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Smoking in top-grossing US movies, 2012

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Abstract

New data on the level of smoking in movies in the US in 2012, obtained by counting tobacco incidents in all 140 movies whose box office ranked in the top 10 for at least one week, show total tobacco incidents per movie rose 45% between 2011 and 2012, the second year of increase after five years of decline. Tobacco incidents rose 54% per G, PG or PG-13 rated movie and 13% per R rated movie. The continued growth in onscreen smoking in youth-rated movies underscores the need to R rate movies with tobacco imagery, establishing an industry-wide market incentive to keep youth-accessible movies tobacco-free.

Objective

Exposure to onscreen smoking causes young people to become smokers.¹ The 2010 Department of Health and Human Services (HHS) strategic plan to reduce tobacco use set the goal of reducing youth exposure to onscreen smoking.² Onscreen smoking declined steadily between 2005 and 2010, and by January 2013 five of the six companies that comprise the Motion Picture Association of America (MPAA) – all but News Corp. (Fox) – had adopted policies with the stated purpose of reducing tobacco imagery in their movies rated G, PG and PG-13, yet mainstream movies continue to deliver billions of these images to adolescents.³ This study examines data on the number of incidents of onscreen smoking in movies released in 2012 and relate these new data to previously-reported³ long-term trends in onscreen smoking.

Methods

To monitor tobacco appearances in movies, Thumbs Up! Thumbs Down! (TUTD), a project of Breathe California of Sacramento-Emigrant Trails, counts occurrences of tobacco ("incidents") in U.S. top-grossing movies each year. TUTD uses trained monitors to count tobacco incidents in all movies that were among the 10 top-grossing movies in any calendar week (83% of all movies exhibited in the United States and 98% of tickets sold in 2002-2008). An incident is one use or implied use of a tobacco product (almost exclusively smoking) by an actor. The number of tobacco incidents tabulated for each film represents the consensus of trained, volunteer reviewers; if substantial disparities appear among reviewers, these are resolved by a second round of reviews and elimination of inconsistencies. Finally, a seasoned staff member also reviews the film and these observations are compared to the volunteers' tabulations. To control for fluctuations in the number of

movies with and without tobacco incidents released annually by each motion picture company, in each rating class, we divided by the number of movies in each category to calculate percentage of movies without incidents and average tobacco incidents per movie.

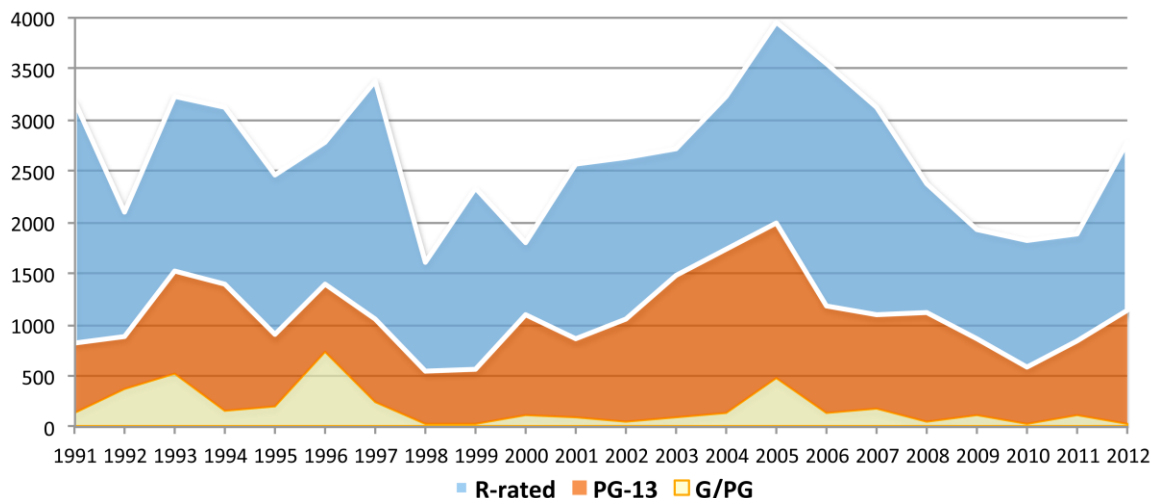
We estimated tobacco impressions (one person seeing one smoking incident one time) for each movie by multiplying total tickets sold by number of incidents, per movie. Tickets sold (admissions) were calculated by dividing the domestic box office gross reported for the movie (www.boxofficemojo.com) by the average US ticket price (www.nato-online.org) in the year the movie was released. Until this price is publicly available, the price for the year surveyed is estimated by averaging the price change in the two previous years.

Results in 2012 are compared to 2011 and long-term trends.⁴

Results

In 2012, 140 movies were among the 10 top-grossing movies for at least one week. The total number of tobacco incidents rose 50% (from 1,880 to 2,818) between 2011 and 2012 despite there being just 6 more movies in the 2012 sample than the 134 in 2011. Overall, the number of tobacco incidents per movie increased 45% (from 14.0 to 20.3) (Figure 1).

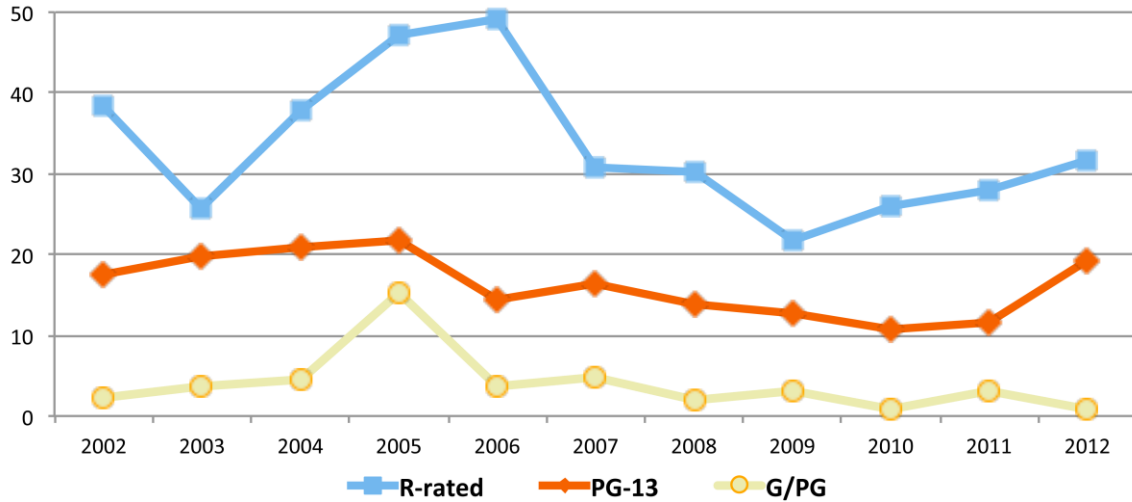
Fig. 1 | Total tobacco incidents in top-grossing movies, by MPAA rating, 1991-2012



Tobacco incidents per G and PG movie fell from 3.2 to 0.9, but incidents per PG-13 movie climbed from 11.6 to 19.3, a 66% increase. Combined, incidents per youth-rated (G/PG/PG-13) movie rose 54% (8.8 to 13.5); per R-rated movie, they

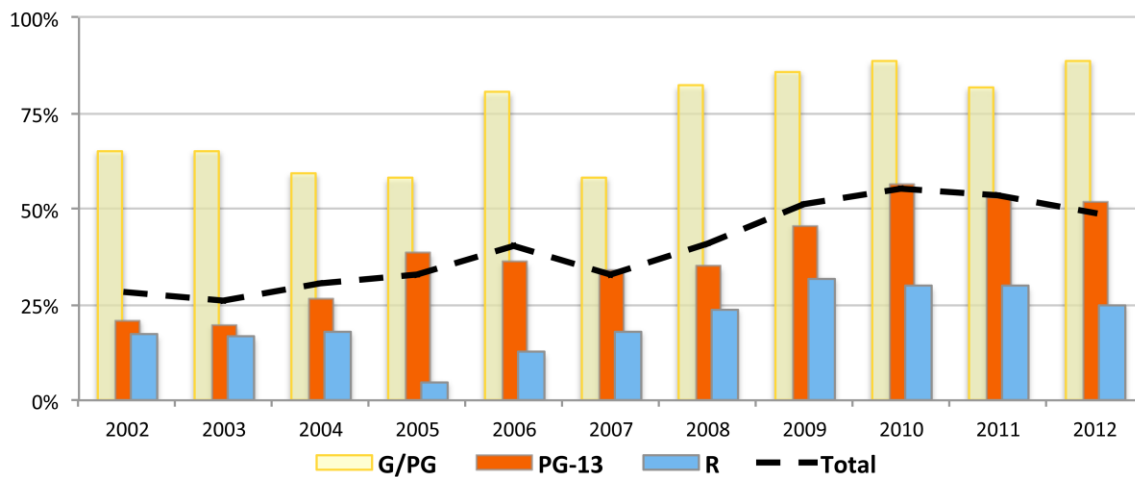
increased 13% (27.8 to 31.5). Between 2010 and 2012, tobacco incidents per youth-rated movie doubled (6.8 to 13.5) (Figure 2).

Fig. 2 | Tobacco incidents per movie, by MPAA rating, 1991-2012



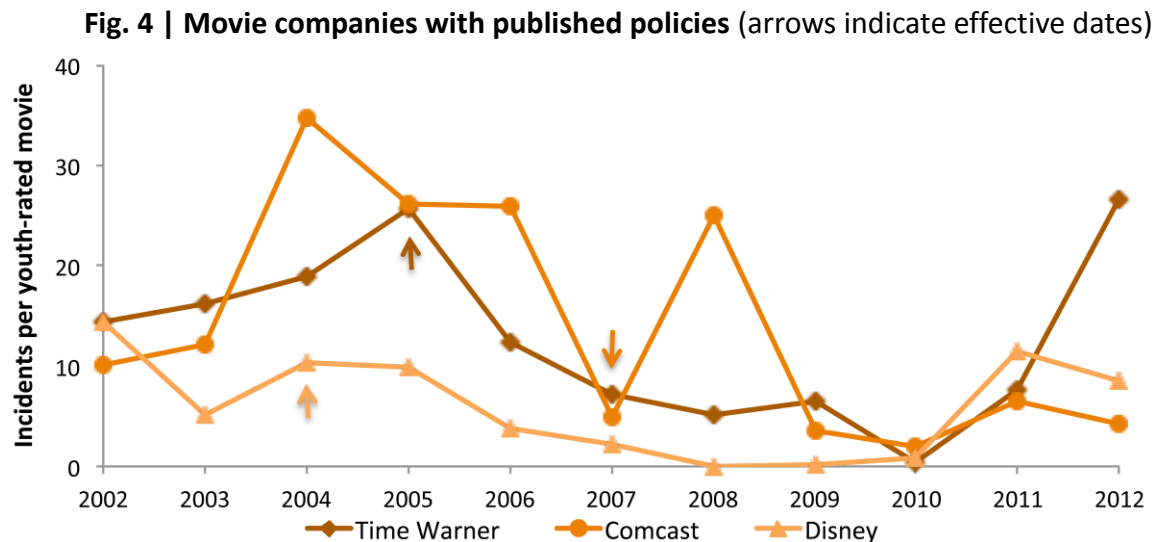
49% (69/140) of top-grossing movies were free of tobacco depictions in 2012, compared to 54% (72/134) in 2011. Among movies rated G or PG, 89% (24/27) were smokefree in 2012 compared to 82% (27/33) in 2011. Among PG-13 movies, 52% (31/60) were smokefree in 2012 compared to 53% (34/64) in 2011. Among R-rated movies, 25% (13/52) were smokefree in 2012 compared to 30% (11/37) in 2011. There was no substantial change between 2011 and 2012 in the fraction of tobacco-free movies in total or by MPAA rating (Figure 3).

Fig. 3 | Percent of movies that were tobacco-free, by MPAA rating, 1991-2012



While the number of PG-13 movies with tobacco remained about the same between 2011 and 2012, the number of incidents in those films with smoking increased. On average, PG-13 movies with smoking in 2012 contained nearly as much smoking (39.8 incidents) as R-rated films with smoking (42.1 incidents). PG-13 movies with a handful of incidents in the background were replaced by movies with higher incident counts.

Between 2005 and 2010, the three Motion Picture Association of America-member companies (Disney, Comcast [Universal] and Time Warner⁵) that then had publicly available policies with the stated purpose of discouraging tobacco imagery in their youth-rated (G/PG/PG-13) movies reduced tobacco incidents per youth-rated movie more than 90%, to an average of 1 incident per movie. Meanwhile, the three MPAA-member companies without such policies averaged reductions less than half as large, to an average of 10 incidents per movie. All three companies with policies showed increases in tobacco incidents per youth-rated movie between 2010 and 2011.³ Comcast and Disney fell some in 2012 (but not back to their 2010 levels), whereas Time Warner continued to dramatically increase. The companies without policies continued their drift upward (Figures 4 and 5, Table 1).



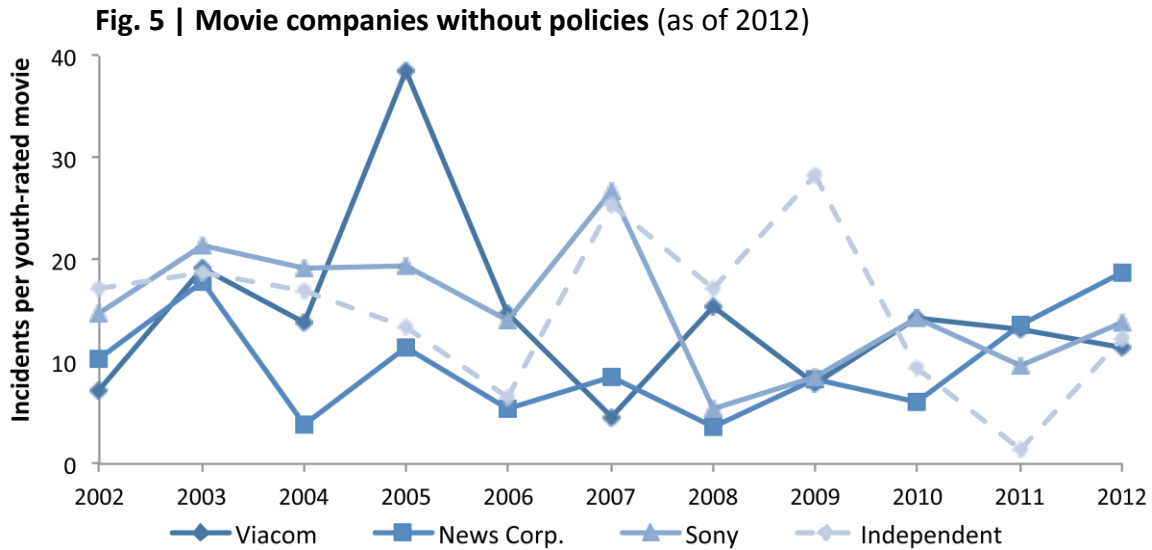


Table 1 | Tobacco content in youth-rated movies, by company, 2011-2012

G/PG/PG-13	2011			2012			Change 2011-12		
	Number of Movies	% Tobacco Free	Incidents per Movie	Number of Movies	% Tobacco Free	Incidents per Movie	% Tobacco Free	Incidents per Movie	Incidents per Movie: % Change
Comcast	12	67%	6.5	9	67%	4.3	0%	-2.2	-33%
Disney	13	77%	11.4	12	92%	8.5	15%	-2.9	-25%
News Corp.	13	62%	13.7	11	73%	18.8	11%	5.1	37%
Sony	18	56%	9.7	13	46%	13.8	-9%	4.1	43%
Time Warner	14	71%	7.6	10	60%	26.5	-11%	18.9	249%
Viacom	11	46%	13.2	8	75%	11.5	30%	-1.7	-13%
Independent*	16	62%	1.4	24	50%	12.2	-12%	10.8	772%
TOTAL	97	63%	8.8	87	64%	13.5	<1%	4.7	54%

Bold: Companies with published policies on tobacco depictions as of 2012.

* Non-Motion Picture Association of America producer-distributors. Independents with top-grossing movies 2012: Arc, CBS, Eros, FilmDistrict, Goldwyn, Lionsgate, Open Road, Pantelion, Relativity, Rocky Mountain and Weinstein.

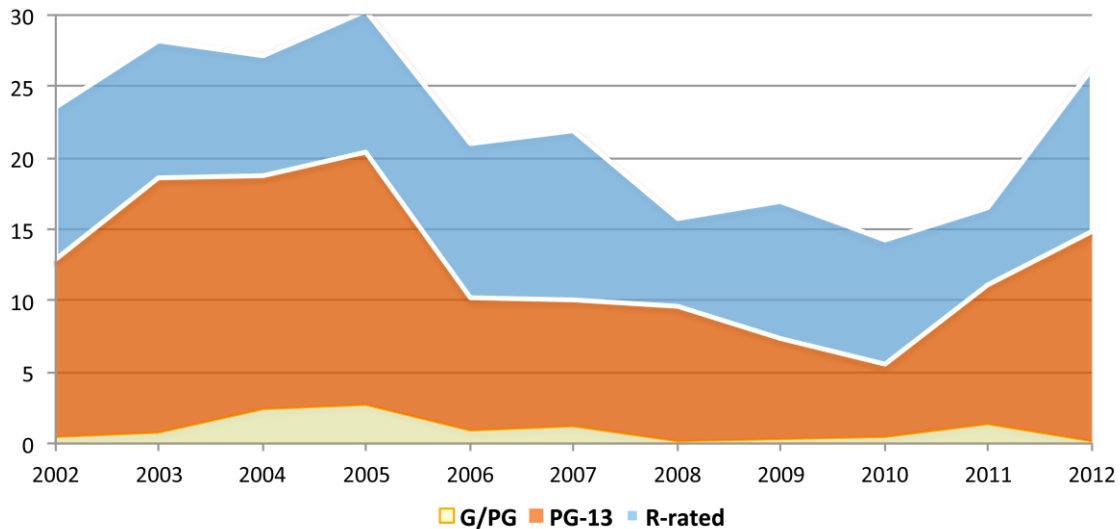
In 2012, youth-rated (G/PG/PG-13) movies delivered an estimated 14.8 billion tobacco impressions in theatrical release, a 33% increase from 2011 (11.2 billion) and a 169% increase over 2010 (5.5 billion), an historic low point. R-rated movies delivered more than twice as many tobacco impressions in 2012 as in 2011 (11.5 billion/5.4 billion). Overall, in-theater tobacco impressions increased 59% (26.3 billion/16.5 billion) from 2011 to 2012 (Table 2).

Table 2 | Tobacco impressions from youth-rated films, by company, 2011-12

MILLIONS	2011			2012			Change 2011-12		
	G/PG/PG-13	R	Total	G/PG/PG-13	R	Total	G/PG/PG-13	R	Total
Comcast	488	678	1,166	371	1,002	1,373	-24% ↓	48% ↑	18% ↑
Disney	2,843	46	2,889	2,292	0	2,292	-19% ↓	-100% ↓	-21% ↓
News Corp.	1,759	136	1,895	2,873	282	3,155	63% ↑	107% ↑	67% ↑
Sony	1,167	2,608	3,775	2,063	3,130	5,193	77% ↑	20% ↑	38% ↑
Time Warner	1,975	1,185	3,160	5,583	3,343	8,926	183% ↑	182% ↑	183% ↑
Viacom	2,693	36	2,729	671	1,818	2,489	-75% ↓	5002% ↑	-9% ↓
Independent	234	682	916	950	1,907	2,856	307% ↑	179% ↑	212% ↑
TOTAL	11,158	5,372	16,529	14,803	11,481	26,284	33% ↑	114% ↑	59% ↑

Youth-rated movies delivered 56% (14.8 billion/26.3 billion) of all in-theater tobacco impressions in 2012, compared to 68% (11.2 billion/16.5 billion) in 2011, and 39% (5.5 billion/14.2 billion) in 2010. PG-13 movies delivered 99% of youth-rated tobacco impressions in 2012, compared to 88% in 2011 (Figure 6)

Fig. 6 | In-theater tobacco impressions, by MPAA rating, 1991-2012



Tobacco brands continued to appear in some top-grossing movies in 2012: Chesterfield, Marlboro, Marlboro Light (all Altria brands), Kool (Reynolds American), and cigar brands were featured in packaging or on-screen posters or were mentioned in dialogue in six R-rated films released by MPAA-member companies Sony and Comcast (Universal) and by independents Lionsgate and Weinstein.

Discussion

The US movie industry substantially reduced tobacco content in its youth-rated movies from 2005 to 2010. In 2011 and 2012, many of these gains have been reversed, ensuring that adolescents will be exposed to more tobacco imagery conclusively proven to cause tobacco initiation and progression to regular smoking. Distributors (studios) have immense financial leverage and contractual power when negotiating all aspects of a film project with producers; whether they choose to enforce their own individual tobacco depiction policies is discretionary. While three large movie distributors showed, in 2010, that smoking could be nearly eliminated from youth-rated movies, the failure of individual company policies on tobacco depictions to continue this stance underscores the need for an industry-wide, persistent, structural incentive to eliminate smoking from the movies that adolescents see most. An R-rating for tobacco—an extension of the familiar, universally accepted and voluntary rating regime administered by the movie industry itself—would reduce adolescent exposure by encouraging producers to calibrate tobacco content just as they now routinely calibrate other on-screen content in pursuit of a desired rating, for marketing purposes.

Complementary policy solutions endorsed by public health authorities across the United States and internationally include: showing strong anti-tobacco announcements before any movie with tobacco imagery or reference, regardless of age-classification, in theaters and in-home media; ending tobacco brand display on screen; and requiring movie producers to certify that no one associated with the production had entered into any agreement or accepted any consideration for a tobacco depiction.

Nearly 40 US states and a dozen other countries offer US movie producers hundreds of millions of dollars in subsidies covering about 25% of production costs.⁶ In 2012, California was the subsidy-granting production location for 22% (15/68) of top-grossing movies with tobacco imagery, followed by the United Kingdom (13%, 9/68), and the states of Georgia (9%, 6/68), Louisiana (7%, 5/68) and New York (6%, 4/68). In all, ten US states and nine other countries hosted, and presumably qualified for subsidies, production of movies with tobacco imagery developed by US companies. The US Centers for Disease Control have endorsed efforts by public health agencies to harmonize their states' media production subsidies with tobacco prevention.³ Internationally, the World Health Organization has stated that public subsidies for media productions with tobacco imagery are incompatible with Article 13 of the Framework Convention on Tobacco Control, signed by 168 nations.⁷ In 2012, health authorities and policy makers proposed

changes to the eligibility criteria for the media production subsidy programs in California and Washington State to disqualify future productions with tobacco imagery.

The latest estimate, based on multiple US population studies, is that exposure to on-screen smoking accounts for 37% (95% CI 0.25 – 0.52) of new adolescent smokers.⁸ Applied to the 2.13 million current cigarette smokers ages 12-17 in the United States, this means that some 790,000 current adolescent smokers were recruited to smoke by movies with smoking.⁹ They will incur \$12.6 billion in medical costs through age 50 (present value) — one-third of it borne by government.¹⁰ A projected quarter-million of today's youth, recruited by exposure to on-screen smoking, will ultimately die from tobacco-induced diseases.¹¹

In the spring of 2012, 38 state Attorneys General wrote movie companies, “Each time the industry releases another movie that depicts smoking, it does so with the full knowledge of the harm it will bring children who watch it.”¹² Instead of continuing the trend toward youth-rated movies without tobacco imagery, in 2012 the US movie industry regressed: its youth-rated movies included more tobacco incidents, per film, and delivered more tobacco impressions to theater audiences than at any time since 2005. To stop knowingly harming its young audience, the industry must immediately adopt the recommended, evidence-based policies to permanently and substantially reduce adolescent exposure to the only movie content shown to cause widespread serious physical harm.

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