



Measurement of Youth Exposure to Television Anti-Smoking Advertising

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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 (eg. CA, MA, FL) or national level (Fairness Doctrine; ALF)

Wakefield, Flay, Nichter & Giovino.
Effects of anti-smoking advertising on youth smoking: a review.
[Journal of Health Communication](#) (in press)

Background (cont'd)

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

Little real world analysis of effects of tobacco company advertising (undermining effects?)

Little attention to effect of pharmaceutical company advertising for NRT and Zyban on youth smoking (incr. youth optimism about quitting?)

Research aims

- Describe amount and type of televised anti-smoking advertising to which youth in different communities in the US have been exposed
- Examine relationship between amount and type of anti-smoking advertising and youth smoking attitudes, intentions and behaviors

Study design: outcome measures

- Monitoring the Future survey data from 50,000 youth each year from 1994-2002
- School-based sampling frame
- Smoking attitudes and behaviors of 8th, 10th and 12th graders
- Individual level records for each youth

Study design: exposure measures

- Archival records of televised anti-smoking advertising from Nielsen Media Research
- 1994-2002
- Top 75 Designated Market Areas (DMAs) covering 80% of US population



Identification of ads in Nielsen database

- Our own list of advertisers with established tobacco control media campaigns
- Also use key word search of database for advertisers, short creative titles of ads ('tobacco', 'smoking', 'nicotine', etc) produces large pool of potential advertising
- Identify anti-smoking ads by liaising with CDC/state campaigns
- From 1999, can identify ads by downloading actual digital copies of ads from Nielsen
- Ultimately end up with accurately identified anti-smoking advertisements

Advertisers

- State tobacco control campaigns
- American Legacy Foundation
- Pharmaceutical companies (NRT and Zyban)
- Tobacco company advertising about youth smoking
- Tobacco company corporate PR advertising

Study design: exposure measures

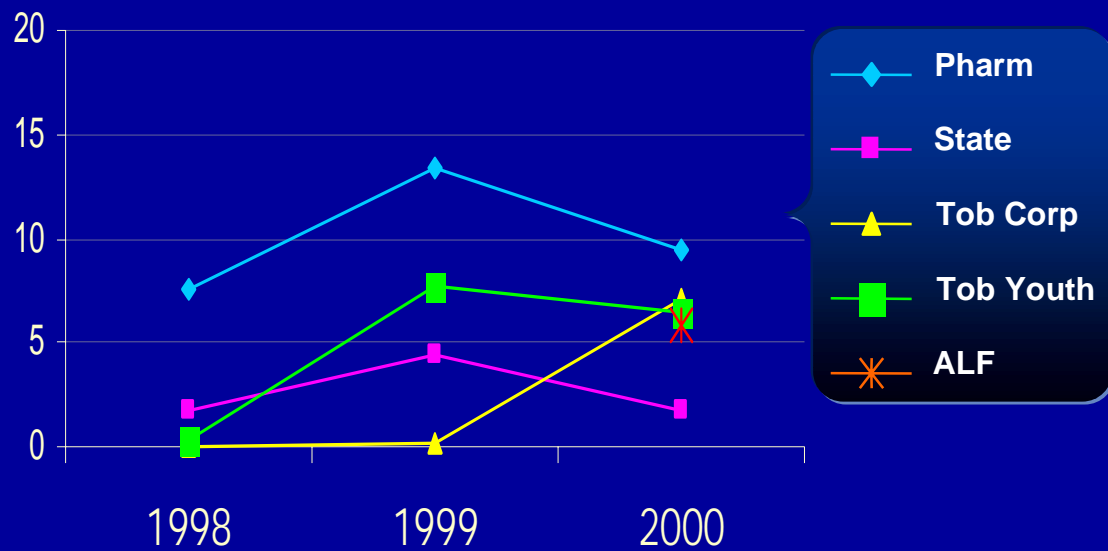
- Nielsen estimates TV viewing through combination of diary and electronic measurement - GRPs are main measure
- In each media market, for each ad occurrence:
 - date/time of ad
 - station (network, local affiliate, cable)
 - advertiser
 - short creative title
 - gross rating points
 - targeted rating points (12-17 years)
- Over 7 million ad occurrences from 1994-2002

Gross Rating Points (GRPs)

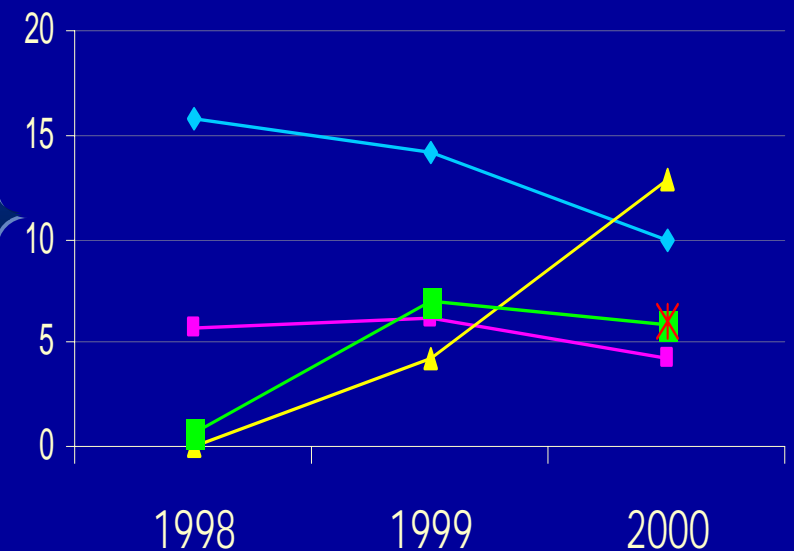
- Customary unit for measuring exposure to ads
- Express the percentage of the audience (households) exposed to one viewing of an ad
 - If one percent of the audience sees an ad one time, the ad earns one GRP
- Exposures to multiple ads on multiple channels are estimated by aggregating total GRPs for all ads across all channels
- Aggregated monthly to estimate the average number of times an ad is exposed to an audience
 - 100 GRPs/month = av. 1 exposure/month
 - 250 GRPs/month = av. 2.5 exposures/month
- Exposures are averages across the population

Average monthly ad exposure GRPs

Miami Fort Lauderdale

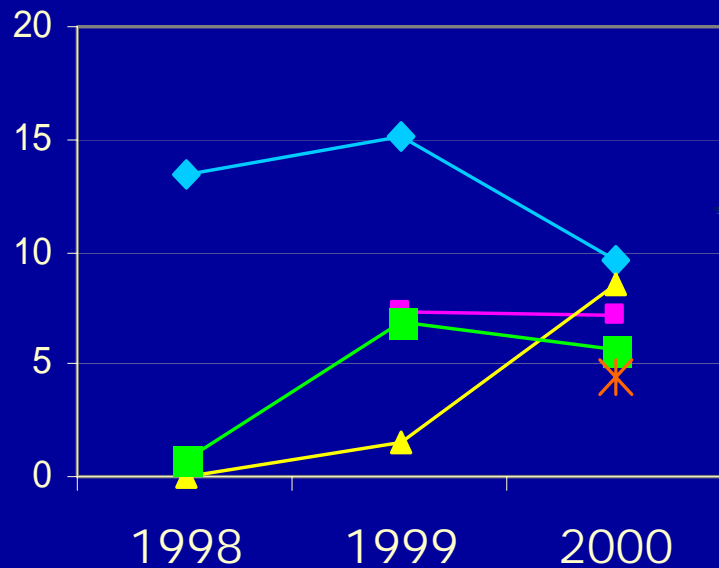


Sacramento Stockton

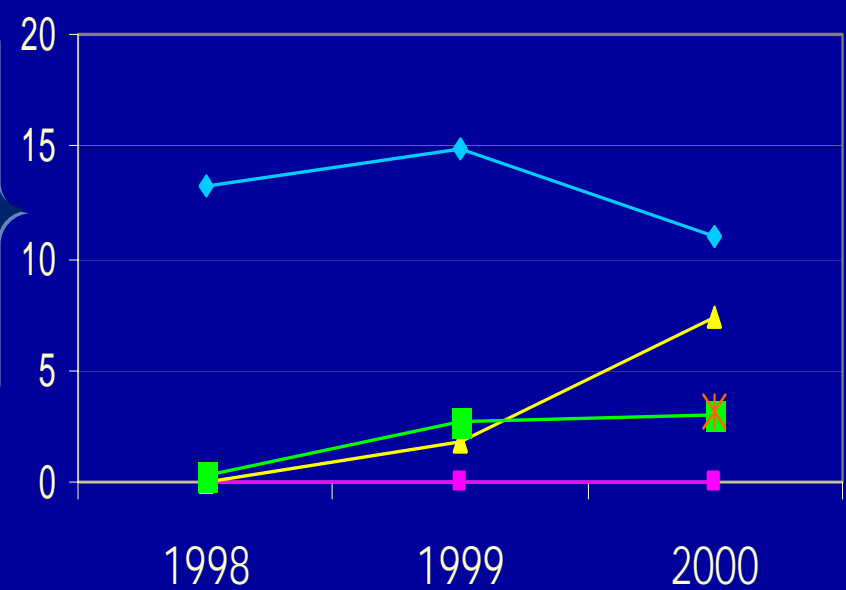


Average monthly ad exposure GRPs

Boston

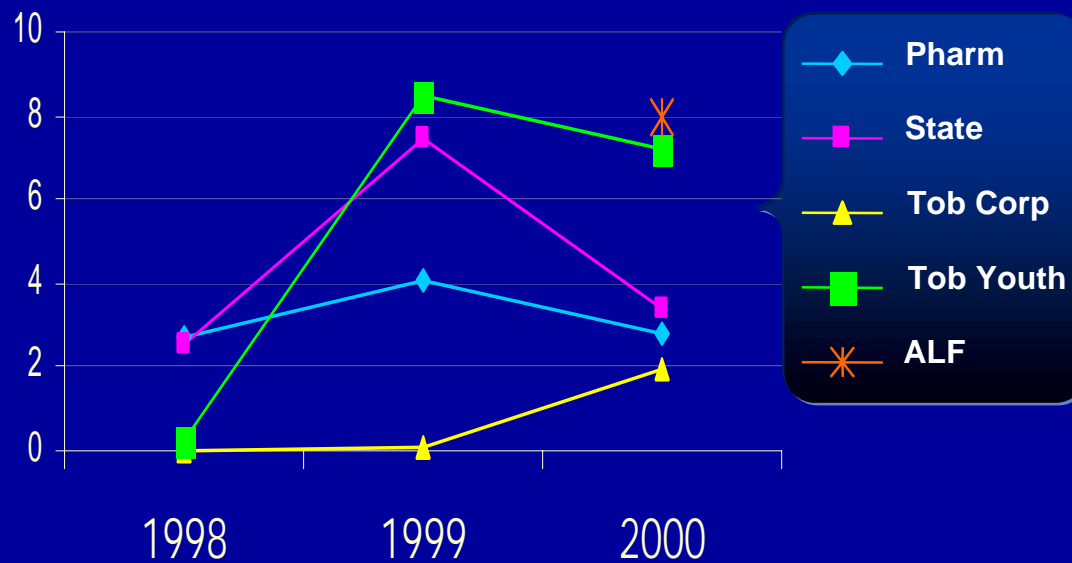


Louisville

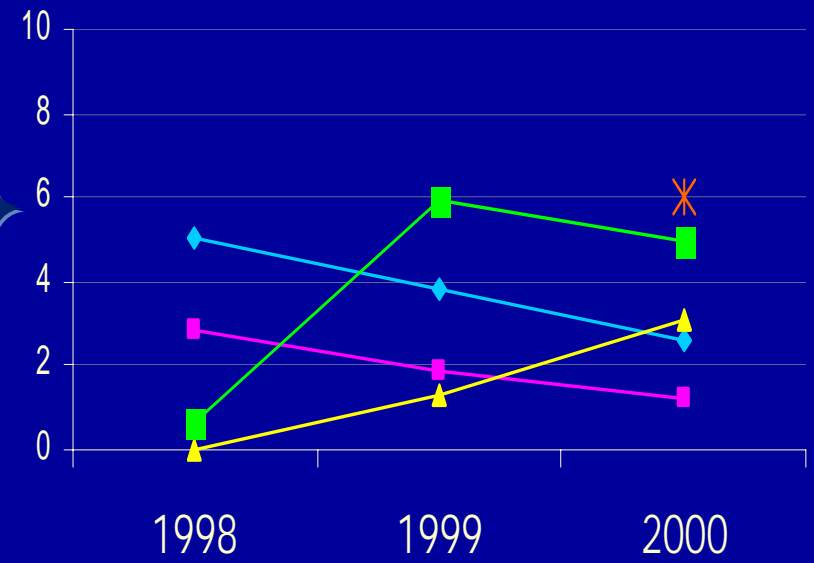


Avge monthly ad exposure TRPs 12-17

Miami Fort Lauderdale

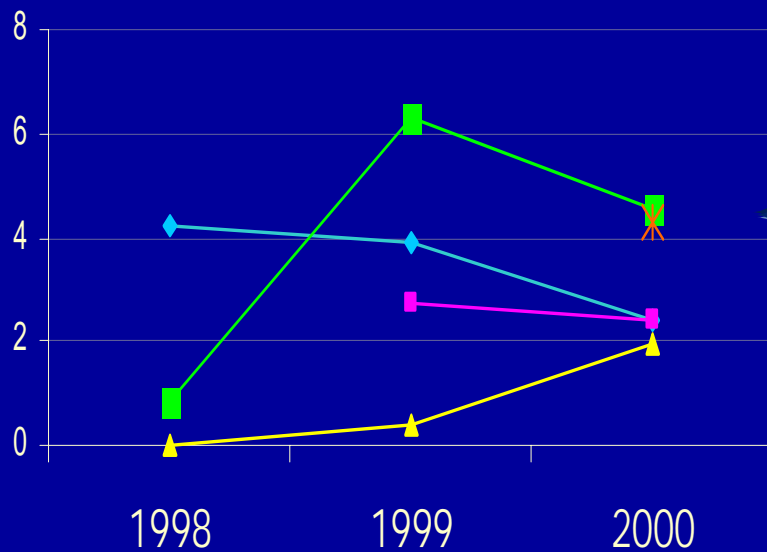


Sacramento Stockton

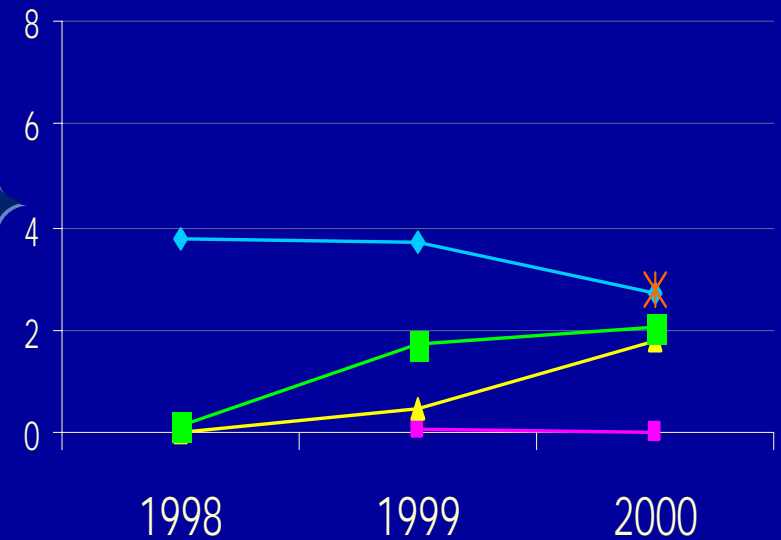


Avg monthly ad exposure TRPs 12-17

Boston



Louisville



Example DMAs

- Demonstrates variation in exposures to different advertisers over time and between markets
- High level of pharmaceutical company advertising for all years
- High level of tobacco company youth advertising in 1999 and corporate advertising in 2000
- Reflects the variation in youth vs adult oriented media buying in state tobacco control campaigns

Map Nielsen data to MTF data

- Produce separate monthly aggregates of GRPs and TRPs for each DMA for each of the main advertisers
- Link Nielsen and MTF data by zip code – have school zip codes at MTF individual level and zip codes for each DMA
- Thus, each DMA average exposure measure mapped onto youth in that market
- Possible to improve precision of average exposure estimates by factoring in each individual's TV watching frequency (from MTF survey data)

Analytic plans...

- Using multi-level analyses to link monthly GRPs and TRPs for each type of advertiser to anti-smoking advertising recall, smoking-related attitudes, intentions and behavior
- Know month of MTF survey administration, so using advertising decay functions for each month to give greater weight to more recent advertising
- Nielsen data permit one method of estimating average exposures to anti-smoking advertising in different media markets
- Analyses presently underway...

Preliminary results

At NCTOH...

- Sherry Emery will present data to show that increased GRPs/TRPs are related to increased rate of anti-smoking advertising recall and increased perception of smoking harm among MTF youth
- Glen Szczypka will take a closer look at the data to show how Philip Morris TV advertising outstrips state tobacco control advertising in California and 17 other media markets

Research Team

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