

Dose Response Relationship Between Number of Tobacco Cessation Advice-Sites and Likelihood of Quit Attempts

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Background

- Tobacco is the leading cause of death in the US
 - 440,000 deaths annually
 - \$157 Billion in health-related economic losses
- 23.5% of adults smoke
- 28.5% of high school students smoke
- 43% of children live in a household with a smoker
 - 15 million children
 - \$1.97 Billion per year in direct medical care of children attributable to Environmental Tobacco Smoke

Background

- Tobacco cessation messages occur in multiple settings, including the media, the workplace, and medical care providers' offices
- Brief counseling interventions in the clinical setting have been found to be effective for adults
- It is unclear to what extent tobacco cessation advice occurring in a variety of medical care providers' offices affects the likelihood of quitting or attempting to quit

Purpose

To assess national rates of quit attempts by adults as associated with reports of counseling by medical and dental providers, including those made by children's medical providers, in clinical office settings

Hypothesis

Increasing exposure to smoking cessation messages in different healthcare settings will lead to increasing rates of quit attempts

Social Climate Survey of Tobacco Control

- National random digit dial survey
- Cross-sectional data from a nationally representative sample of adults
- Assessment of ETS practices and attitudes
- Detailed information about physician advice to parents concerning cessation and ETS
- Many tobacco measures selected from existing instruments:
 - Behavioral Risk Factor Surveillance System, Tobacco Use Supplement – Current Population Survey, California Adult Tobacco Surveys

Methods

- Data from 2001 and 2002 surveys
- Adult respondents who reported current smoking were asked if they had been advised to quit smoking by:
 - Their own doctor or dentist
 - Their child's pediatric clinician
- Created an “Advice dose” between 0 and 3
- Sample weighted by race and gender to be representative of the US population

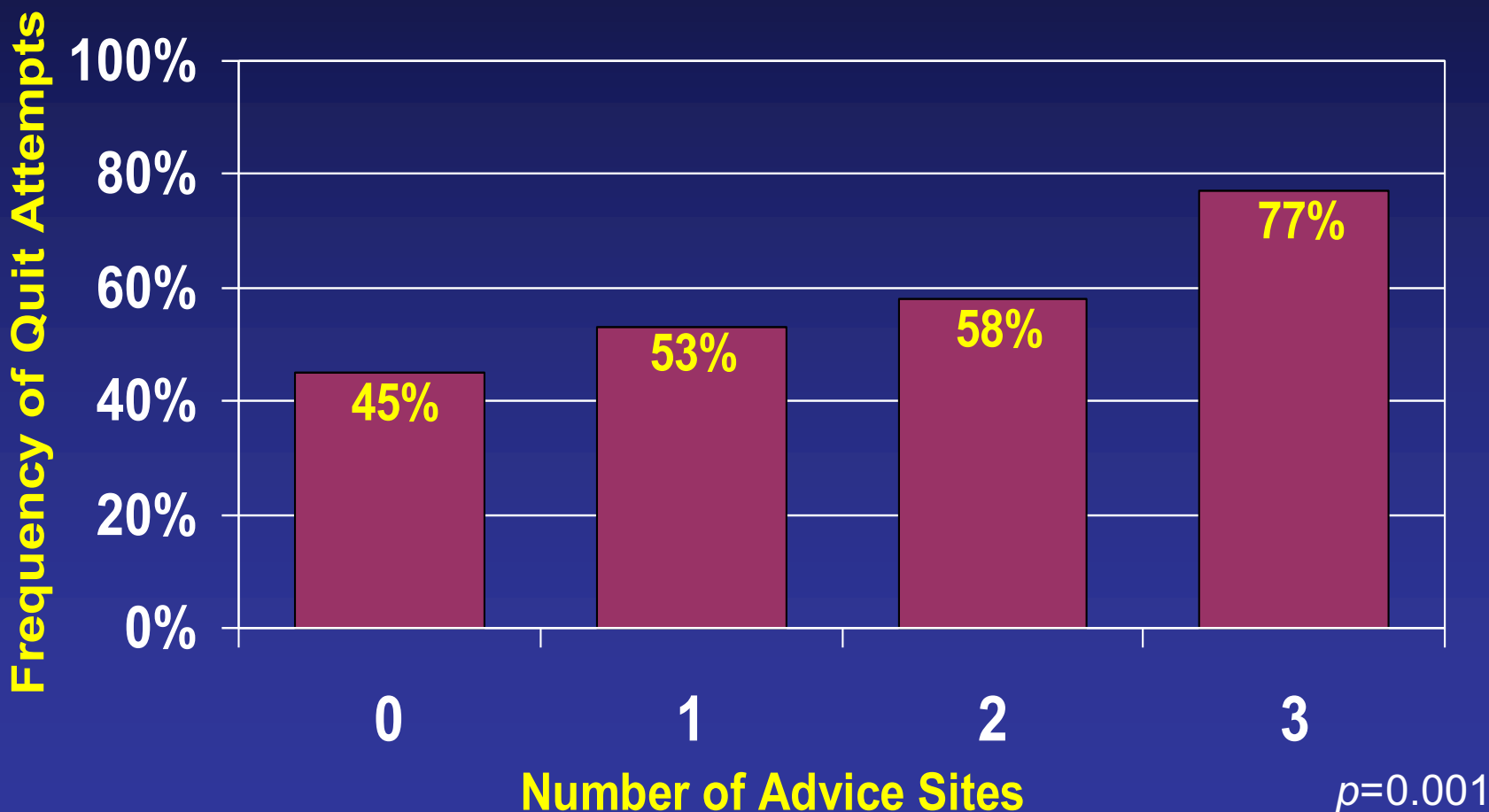
Statistics

- Chi-square tests were used to compare quit attempts for greater than 24 hours during the past twelve months with tobacco-cessation counseling offered at clinical settings
- Logistic regression analyses were performed to identify characteristics that were independently associated with adult quit attempts, controlling for age, gender, race, region of country, respondent's level of education, child living in household, and advice dose

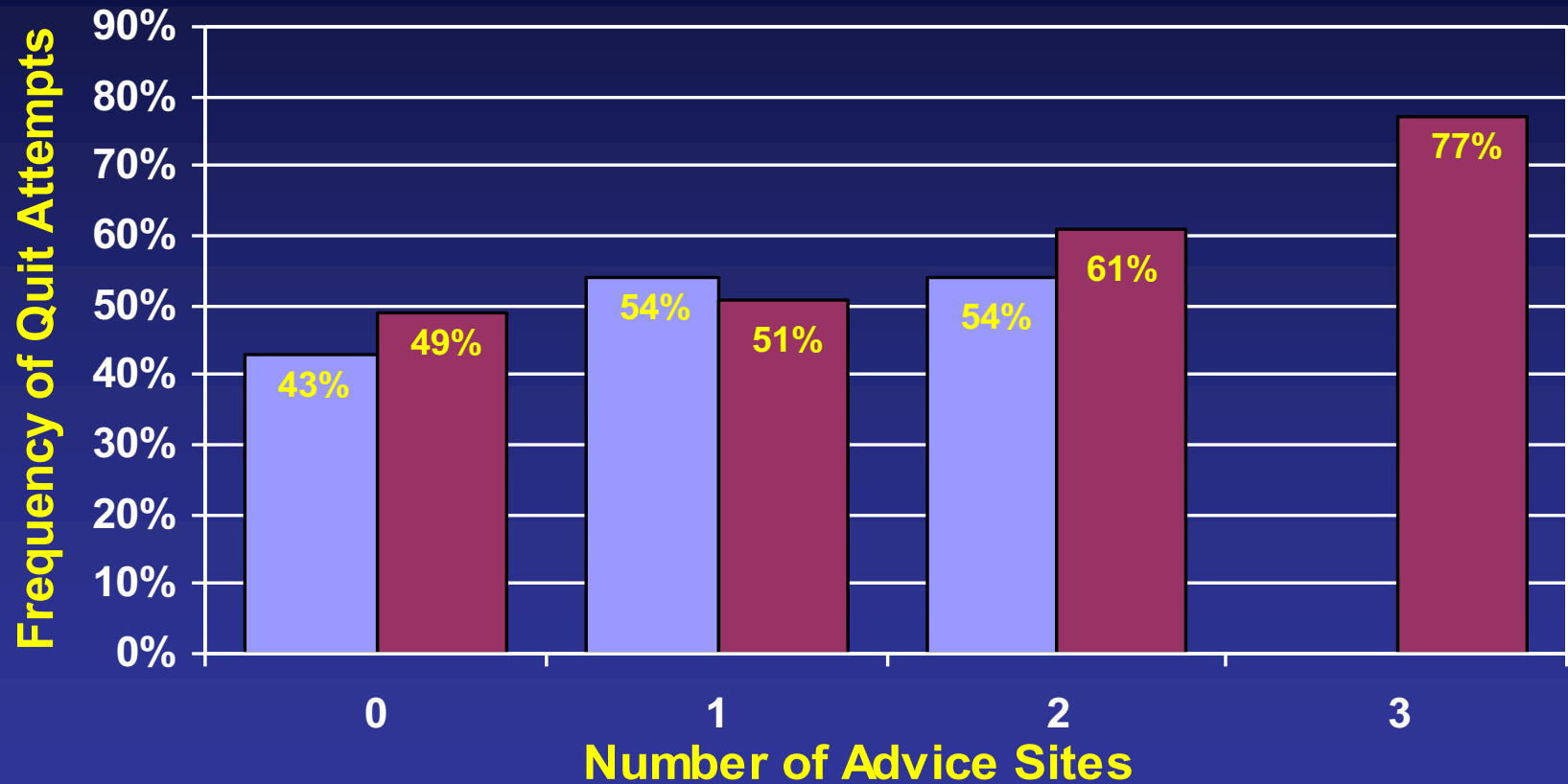
Results

- Of 5998 adult respondents
 - 21% (1267) reported current smoking
- Of current smokers
 - 57.2% (724) received advice at zero sites
 - 28.5% (361) at one site
 - 13% (165) at two sites
 - 1.3% (17) at three sites
- Quit attempt rate with advice at zero medical sites was 43.3% for non-parents and 48.6% for parents ($p=0.165$)

Dose Response Relationship Between 24 Hour Quit Attempts and Number of Tobacco Cessation Advice-Sites All Adults



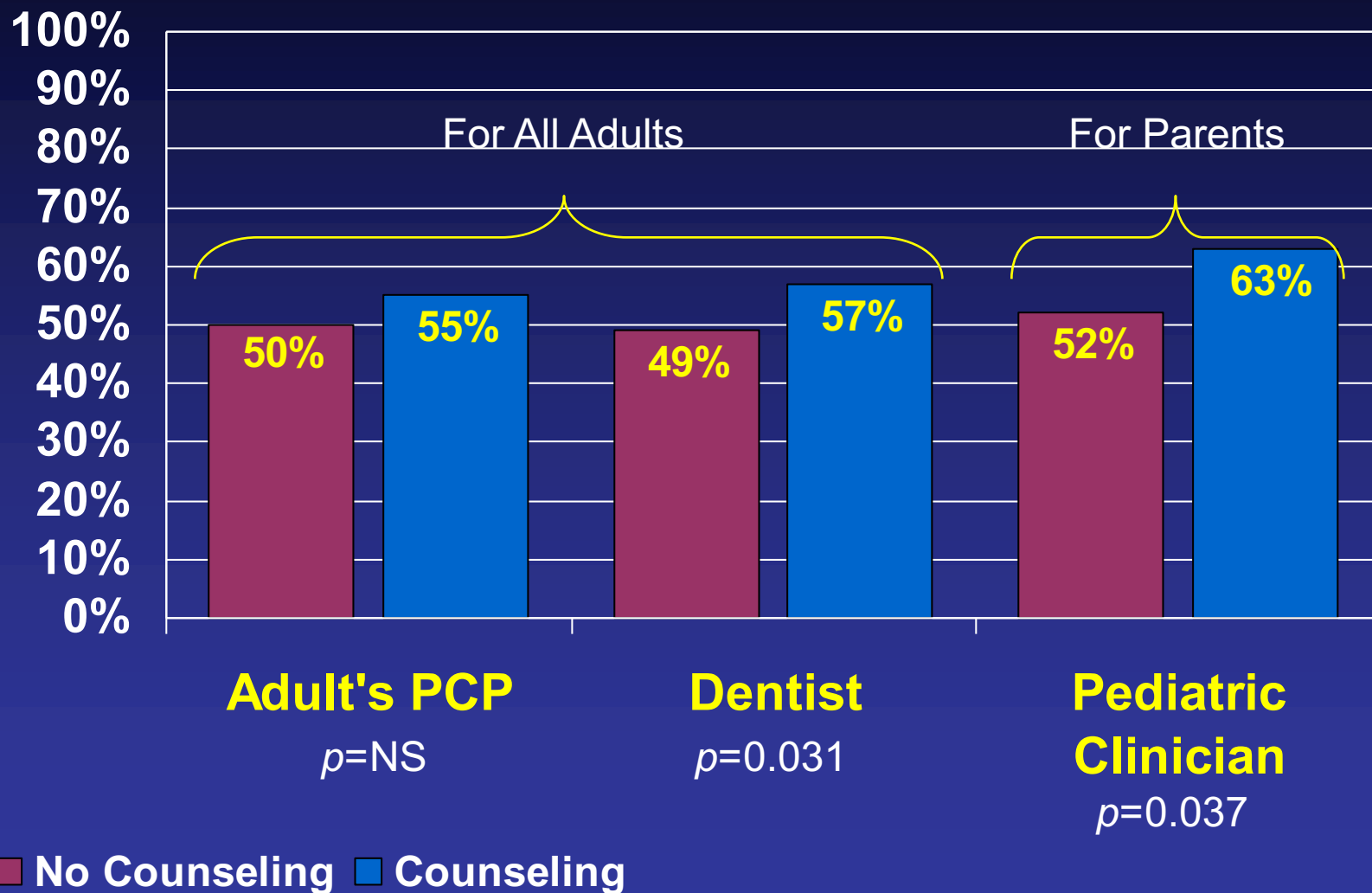
Parents vs. Non-Parents: 24 Hour Quit Attempts and Number of Tobacco Cessation Advice-Sites



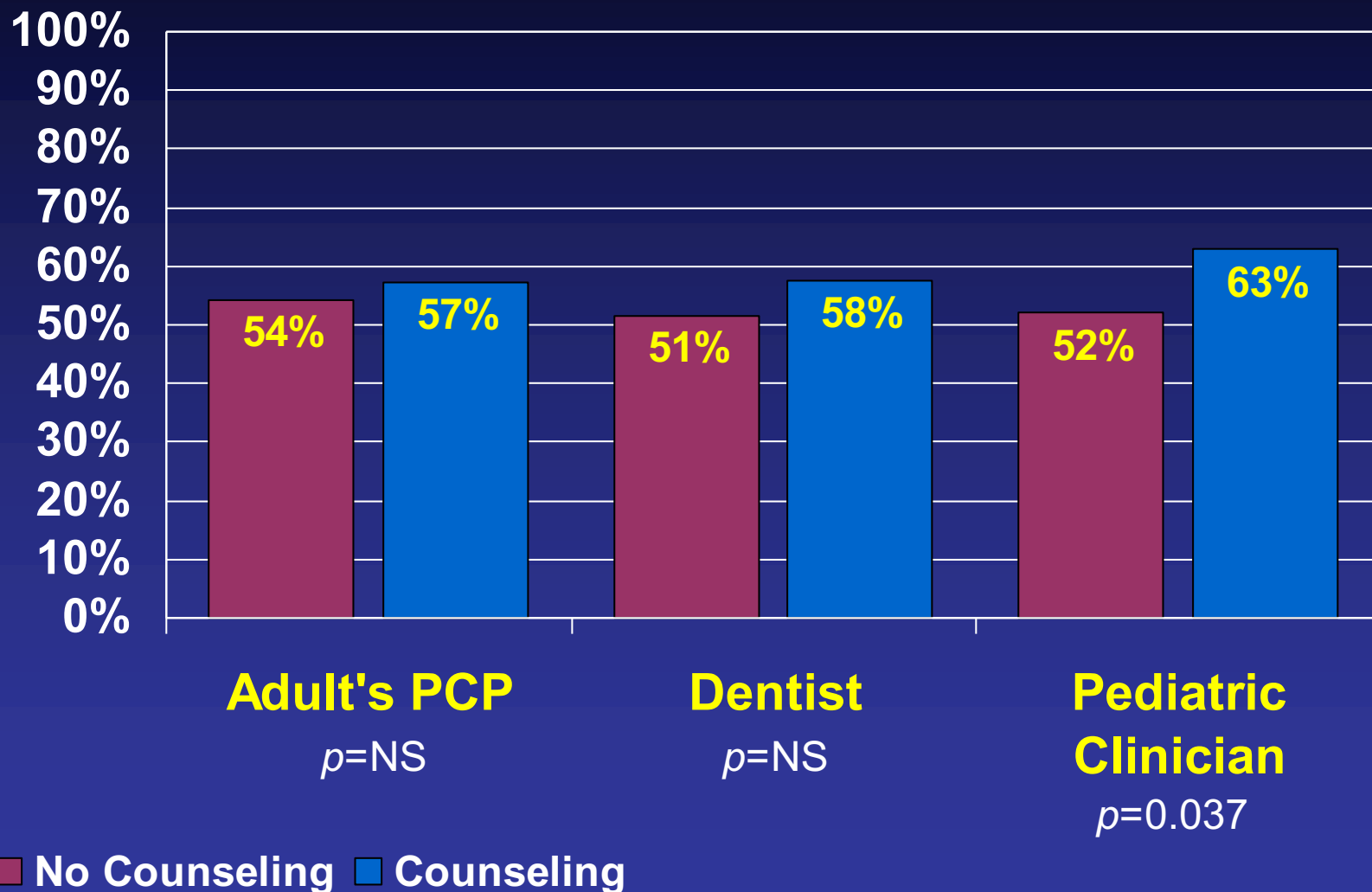
■ non-parents ■ parents
 $p=0.019$ $p=0.038$

Increased Likelihood of 24 hour Quit Attempts If Counseled vs. Not Counseled

All Adults



Increased Likelihood of 24 hour Quit Attempts If Counseled vs. Not Counseled Parents



Factors Independently Associated with Quit Attempts

- Current adult smokers were more likely to make a quit attempt if:
 - They were between 18-24 years old OR 2.4 (95% CI 1.4-4.2)
 - They were a high school graduate OR 1.5 (95% CI 1.1-2.0)
 - They received advice to quit in clinical settings (dentist, PCP, child's pediatrician)
 - One site OR 1.4 (95% CI 1.1-1.8)
 - Two sites OR 1.8 (95% CI 1.2-2.5)
 - Three sites OR 4.0 (95% CI 1.2-13.5)

Summary

- Half of smokers reported making quit attempts in the absence of any smoking cessation counseling or assistance from a clinician of any kind
- Rates of quit attempts increased for parents, in a dose-response fashion, with increased numbers of clinical quit-message sites
- Among parents, there was a statistically significant difference in rates of quit attempts when advice was offered in the pediatric office setting, which was not seen from advice offered from the parent's own PCP or dentist

Limitations

- Survey asks only about quit attempts, ever smoking and current smoking
 - There is no information on smoking intensity or number of quit attempts
- Cannot determine the number of people who have quit smoking successfully, nor the “dose” of counseling at each site
 - Quality and quantity of counseling cannot be ascertained
 - Cannot establish efficacy of counseling

Implications

- This is the first study we are aware of demonstrating an association between rates of quit attempts and counseling for parents at pediatric visits on a national level
- Pediatricians and family practitioners see roughly 25% of the nation's smokers during children's health visits
 - It is critical that pediatricians take the opportunity to advise parents about tobacco cessation, as there can be significant increases in quit attempts

