

Winter 2024

Big Tobacco Fantasyland Rural Toolkit

The California Department of Public Health (CDPH) Tobacco Prevention Program (CTPP) launched the *Big Tobacco's Fantasyland* campaign as part of a statewide initiative to counter tobacco industry messaging that vaping is a safe alternative to smoking. Vaping increases risk of stroke and may increase risk of lung cancer.^{1 2 3 4 5 6 7 8 9} In fact, people who vape have a higher risk of stroke at a younger age than people who smoke cigarettes.

The following toolkit was developed to inform California's rural communities about the harms of vaping and the free quit resources available to all Californians. We invite you to use the toolkit's components including key messages, frequently asked questions, social posts, images, and newsletter/flyer copy to directly help end the destructive influence of the Tobacco Industry in rural communities.

Big Tobacco Fantasyland Key Messages

Big Tobacco's fantasyland is a nightmare for us all.

Vaping increases the risk of serious disease like stroke, may increase the risk of lung cancer, and amplifies mental health conditions, like anxiety and depression.^{10 11 12 13 14 15 16 17 18 19 20}

Big Tobacco wants to be put in charge of, get credit for, and profit off solving^{21 22} the number one cause of preventable death and disease²³ – the smoking epidemic *they* created.²⁴

Vape use is an urgent public health concern in California, with high use rates among young adults and other groups aggressively targeted by Big Tobacco, including rural populations, communities of color and people experiencing mental health challenges.²⁵

The *real* best way to undo the damage of Big Tobacco is by helping people who are addicted quit and prevent people from starting.

Frequently Asked Questions

In addition to the key messages, we provide answers to important questions related to tobacco use that can be used in responding to public inquiries or outreach efforts unique for rural communities.

Vape Use and Health Harms

1. Is vaping a problem in rural communities in California?

Yes, vape use is an urgent public health concern in rural California, a population that Big Tobacco targets aggressively.

Where vaping is the biggest concern is among rural youth. They vape at higher rates than their urban counterparts, 8.4% compared to 5.6%.²⁶ Rural youth tobacco use is 9.1% compared to the rest of California youth use at 6.6%.

Smoking is where the largest use rate differences are for rural adults compared to the rest of California, at 9% and 6% respectively. Vape use among rural adults is virtually the same, with rural adults vaping at 5% compared to the rest of California adults at 4.7%. Among rural adults, overall tobacco use is 15% compared to the rest of California adults at 11%.²⁷

Rural Californians have an increased risk of tobacco-related diseases including lung and other cancers that can be caused or exacerbated by tobacco use.²⁸ Vaping increases risk of stroke,²⁹ and may increase risk of lung cancer.^{30 31 32 33 34 35 36 28} It's critical to address rural youth vaping to prevent kids from facing a lifetime of addiction, disease, and death.^{37 38}

Recognizing Big Tobacco in Rural Communities

2. How does Big Tobacco impact rural communities?

Big Tobacco's dangerous strategy promises a "better tomorrow"³⁹ and "smoke-free future"^{40 41} with dangerous, addictive vape products while still selling six trillion cigarettes each year,⁴² including launching new cigarettes in California.^{43 44} As smoking has declined in rural communities - They want to be put in charge of, get credit for, and profit off solving^{45 46} the number one cause of preventable death and disease⁴⁷ - the smoking epidemic *they* created.⁴⁸

When it comes to marketing, tobacco companies take advantage of less stringent tobacco retail licensing laws in rural communities and co-opt traditionally rural values of self-reliance and resilience, with images such as cowboys, hunters and racecar drivers, in predatory ad campaigns to push their profit-driven agenda.⁴⁹ And it's not just the "rite of passage"⁵⁰ messaging that Big Tobacco uses to normalize tobacco use⁵¹ among rural populations but more recent marketing efforts emphasize their newest products, likes vapes and smokeless tobacco, as less harmful and safer to use.^{52 53 54}

3. How does Big Tobacco's marketing harm rural communities?

Creating and marketing products as "reduced harm" is a lucrative, proven strategy of Big Tobacco.⁵⁵ They know that marketing products as harm reduction devices has led to:

- an increase in youth and young adult uptake of tobacco⁵⁶;

- a decrease in successful cessation⁵⁷;
- increases smoking relapse⁵⁸; and
- undermines support for comprehensive tobacco control program efforts.⁵⁹

4. How deadly is the tobacco industry?

Tobacco use remains a leading cause of preventable death and disease in California, as well as the nation. California has over **3 million adults who use tobacco, including cigarettes and vapes.**⁶⁰

- The tobacco industry kills more than **40,000 Californians a year,**⁶¹ and is responsible for more than **1 in 7 deaths in California.**⁶² That's more than from AIDS, influenza, or diabetes.⁶³
- Every year in California, secondhand smoke causes more than **400 lung cancer deaths** and more than **3,600 cardiac deaths.**⁶⁴

In rural communities, tobacco use has led to higher rates of poor health and health outcomes compared to people in urban areas.^{65 66 67} And people living in rural areas have 18-20% higher rate of lung cancer death than people living in urban areas.⁶⁸

Ending Big Tobacco's influence in California

5. Do restrictions on tobacco sales hurt small businesses?

No. A recent report showed that small businesses do not suffer when tobacco sales are off the table.⁶⁹ Across the nation, convenience store profits have increased despite decreasing cigarette sales.⁷⁰ Additionally, in states that have banned the sale of flavored tobacco products, data shows no reduction in the number of convenience or tobacco stores, employees at said stores, or wages.⁷¹

6. Do we need to end the tobacco industry's influence on Californians?

Yes. The tobacco industry's decades of lies and manipulation have led to an epidemic of death and disease that kills 40,000 Californians every year⁷² – and it's completely preventable.⁷³ The tobacco industry has aggressively targeted California's diverse communities with predatory practices which have tragically worsened health disparities among certain populations.⁷⁴ The tobacco industry's products kill thousands of nonusers too.⁷⁵ All Californians deserve healthy lives in communities, schools, and environments free of the tobacco industry's toxicity. Kids should grow up without the tobacco industry poisoning their childhood.

Social Resources

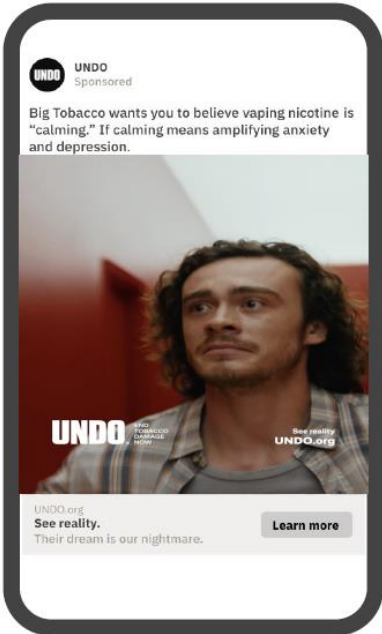
Connect with UNDO on Social Media

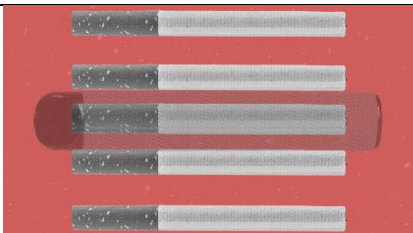
Please like, comment and share, and tag/link to our channels to expose the tobacco industry for its deadly vape products. Consider creating hashtags to help people search and find your content easily and to drive momentum around rural tobacco prevention and cessation.

- www.facebook.com/UndoTobacco
- www.instagram.com/UndoTobacco
- www.youtube.com/@Undo

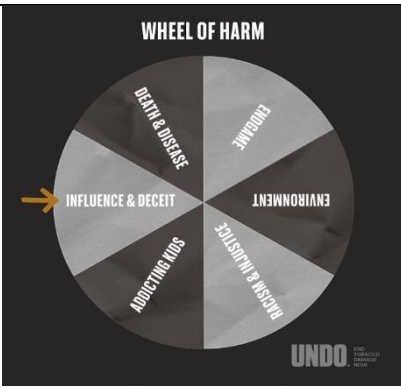
Social Messages for Posting

Post copy can be customized for specific communities. Please include sources for credibility and substantiation. Download [fullsize images here](#).

	<p>The tobacco industry wants you to believe vaping nicotine is “calming.” If calming means amplifying anxiety and depression. [1] [2] [3] [4]</p> <p>Vaping nicotine is associated with mental health issues and can permanently change the brain chemistry of teens and young adults. [5] [6]</p> <p>Nicotine is a brain poison, and can amplify anxiety, depression, mood swings, and irritability. [7] [2] [3] [4] [8] [10]</p> <p>Nicotine permanently damages the brain, making it primed for addiction to substances of all kinds.[6] [9]</p> <p>See reality at UNDO.org</p>	<p>Sources:</p> <p>[1] Truth Initiative. How the tobacco industry markets vaping nicotine as stress relief. April 21, 2023. Accessed July 26, 2023. https://truthinitiative.org/research-resources/emerging-tobacco-products/how-tobacco-industry-markets-vaping-nicotine-stress</p> <p>[2] Picciotto MR, Brunzell DH, Caldarone BJ. Effect of nicotine and nicotinic receptors on anxiety and depression. <i>Neuroreport</i>. 2002;13(9):1097-1106. doi:10.1097/00001756-200207020-00006</p> <p>[3] Kutlu MG, Gould TJ. Nicotine modulation of fear memories and anxiety: Implications for learning and anxiety disorders. <i>Biochem Pharmacol</i>. 2015;97(4):498-511. doi:10.1016/j.bcp.2015.07.029</p> <p>[4] Lechner WV, Janssen T, Kahler CW, Audrain-McGovern J, Leventhal AM. Bi-directional associations of electronic and combustible cigarette use onset patterns with depressive symptoms in adolescents. <i>Prev Med</i>. 2017;96:73-78. doi: 10.1016/j.ypmed.2016.12.034</p> <p>[5] Becker TD, Arnold MK, Ro V, Martin L, Rice TR. Systematic Review of Electronic Cigarette Use (Vaping) and Mental Health Comorbidity Among Adolescents and Young Adults. <i>Nicotine Tob Res</i>. 2021 Feb 16;23(3):415-425. doi: 10.1093/ntr/ntaa171</p> <p>[6] Yuan M, Cross SJ, Loughlin SE, Leslie FM. Nicotine and the adolescent brain. <i>J Physiol</i>. 2015;593(16):3397–3412. doi:10.1113/JP270492</p> <p>[7] National Institute on Drug Abuse; National Institutes of Health</p>
---	---	--

		<p>Health; U.S. Department of Health and Human Services. <i>Mind Matters: The Body's Response to Nicotine</i>. Published July 2018.</p> <p>[8] Centers for Disease Control and Prevention.) Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. https://www.cdc.gov/tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teens-and-Young-Adults.html?s_cid=OSH_emg_GLO001. Accessed August 30, 2023</p> <p>[9] U.S. Surgeon General. Know the Risks. e-cigarettes.surgeongeneral.gov. https://e-cigarettes.surgeongeneral.gov/knowtherisks.html</p> <p>[10] Centers for Disease Control and Prevention. Nicotine: Systemic agent. cdc.gov. Published 2011. Accessed February 6, 2019.</p>
	<p>Vape use is an urgent public health concern in California, with high use rates among young adults.[1] Research shows kids who vape are 3x more likely to be daily cigarette smokers in the future.[2]</p> <p>One of the most important things we can do to undo the damage of tobacco is help young people quit and prevent them from starting.</p> <p>Visit KickItCA.org to learn more: https://kickitca.org/.</p>	<p>Sources:</p> <p>[1] UCLA Center for Health Policy Research. AskCHIS 2017-2021. Current e-cigarette use status. https://ask.chis.ucla.edu. Exported on March 17, 2023.</p> <p>[2] Pierce JP, Chen R, Leas EC, White MM, Kealey S, Stone MD, Benmarhnia T, Trinidad DR, Strong DR, Messer K. Use of E-cigarettes and Other Tobacco Products and Progression to Daily Cigarette Smoking. <i>Pediatrics</i>. 2021;147(2):e2020025122. doi: 10.1542/peds.2020-025122.</p>

	<p>The tobacco industry pretends vapes are safer. The reality is:</p> <ul style="list-style-type: none"> -Vaping increases the risk of stroke. [1] -People who vape have a higher risk of dying from a stroke at a younger age. [1] [2] [3] -Vaping has been associated with COPD, heart attacks and heart disease. [4] [5] [6] <p>See reality at UNDO.org</p>	<p>Sources:</p> <p>[1] Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. <i>Neurol In.</i> 2022;14(2):441-452. doi:10.3390/neurolint14020037.</p> <p>[2] Poisson SN, Glidden D, Johnston SC, Fullerton HJ. Deaths from stroke in US young adults, 1989-2009. <i>Neurology.</i> 2014;83(23):2110-2115. doi:10.1212/WNL.0000000000001042</p> <p>[3] Ndunda PM, Muutu TM. Abstract 9: Electronic Cigarette Use is Associated With a Higher Risk of Stroke. <i>Stroke.</i> 2019;50(Suppl_1). doi:10.1161/str.50.suppl_1.9</p> <p>[4] Traboulsi H, Cherian M, Abou Rjeili M, Preteroti M, Bourbeau J, Smith BM, Eidelman DH, Baglole CJ. Inhalation Toxicology of Vaping Products and Implications for Pulmonary Health. <i>Int J Mol Sci.</i> 2020 May 15;21(10):3495. doi:10.3390/ijms21103495.</p> <p>[5] Antwi GO, Rhodes DL. Association between E-cigarette use and chronic obstructive pulmonary disease in non-asthmatic adults in the USA. <i>J Public Health (Oxf).</i> 2022;44(1):158-164. doi:10.1093/pubmed/fdaa229.</p> <p>[6] Sharma A, Gupta I, Venkatesh U, Singh AK, Golamari R, Arya P. E-cigarettes and myocardial infarction: A systematic review and meta-analysis. <i>Int J Cardiol.</i> 2023;371:65-70. doi:10.1016/j.ijcard.2022.09.007.</p>
---	---	--



Due to deceptive marketing, many believe vapes to be safer than cigarettes, but that couldn't be further from the truth. [1] [2] [3]

The same health harms associated with cigarettes are now being linked to vape products. Vaping increases the risk of serious disease like stroke, may increase the risk of lung cancer, and amplifies mental health conditions like anxiety and depression. [4] [5] [6] [7] [8] [9] [10] [11] [12] [13] [14]

One of the best ways to undo the damage caused by tobacco is to educate yourself on the health harms of vaping.

Visit UNDO.org to learn more:
<https://www.undo.org/exposed/big-tobacco-fantasyland>.

Sources:

[1] Pisinger C, Godtfredsen N, Bender AM. A conflict of interest is strongly associated with tobacco industry-favourable results, indicating no harm of e-cigarettes. Preventive Medicine. 2019;119:124-131. doi:10.1016/j.ypmed.2018.12.011.

[2] Shiffman S, Augustson EM. Introduction to the Special Issue on JUUL Use. Am J Health Behav. 2021;45(3):397-401. doi: 10.5993/AJHB.45.3.1.

[3] Torjesen I. Academic journal is criticised for publishing special issue funded by tobacco industry. BMJ. 2021;373:n1247. doi: 10.1136/bmj.n1247.

[4] 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.

[5] Picciotto MR, Brunzell DH, Caldarone BJ. Effect of nicotine and nicotinic receptors on anxiety and depression. Neuroreport. 2002;13(9):1097-1106. doi:10.1097/00001756-200207020-00006.

[6] Bracken-Clarke D, Kapoor D, Baird AM, et al. Vaping and lung cancer - A review of current data and recommendations. Lung Cancer. 2021;153:11-20. doi:10.1016/j.lungcan.2020.12.030.

[7] Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. Neurol In. 2022;14(2):441-452. doi:10.3390/neurolint14020037.

[8] National Academies of Sciences, Engineering, and

		<p>Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems; Eaton DL, Kwan LY, Stratton K, editors. Public Health Consequences of E-Cigarettes. Washington (DC): National Academies Press (US); 2018 Jan 23. 10, Cancers. Available from: https://www.ncbi.nlm.nih.gov/books/NBK507174/</p> <p>[9] Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. International Journal of Environmental Research and Public Health. 2020; 17(6):2146. https://doi.org/10.3390/ijerph17062146</p> <p>[10] Shehata SA, Toraih EA, Ismail EA, Hagraas AM, Elmorsy E, Fawzy MS. Vaping, Environmental Toxicants Exposure, and Lung Cancer Risk. Cancers (Basel). 2023;15(18):4525. Published 2023 Sep 12. doi:10.3390/cancers15184525 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10526315/</p> <p>[11] Gotts JE, Jordt SE, McConnell R, Tarran R. What are the respiratory effects of e-cigarettes? BMJ. 2019;366:l5275. doi: 10.1136/bmj.l5275.</p> <p>[12] Auschwitz E, Almeda J, Andl CD. Mechanisms of E-Cigarette Vape-Induced Epithelial Cell Damage. Cells. 2023;12(21):2552. doi: 10.3390/cells12212552.</p> <p>[13] Tommasi S, Blumenfeld H, Besaratinia A. Vaping Dose, Device Type, and E-Liquid Flavor are Determinants of DNA Damage in Electronic Cigarette Users. Nicotine Tob Res. 2023;25(6):1145-1154. doi: 10.1093/ntr/ntad003.</p> <p>[14] Shields PG, Berman M, Brasky TM, et al. A Review of Pulmonary Toxicity of Electronic Cigarettes in the Context of Smoking: A Focus</p>
--	--	---

		on Inflammation. Cancer Epidemiol Biomarkers Prev. 2017;26(8):1175-1191. doi:10.1158/1055-9965.EPI-17-0358
--	--	--

Copy for print/digital outreach with accompanying rural images

This following copy is approved for use in flyers, email or newsletter outreach or printed communications. The copy can be tailored to your jurisdiction or community by incorporating vape use statistics. Click the following link to [download the full sizes](#) images featured below.



Did you know that vape use is an urgent public health concern in [*Insert your location*]?

Here in our community [*Insert your community's percentage of kids who vape*] % of kids and [*Insert your community's percentage of adults who vape*] % of adults vape.

Research shows vaping increases the risk of serious disease like stroke, may increase the risk of lung cancer, and amplifies mental health conditions like anxiety and depression.^{76 77 78 79 80 81 82 83 84 85 86}

The tobacco industry has engineered vapes to maximize addictiveness by delivering a highly concentrated form of nicotine⁸⁷ – a chemical that is as addictive as heroin⁸⁸ – quickly to the body. Kids who vape are 3 times more likely to be daily cigarette smokers in the future.⁸⁹ Nicotine permanently damages the brain, making it primed for addiction to substances of all kinds.⁹⁰ Vape products are camouflage for Big Tobacco's attempt to renormalize tobacco use, which continues to kill thousands of Californians each year.⁹¹ And many people who use vapes to quit smoking cigarettes end up using both products, making Big Tobacco a killing.^{92 93 94 95 96}

Our rural communities are not immune from Big Tobacco's predatory targeting, creating higher use and disease rates among both rural adult and youth Californians compared to the overall population.⁹⁷ Vaping has been linked to chronic illness like COPD, heart attacks and heart disease.^{98 99 100}

ALL Californians deserve a healthy future and protecting [*Insert your community's name*] from the tobacco industry makes our community stronger and healthier. The real best way to undo the damage of Big Tobacco is by helping people who are addicted quit and by preventing kids from starting.

CTA: Learn more at Undo.org. For free quit help visit kickitca.org

Resources

For more resources from the Big Tobacco's Fantasyland Campaign please visit the [Partners Public Relations webpage](#). If you have any questions about these resources, help is available by filling out a Technical Assistance request from the [Partners Media Library](#).

Confidential. For internal use only.

REFERENCES

- ¹ National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems; Eaton DL, Kwan LY, Stratton K, editors. Public Health Consequences of E-Cigarettes. Washington (DC): National Academies Press (US); 2018 Jan 23. 10, Cancers. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507174/>
- ² Bracken-Clarke D, Kapoor D, Baird AM, Buchanan PJ, Gately K, Cuffe S, Finn SP. Vaping and lung cancer - A review of current data and recommendations. *Lung Cancer*. 2021;153:11-20. doi: 10.1016/j.lungcan.2020.12.030.
- ³ Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. *Neurol In*. 2022;14(2):441-452. doi:10.3390/neurolint14020037.
- ⁴ Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. *International Journal of Environmental Research and Public Health*. 2020; 17(6):2146. <https://doi.org/10.3390/ijerph17062146>
- ⁵ Shehata SA, Toraih EA, Ismail EA, Hagras AM, Elmorsy E, Fawzy MS. Vaping, Environmental Toxicants Exposure, and Lung Cancer Risk. *Cancers (Basel)*. 2023;15(18):4525. Published 2023 Sep 12. doi:10.3390/cancers15184525 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10526315/>
- ⁶ Gotts JE, Jordt SE, McConnell R, Tarran R. What are the respiratory effects of e-cigarettes? *BMJ*. 2019;366:l5275. doi: 10.1136/bmj.l5275.
- ⁷ Auschwitz E, Almeda J, Andl CD. Mechanisms of E-Cigarette Vape-Induced Epithelial Cell Damage. *Cells*. 2023;12(21):2552. doi: 10.3390/cells12212552.
- ⁸ Tommasi S, Blumenfeld H, Besaratinia A. Vaping Dose, Device Type, and E-Liquid Flavor are Determinants of DNA Damage in Electronic Cigarette Users. *Nicotine Tob Res*. 2023;25(6):1145-1154. doi: 10.1093/ntr/ntad003.
- ⁹ Shields PG, Berman M, Brasky TM, et al. A Review of Pulmonary Toxicity of Electronic Cigarettes in the Context of Smoking: A Focus on Inflammation. *Cancer Epidemiol Biomarkers Prev*. 2017;26(8):1175-1191. doi:10.1158/1055-9965.EPI-17-0358
- ¹⁰ 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.
- ¹¹ Picciotto MR, Brunzell DH, Caldarone BJ. Effect of nicotine and nicotinic receptors on anxiety and depression. *Neuroreport*. 2002;13(9):1097-1106. doi:10.1097/00001756-200207020-00006.
- ¹² Bracken-Clarke D, Kapoor D, Baird AM, et al. Vaping and lung cancer - A review of current data and recommendations. *Lung Cancer*. 2021;153:11-20. doi:10.1016/j.lungcan.2020.12.030.
- ¹³ Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. *Neurol In*. 2022;14(2):441-452. doi:10.3390/neurolint14020037.
- ¹⁴ Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. *International Journal of Environmental Research and Public Health*. 2020; 17(6):2146. <https://doi.org/10.3390/ijerph17062146>
- ¹⁵ Shehata SA, Toraih EA, Ismail EA, Hagras AM, Elmorsy E, Fawzy MS. Vaping, Environmental Toxicants Exposure, and Lung Cancer Risk. *Cancers (Basel)*. 2023;15(18):4525. Published 2023 Sep 12. doi:10.3390/cancers15184525
- ¹⁶ National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems; Eaton DL, Kwan LY, Stratton K, editors. Public Health Consequences of E-Cigarettes. Washington (DC): National Academies Press (US); 2018 Jan 23. 10, Cancers. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507174/>
- ¹⁷ Gotts JE, Jordt SE, McConnell R, Tarran R. What are the respiratory effects of e-cigarettes? *BMJ*. 2019;366:l5275. doi: 10.1136/bmj.l5275
- ¹⁸ Auschwitz E, Almeda J, Andl CD. Mechanisms of E-Cigarette Vape-Induced Epithelial Cell Damage. *Cells*. 2023;12(21):2552. doi: 10.3390/cells12212552
- ¹⁹ Tommasi S, Blumenfeld H, Besaratinia A. Vaping Dose, Device Type, and E-Liquid Flavor are Determinants of DNA Damage in Electronic Cigarette Users. *Nicotine Tob Res*. 2023;25(6):1145-1154. doi: 10.1093/ntr/ntad003
- ²⁰ Shields PG, Berman M, Brasky TM, et al. A Review of Pulmonary Toxicity of Electronic Cigarettes in the Context of Smoking: A Focus on Inflammation. *Cancer Epidemiol Biomarkers Prev*. 2017;26(8):1175-1191. doi:10.1158/1055-9965.EPI-17-0358
- ²¹ Philip Morris International. Delivering a smoke-free future. <https://www.pmi.com/our-transformation/delivering-a-smoke-free-future>. Published July 31, 2019. Accessed August 13, 2023.
- ²² Shiffman S, Augustson EM. Introduction to the Special Issue on JUUL Use. *Am J Health Behav*. 2021;45(3):397-401. doi: 10.5993/AJHB.45.3.1.

- ²³ U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. 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, 2014.
- ²⁴ Proctor RN. Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition. Berkeley, CA: University of California Press. 2011.
- ²⁵ Source: UCLA Center for Health Policy Research. AskCHIS 2017-2021. Current e-cigarette use status. <https://ask.chis.ucla.edu>. Exported on March 17, 2023. Prepared By: California Tobacco Control Program, March 2023.
- ²⁶ UCLA Center for Health Policy Research. AskCHIS 2021. Current e-cigarette use status. <https://ask.chis.ucla.edu>. Exported on March 17, 2023.
- ²⁷ California Health Interview Survey. CHIS 2023. Adult Files. Los Angeles, CA: UCLA Center for Health Policy Research; October 2023
- ²⁸ Hofer BM, Maguire FB, Morris CR, Movsisyan A, Parikh-Patel A, Kizer KW. Rural-Urban Variations in Cancer Incidence, Detection, and Survival in California. Sacramento, CA: California Cancer Reporting and Epidemiologic Surveillance (CalCARES) Program, Institute for Population Health Improvement, University of California Davis, July 2019.
- ²⁹ Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. *Neurol Int*. 2022;14(2):441-452. Published 2022 May 27. doi:10.3390/neurolint14020037
- ³⁰ Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. *International Journal of Environmental Research and Public Health*. 2020; 17(6):2146. <https://doi.org/10.3390/ijerph17062146>
- ³¹ Shehata SA, Toraih EA, Ismail EA, Hagrass AM, Elmorsy E, Fawzy MS. Vaping, Environmental Toxicants Exposure, and Lung Cancer Risk. *Cancers* (Basel). 2023;15(18):4525. Published 2023 Sep 12. doi:10.3390/cancers15184525
- ³² National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems; Eaton DL, Kwan LY, Stratton K, editors. Public Health Consequences of E-Cigarettes. Washington (DC): National Academies Press (US); 2018 Jan 23. 10, Cancers. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507174/>
- ³³ Gotts JE, Jordt SE, McConnell R, Tarran R. What are the respiratory effects of e-cigarettes? *BMJ*. 2019;366:l5275. doi: 10.1136/bmj.l5275
- ³⁴ Auschwitz E, Almeda J, Andl CD. Mechanisms of E-Cigarette Vape-Induced Epithelial Cell Damage. *Cells*. 2023;12(21):2552. doi: 10.3390/cells12212552
- ³⁵ Tommasi S, Blumenfeld H, Besaratinia A. Vaping Dose, Device Type, and E-Liquid Flavor are Determinants of DNA Damage in Electronic Cigarette Users. *Nicotine Tob Res*. 2023;25(6):1145-1154. doi: 10.1093/ntr/ntad003
- ³⁶ Shields PG, Berman M, Brasky TM, et al. A Review of Pulmonary Toxicity of Electronic Cigarettes in the Context of Smoking: A Focus on Inflammation. *Cancer Epidemiol Biomarkers Prev*. 2017;26(8):1175-1191. doi:10.1158/1055-9965.EPI-17-0358
- ³⁷ Bracken-Clarke D, Kapoor D, Baird AM, et al. Vaping and lung cancer – A review of current data and recommendations. *Lung Cancer*. 2021;153:11-20. doi:10.1016/j.lungcan.2020.12.030.
- ³⁸ Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. *Neurol In*. 2022;14(2):441-452. doi:10.3390/neurolint14020037.
- ³⁹ British American Tobacco. A Better Tomorrow. https://www.bat.com/group/sites/UK_CRHJSY.nsf/vwPagesWebLive/DO52AD6X. Accessed August 29, 2023.
- ⁴⁰ Creswell J, Richtel M. Big tobacco heralds a healthier world while fighting its arrival. *The New York Times*. <https://www.nytimes.com/2022/11/06/health/tobacco-fda-menthol-ban-nicotine.html>. Published November 6, 2022. Accessed July 12, 2023.
- ⁴¹ Philip Morris International. Delivering a smoke-free future. <https://www.pmi.com/our-transformation/delivering-a-smoke-free-future>. Published July 31, 2019. Accessed August 13, 2023.
- ⁴² Novotny TE, Slaughter E. Tobacco Product Waste: An Environmental Approach to Reduce Tobacco Consumption. *Curr Environ Health Rep*. 2014;1(3):208-216. doi:10.1007/s40572-014-0016-x.
- ⁴³ Foley KE, Bluth R. RJR uses California as test market for skirting upcoming national menthol cigarette ban. *POLITICO*. April 19, 2023. Accessed August 29, 2023.
- ⁴⁴ Evans-Reeves K. Tobacco Companies target customers with menthol alternatives to circumvent upcoming California sales ban. Blog - Tobacco Control. April 2023. <https://blogs.bmj.com/tc/2023/04/17/tobacco-companies-target-customers-with-menthol-alternatives-to-circumvent-upcoming-california-sales-ban/>.
- ⁴⁵ Philip Morris International. Delivering a smoke-free future. <https://www.pmi.com/our-transformation/delivering-a-smoke-free-future>. Published July 31, 2019. Accessed August 13, 2023.

- ⁴⁶ Shiffman S, Augustson EM. Introduction to the Special Issue on JUUL Use. *Am J Health Behav.* 2021;45(3):397-401. doi: 10.5993/AJHB.45.3.1.
- ⁴⁷ U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. 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, 2014.
- ⁴⁸ Proctor RN. *Golden Holocaust: Origins of the Cigarette Catastrophe and the Case for Abolition.* Berkeley, CA: University of California Press. 2011.
- ⁴⁹ Talbot JA, Williamson ME, Pearson KB et al. *Advancing Tobacco Prevention and Control in Rural America.* Washington, DC: National Network of Public Health Institutes; 2019
- ⁵⁰ Nemeth JM, Liu ST, Ferketich AK, Kwan MP, Wewers ME. Factors Influencing Smokeless Tobacco Use in Rural Ohio Appalachia. *Journal of Community Health.* Dec 2012; 37(6):1208-17.
- ⁵¹ S. Peeters, A.B. Gilmore, [Understanding the emergence of the tobacco industry's use of the term harm reduction in order to inform public health policy](#), "Tobacco Control", 2015; 24:182-189
- ⁵² El-Toukhy S, Baig SA, Jeong M, et al. Impact of modified risk tobacco product claims on beliefs of US adults and adolescents. *TobControl.* 2018;27:s62-s69.
- ⁵³ <https://www.altria.com/en/moving-beyond-smoking/reduce-the-harm-of-tobacco-products>
- ⁵⁴ David T Levy, Frances Thirlway, David Sweanor, Alex Liber, Luz Maria Sanchez-Romero, Rafael Meza, Clifford E Douglas, K Michael Cummings, Do Tobacco Companies Have an Incentive to Promote "Harm Reduction" Products?: The Role of Competition, *Nicotine & Tobacco Research*, 2023;, ntad014, <https://doi.org/10.1093/ntr/ntad014>
- ⁵⁵ Dewhirst T. Co-optation of harm reduction by Big Tobacco. *Tob Control.* 2021;30(e1):e1-e3. doi: 10.1136/tobaccocontrol-2020-056059. Epub 2020 Aug 12.
- ⁵⁶ Strong DR, White MM, Stone M, Trinidad DR, McMenamin SB, Messer K. Effectiveness of e-cigarettes as aids for smoking cessation: evidence from the PATH Study cohort, 2017-2019. *Tob Control.* 2023;32(e2):e145-e152. doi: 10.1136/tobaccocontrol-2021-056901. Epub 2022 Feb 7.
- ⁵⁷ Soneji S, Barrington-Trimis JL, Wills TA, Leventhal AM, Unger JB, Gibson LA, et al. Association between initial use of e-cigarettes and subsequent cigarette smoking among adolescents and young adults: a systematic review and meta-analysis. *JAMA Pediatr.* 2017;171(8):788-97. <https://doi.org/10.1001/jamapediatrics.2017.1488>.
- ⁵⁸ Pierce JP, Chen R, Kealey S, Leas EC, White MM, Stone MD, McMenamin SB, Trinidad DR, Strong DR, Benmarhnia T, Messer K. Incidence of Cigarette Smoking Relapse Among Individuals Who Switched to e-Cigarettes or Other Tobacco Products. *JAMA Netw Open.* 2021;4(10):e2128810. doi: 10.1001/jamanetworkopen.2021.28810.
- ⁵⁹ Meier BM, Shelley D. The fourth pillar of the Framework Convention on Tobacco Control: harm reduction and the international human right to health. *Public Health Rep.* 2006 Sep-Oct;121(5):494-500. doi: 10.1177/003335490612100503
- ⁶⁰ California Department of Public Health, California Tobacco Control Program. California Tobacco Facts and Figures 2022. Sacramento, CA: California Department of Public Health; May 2023.
- ⁶¹ Campaign for Tobacco Free Kids. The Toll of Tobacco In California. <https://www.tobaccofreekids.org/problem/toll-us/california>. Accessed September 19, 2023.
- ⁶² Centers for Disease Control and Prevention. Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC) - Smoking Attributable Mortality (SAM). 2020. <https://chronicdata.cdc.gov/Health-Consequences-and-Costs/Smoking-Attributable-Mortality-Morbidity-and-Economic-4yuu-3s69>. Accessed November 9, 2022.
- ⁶³ Campaign for Tobacco Free Kids. The Toll of Tobacco In California. <https://www.tobaccofreekids.org/problem/toll-us/california>. Accessed September 19, 2023.
- ⁶⁴ California Environmental Protection Agency. Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant. Sacramento, CA: California Environmental Protection Agency, Air Resources Board, Office of Environmental Health Hazard Assessment. 2005.
- ⁶⁵ American Lung Association. [Cutting Tobacco's Rural Roots: Tobacco Use in Rural Communities](#) [PDF – 3 MB]. Chicago: American Lung Association; 2015 [accessed 2022 Mar 22].
- ⁶⁶ Croft JB, Wheaton AG, Liu Y, et al. [Urban-Rural County and State Differences in Chronic Obstructive Pulmonary Disease – United States, 2015](#). *MMWR Morb Mortal Wkly Rep.* 2018;67(7):205-211 [[accessed 2022 Mar 22].
- ⁶⁷ Harrington RA, Califf RM, Balamurugan A, et al. [Call to Action: Rural Health: A Presidential Advisory From the American Heart Association and American Stroke Association](#). *Circulation.* 2020;141(10):e615-e644 [accessed 2022 Mar 22].
- ⁶⁸ Singh GK, Williams SD, Siahpush M, Mulhollen A. [Socioeconomic, Rural-Urban, and Racial Inequalities In US Cancer Mortality: Part I—All Cancers and Lung Cancer and Part II—Colorectal, Prostate, Breast, and Cervical Cancers](#). *Journal of Cancer Epidemiology.* 2011 [accessed 2022 Mar 22].
- ⁶⁹ Tauras J, Chaloupka F. The Economic Effects of Cigarette Sales and Flavor Bans on Tobacco Retail Businesses. *Tobaccoeconomics*; 2023. Accessed October 16, 2023. <https://www.tobaccoeconomics.org/research/the-economic>

effects-of-cigarette-sales-and-flavor-bans-on-tobacco-retail-businesses/?utm_source=facebookinstagram&utm_medium=organicpaid&utm_term=smallbusiness&fbclid=IwAR2sSeVDRs_P2qmTYCahOn3pZnlnRkQ-AyHTrjaSO3cPAP_XGvveyUL7PqO

⁷⁰ Tauras J, Chaloupka F. The Economic Effects of Cigarette Sales and Flavor Bans on Tobacco Retail Businesses. *Tobacco Economics*; 2023. Accessed October 16, 2023. https://www.tobacconomics.org/research/the-economic-effects-of-cigarette-sales-and-flavor-bans-on-tobacco-retail-businesses/?utm_source=facebookinstagram&utm_medium=organicpaid&utm_term=smallbusiness&fbclid=IwAR2sSeVDRs_P2qmTYCahOn3pZnlnRkQ-AyHTrjaSO3cPAP_XGvveyUL7PqO

⁷¹ Tauras J, Chaloupka F. The Economic Effects of Cigarette Sales and Flavor Bans on Tobacco Retail Businesses. *Tobacco Economics*; 2023. Accessed October 16, 2023. https://www.tobacconomics.org/research/the-economic-effects-of-cigarette-sales-and-flavor-bans-on-tobacco-retail-businesses/?utm_source=facebookinstagram&utm_medium=organicpaid&utm_term=smallbusiness&fbclid=IwAR2sSeVDRs_P2qmTYCahOn3pZnlnRkQ-AyHTrjaSO3cPAP_XGvveyUL7PqO

⁷² Campaign for Tobacco Free Kids. The Toll of Tobacco In California. <https://www.tobaccofreekids.org/problem/toll-us/california>. Accessed September 19, 2023.

⁷³ U.S. Department of Health and Human Services. The Health Consequences of Smoking: 50 Years of Progress. 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, 2014.

⁷⁴ California Department of Public Health, California Tobacco Control Program. California Tobacco Facts and Figures 2022. Sacramento, CA: California Department of Public Health; May 2023.

⁷⁵ California Environmental Protection Agency. Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant. Sacramento, CA: California Environmental Protection Agency, Air Resources Board, Office of Environmental Health Hazard Assessment. 2005.

⁷⁶ 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.

⁷⁷ Picciotto MR, Brunzell DH, Caldarone BJ. Effect of nicotine and nicotinic receptors on anxiety and depression. *Neuroreport*. 2002;13(9):1097-1106. doi:10.1097/00001756-200207020-00006.

⁷⁸ Bracken-Clarke D, Kapoor D, Baird AM, et al. Vaping and lung cancer – A review of current data and recommendations. *Lung Cancer*. 2021;153:11-20. doi:10.1016/j.lungcan.2020.12.030.

⁷⁹ Patel U, Patel N, Khurana M, et al. Effect Comparison of E-Cigarette and Traditional Smoking and Association with Stroke—A Cross-Sectional Study of NHANES. *Neurol In*. 2022;14(2):441-452. doi:10.3390/neurolint14020037.

⁸⁰ Fowles J, Barreau T, Wu N. Cancer and Non-Cancer Risk Concerns from Metals in Electronic Cigarette Liquids and Aerosols. *International Journal of Environmental Research and Public Health*. 2020;17(6):2146. <https://doi.org/10.3390/ijerph17062146>

⁸¹ Shehata SA, Toraih EA, Ismail EA, Hagrass AM, Elmorsy E, Fawzy MS. Vaping, Environmental Toxicants Exposure, and Lung Cancer Risk. *Cancers* (Basel). 2023;15(18):4525. Published 2023 Sep 12. doi:10.3390/cancers15184525

⁸² National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems; Eaton DL, Kwan LY, Stratton K, editors. *Public Health Consequences of E-Cigarettes*. Washington (DC): National Academies Press (US); 2018 Jan 23. 10. *Cancers*. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK507174/>

⁸³ Gotts JE, Jordt SE, McConnell R, Tarran R. What are the respiratory effects of e-cigarettes? *BMJ*. 2019;366:l5275. doi: 10.1136/bmj.l5275

⁸⁴ Auschwitz E, Almeda J, Andl CD. Mechanisms of E-Cigarette Vape-Induced Epithelial Cell Damage. *Cells*. 2023;12(21):2552. doi: 10.3390/cells12212552

⁸⁵ Tommasi S, Blumenfeld H, Besaratinia A. Vaping Dose, Device Type, and E-Liquid Flavor are Determinants of DNA Damage in Electronic Cigarette Users. *Nicotine Tob Res*. 2023;25(6):1145-1154. doi: 10.1093/ntr/ntad003

⁸⁶ Shields PG, Berman M, Brasky TM, et al. A Review of Pulmonary Toxicity of Electronic Cigarettes in the Context of Smoking: A Focus on Inflammation. *Cancer Epidemiol Biomarkers Prev*. 2017;26(8):1175-1191. doi:10.1158/1055-9965.EPI-17-0358

⁸⁷ Taylor, A, Dunn, K, Turfus, S. A review of nicotine-containing electronic cigarettes—Trends in use, effects, contents, labelling accuracy and detection methods. *Drug Test Anal*. 2021; 13: 242– 260. <https://doi.org/10.1002/dta.2998>

⁸⁸ <https://www.ucsfhealth.org/conditions/nicotine-dependence>

⁸⁹ Pierce JP, Chen R, Leas EC, et al. Use of E-cigarettes and Other Tobacco Products and Progression to Daily Cigarette Smoking. *Pediatrics*. 2021;147(2):e2020025122. doi:10.1542/peds.2020-025122.

⁹⁰ U.S. Surgeon General. Know the Risks. E-cigarettes and Young People. e-cigarettes.surgeongeneral.gov/knowtherisks.html. Accessed October 25, 2023.

-
- ⁹¹Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs - 2014*. 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; Published 2014.
- ⁹²Martínez Ú, Martínez-Loredo V, Simmons VN et al. How Does Smoking and Nicotine Dependence Change after Onset of Vaping? A Retrospective Analysis of Dual Users. *Nicotine Tob Res.* 2019. doi: 10.1093/ntr/ntz043.
- ⁹³Nagel C, Hugueley B, Cui Y, Nunez DM, Kuo T, Kuo AA. Predictors of Dual E-Cigarette and Cigarette Use. *J Public Health Manag Pract.* 2022 May-Jun 01;28(3):243-247. doi: 10.1097/PHH.0000000000001491.
- ⁹⁴Dewhirst T. Co-optation of harm reduction by Big Tobacco. *Tob Control.* 2021;30(e1):e1-e3. doi: 10.1136/tobaccocontrol-2020-056059
- ⁹⁵The Tobacco Atlas. Product Sales. <https://tobaccoatlas.org/challenges/product-sales/>. Accessed August 29, 2023.
- ⁹⁶Ali FR, Seidenberg AB, Crane E, Seaman E, Tynan MA, Marynak K. E-cigarette Unit Sales by Product and Flavor Type, and Top-Selling Brands, United States, 2020–2022. *MMWR Morb Mortal Wkly Rep* 2023;72:672–677. DOI: <http://dx.doi.org/10.15585/mmwr.mm7225a1>
- ⁹⁷UCLA Center for Health Policy Research. AskCHIS 2021. Current e-cigarette use status. <https://ask.chis.ucla.edu>. Exported on March 17, 2023.
- ⁹⁸Traboulsi H, Cherian M, Abou Rjeili M, Preteroti M, Bourbeau J, Smith BM, Eidelman DH, Baglolle CJ. Inhalation Toxicology of Vaping Products and Implications for Pulmonary Health. *Int J Mol Sci.* 2020 May 15;21(10):3495. doi: 10.3390/ijms21103495.
- ⁹⁹Antwi GO, Rhodes DL. Association between E-cigarette use and chronic obstructive pulmonary disease in non-asthmatic adults in the USA. *J Public Health (Oxf).* 2022;44(1):158-164. doi:10.1093/pubmed/fdaa229.
- ¹⁰⁰Sharma A, Gupta I, Venkatesh U, Singh AK, Golamari R, Arya P. E-cigarettes and myocardial infarction: A systematic review and meta-analysis. *Int J Cardiol.* 2023;371:65-70. doi:10.1016/j.ijcard.2022.09.007.

Confidential. For internal use only.