

Policy Tip Sheet

POLICY ANALYSIS FROM
THE HEARTLAND INSTITUTE

E-Cigarettes Are Safer Than Combustible Cigarettes

Myth:

Misinformation campaigns by the media and some public health organizations have clouded the air surrounding the efficacy of electronic cigarettes and vaping devices as tobacco harm reduction tools. A recent study in *JAMA* found the proportion of adults who perceived e-cigarettes to be just as harmful as cigarettes increased from 11.5 percent to 36.4 percent and from 46.4 to 55.6 percent in two separate surveys, respectively.¹

Reality:

E-cigarettes and vaping devices have emerged as effective tools for millions of American adults who are trying to quit combustible tobacco products. More importantly, numerous public health groups across the globe have found e-cigarettes to be significantly less harmful than combustible tobacco products.

Public Health England (PHE), a leading health organization in the UK, was one of the first public health agencies to examine the health effects of e-cigarettes. In 2015, PHE declared that “the current best estimate [shows] using e-cigarettes is around 95% safer than smoking.”² In 2018, PHE reiterated this claim, finding “vaping is at least 95% less harmful than smoking.”³

A 2016 report from the Tobacco Advisory Group of the Royal College of Physicians concluded that the hazards from e-cigarettes were “unlikely to exceed 5% of the harm from smoking tobacco.”⁴ In 2018, the National Academies of Sciences, Engineering, and Medicine released a report that found “substantial evidence that completely switching from regular use of combustible cigarettes to e-cigarettes results in reduced short-term adverse health outcomes in several organ systems.”⁵

Most recently, in June 2019, the American Cancer Society (ACS) noted that “e-cigarette use is likely to be significantly less harmful for adults than smoking regular cigarettes.”⁶

The reduced harm of e-cigarettes is due to these products containing significantly less harmful

ingredients than tobacco cigarettes. There are an estimated 600 ingredients in a combustible cigarette and “when burned [they] create more than 7,000 chemicals.”⁷ This is what links cigarette smoking to cardiovascular and respiratory diseases.⁸

E-cigarettes create a vapor that is “generated by heating a solution, containing water, propylene glycol, vegetable glycerin and typically also some flavoring.”⁹ ACS notes that e-cigarettes reduced risk is because e-cigarettes “do not contain or burn tobacco.”¹⁰

More importantly, e-cigarettes help smokers quit. Since 2007, approximately three million American adults have used e-cigarettes to quit smoking.¹¹ They have also been more effective than traditional quit smoking methods. A 2019 study in *The New England Journal of Medicine* found e-cigarettes to be twice as effective as nicotine replacement therapy (NRT). Researchers noted that in the study, 18 percent of e-cigarette users reported abstinence, compared to 9 percent of those using NRT.¹²

Policy Message

Point 1: Misinformation has led many adults to believe that e-cigarettes are significantly more harmful than combustible cigarettes.

Point 2: Public Health England first noted in 2015 and reiterated in 2018 that the use of e-cigarettes is 95 percent safer than smoking combustible cigarettes.

Point 3: The American Cancer Society has recently noted that e-cigarette use is likely to be significantly less harmful than combustible cigarettes.

Point 4: E-cigarettes have emerged as a more effective tool for tobacco abstinence with a recent study finding they are twice as effective as nicotine replacement therapy.

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¹ Lindsey Stroud, “Despite Scientific Evidence, More Americans Believe E-Cigarettes Are as Harmful as Tobacco Cigarettes,” *Research & Commentary*, The Heartland Institute, April 2, 2019,

<https://www.heartland.org/publications-resources/publications/research-commentary-despite-scientific-evidence-more-americans-believe-e-cigarettes-are-as-harmful-as-tobacco-cigarettes>.

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² A. McNeill, *et al.*, “E-cigarettes an evidence update,” *Public Health England*, August, 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/.

³ A. McNeil, *et al.*, “Evidence review of e-cigarettes and heated tobacco products 2018,” *Public Health England*, February 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/684963/Evidence_review_of_e-cigarettes_and_heated_tobacco_products_2018.pdf.

⁴ Royal College of Physicians, *Nicotine without Smoke: Tobacco Harm Reduction*, April, 2016, <https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0>.

⁵ Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems, “Public Health Consequences of E-Cigarettes,” *The National Academies of Science, Engineering, and Medicine*, 2018, <https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes>.

⁶ American Cancer Society, “What Do We Know About E-cigarettes?,” June 19, 2019, <https://www.cancer.org/cancer/cancer-causes/tobacco-and-cancer/e-cigarettes.html>.

⁷ American Lung Foundation, “What’s In a Cigarette?,” February 20, 2019, <https://www.lung.org/stop-smoking/smoking-facts/whats-in-a-cigarette.html>.

⁸ Centers for Disease Control and Prevention, “Health Effects of Cigarette Smoking,” January 17, 2018, https://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.html.

⁹ Royal College of Physicians, *supra* note 4

¹⁰ American Cancer Society, *supra* note 6.

¹¹ M. Mirbolouk *et al.*, “Prevalence and Distribution of E-Cigarette Use Among U.S. Adults: Behavioral Risk Factor Surveillance System,” *Annals of Internal Medicine*, August 28, 2016, <https://annals.org/aim/article-abstract/2698112/prevalence-distribution-e-cigarette-use-among-u-s-adults-behavioral>.

¹² Lindsey Stroud, “Randomized Trial Finds E-Cigarettes Are a More Effective Smoking Cessation Tool than Nicotine Replacement Therapy,” *Research & Commentary*, The Heartland Institute, February 11, 2019, <https://www.heartland.org/publications-resources/publications/research-commentary-randomized-trial-finds-e-cigarettes-are-more-effective-smoking-cessation-tool-than-nicotine-replacement-therapy>.

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