

ANNUAL FILMS REPORT 2023

Tobacco in Films: 2023

Presented by:

NORC at the University of Chicago

Nada Adibah, Senior Research Associate, Public Health

Simon Page, Senior Data Analyst, Public Health

Dani Heide, Senior Research Director, Public Health

Sherry Emery, Senior Fellow, Public Health

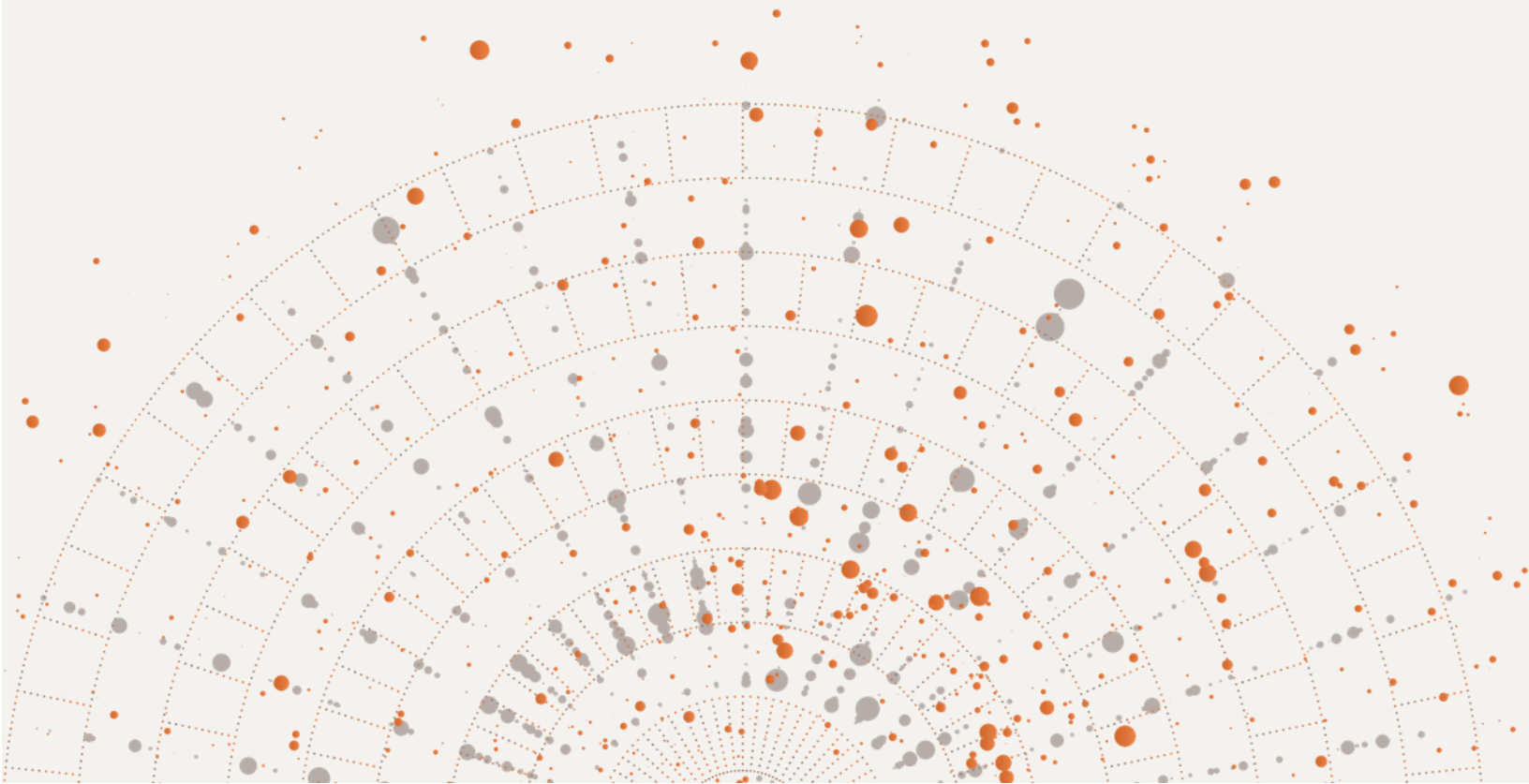


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Executive Summary

This report examines the presence of tobacco imagery in the top 2023 box office films, highlighting a significant increase in tobacco use portrayals compared to 2022. Tobacco imagery was present in 41% (58 out of 141) of top films released in 2023, marking a 6% increase from 2022. Alarming, the number of tobacco incidents rose by 70%, with a total of 1,989 incidents, up from 1,167 in 2022.

Among films rated appropriate for youth (G, PG, PG-13), approximately 23% (17 of 73) contained tobacco imagery, continuing a concerning trend of exposure among younger audiences. The report also notes that non-MPA studios (e.g., Lionsgate, A24) were responsible for a higher number of films featuring tobacco compared to MPA member studios, producing 43 of the 58 films with tobacco content.

Cigarettes were the most commonly depicted tobacco product, accounting for 66% of all tobacco incidents. The report identifies a new trend, with "legacy tobacco depictions" becoming a significant category, encompassing films featuring historical figures using tobacco or re-releases of older films. Films flagged with legacy tobacco depictions showed notably higher tobacco incidents, averaging 54 incidents per film for PG-13 movies, compared to just six incidents per film in non-legacy films.

The report highlights sizeable exposure of youth and young adults to tobacco imagery, particularly on streaming platforms. Approximately 29 million individuals aged 15-24 were potentially exposed to tobacco imagery through streaming, while 283 million individuals of all ages were exposed in theaters. Streaming platforms continue to dominate as the preferred medium for youth to access films, intensifying concerns over the ease of exposure to tobacco imagery.

This growing exposure to tobacco in films, especially through easily accessible streaming platforms, raises public health concerns, necessitating further research into its impact on youth behaviors and the need for stricter regulations to curb such imagery in films.

Introduction & Background

In 2003, researchers, state Attorneys General, and policymakers put the Motion Picture Association of America (MPA) on notice of the need to eliminate youth exposure to smoking on screen. However, to date, the film industry has only taken modest steps to reduce or enforce stricter regulations or exclude tobacco imagery in youth-rated (G, PG, PG-13) films. The MPA represents six major film studios in the U.S.: Walt Disney Motion Pictures, Paramount Pictures, Sony Pictures Entertainment, Universal City Studios, Warner Brothers Entertainment, and Netflix¹. Non-MPA film studios refer to production companies that are not part of the MPA. Non-MPA studios can be large studios with publicly traded parent companies or smaller independent studios. Lions Gate Entertainment, STX Films, and BRON Studios are examples of non-MPA member studios, among many others.

Since 2002, the University of California, San Francisco has collaborated with Breathe California and Truth Initiative to analyze on-screen smoking data in the Breathe California Onscreen Tobacco Database² and produce annual reports summarizing tobacco presence in top films released that year.³ In 2021, NORC at the University of Chicago joined the collaborative effort, taking over the analysis and reporting role starting with the 2020 report. Our Tobacco Free Screens Film Viewership Survey, in collaboration with the Truth Initiative, collects data on media consumption and film watching behaviors. The Smoke Free Media Onscreen Tobacco Database collects and archives film information, including company and production credits and tobacco product count in films. This 2023 report builds on the [2022 Smoking in Films Report](#), highlighting findings from both data sources and discussing evolving changes and implications for this research.

Top Films Released in 2023

We identified the top box office films released in 2023 if they appeared at least once on Box Office Mojo's Top 10 chart lists. We included 141 films released in 2023 and available to watch in the domestic United States. **Table 1** displays the breakdown of 2023 films by rating and MPA member studio production affiliation. Please visit the [Smoke Free Media Onscreen Tobacco Database](#) for film names, release dates, company credits, tobacco measures, and additional details on each film. As films made for TV continue to make the box office top 10, our methodology to collect top films expanded to include additional ratings outside the MPA film ratings. To accurately capture and analyze our data, we grouped films according to the following:

- G/PG rating: Any films rated G, PG, or TV-PG
- PG-13 rating: Any films rated PG-13 or TV-14

- R/Unrated: Any films rated R, TV-MA, Not Rated (NR), or Unrated

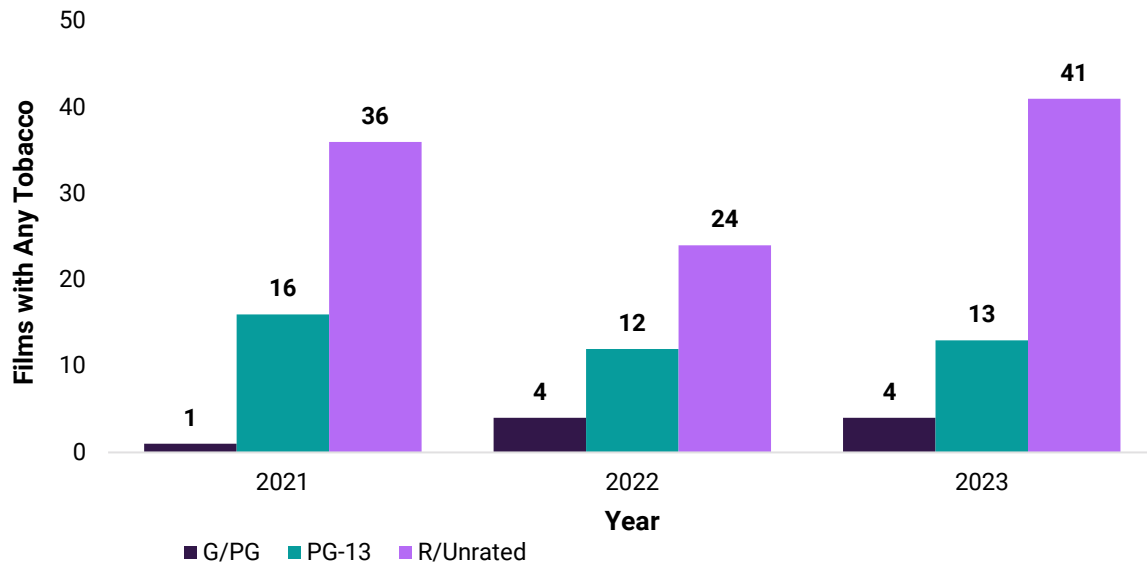
Table 1. Number of top films released in 2023, by rating and studio type

MPA Membership Status	G/PG	PG-13	R/Unrated	Total
MPA member studio	15 (79%)	25 (46%)	17 (25%)	57 (40%)
Non-MPA member studio	4 (21%)	29 (54%)	51 (75%)	84 (60%)
Total	19 (100%)	54 (100%)	68 (100%)	141 (100%)

Tobacco Imagery in 2023 Films

Tobacco imagery in film includes many forms: a main character using or holding a tobacco or nicotine product, a background character using or holding a tobacco or nicotine product, or merely the presence of a tobacco or nicotine product in the scene (e.g., cigarette packs laying on a table). The total number and percentage of 2023 films with *any tobacco imagery* was 58 out of 141 films (41%). This percent represents an increase from 2022, when 35% (40 out of 114 films) contained tobacco (**Figure 1**), thus a six percentage point increase in the number of films released with tobacco from 2022 to 2023.

Figure 1. Number of films with any tobacco by year and rating (2021-2023)

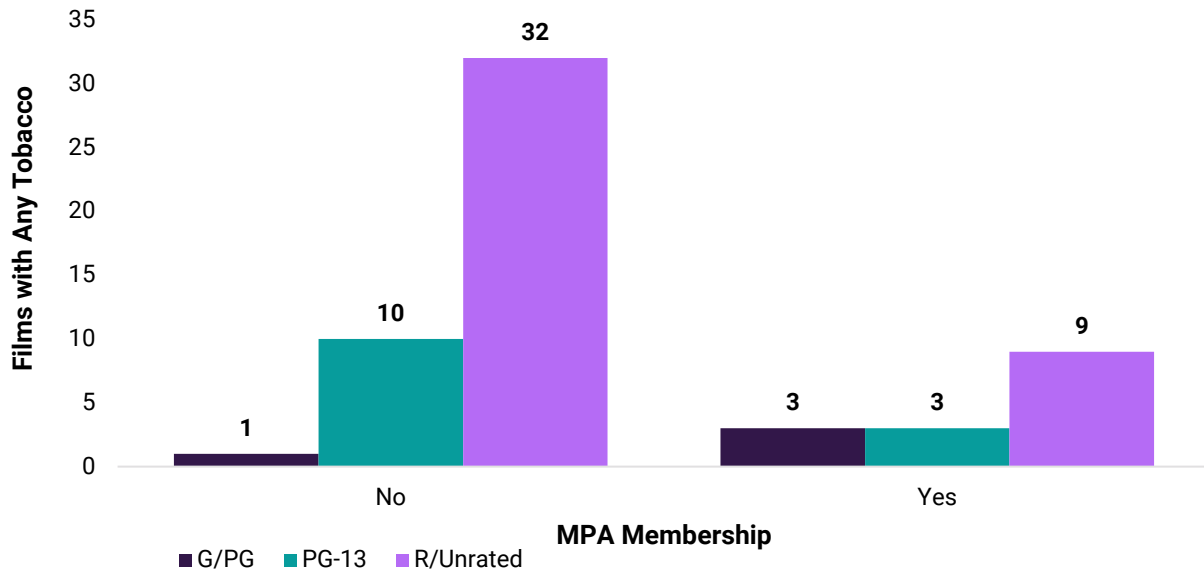


Unlike recent previous reports, 2023 marks the first time in three years where tobacco imagery in films increased. Additionally, there is no change from 2022 in harmful tobacco imagery in youth-rated films (G, PG, and PG-13) in 2023, continuing to pose potentially detrimental effects on youth. Among 58 tobacco-containing films in 2023, 17 (30%) films were rated as appropriate for youth, one more film than in 2022. **Appendix A** contains a complete list of 2023 youth-rated films with tobacco. Alarming, the number of R-rated films displaying tobacco imagery almost doubled since 2022 with 41 films containing tobacco depictions in 2023, accounting for 71% of all films containing tobacco.

Studio Affiliation of Films with Tobacco Imagery

Non-MPA production companies in 2023 accounted for more than half of all films with any smoking or tobacco (Non-MPA studios: 43 films; MPA studios: 15 films) (**Figure 2**), a trend we first observed in 2019. Non-MPA studios also continue to release more youth-rated films with tobacco imagery than films produced by MPA studios (Non-MPA studios: 11 films; MPA studios: 6 films).

Figure 2. Number of Films with Any Tobacco by Studio Type and Rating (2023)



The top three MPA and Non-MPA parent companies each produced five or fewer films containing tobacco (**Table 2**). Among MPA member studios, Universal Pictures, Walt Disney Studios, and Warner Bros. each produced films with tobacco in 2023. Among non-MPA member studios, Lionsgate produced four films with tobacco imagery, the most compared to A24 (three films) and Apple Inc. (two films).

Table 2. Top Three MPA and Non-MPA Parent Companies with Films Containing Tobacco (2023)

Parent Company	Film Count
MPA Member Studios	
Universal Pictures	5
Walt Disney Studios	2
Warner Bros.	2
Non-MPA Member Studios	
Lionsgate	4
A24	3
Apple Inc.	2

Tobacco Incidents in Films

Tobacco incidents are the number of times tobacco products (e.g., cigarettes, cigars, e-cigarettes, smokeless tobacco, pipe, and/or hookah products) appear in a film. For each incident these products can be used (character is actively vaping and blowing smoke) or not used (character is holding a vape product). This year, the project tracked two additional categories, namely hookah products and powerwall incidents (e.g., a wall of tobacco products behind a gas station counter). There were 1,989 total tobacco incidents in the top 2023 films, a 70% increase compared to the 1,167 total tobacco incidents in 2022 films. We often divide tobacco incidents by the number of movies each year to determine the average number of tobacco incidents per film, to account for fluctuations in the number of top box office films released annually. For all top 2023 films overall, there was an average of 14 tobacco incidents per film, increasing from the roughly 10 incidents per film in 2022. Among the subset of 2023 films that contained tobacco content, we observed an average of 34 incidents per film, again up from 2022 (29 incidents per film).

Tobacco Product Imagery in Films

Tobacco products such as electronic cigarettes (e-cigarettes), cigars, and pipe tobacco continue to make their way into mainstream media in both youth and R-rated films. In 2023, there were 1,989 incidents of tobacco products in 141 rated films. Cigarettes accounted for 1,315 incidents (66%) and were the most common tobacco product displayed in films (**Table 3**). The number of e-cigarette and pipe depictions increased in the top 2023 films compared to the top 2022 films. This year, there were no e-cigarette portrayals in youth-rated films. However, for the first time, a youth-rated film (*The Hill*; PG

with four incidents of smokeless tobacco products) contained incidents of a smokeless tobacco product. R-rated films continued to include the greatest number of tobacco incidents.

Table 3. Tobacco Product Incidents in Films by Rating (2022-2023)

Rating	Cigarettes	Cigars	E-cigarettes	Pipes	Smokeless	Hookah	Powerwall	Total Incidents
2022								
G/PG (n=19)	30	37	0	36	0	Not Tracked		103
PG-13 (n=42)	210	93	1	27	3			334
R (n=53)	674	45	8	3	0			730
Total (n=114)	914	175	9	66	3			1,167
2023								
G/PG (n=19)	62	0	0	0	4	17	0	83
PG-13 (n=54)	247	166	0	121	1	0	0	535
R (n=68)	1,006	285	10	52	12	0	6	1,371
Total (n=141)	1,315	451	10	173	17	17	6	1,989

Audience Exposure to Top 2023 Films

We calculated an estimate of audience exposure to films with tobacco watched both in theaters and on streaming platforms, separately. Calculating in-theater exposure is based on historical methods dating back to when this work began in 2002, and involves the use of film-related box office revenue and average theater ticket prices in the US.³ The shift in film-watching and the release of films from in-

theater to video-on-demand starting in 2020 posed challenges when calculating the number of individuals exposed to tobacco imagery, since there were no equivalent metrics to theater ratings for streaming platforms. As a result, researchers from NORC, in collaboration with Truth Initiative, developed a methodology to estimate tobacco imagery exposure from films watched by youth and young adults on streaming platforms. We used this methodology in our prior reports.⁴

Tobacco Free Screens Film Viewership Survey

NORC, in collaboration with Truth Initiative, fielded a survey to youth and young adults to measure viewership of top films in 2023 and supplement traditional theater measures using box office estimates. We fielded our survey in April 2024 and asked 4,281 youth and young adults, ages 15-24, to indicate which top box office 2023 films they watched and whether they first watched the film in theaters or on a streaming service, if at all.

Audience Exposure to 2023 Films with Tobacco: Theater

Before the COVID-19 pandemic in March 2020, the Tobacco in Top Films methodology used total domestic (U.S. and Canada) box office revenue and domestic average ticket sale prices to estimate audience exposure to in-theater tobacco imagery. At the time of writing this report, the 58 top films released in 2023 that contained tobacco amassed over \$3 billion in total domestic box office revenue, with the average ticket price in the United States in 2023 being \$10.78. Top in-theater box office films in 2023 exposed an estimated 283,203,655 million *youth and adults* to tobacco imagery. We calculated this value by using an average price for a movie ticket and gathered domestic box office revenue data for films containing any tobacco from the Numbers and IMDB Pro, respectively (third-party). However, this method only partially accounts for population-level exposure to tobacco in films since the shift of film-watching behaviors, from theaters to streaming, due to the COVID-19 pandemic and the general shift in the media landscape. Moreover, this method is not exclusive to youth & young adults. Finally, the estimate likely overestimates the number of individuals who viewed a top 2023 film with tobacco in theaters because many individuals purchase several tickets to see films several times.

Audience Exposure to 2023 Films with Tobacco: Streaming

We estimated potential exposure to tobacco imagery in films viewed on streaming platforms among youth and young adults based on our calculations of the percentage of survey respondents who viewed at least one film containing tobacco on a streaming platform (75.15%). We scaled this estimate to the U.S. population, using the number of youth and young adults aged 15-24 as part of the 2022 American Community Survey (ACS) five-year estimates (approximately 39.7 million individuals). The resulting figure represents a gross estimate of youth exposed to tobacco on streaming platforms. This method suggests that films on streaming platforms had the potential to expose an estimated 29,802,158 youth and young adults (ages 15-24) to tobacco imagery, up from approximately 20 million youth and young adults potentially exposed to tobacco imagery in 2022. Our estimate of tobacco imagery exposure

among youth and young adults underestimates the true magnitude of exposure to tobacco imagery through streaming platforms and has several limitations.

Top 2023 Films Watched by Youth and Young Adults

From a randomized list of 30 top 2023 films, we asked youth and young adults to select the films they watched and where they first watched them (in theaters or on a streaming platform). The films most viewed by youth and young adults – ranked by percent watched –included *The Nightmare Before Christmas* (72.48%; G/PG; Walt Disney Studios; MPA member), *Spider-Man: Across the Spider-Verse* (70.99%; G/PG; Sony Pictures; MPA Member), *The Super Mario Bros. Movie* (67.91%; G/PG; Universal Pictures; MPA Member), *Barbie* (66.89%; PG-13; Warner Bros.; MPA Member), and *Avatar* (re-release) (65.70%; PG-13; Disney; MPA Member). MPA member studios produced all five films most watched by youth and young adults. Notably, *Avatar* (re-release) was the only top five film watched by youth and young adults that contained tobacco imagery.

Table 4 displays the top 2023 films by each age group. At least one film containing tobacco imagery appeared as a top watched film within each age group. Additionally, youth and young adults did not watch these top films in theaters: they watched these films on streaming platforms. Despite the continued release of films in theaters by production companies, our results demonstrate youth and young adults preferred streaming platforms to access and watch newly released films. This access is especially detrimental given the increasing portrayal of tobacco use and ease of accessing films containing these depictions, which may not be suitable for youth.

Table 4. Top 2023 Films Viewed by Respondent Age Category, with Rating, Platform, and Any Tobacco Imagery

Film	Rating	Commonly watched on streaming or in theaters	Any tobacco imagery	n (%)
Respondents aged 15-17 years				
<i>The Nightmare Before Christmas</i>	G/PG	Streaming platform	No	227 (58.21)
<i>Hocus Pocus</i>	G/PG	Streaming platform	Yes	193 (50.92)
<i>Avatar (Re-Release)</i>	PG-13	Streaming platform	Yes	170 (41.06)
<i>Little Mermaid</i>	G/PG	Streaming platform	No	171 (39.77)
<i>Spider-Man: Across the Spider-Verse</i>	G/PG	Streaming platform	No	163 (39.09)
Respondents aged 18-20 years				
<i>The Nightmare Before Christmas</i>	G/PG	Streaming platform	No	300 (62.89)
<i>Hocus Pocus</i>	G/PG	Streaming platform	Yes	246 (51.04)
<i>Avatar (Re-Release)</i>	PG-13	Streaming platform	Yes	244 (45.61)
<i>The Little Mermaid</i>	G/PG	Streaming platform	No	222 (43.61)
<i>The Super Mario Bros. Movie</i>	G/PG	Streaming platform	No	206 (38.94)
Respondents aged 21-24 years				
<i>The Nightmare Before Christmas</i>	G/PG	Streaming platform	No	269 (58.10)
<i>Avatar (Re-Release)</i>	PG-13	Streaming platform	Yes	284 (50.09)
<i>Hocus Pocus</i>	G/PG	Streaming platform	Yes	240 (50.00)
<i>The Little Mermaid</i>	G/PG	Streaming platform	No	261 (47.45)
<i>The Super Mario Bros. Movie</i>	G/PG	Streaming platform	No	226 (42.48)

Red text indicates films with tobacco imagery

Legacy Tobacco Depiction

As part of the 2023 report, we are defining a new subcategory of films data called "legacy tobacco depictions." This category flags any film that could either a.) contain depictions of prominent historical figures using tobacco products (e.g., the 2023 film *Oppenheimer*), or b.) is a re-release of an older film (e.g., re-release of the film *Titanic* for the 25th Anniversary). This category will enable us to examine tobacco in films that directly stem from older films or historical figures that are making an impact in contemporary film. This is especially relevant given the prominence of re-releases and biopics in today's media landscape.

Among our total 141 films, 12 films either contain depictions of historical figures using tobacco or are re-releases of older films. **Of these 12 films, all 12 films contain tobacco.** Table 5 displays these films and their total number of tobacco incidents (in descending order).

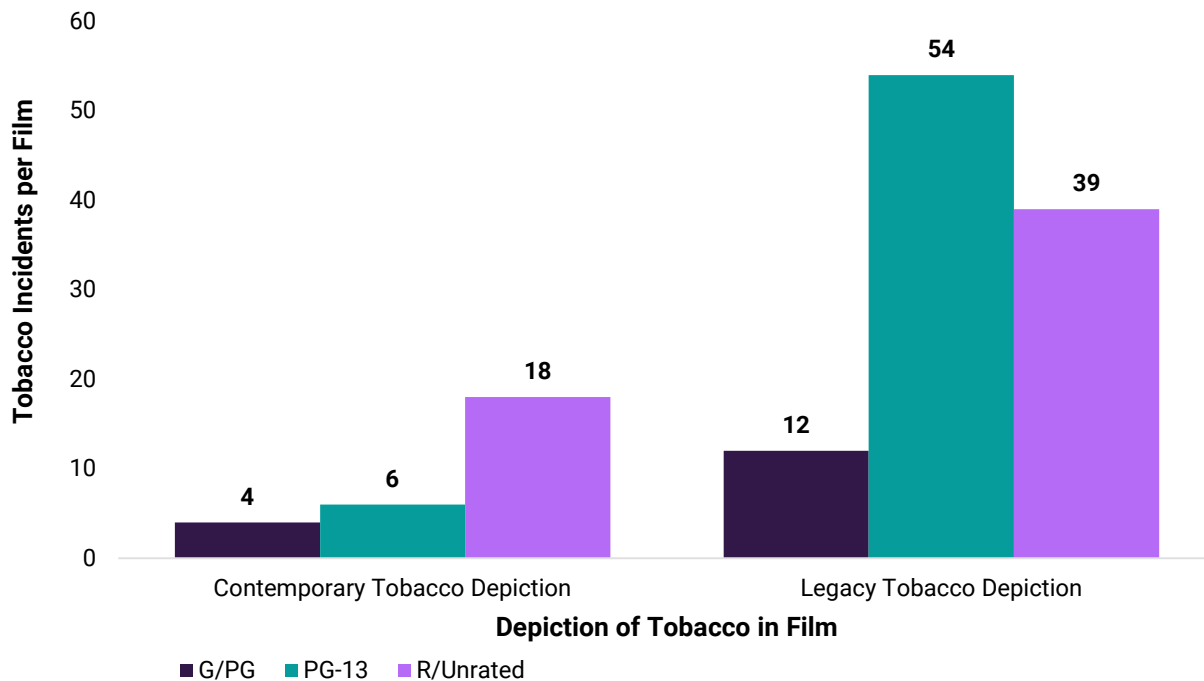
Table 5. Total Tobacco Incidents by Legacy Film (2023)

Legacy Film	Total Tobacco Incidents
<i>Oppenheimer</i>	137
<i>Titanic 25th Anniversary</i>	88
<i>Priscilla</i>	66
<i>Paint</i>	58
<i>Sound of Freedom</i>	58
<i>Ferrari</i>	19
<i>Star Wars: Episode VI- Return of the Jedi</i>	17
<i>Avatar (Re-release 2022)</i>	12
<i>Hocus Pocus</i>	6
<i>Napoleon</i>	6
<i>Air</i>	3
<i>The Iron Claw</i>	2

When breaking down total number of tobacco incidents per film by rating and legacy tobacco depiction status, we see that these legacy films not only all contain tobacco depictions, but they contain tobacco incidents at a higher rate than their contemporary counterparts. **Figure 3** displays tobacco incidents per film by rating and legacy tobacco depiction status. For example, among films that are PG-13 and neither contain a historical figure using tobacco nor are a re-release, we see approximately six tobacco incidents per film; among legacy tobacco depiction flagged films, we see approximately 54 incidents per film among PG-13 movies.

All legacy films released in 2023 contained tobacco incidents at a **higher rate** than contemporary films.

Figure 3. Tobacco Incidents per Film by Legacy Tobacco Depiction Status (2023)



Future Directions

The presence of tobacco content in historical films may continue to influence youth and young adult behaviors by normalizing tobacco use. Many of these films portrayed eras when smoking was socially acceptable and viewed in a glamorous or casual light. For younger audiences unfamiliar with the historical context of these portrayals, such depictions could inadvertently suggest that smoking remains

a normal and risk-free behavior, potentially increasing curiosity and experimentation with tobacco products.

Our findings continue to highlight youth and young adults' preferred use of streaming platforms to watch newly released films. The continued presence of tobacco imagery in films, particularly those being re-released or widely available through streaming platforms, presents a significant public health concern. Streaming services have made it easier than ever for youth to access films across various genres and time periods, many of which include tobacco use. Taken together with the increasing number of films featuring tobacco with historical and nostalgic titles displaying tobacco, this issue becomes even more pressing.

Future research should explore the impact of this ongoing exposure, focusing on how youth engagement with these films, both old and new, affects their perceptions and behaviors regarding tobacco use. With the rise of streaming and digital platforms, re-released films now have the potential to reach far broader and more diverse audiences than when they were originally shown exclusively in theaters. While historical data on audience size and exposure are limited, we could consider additional methodologies for accurately measuring exposure to tobacco among top box office films. For example, a data donation effort where youth and young adults donate their viewership data across several prominent streaming platforms (e.g., Netflix, Amazon, Max, Hulu) could enable a more accurate examination of exposure to tobacco in film. Additionally, other metadata should be considered for future work. For example, examining films alongside their ratings (such as IMDB user reviews) could be critical: films with greater renown may be substantially different in their level of tobacco incidents than films that received lower ratings.

Conclusion

The number of films with tobacco presence increased compared to recent prior years with approximately 41% (58 of 141 films) of top films containing tobacco imagery. Of the 1,989 total incidents of tobacco products in 141 rated films, cigarettes continue to dominate tobacco product presence in films, accounting for 1,315 incidents. An estimated 283 million youth and adults were exposed to tobacco imagery in top films watched in theaters in 2023, while approximately 29 million youth and young adults ages 15-24 were exposed to tobacco imagery viewing movies on streaming platforms. Streaming platforms proved their dominance again as the primary medium used to access newly released films for youth and young adults, as this youthful demographic preferred watching top 2023 films on streaming platforms.

Methods

This work started in 2002, with methods documented in full in prior reports. Breathe California staff monitor new movie release schedules, Box Office Weekend forecasts, and top 10 movie forecasts weekly. A film is chosen for screening and coding if it appeared at least once on a weekly top 10 list (e.g., Box Office Mojo). Once films are identified and released, one to three Breathe California staff members watch and code the film for the presence of tobacco. Staff members code the amount of tobacco displayed (incidents), tobacco use portrayal, character types using tobacco, and location of tobacco use, among other factors. NORC staff collects information on film production details, including media companies, producers, directors, actors, production budgets, and box office results from publicly available entertainment industry databases and publications (e.g., IMDB and The Numbers). Completed movie records are reviewed and published on the UCSF Smoke Free Media site, with Breathe California staff adjudicating and updating any discrepancies in the records.

NORC at the University of Chicago, in collaboration with Truth Initiative, fielded a survey in April 2024 to 4,281 youth and young adults (ages 15-24 years) to identify top box office films released in 2023 viewed among this audience. Truth Initiative gathered a representative sample of individuals with a race/ethnicity of 75% White, 13% Black/African American, 6% Asian or Pacific Islander, 6% American Indian Alaskan Native; 50% male, 50% female; 33% aged 15-17 years, 33% aged 18-21 years, and 33% aged 22-24 years. The survey displayed a randomized block list of 30 films out of the 141 included in the Tobacco Onscreen Database. From the list of 30, respondents selected the films they watched and where they first watched them (in theaters or on a streaming platform, if at all). The survey also asked respondents about their demographics, tobacco use, future use intention, and quitting behaviors.

NORC at the University of Chicago compiled all film records and survey data for 2023 films, analyzed the results, and prepared this report funded by Truth Initiative.

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Appendix

Appendix A. Youth Rated Films Containing Tobacco Incidents (2023)

Title	Release Month	Rating	Total Tobacco Incidents
Asteroid City	June	PG-13	179
Titanic (25th Anniversary)	February	PG-13	88
Paint	April	PG-13	58
Sound of Freedom	July	PG-13	58
About My Father	May	PG-13	46
The Hill	September	G/PG	45
Indiana Jones and the Dial of Destiny	June	PG-13	26
Star Wars: Episode VI- Return of the Jedi	April	G/PG	17
The Boys in the Boat	December	PG-13	16
Suzume	April	G/PG	15
Godzilla Minus One	December	PG-13	14
The Color Purple	December	PG-13	13
Past Lives	April	PG-13	12
Avatar	September	PG-13	12
Jesus Revolution	February	PG-13	7
Hocus Pocus	October	G/PG	6
The Boy and the Heron	December	PG-13	6