



TOBACCO AND SOCIOECONOMIC STATUS

Tobacco is the leading cause of death in the United States, killing more than 480,000 Americans every year.¹ Another 16 million Americans suffer from a smoking-caused disease, disability, or other serious health problem.² Thanks to the tobacco industry's targeted marketing efforts, lower-income and less educated populations are particularly burdened by tobacco use: low-income people smoke more, suffer more, spend more, and die more from tobacco use. The tobacco industry has gone to great lengths to target lower income and racial and ethnic groups.³ Through market research and aggressive promotions, the industry has successfully penetrated these communities, and the industry's "investment" in these communities has had a destructive impact.

Tobacco Use among Lower-Income Populations

There are enormous and growing disparities in who smokes and who suffers from tobacco-related disease. Alarming, research released by the Brookings Institution in 2016 revealed that the gap in life expectancy between those in the top half of the earnings ladder and those in the bottom half has grown dramatically for both men and women.⁴ Research published in the Journal of the American Medical Association (JAMA) in April 2016 found that for men, the richest Americans live nearly 15 years longer than the poorest Americans. For women, the richest Americans live 10 years longer than their poorest counterparts.⁵

Researchers from Duke University and the Centers for Disease Control and Prevention have concluded that differences in smoking rates are a major cause of this gap in life expectancy. Specifically, researchers calculated that the disparity in smoking rates among the rich and poor account for a third of the gap in life expectancy between white men with college degrees and white men with only a high school education. For white women, the disparity in smoking rates accounted for a quarter of the gap in life expectancy.⁶

Smoking is directly correlated with income level and years of education. Since the release of the first Surgeon General's Report on smoking in 1964, smoking has become ever more concentrated among populations with lower incomes and fewer years of education. In the past, the highest income Americans smoked at levels even greater than the poorest; now they smoke at almost half the rate of those with the lowest income.

- 21.4 percent of adults with a household income less than \$35,000 smoke, compared to 11.8 percent of adults with a household income between \$75,000 and \$100,000, and 7.6 percent of those with a household income of \$100,000 or more.⁷
- 24.5 percent of Medicaid enrollees* and 24.7 percent of uninsured individuals smoke, compared to 10.5 percent with private insurance coverage.⁸
- Among adults 25 and older, 23.1 percent who do not graduate from high school smoke and 36.8 percent with a GED smoke, compared to just 7.1 percent of those with a college education and 4.1 percent of those with a graduate degree.⁹
- Smoking among non-college bound high school seniors is more than twice that of college bound high school seniors (16.5% vs. 8.0%, respectively).¹⁰

* Those with Medicaid coverage, but no other insurance coverage (e.g., excludes those who are dual eligible for Medicaid and Medicare)

- A study of cigarette smoking prevalence in U.S. counties found that, while the U.S. as a whole has made significant progress in reducing smoking from 1996-2012, rates vary dramatically between counties with different income levels, even within the same state. Counties with higher average incomes experienced more rapid declines than counties with lower average incomes.¹¹
- Compared to white-collar workers, blue-collar workers are more likely to start smoking (and begin smoking at a younger age), more likely to smoke more heavily and less likely to quit. These trends are likely influenced by the lower availability of workplace rules against smoking and workplace smoking cessation programs for blue-collar workers. White-collar workers have greater access to cessation programs and often have workplace rules limiting smoking.¹²
- An analysis of data on ever smokers from the 2003, 2006 and 2007 Tobacco Use Supplement of the Current Population Survey found that individuals in poverty had a median duration of smoking of 40 years, while those with a family income three times the poverty threshold had a median duration of 22 years. Similarly, the median duration of smoking among individuals without a high school education was 40 years, while it was 18 years among those with at least a bachelor's degree.¹³
- Families with the highest income level experienced a 62 percent reduction in current smoking between 1965 and 1999, while families with the lowest income level only experienced a 9 percent reduction in current smoking rates over the same time period.¹⁴ Similarly, although the prevalence of smoking declined across all occupational groups from 1992 to 2007, it declined more quickly among white-collar workers than among service- and blue-collar workers.¹⁵

Health Implications

Because they smoke more, lower-income smokers disproportionately suffer from smoking-caused disease. In addition to causing chronic diseases such as stroke, heart disease and diabetes, smoking is a known cause of cancer of the lung, larynx, oral cavity, liver, colon and rectum, esophagus, bladder, pancreas, cervix, kidney, stomach and blood.¹⁶ Over 130,000 men and women die of smoking caused lung cancer each year.¹⁷ From 2009 to 2013, counties with the lowest educational attainment or highest poverty had the highest tobacco-related cancer incidence and death rates as well as the slowest decline in incidence rates.¹⁸ Smoking causes most cases of chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis; and more than 150,000 Americans die from smoking-related cardiovascular diseases each year.¹⁹ Data from 1973-2001 shows that those with less than a high school education had higher lung cancer incidence (twice as high for women and three times as high for men) than those with a college education.²⁰

Lower-income people are also more likely to suffer the harmful consequences of exposure to secondhand smoke. In 2011 – 2012, 43.2 percent of people living below the poverty level were exposed to secondhand smoke, compared to 21.2 percent of people living at or above the poverty level.²¹ People employed in blue-collar occupations also are more likely to be exposed to secondhand smoke on the job than their white-collar counterparts. Only 83.2 percent of blue-collar workers (and just 67.8 percent of construction workers) work in an environment with a smoke-free workplace policy, compared to 90.7 percent of white-collar workers.²² Workers who are exposed to secondhand smoke for hours every day are at increased risk of lung cancer, heart disease and serious lung ailments.²³ The prevalence of secondhand smoke exposure in the home is also highest among lower-income adults and children. Almost 50% of low-income children live with a smoker.²⁴

To make matters worse, lower-income populations have limited access to health care and thus are more likely to be diagnosed later, after their condition has worsened and they are in greater need of care and services.²⁵ Unfortunately, lower-income populations who have the greatest need for care often go without treatment or receive poor quality care.²⁶

Additionally, data suggest that cigarette consumption is associated with increased “food insecurity” (not always being able to put enough food on the table). According to researchers, low-income families who were food insecure were more likely to have a head of household or spouse who smoked cigarettes than low-income families who were food secure (43.6% vs. 31.9%, respectively).²⁷ On average, low-income families with an adult smoker spent more than \$43 per week on cigarettes (assuming an average price of

\$6.16 per pack).²⁸ The extent to which cigarettes are substituted for food in low-income families negatively impacts the household's food security.

Targeting Lower-Income Smokers

As smoking rates have declined in higher income populations, the tobacco industry increasingly relies on low income populations for its consumer base, targeting this price sensitive population through price discounting and promotions, undermining policy efforts to reduce the price of tobacco. In 2016, price discounts for cigarettes (e.g., off-invoice discounts, buy downs and voluntary price reductions to reduce the price of cigarettes to consumers) totaled over \$7.2 billion, accounting for 83 percent of total cigarette company marketing expenditures and making it by far the largest marketing expense category. Cigarette companies spent an additional \$380 million on coupons in 2016, a 10 percent increase from 2015.²⁹ These price discounts are often specifically targeted towards low income communities. For example, a 2011 study found that cigarettes sold in low-income and minority communities in Boston had a lower mean advertised price.³⁰

Researchers have also found a higher density of tobacco retailers in lower-income neighborhoods.³¹ This is concerning given the substantial amount of evidence indicating that tobacco retailer density is associated with greater exposure to tobacco product marketing³² and more access and availability to tobacco products, which can curb quit attempts, prompt impulse purchases, and cue cravings to smoke.³³

Helping Lower-Income Smokers Quit

In general, lower-income smokers are not only more likely to start smoking but also less likely to quit than higher-income smokers. For example, the percentage of smokers who have quit is higher for those at or above the poverty level than for those below the poverty line. Similarly, the percentage of smokers who have quit is highest for those with college degrees and lowest among those with less than a high school education.³⁴ Quit attempts also increase with education level. In 2012, 39% of adults with less than a high school degree had made a quit attempt, compared to 49 percent of those with a college degree.³⁵

One of the best ways to prompt lower-income smokers to quit is by raising cigarette prices through cigarette tax increases. Numerous studies have documented the fact that raising the price of cigarettes directly reduces both adult and youth smoking, particularly among low-income smokers.³⁶ An examination of population-level tobacco control interventions found that raising tobacco product prices has the strongest evidence of effectiveness on reducing smoking among lower-income populations.³⁷ While cigarette companies and some other opponents of cigarette tax increases argue that they are unfair to those with lower income, lower-income communities are actually the major beneficiaries because they enjoy the largest declines in smoking and smoking-caused harms and costs.³⁸

Low income populations can also benefit from the revenue raised by tobacco excise taxes, but only if some portion of these revenues are dedicated to programs that deliver services to the underserved. More smokers would quit if they had additional help from cessation resources, such as nicotine replacement therapies, other medications and counseling. Research shows that comprehensive tobacco cessation coverage, which includes pharmacotherapy and counseling, is associated with a greater likelihood of Medicaid recipients quitting smoking than with pharmacotherapy coverage alone or no coverage at all.³⁹

Access to cessation services, however, is still quite limited, especially for lower-income smokers.⁴⁰ As of June 30, 2017, all 50 states and the District of Columbia covered some cessation treatments for all traditional Medicaid enrollees, but only 10 states[†] offer all seven FDA-approved cessation medications and individual and group counseling to all traditional Medicaid enrollees.[‡] Regardless of the extent of Medicaid coverage, all states but one – Missouri – still had at least one barrier to accessing coverage, such as prior authorization requirements and required co-payments, which could dissuade enrollees from seeking assistance to quit smoking.⁴¹ Further, research indicates that many smokers with Medicaid

[†] The ten states are California, Connecticut, Indiana, Massachusetts, Maine, Minnesota, North Dakota, Ohio, Pennsylvania and Vermont.

[‡] Telephone counseling is available free to callers to state quitlines (including Medicaid enrollees) in all 50 states and the District of Columbia through the national quitline portal 1-800-QUIT-NOW and, therefore, was not included in the 2018 report.

coverage do not receive help in quitting even though cessation benefits are covered. It has been estimated that only 1 in 10 current smokers on Medicaid received cessation medications in 2013.⁴²

In addition, 28 million Americans are without health insurance.⁴³ Individuals below poverty are more likely to be uninsured; eight out of ten uninsured individuals are low- or moderate-income (below 400% of poverty).⁴⁴ This barrier is compounded by research showing that those without insurance and with lower education and income are less likely to report receiving cessation assistance from a healthcare provider.⁴⁵

Benefits from Reducing Tobacco Use among Lower-Income Smokers

Reducing tobacco use among any segment of society produces enormous public health and economic benefits by reducing premature death and disability, improving worker productivity, reducing smoking caused costs and shifting resources currently expended on tobacco use and smoking-caused costs to more productive purposes. Since smoking and other tobacco use is more prevalent among lower-income populations (and there are more lower-income than higher-income individuals), these benefits can be most effectively secured by focusing efforts to prevent and reduce tobacco use in lower-income communities. Such efforts will also provide additional, special benefits.

For example, lower-income smokers spend a larger portion of their income on tobacco products and related costs than higher-income smokers, sometimes diverting resources that could be used on necessities such as food, shelter and health care or for education and job training. Helping a lower-income pack-a-day smoker to quit would, on average, free up for more productive use more than \$2,400[§] per year that he or she previously spent on cigarettes. This would produce enormous benefits for lower-income households. Reductions to other smoking-caused costs would add to this benefit, making the lower-income households more secure and self-reliant and increasing the chances for a much brighter future for lower-income kids.

Reducing tobacco use among lower-income smokers will also directly reduce smoking-caused government expenditures and related tax burdens. For example, 15.2 percent (\$39.6 billion) of Medicaid expenditures are attributed to smoking.⁴⁶

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¹ HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.

² HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>. See also, HHS, *Let's Make the Next Generation Tobacco-Free: Your Guide to the 50th Anniversary Surgeon General's Report on Smoking and Health*, Consumer Booklet, 2014.

³ Stoddard, JL, et al., "Target Tobacco Markets: Outdoor Advertising in Los Angeles Minority Neighborhoods," *American Journal of Public Health* 87:1232-3, July 1997. See also, Laws, MB et al., "Tobacco availability and point of sale marketing in demographically contrasting districts of Massachusetts," *Tobacco Control* 11(Suppl 2):71-73, June 2002. HHS, *Tobacco Use Among U.S. Racial/Ethnic Minority Groups: A Report of the Surgeon General*, 1998, http://www.cdc.gov/tobacco/data_statistics/sgr/1998/index.htm.

⁴ Bosworth, Barry, et al., "Later Retirement, Inequality in Old Age, and the Growing Gap in Longevity between Rich and Poor", Brookings Institution, February 2016 <http://www.brookings.edu/research/reports/2016/02/life-expectancy-gaps-promise-social-security>

⁵ Chetty, R, et al., "The association between income and life expectancy in the United States, 2001-2014," *JAMA*, published online first April 10, 2016.

⁶ Ho, Jessica and Fenelon, Andrew, "The Contribution of Smoking to Educational Gradients in U.S. Life Expectancy," *Journal of Health and Social Behavior*, Vol 56(3), 2015.

⁷ Centers for Disease Control and Prevention (CDC), "Tobacco Product Use Among Adults—United States, 2017," *MMWR* 67(44): 1225-1232, November 9, 2018, <https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6744a2-H.pdf>. Current smoking is defined as persons who reported having smoked \geq 100 cigarettes during their lifetimes and, at the time of the survey, reported smoking every day or some days.

⁸ CDC, "Tobacco Product Use Among Adults—United States, 2017," *MMWR* 67(44): 1225-1232, November 9, 2018, <https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6744a2-H.pdf>.

⁹ CDC, "Tobacco Product Use Among Adults—United States, 2017," *MMWR* 67(44): 1225-1232, November 9, 2018, <https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6744a2-H.pdf>.

¹⁰ University of Michigan, Monitoring the Future Study, 2017, http://monitoringthefuture.org/pubs/monographs/mtf-vol1_2017.pdf.

[§] Based on average savings across all states. Actual amount would vary based on state of residence. See <https://www.tobaccofreekids.org/research/factsheets/pdf/0337.pdf> for more information.

- ¹¹ Dwyer-Lindgren, L, et al., "Cigarette smoking prevalence in US counties: 1996-2012," *Population Health Metrics*, March 24, 2014, <http://www.pophealthmetrics.com/content/12/1/5>.
- ¹² Ham, DC, et al., "Occupation and Workplace Policies Predict Smoking Behaviors: Analysis of National Data from the Current Population Survey," *J Occup Environ Med*, 53(11):1337-1345, November 2011.
- ¹³ Siahpush, M, et al., "Racial/ethnic and socioeconomic variations in duration of smoking: results from 2003, 2006 and 2007 Tobacco Use Supplement of the Current Population Survey," *Journal of Public Health*, Published online November 5, 2009.
- ¹⁴ Current Population Survey, 1999.
- ¹⁵ Ham, DC, et al., "Occupation and Workplace Policies Predict Smoking Behaviors: Analysis of National Data from the Current Population Survey," *J Occup Environ Med*, 53(11):1337-1345, November 2011. See also, Arheart, KL, et al., "Declining Trends in Serum Cotinine Levels in US Worker Groups: the Power of Policy," *J Occup Environ Med*, 50(1):57-63, January 2008.
- ¹⁶ National Institutes of Health, "Cancer Rates and Risks," 1996. U.S. Department of Health and Human Services (HHS), *The Health Consequences of Smoking. A Report of the Surgeon General*, 2004, <http://www.surgeongeneral.gov/library/smokingconsequences/>; See also, HHS, *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General*, 1989, <http://profiles.nlm.nih.gov/NN/B/B/X/S/>; HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.
- ¹⁷ HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.
- ¹⁸ CDC, "Vital Signs: Disparities in Tobacco-Related Cancer Incidence and Mortality—United States, 2004-2013," *Morbidity & Mortality Weekly Report*, 65(44): 1212-1218, <http://www.cdc.gov/mmwr/volumes/65/wr/mm6544a3.htm>.
- ¹⁹ HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.
- ²⁰ Clegg, L.X., et al., "Impact of socioeconomic status on cancer incidence and stage at diagnosis: selected findings from the surveillance, epidemiology, and end results: National Longitudinal Mortality Study," *Cancer Causes Control*, 20(4), 2009.
- ²¹ CDC, "Vital Signs: Disparities in Nonsmokers' Exposure to Secondhand Smoke – United States, 1999-2012," *Morbidity and Mortality Weekly Report*, February 3, 2015.
- ²² Ham, DC, et al., "Occupation and Workplace Policies Predict Smoking Behaviors: Analysis of National Data from the Current Population Survey," *J Occup Environ Med*, 53(11):1337-1345, November 2011.
- ²³ Health Effects of Exposure to Environmental Tobacco Smoke, The Report of the California Environmental Protection Agency, National Institutes of Health, 1999.
- ²⁴ See e.g., DHHS, CDC, "Disparities in Secondhand Smoke Exposure—United States, 1998-1994 and 1999-2004," *MMWR*, 57(20), 2008. HRSA, Maternal and Child Health Bureau, "Smoking in the Household," June 2010, <http://mchb.hrsa.gov/ruralhealth/family/18sh.htm>. King, K., et al., "Family Composition and Children's Exposure to Adult Smokers in Their Homes," *Pediatrics*, 123(4): 559-564, 2009.
- ²⁵ Adler, NE, et al., "Socioeconomic inequalities in health: No easy solution," *JAMA* 269:3140-5, 1993.
- ²⁶ Fiscella, K, et al., "Inequality in quality: Addressing socio-economic, racial, and ethnic disparities in health care," *JAMA* 283(19):2579-2584, May 17, 2000.
- ²⁷ Armour, BS, et al., "Cigarette Smoking and Food Insecurity among Low-Income Families in the United States, 2001," *American Journal of Health Promotion* 22(6):386.
- ²⁸ Orzechowski & Walker, *Tax Burden on Tobacco*, 2015; media reports; state tax officials; U.S. Department of Agriculture, Economic Research Service.
- ²⁹ U.S. Federal Trade Commission (FTC), Cigarette Report for 2016, 2018, https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2016-federal-trade-commission-smokeless-tobacco-report/ftc_cigarette_report_for_2016_0.pdf [data for top 5 manufacturers only].
- ³⁰ Seidenberg, A, et al. "Storefront Cigarette Advertising Differs by Community Demographic Profile," *Am J Health Promot*, 24(6): e26-231, 2011.
- ³¹ See, e.g., Yu, D, et al., "Tobacco outlet density and demographics: analyzing the relationships with a spatial regression approach," *Public Health*, 124(7): 412-416, 2010. Hyland, A, et al., "Tobacco Outlet Density and Demographics in Erie County, New York." *Am J Public Health* 93(7): 1075-1076, 2003. Schneider, J, "Tobacco outlet density and demographics at the tract level of analysis in Iowa: implications for environmentally based prevention initiatives," *Prev Sci* 6(4): 319-325, 2005.
- ³² Barbeau, M, "Tobacco advertising in communities: associations with race and class," *Prev Med*, 40(1): 16-22, 2005.
- ³³ See, e.g., Paynter & Edwards, "The impact of tobacco promotion at the point of sale: a systematic review," *Nicotine Tob Res*, 11(1): 25-35, 2014. Carter, OB, et al, "The effect of retail cigarette pack displays on unplanned purchases: results from immediate postpurchase interviews," *Tob Control*, 18(3): 218-221, 2009.
- ³⁴ CDC, "Quitting Smoking Among Adults—United States, 2001–2010," *MMWR* 60(44):1513–1519, November 11, 2011, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6038a2.htm?s_cid=%20mm6038a2.htm_w. See also, HHS, Tobacco Use Supplement to the Current Population Survey (TUS-CPS), 2010-11 TUS-CPS Data, Table 3: Cigarette Smoking Quit Attempts & Cessation, <http://appliedresearch.cancer.gov/studies/tus-cps/results/data1011/table3.html>, March 13, 2014.
- ³⁵ HHS, *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.
- ³⁶ See, e.g., CDC, "Responses to Cigarette Prices By Race/Ethnicity, Income, and Age Groups—United States, 1976-1993," *MMWR* 47(29):605-609, July 31, 1998, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00054047.htm>. Chaloupka, FJ & Pacula, P, *An Examination of Gender and Race Differences in Youth Smoking Responsiveness to Price and Tobacco Control Policies*, National Bureau of Economic Research, Working Paper 6541, April 1998.
- ³⁷ See, e.g., Thomas, S, et al. "Population tobacco control interventions and their effects on social inequalities in smoking: systematic review," *Tob Control* 17: 230-237, 2008. Hill, S, et al., "Impact of tobacco control interventions on socioeconomic inequalities in smoking: review of the evidence," *Tob Control* 23: e89-e97, 2014.

³⁸ See, e.g., Campaign for Tobacco-Free Kids factsheet, *State Cigarette Tax Increases Benefit Lower-Income Smokers and Families*, <http://tobaccofreekids.org/research/factsheets/pdf/0147.pdf>, and *Responses to Misleading and Inaccurate Cigarette Company Arguments Against State Tobacco Tax Increases*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0227.pdf>.

³⁹ Green, J., et al., "The Impact of Tobacco Dependence Treatment Coverage and Copayments in Medicaid," *American Journal of Preventive Medicine*, 46(4):331-336, 2014.

⁴⁰ CDC, "State Medicaid Coverage for Tobacco Cessation Treatments and Barriers to Coverage—United States, 2015-2017," *MMWR*, 67(13), April 6, 2018, <https://www.cdc.gov/mmwr/volumes/67/wr/mm6713a3.htm>

⁴¹ CDC, "State Medicaid Coverage for Tobacco Cessation Treatments and Barriers to Coverage—United States, 2015-2017," *MMWR*, 67(13), April 6, 2018, <https://www.cdc.gov/mmwr/volumes/67/wr/mm6713a3.htm>.

⁴² Ku, Leighton, et al., "Medicaid Tobacco Cessation: Big Gaps Remain in Efforts to Get Smokers to Quit," *Health Affairs* 35, no. 1, 2016.

⁴³ Barnett, Jessica C. and Edward R. Berchick, "Health Insurance Coverage in the United States: 2016," *Current Population Reports*, U.S. Government Printing Office, Washington, DC, 2017, <https://www.census.gov/content/dam/Census/library/publications/2017/demo/p60-260.pdf>.

⁴⁴ Kaiser Family Foundation, "Key Facts About the Uninsured Population," November 2017, <https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/>

⁴⁵ Browning, K.B., et al., "Socioeconomic Disparity in Provider-Delivered Assistance to Quit Smoking," *Nicotine & Tobacco Research*, 10(6): 55-61, 2008.

⁴⁶ Xu, X, et al., "Annual Healthcare Spending Attributable to Cigarette Smoking," *American Journal of Preventive Medicine*, 2014.