



## FACT SHEET | Smokefree Movies: Top numbers

Bolded statements are based on the US Center for Disease Control and Prevention's Smoking in the Movies [fact sheet](#), 22 August 2014. This memorandum brings together references for these statements and explains the simple calculations behind the conclusions. Estimates of the harm to young audiences from exposure to movies with smoking and the R-rating's potential benefits supersede past estimates based on older data.

### POINT #1:

#### **R-rating movies with smoking would lead to an 18% reduction in youth smoking.**

**SOURCE:** [The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General](#). 17 January 2014. US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, Ga. (p. 873). **Comment:** The Surgeon General report cites Sargent JD, Tanski S, Stoolmiller M (2012) Influence of motion picture rating on adolescent response to movie smoking. [Pediatrics](#) 130:2 228-236 doi:10.1542/peds.2011-1787. They estimate an 18% reduction in adolescent smoking (95% confidence interval, 14-21%).

### POINT #2:

#### **R-rating movies with smoking would avert 1 million smoking deaths among today's children and teens.**

**Explanation:** The 18% reduction in smoking and consequent death rates is applied to the 5.6 million of today's Americans under 18 years projected to die from smoking. **Source:** Surgeon General (2014), Table 12.2.2 (p. 697). **Calculation:** 5.6 million X 0.18 = 1,008,000 deaths averted.

### POINT #3:

#### **Movies with smoking will cause 2 million smoking deaths among today's children and teens. R-rating movies with smoking would cut those deaths in half, by 1 million.**

**Explanation:** Meta-analysis of US population studies of the effects of exposure indicates that exposure to on-screen smoking recruits 37% of new adolescent smokers: attributable risk 0.37 (95% confidence interval, 25-52%). **Source:** Glantz SA (2012) [Updated attributable risk for smoking due to movies: 37%](#). UCSF Center for Tobacco Control Research and Education. **Calculation:** 5.6 million X 0.37 = 2,072,000 deaths. **Comment:** Population studies and tracking of the tobacco impressions delivered by youth-rated movies both predict the R-rating would eliminate half of young audiences' exposure. Because their attributable risk from this exposure is dose-related, it is logical to predict their 37% risk would also be reduced by half, to 18%.

### POINT #4:

#### **Movies with smoking will cause 6.4 million of today's children and teens to become smokers. By extension, R-rating movies with smoking would keep 3.1 million kids from smoking.**

**Explanation:** The Surgeon General projects that 17,371,900 of Americans under 18 years of age will become smokers. **Source:** Surgeon General (2014) at Table 12.2.1 (p. 695). **Calculation:** 17.4 million X 0.37 [attributable risk] = 6.4 million smokers. 17.4 million X 0.18 [projected reduction in youth smoking rate from R-rating movies with smoking] = 3.1 million smokers averted.

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