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SUR LE TABAC
DE L'ONTARIO

Youth Exposure to Tobacco in Movies in Ontario, Canada: 2002-2018

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Executive Summary

Movies are a powerful vehicle for promoting tobacco use. A substantial body of scientific evidence indicates that exposure to smoking in movies is a cause of smoking initiation and progression to regular smoking among youth. Higher exposure to onscreen tobacco increases the uptake of smoking among youth and undermines tobacco prevention efforts.

Since 2014, the Ontario Tobacco Research Unit has collaborated with the Ontario Coalition for Smoke-Free Movies to monitor onscreen tobacco exposure among Ontario youth and has estimated the impact of this exposure in terms of new smokers recruited, their tobacco associated mortality and healthcare costs. The amount of harm that would be averted if future movies with smoking received an adult (18A) rating was also projected. In 2017, we reported on results for the years 2004 through 2016. This report adds results for 2002, 2003, 2017 and 2018.

Key findings of this update include:

- Of 2,400 top-grossing movies released in Ontario theatres from 2002 to 2018, 91% were youth-rated (10% Family or General, 43% Parental Guidance, 38% AA or 14A, which means persons younger than 14 must be accompanied by an adult). Nine percent were adult-rated.
- Over half of top-grossing movies (56%) featured tobacco. Of the movies with tobacco content, 87% were youth-rated and 13% were adult-rated.
- Top-grossing movies contained a total of 45,941 tobacco incidents. Eighty-six percent of tobacco incidents were found in movies youth-rated in Ontario.
- Top-grossing movies delivered an estimated 12.8 billion in-theatre tobacco impressions to moviegoers in Ontario from 2002 to 2018. Eighty-six percent of these tobacco impressions were delivered by youth-rated movies.
- Three percent of top-grossing movies between 2002 and 2018 were biographical dramas, which portrayed an actual person who smoked in real-life. Almost all these movies were youth rated (99%), of which a majority were AA or 14A-rated (52%).

- The Ontario Film Review Board's (OFRB) tobacco-related 'detailed observations' (available online) and 'content advisories' (online and on promotional material) provided inadequate information about smoking in movies:
 - Nearly eight of every ten (84%) youth-rated top-grossing movies with smoking did not include an OFRB 'tobacco use' content advisory.
 - About one out of every three (36%) youth-rated top-grossing movies with smoking did not carry an OFRB 'tobacco use' detailed observation.
- Several comparisons were made between Ontario and the United States (US):
 - Of the top-grossing movies with tobacco imagery released between 2002 and 2018, 87% were youth rated in Ontario, whereas only 53% were youth-rated in the US. As a result, Ontario youth had unrestricted access to 65% more movies with smoking than their US counterparts and, therefore, substantially greater potential for exposure to smoking on screen.
 - Eighty-six percent of tobacco incidents were found in youth-rated movies in Ontario, after excluding Bollywood movies, more than double the percentage (40%) found in US youth-rated movies.ⁱ
 - Eighty-six percent of 12.8 billion in-theatre tobacco impressions were delivered by youth-rated movies in Ontario, whereas only 53% of 305.2 billion impressions in the US were delivered by youth-rated movies.
- The number of biographical movies portraying at least one actual person who smoked in real-life increased substantially in 2013 and again from 2016 onward. The majority of the smokers in biographical movies had no biographical foundation, which suggests that movie studios might be taking advantage of a proposal to exempt smoking by an actual historical figure from being awarded an adult rating (18A).
- Since 2002, AA or 14A-rated movies have delivered 5.7 billion tobacco impressions to Ontario moviegoers (excludes exposure via in-home media such as streaming services), three times as many as 18A or R-rated movies delivered in the same period.

ⁱ Bollywood movies were excluded from this comparison due to their absence in US data.

- It is estimated that exposure to onscreen smoking will recruit a cohort of 185,000 Ontario youth aged 0 to 17 years old to become smokers, resulting in \$1.1 billion in additional healthcare costs over their lifetime. This health-cost estimate is for the current cohort of young people coming of age in Ontario. If exposure continues at current levels, our publicly-funded health system would incur additional billions in costs from successive cohorts. An adult rating (18A) for smoking has the potential to reduce these costs by about half.
- The Smoke-Free Ontario Scientific Advisory Committee notes that restricting movies with tobacco imagery to adults in Ontario could substantially decrease smoking initiation, a policy measure recommended by public-health stakeholders in Ontario and by a host of provincial, national and international institutions.

Introduction

Smoking among youth remains an important public health issue. According to the latest available data, approximately 25,600 Ontario youth aged 12-17 years were current smokersⁱⁱ in 2017.¹

Exposure to smoking in movies has been found to cause smoking initiation and progression to regular smoking. A dose-response relationship between exposure to onscreen smoking and youth tobacco use has also been reported.^{2,3,4,5,6} A meta-analysis pooled five US studies to obtain an overall population attributable risk estimate of 37% (95% CI: 25%-52%) for adolescent smoking due to exposure to tobacco imagery in movies, meaning that 37% of youth smokers in the population are recruited to smoking due to seeing smoking in movies.^{4,7} The US Surgeon General has stated that the evidence is sufficient to conclude that there is a causal relationship between depictions of smoking in the movies and the initiation of smoking among young people.⁸ This summary of the evidence is based on a critical review of population and experimental studies, which control for a large number of potential confounding variables including a wide range of characteristics of youth and their environments.

Smoking kills. Researchers have calculated that 32% of teens who smoke will eventually die from tobacco-induced diseases such as heart attack, stroke, lung and other cancers and emphysema.^{8,9}

The Ontario Tobacco Research Unit has collaborated with the Ontario Coalition for Smoke-Free Movies to use a sample of top-grossing movies to monitor the exposure among Ontario youth to movies with tobacco imagery and to assess the adequacy of the Ontario Film Review Board's (OFRB) performance in providing the public with information to make informed viewing choices for themselves and their families, while ultimately protecting youth from the exposure. Results were documented in three prior reports.^{10,11,12}

In this update, top-grossing movies in 2002, 2003, 2017 and 2018 were added to the 2004 to 2016 results to provide the overall proportion of top-grossing movies with tobacco imagery and

ⁱⁱ Current smokers are those who reported smoking cigarettes occasionally or every day (Canadian Community Health Survey – Annual Component)

the number of tobacco incidents and tobacco impressions delivered to Ontario moviegoers, categorized by the OFRB movie rating for the period 2002 to 2018. The OFRB's tobacco-related notations about onscreen tobacco content were compared to an independent database of movies' tobacco content. Finally, the distribution of tobacco incidents and tobacco impressions by youth-rated and adult-rated movies in Ontario and the US were compared.

Method

Data

This study focuses on top-grossing movies in the domestic market—movies released in Canada and the US that ranked among the ten highest grossing movies in any week of their first-run theatrical release. The top-grossing list and box office gross sales of these movies were sourced online from Box Office Mojo (boxofficemojo.com). The National Association of Theatre Owners (natoonline.org) released annual average US cinema ticket prices.

A tobacco incident is one occurrence of the use or implied use of a tobacco product (almost exclusively smoking) by an actor in a movie. Each screen appearance of tobacco is counted as one tobacco incident; incidents appearing in different ‘cuts’ may mean a single movie scene has multiple incidents.

Independent monitors of the Thumbs Up! Thumbs Down! (TUTD) project at Breathe California Sacramento Region provided the census of tobacco incidents in each of the movies in our sample. TUTD has consistently tracked tobacco incidents and their characteristics since 1991 and expanded its sample to monitor all domestic top-grossing movies in 2002.

In-theatre tobacco impressions are an index of the total audience exposure to onscreen tobacco imagery. A single tobacco impression is counted as one person seeing one incident. Total tobacco impressions delivered by a movie are computed by multiplying the number of tobacco incidents in the movie by the paid admissions (tickets sold) to that movie. Paid admissions are calculated by dividing the domestic (Canada and US) box office gross sales for the movie by the average US cinema ticket price in the year of the movie’s release. Box office gross sales are available only at the domestic market level; sales are allocated to Ontario and the US based on their population share of the domestic market. Population data were obtained from statistical agencies.^{13,14,15}

In-theatre tobacco impressions substantially underestimate total exposure, because impressions generated by viewing movies on in-home and on-demand media are not included (due to lack of published data on in-home viewers). In-theater impressions remain a useful index of overall exposure because a movie’s popularity on other platforms is associated with its

popularity in theaters.¹⁶

The production of biographical movies containing tobacco imagery has increased in recent years. However, approximately 73% of smokers in biographical movies have been fictional characters.¹⁷ In order to account for this change, this report explores whether a top-grossing biographical movie included any characters smoking who portrayed actual people. A limitation is that the data set only identifies if a single character portraying an actual person smoked in real-life but does not confirm if all the characters who smoke in the film portray an actual person who smoked in real-life. In addition, the report considers the number of documentaries with tobacco imagery.

Movies screened in Ontario are required to be classified by the OFRB before release. The current ratings are: G (general—suits all ages), PG (parental guidance advised), 14A (persons younger than 14 must be accompanied by an adult), 18A (persons younger than 18 must be accompanied by an adult) and R (restricted to persons aged 18 or older) (Appendix 1). G, PG and 14A movies are considered youth-rated while 18A and R are adult-rated. These ratings were revised in April 2003, prior to which the ratings were: F (Family—Film Appropriate for viewing of any age), PG (parental guidance advised), AA (persons younger than 14 must be accompanied by an adult) and R (restricted to persons aged 18 or older).

Ratings are currently assigned taking into consideration coarse language, violence, sexuality and other content, but not tobacco imagery. Aside from OFRB ratings, which are required to be carried in movie advertising, the OFRB may choose to post information about specific movie content using ‘detailed observations’ and ‘content advisories’ (Appendix 2). Both notations can be viewed online by searching for the movie on the Ontario Film Authority’s website (previously OFRB’s web site); ‘content advisories’ also appear with the movie rating, on a movie’s promotional material. Currently, tobacco-related ‘detailed observations’ include the notations ‘tobacco use’ or ‘illustrated or verbal references to drugs, alcohol or tobacco’. The tobacco-related ‘content advisory’ is ‘tobacco use’.

Analysis

Tobacco incidents, tobacco impressions and the OFRB’s rating practices were analyzed with descriptive statistics.

Results

Top-Grossing Movies 2002-2018

From 2002 to 2018, 2,400 top-grossing movies were released in Ontario (Table 1). Ninety-one percent of these movies were youth-rated (10% were F or G-rated, 43% were PG-rated and 38% were AA or 14A-rated), whereas 9% were adult-rated 18A/R (only six movies were R-rated).

Table 1: Number of Movies Released in the Domestic Market (Canada and US), by OFRB Rating and by Tobacco Imagery Status 2002-2018

Year	Number of Domestic Movies by OFRB Rating					Tobacco Imagery	
	F/G	PG	AA/14A	18A/R ^a	Total	Yes	No
2002	16	48	74	7	145	104	41
2003	15	56	51	15	137	102	35
2004	14	74	46	10	144	99	45
2005	24	67	40	12	143	97	46
2006	26	75	43	17	161	96	65
2007	17	58	59	23	157	106	51
2008	12	58	55	20	145	86	59
2009	10	65	61	14	150	75	75
2010	11	65	43	17	136	61	75
2011	20	64	40	10	134	62	72
2012	12	58	55	14	139	70	69
2013	12	55	59	10	136	75	61
2014	11	66	45	8	130	59	71
2015	12	58	59	8	137	69	68
2016	9	62	56	10	137	55	82
2017	12	42	65	13	132	71	61
2018	10	58	57	12	137	63	74
Total	243	1029	908	220	2400	1350	1050
% of Total	10%	43%	38%	9%	100%	56%	44%

^a R-rated movies were released in 2003, 2006, 2015 and 2016.

One percent (26/2400) of top-grossing movies released in Ontario between 2002 and 2018 were documentaries. Of these movies, 96% were youth-rated (50% were F or G-rated, 27% were PG-rated and 19% were AA or 14A-rated). Four percent were adult-rated.

Movies with Tobacco Imagery

From 2002 to 2018, 56% (1350/2400) of the top-grossing movies released in Ontario featured tobacco imagery. As the restrictiveness of the movie ratings increase, the percentage of movies with onscreen smoking increases, from 16% (39/243 movies) in F or G-rated movies, to 48% (495/1029 movies) in PG movies, 70% (640/908 movies) in AA or 14A and 80% (176/220 movies) in movies adult-rated 18A or R.

The proportion of movies with tobacco imagery released annually has declined from 72% in 2002 to 46% in 2018. However, this rate of decline has not been consistent. There have been recent years where the proportion of movies with tobacco imagery has increased such as in 2013, 2015 and 2017 (Figure 1). The decline of tobacco imagery has been greater in youth-rated movies, specifically in F or G and PG rated movies, than in adult-rated movies.

For F or G-rated movies: The proportion of F or G-rated movies with tobacco imagery decreased to zero for the first time in 2008 and has remained below 20% since then. Tobacco imagery dropped to zero in 2014, 2017 and 2018 as well.

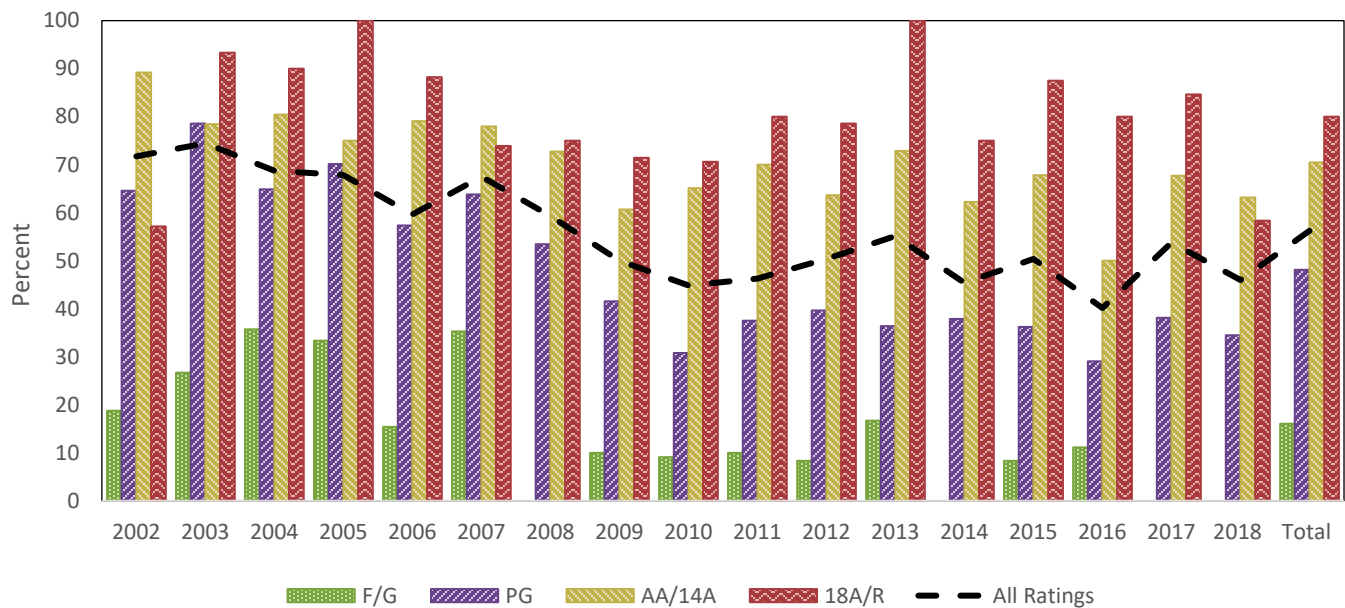
For PG-rated movies: The proportion of PG movies with tobacco imagery has, on average, decreased between 2002 (65%) and 2018 (34%). The lowest share of PG-rated movies with tobacco imagery was seen in 2016 (at 29%) but increased in 2017 (38%).

For AA or 14A-rated movies: The proportion of AA or 14A-rated movies with tobacco imagery has consistently been over 60% from 2002 to 2018. The lowest share of AA or 14A-rated movies with tobacco imagery was seen in 2016 (at 50%) but increased in 2017 and 2018 (68% and 63%, respectively).

For 18A or R-rated movies: The proportion of 18A or R-rated movies with tobacco imagery has been 70% or higher from 2003 to 2017, with 2018 falling to 58%.

From 2002 to 2018, 46% (12/26) of the top-grossing documentaries released in Ontario featured tobacco imagery and were all youth-rated.

Figure 1: Percentage of Movies with Tobacco Imagery, by OFRB Rating, 2002-2018



Note: Tobacco imagery means tobacco incidents, which are occurrences of the use or implied use of a tobacco product in a movie. [Full data table for this graph provided in the Appendix \(Table 3\).](#)

Tobacco Incidents

Total Tobacco Incidents

From 2002 to 2018, the 2,400 top-grossing movies released in Ontario contained a total of 45,941 tobacco incidents. Overall, youth-rated movies contained 86% of total tobacco incidents; 1% was found in F or G-rated movies, 30% in PG-rated movies, and 55% in AA or 14A-rated movies. No fewer than 70% of total tobacco incidents were found in youth-rated movies from 2002 to 2018.

Overall, the total number of tobacco incidents contained in movies released annually declined from 2005 (3,962 incidents) to 2010 (1,823 incidents). However, an increase of tobacco incidents in movies was seen after 2010, with 2911 incidents occurring in 2017 (Figure 2).

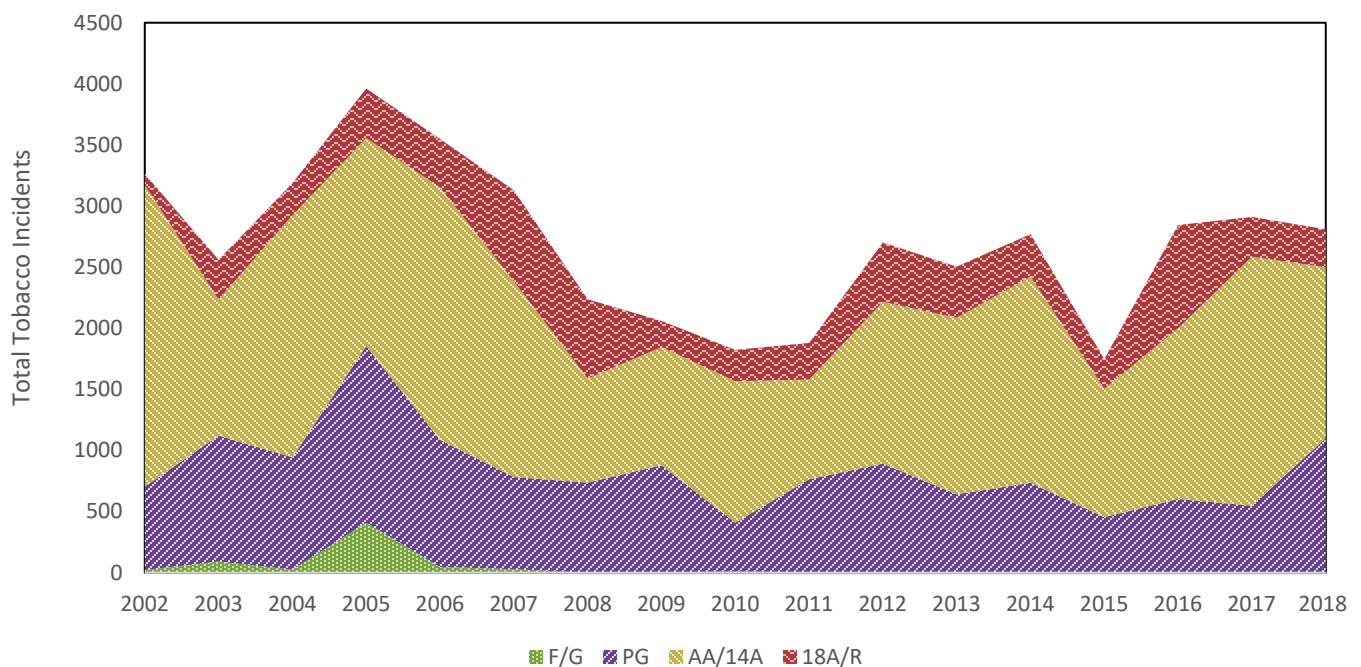
For F or G-rated movies: Since 2008, F or G-rated movies have contained a negligible number of tobacco incidents (6 incidents or lower), with the exception of 2010 that had 10 incidents.

For PG-rated movies: The number of tobacco incidents in PG-rated movies dropped from 2006 (1,041 tobacco incidents) to 2010 (397 incidents). A slight increase occurred from 2010 to 2011 (397 to 762 incidents, respectively), following which the decline in incidents has been slow.

For AA or 14A-rated movies: The number of tobacco incidents contained in AA or 14A-rated movies have reduced in 2018 (1,398 tobacco incidents) from that reported in 2002 (2,472 tobacco incidents). However, this decline has not been linear. From 2008 and to 2014, there was an increase in tobacco incidents from 851 to 1,687. AA or 14A-rated movies featured over half (55%) of all tobacco incidents from 2002 to 2018.

For 18A or R-rated movies: Adult-rated movies, on average, have featured fewer than 400 tobacco incidents annually. The largest number of adult-rated tobacco incidents (844) was seen in 2016, and the lowest number of tobacco incidents (89) was seen in 2002.

Figure 2: Total Tobacco Incidents in Top-Grossing Movies, by OFRB Rating, 2002-2018



Note: Total tobacco incidents are the total number of occurrences of the use or implied use of a tobacco product. [Full data table for this graph provided in the Appendix \(Table 4\).](#)

Tobacco Incidents per Movie

To account for fluctuations in the number of movies released annually, tobacco incidents divided by the total number of movies (with or without smoking) in each rating class were analyzed.

From 2002 to 2018, AA or 14A-rated movies released in Ontario featured 28 tobacco incidents per movie, nearly as many as in adult-rated movies (30 incidents) and more than double the number in PG movies (13 incidents).

Overall, tobacco incidents per movie declined from 2005 (28 incidents) to 2010 (13 incidents). However, by 2018, tobacco incidents per movie had returned nearly to the level seen in 2002 (21 incidents and 23 incidents, respectively) (Figure 3).

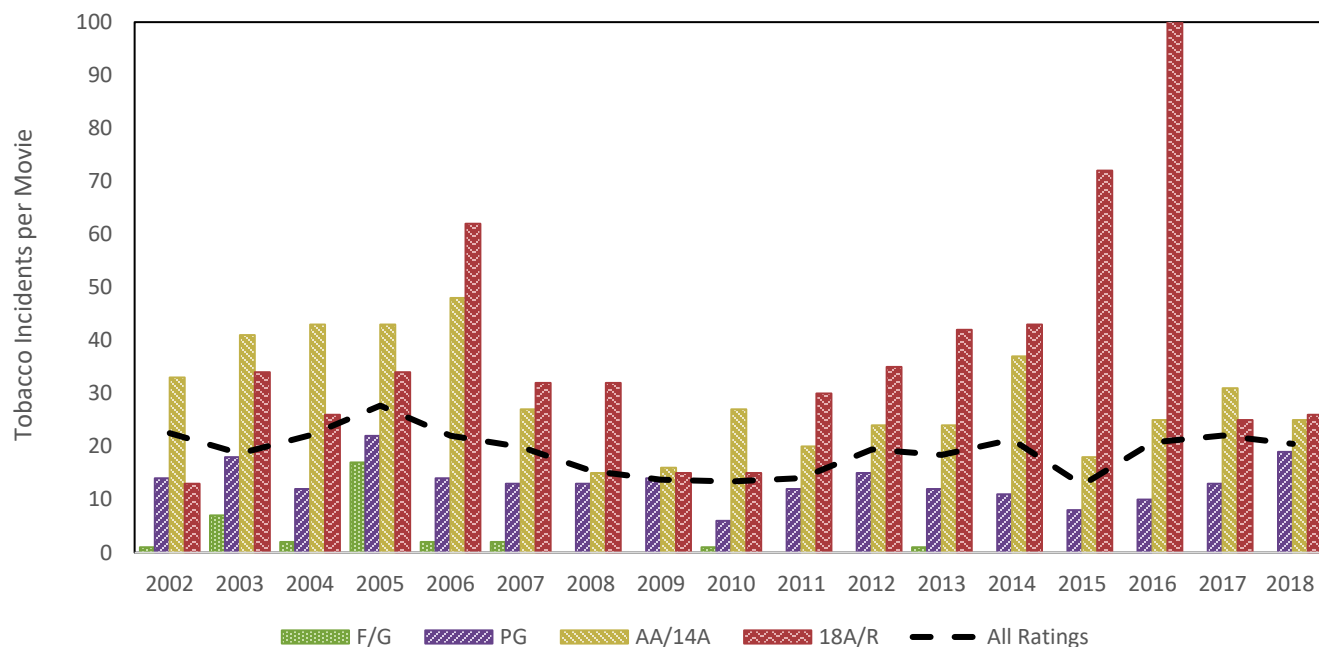
For F or G-rated movies: Tobacco incidents per F or G-rated movie have been negligible since 2006.

For PG-rated movies: Tobacco incidents per PG-rated movie remained relatively constant from 2002 to 2018. Slight fluctuations were seen in 2005 (22 incidents per movie) and 2010 (6 incidents per movie).

For AA or 14A-rated movies: Tobacco incidents per AA or 14A-rated movie decreased from 2002 (33 incidents per movie) to 2018 (25 incidents per movie). The lowest tobacco incidents per AA or 14A-rated movie were seen in 2008, at 15 incidents per movie.

For 18A or R-rated movies: Tobacco incidents per adult-rated movie increased in 2018 (26 incidents per movie) from that reported in 2002 (13 incidents per movie). The highest value was seen in 2016, at 101 tobacco incidents per adult-rated movie. In all other years, incidents per adult-rated movies were below 72 incidents per movie.

Figure 3: Number of Tobacco Incidents per Movie, by OFRB Rating, 2002-2018



Note: Tobacco Incidents per movie for a rating is the total number of incidents observed in movies with the rating divided by the number of movies with that rating (with or without smoking). [Full data table for this graph provided in the Appendix \(Table 5\).](#)

Ontario In-Theatre Tobacco Impressions

From 2002 to 2018, top-grossing movies delivered 12.8 billion in-theater tobacco impressions to moviegoers in Ontario. Youth-rated movies delivered 86% (11 billion) of these impressions: 1% by F or G-rated movies, 41% by PG-rated movies and 45% by AA or 14A-rated movies.

Total tobacco impressions delivered by youth-rated movies dropped more than half between 2005 (1 billion impressions, 90% of the annual total) and 2010 (475 million impressions, 87% of the annual total). Yet a subsequent rebound of tobacco impressions to 814 million impressions (81% of the annual total) was seen in 2012. Youth-rated impressions dropped after 2012 to 255 million (73% of the annual total) in 2015. By 2018, the number had doubled to 563 million (91% of the annual total) (Figure 4).

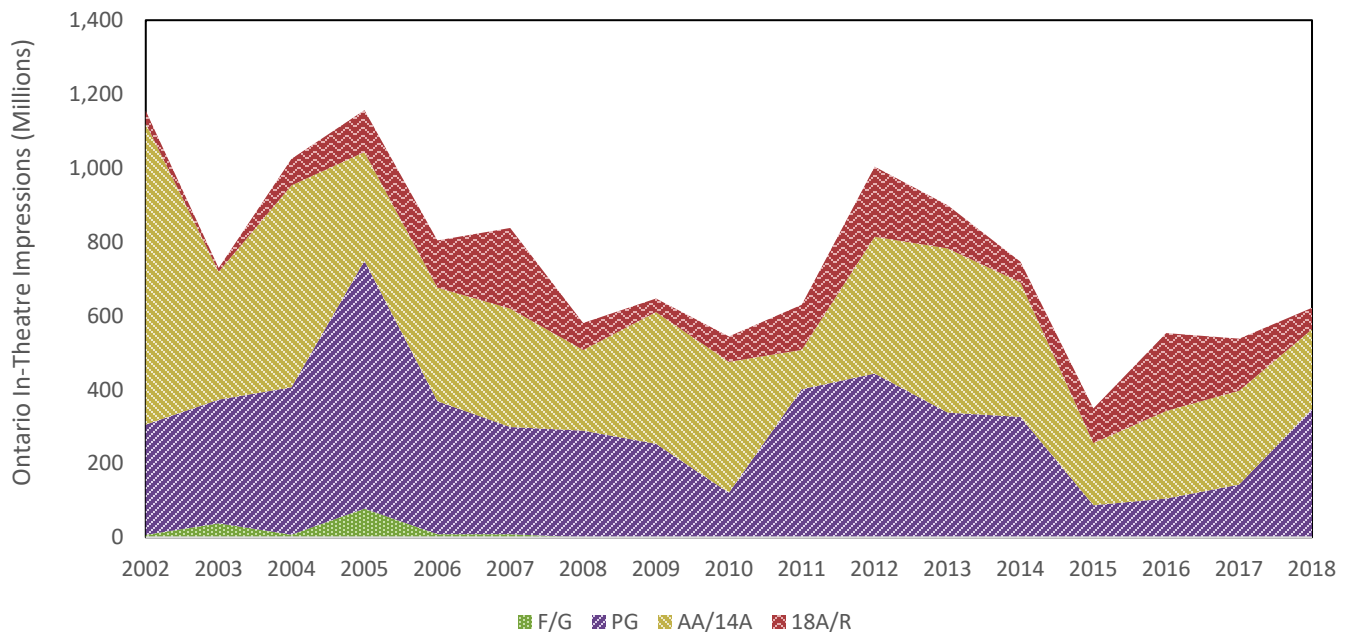
For F or G-rated movies: Overall, low total tobacco impressions compared to other movie ratings. Tobacco impressions dropped after 2007 and have remained low.

For PG-rated movies: Tobacco impressions delivered by PG movies in 2018 (348 million, 56% of the annual total) were approximately half of their historic high in 2005 (671 million, 58% of annual total). The lowest tobacco impressions delivered by PG movies was seen in 2015 (86 million, 25% of the annual total).

For AA or 14A-rated movies: AA or 14A tobacco impressions in 2018 (216 million, 35% of the annual total) were significantly less than their historic high in 2002 (815 million, 71% of the annual total), but almost double their historic low in 2011 (106 million, 17% of the annual total).

For 18A/R-rated movies: Adult-rated tobacco impressions fluctuated from 34 million to 218 million (2002 and 2007, respectively) and were 58 million in 2018 (9% of the annual total).

Figure 4: In-Theatre Tobacco Impressions, by OFRB Rating, Ontario, 2002-2018



Note: In-theatre tobacco impressions of a movie are a measure of total audience exposure to onscreen tobacco imagery. It is obtained by multiplying the number of tobacco incidents in a movie by the paid admission to that movie. [Full data table for this graph provided in the Appendix \(Table 6\).](#)

Biographical Movies Representing Actual People Who Smoked

From 2002 to 2018, 3% (73/2400) of the top-grossing movies released in Ontario were

biographical movies that portrayed at least one actual person who smoked in real-life. Almost all these movies were youth-rated: 4% (3/73) were F or G-rated movies, 42% (31/73) were PG-rated movies, and 52% (38/73) were AA or 14A-rated movies. Smoking was observed in only 1% (1/73) of adult-rated movies. Overall, the number of biographical movies portraying at least one actual person who smoked in real-life increased substantially in 2013 and again from 2016 onward (Figure 5). This does not mean that all characters who smoked in the movie were actual person who smoked in real-life. In fact UCSF found that 73% of characters shown smoking in biographical movies, across all ratings, were invented or composite characters with no authentic biographical basis.¹⁷

The recommendation by the World Health Organizations and other leading health authorities to rate all future movies with smoking as adult (18A in Canada) has an exemption for movies that depict actual smokers, as in a biographical drama or documentary.¹⁶ This trend to use biographical movies to include smoking among fictional characters suggests that studios might be exploiting the biographical exception included in proposed policy.

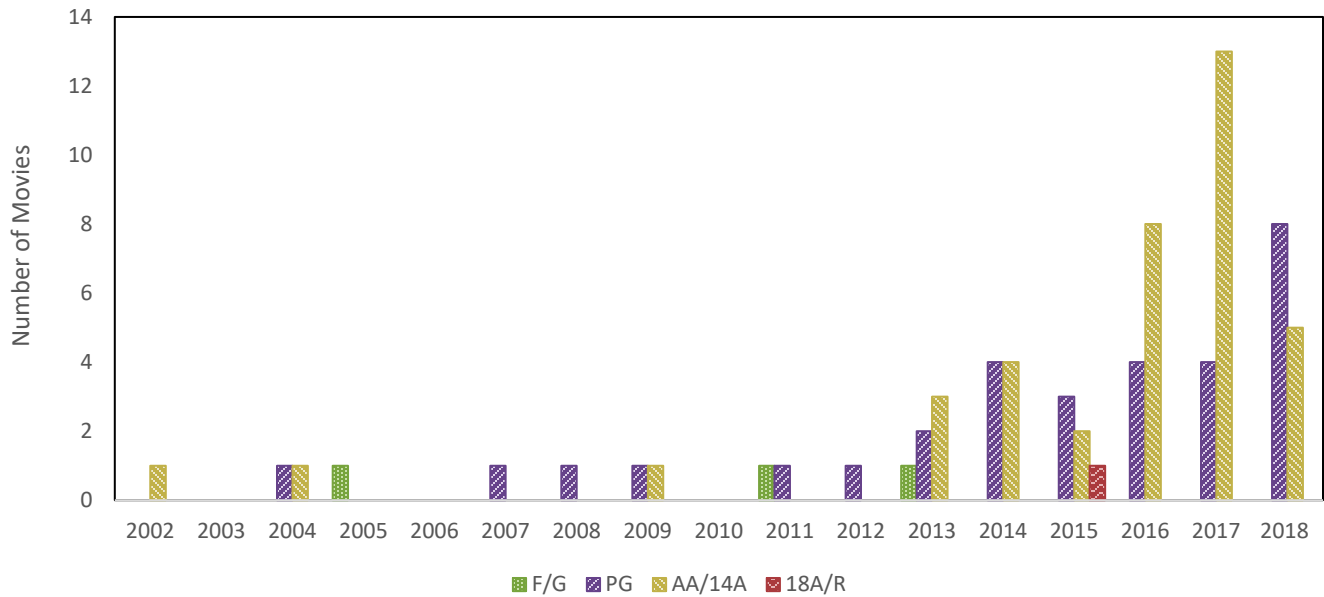
For F or G-rated movies: The proportion of F or G-rated movies that portrayed individuals who smoked in real-life have been consistently low, with only one movie released in 2005, 2011 and 2013.

For PG-rated movies: The proportion of PG-rated movies that portrayed individuals who smoked in real-life has, on average, increased from 2013 (2 movies; 0.08% of all movies) to 2018 (8 movies; 0.3% of all movies).

For AA or 14A-rated movies: The proportion of AA or 14A-rated movies that portrayed individuals who smoked in real-life has, substantially increased in 2018 (5 movies; 0.2% of all movies) from that reported in 2013 (3 movies; 0.1% of all movies). The highest proportion of these movies was seen in 2017 (13 movies; 0.5% of all movies).

For 18A or R-rated movies: The proportion of adult-rated movies that portrayed individuals who smoked in real-life was negligible.

Figure 5: Biographical Movies that Represented at Least One Actual Person Who Smoked, by OFRB Rating, Ontario, 2002-2018



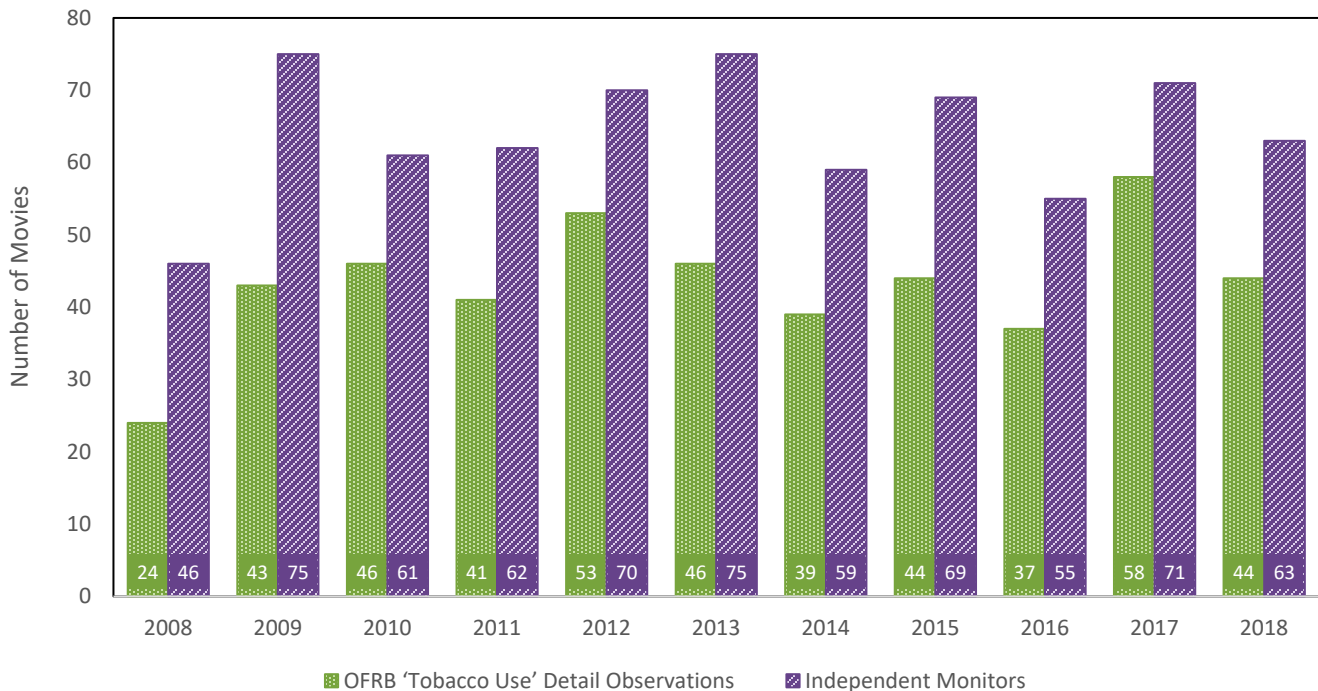
Note: Full data table for this graph provided in the Appendix (Table 7)

Comparison of OFRB Tobacco-Related Labels with Reports of Independent Monitors

We compared the numbers of movies for which the OFRB provided tobacco-related ‘detailed observations’ or ‘content advisories’ with the number identified as having onscreen tobacco by independent monitors of the Thumbs Up! Thumbs Down! (TUTD) project at the Breathe California Sacramento Region.

From August 2008, when the OFRB began providing tobacco-related ‘detailed observations’, to December 2018, 1,437 top-grossing movies were released in Ontario. According to independent monitors, 49% of these movies (706/1,437) featured tobacco imagery, yet OFRB posted ‘tobacco use’ observations for only about two-thirds (475/706) of the movies identified by independent monitors, leaving one-in-three movies (231/706) with no indication of tobacco content. Figure 6 compares the annual number of movies that the OFRB labelled with ‘tobacco use’ observations and the annual number deemed to include tobacco incidents by independent monitors.

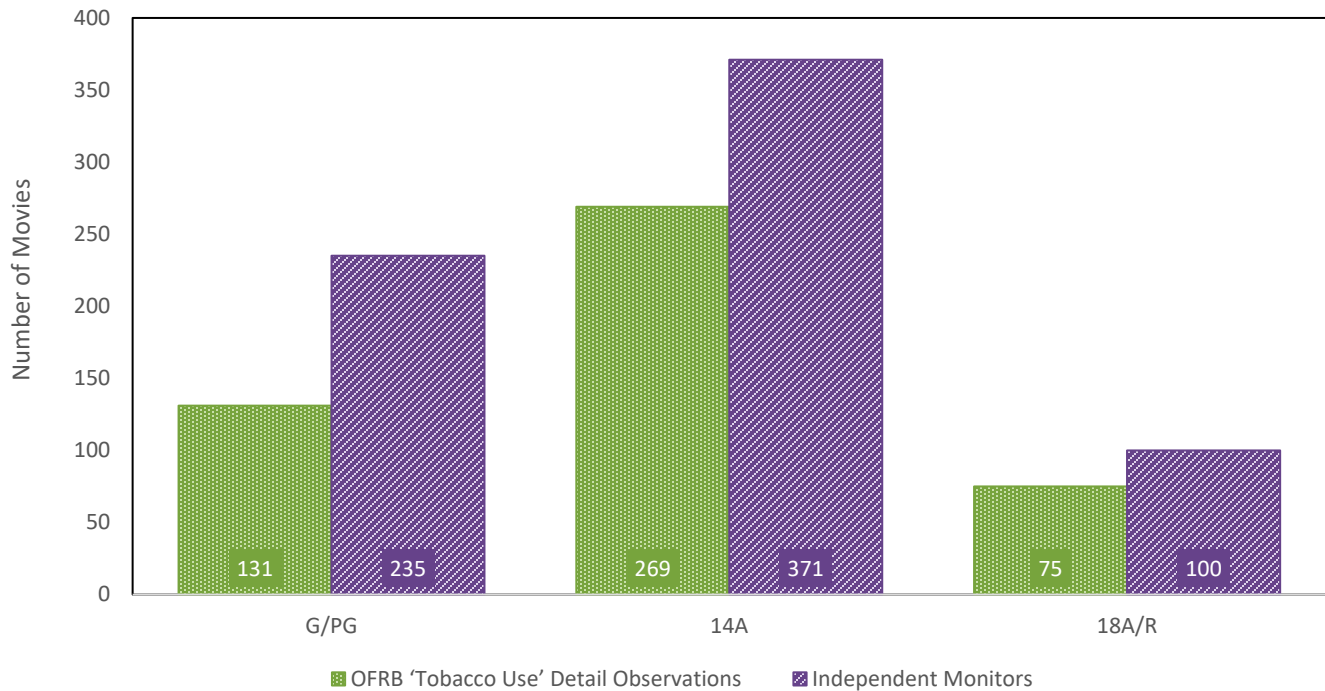
Figure 6: Number of Movies with OFRB 'Tobacco Use' Detailed Observations vs. Movies Independently-Reported with Tobacco Incidents, August 2008-December 2018



Note: Year 2008 was for August 15 to December 31. Nine movies (one each in 2009, 2011, 2015, 2016, 2018; four in 2013) for which the OFRB provided 'tobacco use' notation were classified as tobacco-free by independent monitors and are not included in this analysis. [Full data table for this graph provided in the Appendix \(Table 8\)](#)

According to independent monitoring of the 706 movies featuring tobacco imagery from August 2008 to December 2018, 606 were youth-rated (235 movies were G or PG-rated and 371 movies were 14A-rated), and 100 were adult-rated (Figure 7). OFRB attached 'tobacco use' observations to 66% (400/606) of youth-rated movies with tobacco imagery, leaving one-third (34%, 206/606) without any notation. Seventy-five percent (75/100) of adult-rated movies with tobacco imagery included OFRB's 'tobacco use' observations.

Figure 7: Number of Movies with OFRB's 'Tobacco Use' Detailed Observations vs. Movies Independently-Reported with Tobacco Incidence, August 2008-December 2018, by OFRB Rating

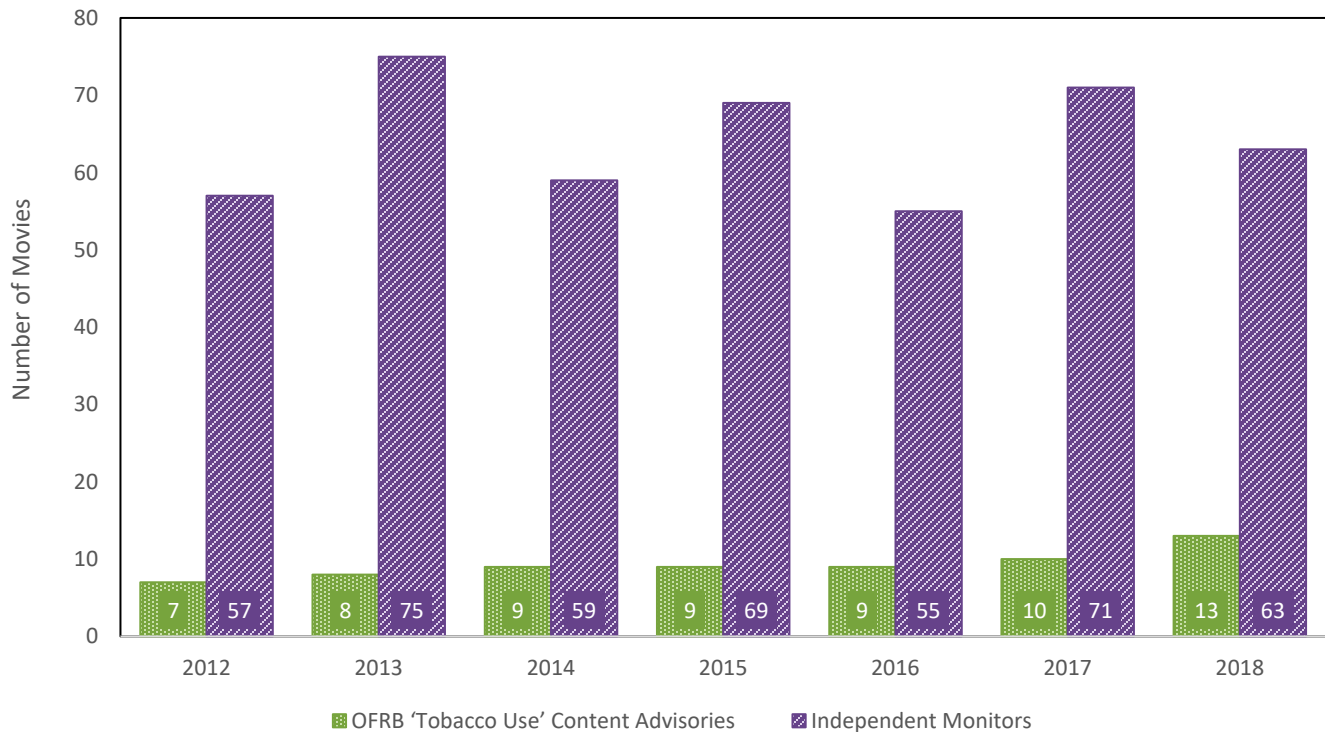


Note: Nine movies (one each in 2009, 2011, 2015, 2016, 2018; four in 2013) for which the OFRB provided 'tobacco use' notation were classified as tobacco-free by independent monitors and are not included in this analysis. [Full data table for this graph provided in the Appendix \(Table 9\)](#)

Since August 2008, six out of ten (420/706) movies with tobacco imagery have lacked an 'illustrated or verbal references to drugs, alcohol or tobacco' notation from the OFRB (data not shown).

Of the 909 top-grossing movies released from March 2012 (when the OFRB began implementing tobacco use content advisories) to December 2018, independent monitors identified 448 (49%) as having tobacco imagery. The OFRB failed to provide 'tobacco use' advisories for 85% (383/448) of these movies, meaning that only 15% of top-grossing movies with tobacco imagery shown in Ontario carried any indication of their tobacco content on posters and other promotional material. Figure 8 compares the annual number of movies with the OFRB's 'tobacco use' advisories with the annual number that independent monitors identified featuring tobacco imagery.

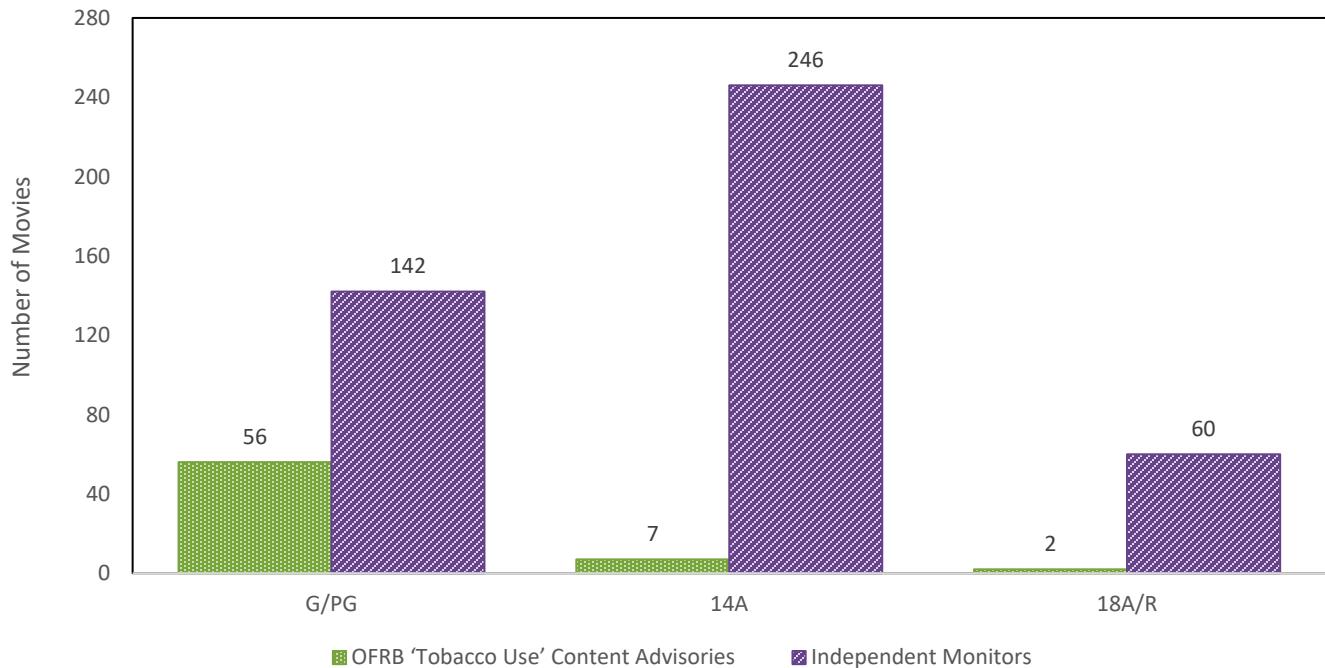
Figure 8: Number of Movies with OFRB 'Tobacco Use' Content Advisories vs. Movies Independently-Reported with Tobacco Incidents, March 2012-December 2018



Note: Year 2012 was from March 12 to December 31. [Full data table for this graph provided in the Appendix \(Table 10\)](#)

Among the 448 movies that featured tobacco incidents from March 2012 to December 2018, 388 were youth-rated (142 movies were G or PG-rated and 246 movies were 14A-rated) and 60 were adult-rated (Figure 9). Among youth-rated movies with tobacco incidents, 16% (63/388) carried OFRB 'tobacco use' advisories—leaving 84% (325/388) unlabeled. Only 3% (2/60) of adult-rated movies with tobacco incidents carried 'tobacco use' advisories.

Figure 9: Number of Movies with OFRB 'Tobacco Use' Content Advisories vs. Movies Independently-Reported with Tobacco Incidents, March 2012-December 2018, by OFRB Rating



Note: Full data table for this graph provided in the Appendix (Table 11).

Childhood Lifetime Exposure to Onscreen Smoking

Data from the last 17 years (2002 to 2018) provides an opportunity to understand the childhood lifetime exposure to onscreen smoking, based on OFRB ratings.

From 2002 to 2018, 27% (640/2400) of top-grossing AA or 14A-rated movies in Ontario had tobacco imagery. This was nearly 4 times higher than that reported for 18A or R-rated movies (176/2400; 7%) during the same period. Similarly, these movies had 25,063 tobacco incidents over the course of 17 years (55% of all tobacco incidents in top-grossing movies between 2002 and 2018).

Since 2002, F or G-rated, PG-rated and AA or 14A-rated movies have delivered 11 billion tobacco impressions to Ontario moviegoers (excluding exposure to in-home media such as streaming services), over 6 times that of 18A or R rated movies in the same period (1.7 billion, Table 6).

Comparison Between Ontario and the US

Ontario Film Review Board vs Motion Picture Association of America Ratings

In order to facilitate US-Canada rating comparisons, Table 2 describes the top-grossing movies released in Ontario and US. This excluded Bollywood movies, which typically choose not to seek voluntary rating from the Motion Picture Association of America but are obliged to seek a rating from the OFRBⁱⁱⁱ. Ninety-one percent of these movies were youth-rated (10% rated F or G, 43% rated PG and 38% rated AA or 14A), whereas 9% were adult-rated 18A/R (only six movies were R-rated).

Table 2: Number of Movies Released in the Domestic Market (Canada and US), excluding Bollywood Movies, by OFRB Rating and by Tobacco Imagery Status 2002-2018

Year	Number of Domestic Movies by OFRB Rating					Tobacco Imagery	
	G	PG	14A	18A/Ra ^a	Total	Yes	No
2002	15	48	74	7	144	104	40
2003	15	56	51	15	137	102	35
2004	14	74	46	10	144	99	45
2005	24	67	40	12	143	97	46
2006	26	75	43	17	161	96	65
2007	17	58	59	23	157	106	51
2008	12	58	55	20	145	86	59
2009	10	65	61	14	150	75	75
2010	11	64	43	17	135	60	75
2011	20	64	40	10	134	62	72
2012	12	57	55	14	138	70	68
2013	12	53	59	10	134	74	60
2014	11	66	45	8	130	59	71
2015	12	54	58	8	132	68	64
2016	9	60	56	10	135	53	82
2017	12	42	64	13	131	71	60
2018	10	56	57	12	135	61	74
Total	242	1017	906	220	2385	1343	1042
% of Total	10%	43%	38%	9%	100	56%	44%

^a R-rated movies were released in 2003, 2006, 2015 and 2016.

Note. Fifteen Bollywood movies were excluded: 1 in 2002, 2010, 2012 and 2017; 2 in 2013, 2016 and 2018; and 5 in 2015.

ⁱⁱⁱ The total number of movies released in Ontario excludes Bollywood movies for all US-Ontario rating comparisons in this report.

From 2002 to 2018, 73% (601/822) of adult-rated ‘R’ movies in the US were given a youth rating in Ontario. Specifically, 90% (539/601) of these ‘down-rated’ movies were classified as 14A. As a result, the percentage of youth-rated movies in Ontario was substantially greater than in the US. From 2002 to 2018, the OFRB rated 91% (2165/2385) of the top-grossing movies shown in both Ontario and the US as appropriate for youth (10% F or G-rated movies, 43% PG-rated movies, 38% AA or 14A-rated movies; Figure 10). In comparison, the Motion Picture Association of America (MPAA) rated 66% (1563/2385) of the same movie sample as appropriate for youth (3% G-rated movies, 17% PG-rated movies, 45% PG-13 rated movies).^{iv} Figure 10 shows the annual percentage of all movies that were youth-rated in Ontario and in US.

Of the 1343 top-grossing movies with smoking released from 2002 to 2018, 87% (1167/1343) were youth-rated in Ontario, whereas only 53% (708/1343) were youth-rated in the US. Ontario youth had unrestricted access to 65% more (1167-708)/708) movies with tobacco imagery than their US counterparts, giving Canada’s youth substantially greater potential exposure to onscreen smoking.

Figure 10: Percentage of Movies Youth-Rated, Excluding Bollywood Movies, Ontario and US, 2002-2018



Note: Full data table for this graph provided in the Appendix (Table 12).

^{iv} MPAA is the trade association for the major US movie studios, which runs the voluntary age-classification system in the US. It also represents these companies’ interests in Canada and operates the [Canada Home Video Rating System](#).

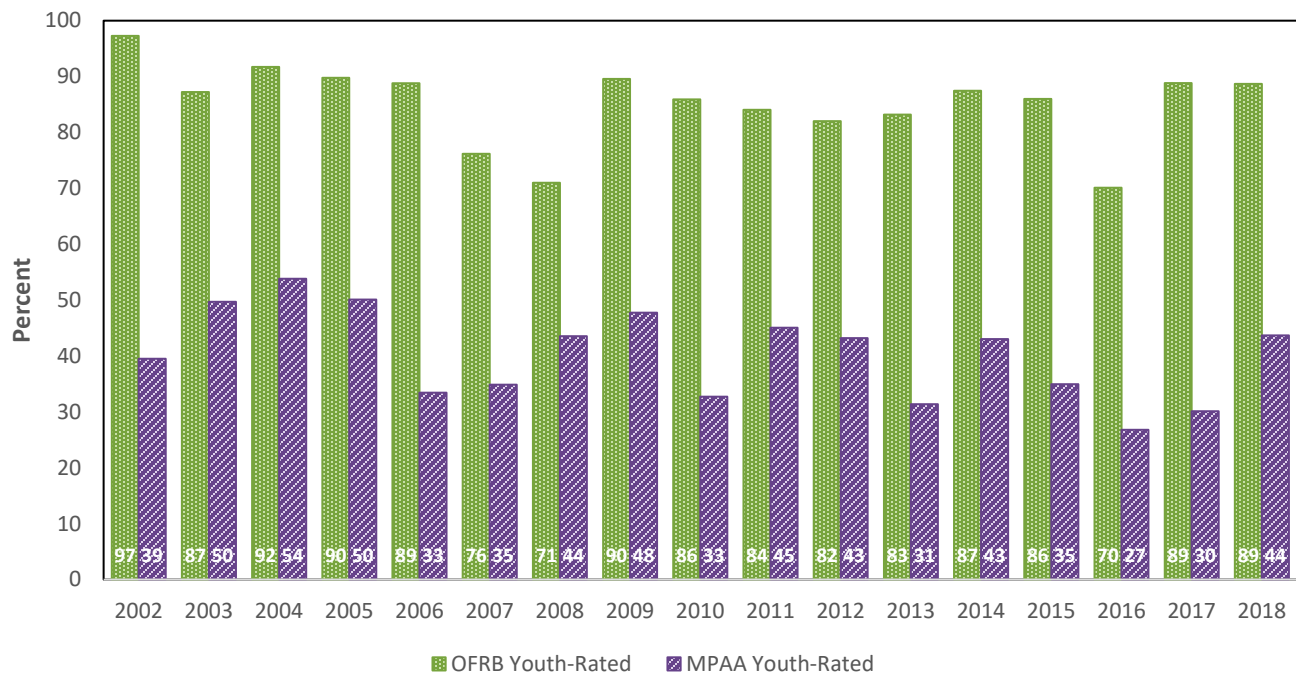
Tobacco Incidents

Since Ontario's rating practices have made more than two-thirds of US R-rated movies accessible to young Ontario audiences and US R-rated movies average more tobacco incidents than PG-13 movies, the share of tobacco incidents found in youth-rated movies was substantially greater in Ontario than in the US.

In Ontario, from 2002 to 2018, youth-rated movies accounted for 86% (39,209/45,830) of all tobacco incidents: 1% in F or G-rated movies, 29% in PG-rated movies and 55% in AA or 14A movies.

In the US, youth-rated movies accounted for 40% (18,522/45,830), with 0.3% in G-rated movies, 3% in PG-rated movies and 37% in PG-13 rated movies. The percentage of tobacco incidents found in youth-rated movies in Ontario and in US from 2002 to 2018 is shown in Figure 11.

Figure 11: Percentage of Tobacco Incidents in Youth-Rated Movies, Excluding Bollywood Movies, Ontario and US, 2002-2018



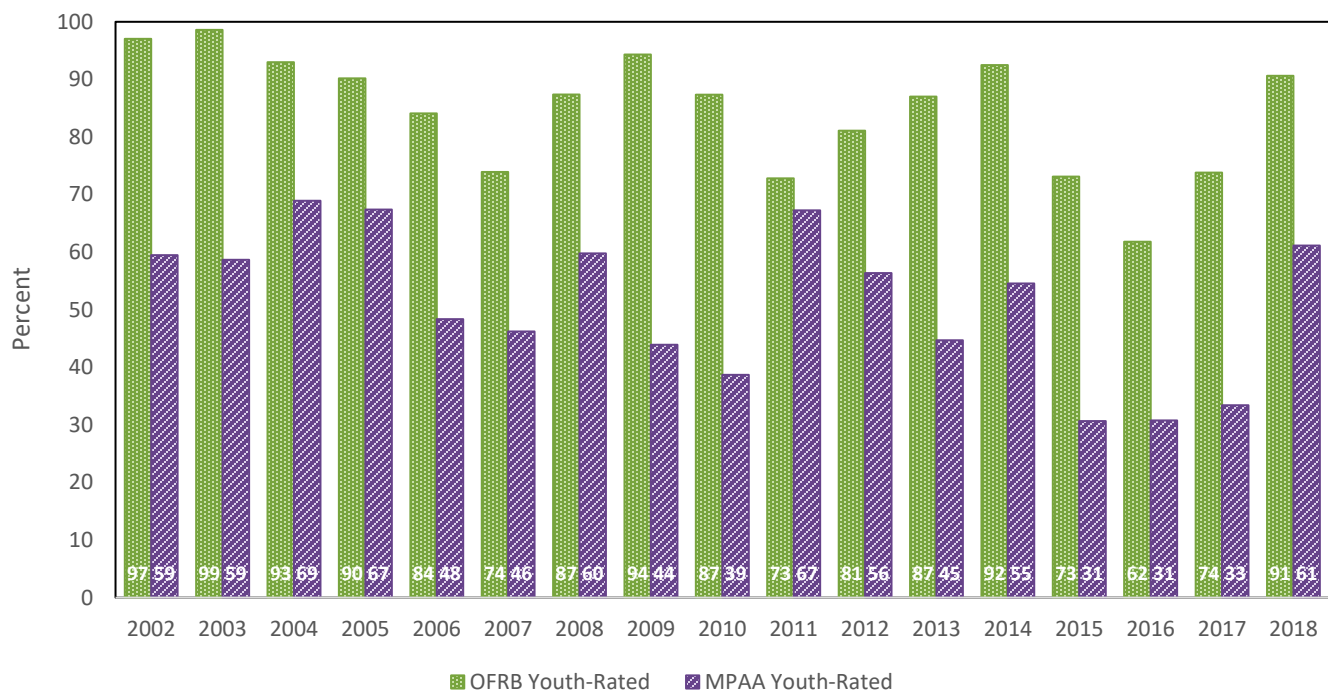
Note: The percentage of tobacco incidents in youth-rated movies is the share of all tobacco incidents in top-grossing movies found in youth-rated movies. [Full data table for this graph provided in the Appendix \(Table 13\).](#)

Tobacco Impressions

Because of the rating practice in Ontario, adolescents in the province were potentially exposed to substantially more onscreen tobacco impressions than their US counterparts.

From 2002 to 2018, youth-rated movies in Ontario delivered 86% (11 billion) of all in-theatre tobacco impressions (13 billion), including 1% in G-rated movies, 40% in PG-rated movies and 44% in AA or 14A-rated movies. In contrast, US youth-rated movies delivered 53% (163.4 billion) of all in-theatre tobacco impressions (305.2 billion) over the same period. Figure 12 shows the annual percentage of in-theatre tobacco impressions delivered by youth-rated movies over time in Ontario and the US.

Figure 12: Percentage of In-Theatre Tobacco Impressions Delivered by Youth-Rated Movies, Ontario and US, 2002-2018



Note: The percentage of in-theatre tobacco impression delivered by youth-rated movies is the share of total in-theatre exposure to onscreen tobacco from youth-rated movies. [Full data table for this graph provided in the Appendix \(Table 14\).](#)

Discussion

This study indicates that from 2002 to 2018 nearly half (56%) of top-grossing movies in Ontario featured tobacco imagery, and 87% of these movies were youth-rated. Eighty-six percent of tobacco incidents and tobacco impressions delivered to Ontario theatre audiences came from movies that were youth-rated by the Ontario Film Review Board (OFRB). Almost all movies that were biographical dramas released during this period, and portrayed at least one actual person who smoked in real-life, were youth-rated (not all characters smoking in these movies were actual people in real-life).

The OFRB has consistently provided inadequate information about smoking in movies. Over the 17 years under study, nearly eight of every ten youth-rated top-grossing movies with smoking did not include the OFRB 'tobacco use' content advisory, which is required to appear with the movie rating on a movie's promotional material. Tobacco use advisories have not been shown to be effective at reducing exposure to smoking in movies or to curtailing the effects of exposure. To effectively reduce exposure to smoking in movies, OFRB needs to restrict movies that depict smoking to adults by aligning tobacco use with other content such as language or violence. (See Appendix 1, Figure 14).

As mentioned earlier, from 2002 to 2018, AA or 14A-rated movies released in Ontario featured 28 tobacco incidents per movie, nearly equal to the number in adult-rated movies (30 incidents) but more than double the number in PG movies (13 incidents). This is concerning given that past-year smoking among Ontario students rises sharply in grade 9 (in 2017, 6.2% in grade 9 vs. 1.4% in grades 7 to 8) and continues to rise throughout high school (10.6% in grade 10, 18.1% in grade 11 and 23.4% in grade 12) (Ontario Student Drug Use and Health Survey 2017).

In a previous report, it was estimated that exposure to onscreen smoking will recruit a cohort of more than 185,000 Ontario youth aged 0 to 17 years old to become smokers, resulting in more than 59,000 premature deaths and at least \$1.1 billion^v in additional healthcare costs over the cohort's lifetime.¹¹ This health-cost estimate is for the current cohort of young people coming of

^v Based on the projected number of future smokers in the 0 to 17 year-old cohort, multiplied by the lifetime healthcare cost of a smoker.

age in Ontario. If exposure continues at current levels, our publicly-funded health system would incur additional billions in costs from successive cohorts. An adult rating (18A) for smoking in movies released in Ontario would prevent more than 30,000 premature deaths and save more than half a billion dollars in healthcare costs.

These estimates may underestimate the impact of exposure to onscreen tobacco on Ontario youth. One of the key parameters underlying these estimates was the risk of youth smoking attributable to exposure to onscreen tobacco (37%), based on a meta-analysis of US studies. However, Ontario youth are at greater risk of exposure to onscreen tobacco than their US counterparts because most R-rated movies in the US, which have a higher incidence of tobacco imagery, are youth-rated by the OFRB. The risks from exposure are dose-related.

Exposure to onscreen smoking may also have a larger impact on smoking initiation in Ontario than in the US because Canada has much stronger restrictions on conventional tobacco advertising (e.g., prohibitions on point-of-sale displays, print media, billboards). According to a recent study in New Zealand, where restrictions on traditional cigarette advertising are also stronger than in the US, the risk of youth smoking attributable to exposure to onscreen tobacco was estimated at 54%.¹⁸

For these reasons, the attributable risk of youth smoking due to exposure to onscreen tobacco in Ontario is potentially greater than the US figure of 37%. As a corollary, the beneficial effects of instituting an adult-rating of future movies with smoking in Ontario may also be even more important than US models estimate.

Of note is the emergence of on-demand / streaming platforms—such as Amazon, Crave and Netflix—who not only rebroadcast top-grossing movies, but also generate their own content, a lot of which appears to depict smoking.¹⁹ Together, these have the potential to recruit additional smokers, recruit them earlier, and to add to the existing healthcare costs resulting from smoking. Future research examining streaming platforms has the potential to generate evidence on the depiction of smoking on these services and to contribute to a better understanding of media's overall role on the uptake of smoking by youth and young adults.

The Smoke-Free Ontario Scientific Advisory Committee posits that restricting movies with tobacco imagery to adults only could substantially decrease smoking initiation among youth,²⁰ a policy recommendation that has been echoed by public health stakeholders in Ontario and by a host of provincial, national, and international institutions. The evidence base is growing. Action is needed.

Appendix 1: Movie Rating Systems

Figure 13: OFRB & MPAA Rating Systems
















Ontario Film Review Board rating system		Motion Picture Association of America rating system	
 G Suitable for all	Suitable for viewers of all ages.	General Audiences 	Nothing that would offend parents for viewing by children.
 PG Parental guidance advised	Parental guidance is advised. Theme of content may not be suitable for all children.	Parental Guidance Suggested 	Parents urged to give "parental guidance." May contain some material parents might not like for their young children.
 14^A Persons younger than 14 must be accompanied by an adult	Suitable for viewing by persons 14 years of age and older. Persons under 14 must be accompanied by an adult. May contain: violence, coarse language and/or sexually suggestive scenes.	Parents Strongly Cautioned 	Parents are urged to be cautious. Some material may be inappropriate for pre-teenagers.
 18^A Persons younger than 18 must be accompanied by an adult	Suitable for viewing by persons 18 years of age and older. Persons under 18 may attend but must be accompanied by an adult. May contain: explicit violence, frequent coarse language, sexual activity and/or horror.	Restricted 	Contains some adult material. Parents are urged to learn about the film before taking their young children with them.
 R Restricted to persons 18 or older	Admittance restricted to persons 18 years of age and over. Content not suitable for minors. May contain: frequent use of sexual activity, brutal/graphic violence, intense horror and/or other disturbing content.	No One 17 And Under Admitted 	Patently adult. Children are not admitted.

Figure 14: OFRB Rating Classification Guideline

Quick Reference Guide To The Elements						
	 General	 Parental Guidance	 14A	 18A	 Restricted	POSSIBLE INFO PIECES
Age Suitability	Suitable for All	Parental Guidance Advised	Persons younger than 14 must be accompanied by an Adult.	Persons younger than 18 must be accompanied by an adult	Restricted to persons 18 years of age or over	<ul style="list-style-type: none"> • Not Recommended for Children
Language	Infrequent use of mild profanity such as damn, hell, ass and god.	Use of expletives, such as bastard, shit, f***k (X3), and/or limited slurs, mild sexual references. Blasphemy. Derogatory portrayals, such as fatso and tubby.	Coarse language and/or slurs directed to specific segments of society; excessive use of expletives; sexual references. Infrequent strong, aggressive language. Derogatory portrayals such as lard ass and those.	Very intense and aggressive coarse language usually accompanied by violence directed towards the person(s). Aggressive/ frequent slurs/sexual references.	No restriction.	<ul style="list-style-type: none"> • Not Recommended for Young Children • Some Scary Scenes • Cartoon/ Animation Action
Violence (see Note 3)	Restrained portrayals of limited violence which may result in extremely limited bloodletting.	Restrained portrayals of non-graphic violence. The portrayals are not prolonged; there are no close-ups; bloodletting and/or tissue damage is limited.	Portrayals of graphic violence resulting in blood-letting and/or tissue damage which may or may not be fatal. Violence should be within the context of the film.	Frequent and/or prolonged portrayals of graphic violence resulting in bloodletting and/or tissue damage. Limited instances of brief, visually explicit portrayals of violence. Graphic torture/brutality. Graphic sexual violence.	Visually explicit portrayals of violence which may be characterized by extreme brutality, extreme bloodletting and extreme tissue damage, torture, horror and sexual violence.	<ul style="list-style-type: none"> • Mature Theme • Language May Offend • Coarse Language
Nudity	Non-sexual nudity with no close-ups (including still images.)	Nudity in a non-sexual context, non-exploitative close-up (including still images.)	Limited nudity in a brief sexual situation.	Limited instances of nudity in a sexual situation.	Nudity in a sexual situation.	<ul style="list-style-type: none"> • Language not evaluated • Subtitled
Sexual Activity	Limited embracing and kissing.	Embracing, kissing; mild sexual innuendo.	Fondling, implied sexual activity; sexual innuendo.	Limited instances of simulated sexual activity.	Simulated sexual activity; explicit sexual activity.	<ul style="list-style-type: none"> • Crude Content • Violence
Horror	Brief moments of mild horror in comedic, historic, or fantasy settings (i.e. dragons, giants, wicked witches.)	Scenes containing some grotesque images may be allowed in a fantasy or comedic context, but there will be no detailed and/or prolonged focus on gory images or suffering.	Occasional gory moments and some horrific/grotesque images, but these will not be detailed.	Gory or grotesque imagery may be more frequent or detailed, but will generally avoid prolonged focus.	Frequent detailed gory/ grotesque images will have a more prolonged or graphic focus and greater frequency.	<ul style="list-style-type: none"> • Graphic Violence • Brutal Violence • Sexual Violence • Nudity
Psychological Impact (see Note 2)	Sensitive to scenes or situations related to a child's sense of security and well-being. Tobacco use. (May be used with any classification.)	Scenes and situations that may cause adverse psychological impact on children. May include frightening or emotionally upsetting situations involving threats, injury, illness, family problems, or death to young people, family member, and animals (particularly pets.) Bullying. Substance referencing. Visual Reference. Crude Content.	Occasional upsetting scenes that will tend to be more frightening, intense, disturbing - particularly to younger viewers. Substance abuse. Frequent substance referencing.	Frequent upsetting, disturbing, or frightening scenes that may cause adverse psychological impact on some mature viewers. Detailed/ graphic portrayals of substance abuse.	Scenes and situations may cause extreme adverse psychological impact. May involve intense and compelling terror, acts of degradation, threats of violence, and continuous acts of violence; situations could be accompanied by coarse, abusive, and degrading dialogue. Explicit substance abuse.	<ul style="list-style-type: none"> • Sexual Content • Explicit Sexual Content • Gory Scenes • Frightening Scenes • Disturbing Content • Substance Abuse • Tobacco Use
<p>Note 1: From time to time, guidelines may be set aside at the Panel's discretion (where social, historic and documentary significance warrants). The reason is to be identified on the Summary Report.</p> <p>Note 2: Psychological impact may be a state of mind, mood or feeling and/or other effects on the viewer, resulting from the treatment of scenes and situations within the film. Treatment may include intensity, degree, pace, atmosphere, tone, visual effects, and dialogue.</p> <p>Note 3: Portrayals of violence may include armed combat, natural disasters, accidents, hand-to-hand combat, weapons violence, and violent sports. The degree, frequency, and intensity of the acts of violence will be factors in the classification decision.</p>						

Appendix 3: Data Tables

Table 3: Percentage of Movies with Tobacco Imagery, by OFRB Rating, 2002-2018

Year	OFRB Rating				All Ratings
	F/G	PG	AA/14A	18A/R	
2002	19%	65%	89%	57%	72%
2003	27%	79%	78%	93%	74%
2004	36%	65%	80%	90%	69%
2005	33%	70%	75%	100%	68%
2006	15%	57%	79%	88%	60%
2007	35%	64%	78%	74%	68%
2008	0%	53%	73%	75%	59%
2009	10%	42%	61%	71%	50%
2010	9%	31%	65%	71%	45%
2011	10%	38%	70%	80%	46%
2012	8%	40%	64%	79%	50%
2013	17%	36%	73%	100%	55%
2014	0%	38%	62%	75%	45%
2015	8%	36%	68%	88%	50%
2016	11%	29%	50%	80%	40%
2017	0%	38%	68%	85%	54%
2018	0%	34%	63%	58%	46%
Total	16%	38%	68%	85%	54%

Note: [Data table is for Figure 1.](#)

Table 4: Total Tobacco Incidents in Top-Grossing Movies, by OFRB Rating, 2002-2018

Year	OFRB Rating				All Ratings
	F/G	PG	AA/14A	18A/R	
2002	22	681	2472	89	3264
2003	91	1031	1112	327	2561
2004	25	918	1981	264	3188
2005	408	1446	1703	405	3962
2006	47	1041	2064	397	3549
2007	29	754	1601	745	3129
2008	0	737	851	649	2237
2009	1	878	967	215	2061
2010	12	397	1158	256	1823
2011	2	762	816	300	1880
2012	2	890	1324	486	2702
2013	6	635	1444	419	2504
2014	0	736	1687	347	2770
2015	2	452	1050	243	1747
2016	4	599	1397	844	2844
2017	0	548	2038	325	2911
2018	0	1101	1398	310	2809
Total	651	13606	25063	6621	45941

Note: Data table is for Figure 2

Table 5: Number of Tobacco Incidents per Movie, by OFRB Rating, 2002-2018

Year	OFRB Rating				All Ratings
	F/G	PG	AA/14A	18A/R	
2002	1	14	33	13	23
2003	7	18	41	34	19
2004	2	12	43	26	22
2005	17	22	43	34	28
2006	2	14	48	62	22
2007	2	13	27	32	20
2008	0	13	15	32	15
2009	0	14	16	15	14
2010	1	6	27	15	13
2011	0	12	20	30	14
2012	0	15	24	35	19
2013	1	12	24	42	18
2014	0	11	37	43	21
2015	0	8	18	72	13
2016	0	10	25	101	21
2017	0	13	31	25	22
2018	0	19	25	26	21
Total	3	13	28	30	19

Note: [Data table is for Figure 3](#)

Table 6: In-Theatre Tobacco Impressions (Millions), by OFRB Rating, Ontario, 2002-2018

Year	OFRB Rating				All Ratings
	F/G	PG	AA/14A	18A/R	
2002	7.0	298	815	34	1,155
2003	38.1	335	346	10	729
2004	7.2	399	547	72	1,025
2005	77.6	671	294	114	1,156
2006	8.6	360	308	128	804
2007	8.4	290	321	218	838
2008	0.0	289	219	73	580
2009	0.1	253	357	37	647
2010	1.0	120	354	69	544
2011	0.5	401	106	122	630
2012	0.7	443	371	190	1,004
2013	0.7	337	444	117	899
2014	0.0	326	364	56	746
2015	0.7	86	168	94	349
2016	0.3	105	237	211	553
2017	0.0	143	254	141	538
2018	0.0	348	216	58	621
Total	150.8	5,202	5,720	1,743	12,816

Note: [Data table is for Figure 4](#)

Table 7: Number of Biographical Movies that Represented at Least One Actual Person Who Smoked, Released in the Domestic Market (US and Canada), by OFRB Rating, 2002-2018

Year	OFRB Rating				All Ratings
	F/G	PG	AA/14A	18A/R	
2002	0	0	1	0	1
2003	0	0	0	0	0
2004	0	1	1	0	2
2005	1	0	0	0	1
2006	0	0	0	0	0
2007	0	1	0	0	1
2008	0	1	0	0	1
2009	0	1	1	0	2
2010	0	0	0	0	0
2011	1	1	0	0	2
2012	0	1	0	0	1
2013	1	2	3	0	6
2014	0	4	4	0	8
2015	0	3	2	1	6
2016	0	4	8	0	12
2017	0	4	13	0	17
2018	0	8	5	0	13
Total	3	31	38	1	73

Note: Data table is for Figure 5

Table 8: Number of Movies with OFRB 'Tobacco Use' Detailed Observations vs. Movies Independently Reported with Tobacco Incidents, August 2008-2018

Year	OFRB 'Tobacco Use' Detail Observations	Independent Monitors
2008	24	46
2009	43	75
2010	46	61
2011	41	62
2012	53	70
2013	46	75
2014	39	59
2015	44	69
2016	37	55
2017	58	71
2018	44	63
Total	475	706

Note: Data table is for Figure 6

Table 9: Number of Movies with OFRB's 'Tobacco Use' Detailed Observations vs. Movies Independently-Reported with Tobacco Incidence, August 2008-2018, by OFRB Rating

OFRB Rating	OFRB 'Tobacco Use' Detail Observation	Independent Monitors
G/PG	131	235
14A	269	371
18A/R	75	100
Total	475	706

Note: Data table is for Figure 7

Table 10: Number of Movies with OFRB 'Tobacco Use' Content Advisories vs. Movies Independently-Reported with Tobacco Incidents, March 2012-2018

Year	OFRB 'Tobacco Use' Advisories	Independent Monitors
2012	7	57
2013	8	75
2014	9	59
2015	9	69
2016	9	55
2017	10	71
2018	13	63
Total	7	57

Note: Data table is for Figure 8

Table 11: Number of Movies with OFRB 'Tobacco Use' Content Advisories vs. Movies Independently-Reported with Tobacco Incidents, March 2012-2018, by OFRB Rating

OFRB Rating	OFRB 'Tobacco Use' Advisories	Independent Monitors
G/PG	56	142
14A	7	246
18A/R	2	60
Total	65	448

Note: Data table is for Figure 9

Table 12: Percentage of Youth-Rated Movies, Ontario and US, 2002-2018

Year	OFRB Youth-Rated ^a	MPAA Youth-Rated ^a
2002	95%	65%
2003	89%	64%
2004	93%	74%
2005	92%	71%
2006	89%	70%
2007	85%	58%
2008	86%	71%
2009	91%	67%
2010	87%	65%
2011	93%	72%
2012	90%	64%
2013	93%	58%
2014	94%	67%
2015	94%	62%
2016	93%	64%
2017	90%	60%
2018	91%	61%
Total	91%	66%

^a Excludes Bollywood movies

Note: [Data table is for Figure 10](#)

Table 13: Percentage of Tobacco Incidents in Youth-Rated Movies, Ontario and US, 2002-2018

Year	OFRB Youth-Rated ^a	MPAA Youth-Rated ^a
2002	97%	39%
2003	87%	50%
2004	92%	54%
2005	90%	50%
2006	89%	33%
2007	76%	35%
2008	71%	44%
2009	90%	48%
2010	86%	33%
2011	84%	45%
2012	82%	43%
2013	83%	31%
2014	87%	43%
2015	86%	35%
2016	70%	27%
2017	89%	30%
2018	89%	44%
Total	86%	40%

^a Excludes Bollywood movies

Note: [Data table is for Figure 11](#)

Table 14: Percentage of In-Theatre Tobacco Impressions Delivered by Youth-Rated Movies, Ontario and US, 2002-2018

Year	OFRB Youth-Rated ^a	MPAA Youth-Rated ^a
2002	97%	59%
2003	99%	59%
2004	93%	69%
2005	90%	67%
2006	84%	48%
2007	74%	46%
2008	87%	60%
2009	94%	44%
2010	87%	39%
2011	73%	67%
2012	81%	56%
2013	87%	45%
2014	92%	55%
2015	73%	31%
2016	62%	31%
2017	74%	33%
2018	91%	61%
Total	86%	54%

^a Excludes Bollywood movies

Note: [Data table is for Figure 12](#)

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