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Perspective

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Toward a Tobacco-free Generation — A Birth Date–Based Phaseout Approach

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Despite decades of public health efforts and advances in cessation treatments, smoking is still the leading cause of preventable disease, disability, and death in the United States.

Smoking kills more people in this country than HIV, drug overdoses, alcohol use, motor vehicle crashes, and firearm-related injuries combined. Governments worldwide have tried to reduce tobacco use. In a development that could signal a new direction for tobacco regulation, one U.S. town's policy aimed at creating a tobacco-free generation has successfully withstood legal challenge.

The bylaw, passed by Brookline, Massachusetts, gradually phases out commercial tobacco by banning the sale of nicotine products to anyone born on or after January 1, 2000 (one of us cosponsored the bylaw). Eventually, no one will be old enough to purchase nicotine products. Tobacco retailers sued Brookline over the bylaw. A unanimous March 2024 Massachusetts Supreme Judicial Court decision upholding the tobacco-free generation (TFG) bylaw may now boost its viability as a model for other local and state governments. In response to the ruling, health boards in three other Massachusetts towns (Melrose, Stoneham, and Wakefield) voted to implement birth date–based phaseouts, and other municipalities have taken initial steps toward adopting this policy.

The concept of a birth date–based phaseout of commercial tobacco has drawn attention worldwide. New Zealand passed a similar law in 2022, though a subsequent change in government led to its repeal. The concept is under discussion in the European Union, the Philippines, Singapore, Malaysia, Australia, and Norway. In April 2024, a TFG bill in the United Kingdom cleared a major hurdle in Parliament when a first reading secured strong support. Whereas the Brookline bylaw applies to all nicotine products, including combustible products and e-cigarettes (vapes), New Zealand's repealed law and the U.K. bill cover combustible tobacco products only. This variation reflects ongoing public health discussion about the relative harm of vapes as compared with cigarettes. By including vapes in its TFG bylaw, Brookline targets a key driver of initiation of nicotine use among adolescents.

The World Health Organization considers tobacco use, which kills more than 8 million people per year, one of the largest global public health threats.[1] In 2022, one fifth of U.S. adults still regularly consumed tobacco products. Use often starts at an early age:

that same year, 22.2% of U.S. middle and high school students reported ever having used tobacco products, according to the Centers for Disease Control and Prevention (CDC). Adolescents are particularly affected by the smoking behaviors of young adults — people just above the minimum age for purchasing tobacco products, who may serve as role models or buyers for younger users.[2] Reducing the availability of nicotine to this young-adult group may reduce its attractiveness to teenagers.

Smoking increases the risk of heart disease, stroke, lung cancer, and diabetes, among other conditions. Secondhand smoke contributes to 41,000 deaths per year in the United States among people who don't smoke. A reduction in smoking has long been among the most important goals for public health leaders.

Nicotine is thought to be more addictive than other widely available products, such as alcohol and cannabis. Nicotine binds to acetylcholine receptors in the central nervous system that stimulate the release of neuromodulators such as dopamine, which gives the user a feeling of pleasure.[3] There are several pharmacologic approaches to helping people stop using nicotine. But withdrawal symptoms — such as sleep problems, nausea, nicotine cravings, fatigue, irritability, and depression — cause more than 75% of people who try to quit smoking without medical support to relapse within the first week.[4] Nicotine dependency is so strong that people who stop using nicotine for 1 year still have a 35% chance of relapse at some point in their lives.[4] Exposure to nicotine can therefore be associated with lifelong harm.

Over the past six decades, the United States has seen many efforts to reduce tobacco-related harm. The U.S. Surgeon General's report in 1964 linked smoking to lung cancer and heart disease, and in 1966 Congress required manufacturers to add a warning label to cigarette packs. In 1970, Congress banned the advertising of cigarettes on television and radio. Beginning in 1992, stores were prohibited from selling tobacco products to people under 18 years of age. By 1998, a total of 46 states, the District of Columbia, and five U.S. territories had sued the four largest U.S. tobacco companies. This lawsuit resulted in the Master Settlement Agreement, which required companies to pay the states billions of dollars each year to compensate for taxpayer money used to fund health care for people who smoke.

In 2009, Congress banned flavored cigarettes (not including menthol-flavored cigarettes) and gave the Food and Drug Administration (FDA) the authority to regulate the manufacturing, distribution, and marketing of tobacco products. In 2019, Congress passed legislation that tobacco products could be sold only to people 21 years of age or older, and in 2022, it gave the FDA the authority to regulate products containing nicotine from any source, including so-called synthetic nicotine.[5] State excise taxes on cigarette purchases are as high as $5.35 per pack in New York, with an additional $1.01 federal tax, but U.S. taxes remain substantially lower than taxes in other high-income countries. Notwithstanding these efforts, tobacco use kills about 480,000 people each year in the United States, according to the CDC.

Brookline's TFG bylaw, passed in 2020 when it applied to people who were too young to purchase tobacco products under state and federal law, represents a new approach to tobacco regulation. This approach doesn't affect people who currently smoke, a feature designed to humanely recognize access concerns generated by nicotine addiction. Instead, the bylaw could eventually establish a generational firebreak against nicotine addiction, preventing tobacco purchases even as the current generation of young people ages. This approach could result in a steadily increasing proportion of the population that cannot legally be sold tobacco products, thereby phasing out tobacco sales.

Several tobacco retailers in Brookline filed a lawsuit against the town, arguing that the bylaw is preempted by state law and that it violates the guarantee of equal protection under the Massachusetts constitution by discriminating against people born on or after January 1, 2000. In March 2024, the Massachusetts Supreme Judicial Court unanimously rejected these challenges, thereby paving the way for action by other Massachusetts municipalities.

Retailers had argued that Brookline's tobacco bylaw is preempted by the Massachusetts Tobacco Act, which makes it illegal to sell tobacco products to anyone under 21 years of age. The Massachusetts high court recognized that the Brookline bylaw leaves that sales restriction "untouched" and that the Tobacco Act expressly preserves a role for cities and towns in regulating tobacco.

The court also rejected the suggestion that the Brookline bylaw requires a heightened level of

scrutiny under the state's equal-protection provision. Because the bylaw doesn't burden a fundamental right, such as religious freedom, or discriminate on the basis of a suspect classification, such as race or gender, it needs only to be "rationally related to the furtherance of a legitimate state interest." The bylaw clearly meets this standard; it was drafted to prevent health-related harms associated with tobacco use. Line drawing is routine and necessary in any legislation.

As other U.S. jurisdictions consider this approach, the Supreme Judicial Court's decision could be an important precedent. The equal-protection standard in Massachusetts is similar to provisions in the U.S. Constitution and other state constitutions. Unlike the Massachusetts legislature, however, some state legislatures have aggressively limited their local governments' authority to enact public health measures. In these states, the power to consider a TFG law rests with the state legislature. Other states, including California, have permitted local innovation in tobacco control; cities in those states could now choose to follow Brookline's lead.

An audio interview with Katharine Silbaugh is available at NEJM.org

Brookline's bylaw will have only a modest effect on public health as long as neighboring towns continue to permit tobacco sales to people who have turned 21. We believe the bylaw, and the court's decision, offer a proof of concept for birth date–based phaseout laws. Other Massachusetts towns have already shown an inclination to follow Brookline's lead. As more towns implement this policy, the Massachusetts legislature and other states could be motivated to adopt a birth date–based phaseout of commercial tobacco.

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Fair Allocation of GLP-1 and Dual GLP-1–GIP Receptor Agonists

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The percentage of U.S. adults with overweight or obesity now exceeds 70%, and more than 10% of adults have type 2 diabetes. These people are at increased risk for heart disease, stroke, cancer, and premature death. Glucagon-like peptide-1 (GLP-1) receptor agonists, such as semaglutide, and dual GLP-1 and glucose-dependent insulinotropic polypeptide (GIP) receptor agonists, such as tirzepatide, have been found to be effective for treating obesity and diabetes, significantly reducing weight and the risk or predicted risk of adverse cardiovascular events. There is a global shortage of these medications that could last several years and raises questions about how limited supplies should be allocated.

Belgium, Britain, and other countries have banned or discouraged use of GLP-1 receptor agonists for weight loss to prioritize use for diabetes. No U.S. state or federal agency has released similar guidance, although some health plans have restricted use for obesity, and Medicare doesn't cover these or other drugs for weight loss. Consequently, in the United States, allocation of these drugs has been largely on a first-come, first-served basis and has often depended on people's ability to pay, which has produced racial, ethnic, and socioeconomic inequities.[1]

We propose a fair-allocation framework that enables evaluation of the ethics of current practices and could guide governments, professional societies, and physicians in allocation decisions. This framework focuses on allocation within countries, although fair allocation among countries also requires ethical analysis.[2]

Fair allocation of scarce medi-