

**2021 SENATE JUDICIARY**

**SB 2156**

# 2021 SENATE STANDING COMMITTEE MINUTES

**Judiciary Committee**  
Peace Garden Room, State Capitol

SB 2156  
1/13/2021 AM

A BILL for an Act to amend and reenact sections 12.1-31-03, 12.1-31-03.1, 12.1-31-03.3, and 51-32-01 of the North Dakota Century Code, relating to the prohibition of an individual under twenty-one years of age from purchasing, possessing, or using tobacco products or electronic smoking devices; and to provide a penalty

10:00:13 AM Senator Larson opened the hearing. Senators present: Larson, Dwyer, Bakke, Myrdal, Fors, Heitkamp, Luick

## **Discussion Topics:**

- Twenty one to purchase tobacco products
- Underage consumption of tobacco products

10:00:28 AM Senator Dwyer - District 47 - introduced the bill

10:03:03 AM Kayla Effertz Kelven - Lobbyist on Behalf of Altria from Olson Effertz Lobbying & Consulting LLC - testified in favor #678

10:07:58 AM Mike Rud - President of ND Petroleum Marketers Association and ND Retail Association testified in favor #704

10:11:24 AM Aaron Birst - ND Association of Counties – offers oral testimony in favor

10:13:08 AM Heather Austin - Executive Director of Tobacco Free ND - testified in favor #693

10:13:09 AM Heather Austin - Testimony #694

10:19:58 AM Public hearing is closed

10:20:06 AM Senator Luick moved to add an emergency clause to SB 2156

10:20:32 AM Senator Dwyer seconded the motion

10:20:42 AM Roll call vote

<b>Motion Add an Emergency Clause to SB 2156</b>	
<b>Senators</b>	<b>Vote</b>
Senator Diane Larson	Y
Senator Michael Dwyer	Y

Senator JoNell A. Bakke	Y
Senator Robert O. Fors	N
Senator Jason G. Heitkamp	Y
Senator Larry Luick	Y
Senator Janne Myrdal	Y

10:21:17 AM Motion passed 6-1-0

10:22:30 AM Meeting Adjourns

*Jamal Omar, Committee Clerk*

North Dakota Senate  
Judiciary Committee  
Testimony Regarding Senate Bill 2156

David Sylvia, Senior Director, Public Policy & Stakeholder Engagement  
Altria Client Services LLC  
January 13, 2021

Chairwoman Larson and Members of the Committee, thank you for the opportunity to submit this testimony on the behalf of Altria and its affiliates Philip Morris USA, John Middleton, and US Smokeless Tobacco Company regarding the legal age of purchase for tobacco products.

**Altria Supports Prompt Enactment of Senate Bill 2156**

Altria supports raising the minimum age to purchase tobacco products to 21. We encourage the North Dakota Legislature to enact Senate Bill 2156 without delay.

Our companies have long supported legislation to prevent underage access to tobacco products. Today, underage use of traditional tobacco products such as cigarettes, cigars, and smokeless tobacco is at generational lows and continues to decline.<sup>1</sup> With e-vapor—a category that emerged after the Tobacco Control Act became law but before FDA asserted regulatory over it—underage use accelerated to totally unacceptable levels starting in 2018.

That alarming trend led to a broad coalition of stakeholders, including us, joining forces in 2019 to advocate for federal legislation raising the national minimum age on all tobacco products to 21. That bipartisan legislation was signed into law by the President in December of 2019.<sup>2</sup>

Today, 33 states and the District of Columbia have a tobacco 21 law—Senate bill 2156 will address substantive policy concerns by aligning North Dakota with federal law.

**First**, raising the minimum age to 21 will help reverse underage vaping rates. Although recent data show declines in underage e-vapor rates,<sup>3</sup> there is more progress to make and we believe taking this step will help.

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<sup>1</sup> Recently released 2020 data from CDC's National Youth Tobacco Survey (NYTS) shows year-over-year declines in middle school and high school past 30-day use across all tobacco categories, including cigarettes (4.3% to 3.3%), cigars (5.3% to 3.5%), smokeless tobacco (3.5% to 2.3%), and e-vapor (20% to 13.1%) (See [https://www.cdc.gov/tobacco/data\\_statistics/surveys/nyts/index.htm](https://www.cdc.gov/tobacco/data_statistics/surveys/nyts/index.htm); <https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6950a1-H.pdf>.)

<sup>2</sup> <https://www.fda.gov/tobacco-products/ctp-newsroom/newly-signed-legislation-raises-federal-minimum-age-sale-tobacco-products-21>.

<sup>3</sup> See supra note 1.



**Second,** different minimum age requirements at the federal, state, and regional levels will confuse consumers and retailers, and lead to less effective enforcement. We are sensitive to the argument that young people 18 to 20 are treated as adults in our society for many important purposes—voting and serving in our military, to name just a few. But a minimum age of 21, in alignment with the federal standard, will put tobacco products in line with alcoholic beverages, which have been subject to state minimum age laws of 21 for decades, as well as cannabis, which is subject to the minimum age of 21 in every state that has legalized it recreationally.

**Third,** \$1.7 million, or approximately 10% of future SAMHSA substance abuse grants, is conditioned on North Dakota enforcing the new federal Tobacco 21 law through their existing youth tobacco prevention inspections. In fiscal year 2018, 10% of these SAMHSA grants amounted to \$392 million nationwide.<sup>4</sup>

Federal law also appropriates \$18.58 million in transitional grants to states to plan for or ensure compliance with these new requirements. A portion of this funding will be available for North Dakota, conditioned on enforcement and compliance checks to prevent the sale of tobacco products to individuals under the age of 21.<sup>5</sup>

## Conclusion

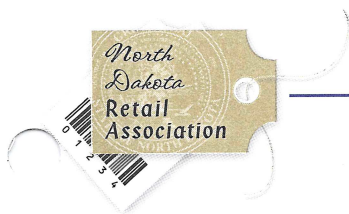
For these reasons, we join with others calling for a minimum age of 21 to purchase tobacco products, and we therefore encourage the North Dakota Legislature to promptly pass Senate Bill 2156.

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<sup>4</sup> “SAMHSA Grant Awards by State, FY 2018,” SAMHSA, <https://www.samhsa.gov/grants-awards-by-state?year=2018>.

<sup>5</sup> 42 USC 300x-26: Sale of tobacco products to individuals under age of 21.





## ND Petroleum Marketers Association ND Retail Association



Testimony- SB 2156

January 13, 2021- Senate Judiciary Committee

Madam Chair Larson and Members of the Senate Judiciary Committee:

For the record, I'm Mike Rud, President of the North Dakota Petroleum Marketers and ND Retail Association. Our Membership represents well over 700 retail store fronts in North Dakota selling tobacco products. These businesses continue to do all they can to make sure tobacco products are being sold to legal age adults. Our Association urges a **"DO PASS"**

**recommendation on SB 2156.**

What is most important to retailers is doing away with confusion at the local, state, regional and federal levels relating to age requirements. In late December 2019, retailers had a first-hand experience with just how concerning a patchwork of laws regarding the sales of tobacco products can for business owners and consumers alike.

Congress passed the T21 legislation which took effect immediately, just before it adjourned for the Christmas Holiday. This left retailers across the nation, including those in our state, scrambling to figure out what they had to do to be in compliance. There were only a handful of

states in 2019 that had enacted T21 legislation. The rest of the states were still abiding by age 18-19 laws. There was much uncertainty over whether or not the federal law superseded state law. To heighten the hysteria, retailers were hearing stories about the FDA beginning immediate crackdowns in different areas of the country. There were also stories of local law enforcement across the country engaging in retail tobacco stings. Our office phones were ringing off the hook. Fortunately, we were finally able to get some clarity for both retailers and consumers shortly after the New Year.

Many states surrounding ND, acted quickly in 2020 legislative sessions to pass T21 legislation. Currently, Montana is the only state bordering ND that hasn't passed T21. Like ND, Montana has a bill before its legislative body as well in 2021.

Let's end the patchwork of minimum age requirements by passing T21 legislation in ND. Again,

**NDPMA and NDRA urge a "DO PASS" recommendation on SB 2156.**



P.O. Box 3237  
Bismarck, ND 58502  
701-751-0229  
[www.tfnd.org](http://www.tfnd.org)

#693

January 13, 2021

10:00 am CST

Senate Judiciary Committee for the 67<sup>th</sup> ND Legislative Assembly

Chairwoman Larson, and members of the Senate Judiciary Committee, hello, my name is Heather Austin, and I am the Executive Director for Tobacco Free North Dakota. Thank you for your time this morning.

The mission of Tobacco Free North Dakota is to improve and protect the public health of all North Dakotans by reducing the serious health and economic consequences of tobacco use, the state's number one cause of preventable disease and death. Today I am here to encourage a Do Pass on SB 2156, or the bill raising the minimum purchase age for tobacco products to 21.

By ratifying Federal Tobacco Age of Purchase law in North Dakota, we take another step forward in protecting our youth from the dangerous nicotine addiction these products promote. We also make it easier for local enforcement and regulation to take place in our communities. Our U.S. Dept. of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA) has updated their guidance and requirements for Synar Regulations to reflect the new age of 21 and says, "States are expected to enforce underage access to reduce the illegal sale of tobacco products to individuals under the age of 21."<sup>i</sup> SAMHSA's guidance document further states, "Failure to comply with the requirements of the Synar Regulation can result in a State losing up to 10 percent of its Federal Block Grant funds for substance abuse prevention and treatment."<sup>ii</sup>

The North Dakota Behavioral Health Division received \$6,533,901 for the FFY 2020. A 10% reduction in funding would equal \$653,390.10. Any loss in funding would have significant impacts on prevention, treatment and recovery services currently being offered in North Dakota.

So, having North Dakota align with federal law makes good sense. We can lead the way in protecting our kids and all our citizens, creating healthier people and a healthier state, and we can ensure our state continues to receive funds our citizens certainly need.

Again, thank you for this time in front of you, Chairwoman Larson, and the Committee. It is very appreciated. Please vote Do Pass on SB 2156.

May I take any questions?

Heather Austin  
Executive Director, Tobacco Free North Dakota  
Cell: 701-527-2811  
[heather@tfnd.org](mailto:heather@tfnd.org)  
[www.tfnd.org](http://www.tfnd.org)

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<sup>i</sup> <https://www.samhsa.gov/sites/default/files/synar-guidance-tobacco-21.pdf> (attached)

<sup>ii</sup> *Id.*

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION  
CENTER FOR SUBSTANCE ABUSE PREVENTION  
ROCKVILLE, MD 20857

REVISION TO GUIDANCE

DATE: June 12, 2020

ADDRESSEES: SINGLE STATE AUTHORITIES  
STATE SUBSTANCE ABUSE PREVENTION AGENCIES  
STATE SYNAR COORDINATORS

SUBJECT: Revision to SAMHSA's Synar Guidance on Tobacco Regulation for the Substance Abuse Prevention and Treatment Block Grant, in Response to PL 116-94 Appropriations Bill signed into law on December 20, 2019, which Increased the Minimum Age for Purchasing Tobacco Products from 18 to 21.

BACKGROUND: In July 1992, Congress enacted the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act (PL 102-321), which includes an amendment to Section 1926 of the Public Health Service Act (42 U.S.C. 300x-26) aimed at decreasing youth access to tobacco. This amendment, named for its sponsor, Congressman Mike Synar of Oklahoma, requires States (that is, all States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and six Pacific jurisdictions) to enact and enforce laws prohibiting the sale or distribution of tobacco products to individuals under the age of 18. States must comply with the Synar Amendment in order to receive their full Substance Abuse Prevention and Treatment Block Grant (SABG) awards.

On January 19, 1996, SAMHSA published "Tobacco Regulation for Substance Abuse Prevention and Treatment Block Grants" in the Federal Register, amending 45 C.F.R. Part 96 to add section 96.130 – State Law Regarding the Sale of Tobacco Products to Individuals Under the Age of 18 – known as the Synar regulation. SAMHSA subsequently issued and revised guidance documents, providing instructions to States on compliance rate goals, use of funds, State reporting requirements, conforming amendments, and penalties.

Public Law 116-94, signed on December 20, 2019, supersedes this legislation and increased the minimum age for tobacco sales from 18 to 21. PL 116-94 also amends section 906(d) of the Federal Food, Drug,

and Cosmetic Act of 1938, the General Provisions Respecting Control of Tobacco Products, raising the federal minimum age for sale of tobacco products from 18 to 21 years and instructing the Food and Drug Administration to make conforming changes to regulations regarding sale and distribution of tobacco products to carry out the amendments made by Public Law 116-94. These conforming changes include increasing the minimum age of sale for tobacco products from 18 to 21 years of age, increasing the minimum age for age verification by means of photographic identification from under the age of 27 to under the age of 30, and increasing the minimum age of individuals that may be present or permitted to enter facilities that maintain vending machines or self-service displays that sell tobacco products from 18 years to 21 years of age.

In accordance with Public Law 116-94, this Revision to Guidance document updates previously issued SAMHSA guidance in 2011 as it relates to compliance rate goals, use of funds, state reporting requirements, conforming amendments and penalties. This Tobacco 21 Revision to Guidance document also outlines the three-year transition period for implementation and compliance.

**GUIDANCE  
REVISIONS:**

*Compliance Rate Goals*

The Compliance Rate Goals outlined in Implementing the Synar Regulation (revised 2011), requires that “...each State reduce its [Retail Violation Rate] RVR to 20 percent or less...” A violation is defined as “The fraction (or percentage) of tobacco-selling outlets in a State that are accessible to minors and sell tobacco to them. The objective of the Synar survey is to estimate this rate using sampling techniques and survey inspection.”

PL 116-94 does not change the compliance rate goal of 20 percent or less. However, the definition of a violation is expanded to include tobacco-selling outlets in a State that are accessible to anyone under the age of 21.

*Use of Funds*

The Synar regulation states that “States may not use the Block Grant to fund the enforcement of their statute, except that they may expend funds from the primary prevention set-aside of their Block Grant allotment under 45 CFR 96.124(b)(1) for carrying out the administrative aspects of the requirements, such as the development of the sample design and the conducting of the inspections.” [45 CFR 96.130(j)].

This Revision to Guidance document clarifies that the prevention set-aside may be used to fund revisions to States’ Synar programs to comply with PL 116-94.

### *State Reporting Requirements*

The State Reporting Requirements in *Implementing the Synar Regulation* (revised 2011) outlines that “States are required to report their sampling methodology and results of the annual Synar survey as a part of the Annual Synar Report no later than December 31.” This includes the State’s sampling methodology, Synar survey results, Synar inspection report, and the Synar inspection protocol.

This Revision to Guidance document does not change the requirement to submit an Annual Synar Report, but does require that States revise their methodology, inspection reports, and inspection protocols, to include the revised age requirements (under 21). In addition, the Synar survey results must now include results for sales to youth and young adults under the age of 21.

### *Conforming Amendments*

SAMHSA’s guidance on *Implementing the Synar Regulation* explains that, in order for States to be in compliance with the Synar regulations, States must “Enact a law prohibiting any manufacturer, retailer, or distributor of tobacco products from selling or distributing such products to any individual under age 18.”

PL116-94 removes the requirements for enacting State Laws. Therefore, States do not need to demonstrate a change in State Law to maintain compliance with Synar. However, SAMHSA’s guidance further requires that States “Enforce underage access laws to a degree that reasonably can be expected to reduce the illegal sale of tobacco products to individuals under age 18.” PL116-94 increases the minimum age to 21. Therefore, States are expected to enforce underage access to reduce the illegal sale of tobacco products to individuals under the age of 21.

### *Penalty*

SAMHSA’s guidance on *Implementing the Synar Regulation* explains, “Failure to comply with the requirements of the Synar Regulation can result in a State losing up to 40 percent of its Federal Block Grant funds for substance abuse prevention and treatment.” Revisions to the definition of compliance are outlined above, including enforcement to reduce illegal sales to individuals under the age of 21, completing annual reporting requirements, demonstrating a Retail Violation Rate of 20 percent or less.

PL-116-94 revises the penalty to up to 10 percent of the Substance Abuse Prevention and Treatment Block Grant, and codifies a negotiated alternate penalty. Instead of taking the 10 percent penalty, States that are found out of compliance (report a Retail Violation Rate above 20 percent) may elect to submit a corrective action plan to the Assistant

Secretary for Mental Health and Substance Use within 90 days of receipt of notice that they are not in compliance with the Synar regulations, which outlines strategies they will take to reduce the Retail Violation Rate to 20 percent or less. States may not use Substance Abuse Prevention and Treatment Block Grant funds to pay for these activities, and must find alternate sources of funds to cover these costs.

CITATIONS IN  
LAW:

Section 1926 of the Public Health Service Act (42 U.S.C. 300x-26)  
Further Consolidated Appropriations Act, 2020 (PL 116-94)

CITATIONS IN  
REGULATIONS:

“Tobacco Regulation for Substance Abuse Prevention and Treatment Block Grants” by the Substance Abuse and Mental Health Services Administration (SAMHSA) (61 FR 1492, Jan. 19, 1996); 45 C.F.R. §96.130.

“Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products” (81 FR 28974 May 10, 2016)

“Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents” (75 FR 13225, March 19, 2010).

CITATIONS IN  
GUIDANCE:

*Implementing the Synar Regulation, Sample Design Guidance*, published 2011.

EFFECTIVE  
DATE:

States are expected to begin transitioning their Synar programs to conform to the guidance revisions outlined in this document immediately, and complete their transitions within three years from the issuance of this document.

During this three-year period, SAMHSA will not enforce penalties for Retail Violation Rates in excess of 20 percent. However, states are expected to continue to meet the expectations of the law, including reporting.

INQUIRIES TO:

Substance Abuse Prevention Grant Project Officers

/Elinore F. McCance-Katz/

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Elinore F. McCance-Katz, M.D., Ph.D.  
Assistant Secretary for Mental Health and  
Substance Use

# 2021 SENATE STANDING COMMITTEE MINUTES

## Judiciary Committee Peace Garden Room, State Capitol

SB 2156  
1/13/2021  
PM

A BILL for an Act to amend and reenact sections 12.1-31-03, 12.1-31-03.1, 12.1-31-03.3, and 51-32-01 of the North Dakota Century Code, relating to the prohibition of an individual under twenty-one years of age from purchasing, possessing, or using tobacco products or electronic smoking devices; and to provide a penalty

**2:14 pm Chairman Larson** called the meeting to order  
Senators present: Larson, Dwyer, Bakke, Myrdal, Fors, Heitkamp, Luick

### Discussion Topics:

- Raising the age of buying tobacco to twenty-one
- Compliance checks

2:15:06 PM Senator Dwyer motioned for a DO PASS AS AMENDED

2:15:08 PM Senator Myrdal seconded DO PASS AS AMENDED

2:22:42 PM Roll Call Vote

Senators	Vote
Chairwoman Larson	Y
Vice Chair Dwyer	Y
Senator Bakke	Y
Senator Fors	N
Senator Heitkamp	N
Senator Luick	Y
Senator Myrdal	Y

2:24:54 PM Motion passed 5-2-0

2:25:00 Chairman Larson adjourns the meeting.

*Jamal Omar, Committee Clerk*

**REPORT OF STANDING COMMITTEE**

**SB 2156: Judiciary Committee (Sen. Larson, Chairman)** recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (5 YEAS, 2 NAYS, 0 ABSENT AND NOT VOTING). SB 2156 was placed on the Sixth order on the calendar.

Page 1, line 4, remove "and"

Page 1, line 4, after "penalty" insert "; and to declare an emergency"

Page 8, after line 13, insert:

**"SECTION 5. EMERGENCY.** This Act is declared to be an emergency measure."

Renumber accordingly

**2021 HOUSE POLITICAL SUBDIVISIONS**

**SB 2156**

# 2021 HOUSE STANDING COMMITTEE MINUTES

## Political Subdivisions Committee Room JW327B, State Capitol

SB 2156  
3/18/2021

**Relating to the prohibition of an individual under twenty-one years of age from purchasing, possessing, or using tobacco products or electronic smoking devices; to provide a penalty; and to declare an emergency.**

**Chairman Dockter: (9:00).** Opened the hearing.

Representatives	
Representative Jason Dockter	P
Representative Brandy Pyle	P
Representative Mary Adams	P
Representative Claire Cory	P
Representative Sebastian Ertelt	P
Representative Clayton Fegley	P
Representative Patrick Hatlestad	P
Representative Dori Hauck	P
Representative Mary Johnson	P
Representative Lawrence R. Klemin	P
Representative Donald Longmuir	P
Representative Dave Nehring	P
Representative Marvin E. Nelson	P
Representative Nathan Toman	P

### Discussion Topics:

- Change to twenty-one from eighteen
- Conforms with federal law

**Sen. Dwyer:** Introduced the bill. Testimony #9904.

**Aaron Burst, Association of Counties:** In support, no written testimony.

**Mike Rudd, ND Petroleum Marketers and ND Retail Association:** In support. Testimony #10009.

**Heather Austin, Executive Director for Tobacco Free North Dakota.** In support, testimony #9959, 9960.

**Stephanie Dassinger, Lobbyist for Chiefs of Police:** In support, now written testimony.

**Mike Krumwiede, Lobbyist American Heart Association:** In support, no written testimony.

**David Sylvia, Senior Director, Public Policy & Stakeholder Engagement on behalf of Altria.** In support, testimony #9847.

**Gregory J Conley, President American Vaping Association:** In support, testimony #9970, 9971.

**Rep. Toman:** Proposed an amendment raising the age from 21 to 26.

**Rep. Johnson:** Second the motion.

**Voice vote failed.**

**Rep. Klemin:** Made a do pass motion

**Rep. Adams:** Second the motion.

Representatives	Vote
Representative Jason Dockter	Y
Representative Brandy Pyle	Y
Representative Mary Adams	Y
Representative Claire Cory	N
Representative Sebastian Ertelt	N
Representative Clayton Fegley	Y
Representative Patrick Hatlestad	Y
Representative Dori Hauck	Y
Representative Mary Johnson	N
Representative Lawrence R. Klemin	Y
Representative Donald Longmuir	Y
Representative Dave Nehring	Y
Representative Marvin E. Nelson	Y
Representative Nathan Toman	N

10-4-0 carried.

**Rep. Adams:** Will carry the bill.

**Additional written testimony:**

9916, 9621

**Chairman Dockter: (9:48).** Closed the hearing.

*Carmen Hickle, Committee Clerk*

**REPORT OF STANDING COMMITTEE**

**SB 2156, as engrossed: Political Subdivisions Committee (Rep. Dockter, Chairman)**  
recommends **DO PASS** (10 YEAS, 4 NAYS, 0 ABSENT AND NOT VOTING).  
Engrossed SB 2156 was placed on the Fourteenth order on the calendar.

House Political Subdivisions Committee  
SB 2156: Senator Michael Dwyer, District 47

SB 2156 changes ND's law relating to the purchase and use of tobacco and tobacco products, from the age of 18 to the age of 21. If passed, we will join 33 other states that have raised the tobacco age from 18-21, including the states of SD and Minnesota. We will be the 34th state, unless Montana beats us to it as they are considering the very same legislation.

Occasionally the federal government does something good, and that was the passage of what is known as T21, which the President of the United States signed in December, 2019. This was the result of the tobacco industry, law enforcement, health and medical professionals, the education community, and others coming together and asking the federal Congress to pass T21. Some states had already raised the age for purchasing and using tobacco products before the federal T21, and many states have done so since 2019.

I don't need to go into the health issues related to smoking and using tobacco products. Those enormous costs to society, our medical costs, our health insurance premiums, and the health of individuals are well documented. I won't belabor the endless statistics.

Since our nation, and North Dakota, have embarked on education programs to lower the number of people that smoke, and particularly teens, we have reduced the teenage rate of smoking from near 30% to single digits. However, the rate of teenage usage of vaping and similar products is over 30%.

There are many benefits and reasons for supportive SB 2156.

1. First, it will make our law consistent with the purchase and use of alcohol products. That is age 21, and you may recall some time ago that states experimented with lowering the age of alcohol to 18 or 19, but promptly reversed course and returned to age 21 for alcohol

products. These states recognized the adverse consequences of lowering the alcohol age.

2. Second, it will make our law consistent with the federal law, which was requested by both law enforcement and state's attorneys, to avoid confusion in these areas.
3. Third, this bill will also slow the use of vaping and similar products of those between 18 and 21. Vaping suppliers can provide those products to kids/young adults now over the internet because our law is at age 18.
4. Fourth, many high school students are 18. Our state law allows a high school student to purchase and use tobacco products. However, we all know that if a high school student gets caught using tobacco, they are suspended from extracurricular activities for 6 weeks for the first offense, and for the entire year for the second offense. It seems we ought to recognize what our schools have recognized for some time, and change our law accordingly.
5. Finally, it just makes sense. To the extent that we can discourage young adults from using a product that is not only detrimental to health but also extremely addictive, we are better off.

One argument against T21 is the age of 18 can both vote, and join the military. If they can be part of our armed forces, they should be able to make these decisions on their own. However, that same argument would apply to alcohol products, and further, we are strengthening our military by having our young men and women who join, hold off on using addictive substance.

I will highlight a few provisions of the bill.



## ND Petroleum Marketers Association ND Retail Association



Testimony- SB 2156

February 18, 2021- House Political Subs Committee

Chairman Dockter and Members of the House Political Subdivisions Committee:

For the record, I'm Mike Rud, President of the North Dakota Petroleum Marketers and ND Retail Association. Our Membership represents well over 700 retail store fronts in North Dakota selling tobacco products. These businesses continue to do all they can to make sure tobacco products are being sold to legal age adults. Our Association urges a **"DO PASS"** recommendation on SB 2156.

What is most important to retailers is doing away with confusion at the local, state, regional and federal levels relating to age requirements. In late December 2019, retailers had a first-hand experience with just how concerning a patchwork of laws regarding the sales of tobacco products can be for business owners and consumers alike.

Congress passed the T21 legislation which took effect immediately, just before it adjourned for the Christmas Holiday. This left retailers across the nation, including those in our state, scrambling to figure out what they had to do to be in compliance. There were only a handful of

states in 2019 that had enacted T21 legislation. The rest of the states were still abiding by age 18-19 laws. There was much uncertainty over whether or not the federal law superseded state law. To heighten the hysteria, retailers were hearing stories about the FDA beginning immediate crackdowns in different areas of the country. There were also stories of local law enforcement across the country engaging in retail tobacco stings. Our office phones were ringing off the hook. Fortunately, we were finally able to get some clarity for both retailers and consumers shortly after the New Year.

Many states surrounding ND, acted quickly in 2020 legislative sessions to pass T21 legislation. Currently, Montana is the only state bordering ND that hasn't passed T21. Like ND, Montana has a bill before its legislative body as well in 2021.

Let's end the patchwork of minimum age requirements by passing T21 legislation in ND. Again,

**NDPMA and NDRA urge a "DO PASS" recommendation on SB 2156.**



P.O. Box 3237  
Bismarck, ND 58502  
701-751-0229  
[www.tfnd.org](http://www.tfnd.org)

March 18, 2021

9:00 am CST

House Political Subdivisions Committee for the 67<sup>th</sup> ND Legislative Assembly

Chairman Dockter, and members of the House Political Subdivisions Committee, hello, my name is Heather Austin, and I am the Executive Director for Tobacco Free North Dakota. Thank you for your time this morning.

The mission of Tobacco Free North Dakota is to improve and protect the public health of all North Dakotans by reducing the serious health and economic consequences of tobacco use, the state's number one cause of preventable disease and death. Today I am here to encourage a Do Pass on SB 2156, or the bill raising the minimum purchase age for tobacco products to 21.

By ratifying Federal Tobacco Age of Purchase law in North Dakota, we take another step forward in protecting our youth from the dangerous nicotine addiction these products promote. We also make it easier for local enforcement and regulation to take place in our communities. Our U.S. Dept. of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA) has updated their guidance and requirements for Synar Regulations to reflect the new age of 21 and says, "States are expected to enforce underage access to reduce the illegal sale of tobacco products to individuals under the age of 21."<sup>i</sup> SAMHSA's guidance document further states, "Failure to comply with the requirements of the Synar Regulation can result in a State losing up to 10 percent of its Federal Block Grant funds for substance abuse prevention and treatment."<sup>ii</sup>

The North Dakota Behavioral Health Division received \$6,533,901 for the FFY 2020. A 10% reduction in funding would equal \$653,390.10. Any loss in funding would have significant impacts on prevention, treatment and recovery services currently being offered in North Dakota.

So, having North Dakota align with federal law makes good sense. We can lead the way in protecting our kids and all our citizens, creating healthier people and a healthier state, and we can ensure our state continues to receive funds our citizens certainly need, while making local compliance checks and enforcement an easier process throughout the state.

Again, thank you for this time in front of you, Chairman Dockter, and the Committee. It is very appreciated. Please vote Do Pass on SB 2156. May I take any questions?

Heather Austin  
Executive Director, Tobacco Free North Dakota  
Cell: 701-527-2811  
[heather@tfnd.org](mailto:heather@tfnd.org)  
[www.tfnd.org](http://www.tfnd.org)

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<sup>i</sup> <https://www.samhsa.gov/sites/default/files/synar-guidance-tobacco-21.pdf> (attached)

<sup>ii</sup> *Id.*

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
 SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION  
 CENTER FOR SUBSTANCE ABUSE PREVENTION  
 ROCKVILLE, MD 20857

REVISION TO GUIDANCE

DATE: June 12, 2020

ADDRESSEES: SINGLE STATE AUTHORITIES  
 STATE SUBSTANCE ABUSE PREVENTION AGENCIES  
 STATE SYNAR COORDINATORS

SUBJECT: Revision to SAMHSA’s Synar Guidance on Tobacco Regulation for the Substance Abuse Prevention and Treatment Block Grant, in Response to PL 116-94 Appropriations Bill signed into law on December 20, 2019, which Increased the Minimum Age for Purchasing Tobacco Products from 18 to 21.

BACKGROUND: In July 1992, Congress enacted the Alcohol, Drug Abuse, and Mental Health Administration Reorganization Act (PL 102-321), which includes an amendment to Section 1926 of the Public Health Service Act (42 U.S.C. 300x-26) aimed at decreasing youth access to tobacco. This amendment, named for its sponsor, Congressman Mike Synar of Oklahoma, requires States (that is, all States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and six Pacific jurisdictions) to enact and enforce laws prohibiting the sale or distribution of tobacco products to individuals under the age of 18. States must comply with the Synar Amendment in order to receive their full Substance Abuse Prevention and Treatment Block Grant (SABG) awards.

On January 19, 1996, SAMHSA published “Tobacco Regulation for Substance Abuse Prevention and Treatment Block Grants” in the Federal Register, amending 45 C.F.R. Part 96 to add section 96.130 – State Law Regarding the Sale of Tobacco Products to Individuals Under the Age of 18 – known as the Synar regulation. SAMHSA subsequently issued and revised guidance documents, providing instructions to States on compliance rate goals, use of funds, State reporting requirements, conforming amendments, and penalties.

Public Law 116-94, signed on December 20, 2019, supersedes this legislation and increased the minimum age for tobacco sales from 18 to 21. PL 116-94 also amends section 906(d) of the Federal Food, Drug,

and Cosmetic Act of 1938, the General Provisions Respecting Control of Tobacco Products, raising the federal minimum age for sale of tobacco products from 18 to 21 years and instructing the Food and Drug Administration to make conforming changes to regulations regarding sale and distribution of tobacco products to carry out the amendments made by Public Law 116-94. These conforming changes include increasing the minimum age of sale for tobacco products from 18 to 21 years of age, increasing the minimum age for age verification by means of photographic identification from under the age of 27 to under the age of 30, and increasing the minimum age of individuals that may be present or permitted to enter facilities that maintain vending machines or self-service displays that sell tobacco products from 18 years to 21 years of age.

In accordance with Public Law 116-94, this Revision to Guidance document updates previously issued SAMHSA guidance in 2011 as it relates to compliance rate goals, use of funds, state reporting requirements, conforming amendments and penalties. This Tobacco 21 Revision to Guidance document also outlines the three-year transition period for implementation and compliance.

**GUIDANCE  
REVISIONS:**

*Compliance Rate Goals*

The Compliance Rate Goals outlined in Implementing the Synar Regulation (revised 2011), requires that “...each State reduce its [Retail Violation Rate] RVR to 20 percent or less...” A violation is defined as “The fraction (or percentage) of tobacco-selling outlets in a State that are accessible to minors and sell tobacco to them. The objective of the Synar survey is to estimate this rate using sampling techniques and survey inspection.”

PL 116-94 does not change the compliance rate goal of 20 percent or less. However, the definition of a violation is expanded to include tobacco-selling outlets in a State that are accessible to anyone under the age of 21.

*Use of Funds*

The Synar regulation states that “States may not use the Block Grant to fund the enforcement of their statute, except that they may expend funds from the primary prevention set-aside of their Block Grant allotment under 45 CFR 96.124(b)(1) for carrying out the administrative aspects of the requirements, such as the development of the sample design and the conducting of the inspections.” [45 CFR 96.130(j)].

This Revision to Guidance document clarifies that the prevention set-aside may be used to fund revisions to States’ Synar programs to comply with PL 116-94.

### *State Reporting Requirements*

The State Reporting Requirements in *Implementing the Synar Regulation* (revised 2011) outlines that “States are required to report their sampling methodology and results of the annual Synar survey as a part of the Annual Synar Report no later than December 31.” This includes the State’s sampling methodology, Synar survey results, Synar inspection report, and the Synar inspection protocol.

This Revision to Guidance document does not change the requirement to submit an Annual Synar Report, but does require that States revise their methodology, inspection reports, and inspection protocols, to include the revised age requirements (under 21). In addition, the Synar survey results must now include results for sales to youth and young adults under the age of 21.

### *Conforming Amendments*

SAMHSA’s guidance on *Implementing the Synar Regulation* explains that, in order for States to be in compliance with the Synar regulations, States must “Enact a law prohibiting any manufacturer, retailer, or distributor of tobacco products from selling or distributing such products to any individual under age 18.”

PL116-94 removes the requirements for enacting State Laws. Therefore, States do not need to demonstrate a change in State Law to maintain compliance with Synar. However, SAMHSA’s guidance further requires that States “Enforce underage access laws to a degree that reasonably can be expected to reduce the illegal sale of tobacco products to individuals under age 18.” PL116-94 increases the minimum age to 21. Therefore, States are expected to enforce underage access to reduce the illegal sale of tobacco products to individuals under the age of 21.

### *Penalty*

SAMHSA’s guidance on *Implementing the Synar Regulation* explains, “Failure to comply with the requirements of the Synar Regulation can result in a State losing up to 40 percent of its Federal Block Grant funds for substance abuse prevention and treatment.” Revisions to the definition of compliance are outlined above, including enforcement to reduce illegal sales to individuals under the age of 21, completing annual reporting requirements, demonstrating a Retail Violation Rate of 20 percent or less.

PL-116-94 revises the penalty to up to 10 percent of the Substance Abuse Prevention and Treatment Block Grant, and codifies a negotiated alternate penalty. Instead of taking the 10 percent penalty, States that are found out of compliance (report a Retail Violation Rate above 20 percent) may elect to submit a corrective action plan to the Assistant

Secretary for Mental Health and Substance Use within 90 days of receipt of notice that they are not in compliance with the Synar regulations, which outlines strategies they will take to reduce the Retail Violation Rate to 20 percent or less. States may not use Substance Abuse Prevention and Treatment Block Grant funds to pay for these activities, and must find alternate sources of funds to cover these costs.

CITATIONS IN  
LAW:

Section 1926 of the Public Health Service Act (42 U.S.C. 300x-26)  
Further Consolidated Appropriations Act, 2020 (PL 116-94)

CITATIONS IN  
REGULATIONS:

“Tobacco Regulation for Substance Abuse Prevention and Treatment Block Grants” by the Substance Abuse and Mental Health Services Administration (SAMHSA) (61 FR 1492, Jan. 19, 1996); 45 C.F.R. §96.130.

“Deeming Tobacco Products To Be Subject to the Federal Food, Drug, and Cosmetic Act, as Amended by the Family Smoking Prevention and Tobacco Control Act; Restrictions on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products” (81 FR 28974 May 10, 2016)

“Regulations Restricting the Sale and Distribution of Cigarettes and Smokeless Tobacco to Protect Children and Adolescents” (75 FR 13225, March 19, 2010).

CITATIONS IN  
GUIDANCE:

*Implementing the Synar Regulation, Sample Design Guidance*, published 2011.

EFFECTIVE  
DATE:

States are expected to begin transitioning their Synar programs to conform to the guidance revisions outlined in this document immediately, and complete their transitions within three years from the issuance of this document.

During this three-year period, SAMHSA will not enforce penalties for Retail Violation Rates in excess of 20 percent. However, states are expected to continue to meet the expectations of the law, including reporting.

INQUIRIES TO:

Substance Abuse Prevention Grant Project Officers

/Elinore F. McCance-Katz/

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Elinore F. McCance-Katz, M.D., Ph.D.  
Assistant Secretary for Mental Health and  
Substance Use

North Dakota House  
Political Sub Division Committee  
Testimony Regarding Senate Bill 2156  
David Sylvia, Senior Director, Public Policy & Stakeholder Engagement  
Altria Client Services LLC  
March 18, 2021

Chairman Klemin and Members of the Committee, thank you for the opportunity to submit this testimony on the behalf of Altria and its affiliates Philip Morris USA, John Middleton, and US Smokeless Tobacco Company regarding the legal age of purchase for tobacco products.

### **Altria Supports Prompt Enactment of Senate Bill 2156**

Altria supports raising the minimum age to purchase tobacco products to 21. We encourage the North Dakota Legislature to enact Senate Bill 2156 without delay.

Our companies have long supported legislation to prevent underage access to tobacco products. Today, underage use of traditional tobacco products such as cigarettes, cigars, and smokeless tobacco is at generational lows and continues to decline.<sup>1</sup> With e-vapor – a category that emerged after the Tobacco Control Act became law but before FDA asserted regulatory authority over it – underage use accelerated to totally unacceptable levels starting in 2018. That alarming trend led to a broad coalition of stakeholders, including us, joining forces in 2019 to advocate for federal legislation raising the national minimum age on all tobacco products to 21. That bipartisan legislation became law in December 2019.<sup>2</sup> We are working to enact laws in all states to bring their minimum age laws into alignment with federal law. 33 states and the District of Columbia currently have tobacco 21 law– Senate bill 2156 would align North Dakota to the federal standard.

**First**, raising the minimum age to 21 will help reduce underage vaping rates. Although recent data show declines in underage e-vapor rates, there is more progress to make and we believe taking this step will help.

**Second**, different minimum age requirements at the federal, state, and regional levels will confuse consumers and retailers, and lead to less effective enforcement. We are sensitive to the argument that young people 18 to 20 are treated as adults in our society for many important purposes – voting, paying taxes, and serving in our military, to name just a few. But a minimum age of 21, in alignment with the federal standard, will put tobacco products in line with alcoholic beverages, which have been subject to state minimum age

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<sup>1</sup> Recently released data from CDC's National Youth Tobacco Survey (NYTS) shows year-over-year declines in middle school and high school past 30-day use across all tobacco categories, including cigarettes (4.3% to 3.3%), cigars (5.3% to 3.5%), smokeless tobacco (3.5% to 2.3%), and e-vapor (20% to 13.1%) (<https://www.cdc.gov>).

<sup>2</sup> <https://www.fda.gov/tobacco-products/ctp-newsroom/newly-signed-legislation-raises-federal-minimum-age-sale-tobacco-products-21>.



laws of 21 for decades, as well as cannabis, which is subject to the minimum age of 21 in every state that has legalized it recreationally.

**Third.** \$1,739,980, or approximately 10% of future SAMHSA substance abuse grants, is conditioned on North Dakota enforcing the new federal Tobacco 21 law through their existing youth tobacco prevention inspections. In fiscal year 2018, 10% of these SAMHSA grants amounted to \$392 million nationwide.<sup>3</sup>

Federal law also appropriates \$18.58 million in transitional grants to states to plan for or ensure compliance with these new requirements. A portion of this funding will be available for North Dakota, conditioned on enforcement and compliance checks to prevent the sale of tobacco products to individuals under the age of 21.<sup>4</sup>

For these reasons, we join with others calling for a minimum age of 21 to purchase tobacco products, and we therefore encourage the North Dakota Legislature to promptly pass Senate Bill 2156.

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<sup>3</sup> "SAMHSA Grant Awards by State, FY 2018," SAMHSA, <https://www.samhsa.gov/grants-awards-by-state?year=2018>.

<sup>4</sup> 42 USC 300x-26: Sale of tobacco products to individuals under age of 21.



home with a blood-pressure cuff and texted daily, the majority sent readings during the critical first postpartum week.

Similarly, an orthopedics practice manager, believing access to care could be improved, advertised same-day scheduling on the practice's website, providing his personal cell-phone number so that he became a one-person fake call center. In 3 days, he validated that such a system was both operationally and financially viable and also learned that when people seek same-day scheduling (which is hard to provide), they find scheduling within a few days acceptable (which is easier).

These two projects also illustrate a technique called mini-pilots: experiments integrated with operations, which may not support the small P values necessary for scholarly publication but which also don't take months or

back their blood-pressure readings or would seek same-day scheduling and could be accommodated. That information didn't prove the programs would work, but it permitted early decisions about whether to keep moving forward, abandon the idea, or pivot the approach because of new insights or identified barriers. In less than 2 months, we ran half a dozen postpartum-hypertension mini-pilots sequentially, each addressing a question the previous pilot had raised.

Aiming to get sedentary people walking, we launched a walking contest using smartphone pedometers and a fake back end for data collection. A mini-pilot revealed that our design inadvertently motivated active people to walk even more — but demotivated the target population, who felt defeated when they lagged on leaderboards. But observation of potent social dynamics permitted identification of new kinds of social comparisons that could get people moving. A few days of testing yielded compelling insights that justified investing in larger, more definitive trials.

With these techniques, we can test ideas faster and at lower cost to determine which ones work. Some organizations have already improved health care by using these methods to identify the

intersection of human needs, business viability, and technical feasibility.<sup>5</sup> Collectively, rapid validation techniques make us optimistic about the enduring contribution of health care innovation. They support a culture of experimentation, in which front-line clinicians and employees can turn insights into initial data, with snippets of time and small budgets. Other industries have advanced these techniques, but health care can adapt them to do much more than just build the next app.


Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the Center for Health Care Innovation, University of Pennsylvania (D.A.A., R.R.), and the Center for Health Equity Research and Promotion, Philadelphia Veterans Affairs Medical Center (D.A.A.) — both in Philadelphia.

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 An audio interview with Dr. Asch is available at NEJM.org

years to conduct. A typical clinical trial fixes the intervention at the start, follows it through its course, and isn't translated into new knowledge until the unblinding at the end.<sup>4</sup> In contrast, successful new innovators ask, "What must be true for this idea to succeed?" and rapidly test critical assumptions in context.

Only days were required to learn that patients would text

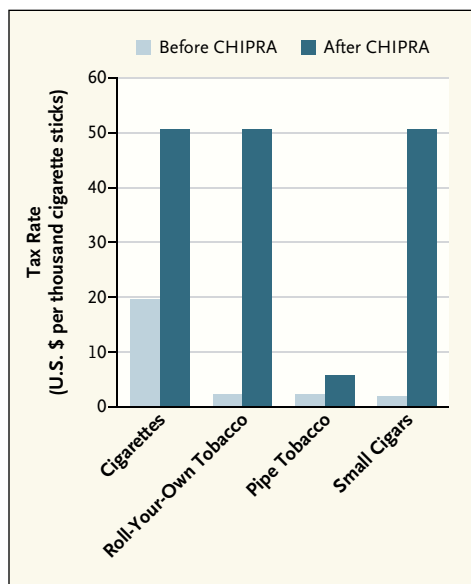
## Differential Taxes for Differential Risks — Toward Reduced Harm from Nicotine-Yielding Products

Frank J. Chaloupka, Ph.D., David Swenor, J.D., and Kenneth E. Warner, Ph.D.

In a January 2014 report that marked the 50th anniversary of the first Surgeon General's Report on Smoking and Health,

acting U.S. Surgeon General Boris Lushniak concluded that the enormous toll of tobacco-induced disease and death is

overwhelmingly the result of combustible tobacco use, specifically cigarette smoking. He called for a rapid reduction in



**Changes in Federal Excise Tax Rates for Tobacco Products as a Result of the Children's Health Insurance Program Reauthorization Act (CHIPRA) of 2009.**

Data are from the Government Accountability Office. The roll-your-own tobacco and pipe tobacco cigarette-stick equivalent is based on a weight of 0.0325 ounces of tobacco per cigarette stick (i.e., per cigarette), in accordance with the Master Settlement Agreement conversion rate.

the use of combustible products to reduce the related burden of illness.<sup>1</sup> We believe this goal could be achieved by imposing differential taxes on nicotine products — including sharply increased taxes on combustible products.

Today's nicotine consumer has a remarkable array of options, ranging from extremely low-risk products (nicotine-replacement products approved by the Food and Drug Administration [FDA]) to extraordinarily risky ones (cigarettes, which kill half of long-term users). Elsewhere on the spectrum are other lower-risk products, including low-nitrosamine smokeless tobacco products and electronic nicotine-delivery systems (ENDS, which include

e-cigarettes), and higher-risk products, including combustible tobacco products other than cigarettes (such as cigars, cigarillos, and hookah tobacco). Although no one has precisely characterized the relative risk associated with each of these products, research suggests that low-nitrosamine smokeless tobacco products pose no more than one tenth the risk of cigarettes, whereas the risk associated with other combustible-tobacco products may approach that of cigarettes.<sup>1</sup> Because ENDS products are so new and varied, the risk associated with them remains to be established, although early evidence suggests they are substantially less harmful than combustibles.<sup>2</sup>

Extensive research demonstrates that higher tobacco taxes can help promote quitting among current users, deter initiation among potential users, and reduce tobacco use among continuing users.<sup>3</sup> Studies have also shown that changes in the relative prices of tobacco products lead some tobacco users to switch to less expensive products.<sup>3</sup> Given the belief that all tobacco products are seriously deleterious to health, conventional wisdom in the tobacco-control world has long been that all products should be taxed similarly. For example, the World Health Organization states that adopting “comparable taxes and tax increases on all tobacco products” is a best practice for tobacco taxation.<sup>4</sup>

To some extent, the 2009 U.S. federal tobacco-tax increases reflected this strategy: taxes on historically lower-taxed products were increased by much more than taxes on products that had previously been taxed at higher

rates (see graph). Whereas the cigarette tax rose from \$0.39 to \$1.0067 per pack (a 158% increase), taxes on roll-your-own tobacco rose from \$1.0969 to \$24.78 per pound (a 2159% increase) and taxes on small cigars rose from \$1.828 to \$50.33 per 1000 (a 2653% increase). The snuff tax rose by the same 158% as the cigarette tax. Many states have taken a similar approach, increasing taxes on noncigarette tobacco products by a greater amount than taxes on cigarettes in order to achieve greater parity between products.

As sales of ENDS have skyrocketed, interest in taxing them has grown as well. As of early 2015, Minnesota and North Carolina were the only states that had adopted taxes on ENDS. Minnesota taxes ENDS as tobacco products, levying the same tax of 95% of wholesale price that it applies to snuff and chewing and smoking tobacco. In contrast, North Carolina created a new, very low, ENDS-specific tax of \$0.05 per milliliter of consumable solution. Several other states, counties, and cities are considering legislation to impose a tax on ENDS.

The rapid evolution of the nicotine-product marketplace suggests that it's time to rethink the idea that similar taxes are best practice. We believe that national, state, and local policymakers should consider an approach that differentially taxes nicotine products in order to maximize incentives for tobacco users to switch from the most harmful products to the least harmful ones. Sizable public health benefits could derive from current cigarette smokers' switching to ENDS and other noncombustible products, includ-

ing nicotine-replacement therapies (as the one type of nicotine product demonstrated to be safe, nicotine-replacement therapy should not be subject to any excise tax).<sup>1</sup>

Sweden, which has Europe's lowest tobacco-attributable mortality among men, provides a good example of how this approach can succeed. There, lower taxes on snus — a form of smokeless tobacco — contributed to many male cigarette smokers switching to snus. Women, however, did not switch to the same extent, which illustrates that price differentials alone are not always sufficient to achieve public health goals.<sup>5</sup>

lower-risk products while deterring users of lower-risk products from switching to more harmful ones. Higher prices for combustible products would have the added benefit of further reducing the likelihood that young people would take up smoking.

The current approach of imposing taxes on ENDS or raising taxes on cigarettes and other combustible products by the same amount as taxes on snus and other smokeless products has the opposite effect: it discourages tobacco users from switching to reduced-risk products, encourages dual use, and increases the likelihood that young people who initiate nicotine use will start with

between combustible and non-combustible tobacco products is well established.

Given the FDA's regulatory authority over the manufacture, distribution, and marketing of tobacco products, a differential taxation strategy could be complemented by other policies, such as restrictions on ENDS marketing and strong product standards, to maximize public health benefit. Perhaps most important, as proposed in the FDA's recent "deeming" rule, the agency's authority over tobacco products could be extended to cover additional products including ENDS, opening up such items to new regulation. Policymakers could then make a product's eligibility for a lower tax rate dependent on the FDA's determination that it poses substantially reduced risk.

We believe that implementing differential taxes on nicotine-yielding products on the basis of degree of risk could substantially expedite the move away from cigarette smoking that has occurred during the past half-century, especially now that there are nicotine-yielding products that pose dramatically less danger than combustible tobacco products. Nearly a fifth of U.S. adults are cigarette smokers, and smoking accounts for one of every five deaths in the United States. Failure to seriously entertain a differential taxation approach may contribute to the prolongation of the epidemic of disease and death caused by smoking.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

From the University of Illinois at Chicago, Chicago (F.J.C.); the University of Ottawa, Ottawa (D.S.); the University of Notting-

***Policymakers should consider an approach that differentially taxes nicotine products in order to maximize incentives for tobacco users to switch from the most harmful products to the least harmful ones.***

The manner in which a differential taxation system is implemented will determine how well it works as a harm-reduction strategy. To alleviate concerns that low prices on ENDS and lower-risk tobacco products might encourage uptake among young people, taxes on such products could be set high enough to discourage initiation. At the same time, taxes on combustible products could be further increased in order to raise their prices relative to less harmful noncombustible products. Such a strategy would maximize the likelihood of current smokers switching to

the most dangerous products.

A differential taxation strategy is not without potential problems. Decades ago, proposals were floated to tax cigarettes at different rates on the basis of tar and nicotine content. The United Kingdom and New York City adopted this approach, briefly levying special taxes on high-tar cigarettes. As evidence grew that cigarettes with lower tar and nicotine levels were no less dangerous, however, public health authorities realized that a differential taxation strategy was undesirable. Yet today the science supporting a difference in risk

ham, Nottingham, United Kingdom (D.S.); and the University of Michigan, Ann Arbor (K.E.W.).

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## Original Investigation | Substance Use and Addiction

# Associations of Flavored e-Cigarette Uptake With Subsequent Smoking Initiation and Cessation

Abigail S. Friedman, PhD; SiQing Xu, BS

## Abstract

**IMPORTANCE** Several states have banned sales of flavored e-cigarettes, but evidence on the association between vaping flavors and subsequent smoking initiation and cessation is limited.

**OBJECTIVE** To evaluate whether new uptake of flavored e-cigarettes is more strongly associated with subsequent smoking initiation and cessation than uptake of unflavored e-cigarettes, separately for youths (12-17 years), emerging adults (18-24 years), and prime-age adults (25-54 years).

**DESIGN, SETTING, AND PARTICIPANTS** This cohort study conducted secondary data analyses of longitudinal survey data from waves 1 to 4 of the Population Assessment of Tobacco and Health Study (collected from 2013 to 2018). The analytic sample was limited to 17 929 respondents aged 12 to 54 years at wave 1 who completed at least 3 consecutive waves of the survey and did not use e-cigarettes at baseline. Data were collected from 2013 to 2018 and analyzed in February 2020.

**EXPOSURES** Flavored vs unflavored e-cigarette use reported in wave 2 of the Population Assessment of Tobacco and Health Study.

**MAIN OUTCOMES AND MEASURES** Binary indicators captured wave 3 smoking among 7311 youths and 4634 emerging adults who did not smoke at baseline (ie, initiation) and not smoking at wave 3 among 1503 emerging adults and 4481 prime-age adults who smoked at baseline (ie, cessation). Smoking status was based on having smoked in the past 30 days for youths and established smoking (ie, current smoking among those who smoked at least 100 cigarettes in their lifetime) for emerging and prime-age adults.

**RESULTS** The youths who did not smoke at baseline, emerging adults who smoked at baseline, and prime-age adults who smoked at baseline consisted of 51.4% to 58.0% male participants and 66.9% to 77.0% white individuals. Vaping uptake was positively associated with smoking initiation in youth (adjusted odds ratio [AOR], 6.75; 95% CI, 3.93-11.57;  $P < .001$ ) and in emerging adults (AOR, 3.20; 95% CI, 1.70-6.02;  $P < .001$ ). Vaping uptake was associated with cessation in adults (AOR, 1.34; 95% CI, 1.02-1.75;  $P = .03$ ). Vaping nontobacco flavors was no more associated with youth smoking initiation than vaping tobacco-flavors (AOR in youth, 0.66; 95% CI, 0.16-2.76;  $P = .56$ ) but was associated with increased adult smoking cessation (AOR in adults, 2.28; 95% CI, 1.04-5.01;  $P = .04$ ).

**CONCLUSIONS AND RELEVANCE** In this study, adults who began vaping nontobacco-flavored e-cigarettes were more likely to quit smoking than those who vaped tobacco flavors. More research is needed to establish the relationship between e-cigarette flavors and smoking and to guide related policy.

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Corrected on June 26, 2020. doi:10.1001/jamanetworkopen.2020.3826

## Key Points

**Question** Does the association between vaping uptake and subsequent smoking differ between individuals favoring tobacco- vs nontobacco-flavored e-cigarettes?

**Findings** In this cohort study with 17 929 participants, multivariable analyses of nationally representative, longitudinal survey data evaluated differences in smoking initiation and cessation subsequent to vaping uptake among those who used flavored vs unflavored e-cigarettes, separately by age group. Relative to vaping tobacco flavors, vaping nontobacco-flavored e-cigarettes was not associated with increased youth smoking initiation but was associated with an increase in the odds of adult smoking cessation.

**Meaning** In this study, adults who vaped flavored e-cigarettes were more likely to subsequently quit smoking than those who used unflavored e-cigarettes.

## + Editorial

## + Supplemental content

Author affiliations and article information are listed at the end of this article.

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## Introduction

With increasing e-cigarette use, flavored e-cigarettes and their appeal to youths have become a prominent concern. Advocacy groups and the American Academy of Pediatrics emphasize that nontobacco flavors may motivate youth vaping (ie, e-cigarette use) and increase conventional cigarette use (smoking).<sup>1-3</sup> Given these concerns, the US Food and Drug Administration announced that it will enforce sales restrictions on e-cigarette cartridges with flavors other than tobacco and menthol unless the product has obtained Food and Drug Administration premarket authorization. However, industry representatives claim that such flavors are critical to attracting adults who smoke and want to quit.<sup>4-6</sup> The tension between these perspectives—nontobacco flavors as a risk to youth vaping initiation vs a boon for adult smoking cessation—remains unresolved. Because vaping's effect on conventional smoking is central to its health influence, understanding how flavored e-cigarette use is related to smoking initiation and cessation is critical to guiding policy. Henceforth, flavored and unflavored e-cigarettes refer to nontobacco (eg, fruit, candy, menthol, mint) and tobacco flavors, respectively.

Randomized clinical trials show that e-cigarettes can aid in adult smoking cessation.<sup>7-11</sup> These findings may apply to adolescents who smoke, although that evidence is less robust.<sup>12</sup> Concurrently, a meta-analysis of research on e-cigarettes and youth smoking initiation finds "strong and consistent evidence of an association between initial e-cigarette use and subsequent cigarette smoking initiation."<sup>13</sup> A recent analysis using Population Assessment of Tobacco and Health Study data<sup>2</sup> found that previous e-cigarette use was associated with a 4-fold increase in youths' risk of ever using conventional cigarettes relative to youths who had not vaped.

The association between e-cigarette flavors and smoking is of particular interest. Qualitative evidence suggests young adults who smoke perceive flavors as helpful in cutting down conventional cigarette use.<sup>14</sup> However, a cross-sectional analysis of middle and high school students who had never smoked found stronger intentions to try conventional cigarettes among those using flavored rather than unflavored e-cigarettes.<sup>15</sup> Furthermore, new use of 1 tobacco product is more strongly associated with continued use of that product 1 year later for flavored rather than unflavored products.<sup>16,17</sup> However, the association of flavors in one product with use of another remains unclear.

Bans on conventional cigarette flavors other than tobacco and menthol do not apply to e-cigarettes.<sup>18</sup> In 2018, San Francisco banned sales of flavored tobacco products, including flavored e-cigarettes.<sup>19</sup> In March 2019, Congresswoman Diana DiGette filed legislation to ban e-cigarette flavors that attract youths unless manufacturers proved they did not contribute to the increase in youth vaping.<sup>20</sup> Michigan banned flavored e-cigarette sales that September, followed by New York and other states. Some of these bans have since been stayed by the courts. Similar legislation is under consideration at the federal level.

It remains unclear whether flavor bans benefit public health. Current evidence on how flavor bans affect smoking is limited to hypothetical choice experiments. These studies generally suggest that flavor options (beyond menthol and tobacco) affect both youth and adult consumers' preferences for e-cigarettes.<sup>21</sup> However, 1 study found that although interest in e-cigarettes among adults who smoke varied with flavor descriptors, interest among adolescents who do not smoke did not.<sup>22</sup> A separate analysis of individuals aged 18 to 64 years who currently smoke or recently quit smoking concluded that a federal ban on e-cigarette flavors would increase smoking, whereas banning menthol conventional cigarettes would reduce smoking.<sup>23</sup>

To inform this debate, we used nationally representative, longitudinal data from the Population Assessment of Tobacco and Health Study to estimate the association between e-cigarette flavor choice and smoking initiation among those who did not smoke at baseline as well as cessation among those who did smoke at baseline, separately for youths (12-17 years), emerging adults (18-24 years), and prime-age adults (25-54 years). Previous research with these data suggests that vaping may contribute to youth smoking initiation.<sup>2</sup> This article expands on that work not only by assessing how vaping uptake relates to smoking among emerging and prime-age adults and youths but also by

evaluating whether these associations differ between those using flavored vs unflavored e-cigarettes. We hypothesized that vaping uptake would be associated with increased youth and emerging adult initiation as well as increased emerging and prime-age adult cessation but that these associations would not vary by flavored vs unflavored e-cigarette use.

## Methods

### Data

Analyses considered public-use data from waves 1 to 4 of the Population Assessment of Tobacco and Health Study. This longitudinal survey's cohort was selected via a multistage, stratified probability sample, such that weighted analyses were nationally representative for the noninstitutionalized US civilian population.<sup>24</sup> Wave 1 response rates were 75% and 78% for the youth and adult samples, respectively. Wave 3 response rates (within the wave 1 cohort) were 78% and 83%, respectively.<sup>25</sup> Wave 1 was administered from September 2013 through December 2014, wave 2 from October 2014 to October 2015, wave 3 from October 2015 to October 2016, and wave 4 from December 2016 to January 2018. Alongside demographic characteristics, the Population Assessment of Tobacco and Health Study collected data on tobacco use and product characteristics, with separate youth (12-17 years) and adult ( $\geq 18$  years) surveys. Responses were collected with audio computer-assisted self-interviewing in English or Spanish. Although not included in the public-use data, biospecimens related to tobacco exposure were collected from consenting nonminor respondents. This sample has been described in detail elsewhere.<sup>26,27</sup> Yale University's institutional review board deemed this study exempt from review, given the use of publicly available deidentified data. This study followed Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guidelines.

### Study Population

Analyses required 3 consecutive waves of data to consider whether individuals who began vaping between waves 1 and 2 were more or less likely to either initiate or quit smoking—depending on their baseline smoking status—by wave 3. Stratifying by baseline smoking status yielded 4 analytic samples, all limited to those who did not vape at baseline, as follows: youths who did not smoke at baseline (aged 12-17 years;  $n = 7311$ ), emerging adults who did not smoke at baseline (aged 18-24 years;  $n = 4634$ ), emerging adults who smoked at baseline ( $n = 1503$ ), and prime-age adults who smoked at baseline (aged 25-54 years;  $n = 4481$ ) (eAppendix in the [Supplement](#)). Youth cessation and prime-age initiation were not considered because these events were rare in the data and may have been less likely to reflect true instances of quitting or new initiation (because of potential relapse).

### Outcome of Interest

Outcomes were binary indicators for self-reported smoking at wave 3 among those who did not smoke at wave 1 (ie, initiation) and reporting not smoking at wave 3 among those who did smoke at wave 1 (ie, cessation). To distinguish regular use from experimentation, adult smoking status was based on established smoking (ie, respondents who had smoked at least 100 cigarettes in their lifetime and currently smoked every day or some days). The youth survey did not ask about established smoking, so youth smoking status was based on recent smoking (ie, smoked in the past 30 days).

### Exposures

#### Vaping Status

With respondents who vaped at wave 1 omitted from the analytic sample, a binary indicator for wave 2 e-cigarette use was used to capture new vaping uptake. Including those who vaped at baseline could have biased results, because those who vaped for a long time may have had different smoking initiation and cessation patterns than those who recently started vaping. The public-use data did not

report time since vaping initiation among those who vaped at wave 1. As with smoking, vaping indicators signified recent vaping (ie, past 30 days) for youths but were more consistent with established use for adults (ie, ever used an e-cigarette, have ever used fairly regularly, and currently use every day or some days).

### Flavor Preferences

A categorical variable classified e-cigarette use as nontobacco flavored, tobacco flavored, or missing. For adults, this was based on a yes, no, or missing response regarding whether their "regular or last brand of e-cigarettes used was flavored to taste like menthol, mint, clove, spice, fruit, chocolate, alcoholic drinks, candy, or other sweets." Youth flavor preferences were coded similarly; the only difference was that their survey asked about use in the past 30 days instead of regular or last brand used.

### Additional Controls

Given well-established differentials in smoking behavior by sex, age, race/ethnicity, income, and education, controls adjusted for these traits to ensure that basic demographic differences in e-cigarette product choice did not drive findings. Demographic controls were binary indicators for self-reported sex, age group (binned by Population Assessment of Tobacco and Health Study public-use data at 12-14, 15-17, 18-24, 25-34, 35-44, and 45-54 years), race (aggregated by the study's public-use data to white, black, and other), and Hispanic ethnicity, with separate indicators for missing sex, race, and ethnicity observations.

Categorical income and education measures provided socioeconomic status controls.

Household income observations came from wave 1 for adults and, because income was not reported in wave 1 public-use youth data, wave 2 for youths. Youth analyses controlled for wave 1 parental education (<high school, high school graduate or equivalent, some college or associate's degree, college graduate or more, and missing). Adult analyses controlled for a binary respondent education indicator (completed any college) at wave 3 to avoid conflating completed with ongoing education.

Additional controls included an indicator for having ever tried cigarettes at baseline to account for baseline propensity to smoke in initiation analyses. Because favoring tobacco flavors might reflect an underlying desire to smoke, an additional control was considered to help adjust for selection bias in flavor-choice analyses, ie, a binary indicator for using e-cigarettes because "it feels like smoking a regular cigarette" at wave 2.

### Statistical Analysis

First, sample-weighted summary statistics characterized tobacco use and demographic characteristics by age group and wave 2 vaping status. Next,  $\chi^2$  tests compared wave 3 smoking initiation and cessation by wave 2 vaping status and flavor choice for each age group. Finally, sample-weighted multivariable logistic regressions estimated how vaping uptake (between waves 1 and 2) was associated with smoking initiation and cessation by wave 3, and, limiting consideration to individuals who took up vaping, whether these associations differed by flavored vs unflavored e-cigarette use. All analyses adjusted for the aforementioned sociodemographic controls and, for initiation analyses, whether the respondent had ever tried conventional cigarettes at baseline.

For flavor analyses, specification checks added a control for respondents who cited that vaping feels like a cigarette as a reason they vape to help clarify whether estimated associations between flavored vs unflavored e-cigarette use and smoking were explained by selection bias in flavor choice. Sensitivity checks considered pooling emerging and prime-age adults to address small cessation analysis samples, using wave 4 smoking initiation or cessation as the outcome variable to assess longer-term relationships, and providing unweighted regressions for reference. Analyses were performed with Stata version 14.1 (StataCorp), applying svy commands to account for complex sample design, and reporting 2-tailed tests of statistical significance at the  $P < .05$  level. Multiple imputation was not used because tobacco use nonresponse is unlikely to be missing at random.

## Results

### Summary Statistics and Cross-Tabulations

Among those who did not smoke at baseline, the analytic sample was 51.36% male individuals (95% CI, 50.01%-52.70%) and 66.91% white individuals (95% CI, 64.22%-69.48%) for youths (n = 7311) and 47.46% male individuals (95% CI, 45.96%-48.97%) and 66.51% white individuals (95% CI, 62.62%-68.30%) for emerging adults (n = 4634) (**Table 1** [pooled results not shown]). Compared with those who did not vape at wave 2, those who took up vaping between waves 1 and 2 showed

Table 1. Summary Statistics for Those Who Did Not Smoke or Vape at Baseline, Among Youths and Emerging Adults<sup>a</sup>

Wave 2 vaping status	Vaped, % (95% CI)			
	No	Yes	Flavored	Unflavored
<b>Youths (12-17 y)</b>				
No.	7096	164	129	14
Ever tried cigarettes, wave 1	4.86 (4.24-5.57)	22.77 (15.79-31.67)	21.64 (14.64-30.78)	35.56 (10.63-71.91)
Smoked in past 30 d, wave 3	2.84 (2.40-3.35)	21.80 (16.16-28.73)	19.47 (13.82-26.71)	41.76 (14.80-74.74)
Male youths	51.18 (49.79-52.57)	56.69 (48.41-64.62)	57.19 (48.20-65.73)	42.83 (19.96-69.23)
<b>Race</b>				
White	66.88 (64.15-69.51)	74.56 (68.05-80.14)	72.36 (64.74-78.88)	88.68 (58.33-97.77)
Black	15.28 (13.27-17.53)	7.84 (4.57-13.14)	7.49 (3.64-14.79)	6.82 (0.75-41.53)
Other	13.68 (12.28-15.21)	13.53 (8.94-19.95)	16.32 (10.56-24.37)	0
Hispanic	22.40 (19.66-25.41)	20.64 (14.96-27.77)	19.95 (13.98-27.66)	23.39 (7.74-52.63)
<b>Parental education</b>				
<High school	17.18 (15.67-18.79)	18.78 (13.01-26.32)	20.11 (13.62-28.68)	20.94 (5.93-52.66)
High school graduate	17.35 (16.14-18.63)	19.58 (13.71-27.18)	18.43 (12.07-27.10)	29.31 (6.92-69.80)
Some college	30.79 (28.96-32.68)	30.60 (23.98-38.14)	34.14 (26.29-42.98)	4.69 (0.51-32.26)
≥College degree	34.17 (31.60-36.83)	31.04 (23.27-40.04)	27.32 (19.32-37.10)	45.07 (17.88-75.56)
<b>Parental household income, \$</b>				
<10 000	7.23 (6.21-8.40)	7.76 (4.36-13.46)	7.53 (3.83-14.27)	10.71 (2.06-40.67)
10 000-24 999	13.86 (12.64-15.19)	15.76 (11.23-21.67)	16.13 (10.33-24.30)	21.29 (3.53-66.65)
25 000-49 999	20.02 (18.78-21.32)	17.99 (12.08-25.94)	14.65 (8.83-23.31)	29.99 (9.57-63.43)
50 000-99 999	23.41 (22.15-24.72)	28.54 (21.19-37.23)	28.11 (20.24-37.60)	21.46 (5.50-56.17)
≥100 000	23.61 (21.61-25.73)	21.82 (14.33-31.77)	23.79 (15.61-34.50)	16.55 (3.44-52.46)
<b>Emerging adults (18-24 y)</b>				
No.	4517	102	92	8
Ever tried cigarettes, wave 1	40.03 (38.00-42.10)	67.52 (54.51-78.29)	69.41 (56.08-80.13)	47.51 (11.97-85.77)
Established smoking, wave 3	5.34 (4.69-6.06)	21.91 (14.68-31.39)	23.79 (15.96-33.91)	8.17 (0.70-52.74)
Male emerging adults	47.00 (45.43-48.57)	65.73 (54.90-75.14)	62.68 (51.39-72.74)	93.84 (55.01-99.48)
<b>Race</b>				
White	65.44 (62.53-68.24)	71.25 (59.28-80.83)	70.48 (57.92-80.55)	74.59 (31.84-94.86)
Black	15.50 (13.46-17.79)	11.38 (6.29-19.71)	10.93 (5.76-19.77)	16.52 (2.49-60.57)
Other	15.36 (13.46-17.49)	13.51 (6.94-24.66)	14.22 (7.00-26.76)	8.89 (0.77-55.08)
Hispanic	21.82 (19.29-24.57)	23.22 (14.82-34.45)	25.18 (15.92-37.43)	8.89 (0.77-55.08)
Any college at baseline	59.40 (57.26-61.51)	39.77 (29.69-50.81)	42.26 (31.37-53.97)	17.07 (2.76-59.86)
<b>Household income, \$</b>				
<10 000	24.17 (22.47-25.94)	22.85 (15.25-32.78)	24.48 (16.11-35.37)	0
10 000-24 999	20.14 (18.46-21.93)	23.87 (14.94-35.88)	24.64 (14.93-37.84)	19.94 (3.26-64.76)
25 000-49 999	16.89 (15.56-18.30)	14.82 (8.10-25.56)	13.13 (7.00-23.27)	31.14 (4.62-80.86)
50 000-99 999	15.40 (14.16-16.73)	12.83 (7.19-21.88)	13.59 (7.40-23.62)	7.77 (0.67-51.33)
≥100 000	10.64 (9.25-12.22)	12.04 (6.03-22.59)	8.83 (3.94-18.60)	41.15 (8.55-83.94)

<sup>a</sup> Sample-weighted means use data from Population Assessment of Tobacco and Health Study waves 1 to 3. Age groups are based on age at wave 1. A total of 51 youths and 15 emerging adults lacked wave 2 vaping data. Among those who vaped at wave 2, flavor preference was missing for 14 youths and 2 emerging adults. Sex, race, Hispanic

ethnicity, (parental) education, and (parental) income were missing in 0.26%, 4.18%, 2.33%, 0.50%, and 11.78% of youth observations, respectively; for emerging adults, the corresponding percentages were 0.9%, 3.68%, 0.45%, 0.44%, and 12.88%.

elevated rates of both having tried a conventional cigarette at baseline (youths: 4.86% [95% CI, 4.24%-5.57%] vs 22.77% [15.79%-31.67%];  $P < .001$ ; emerging adults: 40.03% [95% CI, 38.00%-42.10%] vs 67.52% [95% CI, 54.51%-78.29%];  $P < .001$ ) and smoking at wave 3 (youths: 2.84% [95% CI, 2.40%-3.35%] vs 21.80% [95% CI, 16.16%-28.73%];  $P < .001$ ; emerging adults: 5.34% [95% CI, 4.69%-6.06%] vs 21.91% [95% CI, 14.68%-31.39%];  $P < .001$ ) (Table 1). Comparing wave 3 smoking rates between those who did not smoke at baseline and vaped flavored vs unflavored e-cigarettes showed no statistically significant differences in smoking initiation by flavor choice.

Emerging adults ( $n = 1503$ ) and prime-age adults ( $n = 4481$ ) who smoked at baseline were also primarily male and white individuals (male emerging adults: 57.97% [95% CI, 55.03%-60.86%]; male prime-age adults: 55.18% [53.48%-56.87%]; white emerging adults: 76.00% [95% CI, 72.92%-78.82%]; white prime-age adults: 76.96% [95% CI, 74.17%-79.53%]) (Table 2 [pooled results not shown]). Although prime-age adults who began vaping by wave 2 were more likely to quit

Table 2. Summary Statistics for Those Who Smoked and Did Not Vape at Baseline, Among Emerging and Prime-Age Adults<sup>a</sup>

Wave 2 vaping status	Vaped, % (95% CI)			
	No	Yes	Flavored	Unflavored
<b>Emerging adult (18-24 y)</b>				
No.	1343	158	128	23
Did not smoke, wave 3	20.11 (17.53-22.97)	23.55 (16.99-31.68)	26.86 (19.21-36.18)	12.53 (3.71-34.76)
Male emerging adults	57.72 (54.58-60.80)	60.14 (53.39-66.54)	56.72 (49.56-63.61)	77.44 (55.84-90.31)
Race				
White	75.33 (72.08-78.31)	81.97 (75.16-87.23)	81.35 (73.15-87.47)	82.95 (63.87-93.05)
Black	12.05 (9.71-14.85)	5.42 (2.66-10.70)	6.15 (2.90-12.57)	3.04 (0.37-20.90)
Other	10.13 (8.18-12.48)	10.41 (6.58-16.08)	9.78 (5.53-16.70)	14.01 (5.22-32.49)
Hispanic	14.82 (12.09-18.04)	13.33 (8.84-19.62)	14.39 (9.00-22.24)	11.50 (3.40-32.45)
Any college at baseline	45.69 (42.53-48.89)	48.24 (39.89-56.68)	48.57 (38.67-58.58)	39.00 (20.18-61.77)
Education at baseline missing	0.32 (0.11-0.93)	0.72 (0.10-5.04)	0.89 (0.12-6.14)	0
Household income, \$				
<10 000	29.64 (26.98-32.45)	29.65 (22.02-38.62)	26.49 (18.98-35.67)	42.22 (22.97-64.16)
10 000-24 999	26.81 (24.16-29.63)	25.26 (19.21-32.45)	26.02 (19.41-33.93)	24.46 (10.50-47.18)
25 000-49 999	19.15 (16.67-21.89)	18.03 (12.85-24.71)	16.36 (10.98-23.69)	26.17 (13.04-45.58)
50 000-99 999	10.54 (8.84-12.52)	12.43 (7.87-19.07)	14.64 (9.09-22.75)	4.05 (0.50-26.20)
≥100 000	5.83 (4.33-7.82)	4.63 (2.33-8.99)	5.17 (2.53-10.25)	3.11 (0.38-21.26)
<b>Prime-age adult (25-54 y)</b>				
No.	4120	339	219	109
Did not smoke, wave 3	13.48 (12.21-14.86)	18.81 (14.55-23.98)	21.70 (16.46-28.05)	12.16 (6.45-21.75)
Male prime-age adults	54.96 (53.17-56.74)	57.69 (51.52-63.63)	54.75 (48.38-60.97)	60.70 (47.90-72.19)
Race				
White	76.17 (73.30-78.82)	86.05 (79.84-90.57)	83.95 (75.40-89.93)	92.65 (85.88-96.31)
Black	15.02 (12.68-17.70)	6.08 (3.48-10.43)	8.33 (4.52-14.85)	0.91 (0.12-6.57)
Other	7.40 (6.54-8.48)	7.29 (4.42-11.79)	7.45 (4.12-13.10)	5.23 (2.44-10.85)
Hispanic	12.38 (10.53-14.51)	5.96 (3.62-9.66)	6.77 (4.06-11.09)	3.43 (0.95-11.70)
Any college at baseline	44.71 (42.85-46.59)	52.42 (45.44-59.32)	55.34 (47.25-63.17)	46.04 (34.49-58.04)
Education at baseline missing	0.64 (0.36-1.14)	0.59 (0.13-2.65)	0.97 (0.21-4.29)	0
Household income, \$				
<10 000	19.30 (17.72-20.99)	19.21 (15.05-24.19)	20.24 (14.73-27.16)	14.36 (8.99-22.16)
10 000-24 999	23.74 (22.14-25.41)	21.34 (16.60-27.01)	20.23 (14.52-27.47)	24.21 (15.86-35.11)
25 000-49 999	24.44 (23.01-25.92)	25.88 (21.39-30.94)	24.13 (18.56-30.74)	30.01 (21.02-40.85)
50 000-99 999	19.20 (17.62-20.87)	15.70 (11.73-20.70)	18.74 (13.20-25.90)	11.06 (6.78-17.53)
≥100 000	6.30 (5.41-7.32)	11.14 (7.48-16.28)	11.83 (7.71-17.73)	10.56 (4.78-21.74)

<sup>a</sup> Sample-weighted means use data from Population Assessment of Tobacco and Health Study waves 1 to 3. Age groups are based on age at wave 1. Two emerging adults and 22 prime-age adults lacked wave 2 vaping data. Among individuals who vaped at wave 2, flavor preference was missing for 7 emerging and 11 prime-age adults. Race, Hispanic

ethnicity, education, and income were missing in 2.47%, 0.53%, 0.36%, and 8.23% of emerging adult observations, respectively. For prime-age adults, percentage missing for wave 3 smoking status, sex, race, Hispanic ethnicity, education, and income were 0.12%, 0.06%, 1.36%, 1.53%, 0.63%, and 7.10%, respectively.

smoking by wave 3 compared with those who did not vape (18.81% [95% CI, 14.55%-23.98%] vs 13.48% [95% CI, 12.21%-14.86%];  $P = .02$ ), this difference was not statistically significant for emerging adults. For both emerging and prime-age adults who took up vaping between waves 1 and 2, differences in smoking cessation rates by flavor choice were not statistically significant.

### Vaping, Smoking Initiation, and Smoking Cessation

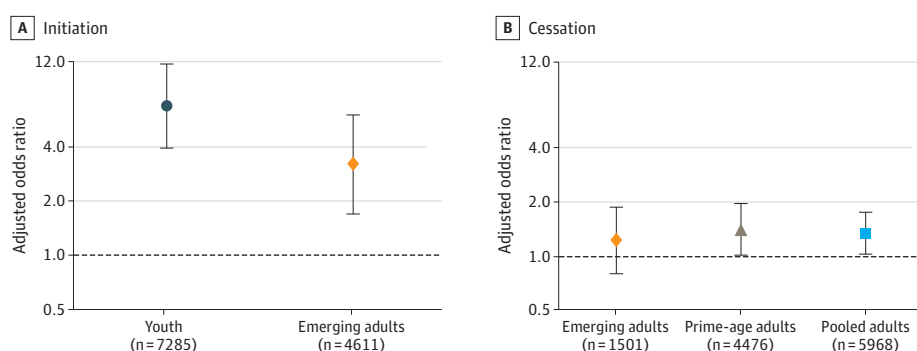
**Figure 1** presents adjusted odds ratios (AORs) for the association of vaping uptake with smoking initiation or cessation by wave 3, along with corresponding 95% CIs. Consistent with previous research, new vaping was positively associated with smoking initiation by wave 3 for youths (AOR, 6.75; 95% CI, 3.93-11.57;  $P < .001$ ) and emerging adults (AOR, 3.20; 95% CI, 1.70-6.02;  $P < .001$ ). This association held for smoking initiation by wave 4 as well, with AORs of 5.62 for both youths (95% CI, 3.17-9.96;  $P < .001$ ) and emerging adults (95% CI, 2.99-10.56;  $P < .001$ ) (eTable 1 in the [Supplement](#)). Unweighted analyses yielded similar implications (eTable 2 in the [Supplement](#)).

For individuals who smoked at baseline, vaping was associated with increased cessation among prime-age adults (AOR, 1.40; 95% CI, 1.01-1.96;  $P = .046$ ). Although the AOR was not statistically significant for emerging adults (AOR, 1.22; 95% CI, 0.80-1.86;  $P = .36$ ), it was significant in the pooled analyses for those aged 18 to 54 years (AOR, 1.34; 95% CI, 1.02-1.75;  $P = .03$ ). Both findings became insignificant when wave 4 cessation was considered, although unweighted regressions yielded prime-age findings that were significant for cessation at both wave 3 (AOR, 1.49; 95% CI, 1.11-2.00;  $P = .01$ ) and wave 4 (AOR, 1.38; 95% CI, 1.02-1.87;  $P = .04$ ) (eTable 3 and eTable 4 in the [Supplement](#)).

### e-Cigarette Flavor Choice, Smoking Initiation, and Smoking Cessation

**Figure 2** presents AORs evaluating whether the association of e-cigarette use with subsequent smoking differed for flavored vs unflavored e-cigarettes. For both youths and emerging adults, the association of flavored e-cigarette use and smoking initiation was not significantly different from that for unflavored e-cigarette use (AOR for youth, 0.66; 95% CI, 0.16-2.76;  $P = .56$ ; AOR for emerging adults, 3.15; 95% CI, 0.14-71.78;  $P = .46$ ). Estimates remained statistically insignificant and moved slightly closer to 1 when controlling for whether respondents reported “it feels like a cigarette” as a reason for e-cigarette use (eTable 5 in the [Supplement](#)). However, this sensitivity check yielded a significant inverse association between flavored e-cigarette use and youth initiation by wave 4 (AOR,

Figure 1. Adjusted Odds Ratios for the Association of Vaping Uptake With Subsequent Smoking Behavior



Adjusted odds ratios and 95% CIs are presented from sample-weighted logistic regressions using data from waves 1 to 3 of the Population Assessment of Tobacco and Health Study. Vaping is defined as e-cigarette use in the past 30 days for youths and current established e-cigarette use for emerging and prime-age adults. Regressions controlled for fixed effects for male sex, race (black and other, with white as the reference group), Hispanic ethnicity, age group, household income categories (wave 2 parental reports for youths, wave 1 self-reports for adults), and (for initiation analyses only) an indicator for having ever tried conventional cigarettes at wave 1 as well as a missing-observation indicator for each of these variables. Additionally, youth regressions

controlled for parental education at baseline (high school graduate or equivalent, some college, and  $\geq$  college graduate, with <high school graduate as the reference group), whereas adult regressions controlled for a binary indicator of completing any college to reflect adults' own education at baseline. In youth and emerging adult initiation analyses, 19 and 4 respondents, respectively, with missing sex observations were omitted because the sex nonresponse indicator perfectly predicted initiation. Two respondents' data were omitted from the prime-age and pooled adult cessation analyses for the same reason. The full regression output is available in eTable 1 and eTable 3 in the [Supplement](#).

0.25; 95% CI, 0.06-1.00;  $P = .049$ ) (eTable 5 in the [Supplement](#)), with similar point estimates in unweighted analyses (eTable 6 in the [Supplement](#)).

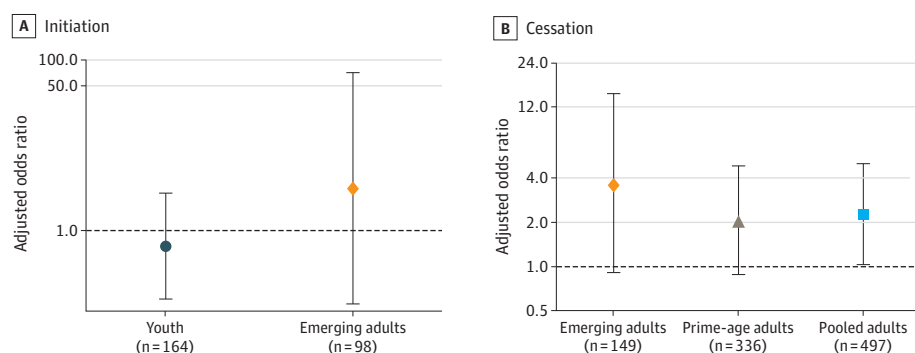
For those who smoked at baseline, preferring flavored e-cigarettes had positive but statistically insignificant associations with emerging and prime-age adult cessation separately (eTable 7 and eTable 8 in the [Supplement](#)), but a significant association when these groups were pooled (AOR, 2.28; 95% CI, 1.04-5.01;  $P = .04$ ) (eTable 9 in the [Supplement](#)). The latter estimate remained significant when adjusted for selection (AOR, 2.28; 95% CI, 1.04-4.99;  $P = .04$ ) and in unweighted analyses (eTable 9 and eTable 10 in the [Supplement](#)).

## Discussion

This study's findings support both sides of the current argument about the relationship between vaping and smoking: e-cigarette uptake is associated with increased youth and emerging adult smoking initiation but also increased cessation among prime-age adults who smoked at baseline. Comparing subsequent smoking behavior by uptake of flavored vs unflavored e-cigarettes yielded unexpected findings. Favoring flavored e-cigarettes was not associated with greater youth smoking initiation but was associated with greater adult smoking cessation; specifically, among adults who smoked and began vaping, the odds of cessation for those favoring nontobacco flavors were 2.3 times that of those who used tobacco-flavored e-cigarettes. Because early smoking cessation has substantial health benefits, with those who quit smoking before age 35 years experiencing a life expectancy similar to that of those who never smoked, increased cessation among individuals aged 18 to 54 years has substantive implications for population health.<sup>28,29</sup>

This study makes several contributions to the literature. To our knowledge, it constitutes the first analysis using nationally representative, longitudinal data to evaluate associations between e-cigarette flavor preferences and subsequent smoking behavior by age group, and thus provides critical evidence to inform the current policy debate. Additionally, by conducting analyses separately by age group, this work brings together 2 sets of literature that are often treated separately: the first, on vaping and youth smoking initiation; the second, on vaping and adult smoking cessation. Estimating these associations side by side allows a more comprehensive conversation about the

Figure 2. Adjusted Odds Ratios for the Relative Association of Flavored vs Unflavored Vaping Uptake With Subsequent Smoking



Adjusted odds ratios and 95% CIs are presented from sample-weighted logistic regressions using data from waves 1 to 3 of the Population Assessment of Tobacco and Health Study. Use of flavored vs unflavored e-cigarettes was attained from respondents categorized as vaping in wave 2. All regressions controlled for fixed effects for male sex, race (black and other, with white as the reference group), Hispanic, age group, household income categories (wave 2 parental reports for youths, wave 1 self-reports for adults), and (for initiation analyses only) an indicator for having ever tried conventional cigarettes at wave 1, as well as missing-observation indicators for each of these variables. Additionally, youth regressions controlled for baseline parental education (high school graduate or equivalent, some college, and  $\geq$  college graduate, with <high school

graduate as the reference group), whereas adult regressions controlled for a binary indicator of completing any college to reflect adults' own education at baseline. The emerging adult initiation analysis omitted data for 2 respondents with missing e-cigarette flavors, 1 respondent with missing Hispanic ethnicity, and 1 respondent with missing baseline education because of perfect predictivity. The emerging adult cessation analysis omitted data for 7 respondents with missing flavor responses, 1 with missing Hispanic ethnicity, and 1 with missing baseline education. The prime-age adult analysis omitted 3 responses with missing race. See eTables 5, 7, and 9 in the [Supplement](#) for full regression output.

relationship between e-cigarettes, smoking, and health, without privileging a single demographic group above another. Finally, this analysis distinguishes emerging and prime-age adults, 2 groups often evaluated as 1 but among whom smoking cessation may have very different implications for long-term health outcomes.

Critically, this study's findings suggest that efforts to ban flavored e-cigarettes could increase smoking: nontobacco flavors were no more strongly associated with youth smoking initiation than tobacco flavors but were more strongly associated with adult cessation. Given limited sample sizes, further work is needed.

Nevertheless, these associations are not causal estimates. Certainly, some participants who began vaping would have initiated smoking regardless, and some participants who replaced traditional cigarettes with vaping would have quit even without e-cigarettes. However, it seems fair to say that the findings do not support the contention that flavored e-cigarette use is more strongly associated with minors' subsequent smoking initiation than unflavored e-cigarette use and do support the argument that flavors are more strongly associated with smoking cessation among adults.

## Limitations

This study has several limitations, primarily related to the data. First, self-reported tobacco use may introduce social desirability bias. Absent access to the survey's restricted biomarker data, this cannot be helped and may bias findings toward the null, although respondents' knowledge that biomarkers were collected might have induced more accurate reporting. Second, because data collection for waves 1 and 2 largely preceded Juul's introduction in 2015, the associations observed here may not generalize to nicotine salt e-cigarette products. Third, analyses cannot consider individuals who age out of the Population Assessment of Tobacco and Health Study's youth samples, given differences between the youth and adult survey's tobacco use questions and sample weights. This limits the youth and emerging adult analytic sample sizes, particularly reducing statistical power in analyses of wave 4 smoking behavior. Relatedly, analyses assessing differential relationships between flavored vs unflavored vaping and subsequent smoking are based on varying sample sizes, potentially explaining larger confidence intervals in some cases. Given the potential for overidentification in small sample analyses as well, further research with larger samples would be valuable.

Critically, this analysis does not establish a causal relationship between flavored e-cigarette use and smoking initiation or cessation. If individuals who want to quit are more likely to choose flavored e-cigarettes, this study's results could stem from that initial preference. Randomized clinical trials are needed to clarify this relationship. Furthermore, in focusing on the association of vaping with smoking, we did not assess vaping's health implications in the absence of smoking. More research is needed in that area.

## Conclusions

In this study, adults who began vaping nontobacco-flavored e-cigarettes were more likely to quit smoking than those who vaped tobacco flavors. This study's findings are consistent with concerns about e-cigarettes' influence on minors' tobacco use and claims that flavored e-cigarettes help adults who smoke quit; specifically, evidence that adults who smoke and vape nontobacco flavors may be more likely to quit smoking than those using tobacco-flavored e-cigarettes suggests that banning flavors altogether may be too blunt an instrument for the current problem. Although proponents of flavor bans have claimed that tobacco-flavored e-cigarettes are adequate to help individuals who smoke, these results call for evidence to support that claim before it is acted on.<sup>30</sup>

## ARTICLE INFORMATION

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**Correction:** This article was corrected on June 26, 2020, to fix a typographical error in the title of Figure 2.

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**Corresponding Author:** Abigail S. Friedman, PhD, Department of Health Policy and Management, Yale School of Public Health, 60 College St, Room 303, New Haven, CT 06520 ([abigail.friedman@yale.edu](mailto:abigail.friedman@yale.edu)).

**Author Affiliations:** Department of Health Policy and Management, Yale School of Public Health, New Haven, Connecticut.

**Author Contributions:** Ms Xu had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

*Concept and design:* Both authors.

*Acquisition, analysis, or interpretation of data:* Both authors.

*Drafting of the manuscript:* Both authors.

*Critical revision of the manuscript for important intellectual content:* Both authors.

*Statistical analysis:* Xu.

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#### SUPPLEMENT.

**eAppendix.** Supplemental Methods

**eTable 1.** Youth and Emerging Adult Initiation, Adjusted Odds Ratio/Standard Error

**eTable 2.** Youth and Emerging Adult Initiation, Unweighted, Adjusted Odds Ratio/Standard Error

**eTable 3.** Emerging and Prime Age Adult Cessation, Adjusted Odds Ratio/Standard Error

**eTable 4.** Emerging and Prime-Age Adult Cessation, Unweighted, Adjusted Odds Ratio/Standard Error

**eTable 5.** Youth and Emerging Adult Initiation by Flavor, Adjusted Odds Ratio/Standard Error

**eTable 6.** Youth and Emerging Adult Initiation by Flavor, Unweighted, Adjusted Odds Ratio/Standard Error

**eTable 7.** Emerging and Prime-Age Adult Cessation by Flavor, Adjusted Odds Ratio/Standard Error

**eTable 8.** Emerging and Prime-Age Adult Cessation by Flavor, Unweighted, Adjusted Odds Ratio/Standard Error

**eTable 9.** Adult Cessation by Flavor, Adjusted Odds Ratio/Standard Error

**eTable 10.** Adult Cessation by Flavor, Unweighted, Adjusted Odds Ratio/Standard Error



## Neutral Testimony – SB 2156

Sara Mannetter, North Dakota Government Relations Director  
American Cancer Society Cancer Action Network

March 16, 2021

Chairman Dockter, Vice-Chair Pyle and members of the Committee:

The American Cancer Society Cancer Action Network (ACS CAN) appreciates the opportunity to comment on SB 2156, a bill that would raise the minimum age for the sale of tobacco products to 21 years old.

As the nonprofit, non-partisan advocacy affiliate of the American Cancer Society, ACS CAN advocates for public policies that reduce death and suffering from cancer which include policies targeted at reducing tobacco use.

### **While SB 2156 raises the tobacco sales age to 21, the bill doesn't go far enough to reduce tobacco use.**

There are several components that make up a strong Tobacco 21 law:

- Covers all tobacco products, including electronic cigarettes.
- Provides public education and training and technical assistance to retailers.
- Implements measures for active enforcement, such as retailer licensing and penalties, including suspension and revocation.
- Does not create a new category of products, which would exempt them from other tobacco control laws.
- Does not penalize youth.
- Does not preempt local jurisdiction from passing strong tobacco control laws.

### **We would like to see these components included in this bill.**

1. The removal of the penalty on youth for purchase, use and possession, so called (PUP provisions).
  - a. Compliance with the law should be the responsibility of the retailer, and penalties for violations should not fall on the youth attempting to purchase tobacco or minimum wage clerks behind the counter.
  - b. Studies have shown that "Purchase, Use, and Possession" laws do not curb teen use of these deadly products. This is a concern as it could lead to targeting of the youth as well as profiling in rural and low-income neighborhoods where tobacco retailers tend to be more densely populated.
  - c. This can also serve as a distraction for stopping retailers who are illegally selling tobacco to those under 21 in the first place. It is better to focus the efforts of enforcement on

retailer compliance checks. Many youths are addicted due to marketing tactics by the industry, making it difficult for them to quit, and research shows that penalizing youth could deter them from seeking support for cessation services.

2. Include a comprehensive “tobacco product” definition.
  - a. Providing a comprehensive definition of “tobacco product” can aid in compliance and enforcement by clearly specifying what exactly is being prohibited.
  - b. A comprehensive definition will cover all current, known tobacco products, which include not only cigarettes, cigars, and smokeless tobacco, but also products like pipes, rolling papers, electronic smoking devices, and other related devices. A strong definition will also be broad enough to capture future products.
  - c. “Tobacco product” means: (1) any product containing, made of, or derived from tobacco or nicotine that is intended for human consumption or is likely to be consumed, whether inhaled, absorbed, or ingested by any other means, including, but not limited to, a cigarette, a cigar, pipe tobacco, chewing tobacco, snuff, or snus; (2) any electronic smoking device and any substances that may be aerosolized or vaporized by such device, whether or not the substance contains nicotine; or (3) any component, part, or accessory of (1) or (2), whether or not any of these contain tobacco or nicotine, including but not limited to filters, rolling papers, blunt or hemp wraps, and pipes.
3. Remove outdated exemptions for tobacco specialty stores and for kid accompanied by a parent.
4. License retailers that sell e-cigarettes and change the enforcement authority from law enforcement to health department.

SB 2156 in current form takes some positive steps forward but could be strengthened to fully achieve its public health benefits. Laws prohibiting sales to youth have historically not been effective stand-alone measures and we recommend a three-prong approach that includes increasing the cost of tobacco products, enacting 100% smoke-free laws, and funding sustainable, comprehensive tobacco control programs.

Thank you for your time.

Sara Mannetter

*Complaining about a problem  
without proposing a solution  
is called whining.  
-Teddy Roosevelt*



**Bette B. Grande**  
*President & CEO*

Chairman Dockter and members of the House Political Subdivision Committee,

I encourage the passage of SB 2156, North Dakota should enact age 21 as the legal age to purchase tobacco products.

Differences in minimum age requirements at the federal, state, and regional levels adds confusion to consumers and retailers, and lead to ineffective enforcement. Underage smoking has become a topic of various laws and with the federal government passage of the T21 banning the sales of move this to enforcement of all tobacco and other sales of products to 21.

The Department of Defense raised the minimum age for tobacco sales from 18 to 21 years of age beginning Aug. 1, 2020. Tobacco-sale age went to 21 on military bases, ships in US ports started on August 2020. The rule affects the sale of cigarettes, smokeless tobacco, hookah tobacco, cigars, pipe tobacco and vaping supplies, such as e-cigarettes and e-liquids.

Legislation passed December 2019, raised the minimum age for the sale of tobacco products in the U.S. by three years from 18, providing no military exemption.

"We know that those soldiers don't do as well on their [physical fitness] tests; it takes them longer to heal and ... there is a direct correlation between tobacco use and musculoskeletal injuries," Fitzgerald said. "We are asking them to support the law because the bottom line is it's our enduring obligation to take care of our people, and the health and welfare of our soldiers and their families is of the utmost importance for our continued readiness." -- Matthew Cox can be reached at [matthew.cox@military.com](mailto:matthew.cox@military.com).

We join others to support of the passage of this bill to bring easy to the retailers that can cause of confusion between sellers and consumers.

Thank you for your consideration.

For Liberty,

Bette Grande, CEO