

Smoking in the Movies Increases Adolescent Smoking

A Review of the Research
&
Implications for Action

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Study Objective

- Systematically review and synthesize research regarding smoking in the movies

Methods

- Searched health, psychology, social science databases, Science Citation Index, and internet
- Search not limited to studies conducted in US or studies with certain age groups
- Search resulted in 39 studies (content analyses, focus groups, experimental, and epidemiological studies)

Methods (cont.)

- Studies examined:
 - Prevalence and characteristics of smoking in the movies;
 - Effects of movie smoking on viewers' attitudes and beliefs about smoking, smokers, and intent to smoke;
 - Effects of movie smoking on initiation;
 - Effects of parental movie restrictions on smoking exposure and smoking initiation;
 - Effects of anti-smoking advertisements and anti-tobacco movie content.

Methods (cont.)

- Most of the studies conducted within the U.S.
- Most of the studies examined U.S. produced movies
- Adolescent **and** adult study subjects in experimental studies
- **Adolescent** study subjects in focus groups and epidemiological studies

Content Analyses

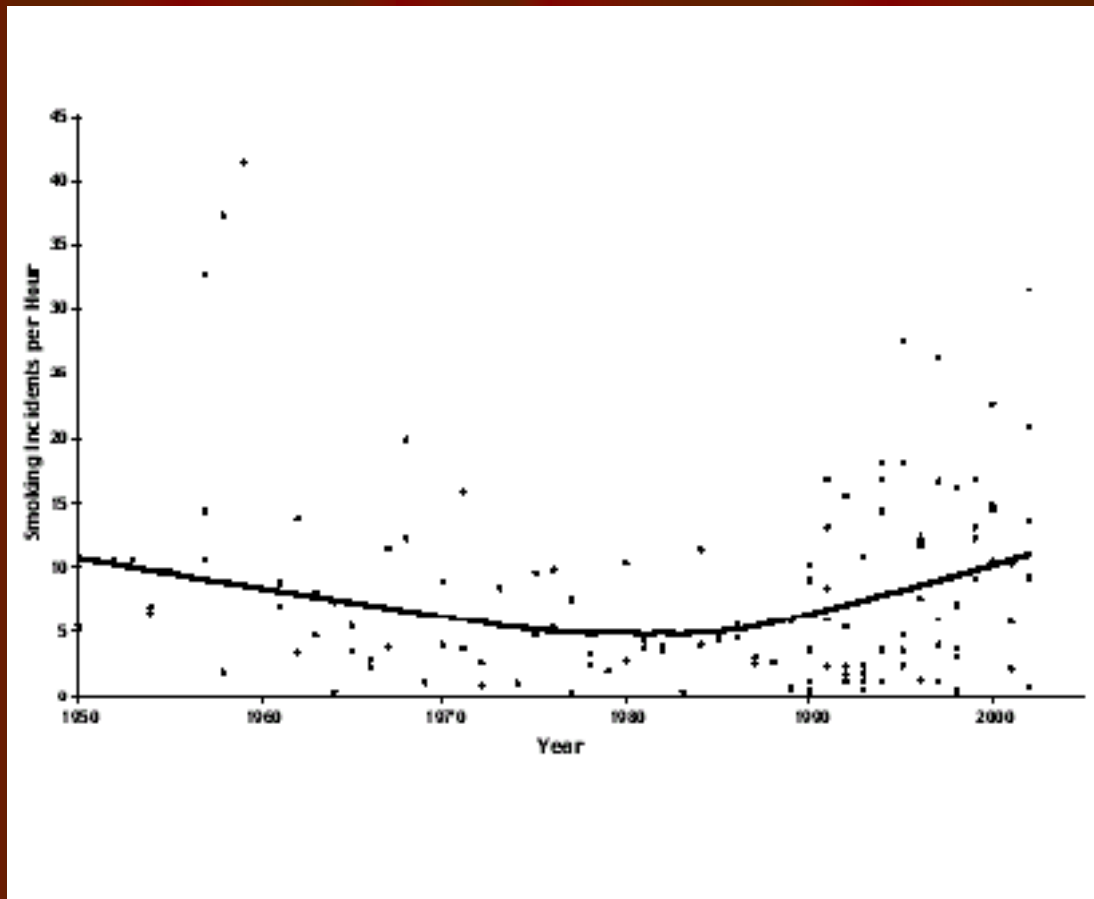
- Magnitude of smoking in the movies
- Character tobacco use and motivation
- Tobacco presence according to film rating

Content Analyses

- Magnitude of smoking in the movies
 - Sampling frame – Top grossing films or random samples of top grossing films from 1940-2002
- Smoking **peaked** in 1950; 2002 levels as high and increasing
 - Voluntary Cigarette Marketing Code (1990)
 - Master Settlement Agreement (1998)

Content Analyses

- Major characters
 - 1940s – 20%
 - 1950s – 31% - *peaked*
 - 1980s – 12%
- Smoking incidents per hour
 - 1950s – 10.7 events/hour
 - 1980-82 – 4.9 events/hour
 - 2002 – 10.9 events/hour



- **Figure 1.** Smoking incidents per hour fell slowly through the 1950s through the 1980's, then increased rapidly. By 2002, smoking intensity in movies had returned to the levels observed in 1950. (Reprinted from: Glantz, et al., 2004)

Content Analyses

- Smoking prevalence in actual population fell between 1950 and 2000 from 44% to 22.8%
 - From 1960-1990, prevalence of smoking by major characters 3 times that of actual population
- Leading actors smoked in 60% of popular films from 2002-2003

Content Analyses

- **Cigarettes** most prevalent (except for children's animated cartoons)
- Smoking **rarely relevant** to the scene, less likely to be focus of scene
 - 1988-97
 - 16.2% smoking occurrences relevant to scene
 - 5% major focus of scene

Content Analyses

Character tobacco use and motivation

- *Themes common to cigarette advertising*
 - *Relaxation/Stress relief*
 - *Romance*
 - *Socializing/Celebrating*
 - *Independence*
 - *Rebelliousness*
 - *Glamour*
 - *Pensive thinking*
 - *Confiding in others*

Content Analyses

- Smoking often portrayed with drinking/other risky behaviors
- *Gender differences:*
 - Males – violent behavior, gambling, danger; *use tobacco to reinforce masculinity*
 - Females – sexual affairs, illegal activities, reckless driving; *use tobacco to control emotions, manage stress, manifest power and sex appeal, enhance self-image, control weight, or give themselves comfort/companionship.*

Content Analyses

- Smoking characters primarily male, white, from upper SES brackets
- *Contrasts with true smoking prevalence patterns*
- Female smoking leads growing
 - Nearly tripled from 11% in the 1960s to 30% in 1997
 - Most common in films featuring younger female actresses (than older female actresses) – ages 21-40

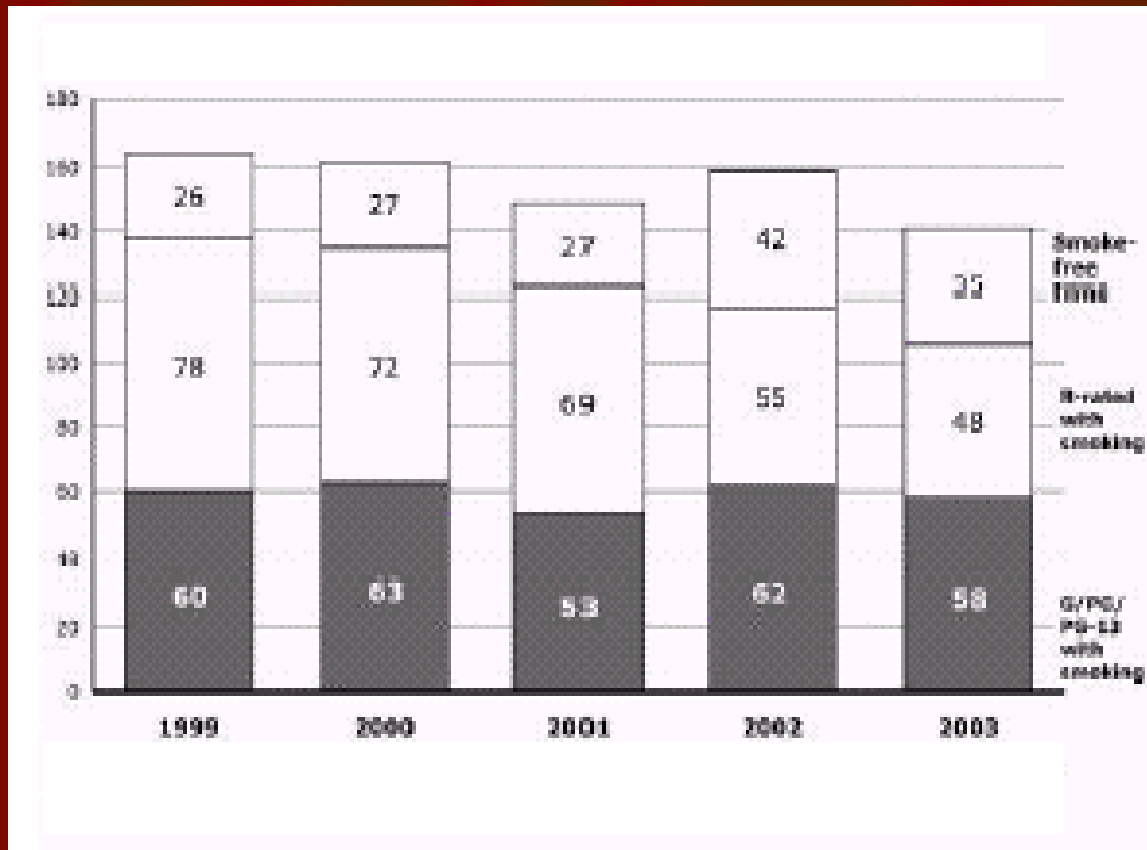
Content Analyses

- Adolescents **rarely depicted** smoking
 - In films from 1988-1997, adolescents depicted smoking in only 3.7% of smoking occurrences
- Negative health, social or legal consequences **rarely depicted**
 - In films from 1988-1997, **negative consequences** depicted by only 3% of major characters; **negative reactions** to others smoking (coughing) in only 5.9% of smoking occurrences.

Content Analyses

Tobacco presence according to film rating

- Historically, number of smoking occurrences increased with film rating
- Mid-1990's – movies previously rated R were given PG-13 ratings
 - *Shifted smoking from mostly R movies to PG-13*
- By 2002, smoking in **more youth rated films** than R rated films



Between 1999 and 2003, the number of youth-rated (G/PG/PG-13) movies with smoking held steady while the number of R rated releases with smoking dropped 38%. (Reprinted from Polansky and Glantz, 2004)

Focus Groups

How adolescents perceive smoking in the movies

- Younger (12-13 years) and older (16-17 years) adolescents in New Zealand and Australia (3 studies)
- Findings indicate:
 - Acceptance of smoking images as **accurate reflection** of every day life;
 - Smoking as common and acceptable way of **relieving stress**;
 - **Nonchalant attitude** re: smoking in movies and real life;
 - Acknowledge health risks but still found **smoking desirable**.

Focus groups

- Stereotypes associated with smoking included **coolness, popularity, attractiveness** – create “cinematic effect”
 - *Younger* teens more likely to perceive as **accurate reflections** of reality
 - *Older* teens more likely to understand inclusion of tobacco as **product promotion**, and expressed cynicism
 - Did not lead to **intolerance for smoking images**

Focus Groups

- Gender and SES influenced meanings attached to stereotypes
 - **Older females** associated with sexual attractiveness, slimness, emotional vulnerability
 - **Lower SES** groups described smokers as *"anyone"*
 - **Higher SES** groups described smokers as *"dysfunctional," "sexy," "tough,"* and *"notorious"*

Focus Groups

- Adult themes reinforce smoking as **adult behavior**
- “Judging” smokers seen as **immature**
- Denied smoking influences their behavior but concerned about “**younger**” teens

Experimental Studies

- Effects on adolescents (9th grade, nonsmoking) (Pechmann, 1999)
 - Teens previewed scenes from two movies, either original with smoking or edited version.
 - 92% accurately recalled seeing smoking
 - Smoking scenes (compared to NS scenes):
 - Elicited significantly more **positive arousal** (emotions);
 - Positively impacted **beliefs** about how a smoker's stature and vitality are perceived by *others*;
 - Positively impacted **beliefs** about how smokers perceive *their own* stature.

Experimental Studies

- 2nd experiment re: effects on adolescents (9th grade, nonsmoking)
 - Students viewed either an anti-smoking or control ad before a smoking or nonsmoking movie
 - Viewing movie smoking **without** anti-smoking ad led to more positive arousal (emotions), beliefs, and **increased intent to smoke**
 - Effects **not found** in adolescents who viewed **anti-smoking ad** before movie smoking

Experimental Studies

- (Cont.)
 - Adolescents who saw anti-smoking ad had significantly **more negative thoughts** about lead characters when depicted as smokers.
 - Editing out smoking **did not effect** adolescents' **liking** of the movie.
 - Showing anti-smoking ad before both versions **enhanced** adolescents' ratings of the film.

Experimental Studies

- Female movie-goers, ages 12-17 years, exiting film (Edwards, 2004)
 - Among **nonsmokers**, 48% who viewed anti-smoking ad before movie with smoking said movie smoking was "**not OK**", compared to 28% who didn't see the ad.
 - **Recall** of anti-smoking ad greatest among those who saw **most smoking**
 - For **smokers**, anti-smoking ad had significant impact on **intent to smoke** (unlikely to smoke in one year)

Experimental Studies

- Effects on young adults and adults
 - For **smokers**, exposure to movie smoking increased:
 - **Desire** to smoke;
 - **Likelihood** of smoking in the future;
 - **Perceived positive image** of smoking.
 - For **nonsmokers**, exposure to movie smoking:
 - More willing to **become friends** with a smoker;
 - Increased **likelihood** of smoking.

Experimental Studies

- Viewing anti-tobacco film content impacted **adults' attitudes** about smoking and **future intent** to smoke
 - Decline in intentions to smoke at post-film for *current smokers, ex-smokers, and nonsmokers.*

Epidemiological Studies

- Effects of total exposure to smoking in the movies
- Effect of favorite star smoking
- Effects of reducing exposure

Epidemiological Studies

Effects of total exposure to smoking in the movies

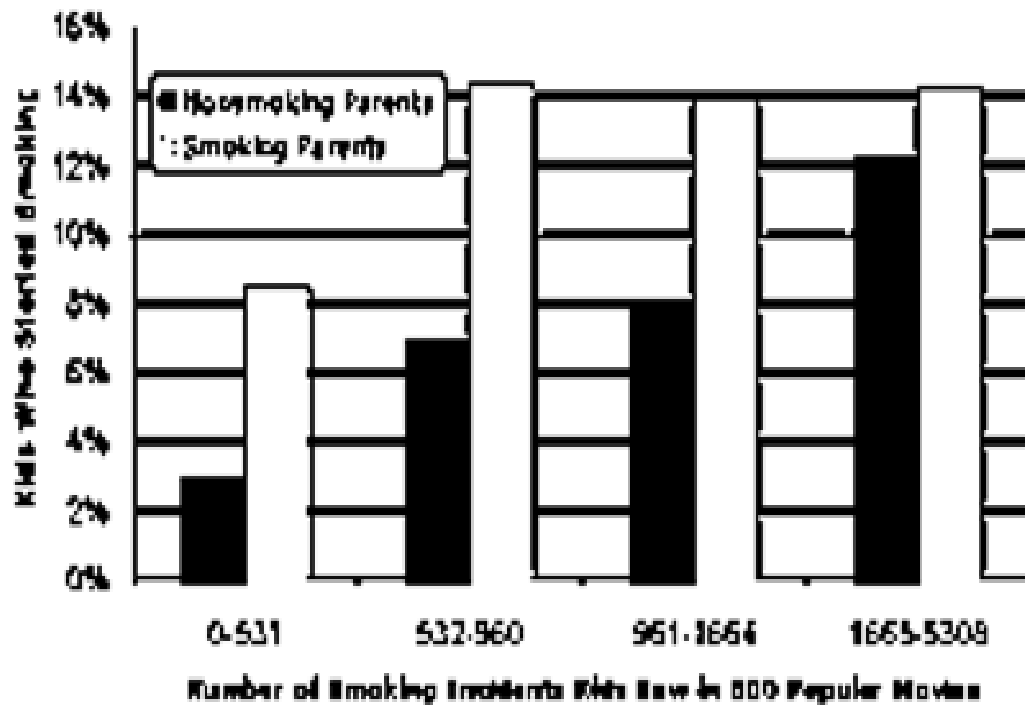
- Cohort study, 2603 nonsmoking adolescents, **New England**, followed 13-26 months
 - Covariates associated with smoking; movies viewed
 - Determine “dose” of exposure to movie smoking

- (Cont.)
- Results:
 - At follow-up 10% had initiated smoking.
 - Significant association between dose of exposure and initiation (after controlling for covariates).
 - Adolescents in highest quartile of exposure were 2.71 times more likely to have started than those in lowest quartile.
 - 52.2% of initiation attributable to exposure to movie smoking
 - Effect larger than that of cigarette advertising (34%)

Epidemiological Studies

- Effects significant for children of **nonsmoking parents**
- Rate of smoking initiation for adolescents of nonsmoking parents was **12% in highest group of exposure**, almost as high as the **14%** of children of parents *who smoked*.

Effect of Smoking in Movie on Adolescent Smoking



The effects of smoking in the movies are stronger in adolescents whose parents are nonsmokers than smokers. Indeed, heavy exposure to smoking in movies can negate the effects of good parental role modeling. The exposure ranges are quartiles of exposure to smoking in the movies. (Reproduced with permission from www.smokefreemovies.ucsf.edu, based on data collected by Dalton et al., 2003)

Epidemiological Studies

- Effect of favorite star smoking
 - Cross-sectional study of male and female **New England** adolescents
 - Odds of having advanced smoking status and favorable attitudes toward smoking increased with the number of films in which their favorite star smoked.
 - Never smokers who chose favorite stars of smokers were much more likely to be susceptible to smoking.

Epidemiological Studies

Effect of favorite star smoking

- Cross-sectional study, **California** adolescents (ages 12-17)
 - Stars favored by adolescent smokers and nonsmokers differed
 - Adolescent smokers favored stars who smoke on screen
 - Nonsmoking adolescents who named a favorite star preferred by smokers were more likely to be susceptible to smoking

Epidemiological Studies

- Follow up longitudinal study (3 years post), **California**, adolescent nonsmokers at baseline
 - Adolescent girls whose favorite stars smoked in movies had increased odds of smoking, compared to those whose favorite stars did not smoke.
 - Especially true for girls receptive to tobacco advertising – proportion of girls who smoked at follow up was over 50% (compared to 20% minimally receptive to advertising).

Differences in methods may explain findings in New England and CA

- New England - stars only had to smoke in 1 film (CA required smoking in at least 2)
- Boys' favorite star (Pamela Anderson Lee) dropped from New England study
- Girls nominated male and female stars
- Total exposure is more sensitive measure than favorite star smoking

Epidemiological Studies

Effects of Reducing Exposure

- **New England** cohort
 - Exposure to movie smoking and smoking initiation decreased with parental restrictions on R rated movies
 - Effects greatest in children of nonsmoking parents

Tobacco use in movies and tobacco industry restrictions

Voluntary Cigarette Marketing Code (1990)

- Prohibits paid product placement
- *Pervasiveness* of brands remained **unchanged** in films from 1988-1997
 - *Type* of brand appearance **changed**
 - Films *before 1990* - **none** contained **both** actor endorsements and background appearances
 - Films *after 1990* – **5%** contained **both** actor endorsements and background appearances; **actor endorsements** increased from **1% to 11%**

Master Settlement Agreement (1998)

- Prohibits paid product placement and advertising to youth
- Tobacco use in youth rated (PG-13) movies remains **unchanged**
 - Pre-MSA – 80%
 - Post-MSA – 82%
- Amount of screen time devoted to tobacco *increased by 50%*
 - Pre-MSA - .89 minutes/film
 - Post-MSA - 1.35 minutes/film

History as teacher

- Tobacco industry “works around” restrictions
 - **Celebrity use** and endorsement
 - **Sponsorship** of events
 - **Advertising** in entertainment media
 - Utilizing “*glamour*” of Hollywood
 - **Non-traceable forms of payment** for placement (cash, jewelry, etc.)
- Cigarette Advertising Code (1964 & 1990) repeatedly violated
- MSA does not apply to payments for product placement by non-US subsidiaries

Results (Summary)

- Smoking in the movies is as prevalent in 2002 as in 1950 and is *increasing*;
- Exposure to movie smoking leads to more favorable attitudes and beliefs about smoking and smokers
 - *Associated with a dose-response relationship to later smoking behavior*

Results (Summary)

- Negative health outcomes rarely depicted
 - *Contributes to increased perceptions of prevalence and benefits of smoking*
- Adult patterns of use/adult behavior portrayed
- Smoking by adolescents' favorite stars increases exposure
 - *Pervasiveness of behavior and total amount of exposure most influence initiation*

Results (Summary)

- Smoking now in more PG-13 movies than R rated movies, *increasing adolescent exposure*
- Parental restrictions on R movies reduces exposure and smoking initiation
- Viewing anti-smoking ads before smoking in the movies nullifies negative effects

Conclusion

- Tobacco use is increasing in popular films, recruiting about 390,000 adolescent smokers annually.
- Adolescent smoking initiation may be significantly minimized by reducing exposure to smoking in the movies.

Conclusion

- Exposure may be reduced by:
 - Amending ratings system to include smoking in R rating
 - Requiring anti-smoking ads before movies with smoking
- Policy changes aimed at reducing exposure would reduce smoking initiation by 60%
 - Prevent about 200,000 adolescents from starting to smoke each year
 - Prevent 62,000 premature deaths

The Science is There

- You just heard (some of) it
- CDC just said (for the third time) smoking in movies is one reason youth smoking is not declining

So what's being done about it?

Smoke-Free Movies Campaign *Solution*

*4 Evidence-based
Policy Proposals*

The Solution

- Certify No Pay-Offs

The producers should post a certificate in the credits at the end of the movie declaring that nobody on the production received anything of value (cash money, free cigarettes or other gifts, free publicity, interest-free loans or anything else) from anyone in exchange for using or displaying tobacco.

NO PERSON OR ENTITY INVOLVED IN THIS
MOTION PICTURE ACCEPTED ANYTHING FROM ANY
TOBACCO COMPANY, ITS AGENTS OR FRONTS.

The Solution

- **Require Strong Anti-Smoking Ads**

Studios and theaters should require a genuinely strong anti-smoking ad (not one produced by a tobacco company) to run before any film with any tobacco presence, regardless of its MPAA rating.



The Solution

- **Stop Identifying Tobacco Brands**

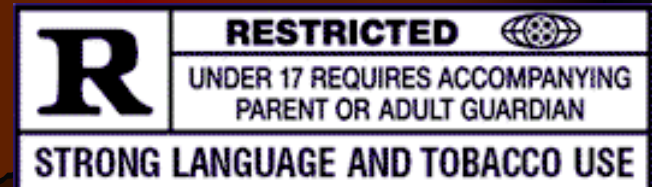
There should be no tobacco brand identification nor the presence of tobacco brand imagery (such as billboards) in the background of any movie scene.



The Solution

- Rate New Smoking Movies "R"

Any film that shows or implies tobacco should be rated "R." The only exceptions should be when the presentation of tobacco clearly and unambiguously reflects the dangers and consequences of tobacco use or when it is necessary to represent accurately a real historical figure.



Smoke-Free Movies Campaign

- *Phase 1 – Health groups mobilized*
- *Phase 2 – Kids mobilized (i.e., Reality Check!)*
- *Phase 3 – Investors and shareholders became involved*

*Now the MPAA wants to hear from **PARENTS***

A project of the Smokefree Movies Action Network

SCREEN OUT!

A parent's guide to
smoking, movies &
children's health

THIS PROJECT ENDORSED BY



SCREEN OUT!

What's it *really* all about?

- ▶ **87%** of R-rated movies show tobacco
- ▶ **75%** of PG-13 movies...
- ▶ **40%** of G and PG movies...
- ▶ **Most movies your kids see, especially your older kids...**
- ▶ **Over and over again**

SCREEN OUT!



Chicago (PG-13)

SCREEN OUT!



Men in Black 2 (PG-13)

SCREEN OUT!



Mona Lisa Smile (again)

SCREEN OUT!

What's wrong with smoking?

- ▶ **Still the #1 killer**
- ▶ **Tobacco kills 438,000 Americans a year**
- ▶ **Heart disease, lung disease, cancer**
- ▶ **80-90% of smokers start in their teens**

SCREEN OUT!

How many kids smoke?

- ▶ **3,900 kids tried their first cigarette today**
- ▶ **2,000 others became addicted today**
- ▶ **Girls 12-17 are likelier to smoke than boys.**
- ▶ **One in 8 middle school students and more than 1 in 4 high school kids use tobacco**
- ▶ **Average age at first cigarette: 15**

SCREEN OUT!

When do smokers start?

GRADE
6

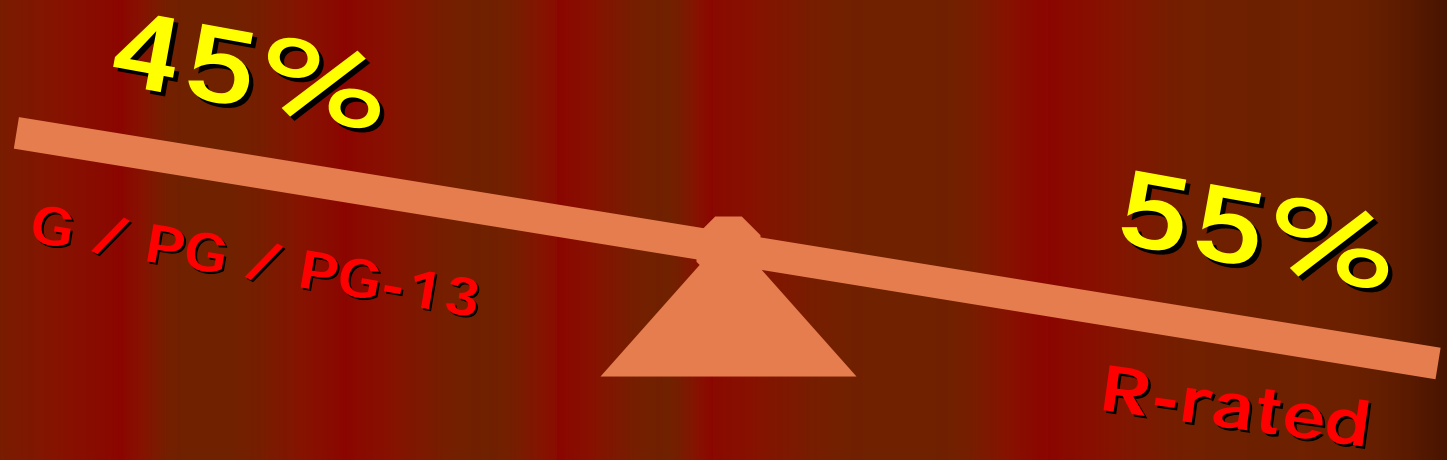
GRADE
12

10 11 12 13 14 15 16 17 18 19



SCREEN OUT!

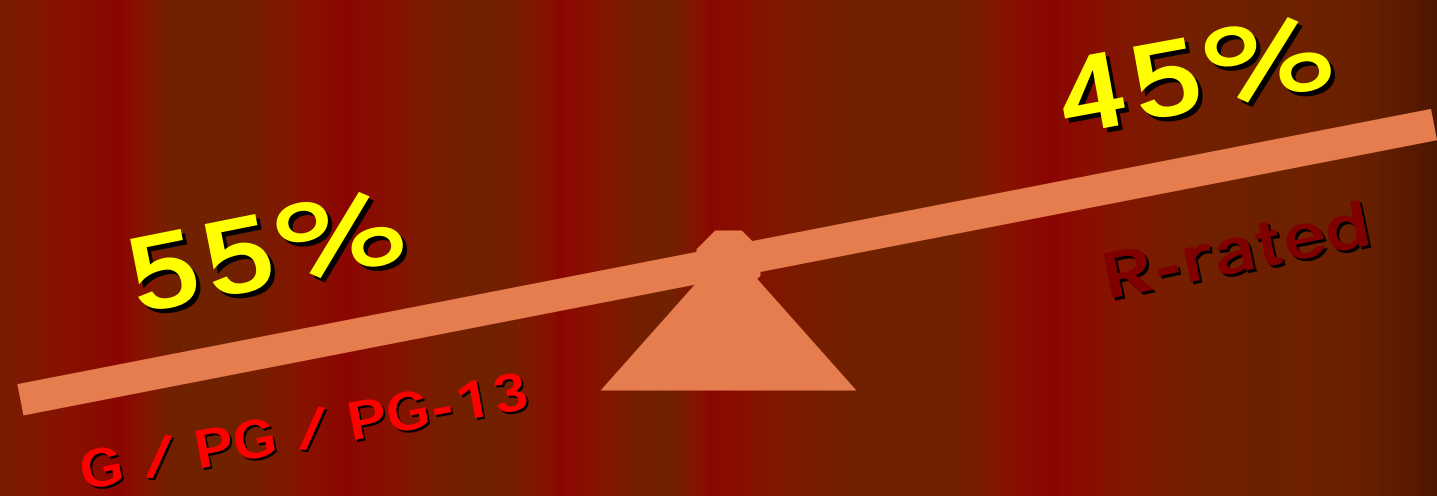
Smoking in movies is shifting...



[Smoking exposure in 1999]

SCREEN OUT!

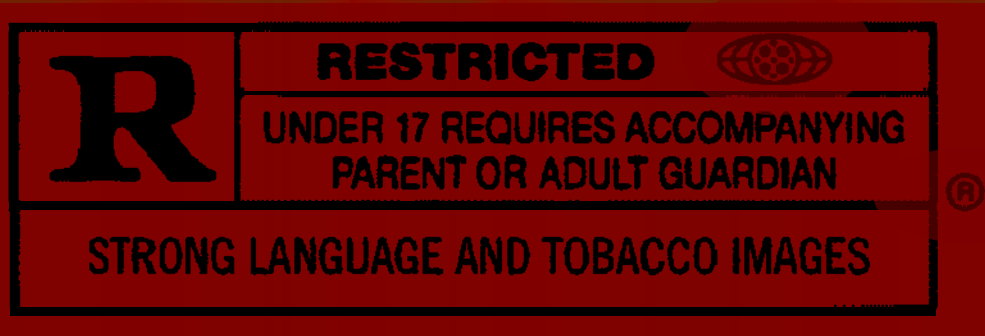
...from R-rated to kid-rated.



[Smoking exposure in 2004]

SCREEN OUT!

Is the R-rating censorship?



- ▶ **Movie industry runs the rating system.**
- ▶ **Studios routinely shoot for certain ratings.**
- ▶ **Filmmakers "tune" sex, violence, language.**
- ▶ **Simply adds smoking to the ratings.**

"The basic mission of the rating system is a simple one: *To offer parents some advance information about movies so that parents can decide what movies they want their children to see or not to see.*"

-- MPAA

Ratings and the F word

- Once in a non-sexual context – PG-13
- Twice in a non-sexual context – R
- Once in a sexual context – R

Ratings are not subjective, but based on concrete, clear criteria...which makes them easily understandable, fair, and enforceable.

SCREEN OUT!

**R-rating smoking in
future films is endorsed by...**

- ▶ **American Academy of Pediatrics**
- ▶ **American Medical Association**
- ▶ **World Health Organization**
- ▶ **National PTA**
- ▶ **American Heart Association**
- ▶ **American Lung Association**
- ▶ **L.A. County Dept. of Health Services**
- ▶ **Campaign for Tobacco-Free Kids...and more**

SCREEN OUT!

Simple solutions, big results

- ▶ Experts estimate that movies influence **390,000** teens to start smoking each year...
- ▶ Resulting in a projected **120,000** deaths.
- ▶ When **R-rating** clears smoking out of youth-rated movies, it should cut kids' exposure **AND** smoking initiation in half...
- ▶ **Saving as many as 60,000** lives a year.

SCREEN OUT!

**Sixty thousand lives a
year...is how many?**

MORE than all U.S. deaths from...

- ▶ **Violent crime... 16,100**
- ▶ **HIV/AIDS... 13,700**
- ▶ **Drunk driving... 16,700**

COMBINED 46,500

SCREEN OUT!

Two things you can do NOW

- ✓ **Limit your kids' viewing of R-rated movies.**
- ✓ **Get smoking out of movies rated G, PG and—most importantly —PG-13.**

**SCREEN
OUT!**

**Parents can stop both
sources**

**Limiting your kids'
viewing of R-rated
films will stop**

45%

of their exposure.

**Getting tobacco
out of kid-rated
movies will stop**

55%

**of their
exposure.**

SCREEN OUT!

Parent-to-“parent” campaign

- ▶ Three Hollywood studios make 60% of all movies with smoking. Who are their corporate parents?

Disney

TimeWarner

SONY

**SCREEN
OUT!**

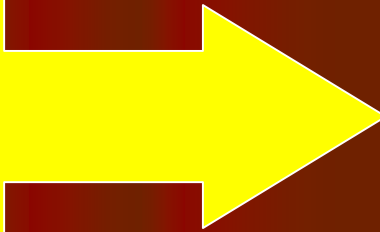
**These three men can help
save 60,000 lives a year**

**"PARENT"
COMPANIES**

**MOTION PICTURE
ASSOCIATION OF
AMERICA (MPAA)**

**Bob Iger,
Dick
Parsons,
Howard
Stringer**

**RATING
SYSTEM**

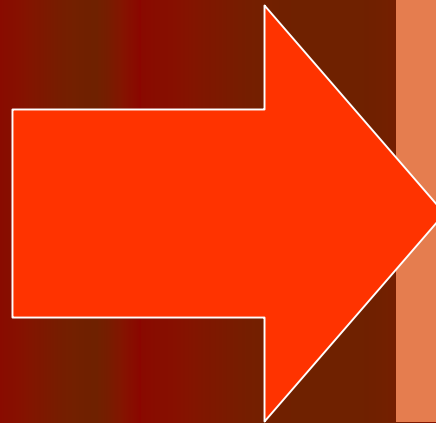


**SCREEN
OUT!**

**Copy your letter to the
head of the MPAA, too**

**MOTION PICTURE
ASSOCIATION OF
AMERICA (MPAA)**

**Dan
Glickman,
President**



**RATING
SYSTEM**

**SCREEN
OUT!**

**Working as a group?
Add a Theater Action!**

**LOCAL
THEATER**

**THEATER
CHAIN**

**NATIONAL
ASSOCIATION
OF THEATRE
OWNERS
(NATO)**

**WRITE ONE LETTER TO A
A LOCAL THEATER, THEN
COPY IT TO THE CHAIN HQ
AND THE THEATERS' TRADE
ASSOCIATION: NATO.**

**FOUR
POLICY
GOALS**

SCREEN OUT!

Launch your own campaign

- ▶ **Examples of letters...**
- ▶ **Short article for newsletters and local newspapers...**
- ▶ **Handouts and print ads...**
- ▶ **Model press releases...**
- ▶ **And more!**

Next Steps!...

- Go to www.smokefreemovies.ucsf.edu for *downloadable resources*
- Contact *either* of the following people for additional information:
 - Professor Stanton Glantz – ***UCSF Smoke Free Movies Campaign***
glantz@medicine.ucsf.edu
 - Alison Rhodes Devey – ***Reality Check***
aar04@HEALTH.STATE.NY.US