIUS



Contact

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