

Smoke-free movies:

From evidence to action



**World Health
Organization**

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Introduction

Imagery emanating from motion pictures continues to provide misleadingly positive impressions of tobacco use. These images have now been identified as a risk factor for smoking initiation among adolescents. In 2008, the National Cancer Institute of the United States concluded that:

“the total weight of evidence from cross-sectional, longitudinal, and experimental studies, combined with the high theoretical plausibility from the perspective of social influences, indicates a causal relationship between exposure to movie smoking depictions and youth smoking initiation. [1]”

As the WHO Framework Convention on Tobacco Control begins to be implemented, Parties to the treaty must soon undertake a comprehensive ban of tobacco advertising, promotion and sponsorship (2). In the past, movies have been an important vehicle for product placement, indirect advertising of tobacco products and social learning (3)ⁱ about smoking. The direct marketing of tobacco in the movies, particularly movies originating from the United States, remains an important vehicle for promoting smoking, including in films rated suitable for children and adolescents.

Voluntary agreements with the tobacco industry to limit smoking in movies have not and cannot work because the fiduciary interests of the tobacco industry are opposite those of the public health community. In the United States,

the Master Settlement Agreement (MSA) between the states’ Attorneys General and the major domestic tobacco manufacturers included a provision in which the manufacturers agreed to a prohibition on paid tobacco product placement in movies (4). However, evidence has shown increased smoking exposure in movies made subsequent to the implementation date of the agreement (5).

Logic and science now support enforceable policies to severely restrict smoking imagery in all film media, not only in movies made in the United States. India, home of the world’s most active movie industry, has taken significant steps to address smoking imagery rampant in Indian movies (6), with initiatives to prohibit this imagery in most new movies. Those films that still include smoking, such as the portrayal of a historical figure who actually smoked (e.g., Winston Churchill), would receive an “A” (adult content) rating.

Policies to substantially limit movie smoking ensure that motion pictures will not continue to serve as a source of tobacco promotion aimed at young people. In addition, strong and enforceable policy measures can be supported by programmes to educate the public and policymakers, as well as the entertainment industry, on the value of reducing young people’s exposure to tobacco imagery.

This document summarizes current knowledge about smoking in movies, as well as current and proposed approaches to reduce the impact of this imagery.

i The social learning theory of Bandura emphasizes the importance of observing and modelling the behaviours, attitudes and emotional reactions of others.

1. Tobacco on screen: why this is a problem

The tobacco industry has in the past spent millions of dollars to maintain the portrayal of smoking in movies (7). The role of movies as vehicles for promoting smoking has become even more important as other forms of tobacco promotion are constrained (see Annex A). As shown in Figure 1, this investmentⁱⁱ is part of a wider and more complex marketing strategy to support pro-tobacco social norms, including product placement in mass media, sponsorship and other modalities. In this figure, cinema is

also shown to be a core element in mass media approaches to normalizing smoking.

According to a recent publication of the British Medical Association (8) and other sources, there are several reasons why smoking in movies should be addressed as a public health problem, namely, that movies reach every corner of the globe, effectively promote smoking and have done so without much public health scrutiny until now.

Figure 1: The nested relationships among advertising, marketing communications, consumer marketing and stakeholder marketing in tobacco promotion



Source: National Cancer Institute (1).

ii For the monetary value of tobacco companies' documented spending on Hollywood product placement agencies 1979-94, see <http://www.smokefreemovies.ucsf.edu/problem/bigtobacco.html>.

1.1. MOVIES REACH EVERY CORNER OF THE WORLD

At least 3400 feature-length movies were produced and released in 2005 (many directly to video) in 35 nations worldwide: 1041 (30%) in India, 798 (26%) in the European Union, 356 (10%) in Japan, 320 (9%) in the United States and 145 (4%) in China (including Hong Kong) (9). Although a small proportion of all movies produced worldwide, movies produced in the United States have consistently owned 60–70% of the film market outside the United States as measured by theatre box office receipts – the major exception being the US film market share in India (10, 11).

The tobacco industry knows that motion pictures are one of humanity's most common entertainment experiences. In a world with two billion urban dwellers (12), cinemas sold eight billion movie tickets in 2006, an all-time high. Of these, 20% were sold in the United States and Canada; however, 80% of admissions and 63% of box office revenues were in other countries (13). Based on figures from exhibitors, distributors and market analysts, the world spends an estimated US\$ 100 billion a year on cinema tickets and on legitimate or pirated video copies of films. Roughly 30% is spent on single viewings in theatres, while 70% is spent on videos that can be viewed multiple times. Motion pictures are increasingly viewed outside movie theatres and distributed through other channels. The movie medium is extended by the Internet, TV, DVDs and other video access, reaching widely across cultures and economies. Thus, exposure to film content is vastly underestimated by movie theatre attendance data (see Annex B).

1.2 MOVIES ARE EFFECTIVE IN PROMOTING SMOKING

Exposure to smoking in movies is high

In an analysis of more than 1200 US-produced live action films – nearly the entire body of feature films released to theatres both by major studios and by independent producers in 1999–

2006 – tobacco imagery permeated both youth-rated (G/PG/PG-13) and adult-rated (R) movies, with more than three quarters of US-made movies featuring tobacco imagery (14). More specifically, close to 90% of all R-rated movies included smoking, while smoking appeared in three quarters of movies rated PG-13 and was found in more than a third of movies rated G or PG. Altogether, live action movies of all ratings produced in the United States between 1999 and 2006 contained approximately 8400 tobacco incidents.ⁱⁱⁱ Of these incidents, 68% were in movies rated R; 29% in movies rated PG-13; and 3% in movies rated G or PG. (See Box 1 for an explanation of the rating system.) There was no significant trend in tobacco incidents per film, either up or down, over the period 1999–2006.

Box 1: *The US film rating regime*

Since 1968, US film ratings have been assigned by the Motion Picture Association of America (MPAA), the trade group of major film studios, and by the National Association of Theatre Owners, which jointly operate the Classification and Rating Administration. Submitting a film for classification is voluntary, as is rating observance by theatres and video retailers, but is practically universal among commercial, non-pornographic film and video distributors.

MPAA rating categories

- G: General audiences – All ages admitted
- PG: Parental guidance suggested – Some material may not be suitable for children
- PG-13: Parents strongly cautioned – Some material may not be suitable for children under 13
- R: Restricted – Under 17 requires accompanying parent or adult guardian
- NC-17: No one under 17 admitted (15)

From 1999 to 2007, 14 percent of US films released to theatres were rated G or PG; 43 percent were rated PG-13; 43 percent were rated R; almost none were rated NC-17 (14).

ⁱⁱⁱ There are two different ways of counting "incidents", depending on how one handles cuts back and forth in a single scene. One approach, used by Dartmouth University (and this report), counts use of tobacco by an individual in a single scene as one impression even if the camera cuts back and forth between a smoker and non-smoker. A second approach, used by the Thumbs Up! Thumbs Down! Project (www.scenesmoking.org), counts each cut as a separate incident. These two approaches yield closely correlated results: the Thumbs Up! Thumbs Down! approach leads to counts that are, on average, 3.4 times the Dartmouth approach. Both methods are equally valid for tracking changes over time.

Various methods have been used to measure the exposure of adolescents to tobacco imagery in movies (see Annex C). Although there is a lack of available data on in-home media, it is possible to estimate tobacco imagery exposure that adolescents receive from motion pictures using publicly available cinema audience composition and box office sales data.^{iv} Using 12 months of US audience survey data from 2005–2006, research indicates that adolescents aged 12–17 years are 2.7 times more likely than adults over 18 years old to report that they go to theatres to see films at least twice a month (33.6% of adolescents vs. 12.4% of adults) and 2.8 times more likely to report going at least once a week (9.6% of adolescents vs. 3.4% of adults). Adolescents in this sample were also more likely than adults to go to the cinema at all (95% of adolescents vs. 77% of adults) (16).^v

Based on US audience age composition (by rating), box office (gross revenue from ticket sales, by film) and tobacco imagery incidence (by film) for the period 1999–2006, viewers aged 12–17 years were subject to 20% of the 45 billion estimated tobacco impressions delivered by films in United States and Canada theatres.^{vi} These totalled 8.8 billion tobacco impressions, or 1.1 billion impressions annually on average, just from films viewed by adolescents in theatres. This is almost four times more in-theatre tobacco impressions per capita than for children aged 6–11 years and 18% more tobacco impressions than for viewers aged 18–34 years. The difference is due to the ratings mix of films adolescents attend (more like those watched by young adults than by children) and the frequency with which they go to the cinema (more often than children or adults) (14).^{vii}

In addition, exposure to adult-rated films, in which smoking is more common, increases with age. According to in-theatre surveys, US children aged 6–11 years constituted 36.9% of the theatre audience for movies rated G and PG, but only 1.2% of the audience for R-rated movies. Adolescents aged 12–17 years constituted 23.9% of the G/PG audience, in addition to comprising 12.6% of the audience for R-rated movies.^{viii}

Exposure to smoking in movies increases adolescent smoking initiation

There is clear evidence that imagery emanating from the media and wider society plays an important role in encouraging the onset and continuance of smoking. The tobacco industry may reap as much as US\$ 894 million each year as a result of new smokers influenced to start by the movies (17). In the United States, the Centers for Disease Control and Prevention concluded that onscreen tobacco exposure may have stalled and reversed declines in adolescent smoking initiation that have occurred in response to other tobacco control policies, such as anti-tobacco advertising campaigns or tax increases (18, 19, 20, 21). Recent studies of youth audiences in Germany (22) and Hong Kong (23) found a dose-response relationship between exposure to smoking in US-made movies and smoking initiation among youth (24, 25).

Only one published study (on Scottish youth) found no association between movie smoking exposures and smoking initiation (by age 19 years) (26). However, it is unclear whether the findings from the study in Scotland differ from those cited above because of age differences in the subject population, methodological differences in the studies or other cultural differences.

iv For example, see Nielsen Media Research reports at <http://www.screenvision.com/m/audience/>. Data on age composition are gathered commercially, e.g., for targeting in-theatre advertising campaigns. MPA branches around the world may also have this data; the US branch routinely breaks out age in its attendance statistics but not publicly by film rating.

v Calculated from Nielsen Media Research, 24 June 2005–22 June 2006.

vi "Tobacco impressions" are calculated by multiplying a movie's tobacco incidents by its paid theatrical admissions. Admissions are estimated by dividing the movie's total gross domestic box office sales (reported by authoritative industry sources) by the average movie ticket price for the year in which the film was released. The average ticket price is established by the (US) National Association of Theatre Owners (www.nato-online.com).

vii Adolescents aged 13–16 years were twice as likely as 25–39 year olds and about three times as likely as 40–59 year olds to be "frequent" moviegoers (defined by this source as attending once a month or more).

viii Calculated from Nielsen Media Research, 2005–6.

In Australia [27] and New Zealand [28, 29], focus groups have found that adolescents reflect attitudes towards smoking acted out in the films they watch. Experimental studies support these results: adolescents who saw smoking scenes in a youth-oriented film had more positive views of smoking than did those who saw a professionally edited version of the same film with the smoking removed from the frame [30].

The higher the exposure to smoking in movies, the higher the likelihood of initiation

There has been extensive research on the effects of smoking and other tobacco portrayals in films on smoking behaviour in children, adolescents, teens and young adults using a combination of content analysis, qualitative research and cross-sectional and longitudinal surveys [1, 31]. Longitudinal and cross-sectional population studies involving thousands of adolescents in the United States [32, 33, 34], Germany [35] and New Zealand [36] (as well as the Hong Kong and Germany studies cited above) find a dose-response relationship between exposure and positive attitudes towards smoking as well as smoking initiation. One US study [37] also showed a similar, albeit smaller, effect on young adults. This means that the more smoking imagery adolescents and young adults are subjected to on screen, the more likely they are to start smoking. Bombarded with billions of tobacco impressions from theatre-based cinema viewings and DVD, satellite, cable and Internet sources, it is clear that many new smokers are recruited due to their exposure to onscreen smoking. In the United States, in fact, one study estimated that as many as 52% of new smokers 12–17 years of age (about 390,000 per year) may be recruited through tobacco imagery in the movies [38]. Thus, the evidence from US and other nations strongly suggests that reducing adolescent exposure to smoking in the movies will prevent smoking initiation among young people [39].

Movies are effective because they influence behaviour and form social norms

Movies, especially those made in the United States, are a major source of viewer identification with celebrities. They can encapsulate

dreams, craft hopes and help viewers escape the tedium of everyday life. For the tobacco industry, films can provide an opportunity to convert a deadly consumer product into a cool, glamorous and desirable lifestyle necessity. The Marlboro Man is a powerful salesman, but even he lacks the draw of popular historical and contemporary movie stars from Hollywood, Bollywood and other film production centres. In contrast to traditional advertising, film stars provide indirect but nonetheless powerful information about the “benefits” of smoking.

Experimental and observational studies [27,31] show that cigarette smoking in films can influence young peoples’ beliefs about social norms for smoking, beliefs about the function and consequences of smoking and their personal intention to smoke. The presentation of smoking in films does not reflect reality. In reality, smoking tends to be highest among lower socioeconomic groups. In films, the prevalence of smoking depicted by characters, in particular among the higher-socioeconomic characters frequently portrayed by lead actors, is higher than the prevalence of smoking by comparable people in the general population [40]. The real health consequences of smoking are rarely shown [40]. Young people, especially, look to those celebrities for reassurance about their choices in fashion and behaviour. As they formulate their lifestyles, the film medium may provide a particularly attractive resource to promote these choices.

1.3 MOVIES HAVE LARGELY ESCAPED TOBACCO CONTROL SCRUTINY UNTIL NOW

Movie smoking has rarely been considered by policy makers.

Even in countries with bans on tobacco advertising and promotion, movie imagery continues to provide misleadingly positive messages about smoking. For example, in Australia, a 2008 study found that 70% of top box office films contained smoking depictions, including 75% of the most popular PG-rated films [41]. In the UK, where almost all forms of tobacco advertising are prohibited, films from the United States that contain smoking scenes are widely viewed [42].

Hollywood blockbuster films containing tobacco imagery continue to earn billions of dollars abroad, including in those countries that have taken strong measures against tobacco advertising and promotion. (See Box 2 for more on worldwide tobacco image exposure in US films.)

Filmmakers claim “dramatic necessity” and free speech protection

Film makers often assert the need for smoking imagery in a movie to tell a story. However, the

presentation of smoking on screen is rarely realistic, often showing images more consistent with cigarette advertising than with the death and disease tobacco use causes. Nevertheless, in the United States and elsewhere, filmmakers fiercely defend the right to free speech with respect to movie smoking, even without the “dramatic necessity” for a character to smoke. This defence of free speech is a cornerstone of moviemakers’ arguments against restrictions on smoking in modern film (43).

Box 2: US films with tobacco imagery have worldwide impact

Tobacco imagery emanating from US films is extensive outside the United States and Canada. Cinema admissions in the 25 countries that belonged to the European Union as of 2004 totalled 7.6 billion since 1999 (44, 45). Assuming that US films distributed in Europe largely match those released in the US and Canada^{ix} and that these US films claim an estimated 66% share of the market in Europe,^x US films delivered a total of about 25 billion estimated tobacco impressions to European theatre audiences from 1999 to 2006. Using the same assumptions, an estimated 8 billion tobacco impressions were delivered in theatres worldwide, outside the United States and Canada by US-produced films in 2006.^{xi} In the United States and Canada, these films delivered more than 4 billion estimated tobacco impressions in theatres in 2006.^{xii} Thus, the US film industry delivers about two in-theatre tobacco impressions internationally for each impression it delivers in the United States and Canada markets.

Because films produced in the United States comprise 60–70% of the theatrical box office receipts in other countries and likely dominate a similar share of DVD sales and rental transactions, it is important to consider the effect of tobacco imagery exposure from the US film industry, especially in the ratings mix that adolescents see most: PG-13 (not recommended for youth under 13 years old) and R (no one under 17 admitted without a parent).

Due to a marked drop in annual releases rated “R” between 1999 and 2005, the majority of movies from the United States with smoking were youth-rated by 2002. The share of movies with smoking that were youth-rated expanded from 43% in 1999 to 58% in 2004 and 2005. Most films with tobacco were youth-rated in 2006 as well, despite a 30% jump in R-rated movies with tobacco compared with the year before.

ix The 20 top-earning films annually in the “domestic” US/Canada market (2000–2006) had a 72% likelihood of appearing in the top 20 list of most popular US-produced films in Europe; the top five had a 77% likelihood. [European data (46); domestic data (47, search on “yearly grosses). For US-produced films marketed internationally, 56% of the 50 top-earning US films (and 43% of the top 100) released annually in 2000–2006 earned more than half of their total gross revenue outside the US/Canada [“domestic”] market. Fewer than 4% of the top 50 (and 13% of the top 100) US films annually earned less than 25% of their total gross internationally. Of the 700 films surveyed, only 5% earned less than 10% of their total box office internationally; conversely, 95% of these US films clearly sought international markets (47).

x US films’ share of European admissions was 60% in 2005; 73% if European films with US studio financing are included (48). In 2004, it was 59% [71% including US-financed films] (49). For 1996–2002, it averaged 70% (50). This calculation excludes India because local films occupy 95% of India’s film market (51); 3.6 billion total film admissions in India were reported in 2002 (52).

xi Calculation: 7.55 billion admissions x 0.66 [US films’ share of admissions] x 5.06 [average tobacco impressions delivered per admission to a US film in the 1999–2006 period = 25 213 billion tobacco impressions. Average tobacco impressions from Polansky and Glantz, 2007 (14).

xii Calculation: 1.55 billion cinema admissions in the US/Canada (13) X 4.01 tobacco impressions per admission in 2006 (calculated from UCSF database) = 4.23 billion.

xiii More specific national estimates can be made on the basis of reported admissions or box office grosses in a territory, by film, by country of origin, using independent public or proprietary databases. The UK’s Screen Digest (<http://www.screen Digest.com/>) sells market data about all media platforms. Lumiere, a publicly-accessible database maintained by the European Audiovisual Observatory (46), is useful for exploring cinema markets from France to Russia. Some national agencies or organizations concerned with film or business development track or package cinema market information. Two online sources with comprehensive data are the Internet Movie Database, by subscription (<http://pro.imdb.com/>) and Box Office Mojo (47); the latter offers more data by international territory.

2. Protecting young people from smoking in movies: policy options

It is clear that onscreen smoking benefits the tobacco industry and increases youth smoking initiation. Therefore, policies to limit movie smoking have to form part of any comprehensive tobacco control strategy.

Even without the compelling evidence that smoking in films has been a mainstay of tobacco marketing efforts (53), this medium's tremendous reach compels development of public policies to substantially and permanently reduce adolescents' exposure to tobacco in film. With tobacco logos barred from sports and other venues in many countries, film may be one of the last media in which adolescents can be exposed to smoking imagery without restrictions. Tobacco market leaders (Philip Morris and British American Tobacco) benefit the most from any tobacco imagery on film, branded or not. Hamish Maxwell, the then-president of Philip Morris International and later CEO of Philip Morris Companies (forerunner of Altria), recognized this fact in 1983. The important thing, he said, was to "continue to exploit new opportunities to get cigarettes on screen" in order to keep smoking socially acceptable (54).

Policy-makers must also take into account the rapid evolution of media and the emergence of new platforms in order to provide "future proof" solutions. In 2005, the top 10 countries in cinema admissions represented diverse points on the per capita income scale: the United States (US\$ 42 000 per capita income) had 4.7 admissions per capita, Bolivia (US\$ 2710 per capita income) had 3.5 admissions per capita and India (US\$ 3430 per capita income) had 3.3 admissions per capita (55, 56). However, among lower-income countries, growth of access to theatre-based cinema may be weaker than growth of access to newer

outlets for film distribution (e.g., broadband Internet). Falling prices and wider choices (including movie channels) are accelerating the spread of newer technologies such as satellite television, as well as the means to view movies via broadband Internet worldwide.

The following section further outlines evidence-based policy choices and recommendations for countries with different media environments and policy contexts. First, the primary objectives and core principles for policy recommendations are presented.

2.1 PRIMARY OBJECTIVE AND CORE POLICY PRINCIPLES

When developing policy, both national and global perspectives should be considered. Well designed, evidence-based public health policy will improve population health both nationally and globally. The primary objective of actions to reduce smoking imagery in the movies is:

To substantially and permanently reduce children's and adolescents' exposure to tobacco imagery in movies.

Only options that meet this objective would then be evaluated for political feasibility, legality, sustainability and cost. The principles that guide such evaluation include:

- **Principle 1: Seek "upstream" solutions**

Policy should motivate change in the film industry's behaviour so as to reduce harmful content at the source ("upstream") instead of burdening the adolescents in the audience and their parents with taking some sort of protective measures ("downstream"). Films with smoking imagery are causally associated with smoking initiation, and therefore industries that profit from marketing these health risks should be responsible for making them safe.

- **Principle 2: Leverage national action for global benefit**

Policies in one country can protect young people elsewhere. If tobacco imagery in youth-rated movies is greatly reduced in US films, it will reduce children's and adolescents' exposure in the many other countries where Hollywood movies are popular. The same is true for India, the United Kingdom, France, Hong Kong and any other country with a film industry having substantial exports. If countries that are markets for Hollywood exports include smoking in their ratings regimes or develop other policies that impact the US film industry's global reach, these countries create incentives for Hollywood and other filmmakers to alter tobacco imagery practices as a global public good. Certainly, large countries such as India and China can also set important global precedents; in addition, a global approach increases the leverage of countries whose film markets are not large enough to directly influence multinational corporate behaviour.

2.2 RECOMMENDED POLICIES

Certify no payoffs

Films with tobacco use should include a certificate in the closing credits declaring that no persons involved with the production of the movie received anything of value (cash, free cigarettes or other gifts, free publicity, interest-free loans or any other consideration) from anyone in exchange for using or displaying tobacco products in the film. Figure 2 shows a minimalist example of a notice that may appear in the final credits of a film.

Figure 2: Final film credit notice about tobacco payoffs



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

Certification should require a sworn affidavit on public file from the responsible executive at every company with production and distribution credits for the film. This certification should be backed

up by appropriately transparent internal procedures within the companies to assure compliance. Under penalty of perjury or fraud, it would encourage executives to keep productions free of tobacco industry influence. Certification would help discourage tobacco influence through covert, transnational, tobacco-related investments or credit facilities for film productions. Because it is a legal instrument, the actual certification, which would be longer and more technical than the notice required to be shown on screen, must be drawn up with expert legal advice. Because side deals by contractors, employees and even actors are difficult to ascertain, eliminating tobacco imagery entirely from films may be the surest way to reduce the certifying companies' legal exposure altogether.

A procedure is needed for deciding if the film includes tobacco imagery and needs to be certified. This qualification procedure should be categorical in that any film that refers to, shows or implies tobacco use, a tobacco product or a tobacco brand needs to be certified. Many countries already have a voluntary or official regime for registering films, rating them and approving them before local distribution. They may also have specific tax or trade policies for distribution of imported films. In addition, some countries subsidize so-called "national" films with public money. Such existing mechanisms should be amended to require certification that no payoffs have been accepted for films with tobacco images.

Where imported films dominate a country's film market, it should be a straightforward procedure to require certification of no payoffs as a condition for a film's exhibition license. The country is simply requiring that the distributor ensure that the film does not violate the national policy against paid tobacco advertising. Also, anti-placement language should be inclusive so as to cover any kind of "consideration", including gifts, barter (including ad barter), discounted services (such as production services), promotional arrangements, house rents and auto leases, as well as cash or credit extended to

an individual or company. Most film productions also take maximum advantage of international business shelters, national- or subnational-level subsidies and favourable tax provisions. Thus, restricting such tax allowances to films without tobacco imagery may be another consideration at national levels.

Stop identifying tobacco brands

While most advertising is fleeting, tobacco brands shown on screen are viewed repeatedly on a growing number of media platforms. Their lifetime is measured in decades. Thus, there should be no tobacco brand identification or tobacco brand imagery (such as billboards) in any movie scene. In recent years, under pressure from states' Attorneys General, US-based tobacco companies have written to Hollywood film studios to protest use of their tobacco trademarks, after the fact, but not pursued any legal remedies for this use of their trademarked material. The studios, in turn, have publicly stated that they never request permission to use these trademarks. However, a simple, easily-enforced rule would be more effective in eliminating hard-to-detect arrangements for global brand exposure in films. A total ban on brand identification on screen would be the most straightforward extension of national restrictions on tobacco branding in all media.

Require strong anti-smoking ads

Classroom (30) and in-theatre (57, 58) experiments show that an anti-tobacco advertisement before a film that includes tobacco imagery helps inoculate both younger and older adolescents against the promotional effects of such imagery in the film. A strong anti-smoking ad (not one produced or influenced by a tobacco company) should run before a film with any tobacco presence and in any distribution channel, regardless of its rating. It should be culturally appropriate and targeted to specific audiences (59). Such spots are important because, even if tobacco images are cleared from youth-rated films, adolescents may be exposed to adult-rated films through new digital technology. In the United States, for example, adolescents get around half

of their tobacco exposure from R-rated films (60); the same is likely to be true in other countries. Because all media are converging on digital technology and because it is increasingly likely that adolescents in many countries can also access this technology, effective anti-tobacco spots can be added to videos and other distribution channels, including cable and satellite, Video On Demand and Internet download after distribution.

The World Lung Foundation web site hosts a series of anti-tobacco ads from various countries (http://www.worldlungfoundation.org/mmr/eng_index.html) (61) that have been selected for their potential applicability around the world, having been shown to be effective in a number of countries. The American Legacy Foundation's "truth" campaign spots (<http://americanlegacy.org/truth-news.aspx>) and television ads developed by the (US) State of California (http://www.tobaccofreeca.com/ads_tv.html) have also been demonstrated to be effective in discouraging smoking initiation by youth (62, 63, 64).

There are significant considerations for governance in this kind of policy intervention. National rules are needed to determine how ads will be developed and selected for use, who will vet and pay for them and how many will be needed to avoid audience fatigue. In addition, rules for distribution and monitoring procedures will be needed.

Because this policy may be the least disturbing to the status quo and may provide the film industry an opportunity to demonstrate corporate social responsibility, anti-tobacco ads may be the easiest policy to promote. While research shows that anti-tobacco spots do not lower audience opinion of a given movie, their presence may be inconvenient enough that they may contribute to an eventual reduction in the number of new movies with smoking imagery.

Require adult ratings for movies with tobacco imagery

Given that there is a dose-response relationship

between exposure to onscreen smoking and youth tobacco initiation, a key goal should be to reduce youths' level of exposure (the dose) to onscreen smoking. Most youth exposure to onscreen smoking comes from smoking incidents in youth-rated films. Because fewer children and adolescents view adult-rated films, official ratings for age-appropriateness would be an effective method to reduce adolescent exposure to tobacco use without interfering with movie content. Any future movie with tobacco imagery should be given an adult rating, with the possible exception of movies that reflect the dangers and consequences of tobacco use or depict smoking by an actual historical figure who smoked. Older films should not be re-rated.

The age of majority may vary from country to country, but in general, an "adult" rating means that individuals younger than that age (18 years of age in many countries) are not allowed to see the movie or that the viewer under the age of majority must be accompanied by a parent or adult guardian. In a number of other countries, an "18" or "R-18" rating would correspond directly with their age of majority. In the United States, the "R" rating (under 17 not admitted without a parent or adult guardian) comes closest to the age of majority. The next age level identified by specific ratings below these "adult" ratings typically sets a minimum age of between 13 and 15 years, e.g., PG-13 in the US [65]. Without "adult" rating restrictions for movies with tobacco imagery, tobacco exposure would be allowed or even endorsed in films targeted to teens, those at highest risk for smoking initiation. (Indeed, in the United States the majority of youth exposure to onscreen smoking comes from PG-13 movies.) Therefore, an appropriate adult rating (such as R-18) would be recommended for films that include tobacco imagery.

Age classification systems are generally developed in accordance with national guarantees of freedom of expression. Therefore, including tobacco imagery in the existing rating framework should raise no rights or censorship issues.

A rating scheme does not need to be 100% effective in reducing youth exposure to make a difference. To the extent that producers leave tobacco imagery out of films in order to obtain a youth rating in their domestic markets, these films will reduce overall exposure of youth to onscreen tobacco use in films released globally by major distributors.

2.3 STRATEGIES FOR OLDER FILMS

Films may be popular for decades after their initial release, and thus there should be some consideration of at least adding warning labels and anti-tobacco messages to DVDs and videos of older films. Most films date quickly and older films represent a small fraction of the youth market, thus it is not practical to re-rate older films.

The same factors that can prevent a country's age classification from shaping exposure (films viewed mostly on video, widespread piracy, lack of ratings enforcement) also make impractical any attempt to ban imported films with tobacco imagery. Before they are distributed, however, imported films should include a strong anti-tobacco ad before the start of the film and a no-payoff notice in the final credits, backed by an affidavit from the original production companies and the distributors. They should also receive an "adult" rating.

2.4 POLICIES WITH POTENTIALLY LIMITED EFFECT

Blocking out tobacco images

Pixelization is a video- and image-editing technique where part of an image is blurred by displaying it at a markedly lower resolution. It is primarily a censorship method. However, even though the image of a cigarette can be blurred during a scene, it is often an imperfect solution since viewers can typically infer that the character is indeed smoking. In addition, unlike anti-tobacco spots shown before the film, pixelization does not engage the audience in critical thinking about tobacco imagery in the film. Although there are no studies yet to confirm this, logical reasoning leads to the conclusion that pixelization may actually attract attention to this imagery.

The paradoxical result of blocking tobacco images (as opposed to ensuring that they simply do not appear) is that smoking may become more intriguing to adolescents as a model of rebellious behaviour.

If an aftermarket policy solution is needed, strong and proven effective anti-tobacco spots are much preferred to pixelization, blurring of films or embedding formulaic health warnings or symbols in a film.

2.5 POLICIES NOT RECOMMENDED

Partial or subjective measures

To be effective, policies must be clear, easily interpreted and transparently applied. For example, a rule that grants an exception for an actual historical figure who actually smoked (e.g., Winston Churchill) can be effectively applied. A general "historical character" exception cannot be. Labels such as "gratuitous smoking," "pervasive smoking," "glamorized smoking," "positive images of smoking," "imagery that condones smoking," "editorially justified smoking," "historically appropriate smoking" and "justified smoking" are examples of criteria that are impossible to define. Such vague terms mean that filmmakers and ratings authorities will not know what is and is not consistent with the policies; this approach leaves much to conjecture, lacks transparency and results in inconsistent implementation. Equally problematic would be general requirements that rating bodies merely "consider" smoking in films without also providing specific guidelines. Experience in the United States has shown that such ambiguous policies have no practical effect on youth exposure to smoking on screen (66). Thus, subjective tobacco rating standards, including non-categorical exceptions, are not recommended.

2.6 MULTINATIONAL COOPERATION: THE WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL

The WHO Framework Convention on Tobacco Control (WHO FCTC), the first global health treaty negotiated under the auspices of WHO, came into effect on 27 February 2005. By April 2009

the treaty had been ratified by over 160 countries (67). Article 13 of the WHO FCTC obliges Parties to enact comprehensive bans on tobacco advertising, promotion and sponsorship within five years of ratification. Article 13 also calls specifically for a ban on cross-border advertising, enabling countries that have enacted national restrictions on advertising and promotion to prevent the entry of banned advertising and promotion into their territories.

According to the definitions in Article 1 of the WHO FCTC, a comprehensive ban on all tobacco advertising, promotion and sponsorship applies to all forms of commercial communication, recommendation or action and all forms of contribution to any event, activity or individual with the aim, effect or likely effect of promoting a tobacco product or tobacco use either directly or indirectly.

In November 2008, the Conference of the Parties to the WHO FCTC at its third session adopted the guidelines for implementation of Article 13. Reflecting the broad definition (above) of advertising and promotion, these guidelines contain specific reference to depictions of tobacco in entertainment media, including movies, and makes specific recommendations to address this issue (68).

The Article 13 guidelines recommend that a comprehensive ban on tobacco advertising, promotion and sponsorship should cover:

- all advertising and promotion, as well as sponsorship, without exemption;
- direct and indirect advertising, promotion and sponsorship;
- acts that aim at promotion and acts that have or are likely to have a promotional effect;
- promotion of tobacco products and the use of tobacco;
- commercial communications and commercial recommendations and actions;
- contribution of any kind to any event, activity or individual;

- advertising and promotion of tobacco brand names and all corporate promotion; and traditional media (print, television and radio) and all media platforms, including Internet, mobile telephones and other new technologies as well as films.

Components of the WHO FCTC and Article 13 guidelines are specified below, with commentary as to how these may impact smoking in the movies.

- **Article 13(4)(a):**

Prohibits advertising, sponsorship and promotion "by any means that are false, misleading or deceptive or likely to create an erroneous impression about its characteristics, health effects, hazards or emissions ..." (67)

Of more than 950 films with tobacco released by the US film industry since 1999, almost none include characters suffering from a tobacco-related disease. One recent example is *Constantine* (Time Warner, 2005: R-rated). Like the Germany-UK production *The Constant Gardner* (2005, R-rated), it features a smoker with lung cancer. Films occasionally feature one character warning another about smoking, but these warnings are usually defied or minimized by the smoking character.

- **Article 13(4)(b):**

"[R]equire that health or other appropriate warnings or messages accompany all tobacco advertising and, as appropriate, promotion and sponsorship ..." (67)

In May 2007, the Motion Picture Association of America (MPAA) proposed adding descriptors such as "pervasive smoking" or "glamorized smoking" to some ratings, absent a "mitigating context" (69).^{xiv} Such content descriptors fail to convey the harmful effect of the film's smoking imagery. It is the cumulative

exposure to smoking in films – not the amount of smoking in a particular film – that best predicts the effect on adolescents. The recommended approach is to precede any film with tobacco imagery, in any distribution channel, with an effective anti-tobacco spot message. The Article 13 guidelines recommend that Parties should "[r]equire the display of prescribed anti-tobacco advertisements at the beginning of any entertainment media product that depicts tobacco products, use or images." (68)

- **Article 13(4)(d):**

"[R]equire ... the disclosure ... of expenditures by the tobacco industry on advertising, promotion and sponsorship not yet prohibited ..." (67)

In order to ensure that tobacco companies are not marketing their products through product placement in movies, Article 13 guidelines also recommend that Parties should:

Implement a mechanism requiring that when an entertainment media product depicts tobacco products, use or imagery of any type, the responsible executives at each company involved in the production, distribution or presentation of that entertainment media product certify that no money, gifts, free publicity, interest-free loans, tobacco products, public relations assistance or anything else of any value has been given in exchange for the depiction. (68)

Examination of marketing expenditure reports from the tobacco companies to the US Federal Trade Commission from the late 1980s to the early 1990s suggests that the tobacco companies did not disclose all spending on product placement as required by US law. More recently, the MPAA denied that its member companies, the major studios, are engaged in tobacco product placement;

xiv As of April 2009, the MPAA's announcement on smoking had not progressed beyond this initial press statement. The MPAA's proposal was rejected by leading United States health organizations and three United States senators as inadequate.

but these assurances do not extend to non-MPAA studios nor to the production companies contracted by studio distributors to make films (70).

• **Article 13(4)(e):**

“[U]ndertake a comprehensive ban or, in the case of a Party that is not in a position to undertake a comprehensive ban due to its constitution or constitutional principles, restrict tobacco advertising, promotion and sponsorship on radio, television, print media and ... other media ...” (67)

This would imply that the film media is part of the comprehensive ban called for by the WHO FCTC. In addition, the Article 13 guidelines specifically recommend that the comprehensive ban should cover traditional media (print, television and radio) and all media platforms, including Internet, mobile telephones and other new technologies *as well as films*.

Thus, additional consideration of bans, restrictions and other policy interventions as described above need to be part of compliance with the WHO FCTC.

Box 3: ***World No Tobacco Day***

The World Health Organization has recognized smoking in movies as an important issue worthy of a serious response. In 2003, WHO chose the theme “Tobacco Free Film, Tobacco Free Fashion” for its annual commemoration of World No Tobacco Day (WNTD). WHO called on the entertainment industry, in particular the industries of film and fashion, to stop promoting a product that kills every second regular user. WHO was supported by the Smoke Free Movies project (See under US response below), and in particular, Hollywood and Bollywood were invited to join the multinational response to effectively restrict smoking imagery in movies. For more information on this past event, see: <http://www.who.int/tobacco/communications/events/wntd/2003/en/index.html>.

3. Country responses

Several countries have confronted tobacco imagery in movies, either in the theatre environment or in ancillary exposure opportunities for DVD, Internet, cable and satellite.

3.1 INDIA

The Government of India's response to on-screen tobacco imagery grew from its 2003 ban on tobacco promotion and advertising, embodied in the comprehensive Tobacco Control Act (TCA) that prohibits advertising and regulates production, supply and distribution of cigarettes and tobacco products (71). Because India's film market is relatively isolated from the pervasive tobacco imagery in US films compared with most other countries, WHO commissioned a thorough study of tobacco and India's indigenous cinema industry in 2003, before the passage of the TCA. Among its findings are the following:

- Of the 395 top-grossing films in 1990–2002, 76% depicted tobacco use.
- Tobacco incidents attributed to the lead actors grew from 22% (1991) to 54% (2002).
- Tobacco branding made up fewer than 3% (62/2212) of tobacco incidents. Half of all branded incidents from the British American Tobacco (BAT)-associated Indian Tobacco Company (ITC) occurred in 2002 (72),^{xv} immediately before the national ad ban and Philip Morris International's full entry into India's market (6).

After the TCA barred tobacco advertisements in other media in 2004, a second study documented changes in Bollywood's tobacco imagery. This research found the following:

- Of 110 Hindi-language films in 2004–5, 89% depicted tobacco use.
- Smoking incidents were attributed to lead actors in 76% of films.
- Of 2004–5 films with tobacco (41% of the total film sample), 46% included tobacco branding; 85% of films with tobacco brands displayed either BAT/ITC (58%) or PMI (27%) trademarks; and PMI's Marlboro dominated display in large-budget films (73).

The "before" study demonstrated that popular movies from north and south India paralleled the tobacco content of US-produced films in key aspects, including their influence on youth attitudes towards smoking. The "after" study found that tobacco imagery, including brand display, had markedly increased in the wake of tobacco advertising bans in other media.

In 2005, the TCA's rules were refined to meet the challenge of smoking in the movies. When the advertising, promotion and sponsorship ban went into force, tobacco companies developed new marketing strategies to circumvent the law. Violations of the tobacco advertising ban, brought to the attention of the Ministry of Health and Family Welfare (MoHFW), included the increase in smoking and tobacco brand display in films. Consequently, on 31 May 2005 India amended its TCA rules to clarify requirements and ensure full compliance. Amendments included a ban on all depictions of tobacco products and their use in films or on television. The amended rules include the following provisions:

^{xv} BAT owns 32% of the Indian Tobacco Company, terming it an "associate".

- No individual or a person or a character in cinema and television programmes shall display tobacco products or their use. Where, however, cinema and television programmes which have been produced prior to this notification have scenes with smoking situations and use of other forms of tobacco, it shall be mandatory to place a health warning as a prominent scroll at the bottom of the television or cinema screen with font in black colour on white background which is legible and readable. The text of the warning shall be "Smoking causes cancer" or "Smoking Kills" for smoking form of tobacco use and "Tobacco causes cancer" or "Tobacco Kills" for chewing and other form of tobacco. The health warning shall be in the same language/s as used in the cinema or the television programme.
- Wherever brand names or logos of tobacco products form a part of the pictures to be printed in any form of print or outdoor media or footage to be aired through any form of electronic media, it shall be mandatory for the media to crop or mask the same to ensure that the brand name and logos of the tobacco products are not visible. (74)

The rules were to be implemented by another government ministry, the Ministry of Information and Broadcasting (MoIB), which maintained that there was need for flexibility and that the entertainment industry's freedom of expression should not be impinged. It was suggested that where there was creative justification for depicting tobacco, India's Central Board of Film Certification should grant an "A" (adult) film rating certificate, which denies admission to any moviegoer under the age of 18 years. In October 2006, after numerous inter-ministerial consultations, the MoHFW relaxed provisions of the blanket ban to allow depictions of tobacco in some circumstances, with warnings as follow.

- Warnings reading "Smoking kills," "Smoking causes cancer," "Tobacco kills" or "Tobacco causes cancer" should scroll under the depictions of tobacco use.
- Anti-tobacco spots, a minimum of 30 seconds long, should screen at the beginning, middle and end of films and television programmes, both domestic or imported, that were produced before publication of the revised rules, and that are shown in theatres or aired on television with the exception of:
 - domestic and imported documentaries and public service spots displaying tobacco use shown in theatres or aired on television if they clearly and unambiguously reflect the dangers and dire consequences of tobacco;
 - live television coverage of news, current affairs interviews, public meetings, sports, cultural events and the like in which there is a "purely incidental and completely unintentional" image of tobacco use.
- Where there is a creative justification for tobacco imagery or depiction of a real historical character who used tobacco, films and television programmes, domestic or imported, will be given an "A" certification accompanied by:
 - a recorded disclaimer from the actor concerned regarding the harmful effects of tobacco use;
 - an anti-tobacco health scroll, starting 60 seconds before the scene with tobacco and ending 60 seconds after.

The Indian Government's smoke-free movie efforts were challenged in High Court by a Bollywood film producer, and in February 2008, the two-judge bench of the court produced a split verdict in the case. In January 2009, a High Court judge struck down the rules banning smoking scenes in films. The Government of India still maintains that the national constitution allows reasonable restrictions to promote public health and has filed an appeal with the Supreme Court. Meanwhile, the MoIB is updating the nation's programming and advertising regulations to strengthen restrictions on tobacco imagery on screen.

The Indian experience demonstrates the importance of exposing and neutralizing counter-strategies from the tobacco industry or its surrogates and allies. Successful implementation requires not only judicial intervention but also raising public awareness of the serious harm resulting from onscreen promotion of tobacco. The analytic studies in 2003 and 2004–5 clearly established that, like the US films dominating screens in other countries, Indian films were depicting more tobacco imagery following implementation of the TCA and thus influencing young people to smoke. National interventions in India, as in the United States, can thus have global impacts in preventing smoking initiation.

3.2 THE UNITED STATES EXPERIENCE

The motion picture and cigarette industries in the United States grew rapidly after the First World War. By the end of the 1920s, studios brokered cigarette endorsement deals for movie stars under contract to them in return for national advertising campaigns paid for by the tobacco companies. The tobacco industry shifted spending to television in the 1950s, but after the US Government banned broadcast advertising of tobacco products in 1970, systematic film placement of tobacco imagery intensified.

In 1989, reports of product placement in Hollywood films spurred the US Congress to demand more detail on advertising expenditures from the tobacco companies. These data were to be used to improve US Federal Trade Commission surveillance of cigarette marketing expenditures. However, the tobacco companies denied they bought product placement in films, and some companies failed to report ongoing payments to Hollywood agents as recently as the mid-1990s.

In response, health advocates implemented campaigns designed to educate film industry “creatives” (writers, directors, actors) about tobacco imagery’s harmful effect, but these actions were essentially ineffective. In 1998, the states’ Attorneys General and the five large US

tobacco companies entered into the Master Settlement Agreement (MSA); among other things, this legal agreement prohibited the participating US domestic cigarette companies from tobacco product placement in entertainment media. Because the MSA was an agreement between US domestic tobacco companies and the states’ Attorneys General, it did not cover overseas tobacco subsidiaries (53).

In 2002, the Smoke Free Movies project, based at the University of California, San Francisco’s Center for Tobacco Control Research and Education (a WHO Collaborating Centre), began a web site (www.smokefreemovies.ucsf.edu) and a series of paid advertisements in entertainment trade publications. These ads suggested that smoking persisted in youth-rated films for one of two reasons [quoted verbatim from the paid ads]: “Either people in Hollywood are still on the take, in which case they’re corrupt ... or they’re doing Big Tobacco’s dirty work for free – in which case they’re stupid” (75). Smoke Free Movies and its national NGO allies also developed and promoted a set of four evidence-based policy solutions intended to substantially and permanently reduce teen exposure to onscreen tobacco imagery, without intruding on film content. These have provided the basis for the policy options described in Section 2.2, above (76).

The major motion picture studios, through the MPAA, at first took none of the steps advocated by US health experts and organizations. However, NGO tracking of individual studios’ records and the steady accumulation of research evidence on exposure of adolescents to smoking in the movies stimulated congressional hearings. In addition, Attorneys General from more than thirty states wrote letters to the companies that owned the major studios, stating that they were knowingly harming children by releasing films with tobacco imagery. In Los Angeles, where the Hollywood studios themselves are located, the County Department of Health Services was the first public health agency in the United States to endorse the four policy goals, beginning in 2002. Since then, its publicity events and media

briefings have been regularly attracting international attention. The Commissioner of Health of the State of New York, where most of these companies are based, published full-page advertisements in *The New York Times* and other news media calling for action by the studio heads [77]. Other state and local public health officials continue to join this campaign.

On the national level, the Institute of Medicine of the National Academies of Science [78], the National Cancer Institute [1] and the Centers for Disease Control and Prevention have all noted the need for the film industry to change its practices. Subsequently, the MPAA announced in 2007 that it would “consider” smoking in its ratings. In practice, however, the MPAA has not elevated film ratings for smoking but merely noted smoking in the rating labels attached to “independent” films given limited release, sparing most youth-rated films with smoking released by the MPAA’s own member studios. In 2008, MPAA-member film studios agreed to deploy anti-tobacco spots, but only on youth-rated DVDs distributed in the United States.

**3.3 ACTIONS AT THE SUB-NATIONAL LEVEL:
LIVERPOOL, UK**

Under the terms of the UK Tobacco Advertising and Promotion Act, tobacco advertising in the print media, on billboards and in direct mail ended in 2003, and sponsorship of sport ended in July 2005. However, movies remain an important channel through which young people in the United Kingdom are still regularly exposed to pro-tobacco imagery.

The UK Centre for Tobacco Control Studies at the University of Nottingham was commissioned to estimate the number of tobacco impressions delivered by films in the United Kingdom accessible to young people. Merging historical, publicly available box office data and tobacco incidence data for US-, UK-, and India-origin films released widely in UK theatres, researchers found that films rated for young people (below an “18” rating) delivered nearly 90% of tobacco impressions in the United Kingdom.

Films in the United Kingdom are classified by the British Board of Film Classification (BBFC), an independent, nongovernmental body that was set up by the film industry in 1912 to bring a degree of uniformity to the national classification of film. The BBFC classifies films on behalf of the local authorities who license films for showing in local cinemas. Significantly, the BBFC ratings are only advisory to local councils. Statutory powers on film remain with the local councils, which may overrule any of the Board’s decisions, passing films it rejects, rejecting films it has passed, and even waiving cuts, instituting new ones or altering categories for films exhibited under their own licensing jurisdiction [79]. While local councils have generally followed the BBFC advice, there are many examples where local authorities have not. Current BBFC criteria for movies to receive an “18” rating (similar to a US “R” rating) are as follow:

...where material or treatment appears to the Board to risk harm to individuals or, through their behaviour, to society - e.g. any detailed portrayal of violent or dangerous acts, or of illegal drug use, which is likely to promote the activity. [80]

Concerned about the scientific evidence linking onscreen smoking to youth smoking initiation, and believing that the BBFC should be applying its existing classification rules to include smoking, a group of public health and community groups in Liverpool, collectively called SmokeFree Liverpool [81], has taken a leading role in addressing this issue. The coalition, comprising 10 health care agencies, public bodies, NGOs and private philanthropies in northwest England, is advocating that local authorities exercise their licensing authority to apply an “18” rating to films with smoking shown in Liverpool. SmokeFree Liverpool asserts that the existing BBFC criteria already contain sufficient language to justify this rating for movies that contain smoking.

The strategy developed by public health experts in the SmokeFree Liverpool network is to document the scope of the challenge, build national and international alliances and mobilize young people to press for ratings change within the UK film industry, both to protect young people and to influence film industry practices elsewhere. Early in the process, SmokeFree Liverpool and its local partners embarked on a series of briefings and consultations with regional and national partners to share information, gather endorsements and plan strategy. Liverpool sponsored the first international conference on smoke-free movies in February 2008, welcoming representatives from the United Kingdom, Europe and the United States to discuss the role of youth movements (such as Liverpool's D-MYST and New York's Reality Check) in community education and advocacy, the place of smoke-free movies on national prevention agendas and the global dimensions of smoke-free movie policy solutions.

After the BBFC turned down a request from D-MYST youth that tobacco imagery earn new films an "18" rating, SmokeFree Liverpool began exploring the feasibility of an "18" rating in their own jurisdiction. Through these actions, SmokeFree Liverpool aims both to protect their communities and to influence the practices of film producers and distributors (the majority of which, in the United Kingdom, are US controlled) by exercising their right to override the national ratings. As a major export country for US films, these actions in the United Kingdom would have important implications for US film distributors and would likely create an incentive for more youth-marketed movies to be smoke-free.

SmokeFree Liverpool has recognized the importance of communicating clearly to the public and stakeholders the rationale and benefits of the policy, countering any disinformation that arises and preparing a broad base of public understanding and support. This strategy gained momentum since an announcement in July 2008 by the British Medical Association (BMA) that it recommends that the BBFC take smoking "into consideration" when classifying films (8). Endorsement from the BMA immediately heightened public awareness of the need to act on smoking imagery in the movies at the local level.

Accordingly, SmokeFree Liverpool implemented a communications plan to advocate for the initiative. The elements of this strategy include:

- raising awareness of the issue among the general public through media relations activity, paid-for outdoor advertising and road shows;
- demonstrating support for the measures by canvassing local people and collecting signatures for presentation to the BBFC and the local Council;
- supporting activities of Liverpool's tobacco control youth group, D-MYST, who will rally their peers and speak out on the tobacco industry manipulation of young people;
- producing fact sheets and paid-for open letters (national and local) calling on the BBFC to give an "18" rating to new films with smoking, and warning of possible local Council action; and
- preparing the case for presentation to the Liverpool City Council if the BBFC (national) approach is unsuccessful.

4. Conclusion

4.1 LESSONS LEARNED

Experience shows that whenever tobacco advertising and promotion is restricted in one medium, it migrates to another. Tobacco appearances in films accelerated in the United States while tobacco advertising in other media was being restricted, and in India a similar process occurred after tobacco advertising in other media was prohibited. Because smoking on screen is uniquely vivid and because young people see so many films so often, its promotional effect on smoking initiation is striking. Any country seeking to ban or restrict tobacco advertising and promotion must address the issue of smoking on screen or risk having its public health efforts being severely compromised. The most vulnerable age group (adolescents) must not continue to be exposed to the most powerful promotional channel for smoking imagery available in today's globalized economy. A comprehensive approach to combating smoking imagery in film is therefore required.

Fortunately, evidence-based and cost-effective policy options are available to reduce the impact of smoking in movies on youth smoking initiation. These have enormous potential for averting the growing burden of disease due to tobacco use, particularly in low- and middle-income countries. However, additional research is needed to assess the impacts of proposed policy changes on young people's smoking behaviour and on the behaviour of the film industry.

4.2 RESEARCH PRIORITIES

Although the causal relationship between smoking imagery in the movies and smoking initiation has now been established, additional research on the impact of intervention policies would be desirable. For example, research questions at national levels may include:

- How is the local film market regulated, including ratings, distribution rights and censorship?
- What are the economic arrangements between distributors, sponsors, advertisers and producers for national or imported movies?
- What mix of national (local) and internationally distributed films are shown in theatres? Distributed on video? Arriving via satellite?
- What is the tobacco imagery content in national movies?
- What methods could be effectively used to measure national adolescent exposure to tobacco imagery?
- What is the exposure of a specific national adolescent population to tobacco imagery?
- How do movies impact smoking initiation among young people in specific national contexts?

4.3 GOING FORWARD

There are a number of levels of intervention whereby smoking in the movies can be restricted. The overall evidence suggests that voluntary and self-regulatory measures have not been successful. Advocacy approaches to obtain stronger labelling requirements (adult ratings) for movies showing smoking imagery as well as anti-smoking messages and assurances that no payoffs are received from the tobacco industry have received wide support recently in both the United States and India. It is clear that restrictions of smoking imagery in movies with wide global distribution will serve a larger, multinational public good. Thus national approaches, and even local approaches, can have wide-ranging positive global effects. Multinational cooperation will also be critical in restricting the global reach of movie-based tobacco imagery.

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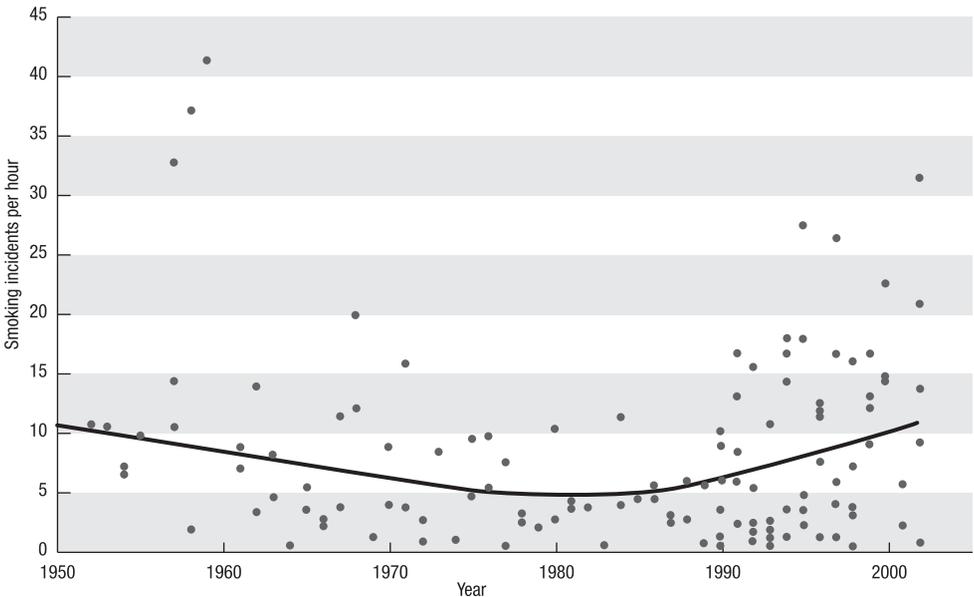
Annexes

ANNEX A. MOVIE SMOKING INCREASES AS OTHER TOBACCO ADVERTISING IS RESTRICTED

Before 2002, the highest observed frequency of tobacco imagery in US films was in 1950 (the earliest year with available data). The incidence fell almost by half (from 10.7 incidents per hour of film to 4.9 incidents per hour) (1) between the early 1950s – when research linking smoking to lung cancer was first published (2) – until the early 1980s when the decline was reversed (1). By the late 1970s, Philip Morris (1978), Brown & Williamson (1979), RJ Reynolds (1980)

and American Tobacco (1982) had all established contractual relationships for product placements in motion pictures (3). Collaboration with the film industry continued through 1998 when the MSA^{xvi} was reached with domestic tobacco companies (4). Nevertheless, by 2002 tobacco incidents in United States films exceeded (at 10.9 incidents per hour) that for 1950, more than half a century earlier (Figure 3). During this period, 1980 – 2000, the tobacco industry’s spending on traditional advertising was reduced by 61%.^{xvii}

Figure 3: Smoking incidents per hour in motion pictures, 1950-2001



Reproduced with permission from Glantz SA, Kacirk K, McCulloch C (1) "Back to the Future: Smoking in Movies in 2002 Compared With 1950 Levels," *American Journal of Public Health* 2004; 94:261-263.

xvi See III(a), (c), (e), (i) of the MSA.

xvii From \$2.046 billion to \$806 million (2007 dollars), advertising in measured media and sponsorships. Data from United States Federal Trade Commission, [2007]. Cigarette report for 2004 and 2005, Tables 2, 2A, 2B "Domestic cigarette advertising and promotional expenditures..." Accessed at <http://www.ftc.gov/reports/tobacco/2007cigarette2004-2005.pdf>, 29 November 2007. Inflation calculated on Consumer Price Index, US Department of Labor, Bureau of Labor Statistics at <http://www.bls.gov/cpi/>.

The effective substitution of onscreen tobacco imagery for traditional tobacco advertising is suggested by a survey of popular films in India. It found that tobacco brand display exploded in Bollywood (Hindi-language) films after tobacco advertising was banned in all other Indian media in 2004. The brand display was about evenly split

between premium cigarette brands belonging to British American Tobacco and its long-time Indian partner, the Indian Tobacco Company, and competing brands belonging to Philip Morris International, whose entry into India's market under liberalized trade rules coincided with the nation's tobacco advertising ban [5].

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ANNEX B. MOVIES: SHOWING ON A SCREEN NEAR YOU

Motion pictures are watched in theatres near you. Movies, however, are increasingly distributed through other channels, and thus exposure to film content is vastly underestimated if limited to movie theatre attendance. In the US, for example, feature films are viewed seven times more often on DVD than in theatres (1). In 2006, US\$ 24 billion was spent on recorded movies, for sale or rent, in the US alone (2). This amount nearly equals the global motion picture industry's total theatre box office revenue of US\$ 26 billion (3). In 2005, Western Europe spent US\$15 billion on DVDs (27% of global spending) and Japan spent US\$ 9 billion (16%). Europeans purchased 657 million DVDs and rented DVDs 753 million times. In comparison, 926 million cinema tickets were sold in Europe in 2006 (4). Annual DVD sales per DVD-equipped household were highest in Ireland, the UK, Belgium and Norway (9.9–11.5 videos), while DVD rentals were highest in Ireland and Croatia (20 videos per household) (5). DVD usage in other regions of the world is unknown, but is likely to be extensive as well.

Recorded sales do not, however, tell the entire story. An industry-sponsored 2005 survey of more than 20 countries concluded that piracy – legally reproduced DVDs and unlicensed Internet downloads – cost the global motion picture industry US\$ 18 billion in cinema ticket sales and DVD sales and rentals. Pirates were reported to occupy an estimated 90% of China's film and DVD market; more than 75% of the markets in Hungary, Russia and Thailand; more than 60% of the markets in Mexico and Poland; 25% or more of the markets in India, Italy and Spain; and 7% of the market in the United States (6).

Films are also a staple of cable and satellite services. There were 350 million cable households worldwide in 2004, 25% of which are in the Asia-Pacific region, and the number is growing rapidly (7). In addition, market analysts project 100 million digital satellite households worldwide in 2008 and more than 400 million broadband Internet subscribers by 2010 (8).

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ANNEX C. MEASURING OVERALL ADOLESCENT EXPOSURES TO TOBACCO IMAGERY IN MOVIES

The theatre-only estimate of adolescent exposure to smoking imagery in movies in the United States is lower than population estimates of exposure derived from studies of nationally representative adolescents, including exposures in theatres, video, television programming or Internet sources. In general, these methods reflect market reach analyses to assess the success of marketing campaigns. According to the method reported by Sargent et al (1) in the United States, movie viewership among a randomly selected representative sample of adolescents (aged 10–14 years in 2002) recruited by telephone was assessed through a standardized survey. Other researchers (2) have used Internet-based panel samples for survey research. In these studies, the proportion viewing a particular movie (selected from a list of top-grossing movies seen by the selected respondent sample) was then multiplied by the total number of US adolescents aged 10–14 years (20.88 million) to obtain an

estimate of the total number of US adolescents who had seen the movie. This is then a measure of “reach” for exposure to the selected movies.

Next, gross smoking impressions were determined by multiplying the estimate of the number of US adolescents who had seen the movie by the number of smoking occurrences in the movie, enumerated and assessed as positive or negative through direct observation by trained viewers. Per capita gross impressions of movie smoking were then obtained by dividing the total number of gross smoking impressions across all of the movies in the sample by the total US population of adolescents aged 10–14 years. This measure is similar to that used to determine the success of marketing campaigns and is similar to the “gross rating point” for those campaigns. Through these methods it was estimated that a total of 13.9 billion tobacco impressions were received by this 10–14 year-old age group from any media platform, an average of 665 tobacco impressions per capita (1). However,

even this type of estimate does not capture the full intensity of adolescents' exposure to smoking in movies because the survey did not capture repeated exposures to the same film, whether in theatres or on video.

Media habits, and thus the mix of sources for onscreen exposure to tobacco imagery, vary from nation to nation. Media usage also differs within societies by age, gender and socioeconomic status. Shaped by family and cultural settings, it also shifts over time as new media options emerge and spread (3). For example, of

30 countries surveyed in 2004–5, Thailand (a middle-income country at US\$ 8470 per capita in 2005) reported watching twice as much television per week, at 22.4 hours, as Mexico (US\$ 10 560 per capita income) at 11.6 hours (4, 5). Viewing videos and DVDs in informal household or admission-paid settings is probably the most frequent modality used by adolescents. However, data on the age of DVD viewers and on how often DVDs are watched (along with cable and satellite viewings) are not currently available. The video industry's own market research appears to focus only on retail sales.

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