

JOINT COMMISSION ON HEALTH CARE

VIRGINIA'S LIQUID NICOTINE AND NICOTINE VAPOR PRODUCT DIRECTORY

REPORT TO THE GOVERNOR AND THE
GENERAL ASSEMBLY OF VIRGINIA



COMMISSION DRAFT

COMMONWEALTH OF VIRGINIA
RICHMOND
2026

Code of Virginia § 30-168.

The Joint Commission on Health Care (the Commission) is established in the legislative branch of state government. The purpose of the Commission is to study, report and make recommendations on all areas of health care provision, regulation, insurance, liability, licensing, and delivery of services. In so doing, the Commission shall endeavor to ensure that the Commonwealth as provider, financier, and regulator adopts the most cost-effective and efficacious means of delivery of health care services so that the greatest number of Virginians receive quality health care. Further, the Commission shall encourage the development of uniform policies and services to ensure the availability of quality, affordable and accessible health services and provide a forum for continuing the review and study of programs and services.

The Commission may make recommendations and coordinate the proposals and recommendations of all commissions and agencies as to legislation affecting the provision and delivery of health care. For the purposes of this chapter, "health care" shall include behavioral health care.

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Virginia’s Liquid Nicotine and Nicotine Vapor Product Directory

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Virginia's Liquid Nicotine and Nicotine Vapor Product Directory

POLICY OPTIONS IN BRIEF

Option: Require the Attorney General to include additional information about the Liquid Nicotine and Nicotine Vapor Product Directory (the Directory) and enforcement actions related to the Directory in its annual report.

(Option 1, page 18)

Option: Provide funding to the Virginia Foundation for Healthy Youth to establish a contract with a third-party evaluator to conduct a comprehensive assessment of the impact of the Liquid Nicotine and Nicotine Vapor Product Directory on access to unregulated nicotine vapor products in Virginia and Virginia's nicotine vapor product market.

(Option 2, page 19)

FINDINGS IN BRIEF

Nicotine vapor product use is increasing among adults, and use can lead to short- and long-term health harms

Nicotine vapor products vaporize liquids containing nicotine and other substances, including flavorings or illegal compounds, for inhalation by the user. In Virginia, the number of adults using nicotine vapor products has increased while combustible cigarette smoking has decreased since 2016. Rates of youth nicotine vapor product use have fallen since the passing of Tobacco 21 in 2019, but underage use still occurs. Use of liquid nicotine and nicotine vapor products is associated with higher risk of lung disease, worsened respiratory conditions, and potential long-term cardiovascular harm.

The FDA regulates new nicotine vapor products offered for sale in the U.S., but enforcement and product seizures are limited

The federal Food and Drug Administration (FDA) regulates new tobacco products offered for retail sale in the United States through the Premarket Tobacco Product Application (PMTA) process. The FDA is responsible for bringing forth enforcement actions on those in violation of PMTA requirements. Enforcement mechanisms are designed to keep unregulated products out of retail markets, but significant application backlogs and inconsistent enforcement have resulted in few product approvals and limited products seizures. This has allowed for the continued availability of unregulated products, which can result in harm to the public due to the exposure to unknown ingredients, deceptive labeling, or faulty equipment.

Virginia established the Directory to limit access to unregulated products

Virginia's Liquid Nicotine and Nicotine Vapor Product Directory (the Directory) offers the Commonwealth greater authority to ensure unregulated nicotine vapor products are not accessible to

consumers through its own enforcement framework. However, legal challenges have delayed implementation of the Directory, and resources and procedural limitations may hinder enforcement at the local level. While thirteen states have implemented directory laws, many have faced implementation or legal challenges that limit the amount of available data necessary to evaluate the impact of such a directory. Additional evidence is required to evaluate the effectiveness of the Directory in meeting its purpose of reducing access to unregulated liquid nicotine and nicotine vapor products in the Commonwealth.

October 2026

Virginia's Liquid Nicotine and Nicotine Vapor Product Directory

Nicotine vapor products, such as electronic cigarettes, allow an end user to inhale liquid nicotine in vapor form. Use of nicotine vapor products has increased, and the retail market for nicotine vapor products has expanded. Users of nicotine vapor products risk short- and long-term harms. To mitigate such harms, the U.S. Food and Drug Administration (FDA) regulates the sale of tobacco products, including liquid nicotine and nicotine vapor products. However, inconsistent enforcement efforts result in ongoing access to unregulated liquid nicotine and nicotine vapor products, which increases the risk of harm to users.

Liquid nicotine and nicotine vapor product directories, which identify products that meet state-specified certification criteria, are one tool states may use to limit access to unregulated liquid nicotine and nicotine vapor products in retail settings. In 2024, Virginia created the Liquid Nicotine and Nicotine Vapor Product Directory (the Directory) to provide the Commonwealth with a mechanism to identify and remove unregulated nicotine vapor products from retail settings, addressing federal enforcement gaps. Several other states have also implemented product directories in recent years. Many of these states, including Virginia, have faced legal and other challenges that have delayed implementation of their product directories.

During the 2026 Session of the General Assembly, the Senate Committee on Commerce and Labor referred Senate Bill 789 (Reeves) to the Joint Commission on Health Care (JCHC) for further study (see APPENDIX 1). In June 2026, the JCHC directed staff to examine the requirements of the Directory and develop policy options to address barriers to implementation. This report synthesizes research, policy analysis, and stakeholder interviews to meet the following objectives:

- Describe the requirements of the Directory, including certification criteria and enforcement mechanisms;
- Identify challenges or barriers in implementation of the Directory;
- Identify other states with nicotine vapor product directories and their enforcement mechanisms;
- Describe the impact of other states' implemented nicotine vapor product directories; and
- Identify legislative approaches to address implementation challenges of the Directory.

JCHC staff used both qualitative and quantitative research methods to collect the evidence used to inform this study, including literature reviews, document reviews, and data analysis (see APPENDIX 2 for detailed methodology). Nicotine vapor product use is increasing among adults, and use can lead to short- and long-term health harms.

Nicotine vapor products are widely available, and demand for these products is increasing

In Virginia, rates of use among adults continue to rise, with the highest rates of use among young adults.¹ Individuals who use nicotine vapor products face short- and long-term health risks, including heart attacks, stroke, and cardiovascular damage.²

Nicotine vapor products vaporize liquids containing nicotine and other substances for inhalation by the user

Nicotine vapor products are devices that allow users to inhale aerosolized liquid nicotine and, in some cases, additional substances like flavorings or illegal compounds. Nicotine vapor products include electronic cigarettes, electronic cigars, electronic cigarillos, and electronic pipes.³ Regardless of type, nicotine vapor products use a heating element contained in the device to produce vapor from liquid or another form of nicotine for inhalation. Liquid nicotine used in nicotine vapor products may be included in the vapor product at the time of sale or sold separately and added to the nicotine vapor product by the end user prior to use. Liquid nicotine also contains the chemicals glycerol and propylene glycol as humectants and may contain flavorings in addition to nicotine.³ Liquid nicotine products can be modified to contain other substances such as hemp, and, illegally in Virginia, cannabis.

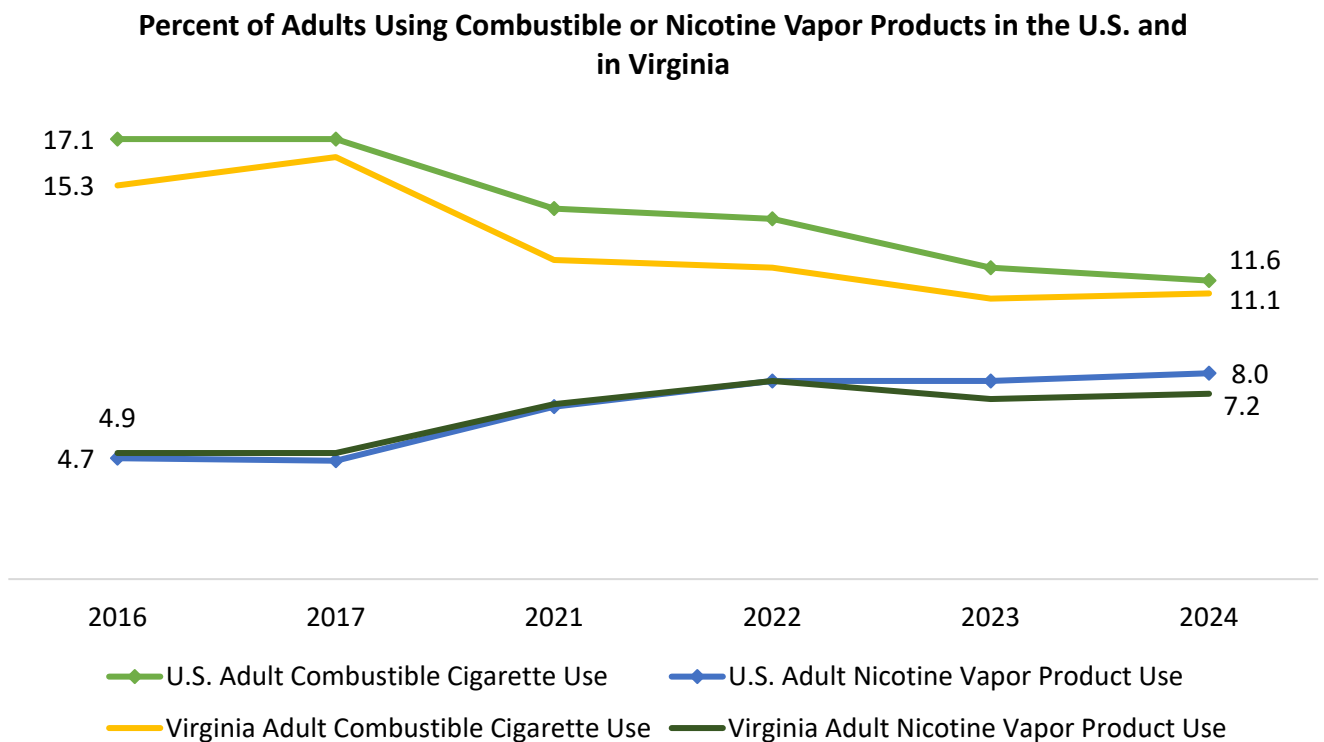
In Virginia, users can purchase nicotine vapor products and liquid nicotine from many physical locations, including convenience stores, gasoline service stations, specialty vape shops, and other commercial retailers. Access to these products has expanded in recent years as the number of retail locations selling nicotine vapor products in Virginia has increased by 46 percent, from approximately 2,900 in 2018 to 4,200 in 2026.⁴

The prevalence of adult nicotine vapor product use has substantially increased since 2016

In the United States, the number of adults using nicotine vapor products has increased by 70 percent since 2016, while the number of those who use combustible cigarettes has decreased by 32 percent. From 2016 to 2024, adult nicotine vapor product use increased from 4.7 percent to 8.0 percent, as combustible cigarette smoking declined from 17.1 percent to 11.6 percent (FIGURE 1).⁵ While a slightly lower proportion of adults in Virginia report use of combustible cigarettes or nicotine vapor products compared to national estimates, trends in use over time are similar. Between 2016 and 2024, adult nicotine vapor

product use in Virginia increased by 47 percent, from 4.9 percent to 7.2 percent, while adult combustible cigarette use declined by 27 percent from 15.3 percent to 11.1 percent.^{1,5} Overall, these trends indicate a shift from combustible cigarettes to nicotine vapor products as a source of nicotine consumption in Virginian adults, as total users of either product remained stable over time.

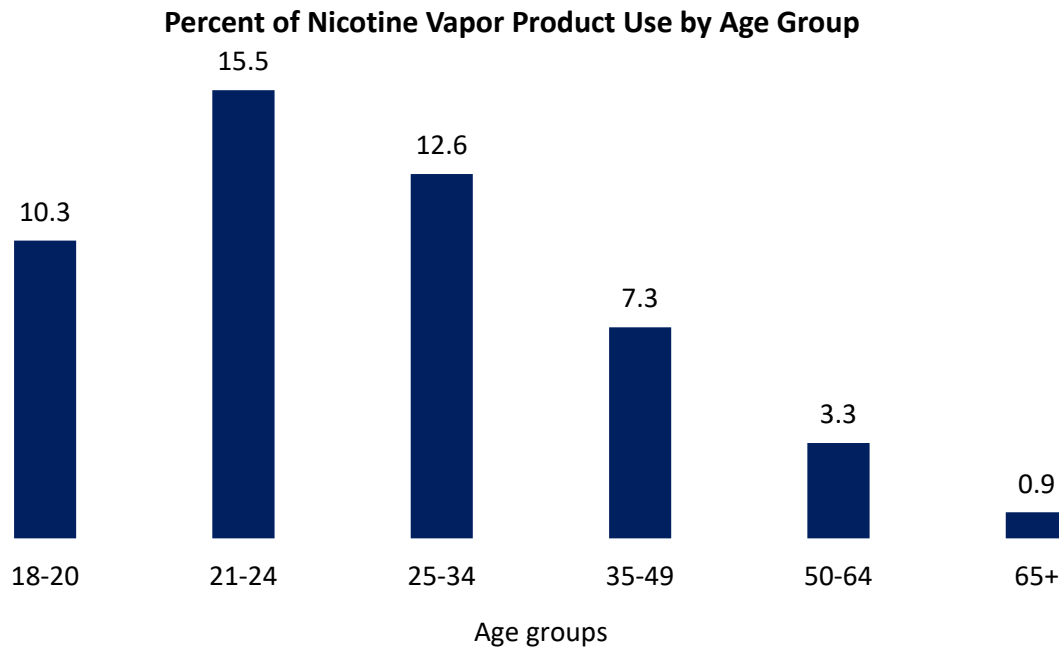
FIGURE 1. Adult nicotine vapor product use has increased, while combustible cigarette use has decreased



SOURCE: JCHC staff analysis of Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance Survey data, 2026. NOTE: The Centers for Disease Control and Prevention did not publish data on nicotine vapor product use in 2018, 2019, and 2020.

Young adults make up the greatest proportion of nicotine vapor products users, both nationally and in Virginia, and nicotine vapor product use rapidly declines as age increases. In 2023, 15.5 percent of U.S. adults aged 21 to 24 used nicotine vapor products, followed by 12.6 percent of adults aged 25 to 34 years old and declining to less than one percent of adults over age 65 (FIGURE 2).⁵ Available Virginia data reports different age groupings, but still indicates highest use of nicotine vapor products, at 17.2 percent, among adults between the ages of 18 and 24 years old.¹

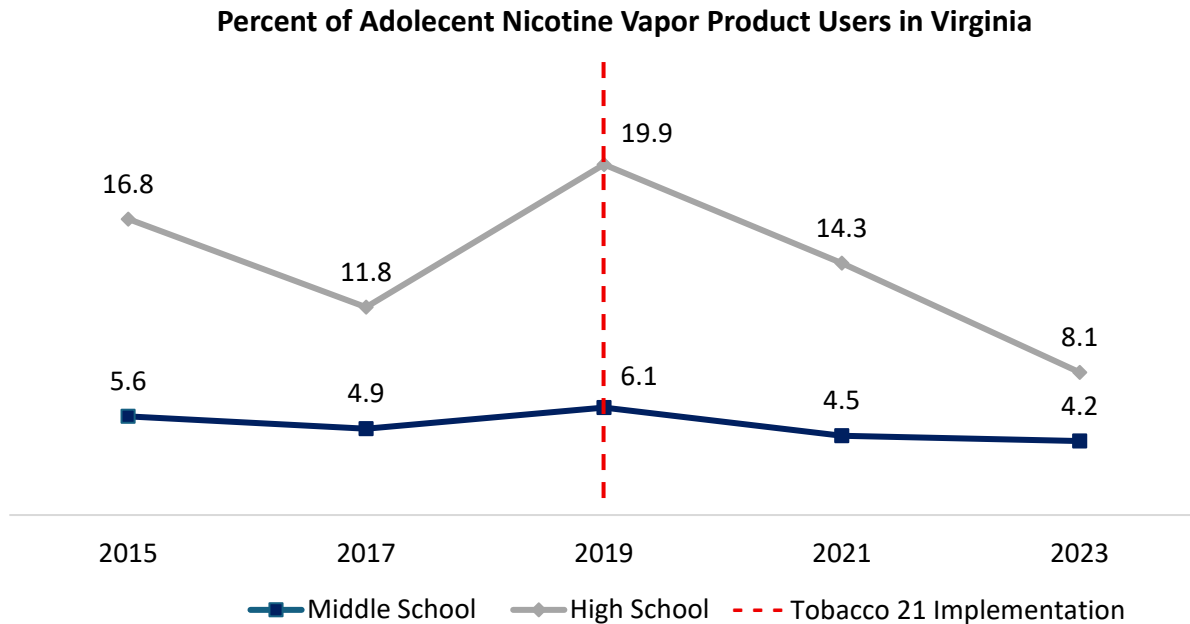
FIGURE 2. National nicotine vapor product use decreased as age increased above 24 years old



SOURCE: JCHC staff analysis of National Center for Health Statistics, 2023 National Interview Survey.

Rates of youth nicotine vapor product use have fallen with renewed focus on age-based restrictions to products, but underage use still occurs

Rates of nicotine vapor product use among youth have declined over time (FIGURE 3). In 2015, 16.8 percent of Virginia high school students (aged 15 to 18 years old) and 5.6 percent of middle school students (aged 11 to 14 years old) reported using nicotine vapor products.⁶ From 2015 to 2019, both student populations experienced an increase in nicotine vapor product use. In 2019, Virginia and the federal government raised the minimum age for purchasing tobacco and nicotine vapor products from 18 to 21 years old; through a law commonly referred to as Tobacco 21 or T21. Since then, middle and high school students' nicotine vapor product use has steadily decreased, with nicotine vapor product use among high school students decreasing by 59 percent and use among middle school students decreasing by 31 percent by 2023.⁶ While this decline indicates reduced initiation and less frequent use of nicotine vapor products among youth, 8.1 percent of high school students and 4.2 percent of middle school students still report use as of 2023.⁶

FIGURE 3. Adolescent nicotine vapor product use in Virginia has declined since 2019

SOURCE: JCHC staff analysis of Centers for Disease Control and Prevention, Virginia Youth Risk Behavior Survey data, 2026.

Nicotine vapor product use has short- and long-term consequences for users' health

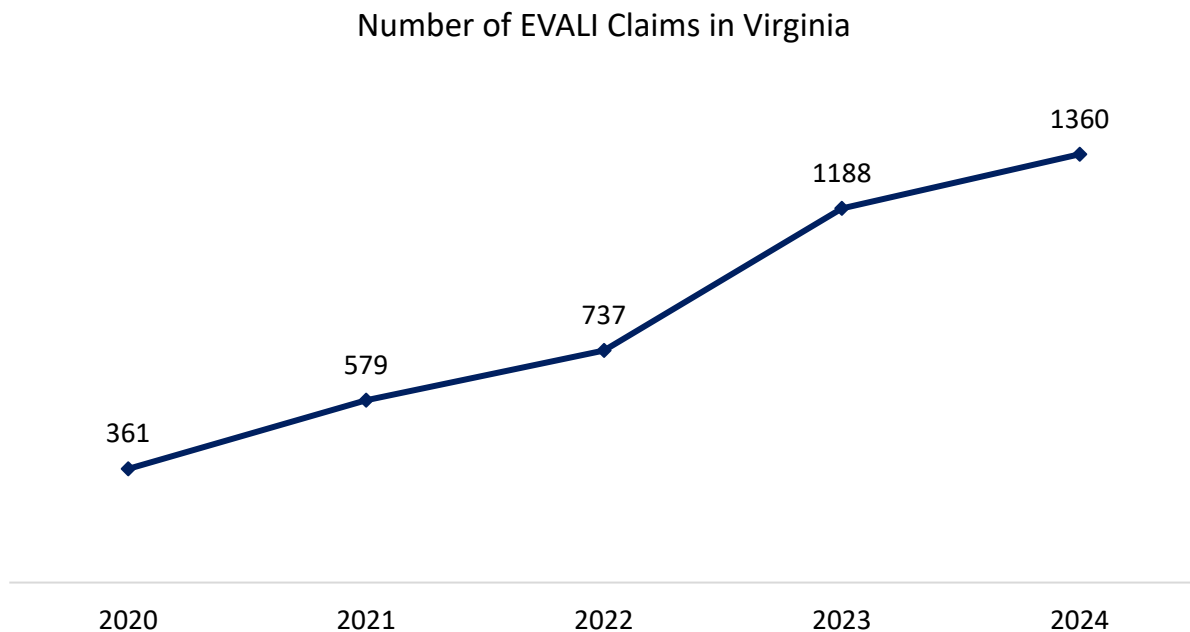
Nicotine vapor product use can cause immediate respiratory and cardiovascular effects, including cough, throat irritation, and changes in heart rate. Nicotine, the main chemical compound found in nicotine vapor products, is a stimulant, and may result in short-term changes in heart rate, heart rate variability, and blood pressure.² Constant nicotine stimulation increases workload on the heart and significantly increases the risk of a heart attack or stroke.

Sustained nicotine vapor product use is associated with higher risk of lung disease, worsened respiratory conditions, and potential long-term cardiovascular harm. The use of nicotine vapor products also results in significantly higher odds of developing pulmonary conditions, like asthma, chronic obstructive pulmonary disease (COPD), and e-cigarette or vaping use-associated lung injury (EVALI).² Asthma is a chronic, long-term condition that causes an individual's airways to swell and narrow, and their lungs to become inflamed. Asthma risk is 30 to 46 percent greater in users of e-cigarettes, a common nicotine vapor product, than in non-users, and this elevated risk is still present even after cessation of nicotine vapor product use for both adolescent and young adult populations.² There are similar correlations in the risk of developing COPD, an ongoing lung condition caused by weakening and damaging of the lungs commonly attributed to long-term use of tobacco

products, including nicotine vapor products. Compared to non-users, individuals who currently use nicotine vapor products have 47 percent greater odds of developing COPD.⁷

EVALI is a serious, sometimes fatal condition characterized by several respiratory symptoms, such as coughing, shortness of breath, and chest pain. Occurrence of EVALI has been linked to aerosolized vitamin E acetate in nicotine vapor products, which can impair breathing and, when heated, decomposes into harmful compounds that can damage lung tissue.⁸ In Virginia, there was a steady increase in EVALI claims between 2020 and 2024, from 361 claims to 1,360 claims (FIGURE 4).⁹ The rise of EVALI claims in Virginia may reflect increasing availability of illegal, flavored vapor products and the use of illegally modified vapor products to aerosolize unregulated or illegal products, such as cannabis.

FIGURE 4. The number of EVALI claims in Virginia has increased by 276 percent since 2020



SOURCE: Virginia All-Payer Claims Database, administered by Virginia Health Information, 2026. EVALI = E-cigarette or vaping use-associated lung injury.

Federal Food and Drug Administration regulates new nicotine vapor products offered for sale in the United States

The FDA regulates new tobacco products offered for retail sale in the United States, requiring individuals who wish to sell new tobacco products, including nicotine vapor products, to prove that their products are appropriate for the protection of the public health.¹⁰ Enforcement mechanisms are designed to keep unregulated products out of retail

markets but inconsistent oversight has resulted in the continued availability of unregulated products. Access to unregulated products can result in harm to the public.

Tobacco Control Act requires manufacturers to obtain a marketing granted order prior to offering a new tobacco product for sale in the United States

In 2010, U.S. Congress enacted the Family Smoking Prevention and Tobacco Control Act, authorizing the FDA to regulate tobacco products sold in the United States. The Act established the Premarket Tobacco Product Application (PMTA) process, which requires any person who wishes to market a new tobacco product to obtain a marketing granted order (MGO) from the FDA's Center for Tobacco Products, under the authority of the U.S. Secretary of Health and Human Services, prior to offering the product for sale in the United States.¹¹ While the PMTA process was originally only required for cigarettes, cigarette tobacco, roll-your-own tobacco, and smokeless tobacco, in 2016, the FDA exercised its regulatory authority to extend the scope of the PMTA to include additional tobacco products including various components and parts of nicotine vapor products.

An individual who wishes to obtain a PMTA MGO must file an application that contains:

- Information about the health risks of the tobacco product and whether the tobacco product presents less risk than other tobacco products;
- A full statement of the components, ingredients, additives, and properties, and of the principle or principles of operation, of the tobacco product;
- A full description of the methods used in, and the facilities and controls used for, the manufacture, processing, and, when relevant, packing and installation of, the tobacco product;
- Information about additional tobacco product standards applicable to the tobacco product under federal law and information adequate to show that the tobacco product meets the applicable standard or standards;
- Any samples of the tobacco product and of components thereof as the Secretary may reasonably require;
- Any specimens of the labeling proposed to be used for the tobacco product; and
- Any other information relevant to the subject matter of the application as the FDA may require.¹²

The FDA review process is a multi-step process (Figure 5). Applications are reviewed to determine whether they fall under FDA jurisdiction and whether they meet statutory and regulatory application requirements. Those that meet jurisdictional and statutory application requirements are accepted for review. If requirements are not met, the application is refused. In the next phase of the application process, applications seeking premarket approval that are accepted are assessed to determine whether they contain

sufficient information to support a scientific review. Applications that are accepted for review are evaluated on the basis of the scientific evidence provided. If sufficient information is provided, the application is accepted for filing and progresses to the scientific review phase. If insufficient evidence is provided, the FDA may refuse to file the application.

FIGURE 5. The federal Premarket Tobacco Product Application process is a multistep process

PMTA Review Process



SOURCE: U.S. Food and Drug Administration (2026). Premarket Tobacco Product Applications, PMTA Review Process.

Federal law requires the FDA to render a decision on a PMTA application as promptly as possible, but no later than 180 days after the application has been filed. During the 180-day period, the FDA must conduct a scientific review of the application to determine whether the product meets the relevant application review standard to be marketed in the United States. The FDA may deny the application and issue a marketing denial order (MDO) prohibiting the sale of the product in the United States upon finding that the applicant failed to demonstrate that permitting the tobacco product would be appropriate for the protection of the public health; that the methods used in the manufacture, processing, or packing of such tobacco product are not consistent with good manufacturing practices; that the proposed labeling is false or misleading; or that the product deviates from established tobacco standards without sufficient justification. If the FDA does not determine that a reason to issue a marketing denial order exists, the FDA may issue an MGO, authorizing the applicant to market their product legally in the United States. If, at any point during the scientific review process, the FDA determines that additional information is required, the FDA may request additional data and information from the applicant to support the decision-making process.

During the scientific review process, the FDA may refer the application to the Tobacco Products Scientific Advisory Committee (TPSAC) for a recommendation regarding the application. The FDA may request the TPSAC evaluate scientific questions raised by the new product, including safety, dependence, or health effects. This referral process is discretionary, rather than a mandatory step in the review of an application. If an application is approved, the applicant must establish and maintain records and make reports to the FDA, including annual reports, post-approval studies to monitor long-term performance,

and mandatory device tracking or malfunction reports consistent with reporting deadlines established in the marketing granted order.

Few new products have been approved for sale through the PMTA process and significant application backlogs have delayed the approval process

Between Federal Fiscal Year (FFY) 2020 and FFY 2026, the FDA received more than 26.6 million nicotine vapor product PMTA applications.¹² Slightly more than 6.8 million were accepted for scientific review. Of these, only 41 nicotine vapor products have received MGOs through the FDA's PMTA process.¹²

The FDA began reviewing applications for MGOs for nicotine vapor products after the agency extended its authority to all tobacco products under the Tobacco Control Act in 2016. Pursuant to the final rule extending the FDA's oversight authority to all tobacco products, including nicotine vapor products, the agency required products newly subject to the PMTA rule that were already on the market as of August 8, 2016, to undergo PMTA review. Manufacturers were required to submit applications to the FDA by September 9, 2020. As a result, the FDA received a significant increase in the number of applications for PMTA review in 2020 and 2021, with the number of applications for all tobacco products combined received in calendar years 2020 and 2021 totaling 25,396,571 compared to a total of 1,060 applications received in calendar years 2018 and 2019 for all tobacco products combined.¹³

The increase resulted in an application backlog that delayed the review process. In September 2026, the federal Government Accountability Office (GAO) reported that for applications submitted between calendar years 2018 and 2025, the FDA required an average of 542 days to complete its review for premarket applications it refused to accept and 236 days for those that were accepted, compared to internal goals of 21 days and 7 days respectively.¹³ During the same period, the FDA required an average of 141 days to review applications that were accepted and approved for filing and 116 days to review applications that were accepted and refused for filing, compared to internal goals of 7 days and 23 days respective. While the FDA did not collect data on the time to complete scientific reviews of applications accepted for PMTA review, the GAO reported that evidence from other sources suggested reviews took from 483 to 633 days to complete from the date of filing to the date on which the scientific review was completed, as compared to the statutorily required 180 days.¹³

Inconsistent enforcement of federal requirements leads to continued availability of unregulated products

Unregulated nicotine vapor products remain available, despite their unlawful status. Any new tobacco product, including nicotine vapor products, offered for sale on the U.S. market without the required PMTA authorization is considered unregulated.¹⁴ The FDA may bring forth enforcement actions for products for which a PMTA application has never been

submitted or that has received an MDO. Enforcement actions include warning letters that notify individuals offering a tobacco product for sale for which an MGO has not been granted that they must cease offering such products or face further action, including civil money penalties, injunctions, and product seizures. Enforcement decisions are made on a case-by-case basis, with the FDA generally issuing a warning letter before pursuing stronger enforcement actions. In many cases, warning letters are the only enforcement action undertaken, and warning letters are not followed by more stringent enforcement activities such as civil penalties, injunctions, or seizures of unregulated products. As a result, many unregulated products remain on the market despite the existence of initial enforcement actions against individuals offering them for sale.

As of August 2026, the FDA issued warning letters to over 1,000 brick-and-mortar and online retailers nationally for the sale of unauthorized nicotine vapor products.^{14,15} Despite this, in 2025, the FDA estimated approximately 54 percent of vapor products sold nationally were illegal.¹⁶ The accessibility of these products is especially prominent in youth populations. In 2024, more than 50 percent of adolescents report using products from brands that have not received marketing authorization.¹⁷

In Virginia, the FDA has documented 41 charges of unauthorized product sales at retail locations since 2016.¹⁸ As of August 2026, these charges have resulted in the FDA issuing 35 warning letters and 6 civil money penalties to retailers in Virginia who have sold products without a marketing authorization.¹⁸ Among Virginia retailers that were identified, there is no documentation to support that the unauthorized products offered for sale were removed from shelves. The FDA's PMTA enforcement process does not guarantee the removal of unregulated products from circulation, allowing consumers, notably youth populations, to access and use unregulated, and sometimes illegal, products.

Access to unregulated products is dangerous to the public, due to unknown ingredients, deceptive labeling, or faulty equipment

Unregulated nicotine vapor products may contain unknown or dangerous ingredients, elevated levels of nicotine not listed on the packaging, faulty electrical wiring, or contain other dangerous components resulting from substandard manufacturing.^{19,20} Products with these characteristics either have not been reviewed by the FDA or are explicitly prohibited from sale in the U.S. market yet are still available to consumers online and in retail stores.

Although all nicotine vapor products can pose health risks, unauthorized products raise concerns because they have not undergone FDA's premarket review of product-specific evidence and manufacturing information. Individuals who use unregulated nicotine vapor products face unique harms attributed to the uncertainties of the products' chemical components. The inhalation of unknown ingredients, including potentially toxic chemicals, poses risks for acute lung injury and long-term cardiovascular damage that may surpass those of regulated products that contain known, verified ingredients.¹⁹ Exposure to

unknown e-liquids also presents poisoning risk through ingestion, inhalation, or skin contact.

The lack of reliable labeling and quality control associated with unregulated products can impede informed consumer choice and increase the risk of unanticipated exposure to elevated levels of nicotine or other chemicals. Among a sample of products purchased in convenience stores in the United States, 55 percent differ from their labeled nicotine concentration by more than 10 percent.²⁰ Higher levels of nicotine pose unique harms for adolescents and young adults, as nicotine can hinder brain development and reduce attention, learning, memory, and impulse control.²¹ Defective products can also result in serious physical injuries from fires or explosions caused by faulty manufacturing.

Virginia established the Liquid Nicotine and Nicotine Vapor Product Directory to limit access to unregulated products

The implementation of state product directories has emerged over the past five years as a response to the widespread availability of unregulated nicotine vapor products. Virginia's Directory offers the Commonwealth greater authority to ensure unregulated products are clearly identifiable and FDA-noncompliant items are not accessible to consumers by allowing the Commonwealth to act when the federal government does not. However, legal challenges have delayed implementation of the Directory, and resource and procedural limitations may hinder enforcement at the local level. Additional evidence is required to evaluate the effectiveness of the Directory in meeting its purpose of reducing access to unregulated liquid nicotine and nicotine vapor products in the Commonwealth.

Virginia law prohibits sale of liquid nicotine or nicotine vapor products not included on the Liquid Nicotine and Nicotine Vapor Product Directory

During the 2024 General Assembly Session, Delegate Rodney T. Willett and Senator R. Creigh Deeds introduced House Bill 1069 and Senate Bill 550, respectively, directing the Attorney General to establish and maintain a Liquid Nicotine and Vapor Product Directory. The legislation, enacted as Chapters 793 and 828 of the Acts of Assembly of 2024, established certification requirements for liquid nicotine and nicotine vapor products to be included on the Directory and prohibited the sale of liquid nicotine and nicotine vapor products not included on the Directory. The provisions of Chapters 793 and 828 became effective on July 1, 2025.

A manufacturer that wishes to offer a liquid nicotine or nicotine vapor product for sale in the Commonwealth must certify to the Office of the Attorney General (OAG), on an annual basis, that the product (i) has received a marketing authorization or similar order from the FDA pursuant to 21 U.S.C. §387j, (ii) that the product was marketed in the United States as of August 8, 2016, or (iii) that a PMTA application for the product has been submitted to the FDA on or before September 9, 2020, and remains under review. Every application for

certification form must be accompanied by a copy of the marketing authorization or other order issued by the FDA pursuant to 21 USC § 387j or evidence that the PMTA for the liquid nicotine or nicotine vapor product was submitted to the FDA and the final authorization or order has not yet been granted. Manufacturers must also submit a fee of \$5,000 for each initial certification and \$2,500 for each annual recertification.²² The Attorney General must include all liquid nicotine and nicotine vapor products for which a current and accurate certification form have been received on the Directory and must make the Directory available for public inspection on the agency's website.²³

Retailers and manufacturers are subject to different requirements of the Directory, and anticipate distinct challenges when enforcement begins. Some stakeholders in the vapor product industry suggest that there are potential consequences of the current Directory criteria. These include constricting supply chains due to PMTA approval barriers for some manufacturers, an increase in unregulated or illicit products on the market as the availability of legal products decline, or consumers reverting to combustible cigarettes still available for purchase.²⁴

Penalties for violation of the requirement that products be included on the Directory prior to sale were originally set at \$1,000 per product per day until the product was removed from the market or properly listed on the Directory. Amendments to the *Code of Virginia* during the 2026 General Assembly session increased civil penalties to no less than \$5,000 for the first violation, no less than \$10,000 for the second violation, and no less than \$15,000 for the third violation.²⁵

The Directory gives Virginia a state-level mechanism to identify and act against unauthorized products when federal enforcement has not removed them from the market. The Directory certification process allows Virginia to differentiate between authorized and unauthorized products and identify products that are unsafe for sale to the public. Associated enforcement authorities provide Virginia with a more structured pathway to remove unregulated products from the market, rather than relying on federal enforcement mechanisms.

Office of the Attorney General, Commonwealth's attorneys, and local attorneys can enforce Virginia's Directory law

As enacted, legislation establishing the Directory tasked Commonwealth's attorneys and county, city, and town attorneys with enforcement. Commonwealth's attorneys and attorneys for any county, city, or town were permitted to bring an action in the appropriate circuit court in the name of the Commonwealth or of the county, city, or town to enjoin any violation of Chapter 23.2 (§ 59.1-293.10 et seq.) of Title 59.1 of the *Code of Virginia*, and recognizes the jurisdiction of the circuit court to enjoin such violations and (i) issue a temporary or permanent injunction to restrain and prevent violations of the law and (ii) order forfeiture of any property seized for a violation of the law. The legislation also specified that any retailer or wholesaler of liquid nicotine or nicotine vapor products may

be subject to scheduled or unscheduled compliance checks carried out by agents of the Attorney General for purposes of enforcing the Directory law.^{26,27}

During the 2026 Session, the General Assembly added the Attorney General to the list of individuals authorized to enforce the provisions of laws relating to the Directory. At the same time, the General Assembly increased civil penalties for the sale of liquid nicotine or nicotine vapor products that are not included on the Directory, and specified that such products shall be deemed contraband, may not be sold or offered for sale, and shall be subject to confiscation, seizure, forfeiture, and destruction by the Attorney General, attorney for the Commonwealth or the locality, or a law enforcement officer.²⁸

The Appropriation Act of 2026, Special Session I, included \$1,825,000 in annual funding from the Electronic Nicotine Delivery Systems Fund and authorized 12 full-time equivalent staffing positions for the OAG to support initial enforcement of laws relating to the Directory.²⁹ This is consistent with the estimated cost to fund the implementation of the Directory. With the necessary resources from this appropriation, on July 30, 2026, Attorney General Jay Jones announced the creation of the Regulated Products Enforcement Unit (RPEU), which will administer and maintain the Directory. The RPEU will review manufacturer certifications and relevant documentation, evaluate product eligibility, monitor changes in federal regulatory status, and ensure that only authorized products are offered for sale in the Commonwealth.³⁰

In 2026, the Attorney General entered a Memorandum of Understanding (MOU) with the Virginia Alcoholic Beverage Control Authority (ABC) for the coordination of the mutual regulation of retail tobacco products, including nicotine vapor products. The MOU will allow the OAG to share funds and engage in enforcement activities with the ABC to carry out the provisions of law relating to the Directory.

Legal challenges delayed initial implementation of the Directory

Chapters 796 and 821 of the 2024 Acts of Assembly of 2024, creating the Liquid Nicotine and Nicotine Vapor Product Directory, authorized the Attorney General, Commonwealth's attorneys, and the attorney for any county, city, or town in Virginia to begin enforcement of the Directory on December 31, 2025. However, a federal lawsuit filed on October 15, 2025, delayed implementation. The lawsuit, filed by liquid nicotine and vapor product retailers, alleged that the proposed directory law is preempted by the federal Food, Drug, and Cosmetic Act, and thus, Virginia's Attorney General could not enforce the law. On December 18, 2025, the U.S. District Court for the Eastern District of Virginia granted the defendant's motion to dismiss on several counts but found that the plaintiff liquid nicotine and vapor product retailers had established that they were likely to succeed on the merits of their federal preemption claim and, further, that they were likely to suffer irreparable harm without relief to prevent the Attorney General from enforcing the provisions of the Directory law. As a result, the district court granted a preliminary injunction temporarily pausing implementation of the Directory.³¹ Virginia's Attorney General appealed the ruling,

and in March 2026, the Fourth Circuit Court of Appeals issued a stay of the injunction, allowing the Office of the Attorney General to proceed with enforcement of the Directory. In a letter released to the public in March of 2026, Attorney General Jay Jones clarified that the OAG, Commonwealth's attorneys, and attorneys for any county, city or town in Virginia could begin enforcement on April 1, 2026.³²

The Fourth Circuit Court of Appeals' stay of the injunction was a temporary allowance to allow for a review of Virginia's appeal and the outcome of a similar, pending lawsuit involving North Carolina's nicotine vapor product directory law. On July 30, 2026, the court concluded that North Carolina's law was not preempted by federal statutes because it regulated sales, an area that the federal government preserved for state regulation.³³ This ruling allowed North Carolina to continue enforcement of the state's directory and established a legal precedent for Virginia's case.

A lack of resources and procedural challenges may limit local enforcement efforts

Commonwealth's attorneys described lack of clear procedural guidelines and lack of resources to support enforcement activities as challenges that could hinder implementation of the Directory at the local level.³⁴ Typically, cases are referred to Commonwealth's attorneys by law enforcement agencies, such as police departments and sheriff's offices. Thus, caseloads will depend on the resources available to local law enforcement agencies to support inspections and investigations necessary to enforce Virginia's Directory law. If local law enforcement agencies lack sufficient resources to support additional enforcement activities, enforcement of the Directory law at the local level may be limited.

In jurisdictions where local law enforcement agencies are able to conduct investigations and refer cases to Commonwealth's attorneys, Commonwealth's attorneys still face barriers to enforcement. The core function of Commonwealth's attorneys is prosecution of criminal cases, for which resources are already limited. This prevents attorneys from dedicating time and resources to enforcing the Directory provisions, which are civil in nature. Commonwealth's attorneys also express uncertainty about the process of inspecting products, identifying illegal products, and the legal mechanisms by which the violations should be identified. Lack of clear guidance on enforcement processes limits Commonwealth's attorneys' abilities to enforce the law.³⁴ Providing additional information on enforcement processes, including inspection and violation identification guidance, may prove beneficial for Commonwealth's attorneys and local attorneys seeking to enforce these provisions.

Twelve other states have enacted product directory laws similar to Virginia's and have faced similar challenges

Twelve other states, in addition to Virginia, have implemented liquid nicotine and vapor product directories since May 2022 (FIGURE 6).³⁵ All thirteen states have implemented the same criteria for inclusion on their product directories, adopting the PMTA review and

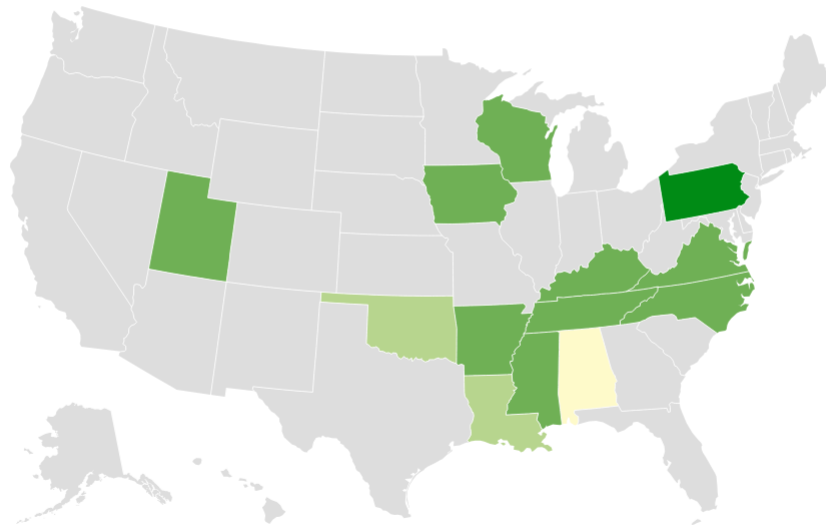
authorization process as the framework for determining which products are eligible to be listed on state directories.

FIGURE 6. Thirteen states have nicotine vapor product directory laws that use the PMTA review and authorization process to determine certification eligibility

States with currently effective directory laws

Directory published date

2022 2023 2025 2026



Created with Datawrapper

SOURCE: Public Health Law Center. (2026). State e-cigarette registry bill map.
<https://www.publichealthlawcenter.org/resources/state-e-cigarette-registry-bill-map>

While states demonstrate uniformity in the requirements for inclusion of products on liquid nicotine and nicotine vapor product directories, states vary substantially with regard to fees associated with directories (TABLE 1). Virginia requires applicants for certification and inclusion on the Directory to pay an initial certification fee and annual certification renewal fee for each product to be listed on the Directory. Virginia's fees are the highest amongst states with product directories, with initial certification fees of \$5,000 per product and annual renewal fees of \$2,500 per product. In contrast, Oklahoma³⁶ and Pennsylvania³⁷ set the certification fees per manufacturer or per brand family respectively, rather than per product, lowering financial barriers for manufacturers who wish to certify multiple products with different flavors, sizes, or device variants. Kentucky³⁸ does not require certification fees but rather relies on fines gathered through civil penalties to fund implementation and enforcement of their directory.

Some stakeholders in Virginia's vapor product industry express concerns for smaller retailers and manufacturers that may experience financial barriers to participation in the liquid nicotine and nicotine vapor product market due to state directory certification requirements.³⁹ The cost of submitting a PMTA application, which is required for certification, together with Virginia's annual certification fees may present a financial challenge that prevents manufacturers from complying with certification requirements and marketing their products in Virginia. Stakeholders express that this may have negative consequences for manufacturers, who will be unable to sell products, and also for retailers, who may face constrained supply chains and diminished product options.³⁹

TABLE 1. Thirteen states have established nicotine vapor product directories

State	Directory published date	Annual certification and renewal fees
Alabama ⁴⁰	May 2022	\$2,000 per product initial certification \$500 for annual renewal
Arkansas ⁴¹	November 2025	\$500 per brand family initial certification \$250 per brand family annual renewal
Iowa ⁴²	February 2025	\$100 per product initial certification \$100 per product annual renewal
Kentucky ⁴³	January 2025	No certification fees; relies on civil penalties
Louisiana ⁴⁴	November 2023	\$100 per product initial certification \$100 annual renewal
Mississippi ⁴⁵	March 2025	\$500 per product initial certification \$500 annual renewal
North Carolina ⁴⁶	May 2025	\$2,000 per product initial certification \$500 annual renewal
Oklahoma ⁴⁷	October 2023	\$5,000 per certifying manufacturer \$2,500 annual renewal fee
Pennsylvania ³⁷	June 2026	\$2,000 initial certification per brand family or \$200 per brand style \$1,000 annual renewal fee per brand style or \$100 per brand style
Tennessee ⁴⁸	January 2026	\$25 per product initial certification \$25 annual renewal

SOURCE: Public Health Law Center. (2026). State e-cigarette registry bill map.
<https://www.publichealthlawcenter.org/resources/state-e-cigarette-registry-bill-map>

State	Directory published date	Annual certification and renewal fees
Utah ⁴⁹	January 2025	\$1,000 per product initial certification \$250 annual renewal
Virginia ⁵⁰	December 2025	\$5,000 per product initial certification fee \$2,500 annual renewal fee
Wisconsin ⁵¹	September 2025	\$500 per product initial certification \$500 annual renewal

SOURCE: Public Health Law Center. (2026). State e-cigarette registry bill map.
<https://www.publichealthlawcenter.org/resources/state-e-cigarette-registry-bill-map>

Federal litigation or state district court challenges have similarly impacted states' implementation of their directory laws. In addition to Virginia, Utah, Louisiana, Alabama, Wisconsin, North Carolina, Iowa, Pennsylvania, and Kentucky have faced challenges with the state's authority to dictate in-state sales on federally regulated products. In most states, like in Virginia, courts have halted enforcement temporarily, then later determined that the state had the authority to enforce the directory law. In Kentucky, the federal litigation was dismissed shortly after the filing with no temporary pause to enforcement. In Louisiana and Alabama, litigation originated and proceeded in state courts, resulting in enforcement authority being granted after a temporary pause. While the judicial outcomes differ by state, the legal challenges all similarly occurred shortly after each state passed and implemented their respective directory law. Due to these legal challenges, several states have delayed implementation and enforcement of their respective directories.

Lack of available evidence prevents evaluation of state directory effectiveness

Several states require reports on liquid nicotine and nicotine vapor product directory implementation, but none require information about the impact of the directory on access to or availability of unregulated liquid nicotine or nicotine vapor products. In addition, JCHC staff did not find any peer-reviewed literature that clearly attributed quantitative changes in unregulated or illicit product availability to a state's liquid nicotine or nicotine vapor product directory.

Delays in implementation and limited enforcement activity constrain the amount of information available to discern whether the Directory is meeting its intended goal of reducing access to unregulated liquid nicotine or nicotine vapor products. In addition, while the OAG is expected to increase enforcement activities over time, they are not explicitly required to report on how enforcement activities impact unregulated product availability.

Without additional evidence, JCHC staff cannot determine whether state liquid nicotine and nicotine vapor products directories generally or the Directory specifically are effective in reducing access and availability of unregulated products.

Understanding the impact of the Directory on access to unregulated products requires comprehensive data and information about the products included on the Directory, enforcement activity, unregulated products available in the Commonwealth, and the broader liquid nicotine and nicotine vapor product market in Virginia. Virginia has an opportunity to improve its understanding of the impact of the Directory on access to unregulated liquid nicotine and nicotine vapor products by enhancing OAG's current reporting requirements.

➔ **Option 1:** The Joint Commission on Health Care could introduce legislation to amend § 59.1-293.22 of the *Code of Virginia* to require the Attorney General to include additional information about the Liquid Nicotine and Nicotine Vapor Products Directory (the Directory) and enforcement actions related to the Directory in its annual report.

Section 59.1-293.22 of the *Code of Virginia* currently requires the Attorney General to submit an annual report on or before January 31 of each year to the General Assembly describing the status of the Directory, products on the Directory, revenues and expenditures, and enforcement activities. Reporting requirements do not explicitly require measurement of the Directory's stated goals, including the extent to which the Directory affects access to unregulated liquid nicotine or nicotine vapor products in Virginia.

Amending § 59.1-293.22 to require the Attorney General to report information regarding enforcement activities undertaken each year may provide insight into the impact of the Directory on the availability of and access to unregulated liquid nicotine and nicotine vapor products in Virginia. Additional data components could include:

- Information about products included on the Directory, such as (i) the number of products included on the Directory that have received an MGO from the FDA and the names of such products, (ii) the number of products included on the Directory that have an application for an MGO pending before the FDA and the names of such products, and (iii) the number of products removed from the Directory each year, the names of such products, and the reasons for such removals.
- Information about actions taken to enforce the provisions of Chapter 23.2 (§ 59.1-293.10 et seq.) of Title 59.1 of the *Code of Virginia*, relating to the Directory, including the number of enforcement activities undertaken each year and, for each enforcement activity, (i) the nature of the enforcement activity, (ii) the subject of the enforcement activity, (iii) the reason for the enforcement activity, (iv) the type of penalty imposed, (v) the type and quantity of product involved, and (vi) any other relevant information.

Virginia could also improve insight into the impacts of the Directory on access to unregulated liquid nicotine and nicotine vapor products in the Commonwealth by

appropriating funding for a comprehensive assessment conducted by a third-party evaluator. A comprehensive assessment could examine the impacts of the Directory on the availability of regulated and unregulated nicotine products and the extent to which the Directory accomplishes its goal of reducing access to unregulated nicotine vapor products, as well as the impact of the Directory on market supply and supply chains and manufacturers, wholesalers, and retail outlets.

→ **Option 2:** The Joint Commission on Health Care could introduce a budget amendment to provide \$250,000 to the Virginia Foundation for Healthy Youth to establish a contract with a third party to conduct a comprehensive evaluation of the impact of the Liquid Nicotine and Nicotine Vapor Product Directory (the Directory) on Virginia's nicotine vapor product market. This evaluation should assess how the implementation and enforcement of the provisions of Chapter 23.2 (§ 59.1-293.10 et seq.) of Title 59.1 of the *Code of Virginia*, relating to the Directory has changed access to and the availability of unregulated nicotine vapor products in Virginia, particularly with regard to the youth population.

Such assessment could include evaluation of:

- Changes in the availability of nicotine vapor products included on the Directory and products that are not included on the Directory in Virginia retail outlets, as enforcement of requirements related to the Directory are implemented;
- Changes in use of products not included on the Directory among Virginia's youth population, including the sources from which youth obtain such products; and
- Effects of enforcement of requirements related to the Directory on retail outlets and the nicotine vapor product supply chain, including retail outlet closures.

The JCHC could direct the Virginia Foundation for Healthy Youth (VFHY) to provide an interim report by October 1, 2028 including an initial assessment and recommendations for additional metrics the OAG and ABC may collect to improve the annual monitoring of the Directory's effectiveness and a final report by October 1, 2029, including a full evaluation of the impact of enforcement of provisions relating to the Directory has had on access to unregulated nicotine vapor products in Virginia, particularly among youth. This extended timeline provides the OAG sufficient lead time to fully implement enforcement activities so that VFHY may assess the full effects of the Directory's implementation and enforcement.

APPENDIX 1: Study request letter from Senate Committee on Commerce and Labor

SENATE OF VIRGINIA

R. CREIGH DEEDS
17TH SENATORIAL DISTRICT
ALL OF ALPHEUS F. SHERPENT, AND
NELSON COUNTIES;
ALL OF THE CITY OF CHARLOTTESVILLE;
AND PART OF LEISA COUNTY
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COMMITTEE ASSIGNMENTS:
COMMERCE AND LABOR, CHAIR
COURTS OF JUSTICE
FINANCE AND APPROPRIATIONS
HEALTH AND EDUCATION
RELIGION

March 19, 2026

The Honorable Rodney T. Willett, Chair
Joint Commission on Health Care
PO Box 29428
Henrico, VA 23242

Dear Delegate Willett:

I am writing to you in your capacity as the Chair of the Joint Commission on Health Care (JCHC). During the 2026 Session, the Senate Committee on Commerce and Labor requested that I send a letter asking JCHC to study the issues raised by Senate Bill 789, patroned by Senator Reeves. SB 789 sought to address challenges associated with the Attorney General's liquid nicotine and vapor product certification directory and its connection with the federal Food and Drug Administration's Premarket Tobacco Product Application process.

Please include an assessment of the issues raised by this bill in JCHC's work plan for 2026. Such assessment could be conducted as part of the JCHC's planned staff study of the public health impacts of e-cigarette use and e-cigarette retailers, if appropriate. Your attention to this request is greatly appreciated.

Sincerely,


R. Creigh Deeds, Chair
Committee on Commerce and Labor

cc: The Honorable Bryce E. Reeves
Sarah Stanton, JCHC Executive Director
Hobie Lehman, Senate Committee Operations
Sarah Kinzer, Division of Legislative Services
Tom Stevens, Division of Legislative Services

APPENDIX 2: Methods and data sources

JCHC staff used various data sources and methods to inform this study, including a literature review, document review, data analysis, and a review of state legislation for nicotine vapor product directory laws. Detailed methods for each source are documented below.

Literature Review

JCHC staff conducted a review of the available scientific literature on the individual health impacts of e-cigarette use and the harms of unregulated nicotine vapor products. Based on existing literature, staff identified common words and phrases associated with these topics. Separate Boolean search phrases and databases were used for each topic's literature review process, as detailed below.

Individual health impacts of e-cigarette use

JCHC staff reviewed the scientific literature to understand the current state-of-the-science on the individual health impacts of e-cigarettes. Health impacts were defined broadly and could include impacts on any bodily system (e.g., cardiovascular, pulmonary, or oral), toxicity, acute injury, and second-hand exposure to e-cigarette aerosols. As such, this literature review prioritized umbrella reviews (i.e., reviews of systematic literature reviews or meta-analyses), followed by systematic literature reviews/meta-analyses not included in any umbrella reviews, then scoping reviews (i.e., reviews of the literature to determine the scope of evidence for a specific outcome) and finally, any individual studies not included in any other reviews and that added information on outcomes not fully addressed through other sources. All reviewed studies were published in the last five years, available in full text from PubMed, published in English, and reported on an outcome or impact of e-cigarette use on individual health. Search terms "e-cigarette AND 'health care'" and "e-cigarette AND health (systematic reviews)" in the title or abstract resulted in 153 total references. JCHC staff identified 48 studies as relevant following title and abstract review. Studies were reviewed in the following order: umbrella review (n = 5), systematic reviews/meta-analyses not included in umbrella reviews (n = 12), scoping reviews (n = 1), and single studies (n = 1). After reviewing 19 studies, JCHC staff determined that review of the remaining 29 studies would not yield new information. Across review types, a total of 441 articles were considered as part of this literature review.

Harms of unregulated nicotine vapor products

JCHC staff reviewed scientific literature to understand the harms of unregulated nicotine vapor product use by describing how the use of illegal and/or unregulated products impacted individual health and safety. Staff prioritized reviewing systematic reviews and scoping reviews that examined the differences in health and wellbeing of individuals after vaping unregulated products. All reviewed studies were published in the last five years, available in full text from PubMed or Google Scholar, published in English, and reported on

an outcome or impact of unregulated/illegal nicotine vapor product use on individual health. Search terms (e-cigarette AND unregulated AND health) OR ((vape OR vapor product OR nicotine vape) AND unregulated AND health) in the title or abstract resulted in 81 total references. JCHC staff conduct a full text analysis of 4 articles: 2 systematic or comprehensive reviews and 2 longitudinal studies. Staff used content analysis to identify key themes.

Document Review

JCHC staff conducted a document review to identify federal and state legislative mechanisms for the regulation of nicotine vapor products. JCHC staff searched Virginia Legislative Information System website, the U.S. Food and Drug Administration website, and the Federal Register website to identify code sections that establish enforcement authorities for the purpose of regulating nicotine vapor products on the federal and state levels.

Multi-State Product Directory Identification

JCHC staff conducted a review of state laws and regulations, documents, websites, and reports to identify states that had also implemented a nicotine vapor product directory. States that only implemented “flavor ban” legislation were excluded from this study.

JCHC staff conducted this review using the key words *e-cigarette*, *vap**, *nicotine vapor product*, *directory*, and *registry* to identify state laws and regulations that created product directories. Staff used the Public Health Law Center at Mitchell Hamlin School of Law's E-Cigarette Registry Bill Map, along with a subsequent review of individual state legislation to identify other states' product directory laws.

Data Analysis

JCHC staff analyzed data from several sources to understand trends in e-cigarette use, e-cigarette or vaping associated lung injury (EVALI) diagnoses, and access and exposure to tobacco/nicotine products in Virginia (TABLE 1). Findings from this analysis highlight how rates of e-cigarette use and access vary by age and other demographic characteristics. JCHC staff also analyzed data from sources to understand federal PMTA approval trends. Findings from this analysis highlight the overall trends in federal approval or denial of nicotine vapor products for sale on the U.S. market.

TABLE 1. Data sources

Metrics	Data Sources
Adult and youth e-cigarette use prevalence	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System Prevalence & Trends Data: 2026. Centers for Disease Control and Prevention. Youth Risk Behavior Survey Data Summary & Trends Report: 2023.
E-cigarette or vaping use-associated lung injury (EVALI) diagnoses	Virginia All Payer Claims Database, provided by Virginia Health Information.
PMTA nicotine vapor product approval and denials	U.S. Food and Drug Administration (2026). Premarket Tobacco Product Applications: Metrics & Reporting, Fiscal Year 2020 through Fiscal Year 2026.

APPENDIX 3: In-text citations

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⁴ Department of Behavioral Health and Developmental Services CounterTools data analysis

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⁶ Centers for Disease Control and Prevention Youth Risk Behavior Survey Virginia data, 2015-2023.

⁷ Shabil, M., et al. (2025). "Association of electronic cigarette use and risk of COPD: a systematic review and meta-analysis." *NPJ Prim Care Respir Med* 35(1): 31.

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products/ctp-newsroom/working-states-fda-warns-more-100-retailers-illegal-sale-youth-appealing-e-cigarettes-including-geek

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