



Relation between Televised Anti-Smoking Advertising and Youth Smoking in the United States

Funded by:

**State and Community Tobacco Control Initiative
US National Cancer Institute**

and

The National Institute on Drug Abuse



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Background

Anti-smoking advertising can reduce youth smoking

Most studies involve research demonstration projects; effects of tobacco control advertising at the state level or national level

Huge variation in exposures over time and between US communities in exposure to anti-smoking advertising = natural experiment



Counter-Marketing Campaigns in the US: 31 State Campaigns + ALF

- California
- Massachusetts
- Michigan
- Arizona
- Florida, Maine, Oregon
- Indiana, Mississippi, New Mexico, New York, Oklahoma, Utah, Washington, Wisconsin
- Idaho, Kansas, Minnesota, American Legacy Foundation
- Connecticut, Georgia, Iowa, Illinois, New Jersey
- Colorado, Maryland, New Hampshire, Ohio, Pennsylvania, Rhode Island, Texas, West Virginia

Other Smoking-Related Messages

Pharmaceutical Cessation Aids (NRT, Zyban)

Early 1992-present

Philip Morris' Television Campaigns

Dec 1998 Think. Don't Smoke. (Youth)*

Jul 1999 Talk. They'll Listen. (Parent)

Oct 1999 Working to Make a Difference.
The People of Philip Morris.

Jul 17, 2000 Tobacco Settlement Agreement.
Things are changing.

* Phillip Morris reported that they stopped airing their youth-focused "Think. Don't Smoke" campaign in June 2002.

Research aims

Describe the amount and type of televised anti-smoking advertising to which youth in different communities are exposed

Examine the relationship between amount and type of anti-smoking advertising and youth smoking

Research hypotheses

Exposure to TV anti-smoking (state and ALF) ads is associated with:

- + more positive anti-smoking attitudes and beliefs
- reduced adolescent smoking

Exposure to TV Pharmaceutical or Tobacco Company ads is associated with:

? smoking-related attitudes, beliefs and behaviors

Study design: outcome measures

- Monitoring the Future (MTF) survey data from 50,000 youth each year in Feb-June
- School-based sampling frame
- Smoking attitudes and behaviors of 8th, 10th and 12th graders
- This analysis incl. data from 1999-2000
- Individual level records for each youth

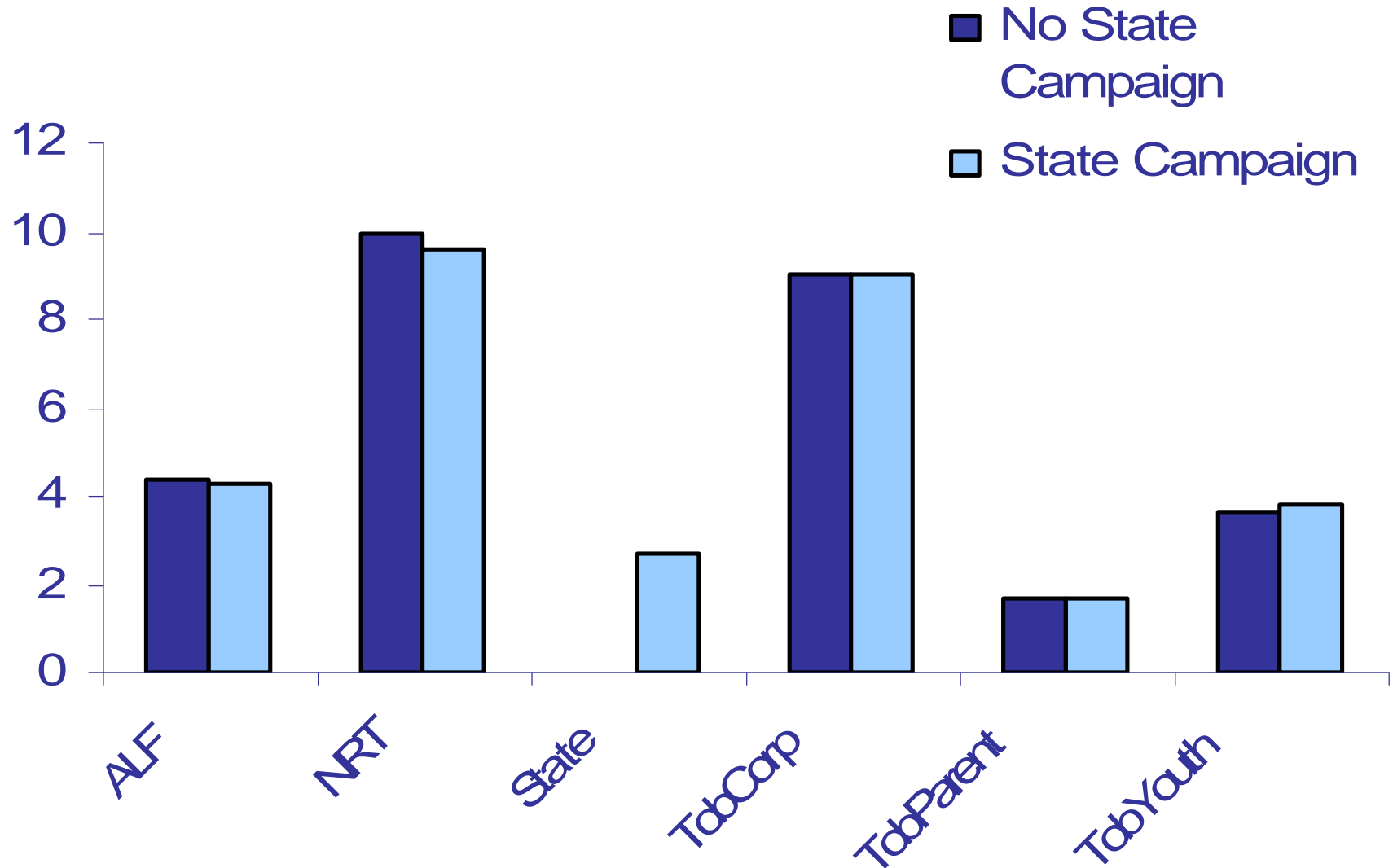
Study design: exposure measures

- Archival records of televised anti-smoking advertising from Nielsen Media Research
- 75 media markets, covering around 80% of US population

Exposure measure: gross rating points

- Expresses the percentage of households in a media market exposed to one viewing of an ad in a specified time frame – if 1% of households see ad one time, ad earns 1 gross rating point (GRP)
- Exposures to multiple ads on multiple channels are estimated by summing GRPs over time
- Aggregated monthly to estimate the average number of times an ad is exposed to an audience per month
 - 100 GRPs/month = av. 1 exposure/month
 - 250 GRPs/month = av. 2.5 exposures/month
- Exposures are averages across the population in the media market

Average Monthly Exposures by Advertiser 2000



Study descriptives

Of 75 media markets, 62 with MTF data

- 16 with state campaigns, 46 without*

N = 65,891 youth

Mean age = 15.4 years

Smoked in last month = 23%

Watch at least 2 hrs TV per day = 71%

*markets without at least 1 average exposure per month from state campaigns



Statistical analyses

Used monthly exposures of age 12-17 GRPs (TRPs) for 5 months prior to survey administration

Used decay function of monthly cumulative exposure, where past advertising is discounted (Pollay et al., 1996)

Regression analyses adjusting for clustering using STATA

Adjusted for hrs TV watched/day, year, gender, race, grade, SES, earned income, rebelliousness, cigarette price in state, strength of state smoke-free air laws

Perceive Smoking Prevalence among Students in Your School as 70% or more

(results presented in odds ratios)

Higher TRPs for...	8 th grade	10 th grade	12 th grade
State	ns	0.96	ns
Pharmaceutical	1.18	ns	ns
Tob Co Parent	1.71	ns	ns
Tob Co Corporate	ns	ns	ns
Tob Co Youth	ns	ns	ns

Adjusted for covariates

Definitely intend NOT to smoke in next 5 years

(results presented in odds ratios)

Higher TRPs for...	8 th grade	10 th grade	12 th grade
State	1.18	ns	1.10
Pharmaceutical	ns	ns	0.91
Tob Co Parent	ns	0.73	0.76
Tob Co Corporate	ns	ns	ns
Tob Co Youth	ns	ns	ns

Adjusted for covariates

Smoked in the past 30 days

(results presented in odds ratios)

Higher TRPs for...	8 th grade	10 th grade	12 th grade
State	0.88	ns	0.92
Pharmaceutical	ns	ns	ns
Tob Co Parent	ns	ns	ns
Tob Co Corporate	ns	ns	ns
Tob Co Youth	ns	ns	ns

Adjusted for covariates

Cigarette consumption (+ = higher)

(results presented as beta coefficients)

Higher TRPs for...	8 th grade	10 th grade	12 th grade
State	-0.07	ns	-.05
Pharmaceutical	ns	ns	+0.08
Tob Co Parent	ns	ns	+0.21
Tob Co Corporate	ns	ns	ns
Tob Co Youth	ns	ns	ns

Adjusted for covariates

Conclusions

- Tobacco and pharmaceutical companies are the largest smoking-related advertisers, even in states with large media campaigns
- State-based anti-smoking ads make a positive difference to youth smoking attitudes and behavior
- Pharmaceutical advertising and some types of tobacco company advertising may have detrimental influences on youth smoking attitudes and behaviour

Next steps

Repeat analysis with data from 2001-02,
allowing full analysis for 1999-2002 and
including ALF

All state and ALF anti-smoking ads labeled by
target audience, executional characteristics

Further information

Visit our website at:

www.impactteen.org/media/home.htm

for copies of presentations, methods working papers etc.