

Reducing Tobacco Use in Maine: Building on success, investing in the future



Health Costs of Tobacco Use

The use of tobacco products remains the nation's number one cause of preventable death. Tobacco use is responsible for nearly 1 in 5 deaths nationwide.ⁱ In Maine:ⁱⁱ

- An estimated 2,400 deaths are caused by smoking each year, equivalent to almost 7 deaths a day.
- 19.8 percent of adults and 11.2 percent of high school students smoke cigarettes, both well above the national average. Maine has the highest adult and youth smoking rates of any Northeast state.
- 600 kids under 18 become new daily smokers each year.
- 29 percent of cancer deaths in Maine are caused by smoking.

In addition to lung cancer, smoking causes cancer in the trachea, bronchus, esophagus, oral cavity, lip, nasopharynx, nasal cavity, larynx, stomach, bladder, pancreas, kidney, liver, uterine cervix, colon and rectum, and causes leukemia according to the Centers for Disease Control and Prevention (CDC). In addition to cancer, tobacco increases the risk of heart attack, stroke, COPD, emphysema, chronic bronchitis, preterm delivery, stillbirth, low birth weight, SIDS, and other diseases.ⁱⁱⁱ In fact, in Maine, tobacco use is the leading preventable risk factor for 4 of the top 5 causes of death – cancer, heart disease, lung disease and stroke.^{iv}



Economic Costs of Smoking^v

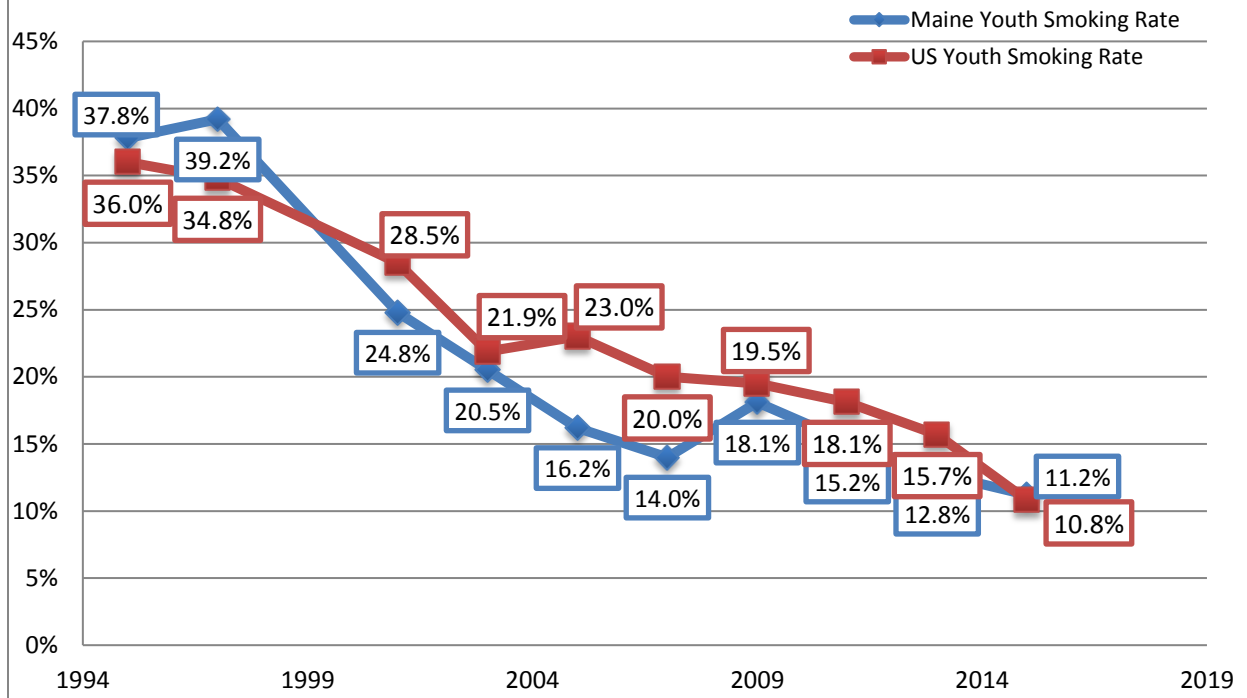
Tobacco-related illnesses are expensive and harmful for all of us. Each year in Maine, smoking is estimated to cost \$811 million in direct health care costs, including \$261.6 million in Medicaid costs. Additionally, Maine experiences \$647 million in productivity losses annually attributable to smoking. Maine taxpayers pay \$1,149 per household in state and federal taxes for smoking-caused government expenditures.

Tobacco Use Among Maine's Youth

There are an estimated 27,000 kids now under the age of 18 and alive in Maine who will ultimately die prematurely from smoking.^{vi} Youth use of tobacco remains unacceptably high with new users starting every day. National data show that about 95% of adults who smoke begin smoking before they turn 21.^{vii}

In 1996, Maine had one of the highest youth smoking rates in the nation. In 1997, Maine established and funded an evidence-based state tobacco control program, the Partnership for a Tobacco-Free Maine. In addition, in the late 1990s and early 2000s, Maine policymakers passed legislation that increased the price of tobacco products and implemented comprehensive smoke-free policies. This comprehensive, evidence-based policy approach helped spur significant declines in Maine's youth smoking rate, as it fell below the national average. However, as policy progress stalled and tobacco control program funding has declined, reductions in youth smoking rates have also slowed. In 2015, for the first time in nearly twenty years, Maine's high school smoking rate was higher than the national average.

Smoking Rates--High School Students Maine & US, 1995-2015 YRBS

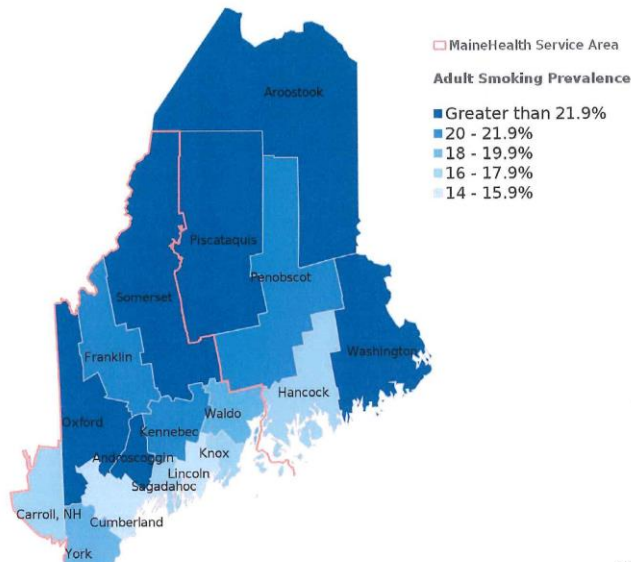


However, youth tobacco use is not limited to cigarettes. In 2015, 24.5 percent of Maine high school students used some form of tobacco including cigarettes, smokeless, cigars, and electronic cigarettes.^{viii} According to a 2016 US Surgeon General report on e-cigarettes, “although conventional cigarette smoking has declined markedly over the past several decades among youth and young adults in the United States, there have been substantial increases in the use of emerging tobacco products among these populations in recent years. Among these increases has been a dramatic rise in electronic cigarette (e-cigarette) use among youth and young adults. It is crucial that the progress made in reducing cigarette smoking among youth and young adults not be compromised by the initiation and use of e-cigarettes.”^{ix} Moreover, according to a press release on a Congressionally-mandated report from the National Academies of Sciences, Engineering, and Medicine, released in January 2018, “Among youth -- who use e-cigarettes at higher rates than adults do -- there is substantial evidence that e-cigarette use increases the risk of transitioning to smoking conventional cigarettes.”^x

Geographic Disparities in Tobacco Use in Maine^{xi}

Tobacco use does not impact all communities equally, as use rates vary significantly among certain populations. Smoking prevalence in Maine varies by geographic location for both youth and adults. The adult smoking rate ranges from 14.5 percent in Cumberland county to a high of 26.2 percent in Somerset county. The youth smoking rate ranges from a low of 9 percent in Cumberland and Androscoggin counties to a high of 16 percent in Sagadahoc county.

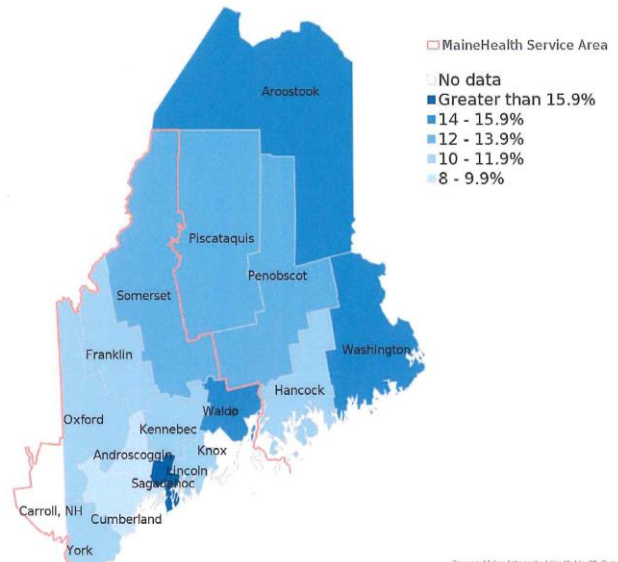
Adult Prevalence - Smoking Prevalence in Maine (2013-2015)



Source: BRFSS

MaineHealth
Health Index

Youth Prevalence/Exposure - Cigarette Use in Last Month (2015)



Source: Maine Integrated Youth Health Survey (MIYHS)

MaineHealth
Health Index

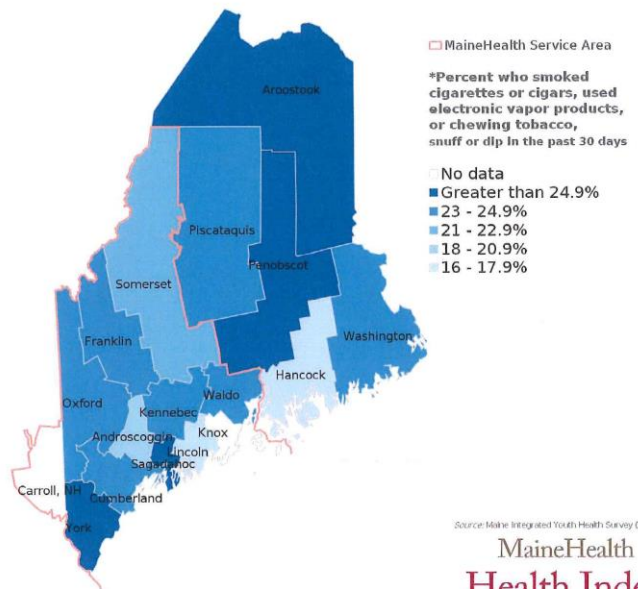
There are also geographic differences in youth prevalence of any form of tobacco use, ranging from a low of 16 percent in Hancock county to a high of 28 percent in Aroostook county. Aroostook and Sagadahoc counties have relatively high rates of cigarette smoking as well as use of any form of tobacco product. York County has a relatively low rate of cigarette smoking, but has one of the highest use rates of all tobacco products, largely driven by e-cigarette use.

E-cigarette aerosol poses potential risk to users and nonusers. The most recent Surgeon General’s report concluded that “e-cigarette aerosol is not harmless. It can contain harmful and potentially harmful constituents, including nicotine.”^{xii}

Besides nicotine, e-cigarettes can contain harmful and potentially harmful ingredients, including:

- ultrafine particles that can be inhaled deep into the lungs
- flavorants such as diacetyl, a chemical linked to serious lung disease
- volatile organic compounds
- heavy metals, such as nickel, tin, and lead

Youth Prevalence/Exposure - Percent of High School Student Exposed to Any* Form of Tobacco (2015)



Source: Maine Integrated Youth Health Survey (MIYHS)

MaineHealth
Health Index

Tobacco Use Disparities

Despite progress in reductions in overall smoking rates there continues to be a high prevalence of cigarette smoking among subpopulations. A recent study found that there are disparities nationwide in adult smoking prevalence based on education status, socioeconomic status, race/ethnicity, mental illness, sexual orientation, military service, and geography.^{xiii} Research has shown some subpopulations face increased exposure to tobacco industry marketing. In fact, there is often “purposeful targeting of vulnerable populations such as working class youth, inner cities areas that are predominantly black and/or low-income and the LGBT community. In all cases, the industry is keen to target youth and young adults.”^{xiv} Every year the tobacco industry spends an estimated \$41.8 million marketing their deadly products in Maine.^{xv}

The Solution

The good news is that Maine can reduce tobacco use, save lives, and save money by implementing three proven solutions to the problem: 1) Fully funding evidence-based tobacco prevention and cessation 2) Regular and significant increases in tobacco taxes and 3) Preserving its comprehensive smoke-free law. Like a three-legged stool, each component works in conjunction with the others, and all three are necessary to overcome the tobacco epidemic. A 2013 study published in the *American Journal of Public Health* found that between 2002 and 2008, each of these measures separately contributed to declines in youth smoking and together they reduced the number of youth who smoke by about 220,000 nationwide. The study also found that states could achieve far greater gains if they more fully implemented these proven strategies.^{xvi} These policies are also effective in helping tobacco users to quit.^{xvii}

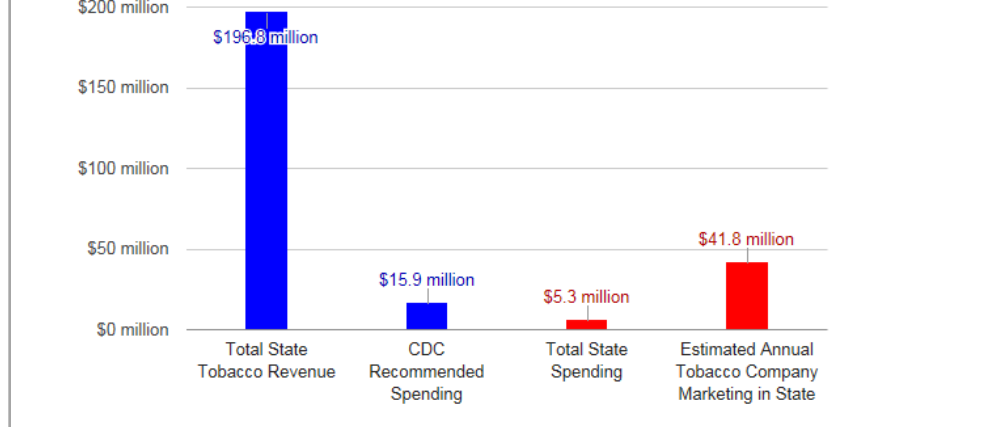
Fully Funded State Tobacco Prevention and Cessation Programs

ACS CAN advocates for state tobacco control program funding consistent with best practices and funding recommendations from the CDC. Evidence-based, statewide tobacco control programs that are comprehensive, sustained, and accountable have been shown to reduce tobacco use rates, as well as tobacco-related diseases and deaths. Research shows that the more states spend on comprehensive tobacco control programs, the greater the reductions in tobacco use. The longer states invest in such programs, the greater and quicker the impact. Tobacco prevention is one of the smartest and most fiscally responsible investments that states can make.

- **Reduce Tobacco Use:** From 2009 to 2015, smoking among North Dakota’s high school students fell by 48 percent, from 22.4 percent to 11.7 percent.^{xviii} In Florida, the high school smoking rate fell to just 6.9 percent in 2015, far below the national rate.^{xix} Both of these states have made significant, long-term investments in their state’s tobacco control programs.
- **Save Lives:** California, with the nation’s longest-running prevention and cessation programs, has reduced lung and bronchus cancer rates four times faster than the rest of the U.S. Lung cancer rates declined by a third between 1988 and 2011 in California.^{xx} Washington state estimates that its smoking reductions have prevented 13,000 premature deaths.^{xxi}
- **Save Money:** A 2011 study found that Washington state saved more than \$5.00 in tobacco-related hospitalization costs for every \$1.00 spent during the first 10 years of its program.^{xxii}

Maine currently invests \$5.3 million in tobacco prevention and cessation programs, which is only one third of the \$15.9 million CDC recommends that Maine spends to combat the health and economic consequences of tobacco.^{xxiii} The state funding for the program comes from revenues Maine receives annually from the tobacco Master Settlement Agreement. Maine receives \$196.8 million annually in revenue from tobacco taxes and the Master Settlement Agreement.^{xxiv} Investing only 8 percent of these tobacco-related revenues in tobacco control funding would meet the level recommended by the CDC.

Maine's Tobacco Revenue, CDC Recommended Spending, State Spending and Tobacco Industry Marketing



Source: *Broken Promises to Our Children: A State-By-State Look at the 1998 State Tobacco Settlement 19 Years Later.*

Increasing funding to \$15.9 million annually is a vital step to protect Maine's youth from starting to use tobacco and help people already addicted to quit. According to projections from the Campaign for Tobacco-Free Kids, this increase would result in:^{xxv}

- An 11.3 percent decrease in youth smoking rates.
- 4,530 fewer kids growing up to become addicted adults who smoke.
- 1,500 fewer kids growing up to die prematurely from smoking.
- \$95.1 million in future health care savings.


Significant and Regular Increases in Tobacco Taxes on All Tobacco Products

Regular and significant tobacco tax increases are a win-win-win for states: a health win that reduces tobacco use and saves lives; a fiscal win as it raises much-needed revenue; and a political win that is popular with the public.^{xxvi}

- Save Lives: Regular and significant tobacco tax increases are one of the most effective ways to reduce tobacco use and, therefore, suffering and death from tobacco-related diseases like cancer.
- Save Money: Significant increases to cigarette and tobacco taxes result in substantial revenue increases for states as well as health care cost savings. Every state that has significantly increased its cigarette tax in recent years has seen increases in revenue.
- Voters Approve: National and state polls consistently have found overwhelming public support for tobacco tax increases. In fact, many polls have shown voters are more likely to support a candidate that supports increasing the tax on tobacco.

Maine has not increased its cigarette excise tax since 2005. Increasing Maine's cigarette tax by \$1.50 per pack would generate \$42.4 million in much needed revenue for the state as well as^{xxvii}:

- Reduce youth smoking by 16.3 percent.
- Prevent 6,500 kids under 18 from becoming adults who smoke.
- Prevent 4,500 premature smoking-caused deaths.
- Provide \$2.45 million in Medicaid program savings for the state over five years.
- Provide \$333.57 million in long-term health care cost savings from adult and youth smoking declines.



Maine’s tax code contains a loophole that allows most non-cigarette tobacco products to be taxed at lower rates than cigarettes. This other tobacco product (OTP) tax loophole creates lower prices for tobacco products like cigars, loose tobacco, and newer smokeless products including snus and dissolvables such as strips, orbs, and sticks. E-cigarettes currently are not subject to a tobacco excise tax at all. As a result of these lower prices, combined with aggressive marketing, price discounting, flavorings and attractive packaging, it is not surprising we have seen disproportionate rates of use for these products, especially among kids and lower-income adults.

Increasing the tax on other tobacco products so they are taxed at the same rate as cigarettes would generate additional health and economic benefits for Maine

Comprehensive Smoke-free Laws

According to the U.S. Surgeon General, there is no safe level of exposure to secondhand smoke, which contains approximately 70 known or possible carcinogens.^{xxviii xxix xxx} Each year in the United States, secondhand smoke causes nearly 42,000 deaths among nonsmokers, including up to 7,300 lung cancer deaths.^{xxxi xxxii} Throughout the country, elected officials at the state and local levels are recognizing the health and economic benefits of comprehensive smoke-free laws. The only way to fully eliminate exposure to secondhand smoke is to prohibit smoking in all workplaces and public places, making them 100 percent smoke-free.

- Reduce Exposure to Secondhand Smoke: Smoke-free laws reduce exposure to secondhand smoke, encourage and increase quitting among current smokers, and reduce health care, cleaning, and lost productivity costs.^{xxxiii xxxiv xxxv}
- Improve Health: Smoke-free laws have been proven to improve the health of workers in those establishments, as well as the general public. Comprehensive smoke-free laws have been shown to reduce hospital admissions and deaths from respiratory disease, coronary events and other heart disease, and cerebrovascular accidents in hospitality workers.^{xxxvi xxxvii}
- Good for Business: Smoke-free laws protect health without impacting business. The U.S. Surgeon General’s Report concluded, “Evidence from peer-reviewed studies shows that smoke-free policies and regulations do not have an adverse economic impact on the hospitality industry.”^{xxxviii}

Opponents of smoke-free laws, most notably the tobacco industry, continually battle to weaken existing laws through loopholes and exemptions, further complicating efforts to achieve the benefits of these laws. Instead of creating new exemptions, policymakers should work to close loopholes that currently exist in Maine law, such as allowing for smoking in tobacco specialty shops, hotels, and private clubs.

Legalization of marijuana presents threats to Maine’s tobacco control efforts with the potential to weaken smoke-free laws and renormalize smoking. Smoking marijuana poses significant risks to users and to those in close proximity to use. While the illegal status of marijuana under federal law and other factors including co-occurring behaviors like cigarette smoking have made research on the health effects of exposure to marijuana smoke challenging, we do know that marijuana smoking has negative health impacts including:

- Marijuana affects lung function including inflammation of the large airways, increased airway resistance, and lung hyperinflation.^{xxxix}
- Marijuana smoke contains the same fine particulate matter found in tobacco smoke that can cause heart attacks.^{xl}
- Marijuana smoke contains many of the cancer-causing substances found in tobacco smoke. This raises the potential for marijuana smoke to potentially cause cancer, but few studies have been done to determine a link.^{xli}

Smoking and aerosolizing marijuana use should be prohibited in all places where smoking and aerosolizing tobacco is prohibited, and both should be part of a comprehensive smoke-free law. Working to defend and strengthen Maine’s existing smoke-free laws will protect the rights of all Mainers to breathe clean smoke-free air and ensure no one has to choose between their health and a paycheck.

- ⁱ Centers for Disease Control and Prevention (CDC). Health Effects of Cigarette Smoking. Updated May 14, 2017. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/
- ⁱⁱ Campaign for Tobacco-Free Kids (CTFK). The Toll of Tobacco in Maine. Updated November 17, 2017. https://www.tobaccofreekids.org/facts_issues/toll_us/maine
- ⁱⁱⁱ CDC (2017).
- ^{iv} United States Centers for Disease Control and Prevention, "Stats of the State of Maine," March 31, 2017, <https://www.cdc.gov/nchs/pressroom/states/maine/maine.htm>.
- ^v CTFK (2017)
- ^{vi} Ibid.
- ^{vii} United States Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. Center for Behavioral Health Statistics and Quality. National Survey on Drug Use and Health, 2014. ICPSR36361-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2016-03-22. <http://doi.org/10.3886/ICPSR36361.v1>; see also Institute of Medicine, *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*, Washington, DC: The National Academies Press, 2015, <http://iom.nationalacademies.org/Reports/2015/TobaccoMinimumAgeReport.aspx>
- ^{viii} Centers for Disease Control and Prevention. 2015 High School Youth Risk Behavior Survey.
- ^{ix} U.S. Department of Health and Human Services. *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta, GA: U.S. 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, 2016.
- ^x National Academies of Sciences, Engineering, and Medicine. 2018. *Public health consequences of e-cigarettes*. Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/24952>.
- ^{xi} MaineHealth Health Index. "Decrease Tobacco Use." <http://mainehealthindex.org/tobacco#data>
- ^{xii} U.S. Department of Health and Human Services (HHS). *E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General*. Atlanta, GA: U.S. 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, 2016.
- ^{xiii} Drope, J., Liber, A., Cahn, Z., Stoklosa, M., Kennedy, R., Douglas, C., Henson, R., & Drope, J. "Who's Still Smoking? Disparities in Adult Cigarette Smoking Prevalence in the United States." *CA: A Cancer Journal for Clinicians*. January 2018.
- ^{xiv} Ibid
- ^{xv} CTFK (2017)
- ^{xvi} Matthew C. Farrelly, Brett R. Loomis, Beth Han, Joe Gfroerer, Nicole Kuiper, G. Lance Couzens, Shanta Dube, and Ralph S. Caraballo. A Comprehensive Examination of the Influence of State Tobacco Control Programs and Policies on Youth Smoking. *American Journal of Public Health*: March 2013, Vol. 103, No. 3, pp. 549-555. doi: 10.2105/AJPH.2012.300948
- ^{xvii} HHS, 2014
- ^{xviii} North Dakota Department of Health, "Youth Risk Behavior Survey Results Detailed Summary Tables," 2015, <https://www.nd.gov/dpi/uploads/1298/2015NDHighSchoolSummaryTables.pdf>
- ^{xix} Florida Department of Health. Florida Youth Tobacco Survey. Available at <http://www.floridahealth.gov/statistics-and-data/survey-data/fl-youthtobaccosurvey/index.html>. Accessed March 28, 2017.
- ^{xx} Lightwood, J and Glantz SA, "The Effect of the California Tobacco Control Program on Smoking Prevalence, Cigarette Consumption, and Healthcare Costs: 1989-2008," *PLOS ONE* 8(2), February 2013.
- ^{xxi} Dilley, Julia A., et al., "Program, Policy and Price Interventions for Tobacco Control: Quantifying the Return on Investment of a State Tobacco Control Program," *American Journal of Public Health*, Published online ahead of print December 15, 2011. See also, Washington State Department of Health, Tobacco Prevention and Control Program, Progress Report, March 2011. Washington State Department of Health, Tobacco Prevention and Control Program, News Release, "Thousands of lives saved due to tobacco prevention and control program," November 17, 2010, http://www.doh.wa.gov/Publicat/2010_news/10-183.htm.
- ^{xxii} Dilley, et al.
- ^{xxiii} Centers for Disease Control and Prevention. Best Practices for Comprehensive Tobacco Control Programs — 2014. Atlanta: U.S. 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, 2014.
- ^{xxiv} The Truth Initiative, Campaign for Tobacco-Free Kids, American Heart Association and American Stroke Association, American Cancer Society Cancer Action Network, American Lung Association, Americans for Nonsmokers' Rights, and Robert Wood Johnson Foundation. A report entitled *Broken Promises to Our Children: A State-By-State Look at the 1998 State Tobacco Settlement 19 Years Later*. December, 2017. Available on-line at: <https://www.tobaccofreekids.org/what-we-do/us/statereport>.
- ^{xxv} Campaign for Tobacco-Free Kids. Impact on Youth Smoking, Deaths & Related Health Costs from Changes to Maine Tobacco Prevention Funding.
- ^{xxvi} American Cancer Society Cancer Action Network. "How Do You Measure Up?" 2017.
- ^{xxvii} American Cancer Society Cancer Action Network, Campaign for Tobacco-Free Kids, and Tobaccoomics. New Revenues, Public Health Benefits & Cost Savings from a \$1.50 Cigarette Tax Increase in Maine. Updated January 11, 2018.
- ^{xxviii} U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.
- ^{xxix} U.S. Department of Health and Human Services. *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease – A Report of the Surgeon General*. 2010. Atlanta, GA: HHS, CDC, National Center for Chronic Disease Prevention and Health Promotion, OSH.
- ^{xxx} HHS 2014
- ^{xxxi} Max W., Sung H-Y, and Shi Y. (2012). Deaths from Secondhand Smoke Exposure in the United States: Economic Implications. *American Journal of Public Health*. 2012; 102:2173-2180.
- ^{xxxii} HHS 2014
- ^{xxxiii} HHS 2006
- ^{xxxiv} Task Force on Community Prevention Services. "Recommendations Regarding Interventions to Reduce Tobacco Use and Exposure to Environmental Tobacco Smoke." *American Journal of Preventive Medicine* 2001;20(2S):10-5.
- ^{xxxv} Ericksen M. and Chaloupka F. "The Economic Impact of Clean Indoor Air Laws." *CA: A Cancer Journal for Clinicians* 57(6):367-378, November 2007.
- ^{xxxvi} U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

^{xxxvii} Tan CE, Glantz SA. Association Between Smoke-Free Legislation and Hospitalizations for Cardiac, Cerebrovascular, and Respiratory Diseases: A Meta-Analysis. *Circulation* 2012;126:2177–83.

^{xxxviii} HHS 2006

^{xxxix} Volkow, ND et al. Adverse Health Effects of Marijuana Use. *The New England Journal of Medicine* 370 (23); June 5, 2014.

^{xl} Brook, R.D., Rajagopalan, S., Pope, C.A., 3rd, Brook, J.R., Bhatnagar, A., Diez-Roux, A.V., Holguin, F., Hong, Y., Luepker, R.V., Mittleman, M.A., Peters, A., Siscovick, D., Smith, S.C., Jr., Whitsel, L., and Kaufman, J.D. (2010). Particulate matter air pollution and cardiovascular disease: An update to the scientific statement from the American Heart Association. *Circulation* 121: 2331-78.

^{xli} National Institute on Drug Abuse; National Institutes of Health; U.S. Department of Health and Human Services.