



The Commonwealth of Massachusetts
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lieutenant Governor

MARYLOU SUDDERS
Secretary

MONICA BHAREL, MD, MPH
Commissioner

Tel: 617-624-6000

United States House Energy and Commerce Oversight and Investigations
Subcommittee

“Sounding the Alarm: The Public Health Threats of E-cigarettes”

September 25, 2019

Testimony of
Commissioner Monica Bharel, MD, MPH
Massachusetts Department of Public Health

Chair DeGette, Ranking Member Guthrie, and members of the subcommittee, thank you for the opportunity to provide testimony on this pressing issue today. The Massachusetts Department of Public (DPH) is one of the nation’s oldest public health departments and one that has been at the forefront of public health across the country. In fact, this year we are marking our 150th anniversary. The mission of DPH is to keep people healthy and communities strong. Our dedicated employees work to prevent illness, injury, and premature death; ensure access to high quality public health and health care services; and promote wellness and health equity for **all** people in Massachusetts.

In my role as the Commissioner of Public Health and as the state’s chief physician, I am often asked about vaping among youth, a rising epidemic around the country and in Massachusetts. I commend you all for shining a light on this crisis among our nation’s youth, and am pleased to be here today to tell you about what we are seeing in Massachusetts and what we are doing about the issue across the Commonwealth.

Massachusetts made significant progress in curbing youth and adult tobacco use over the past two decades. In 1996, the youth smoking rate was 36.7%. Today, the youth smoking rate is 6.4%.¹ Our adult smoking rate is also low, with just under 14% of adults using combustible tobacco products.²

Our low smoking rates are a result of years of hard work. In Massachusetts, we have a strong tobacco cessation and prevention infrastructure that assists local health departments with tobacco control policies and enforcement, as well as a network of community partnerships

and dedicated advocates including parents, school leaders, and physician groups that educate the community about tobacco-related issues, resources, activities, and policies.

In fact, we recently translated the commitment of these partners and long-standing prevention efforts at the Department into legislative action, with Governor Baker signing into law a 21+ age restriction in Massachusetts to purchase any tobacco product – including e-cigarettes. The law also incorporates e-cigarettes into the definition of tobacco, thereby making it illegal to vape where it is illegal to smoke per our Smoke-Free Workplace Law. The law also banned sales of tobacco products in pharmacies, making Massachusetts the first state to do so.

But even with the strong laws and policies we have on tobacco products, all of this progress is now at risk. The tobacco and vaping industries are using tobacco's old playbook – developing new products that are cheap, sweet and easy to get to attract young users. And it's working.

In 2017, 20.1% of high school students reported vaping in the past month and 41.1% have tried it.¹ This means that more Massachusetts high school youth used e-cigarettes than all other tobacco products combined. And nearly 10% of **middle school** students reported trying e-cigarettes.¹ We haven't had rates this high for cigarettes since 2003 – 16 years ago. Current use of e-cigarettes among high school students is 6 times higher than that for adults (3.3% of adults reported using e-cigarettes in the past 30 day).^{1,2}

Despite daily headlines and news coverage about the harmful effects of vaping, there is a lack of information – or misinformation – about vaping. Young people may be unaware that e-cigarettes and e-juices and e-liquids contain nicotine. In fact, some vape pods can contain as much nicotine as a pack of cigarettes. And flavors such as fruit medley or bubble gum make these products seem harmless.

We know that nearly all e-cigarettes contain nicotine and that nicotine is an addictive chemical. Adolescents are particularly vulnerable to developing addiction because of how the brain develops³. The parts of the brain associated with "executive functions" such as impulse control, self-monitoring and error correction are the last to develop. During this developmental phase, teens are driven towards behaviors that produce large rewards - accounting for the risk taking often associated with this developmental phase. Substance use, while both unnatural and unhealthy, is one of the most efficient ways to deliver large rewards. Indeed adolescents and young adulthood is the age range when individuals are most interested and most likely to initiate substance use. At the same time, the pre-frontal cortex appears to be protective against developing the brain changes associated with addiction, and the relatively immature prefrontal cortex in adolescents leaves them especially vulnerable.

We know that nicotine can damage the developing brain of teens and young adults, impacting memory, learning ability, and other areas of the brain.³ And we know the aerosol created by vaping contains potentially harmful chemicals.³

Yet there is a lot we don't know. Our lack of information is highlighted by the emergence of serious vaping-related lung disease being seen around the country.

Earlier this month, I used my authority as Commissioner of Public Health to declare any suspected cases of vaping-associated pulmonary disease to be immediately reportable to the Department for the next 12 months. During the first two weeks of this mandated reporting, clinicians reported 46 suspected cases. We are receiving up to 10 suspected cases a day.

I have been reflecting on how we, as a Commonwealth, and as a country, got here. One reason is flavors, including mint and menthol. But when flavored cigarettes were banned by the FDA in 2009, menthol was excluded, leaving these widely used products on the shelves. Why is this so significant?

- Data show us that 80% of current youth tobacco users nationally report using a flavored product.¹
- Flavors make a product more appealing. Data from the 2013-2014 Population Assessment of Tobacco and Health (PATH) study found that more than 80 percent of 12-17 year olds who had ever used a tobacco product started with a flavored product. Moreover, for each tobacco product, at least two-thirds of youth reported using these products "because they come in flavors I like."⁴

In Massachusetts, our daily work includes efforts to prevent youth initiation. We do this by supporting our local health departments –those on the front lines when it comes to passing and enforcing tobacco regulations. These regulations include capping the number of tobacco retail licenses in a community; regulating a minimum distance from a school for tobacco retailers; and restricting the sale of flavored tobacco products to adult-only retail establishments. Massachusetts has a strong enforcement infrastructure. Our local health departments educate retailers and conduct regular compliance checks and our FDA inspectors conduct retail inspections to enforce federal tobacco regulations statewide; combined, there are close to 15,000 inspections each year.

I am proud to say that 161 cities and towns in Massachusetts have a flavored product restriction in place, covering approximately 67 % of the population.⁵ While this is a strong way to protect our youth from exposure and access to these products, we have also realized a flavored product restriction that excludes mint, menthol and wintergreen products, leaves many people behind – people who historically have been targeted by the tobacco industry with these products.⁶ We are working to correct this and to date, 13 municipalities have included mint, menthol and wintergreen in their flavored tobacco product restrictions.

A 2019 study on the impact of flavored tobacco product restrictions in Massachusetts found that the use of both flavored and non-flavored tobacco products decreased in a community with a flavor restriction compared to a community with no restriction. In fact, the community with no restriction saw youth usage rates **increase**. This is evidence that policies can make a difference when it comes to protecting our youth.⁷

One of the most important aspects of our tobacco prevention work is engaging youth. In Massachusetts, we have a powerful resource – they’re called the 84 Movement. This is a statewide movement of youth fighting tobacco in Massachusetts. “The 84” represents the 84% of Massachusetts youth who did NOT smoke when the movement began – and importantly that percentage has now increased to 92%. The 84 Movement aims to empower high school youth to make change in their communities. With chapters in schools and community-based organizations across the state, these incredible young people educate their peers and communities about the influence of the tobacco and vaping industries. Each year, Massachusetts hosts Kick Butts Day, and the youth march to our State House and meet with their legislators to impress upon them the importance of protecting youth from the dangers of a lifetime addicted to nicotine. One of our former 84 members, Sarah Ryan, joined Surgeon General Adams at his news conference declaring vaping an epidemic among youth. Sarah was also named the 2019 Barrie Fiske National Youth Advocate of the Year by the Campaign for Tobacco Free Kids.

Despite all of our great work, when youth rates of e-cigarette use began to skyrocket, we knew that the public needed up to date, factual information.

In July 2018 we started by launching a campaign aimed at educating parents, school staff, and other youth influencers about vaping products – what they are, that they contain nicotine, and can damage the developing adolescent brain. We created ads on social media, billboards, busses and other public transit. We created a website with a toolkit for schools consisting of resources and materials, and tips for parents to talk with their kids about vaping – all available free of charge through our Health Promotion Clearinghouse.

In April of this year, we launched an information campaign for youth, a campaign created with youth input and feedback. What our youth focus groups told us is that young people want the facts. They know smoking is harmful to their health. But they don’t connect those same harms with vaping. Many youth have told us that they consider e-cigarettes the “safe cigarette”. So that’s what the youth campaign does: it compares vapes with cigarettes and clearly shows both contain nicotine, both are addictive, and both contain harmful chemicals.

We know our education is reaching people. For our adult campaign, we have distributed over 60,000 materials to date and had over 1,250 downloads from our toolkit. In the short time since we launched the youth campaign, over 20,000 campaign materials were ordered from our Clearinghouse. We have also received requests from across the country --and even from other countries --to use and adapt information from our campaigns.

Prevention is, of course, important. But we are also all hearing about young people struggling with addiction. I am pleased to tell you that we offer a Smokers’ Helpline (a partnership with National Jewish Health) and work with the Truth Initiative to offer Massachusetts youth who are addicted to nicotine valuable and much needed resources to help them quit.

I am proud of what we are doing in Massachusetts to combat the youth vaping epidemic. But we recognize that there is more to be done. Under current law, vape products are not taxed, making it hard to determine who is really selling these products in our communities. These are topics and tools for preventing youth tobacco initiation that we will continue to discuss as a state.

As I've discussed, much is being done at the state level, but working in tandem with the federal government is critical to combatting this epidemic. For example, states are not able to regulate the manufacturing or labeling of e-cigarettes and other tobacco products, but that can be done by the FDA. We don't know what's in these products; if we don't know, how can youth know what they are putting in their bodies and what short and long term effects it may have on their health, in addition to very real health concerns over nicotine and addiction?

The FDA is currently looking into reducing the level of nicotine in combustible cigarettes, why not extend that to regulating the amount and type of nicotine contained in e-cigarettes? And a federal ban of all flavored cigarettes that includes menthol would be a strong step in reducing youth use; it is that same reason – protecting our youth – that flavored cigarettes were banned in 2009. The same logic can and should be applied to e-cigarettes and other tobacco products.

In 1971, the Public Health Cigarette Smoking Act banned the advertising of cigarettes on television and radio. Yet, e-cigarettes have no advertising restrictions. The vaping industry has used all of the same tactics the tobacco industry used for years. Curbing cigarette advertisement was a strong factor in reducing smoking among youth and adults.

We also need more data. Support from the federal government in funding research on the ingredients in e-cigarettes and their possible health effects will go a long way to helping the states and localities make more informed decisions and regulations about these products.

And finally, the problem in front of us is vaping – but what is coming at us next? Unlike many other public health issues, we are facing an opponent – one that has money, has a powerful lobby, and is nimble to counter our actions. I urge us to consider solutions to the vaping epidemic quickly and seriously – yet with thought about how regulations or actions put in place today also apply to products that the industry may develop in the future.

We can't stand by and watch as another generation becomes hooked on deadly products. We have to be out in front. We have to be bold in our actions. It is about the health of our youth.

Thank you for your dedication to this issue. I look forward to working together with our federal partners to build a solution to tackle this epidemic and protect the health of our young people – now and into the future.

References

1. Massachusetts Department of Public Health. Youth Tobacco Use in Massachusetts: Survey Results from 1995-1997. <https://www.mass.gov/files/documents/2019/04/03/MA-Youth-Tobacco-Report-2017.pdf>. Published March 2019. Accessed September 20, 2019.
2. Adult data from the 2017 Massachusetts Behavioral Risk Factor Surveillance System.
3. U.S. Department of Health and Human Services. E-Cigarette Use Among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
4. Campaign for Tobacco Free Kids. Flavored Tobacco Products Attracts Kids. <https://www.tobaccofreekids.org/assets/factsheets/0383.pdf>. May 3, 2019. Accessed September 20, 2019
5. Wilson DJ. Local Policy Restricting Flavored Tobacco and Vape Products to Adult-Only “Retail Tobacco Stores”. Massachusetts Municipal Association. <http://mhoa.com/wp-content/uploads/2019/07/Muni-List-Flavored-OTP-Restriction-C759-1.pdf>. Published July 29, 2019. Accessed September 20, 2019.
6. Stevens P, Carlson LM, Hinman JM. An analysis of tobacco industry marketing to lesbian, gay, bisexual, and transgender (LGBT) populations: strategies for mainstream tobacco control and prevention. *Health Promotion Practice*. 2004 Jul;5(3_suppl):129S-34S; U.S. Department of Health and Human Services. Tobacco Use Among U.S. Racial/Ethnic Minority Groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Office on Smoking and Health, 1998; Lee JG, Henriksen L, Rose SW, Moreland-Russell S, Ribisl KM. A systematic review of neighborhood disparities in point-of-sale tobacco marketing. *American Journal of Public Health*. 2015 Sep;105(9):e8-18.; Lee YO, Glantz SA. Menthol: putting the pieces together. *Tob Control*. 2011;20:ii1-ii7.
7. Kingsley M, Setodji CM, Pane JD, Shadel WG, Song G, Robertson J, Kephart L, Henley P, Ursprung S. *American Journal of Preventive Medicine*. Accepted July 2019, in press.