



SMOKELESS TOBACCO AND KIDS

Since 1970, smokeless tobacco has gone from a product used primarily by older men to one used predominantly by young men and boys. This trend has occurred as smokeless tobacco promotions have increased dramatically and a new generation of smokeless tobacco products has hit the market. Far from being a “safe” alternative to cigarette smoking, smokeless tobacco use causes cancer and increases the risk of developing other health problems, including nicotine addiction and the potential to move on to combustible tobacco products.

Smokeless Tobacco Use

Although cigarette smoking among youth in the U.S. has declined significantly since 2000, use of smokeless tobacco among youth has declined much more slowly.¹

- The 2020 National Youth Tobacco Survey (NYTS) showed that 3.1 percent of all high school students overall reported current use of smokeless tobacco products, with 4.8 percent of high school boys currently using smokeless tobacco.²
- Each day, more than 1,000 kids ages 12-17 use smokeless tobacco for the first time.³
- In 2019, among current high school smokeless tobacco users, 37.9 percent used these products on 20 to 30 of the previous 30 days, which is considered frequent use.⁴
- Based on data from the Youth Risk Behavior Survey (YRBS), smokeless tobacco use among high school boys exceeded the national rate in 19 states. In 2019, the states with the highest boys’ smokeless tobacco use rates were West Virginia (14.5%), Alabama (13.6%), Tennessee (13.5%), Ohio (12.8%), Arkansas (11.4%), and South Carolina (11.4%).⁵
- Based on 2013 data from the YRBS, high school athletes use smokeless tobacco at higher rates than non-athletes (11.1% vs. 5.9%). Among male high school athletes, smokeless tobacco use is particularly alarming at 17.4 percent. In addition, participation in more sports teams during high school is associated with higher rates of smokeless tobacco use.⁶

Smokeless tobacco use didn’t used to be so prevalent among the younger population. In 1970, men 65 and older were almost six times as likely as those aged 18 to 24 to use spit tobacco regularly, but by 1991, young men were 50 percent more likely than the oldest men to be regular users.⁷ This pattern held especially true for moist snuff, the most popular type of smokeless tobacco. From 1970 to 1991, the regular use of moist snuff by 18 to 24 year old men increased almost ten-fold, from less than one percent to 6.2 percent. Conversely, use among men 65 and older decreased by almost half, from four percent to 2.2 percent.⁸

With the new generation of smokeless tobacco products that are made to be easier to conceal, easier to use, and lower priced, the popularity of these products among young people is likely to continue.

New Companies, Old Players

In the past, cigarette companies only sold cigarettes and smokeless tobacco companies only sold smokeless tobacco. Today, however, companies sell a wide range of tobacco products. The U.S. Smokeless Tobacco Company (UST), now a subsidiary of Altria, the parent company of Philip Morris USA (makers of Marlboro cigarettes), is the biggest smokeless tobacco company in the U.S. and controls half (49.8%) of the moist snuff tobacco market (with leading premium brands Skoal and Copenhagen).⁹ Reynolds American, Inc. (makers of Camel cigarettes) owns the second largest smokeless tobacco company in the U.S., American Snuff Company (formerly Conwood Tobacco Company), the makers of Grizzly and Kodiak. Other cigarette companies have also test-marketed their own smokeless tobacco products.

Smokeless Tobacco Marketing that Appeals to Kids

Not surprisingly, tobacco marketing plays an important role in attracting users – particularly youth. The 2012 Surgeon General’s report, *Preventing Tobacco Use among Youth and Young Adults*, found that the “integration of product design with marketing helped to reverse the mid-twentieth century decline in smokeless tobacco use and spurred a rapid increase in smokeless tobacco use by adolescents and young adult males.”¹⁰

From 1998 to 2019, the total advertising and marketing expenditures of the top-five smokeless tobacco companies in the U.S. nearly quadrupled. In 2019, these smokeless tobacco companies spent \$576.1 million to advertise and market their products, a decline from the previous year, but still more than twice the 2005 expenditures (\$250.8 million), the year before the cigarette companies started acquiring and marketing their own smokeless tobacco products.¹¹

Some of these funds pay for smokeless tobacco ads in magazines with high youth readership, such as *Sports Illustrated* and *Rolling Stone*.¹² In the few years after signing the Smokeless Tobacco Master Settlement Agreement (STMSA), despite its restrictions placed on youth advertising, UST increased its expenditures in magazines with a significant number of youth readers by 161 percent, from \$3.6 million to \$9.4 million.¹³ In 2013, Altria returned to advertising its UST brands in magazines, including those that are popular with boys and young men. However, the companies continue to spend most (65.3%) of their money in the price discount category, to make their products more affordable and accessible to consumers – including youth.¹⁴

Tobacco companies have used a variety of strategies to entice youth to use smokeless tobacco: sweet and kid-friendly flavors, sponsorships of events popular with youth, advertisements with youth-oriented messages, and affordable prices.

Flavors. Smokeless tobacco products are being sold in a variety of kid-friendly flavors. Internal company documents show that UST has intentionally used flavors to hook new spit-tobacco users for decades. As one document states:

*New users of smokeless tobacco -- attracted to the category for a variety of reasons -- are most likely to begin with products that are milder tasting, more flavored, and/or easier to control in the mouth. After a period of time, there is a natural progression of product switching to brands that are more full-bodied, less flavored, have more concentrated 'tobacco taste' than the entry brand.*¹⁵

Following this strategy, between 1983 and 1984, UST introduced Skoal Bandits and Skoal Long Cut, designed to “graduate” new users from beginner strength to stronger, more potent products. A 1985 internal UST newsletter indicates the company’s desire to appeal to youth: “Skoal Bandits is the introductory product, and then we look towards establishing a normal graduation process.”¹⁶ In 1993, cherry flavoring was added to UST’s Skoal Long Cut, another starter product. A former UST sales representative revealed that “Cherry Skoal is for somebody who likes the taste of candy, if you know what I’m saying.”¹⁷ “Candy” is an appropriate comparison, given a recent chemical analysis showing that the same flavor chemicals used in sweet-flavored moist snuff tobacco products are also used in popular candy and drink products such as LifeSavers, Jolly Ranchers, and Kool-Aid.¹⁸ UST has continued its efforts to grow and expand its brands. For instance, one study found that between 2000 and 2006, UST increased the number of its sub-brands by 140 percent, creating a larger variety of products, including flavors, with which to “cast a wide net” and appeal to as many potential users as possible.¹⁹

According to Nielsen scanner data, between 2011 and 2019, the portion of flavored moist snuff products grew such that these products accounted for two out of three moist snuff products sold in 2019. Mint-type flavors (e.g., wintergreen, mint, spearmint) were by far the most popular moist snuff products. Nearly 90% of snus products sold in 2019 were flavored as wintergreen, spearmint, and mint. In 2019, all newer nicotine pouches were flavored, with wintergreen/spearmint/mint making up nearly 80% of the market, followed by cinnamon, coffee, and fruit flavors.²⁰

Unfortunately, these strategies have worked. National surveys show that flavored smokeless tobacco products appeal to youth and young adults and sales data show increases in sales of flavored smokeless tobacco over time:

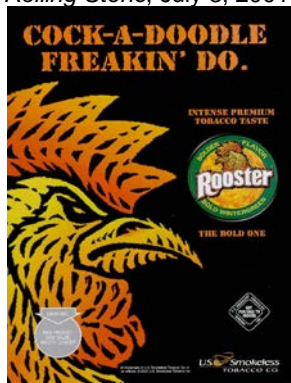
- The 2014-2015 Population Assessment of Tobacco and Health (PATH) study found that 62.7 percent of current smokeless tobacco users had used a flavored product in the last month.²¹ The 2013-2014 PATH study found that 68.9 percent of 12-17 year olds who had ever used smokeless tobacco used flavored smokeless tobacco the first time they tried the product.²²
- More than two-thirds of youth using smokeless tobacco products said they did so “because they come in flavors I like.”²³

Sponsorships. Smokeless tobacco products have been marketed to young people through a number of channels, including sporting events like auto racing and rodeos that are widely attended by kids. UST used to sponsor many professional motorsports and rodeo and bull riding events. As the general manager of the College Finals said, “U.S. Tobacco is the oldest and best friend college rodeo ever had.”²⁴ However, the state tobacco settlement agreements and 2009 Family Smoking Prevention and Tobacco Control Act (Tobacco Control Act) now limit smokeless tobacco companies’ ability to continue to do brand-name sponsorships of events and teams. The Tobacco Control Act also prohibits free sampling of smokeless tobacco except under very narrow circumstances. In addition, some cities, including Boulder and Greeley, CO, have prohibited free tobacco product giveaways, making it even more difficult for companies like UST to lure new users at these events.

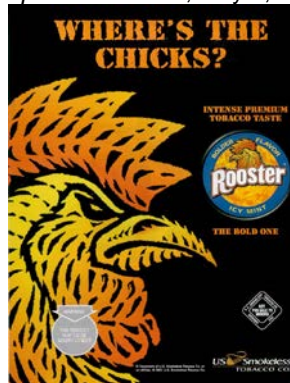
Advertisements. For years, tobacco companies have used advertisements as a way to market their smokeless tobacco products to youth and young adults. As one example, back in 1999, UST ran a full-color advertising insert for its Rooster brand smokeless tobacco in San Diego State University’s college paper, the *Daily Aztec*. The ad offered a sweepstakes for an all-expenses paid trip to the Playboy mansion and, in direct violation of California law, included a \$1.00 coupon. State enforcement efforts related to the ad forced UST to pay a fine of \$150,000 and pay for a parallel ad insert opposing smokeless tobacco use.

Continuing its efforts to lure and maintain young users, in 2001, UST ran a magazine ad for its Rooster brand in *Rolling Stone* with the phrase, “Cock-A-Doodle Freakin’ Do.” Less than a year later, ads for Rooster appeared in *Sports Illustrated*, bearing the same image as before, but with the phrases, “Where’s The Chicks?,” and “Birds of a Feather Party Together.” After UST received criticism for both the ads’ blatant appeal to youth and a Massachusetts Department of Public Health report finding that UST increased its advertising in magazines targeting youth after the STMSA²⁵, the company stopped using those ads and suspended its advertising in four magazines.²⁶

Rolling Stone, July 3, 2001



Sports Illustrated, May 6, 2002



Sports Illustrated, April 4, 2002



In 2013, Reynolds' "tellin' it like it is" campaign for Grizzly used sarcastic phrases as advice about how to be "manly" or "macho." Users were even encouraged to submit their own phrases. Grizzly is the second most popular smokeless tobacco brand among 12-17 year olds.²⁷

Outdoor Life, February-March 2016



Car and Driver, January 2014



Rolling Stone, October 10, 2013



In May 2014, after five years out of magazines, Altria began placing Skoal ads in publications popular with boys and young men, including *Sports Illustrated*, *Car and Driver*, and *Maxim*. After years as the most popular moist snuff brand, Skoal is now the third most popular among 12-17 year olds, behind Copenhagen and Grizzly.²⁸ And in January 2015, Altria restarted the first ads for Copenhagen in magazines such as *Popular Mechanics*, *GQ*, *Car and Driver*, and *Maxim*, since 2008.

Pricing. Higher prices are one of the most effective ways to reduce tobacco use, and its corollary is also true: low prices can promote or initiate tobacco use. Tobacco companies have been using price promotions and other strategies successfully to make smokeless tobacco products more affordable. Skoal and Copenhagen – both more expensive, premium brands – were the most popular products through the mid-2000s, even among youth, until bargain-priced Grizzly arrived. Within five years, Grizzly became the most popular brand among 12-17 year olds, a position it held until 2013.²⁹ One convenience store retailer stated, "What is driving sales for us has been the influx of new brands that retail for under \$3. We're looking at a massive demand on these brands."³⁰

In an effort to regain their market share, UST and Altria, makers of Skoal and Copenhagen, have tried to convince states to change their tax structures to make them more favorable towards the premium brands to the detriment of bargain brands. In addition, Altria cut prices on Copenhagen and Skoal products in 2009 and in 2011 introduced a "value" extension of its Skoal brand. Convenience store retailers reported, "...Skoal launched its Skoal Xtra brand, which pretty much cut the price in half. And Copenhagen was at \$5-\$6 a roll, and now it's in the \$4.50 range. As the price has come down, consumers have responded by increasing purchases."³¹ By 2013, Copenhagen became the most popular moist snuff brand among 12-17 year olds.³²

Newer Smokeless Tobacco Products

For years, tobacco companies have marketed smokeless tobacco products as a way to use tobacco in places or situations when smoking is not allowed or is not socially acceptable, and that practice continues today. Seeing the downward trend in smoking rates and the increasing popularity of smokeless tobacco products, tobacco companies have introduced new forms of smokeless tobacco products that have a number of characteristics that can attract new, young users.

Snus. Snus are small, teabag-like pouches containing tobacco and other flavorings that users place between their upper gum and lip. Because these products do not require spitting, their use can be easily concealed. One high school student admitted using Camel Snus during class, saying, "It's easy, it's super-discreet...and none of the teachers will ever know what I'm doing."³³ Of the major tobacco companies that



2009 Direct mail piece. Source: www.trinketsandtrash.org.

introduced snus products, only two brands remain on the market: R.J. Reynolds's Camel Snus and Swedish Match North America's General Snus. Philip Morris USA had launched Marlboro Snus, Liggett Group created Grand Prix Snus, and Lorillard introduced Triumph Snus, but each have been discontinued. In 2015, FDA granted a marketing order to Swedish Match North America for eight varieties of its General Snus,³⁴ a product similar to those it sells in Sweden, and in 2019, FDA granted a modified risk tobacco product order for those products, which allows the company to use specific reduced risk messaging to market these products.³⁵

Nicotine Pouches. Some pouch products contain nicotine derived from tobacco, but without containing any tobacco leaf, and are often described as “tobacco-free” by manufacturers. All of the major tobacco manufacturers sell these types of nicotine pouches. Swedish Match North America first introduced Zyn pouches in 2015;³⁶ Reynolds American has introduced Velo pouches³⁷ and acquired Dryft Sciences, LLC, to incorporate their pouch products as part of the Velo brand;³⁸ Altria purchased a majority stake in a company to distribute On! pouches in the U.S.;³⁹ and Swisher acquired Rogue Holdings to sell their oral nicotine products.⁴⁰ An analysis of market sales data from convenience stores and similar shops for nicotine pouch products found that sales in this category grew exponentially since its introduction.⁴¹ Some smaller companies have introduced flavored nicotine pouches claiming to use synthetic nicotine.⁴²

Dissolvable Tobacco Products. Tobacco companies introduced dissolvable tobacco products from 2009 to 2013, but most of these products have been discontinued because of low sales or other reasons. Star Scientific used to market Ariva tobacco lozenges and Stonewall Hard Snuff, R.J. Reynolds marketed Camel Dissolvables (orbs, sticks, and strips), and Philip Morris USA test-marketed Marlboro Sticks and Skoal Sticks in Kansas. A few state agencies issued warnings about these types of products when they were on the market.⁴³ As required by the Family Smoking Prevention and Tobacco Control Act of 2009, the Tobacco Products Scientific Advisory Committee of the U.S. Federal Drug Administration reviewed the dissolvable products that were on the market at that point and released a report stating, “concluded that the available evidence, while limited, leads to a qualitative judgment that availability of DTPs [dissolvable tobacco products] could increase the number of users of tobacco products.”⁴⁴

The latest iterations of dissolvable products contain tobacco-derived nicotine, but not actually tobacco leaf. Examples of these products are Reynolds American's Velo lozenges and Swisher's Rogue tablets and lozenges.

These new products concern public health organizations for numerous reasons. Because of their novelty and misconception that they are harmless or less harmful, they may lure even more kids into smokeless tobacco use and addiction. In addition, because they can be consumed much less conspicuously than either cigarettes or existing spit tobacco products at home, in school and in other locations, youth can more easily hide their use. Furthermore, cigarette smokers who might ultimately quit because of the social stigma associated with smoking, the inconvenience caused by smoking restrictions at work and elsewhere, or a desire to protect their family and friends from secondhand smoke may instead switch to smokeless tobacco products and end up perpetuating and increasing their nicotine addiction.*

Harms from Smokeless Tobacco Use

Public health authorities including the Surgeon General and the National Cancer Institute have found that smokeless tobacco use is hazardous to health and can lead to nicotine addiction.

- Nearly 30 years ago, an expert advisory committee to the U.S. Surgeon General found that, “After a careful examination of the relevant epidemiologic, experimental, and clinical data, the committee concludes that the oral use of smokeless tobacco represents a significant health risk. It is not a safe substitute for smoking cigarettes. It can cause cancer and a number of non-cancerous oral conditions and can lead to nicotine addiction and dependence.”⁴⁵
- According to the National Cancer Institute, at least 28 cancer causing chemicals have been identified in smokeless tobacco.⁴⁶ The U.S. National Toxicology Program established smokeless tobacco as a “known human carcinogen.”⁴⁷

* Under the Family Smoking Prevention and Tobacco Control Act, tobacco companies must prove the validity of any health claims to the U.S. Food and Drug Administration before using them in promotional materials. Additionally, any new smokeless tobacco products must go through independent testing regarding either their inherent harmfulness or their likely impact on overall tobacco use levels or public health before entering the market.

- The National Cancer Institute and the International Agency for Research on Cancer report that use of smokeless tobacco causes oral, pancreatic and esophageal cancer.⁴⁸
- Smokeless tobacco users have an increased risk of heart attacks and strokes compared to never users, and former smokers who have switched to smokeless tobacco have a higher risk compared to those who have quit entirely.⁴⁹ Smokeless tobacco use increases the risk of death when users have heart attacks or strokes.⁵⁰
- Smokeless tobacco use is associated with leukoplakia, a disease of the mouth characterized by white patches and oral lesions on the cheeks, gums, and/or tongue. Leukoplakia can sometimes lead to oral cancer. Studies have found that more than half of daily users of smokeless tobacco had lesions or sores in the mouth, and that these sores are commonly found in the part of the mouth where users place their chew or dip.⁵¹
- Chewing tobacco has been linked to dental caries (tooth decay). A study by the National Institutes of Health and the Centers for Disease Control and Prevention found chewing tobacco users were four times more likely than non-users to have decayed dental root surfaces.⁵²
- A study in the *American Journal of Preventive Medicine* found that “snuff use may be a gateway form of nicotine dosing among males in the United States that may lead to subsequent cigarette smoking.” Further, the study found that “the prevalence of smoking was substantially higher among men who had quit using snuff than among those who had never used snuff, suggesting that more than 40 percent of men who had been snuff users continued or initiated smoking.”⁵³
- A study from *Nicotine & Tobacco Research* found that adolescent boys who use smokeless tobacco products have a higher risk of becoming cigarette smokers within four years.⁵⁴
- A 2008 study showed how smokeless tobacco manufacturers changed free nicotine levels—and thus the addictiveness of products—by manipulating pH levels in smokeless tobacco products over time. For instance, between 2000 and 2006, Conwood Smokeless Tobacco Company (now American Snuff Company, a Reynolds American subsidiary) increased the free nicotine level by 31.1 percent across all its brands. This change supports manufacturers’ graduation strategy of starting new users at low nicotine levels and then building brand loyalty with fully addicted users with high nicotine levels. Researchers found that established, addicted, long-term smokeless tobacco users preferred products with the highest levels of free nicotine, whereas those who used smokeless tobacco with lower free nicotine content tended to be fairly new users.⁵⁵

Campaign for Tobacco-Free Kids, April 21, 2021 / Ann Boonn

Types of Spit Tobacco

- *Oral (moist) snuff* is a finely cut, processed tobacco, which the user places between the cheek and gum that releases nicotine which, in turn, is absorbed by the membranes of the mouth.
- *Snus (or pouches)* is a tea-bag like packet of moist snuff tobacco and flavorings, placed between the upper gum and lip. The product design does not require the user to spit, unlike traditional moist snuff.
- *Dissolvable tobacco products* are made of ground tobacco and flavorings, shaped into pellets, strips, or other forms, that the user ingests orally. These products do not require spitting.
- *Looseleaf* chewing tobacco is stripped and processed cigar-type tobacco leaves, loosely packed to form small strips. It is often sold in a foil-lined pouch and usually treated with sugar or licorice.
- *Plug* chewing tobacco consists of small, oblong blocks of semi-soft chewing tobacco that often contain sweeteners and other flavoring agents.
- *Nasal snuff* is a fine tobacco powder that is sniffed into the nostrils. Flavorings may be added during fermentation, and perfumes may be added after grinding.

More information on smokeless tobacco is available at
http://www.tobaccofreekids.org/facts_issues/fact_sheets/toll/products/smokeless/.

- ¹ U.S. Centers for Disease Control & Prevention (CDC), "Vital Signs: Tobacco Product Use Among Middle and High School Students—United States, 2011-2018," *MMWR* 68(6):157-164, February 15, 2019, <https://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm6806e1-H.pdf>. CDC, "Tobacco Product Use Among Middle and High School Students—United States, 2020," *MMWR*, 69, December 17, 2020, <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6950a1-H.pdf>.
- ² CDC, "Tobacco Product Use Among Middle and High School Students—United States, 2020," *MMWR*, 69, December 17, 2020, <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6950a1-H.pdf>. Current use defined as having used the product in the past month.
- ³ Substance Abuse and Mental Health Services Administration (SAMHSA), HHS, "Table 4.9A – Past Year Initiation of Substance Use among Persons Aged 12 or Older Who Initiated Use Prior to Age 18, Prior to Age 21, and at Age 21 or Older: Numbers in Thousands, 2018 and 2019," *Results from the 2019 National Survey on Drug Use and Health: Detailed Tables*, September 11, 2020.
- ⁴ CDC, "Tobacco Product Use and Associated Factors Among Middle and High School Students — United States, 2019," *MMWR* 68(12), December 6, 2019.
- ⁵ CDC, "Tobacco Product Use Among High School Students — Youth Risk Behavior Survey, United States, 2019," *MMWR* 69(1), August 21, 2020. Other states with boys' smokeless use rates higher than the national rate include (for states listed in previous years, data are the most recent available):
 2019 (national rate of 7.5%): Alabama (13.6%), Alaska (10.4%), Arkansas (11.4%), Georgia (7.6%), Kentucky (10.2%), Louisiana (9.1%), Mississippi (9.8%), Missouri (9.4%), Montana (9.7%), New Mexico (8.6%), Ohio (12.8%), Oklahoma (10.1%), South Carolina (11.4%), South Dakota (9.7%), Tennessee (13.5%), West Virginia (14.5%).
 2017 (national rate of 8.9%): Minnesota (9.9%) [CDC, "Youth Risk Behavior Surveillance — United States, 2017," *MMWR* 67(SS-8), June 15, 2018.
 2015 (national rate of 11.7%): North Carolina (14.9%), Wyoming (17.2%). [CDC, "Youth Risk Behavior Surveillance — United States, 2015," *MMWR* 65(SS-6), June 10, 2016.
- ⁶ CDC, "Combustible and Smokeless Tobacco Use Among High School Athletes — United States, 2001–2013," *MMWR* 64(34):935-939, September 4, 2015.
- ⁷ CDC, "Surveillance for Selected Tobacco-Use Behaviors—United States, 1900-1994," *MMWR* 43(SS-03), November 18, 1994.
- ⁸ CDC, "Surveillance for Selected Tobacco-Use Behaviors – United States, 1900-1994," *MMWR* 43(SS-03), November 18, 1994.
- ⁹ Altria Group, Inc., Form 10-K, 2020 Annual Report, filed February 26, 2021, <https://www.sec.gov/ix?doc=/Archives/edgar/data/764180/000076418021000037/mo-20201231.htm>.
- ¹⁰ U.S. Department of Health and Human Services (HHS), *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*, 2012, at 539.
- ¹¹ U.S. Federal Trade Commission (FTC), *Smokeless Tobacco Report for 2019*, 2021, https://www.ftc.gov/system/files/documents/reports/federal-trade-commission-cigarette-report-2019-smokeless-tobacco-report-2019/2019_smokeless_tobacco_report.pdf. Data for top 5 manufacturers only: Altria Group, Inc.; North Atlantic Trading Company, Inc.; Reynolds American, Inc.; Swedish Match North America, Inc.; and Swisher International Group, Inc.
- ¹² Morrison, MA, et al., "Under the Radar: Smokeless Tobacco Advertising in Magazines with Substantial Youth Readership," *American Journal of Public Health (AJPH)* 98:543-548, 2008. See also, *Sports Illustrated*, July 30, 2001, and December 11, 2009; *Rolling Stone*, June 10, 2010, and December 5, 2013.
- ¹³ Massachusetts Department of Public Health, *Smokeless Tobacco Advertising Expenditures Before and After the Smokeless Tobacco Master Settlement Agreement: A Report of the Massachusetts Department of Public Health*, May 2002, <http://archives.lib.state.ma.us/bitstream/handle/2452/49479/ocm50878863.pdf>.
- ¹⁴ FTC, *Smokeless Tobacco Report for 2019*, 2021 [Data for top 5 manufacturers only].
- ¹⁵ Connolly, G, "The Marketing of Nicotine Addiction by One Oral Snuff Manufacturer," *Tobacco Control* 4(1):73-79, 1995.
- ¹⁶ Connolly, G, "The Marketing of Nicotine Addiction by One Oral Snuff Manufacturer," *Tobacco Control* 4(1):73-79, 1995.
- ¹⁷ Freedman, AM, "How a Tobacco Giant Doctors Snuff Brands to Boost Their Kick," *The Wall Street Journal*, October 26, 1994.
- ¹⁸ Brown, JE, et al., "Candy Flavorings in Tobacco," *New England Journal of Medicine*, DOI: 10.1056/NEJMc1403015, May 7, 2014, <http://www.nejm.org/doi/full/10.1056/NEJMc1403015>.
- ¹⁹ Alpert, HR, et al., "Free nicotine content and strategic marketing of moist snuff tobacco products in the United States: 2000-2006," *Tobacco Control* 17:332-338, 2008.
- ²⁰ Delnevo, CD, et al., "Examining market trends in smokeless tobacco sales in the United States: 2011-2019," *Nicotine & Tobacco Research*, published online November 26, 2020.
- ²¹ Rose, S, et al., "Flavour types used by youth and adult tobacco users in wave 2 of the Population Assessment of Tobacco and Health (PATH) Study 2014-2015," *Tobacco Control*, published online September 21, 2019. The 2019 NYTS found that 49.8% of high school and 42.3% of middle school current smokeless tobacco users had used flavored smokeless tobacco in the past month. CDC, "Tobacco Product Use and Associated Factors Among Middle and High School Students — United States, 2019," *MMWR* 68(12), December 6, 2019.
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- ²³ Ambrose, BK, et al., "Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014," *Journal of the American Medical Association*, published online October 26, 2015.
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- ²⁵ Massachusetts Department of Public Health, *Smokeless Tobacco Advertising Expenditures Before and After the Smokeless Tobacco Master Settlement Agreement: A Report of the Massachusetts Department of Public Health*, May 2002, <http://archives.lib.state.ma.us/bitstream/handle/2452/49479/ocm50878863.pdf>.
- ²⁶ U.S. House Committee on Energy and Commerce, *Can Tobacco Cure Smoking? A Review of Tobacco Harm Reduction*, Hearing, June 3, 2003, Serial No. 108-31, at 132, <http://www.gpo.gov/fdsys/pkg/CHRG-108hrrg87489/pdf/CHRG-108hrrg87489.pdf>. Dipasquale, CB,

"Smokeless Tobacco Company Pulls Magazine Ads," *Ad Age*, June 7, 2002, <http://adage.com/article/news/smokeless-tobacco-company-pulls-magazine-ads/34765/>.

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³³ Nelson, L, "If you think Snus is a safe alternative to smoking, think again," *Kansas City Star*, October 31, 2007.

³⁴ FDA, Marketing Order letter, November 10, 2015, <https://www.fda.gov/media/94616/download>.

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