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Dear Board of Health,

We urge your support of the proposed Nicotine Free Generation (NFG) regulation to phase out the sale of tobacco products.

As Massachusetts pediatricians, we have treated many hundreds of young patients suffering from tobacco use disorder that has negatively affected their developing brains and robbed them of their agency and, too often, the opportunity to enjoy the natural vitality of youth. The Surgeon General has compared the addictiveness of nicotine to heroin and cocaine. Few substances create a such a strong withdrawal effect, rapid dependence, and tolerance like nicotine.

Nicotine up-regulates acetylcholine receptors in the nucleus accumbens and prefrontal cortex that is associated with compulsive use and reduced interest in non-drug rewards. The reinforcing effects, produce both euphoric sensations and a strong dopaminergic response. Developing brains are uniquely susceptible to even low levels of nicotine and exposure to nicotine in youth may lead to lasting brain changes.¹ Nicotine itself is associated with worsening depression, anxiety, ADHD, and suicidal ideation.² Nicotine exposure, particularly in adolescence, also increases transcription of proteins that potentiate reward from other addictive substances such as cocaine, opioids, alcohol, and methamphetamine, accelerating addictive processes with these drugs, consistent with a gateway-drug effect.³ The tobacco industry knows that people who use one starter nicotine product will then be much more likely to use other nicotine products, including cigarettes. Smoking itself causes 490,000 deaths in the United States each year.⁴

¹ [Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health Full Report | SAMHSA Publications and Digital Products](#)

² Tervo-Clemmens B, Gilman JM, Evins AE, et al. Substance use, suicidal thoughts, and psychiatric comorbidities among high school students. *JAMA Pediatr.* 2024;178(3):310-313.

³ Levine A, Huang Y, Drisaldi B, et al. Molecular mechanism for a gateway drug: epigenetic changes initiated by nicotine prime gene expression by cocaine. *Sci Transl Med.* 2011;3(107):107ra109.

⁴ U.S. Department of Health and Human Services. Eliminating Tobacco-Related Disease and Death: Addressing Disparities—A Report of the Surgeon General: Executive Summary. 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, 2024.

The vaping crisis among adolescents has reversed some of the important progress achieved over decades to get kids into adulthood tobacco-free. If a young person can make it to the age of 26 tobacco-free, the chance that they will initiate after that age is incredibly small, <1%.⁵

Dr. Hartman and I worked to urge cities and towns to raise the minimum tobacco sales age to 21 and to remove the flavored products that appeal to youth. We still see many adolescents who come for their annual check-up addicted to e-cigarettes or nicotine pouches after just a few weeks of use. One of the greatest regrets of almost all adult tobacco users is that they ever started to use tobacco. Many people have a grandparent, parent, uncle, or aunt whose life was taken by use of tobacco products and we honor them by preventing this harm in other families.

In considering NFG, you have an opportunity to make an enormous difference to protect the health of the next generation in your community. The regulation before you will not only phase out the sales of tobacco products so that the next and subsequent generations won't ever be sold tobacco products here, but, over time, it will dramatically reduce the availability of tobacco products to young people from non-retail sources such as older peers. In fact, more than half of underage access to tobacco products comes from older peers.⁶ By design, the Nicotine Free Generation policy will increase the age gap between young people and those who may be sold tobacco products.

Nicotine free generation works at the local level to decrease access to the commercial tobacco products that addict people who have not yet started to use tobacco. In this way, it preserves the freedom of the next generation who is not yet addicted from losing their agency over this addictive substance. NFG will work even when other surrounding cities and towns take longer to enact this policy. We found that when Needham Massachusetts increased its sales age by one year each year to age 21, despite the fact that no other bordering towns took this action, the rate of adolescent smoking dropped by half in Needham—almost no public health approach works that well.⁷

Over time, all of Needham's neighboring towns enacted tobacco 21. One single community action paved the way for a state level bill and eventual passage of the national tobacco 21 law in 2019. Momentum for Nicotine Free Generation has now been passed by 8 cities and towns since the Massachusetts Supreme Court ruled that it was constitutional in 2024.

The rationale for NFG is simple. For example, five years after the enactment of this policy the difference in age between a high school junior and a person eligible to be sold tobacco products will increase from five to 10 years. Ten years in, the difference in age will be 15

⁵ Preventing tobacco use among youth and young adults: a report of the Surgeon General. Atlanta, GA.: Dept. 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; Washington, D.C.: For sale by the Supt. of Docs., U.S. G.P.O., 2012.

⁶ Meyers MJ, Delucchi K, Halpern-Felsher B. Access to Tobacco Among California High School Students: The Role of Family Members, Peers, and Retail Venues. *J Adolesc Health*. 2017 Sep;61(3):385-388. doi: 10.1016/j.jadohealth.2017.04.012. Epub 2017 Jul 14. PMID: 28712593; PMCID: PMC5610576.

⁷ Winickoff JP, Gottlieb M, Mello MM. Tobacco 21--an idea whose time has come. *N Engl J Med*. 2014 Jan 23;370(4):295-7. doi: 10.1056/NEJMp1314626. Epub 2014 Jan 8. PMID: 24401021.

years, which is well-beyond the age range of peers or even most siblings. This policy is a backstop to end youth tobacco dependence in a gradual and controlled way that won't leave anyone who is currently being sold tobacco without an option, won't take a single current customer away from the stores that sell these products, and yet will bring about a profound change that will greatly benefit this community's health. In Brookline, which enacted NFG in several years ago, not a single business that sells tobacco products has closed.

The tobacco industry sells products designed to addict users after just a few uses. These products are unhealthy and dangerous for anyone. The nicotine levels present in currently available tobacco industry products are high. Newer disposable devices with a 10-mL well of 5% nicotine (500-600mg/device) e-juice deliver the nicotine equivalent of more than 10 packs of cigarettes.⁸ For adults, tobacco is not a freedom, it is an addiction and a burden—just ask people who use tobacco. Do they smoke because they want to, or because they need to? The NFG policy is about creating a freedom from tobacco for every member of the community who would never choose to become addicted to a deadly and expensive product for life.

Other products such as lead paint and asbestos have been banned to protect public health. NFG is not even an immediate ban of nicotine, it is a gradual phase out of highly addictive and harmful nicotine in the commercial marketplace. FDA regulated nicotine will still be available for sale in pharmacies over the counter, through the state quitline, and for free by prescription to help everyone who wants to cut down and hopefully quit the harmful tobacco industry products.

Tobacco has caused the greatest health detriment of any consumer product in history, causing more annual deaths than AIDS, alcohol, car accidents, illegal drugs, murders, and suicides combined.⁹ Tobacco causes more deaths each year in the United States than the number of US soldiers who died in all of WWII.¹⁰ NFG does not take away personal rights or freedoms, it phases out the sale of a dangerous and addictive product over years. NFG is actually all about protecting the next generation and all future generations from the known harms caused by the impact of nicotine dependence on the mental, physical, and financial health of our population and of our community. The value of this freedom from tobacco dependence will be immeasurable.

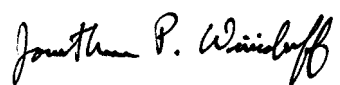
We hope you will support this version of the future with your vote.

Sincerely,

⁸ Prochaska JJ, Vogel EA, Benowitz N. Nicotine delivery and cigarette equivalents from vaping a JUULpod. *Tob Control*. 2022;31(e1):e88-e93.

⁹ HHS, The Health Consequences of Smoking – 50 Years of Progress A Report of the Surgeon General, 2014, <https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm>;

¹⁰ John W. Chambers, II, ed. In chief, the Oxford Companion to American Military History. (Oxford University Press, 1999, ISBN 0-19-507198-0), 849.

A handwritten signature in black ink, reading "Jonathan P. Winickoff". The script is fluid and cursive, with the first name "Jonathan" and last name "Winickoff" being more prominent than the middle initial "P.".

Jonathan P. Winickoff, MD, MPH, FAAP
and Lester Hartman MD, MPH, FAAP