

Addicting the Next Generation: Big Tobacco, E-Cigarettes and the Future of Nicotine Delivery



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Introduction

This report studies the emergence of the e-cigarette market. Specifically, it shows that although young people are smoking less, they are picking up e-cigarettes at an alarming rate. The tobacco industry is investing heavily in this emerging market, hoping to get a new generation of young people addicted to their products. Young people are a vital segment of the tobacco industry's market. An astounding 98% of people who smoke tried their first cigarette by age 26. Eighty-nine percent tried their first by 18.¹ Studies show that young people who try e-cigarettes are more likely to smoke traditional cigarettes. In order to avoid a new generation becoming addicted to nicotine, this report outlines several legislative solutions.

History of Big Tobacco's Big Fraud

The devastating health effects of smoking have long been clear. Smoking causes death and disease. Yet, the tobacco industry ran a campaign of deception for decades to obfuscate this central truth.

The first studies to find a correlation between smoking and health issues occurred in the 1930s and 40s. These early studies had little effect on the rates of smoking because the public largely did not have access to these studies and the studies themselves only showed a correlation between smoking and cancer. They had not yet found causation.²

But a Reader's Digest article in 1952 seemed to change all that. Entitled "Cancer by the Carton," this article documented for the general public for the first time in detail the dangers of smoking. The effect was immediate. Not only did it spur further research, but cigarette sales decreased. The public was listening. So was the tobacco industry.

In 1954 the tobacco industry created the Tobacco Industry Research Council (TIRC) and began marketing "healthier" cigarettes with filters. At the same time, they began to expand their efforts to counter public health research into the connection between smoking and cancer. It was the

¹ <https://www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html>

² <http://edition.cnn.com/US/9705/tobacco/history/>

position of the industry and their PR counterparts that, rather than focus on safer alternatives (which would lend credibility to the claim that their product was unsafe), they would focus on funding and promoting research that would create skepticism about the links between smoking and cancer.³

For the next forty years, the tobacco industry, through TIRC, their public relations firm, and their trade association The Tobacco Institute would wage a fraudulent campaign bending science to their own ends, reassuring the public and fending off regulation.⁴

In the beginning, TIRC was little more than a PR campaign. Its original million dollar budget went mostly to its PR team and administrative overhead. It later began to fund its own research, seeking out skeptics in the scientific and academic communities. Its goal was to sow doubt and uncertainty among the public and lawmakers about the science linking smoking to death and disease. They did this despite mounting on the dangers of smoking, beginning with the Surgeon General's Advisory Committee on Smoking and Health, which concluded unequivocally in 1964 that smoking causes cancer and death.^{5 6}

The industry's ultimate goal was to keep the science surrounding the health dangers of smoking a matter of uncertainty and debate in the eyes of the public, even as the dangers of smoking were becoming clearer in the scientific world. The industry manipulated the public's faith in science to suit their own ends, to keep the public smoking. At the same time, they sought to reassure the public that they would work hard and fast to ensure that the health of their customers always came first by, among other methods, funding their own research.⁷

Beginning with their statement in 1954 to the public announcing the creation of TIRC and published in hundreds of newspapers, they wrote: "We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business."⁸

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490543/>

⁴ *Ibid*

⁵ *Ibid*

⁶ <http://edition.cnn.com/US/9705/tobacco/history/>

⁷ http://www.ucdmc.ucdavis.edu/welcome/features/20071114_cardio-tobacco/

⁸ <http://archive.tobacco.org/History/540104frank.html>

Feigning a concern for public health while funding research meant to sow doubt on credible science proved a winning strategy for 40 years, during which time untold millions of Americans died from their deception.

Litigation and the Emerging Regulation of Tobacco

It is well known now that the tobacco industry not only knew the dangers of smoking far better than the general public, they knew that the nicotine found in them is highly addictive. Not only did they know it, they increased the levels of nicotine in their products to make them more addictive, while simultaneously downplaying or denying its addictive quality to the public. Only now, as the result of years of litigation, have they begun to air court ordered advertisements in which they admit to making cigarettes more addictive.⁹

Beginning in the 1980's people began to sue the tobacco industry, at first without much success. But it became clear that by and large the public had caught on to the settled science surrounding the dangers of smoking.

In the 1990's attorneys general in states across the country began to file suit against the industry. Dozens of states filed suits aimed at the industry, claiming that the health problems associated with smoking represented a major burden on health care systems.

Famous whistleblower, industry insider Jeffrey Wigand, began to cooperate with investigators and anti-tobacco groups, culminating in an historic interview with 60 Minutes and a deposition in which he revealed on the record that the tobacco industry actively suppressed evidence that cigarettes are dangerous and that nicotine is addictive. The seven industry executives who had previously testified under oath before Congress that nicotine was not addictive had been lying.¹⁰

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⁹ <https://www.npr.org/sections/health-shots/2017/11/27/566014966/in-ads-tobacco-companies-admit-they-made-cigarettes-more-addictive>

¹⁰ <https://senate.ucsf.edu/tobacco-ceo-statement-to-congress>

¹¹ <http://www.jeffreywigand.com/pascagoula.php>

Forty-six states attorneys general in a landmark class action lawsuit won a settlement with the four largest tobacco of more than \$200 billion.¹²

In 2009, the FDA began regulating tobacco products in the U.S.¹³

With public education campaigns, smoking restrictions and cessation programs smoking rates in the U.S. have dropped to 15%.¹⁴ There is more to be done, however, as more than 36 million Americans still smoke and tobacco companies are reaping record profits.

E-Cigarettes and the Big Tobacco Playbook

In the 1960s, 42% of American adults smoked cigarettes, or around 50 million people. Today, even though that number has dropped to 15%, tobacco companies are seeing their profits soar. Despite a 37% decrease in the number of cigarettes sold between 2001 and 2016, cigarette revenue rose by 32% to \$93.4 billion due to years of price hikes and industry consolidation. The U.S. once had seven major companies, but now has two: Altria and Reynolds. These two account for 80% of cigarette sales in the U.S. The industry is using much of their profit to drive research and development of new next generation products.¹⁵

With new cigarette regulations on the horizon including the FDA's announcement that they may begin to require a decrease in nicotine to non-addictive levels, the tobacco industry has turned its sights to the emerging e-cigarette market. Philip Morris/Altria and Reynolds, the two major tobacco companies, are investing heavily in researching new e-cigarette products and heat-not-burn tobacco products. Philip Morris International spent \$3 billion in researching new products.¹⁶

¹² <https://www.nolo.com/legal-encyclopedia/tobacco-litigation-history-and-development-32202.html>

¹³ <https://www.fda.gov/tobaccoproducts/labeling/rulesregulationsguidance/ucm237092.htm>

¹⁴ https://www.cdc.gov/tobacco/data_statistics/fact_sheets/index.htm

¹⁵ <https://www.wsj.com/articles/u-s-tobacco-industry-rebounds-from-its-near-death-experience-1492968698>

¹⁶ <https://www.wsj.com/articles/u-s-tobacco-industry-rebounds-from-its-near-death-experience-1492968698>

With the rates of tobacco use in decline, tobacco companies are pivoting to new forms of nicotine delivery. As cigarettes smoking declines, e-cigarette use is increasing, especially among the young.

E-cigarettes are electronic devices used to simulate the experience of smoking a cigarette, using a battery and cartridge to deliver nicotine to the user.

These devices are relatively new and are often touted as a way for users to smoke while avoiding many of the negative effects of smoking tobacco. It is also commonly suggested that e-cigarettes, or vaping, can be used as a method of quitting smoking by adjusting the nicotine levels.

The research exploring the consequences of vaping is still new, but the broad health effects that remain are becoming clearer: e-cigarettes are not safe nor are they an effective method of quitting smoking. Like traditional cigarettes, many are a nicotine delivery system. Available research suggests that while e-cigarettes may contain fewer dangerous chemicals than traditional tobacco products, these new products are not safe.

The public's understanding of this emerging market mirrors its understanding of the traditional tobacco market fifty years ago. That is, the public perception is yet again that a product pushed by the tobacco industry is safe. Not only safe, but an effective method of quitting traditional smoking.

Even a quick Google search confirms that a trend of articles and links perpetuating myths that e-cigarettes are a safe alternative and a method to quit smoking. This mirrors the trend decades ago of tobacco funded "science" sowing doubt on established research on cigarette dangers. In fact, major tobacco companies have funded e-cigarette studies to promote them as safe.¹⁷

The truth is contrary to this belief. Cadmium, benzene, toluene, heavy metals, even formaldehyde—these can all be found in electronic cigarettes. Nicotine too, is not only

¹⁷ <https://www.theverge.com/2017/11/16/16658358/vape-lobby-vaping-health-risks-nicotine-big-tobacco-marketing>

addictive, but in teens can lead to lower impulse control and mood disorders. Not only are e-cigarettes not a safe alternative to smoking, teens who vape are more likely to begin smoking traditional cigarettes.¹⁸

The truth is this: no form of smoking, electronically or otherwise, is safe.

The Problem of E-Cigarettes and Vaping amongst Youth

E-cigarettes and vaping have become an escalating issue in recent years. E-cigarette use among middle and high school students doubled between 2013 and 2014.¹⁹ Researchers at Yale estimate that three million American teenagers vape. The trend of e-cigarette use amongst youth establishes e-cigarettes as the most popular nicotine/tobacco product for their age group of adolescents. Researchers at the American Academy of Pediatrics have also found that teens who vaped in the past month are seven times more likely to start smoking actual cigarettes²⁰.

Both the U.S. Department of Health²¹ and the New York Department of Health²² have identified teens and young adults as the majority of e-cigarette users. The NY Department of Health has found the rate of e-cigarette use amongst high school students to be five times higher than the rates of e-cig use in adults age twenty-five and older²³. Researchers have also reported the amount of high school students using e-cigs doubled over the course of two years with 10.5% vaping in 2014 to 20.6% in 2016.

The U.S. Surgeon General discovered the main reasons youth said they started vaping are due to their curiosity of e-cigs, their interest in the flavors and wide range of tastes offered by e-cigarette and tobacco companies, and lastly their false belief that vaping and e-cigs are less harmful than the traditional tobacco cigarette.

¹⁸ https://www.health.ny.gov/prevention/tobacco_control/campaign/e-cigarettes/

¹⁹ <https://e-cigarettes.surgeongeneral.gov/resources.html>

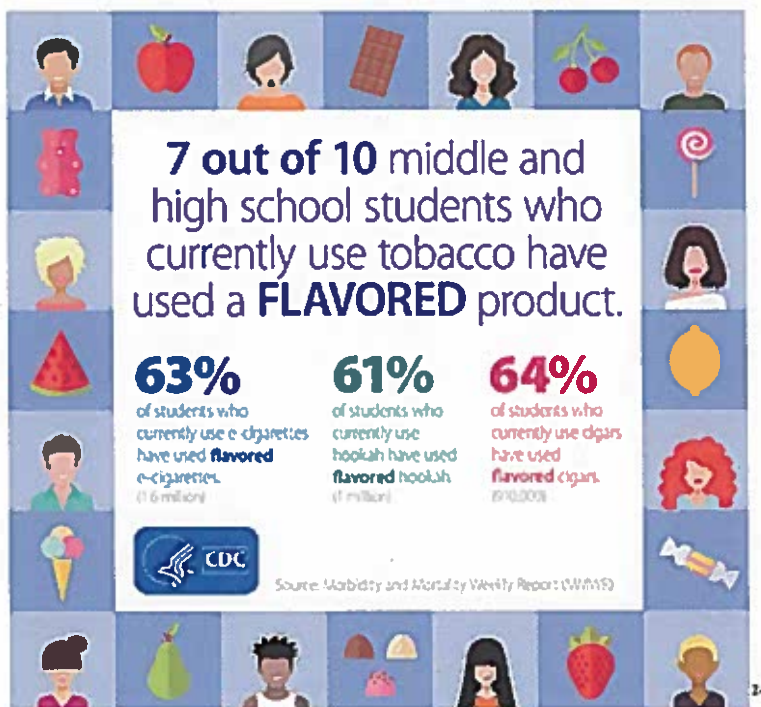
²⁰ https://www.health.ny.gov/prevention/tobacco_control/campaign/e-cigarettes/

²¹ <http://pediatrics.aappublications.org/content/141/1/e20171832..info>

²² https://e-cigarettes.surgeongeneral.gov/documents/2016_sgr_full_report_non-508.pdf

²³ https://www.health.ny.gov/prevention/tobacco_control/

The Deceptive Flavors of E-Cigarettes



More than 7,700 unique flavors of e-cigarettes are available on the market today²⁴.

The majority of e-cigarette flavors were fruit and candy. The top flavors are fruit favors followed by candy, then the more distinctive flavors such as waffles, and finally the alcoholic beverage flavors such as a pina colada. The US Health & Human Services (USDHHS) has stated for decades that *the use of favors is intentionally made to attract adolescents and young adults to tobacco products*. These fruit and candy flavors help mask the harsh taste of tobacco.

Additionally, the Center for Disease and Control has conducted numerous studies proving this strategy used by e-cigarette and tobacco companies. Time and again, the CDC found that adolescents are more likely than adults to choose flavored tobacco products over traditional products.

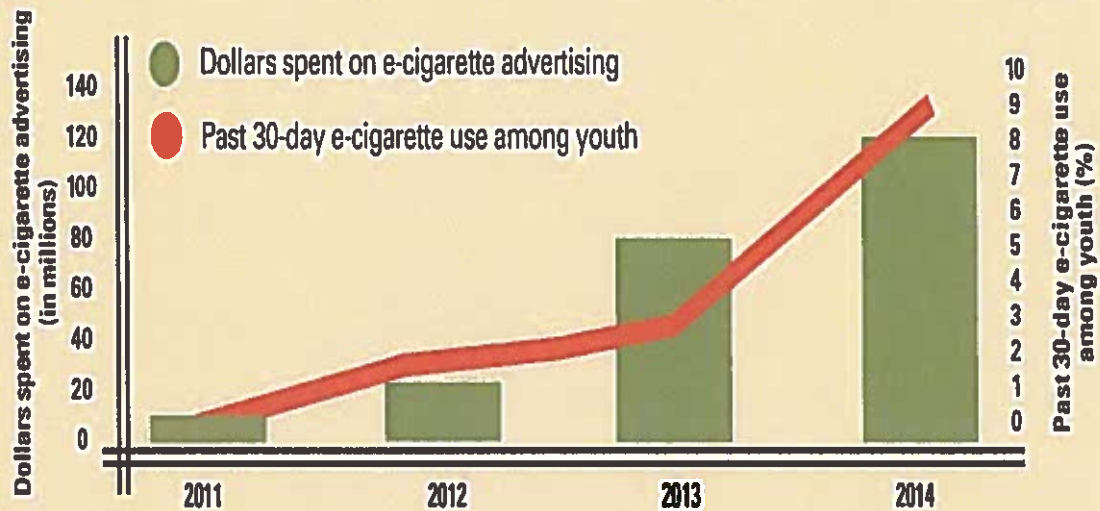
²⁴ <https://www.cdc.gov/tobacco/infographics/youth/index.htm#ecigs>

²⁵ http://tobaccocontrol.bmj.com/content/tobaccocontrol/23/suppl_3/iii3.full.pdf

Flavors are engineered by e-cigarette and tobacco companies with one primary objective: to peak the curiosity of young and lead them to further tobacco use.

The Intended Audience of E-Cigarette Marketing

E-cigarette use among youth is rising as e-cigarette advertising grows



SOURCE: National Youth Tobacco Survey, 2011-2014; Kim et al (2014), Truth Initiative (2015).

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The U.S. Surgeon General reported the amount of money spent by e-cigarette marketing in 2014 was \$125 million dollars. That does not include money spent on social media, the reporting of which is not required. The e-cigarette industry's sales for 2015 was projected at \$3.5 billion. This ever-growing e-cigarette industry brings with it increased marketing toward its targeted audiences. This marketing works. About 40% of middle and high school students saw e-cigarette ads online in 2014. Overall, e-cigarette ads reached more than 18 million students.²⁷

Emerging Products – Heat-Not-Burn Cigarettes

²⁶ <https://www.cdc.gov/tobacco/infographics/youth/index.htm#ecigs>

²⁷ <https://www.cdc.gov/vitalsigns/ecigarette-ads/index.html>

With British American Tobacco buying Reynolds and Phillip Morris merging with Altria, the tobacco industry is more consolidated than ever.²⁸ Since the explosion of the e-cigarette market, these major tobacco companies have invested a tremendous amount of money into research and development of new tobacco and e-cigarette related products.

Phillip Morris invested \$111 million in a state of the art research and development center in Switzerland called the Cube.²⁹ One emerging product pending FDA approval is called IQOS.^{30 31} This is a tobacco product referred to as heat-not-burn. The product uses real tobacco but instead of burning it, a device in the product only heats the tobacco, producing a vapor that is then inhaled by the user. Since it became available in Japan, it captured a large share of the market. They are hoping the same thing will happen in the U.S.

Although the tobacco industry claims that heat not burn products are safer than traditional cigarettes, one independent study showed that they carry the same risk in terms of cardiovascular illness and heart disease. IQOS caused a drop in blood vessel function similar to cigarettes. The nicotine inhaled from IQOS proved to be much higher than for cigarettes, making it potentially more addictive.³²

E-cigarettes, heat-not-burn items and other emerging tobacco products are not a fad. They are a growing market. The global e-cigarette market is expected to see a compound annual growth rate of almost 17% percent in the coming years and is projected to reach \$27.67 billion by 2022.³³

Solution

²⁸ <https://www.reuters.com/article/us-reynolds-amricn-m-a-vape-analysis/a-bat-deal-with-reynolds-adds-to-big-tobaccos-e-cig-advantage-idUSKCN12P2YW>

²⁹ <https://www.bloomberg.com/news/features/2017-03-08/big-tobacco-has-caught-startup-fever>

³⁰ <http://www.chicagotribune.com/business/ct-smokeless-cigarette-iqos-20170814-story.html>

³¹ <https://www.fda.gov/TobaccoProducts/Labeling/MarketingandAdvertising/ucm546281.htm>

³² <https://tobacco.ucsf.edu/pmis-iqos-heat-not-burn-tobacco-products-just-bad-cigarettes-terms-adverse-effects-blood-vessel-function>

³³ <https://www.researchandmarkets.com/research/wcfjgn/global>

The tobacco industry is investing heavily in hooking the next generation of users by utilizing emerging technology to create sleek new products. The public perception of tobacco is very negative, but they are working to shape the perception that these new products are better. We must combat that notion, update our laws, and protect the next generation.

1. E-Cigarette Tax. Studies have shown that raising taxes on cigarettes results in a decline in smoking, especially among the youth.³⁴ It is imperative then that e-cigarettes be taxed in a way that mirrors taxes for traditional tobacco products. Senator Carlucci's e-cigarette tax bill (S. 7335) will impose a 25-cent tax per milliliter of fluid.

2. Prohibit E-Cigarette Flavors – Flavored cigarettes have been banned nationwide since 2009.³⁵ This is because flavored cigarettes were most attractive to youth, getting kids hooked on nicotine at an early age. Assemblymember Rosenthal's bill (A.8688) would extend the current ban on flavored cigarettes to cover e-cigarettes as well.

3. Increase to 21 the Minimum Age to Buy E-Cigarettes and Tobacco Products. Public health improved when the state increased the drinking age to 21. We support Senator Savino's bill (S.3978) to raise the minimum age to buy tobacco products to 21.

4. Enact E-Cigarette Marketing Restrictions. Currently e-cigarette advertisements target kids. Millions of kids are exposed to these marketing campaigns every year, resulting in the potential for a new generation to get hooked on nicotine. We must restrict where and how e-cigarettes can be marketed to ensure that kids do not fall victim to nicotine addiction.

5. Require a License for Retailers to Sell E-Cigarettes. Currently there are no New York State regulations governing retailers selling e-cigarettes. We must require that retailers across the state obtain a license to sell these products.

³⁴ https://www.washingtonpost.com/national/health-science/cigarette-taxes-are-the-best-way-to-cut-smoking-scaring-big-tobacco/2017/10/21/fbf51d04-9f05-11e7-8ea1-ed975285475e_story.html?utm_term=.e6b3d5c0bed4

³⁵ <https://www.fda.gov/TobaccoProducts/Labeling/ProductsIngredientsComponents/ucm2019416.htm>

6. **Establish Quality Standards for the Ingredients and Manufacture of E-Cigarette.** Since the e-cigarette market exploded over the past few years, so too have actual e-cigarettes. Horror stories have emerged about the batteries in e-cigarettes exploding, causing people serious burns and injuries.^{36 37 38} We must impose high quality standards to decrease these risks.

7. **Initiate a public education campaign** regarding the addictiveness of nicotine and the health effects of e-cigarettes. A 2012 surgeon general's report on tobacco concluded that public education campaigns were effective at reducing smoking among the youth.³⁹ We must fold e-cigarettes and other vapor products into those current campaigns.

³⁶ <https://www.nbcnews.com/business/consumer/what-s-causing-some-e-cigarette-batteries-explode-n533516>

³⁷ https://www.huffingtonpost.com/entry/attack-of-the-e-cigarettes_us_585c2712e4b0eb586485a81a

³⁸ <https://www.democratandchronicle.com/story/news/2018/01/16/webster-vape-shop-sued-over-exploding-e-cig-battery/1037276001/>

³⁹ <https://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/index.html#Executive%20Summary>