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States, Localities and Public Health

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STATES, LOCALITIES AND PUBLIC HEALTH

*David Gartner**

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I. INTRODUCTION

The tension between state and local control over regulation is a longstanding issue that has become increasingly contested over the past decade in areas such as public health. State preemption of local public health efforts is now widespread in the United States.¹ Many of these state preemption laws built on earlier efforts by the tobacco industry to forestall local control beginning in the late 20th century.² As public health research on the impact of electronic cigarettes and pesticides has evolved, so too have the efforts to prevent local governments from acting to regulate these products. Although the federal government also has an important role in regulating electronic cigarettes and pesticides, it is more often local and sometimes state governments that have driven more stringent regulation in recent years.³ This Article examines the role of local governments, and of state preemption, in shaping the law governing the use of electronic cigarettes and pesticides.

The current public health system in the United States is a multi-layered enterprise in which the federal government, states, and local governments

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¹ Jennifer L. Pomeranz & Mark Pertschuk, *State Preemption: A Significant and Quiet Threat to Public Health in the United States*, 107 AM. J. PUB. HEALTH 900 (2017).

² *Id.*

³ *Will State, Local Pesticide Bans Make More News?*, SOC'Y ENVTL. JOURNALISTS (July 11, 2018), <https://www.sej.org/publications/tipsheet/will-state-local-pesticide-bans-make-more-news>; see Jim Zarroli, *How Vaping Snuck Up on Regulators*, NPR (Nov. 15, 2019, 3:29 PM), <https://www.npr.org/2019/11/15/779703632/how-vaping-snuck-up-on-regulators>.

participate in some form.⁴ The police powers of the states and localities are generally understood to include public health.⁵ The rise of public health in the United States reflected responses by both state and local governments to epidemics in the late 18th and 19th century, including yellow fever, cholera, and smallpox.⁶ Among the earliest significant interventions were those by local governments, such as quarantine and community sanitation.⁷

Many municipalities established health departments beginning in the late 18th century, with Baltimore doing so in 1798, Charleston in 1815, Philadelphia in 1818, and Providence in 1832.⁸ In 1850, the Report by the Massachusetts Sanitary Committee recommended the creation of state health departments, with Massachusetts establishing the first such department in 1869 and 38 states following suit over the next 50 years.⁹ Local governments continue to play a leading role in public health in part because of the extensive health care and hospital systems owned or administered by city or county governments.¹⁰

By many accounts, the United States is currently in the midst of a public health crisis. Life expectancy in the United States has generally declined in recent years.¹¹ Even more troubling, rising deaths among young and middle age adults are key factors in explaining this decline.¹² While earlier accounts focused on mortality changes among certain demographic groups, the latest data points to increased death rates at midlife for almost all demographic groups and in both urban and non-urban areas.¹³ While addiction and its consequences are central to explaining these trends, so too is a rise in heart disease, stroke, and chronic

⁴ COMM'N ON ASSURING THE HEALTH OF THE PUB. IN THE 21ST CENTURY, *THE FUTURE OF THE PUBLIC'S HEALTH IN THE 21ST CENTURY* 96 (2003).

⁵ *Id.* at 166.

⁶ *History of Quarantine*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 10, 2012), <https://www.cdc.gov/quarantine/historyquarantine.html>.

⁷ *Id.*

⁸ Drew E. Altman & Douglas H. Morgan, *The Role of State and Local Government in Health*, 2 HEALTH AFF. 7, 10 (1983).

⁹ *Id.* at 10–11.

¹⁰ *Id.* at 12.

¹¹ Steven H. Woolf & Heidi Schoemaker, *Life Expectancy and Mortality Rates in the United States, 1959-2017*, 322 JAMA 1996, 1996 (2019).

¹² Joel Achenbach, 'There's Something Terribly Wrong': Americans Are Dying Young at Alarming Rates, WASH. POST (Nov. 26, 2019, 11:00 AM), https://www.washingtonpost.com/health/theres-something-terribly-wrong-americans-are-dying-young-at-alarming-rates/2019/11/25/d88b28ec-0d6a-11ea-8397-a955cd542d00_story.html.

¹³ Gina Kolata & Sabrina Tavernise, *It's Not Just Poor White People Driving a Decline in Life Expectancy*, N.Y. TIMES (Nov. 26, 2019), <https://www.nytimes.com/2019/11/26/health/life-expectancy-rate-usa.html>.

pulmonary disease,¹⁴ all of which are associated with the risks of smoking.¹⁵ While a major share of these early deaths is concentrated in the industrial Midwest, death rates increased for those age 25–64 in nearly every single state from 2010 to 2017.¹⁶ Despite the fact that the United States has the highest per capita health spending in the world, the early 21st century has posed a stark contrast to the consistent improvement in life expectancy over most of the 20th century.¹⁷ Life expectancy in the United States is nearly six years behind Japan and ranks below countries with significantly lower per capita income, such as Greece.¹⁸

In responding to these growing public health challenges, many localities have confronted new challenges to their legal authority. Under the canon of construction known as Dillon’s Rule, localities had only those powers expressly granted by the state, implied from such express grants, or those which are indispensable so that localities can function.¹⁹ With the rise of home rule cities and the decline of Dillon’s Rule, the authority of localities to regulate expanded significantly. Since Missouri adopted home rule in 1875,²⁰ many cities around the country have had significant power to regulate, especially in matters of local concern, such as public health.²¹ With home rule, localities receive a grant of power from the state and a limit on state control so that, among other things, the locality can decide on its own form of government and enact laws where the state has not acted.²² Nonetheless, the United States Supreme Court recognized the essential authority of states to withdraw powers from localities.²³

¹⁴ *Id.*

¹⁵ *Smoking*, CLEVELAND CLINIC, <https://my.clevelandclinic.org/health/articles/17488-smoking> (last visited Mar. 26, 2020).

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Life Expectancy at Birth*, CENT. INTELLIGENCE AGENCY, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2102rank.html> (last visited Mar. 25, 2020).

¹⁹ RICHARD BRIFFAULT & LAURIE REYNOLDS, *CASES AND MATERIALS ON STATE AND LOCAL GOVERNMENT LAW* 289–90, 327–28 (8th ed. 2016).

²⁰ See Kenneth E. Vanlandingham, *Municipal Home Rule in the United States*, 10 WM. & MARY L. REV. 269, 284 (1968).

²¹ Altman & Morgan, *supra* note 8, at 8.

²² *Home Rule*, BLACK’S LAW DICTIONARY (11th ed. 2019). Although the exception, some cities and states that follow Dillon’s Rule are nonetheless granted substantial authority. See Jon D. Russell & Aaron Bostrom, *Federalism, Dillon Rule and Home Rule*, AM. CITY COUNTY EXCHANGE (Jan. 2016), <https://www.alec.org/app/uploads/2016/01/2016-ACCE-White-Paper-Dillon-House-Rule-Final.pdf>.

²³ *Hunter v. City of Pittsburgh*, 207 U.S. 161, 178–79 (1907) (“Municipal corporations are political subdivisions of the state,” and “the [s]tate, therefore, at its pleasure may modify or withdraw all such powers . . . without the consent of the citizens, or even against their protest.”).

Public health is among the most important responsibilities of local government. The tension between state and local governments over authority in this area reflects the divergent approaches to regulation between city governments and state governments. State preemption is increasingly moving in the direction of broad state laws that limit local authority, which in some cases raise the stakes significantly in terms of the potential consequences of local action.²⁴ In recent decades, the expansion of local authority has encountered explicit state laws enacting preemption in broad domains of local interest and rulemaking. States have sought to “constrain, eliminate, and even criminalize local policy discretion across an array of policy domains.”²⁵ In this latest version of state preemption, many states have passed laws simply to preempt local control rather than to adopt a statewide law that might trump local ordinances because of a comprehensive statewide approach to regulation. The purpose of such laws is increasingly “merely to strip local governments of the power to act.”²⁶

While some states, such as Ohio, have interpreted state preemption of local action to extend only as far as state general legislation exists, most state courts have not followed this approach.²⁷ Even the more modest approach taken in California—interpreting state preemption as more protective of local government structure and local municipal contracts—has been rejected in neighboring states.²⁸ As a result, localities across the United States are facing unprecedented challenges to their governing authority in the form of explicit state preemption laws, which are increasingly expansive in scope, and relatively few state courts have sought to limit such preemption, even in the absence of comprehensive state laws or regulation.

This Article will first examine in depth the experience of preemption of local authority with respect to the history of tobacco products and the use of electronic cigarettes. Next, it will turn to analyzing similar dynamics of preemption of local authority in the context of the regulation of pesticides and herbicides. Third, it will explore whether a public health exception might be emerging and how this concept might offer useful guidance to courts and legislatures in balancing public health against preemption. Finally, this Article

²⁴ Richard Briffault, *The Challenge of the New Preemption*, 70 STAN. L. REV. 1995, 1995 (2018) (“New preemption measures frequently displace local action without replacing it with substantive state requirements. Often propelled by trade association and business lobbying, preemptive state laws are aimed not at coordinating state and local regulation but preventing any regulation at all.”).

²⁵ See Nestor M. Davidson, *The Dilemma of Localism in an Era of Polarization*, 128 YALE L.J. 954, 954 (2019); see also James G. Hodge, Jr., et al., *Public Health Preemption: Constitutional Affronts to Public Health Innovations*, 79 OHIO ST. L.J. 685 (2018).

²⁶ Nestor M. Davidson & Laurie Reynolds, *The New State Preemption, the Future of Home Rule, and the Illinois Experience*, 4 ILL. MUN. POL’Y J. 19, 20 (2019).

²⁷ See Briffault, *supra* note 24, at 2013.

²⁸ *Id.*

will seek to situate these specific cases in the context of the broader challenges to local authority and the significance of these developments for public health innovation and democratic accountability.

II. ELECTRONIC CIGARETTES

Smoking is currently the leading preventable cause of death in the United States and accounts for approximately 480,000 deaths each year.²⁹ Electronic cigarettes were initially hailed as a possible pathway to reduce the number of smokers of tobacco products.³⁰ By 2019, it became increasingly clear that electronic cigarettes captured a new generation in terms of nicotine addiction.³¹ In a growing number of cases, the use of these products also contributed to acute lung disease, particularly among young people.³² While the logical market for a smoking cessation device would be existing smokers, the electronic cigarette industry deliberately and successfully targeted youth who had historically low smoking rates as a group, and leaders in the industry resisted limits on marketing to this group.³³ According to the most recent survey of youth smoking by the federal government, 3.62 million middle and high school students used electronic cigarettes in 2018.³⁴ More than one quarter of high school students reported vaping within the past 30 days.³⁵

The increasingly active role of localities in regulating electronic cigarettes reflects the limits of federal action in this area.³⁶ The federal government strengthened the regulation of tobacco products with the passage of

²⁹ *Fast Facts*, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm (last updated Nov. 15, 2019).

³⁰ *See About Electronic Cigarettes (E-Cigarettes)*, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html (last updated Jan. 3, 2020).

³¹ Julie Creswell & Sheila Kaplan, *How Juul Hooked a Generation on Nicotine*, N.Y. TIMES (Feb. 12, 2020), <https://www.nytimes.com/2019/11/23/health/juul-vaping-crisis.html?auth=login-email&login=email>.

³² *Id.*; *see also Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products*, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html (last updated Jan. 28, 2020, 1:00 PM).

³³ Creswell & Kaplan, *supra* note 31.

³⁴ *Youth and Tobacco Use*, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm (last updated Dec. 10, 2019).

³⁵ *Id.*

³⁶ *See Zarroli, supra* note 3.

the Family Smoking Prevention and Tobacco Control Act in 2009.³⁷ The Tobacco Control Act restricts tobacco advertising and promotion, prohibits the sale of such products to anyone under the age of 18, provides penalties against retailers which fail to enforce these age restrictions, bans all cigarettes with flavors except for tobacco and menthol, requires disclosure of the contents of tobacco products, and mandates larger and more visible health warnings.³⁸

The Tobacco Control Act did not explicitly cover electronic cigarettes but did grant the Food and Drug Administration (“FDA”) the authority to regulate tobacco products.³⁹ In 2016, the FDA finalized the “deeming rule,” which authorized the agency to regulate electronic cigarettes based on their nicotine content, which qualified them as “tobacco products.”⁴⁰ The FDA highlighted at that time that the “deeming rule” would not further preempt state and local efforts focused on regulating electronic cigarettes.⁴¹ Despite emerging evidence of the health impact of electronic cigarettes,⁴² the FDA decided in 2017 to delay implementing this deeming rule and instead to engage in further research related to the risks posed by electronic cigarettes.⁴³

Included within the Tobacco Control Act was explicit language protecting the authority of states and localities to continue to regulate in this area. According to Section 916 of the Tobacco Control Act, localities are allowed to adopt and enforce any rule that is more stringent than the requirements under federal law.⁴⁴ Certain types of regulation related primarily to the manufacturing

³⁷ See Family Smoking Prevention and Tobacco Control Act, Pub. L. 111-31, § 203, 123 Stat. 1776, 1846 (2009) (codified at 15 U.S.C.A. § 1334(c) (West 2020)).

³⁸ *Id.*

³⁹ *Family Smoking Prevention and Tobacco Control Act – An Overview*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/tobacco-products/rules-regulations-and-guidance/family-smoking-prevention-and-tobacco-control-act-overview> (last updated Mar. 17, 2020).

⁴⁰ *The “Deeming Rule”: Vape Shops*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/media/97760/download> (last visited Mar. 26, 2020).

⁴¹ See 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; Regulations on the Sale and Distribution of Tobacco Products and Required Warning Statements for Tobacco Products, 79 FED. REG. 23142 (May 10, 2016) (codified at 21 C.F.R. pts. 1100, 1140, 1143).

⁴² See Mark Rubinstein et al., *Adolescent Exposure to Toxic Volatile Organic Chemicals from E-Cigarettes*, 141 PEDIATRICS 1, 3 (2018), <https://pediatrics.aappublications.org/content/pediatrics/141/4/e20173557.full.pdf>; Patricia J. Zettler et al., *Closing the Regulatory Gap for Synthetic Nicotine Products*, 59 B.C. L. REV. 1933 (2018); Elizabeth Fernandez, *E-Cigarette Use Exposes Teens to Toxic Chemicals*, UNIV. CAL. S.F. (Mar. 5, 2018), <https://www.ucsf.edu/news/2018/03/409946/e-cigarette-use-exposes-teens-toxic-chemicals>.

⁴³ Anne Hurst, Note, *Marketing, Federalism, and the Fight Against Teen E-Cigarette Use: Analyzing State and Local Legislative Options*, 69 CASE W. RES. L. REV. 173 (2018).

⁴⁴ Family Smoking Prevention and Tobacco Control Act, Pub. L. No. 111-31, § 101(b)(3), 123 Stat. 1776, 1823 (2009) (codified at 21 U.S.C.A. § 387p(a)(1) (West 2020)) (“Except as provided in paragraph (2)(A), nothing in this chapter, or rules promulgated under this chapter, shall be

and production of tobacco products are largely preempted under the Tobacco Control Act.⁴⁵ However, the Act also protects state law related to product liability for tobacco products.⁴⁶ Thus, the expanded authority of the federal government was designed to supplement, rather than displace, existing state and local regulatory authority related to tobacco products by combining elements of prior health laws that limit preemption.⁴⁷

Prior to the passage of the Tobacco Control Act, states and localities adopted and implemented a range of laws designed to limit the harms associated with tobacco products. In some cases, federal laws related to cigarettes had explicitly preempted state and local action in regulating tobacco products. For example, the Federal Cigarette Labeling and Advertising Act of 1965 (“FCLAA”) included language that prevented state and local governments from regulating cigarette advertising.⁴⁸ Nonetheless, localities catalyzed efforts to restrict the location of advertising beginning with Baltimore’s 1994 ban on billboards for cigarettes in certain parts of the city where children would be most likely to see them.⁴⁹ In 1995, a federal appeals court unanimously upheld the Baltimore ordinance.⁵⁰ By 1998, the 25 cities with the largest populations in the United States had adopted similar restrictions.⁵¹

construed to limit the authority of a Federal agency (including the Armed Forces), a State or political subdivision of a State, or the government of an Indian tribe to enact, adopt, promulgate, and enforce any law, rule, regulation, or other measure with respect to tobacco products that is in addition to, or more stringent than, requirements established under this chapter”).

⁴⁵ *Id.* (codified at 21 U.S.C.A. § 387p(a)(2)(A) (West 2020)) (“No state or political subdivision of a State may establish or continue in effect with respect to a tobacco product any requirement which is different from, or in addition to, any requirement under the provisions of this chapter relating to tobacco product standards, premarket review, adulteration, misbranding, labeling, registration, good manufacturing standards, or modified risk tobacco products.”).

⁴⁶ *Id.* 123 Stat. at 1824 (codified at 21 U.S.C.A. § 387p(b) (West 2020)) (“No provision of this chapter relating to a tobacco product shall be construed to modify or otherwise affect any action or the liability of any person under the product liability law of any State.”).

⁴⁷ Sam F. Halabi, *The Scope of Preemption Under the 2009 Family Smoking Prevention and Tobacco Control Act*, 71 FOOD & DRUG L.J. 300, 312 (2016).

⁴⁸ Federal Cigarette Labeling and Advertising Act § 1334(a), 15 U.S.C.A. § 1334(a) (West 2020) (“[N]o statement relating to smoking and health, other than the statement required by section 1333 of this title, shall be required on any cigarette package.”); *Id.* § 1334(b) (“No requirement or prohibition based on smoking and health shall be imposed under State law with respect to the advertising or promotion of any cigarettes the packages of which are labeled in conformity with the provisions of this chapter [15 U.S.C. §§ 1331–1341].”).

⁴⁹ *Penn Advert., Inc. v. Mayor of Baltimore*, 63 F.3d 1318, 1320 (4th Cir. 1995), *vacated sub nom. Penn Advert., Inc. v. Schموke*, 518 U.S. 1030 (1996), *adopted as modified*, 101 F.3d 332 (4th Cir. 1996).

⁵⁰ *Id.*

⁵¹ *Untangling the Preemption Doctrine in Tobacco Control*, PUB. HEALTH L. CTR. (Apr. 2018), <https://www.publichealthlawcenter.org/sites/default/files/resources/Untangling-the-Preemption-Docctrine-in-Tobacco-Control-2018.pdf>.

Localities also led the way in terms of protecting residents against the harms from second-hand smoke with smoke-free laws.⁵² In the 1970s, many activists focused on the risks inherent in second-hand smoke and sought to limit smoking in public places.⁵³ By 1974, 64 cities restricted smoking in public places in some form, and more than 100 other cities followed suit by 1976.⁵⁴ By 1986, the Surgeon General of the United States issued a major report highlighting the health consequences of “involuntary smoking.”⁵⁵

Beginning with San Luis Obispo in 1990, many cities created more comprehensive ordinances against smoking in public places.⁵⁶ Following these local efforts, in 1998, California became the first state to require that all workplaces, restaurants, and bars be smoke-free.⁵⁷ Overall 3,397 municipalities restrict where smoking is allowed in the United States.⁵⁸ By 2011, nearly 80% of people living in the United States were covered by 100% smoke-free air legislation in workplaces, restaurants, and bars.⁵⁹

The expansion of smoke-free policies prompted efforts by the tobacco industry to preempt local regulation through state laws.⁶⁰ The tobacco industry recognized the significance of these laws and began to seek state laws preempting local action.⁶¹ Tobacco lobbyists correctly saw local control as a threat because of the strong responsiveness of this level of government to concerted citizen pressure.⁶² As one tobacco lobbyist explained: “state laws which preempt local anti-tobacco ordinances are the most effective means to counter local challenges.”⁶³ Between 1992 and 1998, 31 different states passes laws preempting local tobacco regulation.⁶⁴ Among other things, these laws

⁵² Sarah Milov, *How the Vaping Industry Is Using a Defensive Tactic Pioneered Decades Ago by Big Tobacco*, TIME (Oct. 2, 2019), <https://time.com/5688256/big-tobacco-vaping-preemption-laws/>.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Sorry, SLO, You're No Longer the Toughest City on Smoking*, TRIB. (Jan 30, 2019, 4:55 PM), <https://www.sanluisobispo.com/opinion/editorials/article225303910.html>.

⁵⁷ Andrew Hyland et al., *Smoke-Free Air Policies: Past, Present, and Future*, 21 TOBACCO CONTROL 154, 155 (2012).

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ Milov, *supra* note 52.

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Preemptive State Tobacco-Control Laws – United States, 1982-1998*, CTRS. FOR DISEASE CONTROL & PREVENTION (Jan. 08, 1999), <https://www.cdc.gov/mmwr/preview/mmwrhtml/00056152.htm>.

barred strong local regulation related to advertising, youth access, or smoke-free requirements.⁶⁵

As a result of these successful state level preemption efforts, 22 states prevent localities from regulating youth access to tobacco products, 20 states limit local laws on selling these products to youth, 18 states prevent localities from regulating tobacco advertising, and 12 states preempt local smoke-free ordinances.⁶⁶ Although 915 local communities have enacted comprehensive smoke-free laws, only half of the states have done so.⁶⁷ In 14 states, there are no comprehensive statewide smoke-free laws, and in 11 other states, there are laws which cover some, but not all, of the covered sites such as workplaces, restaurants, and bars.⁶⁸ The forms of state preemption of local action vary from express preemption, to ambiguous express preemption, to implicit preemption, to preemption through statutes of general application.⁶⁹ Although 7 states repealed laws preempting indoor smoking bans between 2004 and 2017, at least 12 states still retain some form of preemption of such local regulation.⁷⁰

In the wake of major tobacco litigation in the 1990s, the states collected \$27.5 billion from the tobacco settlement.⁷¹ Many states imposed high taxes on the purchase of cigarettes, which particularly discouraged young people from smoking.⁷² The major tobacco companies also faced sharp limits on marketing products to youth.⁷³ The Master Settlement Agreement between the states and

⁶⁵ *Id.*

⁶⁶ *Preemption: The Biggest Challenge to Tobacco Control*, TOBACCO CONTROL LEGAL CONSORTIUM, <https://www.publichealthlawcenter.org/sites/default/files/resources/tclc-fs-preemption-tobacco-control-challenge-2014.pdf> (last visited Mar. 26, 2020).

⁶⁷ Michael Tynan et al., *State and Local Comprehensive Smoke-Free Laws for Worksites, Restaurants, and Bars—United States 2015*, CTRS. FOR DISEASE CONTROL & PREVENTION (June 24, 2016), <https://www.cdc.gov/mmwr/volumes/65/wr/mm6524a4.htm>.

⁶⁸ *Id.*

⁶⁹ *Untangling the Preemption Doctrine in Tobacco Control*, *supra* note 51. For an example of express preemption, see South Dakota legislation that “withdraws from local governments the authority to adopt tobacco control measures and centralizes it in state legislature as ‘exclusive regulator.’” *Id.* at 5. For an example of ambiguous express preemption see South Carolina: “Any laws, ordinances, or rules enacted pertaining to tobacco products or alternative nicotine products may not supersede state law or regulation.” *Id.* at 9. For an example of preemption by statutes of general application, see Iowa: “A county shall not adopt an ordinance, motion, resolution, or amendment that sets standards or requirements regarding the sale or marketing of consumer merchandise that are different from, or in addition to, any requirement established by state law.” *Id.* at 12.

⁷⁰ Lauren E. Phillips, Note, *Impeding Innovation: State Preemption of Progressive Local Regulations*, 117 COLUM. L. REV. 2225, 2242 (2017).

⁷¹ *Master Settlement Agreement*, PUB. HEALTH L. CTR., <https://www.publichealthlawcenter.org/topics/commercial-tobacco-control/commercial-tobacco-control-litigation/master-settlement-agreement> (last visited Mar. 26, 2020).

⁷² *Id.*

⁷³ *Id.*

the tobacco industry in 1998 specifically limited the ability of the industry to advertise to young people.⁷⁴ As a consequence of these developments, the smoking rate in the United States dropped by half between 1965 and 2006 before the introduction of electronic cigarettes.⁷⁵ Youth smoking dropped alongside this overall trend.⁷⁶

The recent expansion of nicotine use by young people because of electronic cigarettes is a dramatic reversal of recent overall trends of youth smoking.⁷⁷ In the decade after the federal Tobacco Control Act became law in 2009, electronic cigarettes became much more popular and reversed the trajectory in terms of youth using nicotine products.⁷⁸ Between 2011 and 2015, the use of electronic cigarettes by high school students grew by 900%.⁷⁹ Youth smoking has particular significance because of the impact of nicotine on the still developing brains of young people.⁸⁰ Youth smoking is central to the overall patterns of adult smoking as well because individuals who do not smoke by age 26, have only a 1% chance of becoming smokers.⁸¹ On the other hand, those who use electronic cigarettes are seven times more likely to also use traditional cigarettes in the following year.⁸²

In 2017, the Commissioner of the FDA extended by an additional four years the deadline for electronic cigarette companies to submit applications to the FDA to stay on the market.⁸³ In the year that followed, electronic cigarette use by high school students increased by 78%, while use by middle school

⁷⁴ *Id.*

⁷⁵ *Cigarette Smoking Among Adults—United States 2016*, CTRS. FOR DISEASE CONTROL & PREVENTION (Nov. 9, 2007), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5644a2.htm>.

⁷⁶ *Id.*

⁷⁷ *2018 NYTS Data: A Startling Rise in Youth E-Cigarette Use*, U.S. FOOD & DRUG ADMIN. (Feb. 6, 2019), <https://www.fda.gov/tobacco-products/youth-and-tobacco/2018-nyts-data-startling-rise-youth-e-cigarette-use>.

⁷⁸ *Id.*

⁷⁹ Chelsea Whyte, *Vaping by US High Schoolers Has Increased by 900 Percent*, NEW SCIENTIST (Dec. 9, 2016), <https://www.newscientist.com/article/2115714-vaping-by-us-high-schoolers-has-increased-by-900-per-cent/>.

⁸⁰ See Zettler et al., *supra* note 42.

⁸¹ *Preventing Tobacco Use Among Youths, Surgeon General Fact Sheet*, U.S. DEP'T HEALTH & HUM. SERVS., <https://www.hhs.gov/surgeongeneral/reports-and-publications/tobacco/preventing-youth-tobacco-use-factsheet/index.html> (last visited Mar. 26, 2020).

⁸² Tara Helle, *Teens Vaping E-Cigarettes up to 7 Times More Likely to Smoke Later, but Not Vice Versa*, FORBES (Dec. 4, 2017, 6:01 AM), <https://www.forbes.com/sites/tarahelle/2017/12/04/teens-vaping-e-cigarettes-up-to-7-times-more-likely-to-smoke-later-but-not-vice-versa/#392568966aea>.

⁸³ Creswell & Kaplan, *supra* note 31.

students increased by 48%.⁸⁴ One company, JUUL, dramatically expanded its market by increasing the nicotine level in its product to extremely high levels in part to appeal to skeptical retailers.⁸⁵ The company also used social media influencers with many followers on platforms such as Twitter, Facebook, Snapchat, and Instagram to actively promote its product among young people.⁸⁶ In the face of a lawsuit from the Center for Environmental Health, nearly every company in the industry agreed to a settlement that prevented marketing to youth.⁸⁷ However, JUUL initially refused to sign this settlement and continued marketing to youth a product which mentioned in tiny type that it contained nicotine.⁸⁸ Only in 2018 did the FDA formally require any nicotine warning label on the packaging.⁸⁹ By contrast, the European Parliament banned all advertising of electronic cigarettes and required explicit health warnings on all packaging.⁹⁰

Even before the acute health risks posed by electronic cigarettes and vaping became clear, some states and local communities sought to regulate this rapidly growing industry. By June of 2019, 15 states already regulated youth access to electronic cigarettes and required purchasers to be 21 years old.⁹¹ However, in all but four of these states certain exceptions applied.⁹² In addition, 15 states applied taxes on the purchase of electronic cigarettes.⁹³ A number of states also sought to require age verification for the internet purchase of tobacco

⁸⁴ Devin Miller, *AAP Works to Protect Children from E-Cigarettes, Calls for JUUL to Be Removed from Market*, AAP NEWS (Aug. 21, 2019), <https://www.aappublications.org/news/2019/08/21/washingtonjuul082119>.

⁸⁵ Creswell & Kaplan, *supra* note 31.

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ David Jolly, *European Parliament Approves Tough Rules on Electronic Cigarettes*, N.Y. TIMES (Feb. 26, 2014), <https://www.nytimes.com/2014/02/27/business/european-union-approves-tough-rules-on-electronic-cigarettes.html>.

⁹¹ *Youth Access to E-Cigarettes*, PUB. HEALTH L. CTR. (Sept. 15, 2019), <https://www.publichealthlawcenter.org/sites/default/files/States-with-Laws-Restricting-Youth-Access-to-ECigarettes-September152019.pdf>.

⁹² *Id.*

⁹³ *Id.*

products.⁹⁴ At the same time, however, eight different states explicitly preempted localities from passing local ordinances regulating electronic cigarette use.⁹⁵

Some localities similarly sought to limit the sale of flavored tobacco products. Although the Tobacco Control Act did not explicitly cover electronic cigarettes, its ban on flavored cigarettes reflected the recognition that such flavors contributed to youth smoking.⁹⁶ Among youth who report using electronic cigarettes, 81% responded that they use the product because it is available in flavors which they like.⁹⁷ For the largest seller of electronic cigarettes, JUUL, mint pods represented 70% of its sales while menthol flavor represent an additional 10% of its sales.⁹⁸

In the wake of the Tobacco Control Act, many localities enacted even more expansive bans on flavored tobacco products. In 2012, Providence, Rhode Island adopted an ordinance banning the sale of flavored tobacco products, which was challenged under both state and federal preemption and upheld by the First Circuit.⁹⁹ In another case, the Second Circuit suggested a complete tobacco flavor ban would withstand federal preemption analysis.¹⁰⁰ While flavor bans

⁹⁴ See *Brown & Williamson Tobacco Corp. v. Pataki*, 152 F. Supp. 2d 276 (S.D.N.Y. 2001) (upholding a New York law related to internet sales of tobacco products); see also N.C. GEN. STAT. ANN. § 14-313(b2) (West 2020) (requiring age verification for electronic cigarette online purchase); TEX. HEALTH & SAFETY CODE ANN. § 161.452(c) (West 2020) (requiring third party delivery with signature and identification at delivery).

⁹⁵ See *State Preemption of Local Tobacco Control Policies Restricting Smoking, Advertising, and Youth Access in—United States, 2000–10*, CTRS. FOR DISEASE CONTROL & PREVENTION (Aug. 26, 2011), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a2.htm>.

⁹⁶ *Flavored Products*, PUB. HEALTH L. CTR., <https://www.publichealthlawcenter.org/topics/commercial-tobacco-control/sales-restrictions/flavored-products> (last visited Mar. 26, 2020).

⁹⁷ Julia Cen Chen et al., *Flavored E-Cigarette Use and Cigarette Smoking Susceptibility Among Youth*, 2017 TOBACCO REG. SCI. 68, 69 (2017).

⁹⁸ Laurie McGinley, *Juul Halts Sales of Mint-Flavored E-Cigarettes, Its Most Popular Product*, WASH. POST (Nov. 7, 2019, 2:51 PM), <https://www.washingtonpost.com/health/2019/11/07/juul-halts-sales-mint-flavored-e-cigarettes-its-most-popular-product/>.

⁹⁹ See *Nat'l Ass'n of Tobacco Outlets, Inc. v. City of Providence*, 731 F.3d 71, 85 (1st Cir. 2013) (“[B]ecause the Flavor Ordinance is an appropriate sales regulation that is expressly preserved by the FSPTCA, it . . . is not preempted. Neither ordinance, moreover, conflicts with state law because Rhode Island has not occupied the field of tobacco regulation, and National Association has not raised a direct challenge to the relevant licensing provision that bears on the ordinances’ enforcement.”).

¹⁰⁰ *U.S. Smokeless Tobacco Mfg. Co. v. City of New York*, 708 F.3d 428, 433–34 (2d Cir. 2013) (finding a New York City ordinance banning the sale of non-cigarette tobacco products outside of tobacco bars was not preempted by TCA, which forbids states from banning the *manufacturing* of tobacco but allows states to regulate or ban the *sale* of tobacco). The court reasoned “the preservation clause of § 916 expressly *preserves* localities’ traditional power to adopt any ‘measure relating to or prohibiting the sale of tobacco products.’” *Id.* at 433. Further, “it does not follow that every sales ban—many of which would likely have some effect

have generally survived federal preemption, more direct regulation of manufacturing processes to ensure the quality of electronic cigarettes and vaping products has not.¹⁰¹

Local bans on flavored tobacco products beyond federal requirements have more recently been extended to cover electronic cigarettes. In 2015, Sonoma County adopted a ban on the sale of flavored products including electronic cigarettes, and it was soon followed by other counties and cities.¹⁰² These flavor bans built on the approach already in place in many jurisdictions for tobacco products. Many cities responded to rising rates of youth smoking by banning or restricting the sale of flavors.¹⁰³ In San Francisco, a successful voter initiative prohibited selling flavored vaping products with the support of more than two-thirds of voters despite \$12 million in opposition advertising by the tobacco industry.¹⁰⁴ Over 250 local governments established such restrictions on the sale of flavored products, including 168 in Massachusetts, 59 in California, 11 in Minnesota, 6 in Rhode Island, 5 in Colorado, and 3 in New York.¹⁰⁵

Many other localities expanded the definitions within existing ordinances to encompass electronic cigarettes. Los Angeles expanded its definition of smoking to include electronic cigarettes in order to extend smoke-free area laws to cover new forms of nicotine use.¹⁰⁶ In Arizona, several cities including Tempe, Flagstaff, and Tucson similarly extended the definition of tobacco products to cover electronic cigarettes.¹⁰⁷

on manufacturers' production decisions—should be regarded as a backdoor 'requirement . . . relating to tobacco product standards' that is preempted by the FSPTCA." *Id.* at 434 (citing 21 U.S.C.A. § 387p(a)(2)(A) (West 2020)).

¹⁰¹ Legato Vapors, L.L.C., v. Cook, 847 F.3d 825, 828 (7th Cir. 2017) (finding that an Indiana law was unconstitutional because it imposed requirements on how out of state manufacturers of electronic cigarettes managed their facilities and the Tobacco Control Act forbids different or additional requirements related to manufacturing from those enacted by the federal government).

¹⁰² Thomas A. Briant, *Pace of Flavor Bans Accelerated in 2019*, CSP (Dec. 10, 2019), <https://www.cspdailynews.com/tobacco/pace-flavor-bans-accelerated-2019>.

¹⁰³ *Id.*

¹⁰⁴ Jan Hoffman, *San Francisco Voters Uphold Ban on Flavored Vaping Products*, N.Y. TIMES (June 6, 2018), <https://www.nytimes.com/2018/06/06/health/vaping-ban-san-francisco.html>.

¹⁰⁵ Laura Bach, *States and Localities That Have Restricted the Sale of Flavored Tobacco Products*, CAMPAIGN FOR TOBACCO-FREE KIDS (Jan. 30, 2020), <https://www.tobaccofreekids.org/assets/factsheets/0398.pdf>.

¹⁰⁶ Matt Stiles, *L.A. County Expands Smoking Ban to Vaping Tobacco and Smoking Pot in Public*, L.A. TIMES (Mar. 26, 2019, 6:45 PM), <https://www.latimes.com/local/lanow/la-me-smoking-ban-beaches-vape-cannabis-20190326-story.html>.

¹⁰⁷ Jim Walsh, *Mesa Plans Tougher Vaping Restrictions*, EAST VALLEY TRIB. (Dec. 2, 2019), https://www.eastvalleytribune.com/news/mesa-plans-tougher-vaping-restrictions/article_8dd4c3ce-1163-11ea-8cfd-0bbb46de6847.html.

State and local laws which raise the age for the purchase of nicotine products can have a dramatic impact.¹⁰⁸ Both Hawaii and California raised the age for cigarette smoking and rates of use by teenagers fell substantially in both states.¹⁰⁹ In California, survey data found that high school cigarette smoking was more than cut in half from 2016 to 2018. However, the percentage of young people using electronic cigarettes in the state increased from 13.8% to 17.3% by 2017.¹¹⁰

Local laws and enforcement related to the use of electronic cigarettes have also had significant impact on the rate of youth smoking. In Southern California, young people living in weak local enforcement areas reported that they used electronic cigarettes because they were less harmful and more acceptable as compared to those living in high enforcement jurisdictions.¹¹¹ While only 36% of young people in high enforcement areas believed that vaping was less harmful than cigarettes, 50% held the same belief in low enforcement areas.¹¹² In addition, 38% in weak enforcement localities reported that being able to use electronic cigarettes in places where smoking was banned explained their use in contrast with only 18% in strong enforcement areas.¹¹³

Beginning in 2019, more than 2,300 people became seriously ill after vaping, and 47 people died as a result of these illnesses.¹¹⁴ Public concern over these illnesses sparked greater action by local governments to step into the regulatory breach. A number of state governments also took dramatic action to limit the use of electronic cigarettes.¹¹⁵ Massachusetts imposed a broad ban on the product for a four-month period.¹¹⁶ Several states enacted bans on the sale of flavors for vaping. Michigan, Oregon, Rhode Island, and Montana imposed a six-month flavor ban,¹¹⁷ while Washington imposed a four-month flavor ban,¹¹⁸

¹⁰⁸ Micah L. Berman, *Raising the Tobacco Sales Age to 21: Surveying the Legal Landscape*, 131 PUB. HEALTH REP. 378, 378 (2016).

¹⁰⁹ *Id.*

¹¹⁰ Andrew Siddons, *State Enforcement to Determine Success of Raising Legal Age for Tobacco*, ROLL CALL (Jan. 8, 2020, 5:30 AM), <https://www.rollcall.com/2020/01/08/success-of-tobacco-age-change-will-depend-on-state-efforts/>.

¹¹¹ Hanna Hong et al., *The Impact of Local Regulation on Reasons for Electronic Cigarette Use Among Southern California Young Adults*, 91 ADDICTIVE BEHAV. 253, 253 (2019).

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ Jonathan Lapook, *CDC Says 47 Deaths and 2,290 Illnesses Now Linked to Vaping*, CBS NEWS (Nov. 21, 2019, 6:44 PM), <https://www.cbsnews.com/news/cdc-vaping-update-teen-may-have-developed-popcorn-lung-from-vaping-2019-11-21/>.

¹¹⁵ Jonathan Corum, *Vaping Illness Tracker: 2,506 Cases and 54 Deaths*, N.Y. TIMES (Dec. 23, 2019), <https://www.nytimes.com/interactive/2019/health/vaping-illness-tracker.html>.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

and New York established a three month flavor ban excluding menthol.¹¹⁹ This rapid state action built on the broad responses by local communities around the country to establish restrictions on the sale of flavored tobacco products.

The lessons and tactics of tobacco preemption have been utilized once again in the context of electronic cigarettes. A number of states enacted legislation preempting local regulation of electronic cigarettes modeled on the earlier tobacco preemption efforts.¹²⁰ States such as Florida, Michigan, New Hampshire, North Carolina, Oklahoma, South Dakota, Tennessee, Utah, Virginia, and Wisconsin enacted preemption of local electronic cigarette regulation.¹²¹ In addition, statewide laws purporting to raise the age for access to electronic cigarettes often included new limits on local action to regulate the industry. For example, in Arkansas, JUUL supported a law raising the smoking age from 18 to 21, but this same law prevented localities from regulating more stringently than the state.¹²² In Florida, similar proposed legislation to raise the smoking age included language preempting local ordinances related to the sale and marketing of tobacco and electronic cigarette products.¹²³

Raising the smoking age does hold significant promise for reducing youth smoking rates and localities are driving state action in those states where that is possible. Overall, 94% of smokers begin before the age of 21.¹²⁴ At the same time, 81% start before the age of 18.¹²⁵ According to the National Academy of Medicine, raising the age of sale to 21 would reduce by 12% the number of future adult smokers,¹²⁶ while reducing the initiation of smoking by 15 to 17 year olds by 21%¹²⁷ and the initiation by 18 to 20 year olds by 15%.¹²⁸ While localities

¹¹⁹ *Id.*

¹²⁰ *History of Preemption of Smokefree Air by State*, AM. FOR NONSMOKERS' RTS., <https://www.protectlocalcontrol.org/docs/HistoryofPreemption.pdf> (last visited Mar. 26, 2020).

¹²¹ *Id.*

¹²² Liz Essley Whyte, *Why Big Tobacco and JUUL are Lobbying to Raise the Smoking Age*, USA TODAY (May 23, 2019, 10:59 AM), <https://www.usatoday.com/story/news/investigations/2019/05/23/why-big-tobacco-and-juul-lobbying-raise-smoking-age/3758443002/>.

¹²³ Jeffrey Schweers, *Anti-Smoking Campaigns, Local Regulations Threatened by Language Buried in Tobacco 21 Bills*, TALLAHASSEE DEMOCRAT (Apr. 26, 2019, 1:20 PM), <https://www.tallahassee.com/story/news/local/state/2019/04/26/florida-anti-smoking-campaigns-regulations-threatened-language-buried-tobacco-21-bills-legislature/3547855002/>.

¹²⁴ *Tobacco 21 Laws: Raising the Minimum Sales Age for All Tobacco Products to 21*, AM. LUNG ASS'N (Feb. 26, 2020), <https://www.lung.org/our-initiatives/tobacco/cessation-and-prevention/tobacco-21-laws.html>.

¹²⁵ *Id.*

¹²⁶ *Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products*, INST. MED. (Mar. 2015), <http://tobacco.cleartheair.org.hk/wp-content/uploads/2015/08/18997-2.pdf>.

¹²⁷ *Id.*

¹²⁸ *Id.*

initially led the push for raising the age on tobacco purchase, as of 2019, at least 18 states increased the level for purchasing tobacco products to 21.¹²⁹

In the context of the acute health crisis related to vaping, at the end of 2019, the United States Congress passed legislation raising the national age for the purchase of tobacco products to 21.¹³⁰ While the new law requires random inspections of retailers to ensure compliance, it also dramatically reduces the cost for states that fail to enforce in this area. Instead of losing up to 40% of its state block grant based on non-compliance, the state penalty would not exceed 10% of the grant, and these funds could be directed to compliance instead.¹³¹ In addition, the states have a grace period of three years before any such penalties would take effect.¹³² Federal enforcement faces challenges as evidenced by recent trends in non-compliance even before the passage of this new law. In 2019, the FDA oversaw inspections in a little more than one-third of known tobacco retailers.¹³³ In recent years, the violation rate has increased from just 5% in 2011 to approximately 12% in the past year.¹³⁴ Therefore, state and local enforcement initiative in independently regulating youth access will likely remain important at least for the near future as the new federal rule is not enforceable for several years and the reach of federal enforcement remains somewhat limited.

At the local level, many more localities responded to the health crisis by adopting more sweeping flavor bans. A number of major cities and counties have subsequently enacted at least temporary flavor bans, including New York, Oakland, Sacramento, Long Beach, and Los Angeles County.¹³⁵ San Francisco has since enacted a ban on the sale of electronic cigarettes as of early 2020, and some other localities have adopted similar bans.¹³⁶ Localities have also led the way in including electronic cigarettes in ordinances that designate smoke-free venues. Over 900 local laws restrict the use of electronic cigarettes in smoke-free

¹²⁹ Jacqueline Howard, *The US Officially Raises the Tobacco Buying Age to 21*, CNN (Dec. 27, 2019, 4:11 AM), <https://www.cnn.com/2019/12/27/health/us-tobacco-age-21-trnd/index.html>.

¹³⁰ Sheila Kaplan, *Congress Approves Raising Age to 21 for E-Cigarette and Tobacco Sales*, N.Y. TIMES (Dec. 19, 2019), <https://www.nytimes.com/2019/12/19/health/cigarette-sales-age-21.html?auth=login-email&login=email>.

¹³¹ *Federal Tobacco 21: The Law of Land*, TOBACCO 21, <https://tobacco21.org/federal-tobacco-21-faq/> (last visited Mar. 26, 2020).

¹³² Further Consolidated Appropriations Act, Pub. L. No. 116-94, 133 Stat. 2534 (2020).

¹³³ Siddons, *supra* note 110.

¹³⁴ *Id.*

¹³⁵ Bach, *supra* note 105.

¹³⁶ Laura Klivans, *San Francisco Bans Sales of E-Cigarettes*, NPR (June 25, 2019, 3:04 PM), <https://www.npr.org/sections/health-shots/2019/06/25/735714009/san-francisco-poised-to-ban-sales-of-e-cigarettes>.

venues, and almost 700 laws restrict such use in other settings.¹³⁷ In California, a total of 45 local communities include electronic cigarettes in their smoking ordinances.

These local responses to youth vaping were, until recently, a stark contrast with federal inaction. In 2018, the FDA announced that a flavor ban would be coming within 60 days because just as “flavors in food products can trigger reward pathways in the brain and influence decision-making[,] [f]lavors in tobacco products can also trigger reward pathways in the brain and additionally enhance the rewards of nicotine.”¹³⁸ Later, the Secretary of Health and Human Services cancelled a planned press conference announcing the new restrictions.¹³⁹ In the beginning of 2020, federal regulators did announce a ban on the sale of pre-filled flavored electronic cigarette cartridges except for menthol.¹⁴⁰ However, this action does not prohibit alternative mechanisms for using flavors in vaping products and specifically exempts products sold in devices which cannot be refilled which are now growing in popularity with young people.¹⁴¹ As a result, local and state efforts to regulate electronic cigarettes are likely to remain important in driving the response to recent upward trends in youth smoking and electronic cigarettes.

III. GLYPHOSATE BASED HERBICIDES

In recent decades, a series of fast acting organophosphates have become widely used both for landscaping and for agriculture.¹⁴² Approximately 78 million households in the United States apply chemical pesticides or herbicides

¹³⁷ *States and Municipalities with Laws Regulating Use of Electronic Cigarettes*, AM. NONSMOKERS' RTS. FOUND. (Jan. 2, 2020), <http://no-smoke.org/wp-content/uploads/pdf/ecigslaws.pdf>.

¹³⁸ Regulation of Flavors in Tobacco Products, 83 Fed. Reg. 12294 (proposed Mar. 21, 2018) (to be codified at 21 C.F.R. pts. 1100, 1140, 1143).

¹³⁹ Annie Karni et al., *Trump Retreats from Flavor Ban for E-Cigarettes*, N.Y. TIMES (Nov. 17, 2019), <https://www.nytimes.com/2019/11/17/health/trump-vaping-ban.html>.

¹⁴⁰ Lauren Hirsch, *The Trump Administration Will Ban Flavored E-Cigarette Pods, With Exceptions for Menthol and Tobacco Flavors*, CNBC (Dec. 31, 2019, 11:49 PM), <https://www.cnbc.com/2019/12/31/the-trump-administration-will-ban-flavored-e-cigarette-pods-with-exceptions-for-menthol-and-tobacco.html>.

¹⁴¹ Sheila Kaplan, *Teens Find a Big Loophole in the New Flavored Vaping Ban*, N.Y. TIMES (Jan. 31, 2020), <https://www.nytimes.com/2020/01/31/health/vaping-flavors-disposable.html>.

¹⁴² *Widely Used Herbicide Found in Rain and Streams in the Mississippi River Basin*, U.S. GEOLOGICAL SERV. (Aug. 29, 2011, 8:19 PM), <https://archive.usgs.gov/archive/sites/www.usgs.gov/newsroom/article.asp-ID=2909.html>; Carey Gillam, *U.S. Researchers Find Roundup Chemical in Water, Air*, REUTERS (Aug. 31, 2011, 4:05 PM), <https://www.reuters.com/article/us-glyphosate-pollution-idUSTRE77U61720110831>.

to their lawns and gardens.¹⁴³ One of the most common chemicals used is glyphosate,¹⁴⁴ the major ingredient in the product known as Roundup,¹⁴⁵ which is the most used herbicide in the country.¹⁴⁶ Its widespread use in agriculture has grown exponentially over the past two decades. Approximately 298 million acres of farmland in the United States apply Roundup or similar glyphosate-based products to deal with concerns about weeds.¹⁴⁷ In many cases, these crops are planted with built-in resistance to glyphosate and are known as Roundup Ready crops.¹⁴⁸ In just over 15 years, the use of these products on leading agricultural crops increased more than 2,000%.¹⁴⁹ In 1996, approximately 14 million pounds of glyphosate was used on just three crops: corn, soy, and cotton.¹⁵⁰ By 2012, nearly 300 million pounds of glyphosate-based products were sprayed on these same crops.¹⁵¹ As a result of these uses, glyphosate was found by the United States Geological Service to be common in many Midwestern streams.¹⁵² In addition, the United States Geological Service found glyphosate in significant levels in air samples and rain samples in the Mississippi River basin.¹⁵³

There is ongoing debate about the health risks posed by glyphosate-based herbicides, but a growing number of researchers and health authorities are finding reason for concern. The International Agency for Research on Cancer, which is part of the World Health Organization, determined in 2015 that

¹⁴³ *Lawn Pesticide Facts and Figures*, BEYOND PESTICIDES, https://www.beyondpesticides.org/assets/media/documents/lawn/factsheets/LAWNFACTS&FIGURES_8_05.pdf (last visited Mar. 25, 2020).

¹⁴⁴ *Id.*

¹⁴⁵ Cecelia Smith-Schoenwalder, *What to Know About Glyphosate, the Pesticide in Roundup Weed Killer*, U.S. NEWS (Aug. 19, 2019, 3:35 PM), <https://www.usnews.com/news/national-news/articles/what-to-know-about-glyphosate-the-pesticide-in-roundup-weed-killer>.

¹⁴⁶ *Id.*

¹⁴⁷ *Glyphosate: Response to Comments, Usage, and Benefits*, U.S. ENVTL. PROTECTION AGENCY (Apr. 18, 2019), <https://www.epa.gov/sites/production/files/2019-04/documents/glyphosate-response-comments-usage-benefits-final.pdf>.

¹⁴⁸ *Id.*

¹⁴⁹ Charles M. Benbrook, *Impacts of Genetically Engineered Crops on Pesticide Use in the U.S. – the First Sixteen Years*, 24 ENVTL. SCI. EUR. 1, 3 (2012), <https://enveurope.springeropen.com/track/pdf/10.1186/2190-4715-24-24>.

¹⁵⁰ *Id.*

¹⁵¹ Charles M. Benbrook, *Trends in Glyphosate Herbicide Use in the United States and Globally*, 28 ENVTL. SCI. EUR. 3, 3 (2016).

¹⁵² *Glyphosate Herbicide Found in Many Midwestern Streams, Antibiotics Not Common*, U.S. GEOLOGICAL SURV., <https://toxics.usgs.gov/highlights/glyphosate02.html> (last visited Mar. 29, 2020).

¹⁵³ *Widely Used Herbicide Found in Rain and Streams in the Mississippi River Basin*, U.S. GEOLOGICAL SURV. (Aug. 29, 2011, 8:19 PM), <https://archive.usgs.gov/archive/sites/www.usgs.gov/newsroom/article.asp-ID=2909.html>; Carey Gillam, *U.S. Researchers Find Roundup Chemical in Water, Air*, REUTERS (Aug. 31, 2011, 4:05 PM), <https://www.reuters.com/article/us-glyphosate-pollution-idUSTRE77U61720110831>.

glyphosate is a probable carcinogen in humans.¹⁵⁴ A meta-analysis of existing data by the University of Washington also suggests an elevated cancer risk from exposure to glyphosate.¹⁵⁵ However, the Environmental Protection Agency concluded, when it registered glyphosate in 1974,¹⁵⁶ that it did not pose an unreasonable adverse effect on human health or the environment when its application was about 1% of its current use.¹⁵⁷ In 2016 and again in 2017, the Environmental Protection Agency issued two different papers concluding that there was not sufficient evidence to find that glyphosate was carcinogenic.¹⁵⁸ The 2016 review stated that the risk of Non-Hodgkins Lymphoma cannot be determined based on the data available and conflicting results.¹⁵⁹ However, there was, at that time, extensive dissent within the Scientific Advisory Panel to the Environmental Protection Agency regarding these conclusions by the agency.¹⁶⁰ In California, state regulators classified glyphosate as a chemical known to cause

¹⁵⁴ See Katherine Drabiak, *Roundup Litigation: Using Discovery to Dissolve Doubt*, 31 GEO. ENVTL. L. REV. 697, 702 (2019) (“[The IARC] working group found there was limited evidence of carcinogenicity in humans for NHL, convincing evidence that glyphosate can cause cancer in laboratory animals, and that glyphosate caused DNA and chromosomal damage in human cells.”).

¹⁵⁵ Luoping Zhang et al., *Exposure to Glyphosate-Based Herbicides and Risk for Non-Hodgkin Lymphoma: A Meta-Analysis and Supporting Evidence*, 781 MUTATION RES. 186 (2019) (finding based on a study of 54,000 licensed pesticide applicators that Glyphosate raises the cancer risk of those exposed to it by 41% and finding a “compelling link” between glyphosate exposure and heightened risk of non-Hodgkin lymphoma (NHL), a cancer of the immune system: “All of the meta-analyses conducted to date, including our own, consistently report the same key finding: exposure to GBHs (glyphosate-based herbicides) are associated with an increased risk of NHL.”); see also Mikael Eriksson et al., *Pesticide Exposure as Risk Factor for Non-Hodgkin Lymphoma Including Histopathological Subgroup Analysis*, 123 INT’L J. CANCER 1657 (2008); Lennart Hardell & Mikael Eriksson, *A Case-Control Study of Non-Hodgkin Lymphoma and Exposure to Pesticides*, 85 CANCER 1353 (1999); Helen McDuffie et al., *Non-Hodgkin’s Lymphoma and Specific Pesticide Exposure in Men: Cross-Canada Study of Pesticides and Health*, 10 CANCER EPIDEMIOLOGY, BIOMARKERS, & PREVENTION 1155 (2001).

¹⁵⁶ *Glyphosate*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/ingredients-used-pesticide-products/glyphosate#main-content> (last visited Mar. 25, 2020).

¹⁵⁷ *Id.*

¹⁵⁸ *Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential*, U.S. ENVTL. PROTECTION AGENCY (Dec. 12, 2017), [cfpub.epa.gov › si_public_file_download; Glyphosate Issue Paper: Evaluation of Carcinogenic Potential](https://cfpub.epa.gov/si_public_file_download/Glyphosate_Issue_Paper_Evaluation_of_Carcinogenic_Potential), U.S. ENVTL. PROTECTION AGENCY (Sept. 12, 2016), https://www.epa.gov/sites/production/files/2016-09/documents/glyphosate_issue_paper_evaluation_of_carcinogenic_potential.pdf.

¹⁵⁹ *Id.*

¹⁶⁰ Drabiak, *supra* note 154, at 707 (“Some [Scientific Advisory Committee] members . . . agreed that meta-analysis shows a ‘scientifically important and statistically significant elevated NHL risk,’” and “some . . . asserted that the current evidence is consistent with and suggestive of the positive carcinogenic potential of glyphosate.”).

cancer based in part on the assessment of the International Agency for Research on Cancer that the chemical is a probable carcinogen.¹⁶¹

In analyzing these conflicting conclusions regarding the health risks posed by these chemicals, some scholars have suggested that the weight given to cost-benefit analysis in the process undertaken by the Environmental Protection Agency means its conclusions offer a less clear cut assessment of health risk since these concerns are balanced against independent economic considerations.¹⁶² Other scholars point to the weakness of the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) and other statutes in accounting for cumulative risk and expected exposure to the products it regulates.¹⁶³ Finally, some scholars point to the significant role of industry data in the review by the Environmental Protection Agency, which might be less significant in other evaluations of potential health risks.¹⁶⁴

In recent years, plaintiffs suffering from cancer have successfully won multimillion-dollar judgments against the manufacturer of Roundup for the failure to include an accurate health warning on its label. In 2018, a jury in California ordered compensation of \$289 million for a groundskeeper who attributed his cancer diagnosis to the use of Roundup.¹⁶⁵ In 2019, a different California jury awarded \$2 billion to a couple with cancer in a different Roundup suit.¹⁶⁶ More than 40,000 other lawsuits are pending related to Roundup, and the company has lost at least four cases in which plaintiffs claimed that long-term exposure to Roundup caused their cancer.¹⁶⁷

¹⁶¹ *Glyphosate Listed Effective July 7, 2017, as Known to the State of California to Cause Cancer*, CAL. OFF. ENVTL. HEALTH HAZARD ASSESSMENT (June 26, 2017), <https://oehha.ca.gov/proposition-65/crn/glyphosate-listed-effective-july-7-2017-known-state-california-cause-cancer>.

¹⁶² See Drabiak, *supra* note 154, at 699.

¹⁶³ Sanne H. Knudsen, *Regulating Cumulative Risk*, 101 MINN. L. REV. 2313, 2315 (2017) (“Despite evolutions in scientific thinking, the implementation of the two major federal environmental laws most directly impacting the entry of chemicals and pesticide to the marketplace—the Toxic Substances Control Act (TSCA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)—have largely ignored issues of cumulative risk. With some limited exceptions, chemicals and pesticides are regulated on a chemical-by-chemical basis instead of based on real-world exposures.”).

¹⁶⁴ See Drabiak, *supra* note 154, at 699.

¹⁶⁵ *Jury Orders Monsanto to Pay \$289 Million in Roundup Cancer Trial*, CBS NEWS (Aug. 10, 2018, 8:01 PM), <https://www.cbsnews.com/news/dewayne-johnson-monsanto-roundup-weed-killer-jury-award-today-2018-08-10/>.

¹⁶⁶ Richard Gonzales, *California Jury Awards \$2 Billion to Couple in Roundup Weed Killer Cancer Trial*, NPR (May 13, 2019, 10:07 PM), <https://www.npr.org/2019/05/13/723056453/california-jury-awards-2-billion-to-couple-in-roundup-weed-killer-cancer-trial>.

¹⁶⁷ *Monsanto Roundup Trial Tracker*, U.S. RIGHT TO KNOW (Feb. 3, 2020), <https://usrtk.org/monsanto-roundup-trial-tracker-index/>.

In response to the Roundup litigation, the United States Department of Justice is challenging recent jury awards, citing determinations by the Environmental Protection Agency that glyphosate “is not likely to be carcinogenic to humans.”¹⁶⁸ The Department claims that the jury effectively is requiring additional pesticide labeling on the product by the state, which is federally preempted.¹⁶⁹ In the past, some courts have relied on prior safety determinations by the Environmental Protection Agency as a basis for federal preemption of failure to warn claims.¹⁷⁰ As of early 2020, settlement negotiations were underway which may lead to a comprehensive approach to these cases but that outcome is still far from certain.¹⁷¹

Federal law in this area leaves significant authority in the hands of state and local governments to regulate herbicides and pesticides. The United States Congress originally enacted FIFRA in 1947 as a labelling statute to regulate claims and warning labels on pesticide products.¹⁷² In 1972, Congress transferred authority over FIFRA to the Environmental Protection Agency and empowered the Agency to register and classify pesticides based on its scientific analysis of the potential harms associated with its use.¹⁷³ Based on these amendments, FIFRA’s core purpose is “to ensure that, when applied as instructed, pesticides will not generally cause unreasonable risk to human health or the environment.”¹⁷⁴

Although FIFRA explicitly preempts state labelling authority, it leaves open state regulation of pesticide use, state requirements to register the pesticide for use, and state restrictions on the sale of such pesticides.¹⁷⁵ While not as

¹⁶⁸ *Id.*; Joel Rosenblatt, *U.S. EPA Supports Bayer's Appeal of Roundup Cancer Verdict*, BLOOMBERG (Dec. 20, 2019), <https://www.bloomberg.com/news/articles/2019-12-21/u-s-epa-supports-bayer-s-appeal-of-roundup-cancer-verdict>.

¹⁶⁹ Bob Egelko, *Trump Administration Backs Monsanto in Bay Area Case*, S.F. CHRON. (Dec. 23, 2019, 3:12 PM), <https://www.sfchronicle.com/bayarea/article/Trump-administration-backs-Monsanto-in-Bay-Area-14928383.php>.

¹⁷⁰ *See In re Syngenta AG MIR 162 Corn Litig.*, 131 F. Supp. 3d 1177 (D. Kan. 2015).

¹⁷¹ Carey Gillam, *Stakes Are High with Two Roundup Cancer Trials Starting Amid Settlement Talks*, U.S. RIGHT TO KNOW (Jan. 22, 2020), <https://usrtk.org/monsanto-roundup-trial-tacker/stakes-are-high-with-two-roundup-cancer-trials-starting-amid-settlement-talks/>.

¹⁷² *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and Federal Facilities*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/enforcement/federal-insecticide-fungicide-and-rodenticide-act-fifra-and-federal-facilities> (last visited Feb. 13, 2020).

¹⁷³ *About Pesticide Registration*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/pesticide-registration/about-pesticide-registration> (last visited Feb. 13, 2020).

¹⁷⁴ *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and Federal Facilities*, *supra* note 172.

¹⁷⁵ Elena S. Rutrick, Comment, *Local Pesticide Regulation Since Wisconsin Public Intervenor v. Mortier*, 20 B.C. ENVTL. AFF. L. REV. 65, 72 (1993); *see also* Judi Abbott Curry et al., *Federal Preemption of Pesticide Labeling Claims*, 10 ST. JOHN’S J. LEGAL COMMENT. 325, 328 (1995).

explicit as some federal statutes in encouraging state regulation,¹⁷⁶ FIFRA does not address all areas of pesticide regulation, and Congress did not intend to occupy the field.¹⁷⁷ The United States Court of Appeals for the District of Columbia ruled that FIFRA also did not preempt state common law claims and distinguished these from FIFRA's regulatory purpose.¹⁷⁸ However, the United States Court of Appeals for the First Circuit found that FIFRA does preempt state law claims grounded in the failure to warn about product health hazards.¹⁷⁹

¹⁷⁶ Marjorie A. Shields, Annotation, *Validity, Construction, and Operation of State and Municipal Act or Regulation Requiring Notice of Pesticide and Herbicide Use*, 18 A.L.R. 6th Art. 793 (2006) (“§ 24, in addition to providing for ‘special local needs’ registration by states, contains two pre-emption provisions, § 24(a) and 24(b). The first, similar to provisions in other federal environmental laws, prohibits states from imposing less stringent regulatory requirements on the ‘sale or use of any federally registered pesticide’ than are required by or under the FIFRA. It does not, however, specifically allow more stringent state regulation or, as in the case of the Occupational Safety and Health Act, limit the states to federally equivalent standards. The second pre-emption provision prohibits the states from imposing labeling or packaging requirements different from those required by the FIFRA.”).

¹⁷⁷ Catherine Janasie, *State and Local Regulation of Pesticides: What Does FIFRA Allow?*, SEA GRANT L. CTR. (Sept. 2019), <http://nsglc.olemiss.edu/projects/ag-food-law/files/regulation-of-pesticides.pdf>.

¹⁷⁸ See *Ferebee v. Chevron Chem. Co.*, 736 F.2d 1529, 1541 (D.C. Cir. 1984) (“While FIFRA does not allow states directly to impose additional labelling requirements, the Act clearly allows states to impose more stringent constraints on the use of EPA-approved pesticides than those imposed by the EPA: ‘A State may regulate the sale or use of any federally registered pesticide or device in the State, but only if and to the extent the regulation does not permit any sale or use prohibited by this subchapter.’ 7 U.S.C. § 136v(a). See also SEN. REP. No. 838 92d Cong., 2d Sess. 30 (1982) reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS 4021 (‘Generally, the intent of the provision is to leave to the States the authority to impose stricter regulation on pesticides uses than that required under the Act.’); SEN. REP. NO. 970, 92d Cong., 2d Sess. 44 (1972) reprinted in 1972 U.S. CODE CONG. & ADMIN. NEWS 4128 (same); see generally *National Agricultural Chemicals Association v. Rominger*, 500 F. Supp. 465 (E.D. Cal. 1978) (state may require additional data on EPA-registered pesticides). Given this provision, Maryland might well have the power to ban paraquat entirely. We need not decide that issue, however, to hold that, if a state chooses to restrict pesticide use by requiring that the manufacturer compensate for all injuries or for some of these injuries resulting from use of a pesticide, federal law stands as no barrier.”). But see *Cipollone v. Liggett Grp.*, 505 U.S. 504 (1992) (holding that the Cigarette Labeling and Advertising Act had a preemptive effect for state tort actions).

¹⁷⁹ *King v. E.I. Dupont de Nemours & Co.*, 996 F.2d 1346, 1349 (1st Cir. 1993) (“The Supreme Court itself has indicated that *Cipollone* applies to FIFRA preemption determinations. In the *Papas v. Upjohn Co.* and *Arkansas-Platte* cases discussed below, the Court vacated two courts of appeals judgments that FIFRA impliedly preempted state law failure-to-warn claims and remanded for those courts to reconsider their decisions in light of *Cipollone*. We hold that, in light of *Cipollone*, FIFRA preempts the plaintiffs’ state law tort claims based on the defendants’ alleged failure to provide adequate warnings about the health hazards of the herbicides they manufactured and sold. The warnings on the labels of the herbicides King and Higgins used in spraying were approved by the EPA, as FIFRA required. If the plaintiffs could recover on their state law claims that, despite this labeling, the defendants had failed to provide adequate warning, those additional warnings necessarily would be ‘in addition to or different from those required under this subchapter.’ 7 U.S.C. § 136v(b). The question, therefore, is whether state law liability based upon such defective

In a legal challenge related to local authority to regulate pesticides under FIFRA, the United States Supreme Court upheld the authority of localities along with states to engage in such regulation.¹⁸⁰ In Wisconsin, the town of Casey required notification of the use of pesticides and created a permitting process for the use of such pesticides on public lands. In *Wisconsin Public Intervenor v. Mortier*,¹⁸¹ the Supreme Court ruled that FIFRA did not preempt local jurisdictions from restricting the use of pesticides more stringently than the federal government.¹⁸² The Supreme Court overruled two different lower courts in holding that FIFRA did not preempt local ordinances that sought more stringent regulation of pesticides. In a unanimous decision, the Court rejected the application of federal preemption to local regulation of pesticides.¹⁸³

In the wake of the Supreme Court's decision, the Coalition for Sensible Pesticide Policy was formed with the aim of convincing state legislatures to pass statewide preemption laws that would prevent localities from exercising the authority the Supreme Court upheld in *Wisconsin Public Intervenor v. Mortier*.¹⁸⁴

warning would constitute the 'imposition' by the state of 'any requirements for labeling or packaging' under section 136v(b).")

¹⁸⁰ Wis. Pub. Intervenor v. Mortier, 501 U.S. 597 (1991).

¹⁸¹ *Id.*

¹⁸² *Id.* at 606–12 (“Applying these principles, we conclude that FIFRA does not preempt the town’s ordinance either explicitly, implicitly, or by virtue of an actual conflict. As the Wisconsin Supreme Court recognized, FIFRA nowhere expressly supersedes local regulation of pesticide use.”). Additionally, the court noted “Section 136v plainly authorizes the ‘States’ to regulate pesticides and just as plainly is silent with reference to local governments. Mere silence, in this context, cannot suffice to establish a ‘clear and manifest purpose’ to preempt local authority.” *Id.* at 607. “Even if FIFRA’s express grant of regulatory authority to the States could not be read as applying to municipalities, it would not follow that municipalities were left with no regulatory authority.” *Id.* The court stated, “[r]ather, it would mean that localities could not claim the regulatory authority explicitly conferred upon the States that might otherwise have been preempted through actual conflicts with Federal law. At a minimum, localities would still be free to regulate subject to the usual principles of preemption.” *Id.* “Properly read, the statutory language tilts in favor of local regulation.” *Id.* The court also held that because “FIFRA fails to provide any clear and manifest indication that Congress sought to supplant local authority over pesticide regulation impliedly.” *Id.* at 611. The court “reject[ed] the position of some courts, but not the court below, that the 1972 amendments transformed FIFRA into a comprehensive statute that occupied the field of pesticide regulation, and that certain provisions opened specific portions of the field to state regulation and much smaller portions to local regulation.” *Id.* at 612.

¹⁸³ See *Md. Pest Control Ass’n v. Montgomery Cty.*, 646 F. Supp. 109 (D. Md. 1986) (finding federal preemption of county pesticide notification requirements based on the legislative history of the Federal Insecticide, Fungicide, and Rodenticide Act indicating that Congress intended to restrict authority over pesticide regulation to states and not localities); see also *Prof’l Lawn Care Ass’n v. Vill. of Milford*, 909 F.2d 929 (6th Cir. 1990) (finding federal preemption of local requirement that pesticide users place signs with specific language warning of the particular pesticide’s hazards), *vacated sub nom.* *Vill. of Milford v. Prof’l Lawn Care Ass’n*, 501 U.S. 1246 (1991), *abrogated by Wisconsin Pub. Intervenor v. Mortier*, 501 U.S. 597 (1991).

¹⁸⁴ Matthew Porter, *Sate Preemption Law: The Battle for Local Control of Democracy*, BEYOND PESTICIDES,

Many of these state laws use identical language based on a Model State Pesticide Preemption Act, which states,

No city, town, county, or other political subdivision of this state shall adopt or continue in effect any ordinance, rule, regulation or statute regarding pesticide sale or use, including without limitation: registration, notification of use, advertising and marketing, distribution, applicator training and certification, storage, transportation, disposal, disclosure of confidential information, or product composition.¹⁸⁵

Within a year of the Supreme Court's decision in *Wisconsin Public Intervenor v. Mortier*, 27 states enacted pesticide preemption legislation while 8 states defeated such legislation.¹⁸⁶

While a growing number of localities are seeking to restrict the use of glyphosate-based products, state preemption law stands as a major obstacle in most states. In fact, in only seven states can localities pass stricter laws related to regulating the use of pesticides.¹⁸⁷ Recent court decisions in Hawaii¹⁸⁸ leave only Alaska, Maine, Maryland, Nevada, Utah, and Vermont as the six states in which local governments exercise power over pesticide use in their jurisdiction.¹⁸⁹ In 14 other states, localities can petition the states to authorize local restrictions, but in essence, the state retains the power and discretion over whether local governments can act in this sphere.¹⁹⁰ According to one recent study funded by the United States Department of Agriculture, such preemption laws leave local governments powerless to protect the public health of their residents.¹⁹¹ By contrast, Canada has no local preemption related to pesticides

<https://www.beyondpesticides.org/assets/media/documents/lawn/activist/documents/StatePreemption.pdf> (last visited Feb. 13, 2020).

¹⁸⁵ *State Pesticide Preemption Act*, AM. LEGIS. EXCHANGE COUNCIL (Jan. 28, 2013), <https://www.alec.org/model-policy/state-pesticide-preemption-act/>.

¹⁸⁶ Rutrick, *supra* note 175, at 87.

¹⁸⁷ Porter, *supra* note 184.

¹⁸⁸ *See Atay v. Cty. of Maui*, 842 F.3d 688 (9th Cir. 2016) (determining that the Hawaii legislature intended to create a comprehensive statutory scheme and finding local preemption).

¹⁸⁹ *Id.*

¹⁹⁰ Matthew Porter, *State Preemption Law: The Battle for Local Control of Democracy*, BEYOND PESTICIDES,

<https://www.beyondpesticides.org/assets/media/documents/lawn/activist/documents/StatePreemption.pdf> (last visited Feb. 13, 2020) (noting this petitioning is allowed in Connecticut, Delaware, Indiana, Louisiana, Massachusetts, Michigan, Mississippi, New Jersey, New York, South Carolina, Rhode Island, Virginia, and Washington).

¹⁹¹ Terence J. Centner & Davis Clarke Heric, *Anti-Community State Pesticide Preemption Laws Prevent Local Governments from Protecting People from Harm*, 17 INT'L J. AGRIC. SUSTAINABILITY 118 (2019).

and at least 170 localities in that country have banned the use of pesticides for lawn care.¹⁹²

Despite the great success of those seeking to preempt local ordinances related to pesticides, concerns related to glyphosate have sparked action by local governments across the country.¹⁹³ At least 50 city and county ordinances restrict the use of the chemical on public property including local playgrounds, parks, and schoolyards.¹⁹⁴ In cities ranging from Cleveland, Ohio, to Irvine, California, its use is prohibited on city property.¹⁹⁵ In states such as Maine and Maryland, some local jurisdictions have gone further to bar its use on private as well as public property.¹⁹⁶

The local government interest in regulating glyphosate generated its own momentum to expand preemption of local pesticide regulation. In 2018, the draft Farm Bill included language that would prevent localities from adopting their own pesticide regulations including ordinances prohibiting the use of Roundup.¹⁹⁷ The proposed language would have amended FIFRA to replace the term “state,” which the Supreme Court found to include localities, with the term “state lead agency” or “statewide department or agency” which would exclude localities.¹⁹⁸

In addition to preemption efforts at the national level, litigation over local regulation of Roundup and other chemicals demonstrated the challenges to

¹⁹² *Reclaiming Local Control*, PAN, <https://www.panna.org/policies-work/reclaiming-local-control> (last visited Feb. 13, 2020).

¹⁹³ Tom Major, *Glyphosate Ruling Sparks Further Controversy Over Common Weedkiller's Cancer Link*, ABC NEWS (Mar. 28, 2019, 3:49 AM), <https://www.abc.net.au/news/rural/2019-03-28/glyphosate-ruling-sparks-further-controversy-over-weed-killer/10950214>.

¹⁹⁴ The 58 local ordinances include Durango, Colorado's requirement that public lands be organically managed; Eugene, Oregon's requirement for pesticide free parks; Portland, Oregon's requirement for pesticide free parks and ban on glyphosate; Palo Alto, California's ban on the use of glyphosate on public property; Evanston, Illinois's ban on the use of glyphosate on public property; Eden Prairie, Minnesota's restriction on the use of neonics on public property with limited exceptions; Cleveland, Ohio's prohibition of pesticides on public property and ban on glyphosate; Washington, D.C.'s prohibition of the use of pesticides on public property and at private day care centers and on water contingent property; Montclair, New Jersey's, ban on the use of glyphosate on public property; New Paltz, New York's restriction on glyphosate use on public property; Rockland County, New York's restriction on the use of glyphosate on public property; Dubuque, Iowa's requirement for pesticide free parks; and Shoreline, Washington's requirement for pesticide free parks. *State Pages*, BEYOND PESTICIDES, <https://www.beyondpesticides.org/resources/state-pages> (last visited Feb. 15, 2020).

¹⁹⁵ *Non Toxic Cities*, NON TOXIC COMMUNITIES, <http://www.nontoxiccommunities.com/cities.html> (last visited Feb. 13, 2020).

¹⁹⁶ *Id.*

¹⁹⁷ Andy McGlashen, *Farm Bill: House Proposal Could Wipe Out Communities' Power to Prohibit Pesticides*, ENVTL. HEALTH NEWS (Sept. 5, 2018), <https://www.ehn.org/farm-bill-would-preempt-pesticide-bans-2602042695.html>.

¹⁹⁸ *Id.*

local control even in states without explicit preemption. Local preemption cases over pesticide go back decades, particularly in farm states such as Illinois¹⁹⁹ and Ohio.²⁰⁰ Most of these earlier cases related to requirements to post warnings regarding pesticide application. In recent years, a number of localities have gone beyond requiring mere warnings to regulating the use of herbicides and pesticides on public land²⁰¹ and in some cases even on private land within a given jurisdiction. In addition, many of these ordinances have specifically identified formulations including glyphosate-based herbicides as among those covered.²⁰²

In some states, localities do not even have control over public property because of overlapping state authority. In Cape Cod, Massachusetts, even those towns which have banned the use of glyphosate on town property are unable to prevent its use on rights of way within the town.²⁰³ Massachusetts preempts local pesticide regulation and the state regulatory agency determined that glyphosate is safe based on the review of the Environmental Protection Agency.²⁰⁴ Conflict over the continued use of glyphosate has led to growing support for new statewide legislative proposals which would end pesticide preemption in the state.²⁰⁵

The state of Maryland has no explicit preemption of local pesticide regulation.²⁰⁶ Nonetheless, courts there have previously struck down local pesticide regulation based on federal preemption grounds in the era before the Supreme Court's decision in *Wisconsin Public Intervenor v. Mortier*.²⁰⁷ In 2013, the Takoma Park Safe Grown Act restricted the use of lawn care pesticides on

¹⁹⁹ See *Pesticide Pub. Policy Found. v. Vill. of Wauconda*, 510 N.E.2d 858, 861–63 (Ill. 1987) (finding a local pesticide ordinance requiring notification and warning to people sensitive to pesticides of the location of application preempted by the state Pesticide Act and Structural Pest Control Act).

²⁰⁰ See *City of Fairview Park v. Barefoot Grass Lawn Serv., Inc.*, 685 N.E.2d 300 (Ohio Ct. App. 1996) (finding state law preempts local pesticide preapplication notice requiring lawn chemical applicators to provide preapplication notice to the occupants of abutting property, regardless of whether the occupants requested notice).

²⁰¹ For example, in 2018, Miami Beach banned the use of glyphosate-based herbicides on all city owned properties by employees and contractors. Paul Scicchitano, *Weed Killers with Suspected Link to Cancer Banned in Miami Beach*, PATCH (Sept. 13, 2018, 1:50 AM), <https://patch.com/florida/miamibeach/miami-beach-bans-weed-killers-linked-cancer>.

²⁰² Other localities have specified other pesticides such as neonicotinoids. See Alexandra B. Klass, *Bees, Trees, Preemption and Nuisance: A New Path to Resolving Pesticide Land Use Disputes*, 32 *ECOLOGICAL L.Q.* 763, 779 (2005).

²⁰³ Christine Legere, *Eversource Criticized for Continued Herbicide Use*, *CAPE COD TIMES* (Oct. 24, 2019, 6:62 AM), <https://www.capecodtimes.com/news/20191023/eversource-criticized-for-continued-herbicide-use>.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ Porter, *supra* note 190.

²⁰⁷ See *Md. Pest Control Ass'n v. Montgomery Cty.*, 646 F. Supp. 109 (D. Md. 1986).

both public and private property.²⁰⁸ This local ordinance was the first of its kind in the United States.²⁰⁹ Subsequently, the wider Montgomery County passed Bill 52-14 restricting the use of pesticides for lawn care on public and private property.²¹⁰ The bill allows the use of pesticide only as a last resort but left flexibility for its own parks system to use chemical treatments.²¹¹

The Montgomery County law was challenged and initially blocked by a state court on state preemption grounds.²¹² Subsequently, the Maryland Court of Special Appeals rejected the argument that local governments in the state are impliedly preempted from the regulation of pesticides:

Factors supporting our conclusion against preemption include: repeated failures to preempt, a lack of comprehensiveness along the lines of FIFRA, no pervasive scheme of administrative regulation, no conflict through frustration of purpose, and General Assembly recognition of local regulation of pesticides. Together, these factors point in one direction: the State has not prohibited local governments from regulating pesticides in the manner addressed by the County.²¹³

The court, therefore, concluded “that the citizens of Montgomery County are not powerless to restrict the use of certain toxins that have long be recognized as ‘economic poisons’ and which pose risks to the public health and environment.”²¹⁴

²⁰⁸ *Cosmetic Lawn Pesticide Use Outlawed in Takoma Park, MD, First Local Ban of Its Type in U.S.*, BEYOND PESTICIDES (July 25, 2013), <https://beyondpesticides.org/dailynewsblog/2013/07/cosmetic-lawn-pesticide-use-outlawed-across-takoma-park-maryland/>. The policy of the ordinance was “[t]he application of certain pesticides, including the use of certain pesticides approved for use by the federal, state, or county governments, in manners and by persons allowed by those governments to apply them, nonetheless present an unacceptable risk of harm to public and animal health, the environment, and the region’s watershed.” TAKOMA PARK, MD, ORDINANCE CH. 14.28.010 (2013).

²⁰⁹ *Cosmetic Lawn Pesticide Use Outlawed in Takoma Park, MD, First Local Ban of Its Type in U.S.*, *supra* note 208.

²¹⁰ Aline Barros, *Montgomery County Council Passes Pesticide Bill*, MONTGOMERY COUNTY MEDIA (Oct. 6, 2015), <https://www.mymcmedia.org/montgomery-county-council-passes-pesticide-bill/>.

²¹¹ *Id.*

²¹² *Complete Lawn Care, Inc. v. Montgomery Cty.*, No. 427200-V, 2017 WL 3332362, at *5 (Md. Cir. Ct. Aug. 3, 2017) (finding Montgomery County ordinance preempted by state law).

²¹³ *Montgomery Cty. v. Complete Lawn Care, Inc.*, 207 A.3d 695, 708–09 (Md. Ct. Spec. App. 2019) (finding Maryland Department of Agriculture regulations of pesticides did not preempt the Montgomery County pesticide ordinance because state regulations merely set a floor beyond which the county could provide additional health and safety protections).

²¹⁴ *Id.* at 709.

In California, the Malibu City Council voted unanimously to prohibit all pesticide use in public spaces in 2016.²¹⁵ At the end of 2019, the Malibu City Council voted to extend its ban on the use of pesticides to private as well as public property.²¹⁶ California law preempts localities from regulating pesticide use on private property more stringently than in state law.²¹⁷ Local officials sought to overcome this preemption obstacle by entering into an agreement with the Coastal Commission that codifies regulations established between a local government and the Coastal Commission.²¹⁸

Unlike every other state, Maine explicitly allows local communities to regulate the use of pesticides in their communities.²¹⁹ A 2017 effort to preempt such local regulation in the Maine legislature failed.²²⁰ The following year the city of Portland, Maine, passed some of the most sweeping restrictions on the use of pesticides in the nation.²²¹ The ordinance, which specifically includes glyphosate, prohibits property owners from using synthetic pesticides on turf, gardens, and landscapes.²²² However, the ordinance includes an exception for treating poison ivy, dangerous pests, and pests that damage structures.²²³

Given the widespread use of glyphosate in agriculture, it is perhaps not surprising that glyphosate residue is found in a large range of foods.²²⁴ In 2013, the EPA doubled the “safe” level of glyphosate on crops such as soy, corn, and canola and increased by 30 times the level on other food crops. A meta-analysis of a range of studies from the Canadian Food Inspection Agency, the FDA, and several non-profits found glyphosate residue in between 65% and 95% of the foods tested.²²⁵ In 2016, the FDA found high but legally allowable levels of

²¹⁵ Arthur Augustyn, *City Leaders Adopt Poison-Free Approach to Park Maintenance After Outpouring of Community Support*, MALIBU TIMES (June 29, 2016), http://www.malibutimes.com/news/article_86db5690-3e31-11e6-9647-ffe539aef98.html.

²¹⁶ Emily Sawicki, *Where Does Malibu Stand When It Comes to a Rodenticide Ban?*, MALIBU TIMES (Nov. 29, 2019), http://www.malibutimes.com/news/article_b4f14c6a-209b-11ea-852a-6bcfdd56cb77.html.

²¹⁷ *Id.*

²¹⁸ *Id.*

²¹⁹ See Sarah B. Schindler, *Food Federalism: States, Local Governments, and the Fight for Food Sovereignty*, 79 OHIO ST. L.J. 761, 777 (2018).

²²⁰ *Id.*

²²¹ *Pesticide use Ordinance*, PORTLAND, <https://www.portlandmaine.gov/2168/Pesticide-Use-Ordinance> (last visited Feb. 13, 2020).

²²² *Id.*

²²³ *Id.*

²²⁴ See Alexis Temkin & Olga Naidenko, *Glyphosate Contamination in Food Goes Far Beyond Oat Products*, EWG (Feb. 28, 2019), <https://www.ewg.org/news-and-analysis/2019/02/glyphosate-contamination-food-goes-far-beyond-oat-products>.

²²⁵ See *id.*

residue on soy and corn,²²⁶ while in 2019, a study by the Environmental Working Group found the highest levels in cereal products such as Cheerios.²²⁷ A study by the University of California-San Francisco found glyphosate in the urine of 93% of people tested.²²⁸

The Government Accountability Office determined that there are significant weaknesses in the pesticide residue monitoring program carried out by the FDA for glyphosate in agricultural commodities and processed foods.²²⁹ In April of 2019, the FDA began conducting tests for glyphosate using a selective residue method to test for a single pesticide. The same month, the EPA again stated that “[t]here’s no evidence that glyphosate causes cancer[,] . . . [t]here’s no risk to public health from the application of glyphosate.”²³⁰

Despite these assurances by the EPA, private actors introduced a voluntary labelling system in 2017 to certify foods as glyphosate residue free.²³¹ At the same time, the manufacturer of glyphosate announced that it plans to invest \$5.6 billion in developing alternative weed killers over the next ten years in part to address public concerns about health risks.²³² However, the company also stated that “glyphosate will continue to play an important role in agriculture.”²³³ As a result, local ordinances regulating glyphosate are likely to

²²⁶ *Pesticide Residue Monitoring Program Fiscal Year 2016 Pesticide Report*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/media/117088/download> (last visited Feb. 13, 2020).

²²⁷ Olga Naidenko & Alexis Temkin, *In New Round of Tests, Monsanto’s Weedkiller Still Contaminates Food Marketed to Children*, EWG (June 12, 2019), <https://www.ewg.org/childrenshealth/monsanto-weedkiller-still-contaminates-foods-marketed-to-children/>.

²²⁸ Organic Consumers Ass’n, *Glyphosate Found in Urine of 93 Percent of Americans Tested*, ECOWATCH (May 29, 2016, 12:59 PM), <https://www.ecowatch.com/glyphosate-found-in-urine-of-93-percent-of-americans-tested-1891146755.html>.

²²⁹ *Food Safety: FDA and USDA Should Strengthen Pesticide Residue Monitoring Programs and Further Disclose Monitoring Limitations*, U.S. GOV’T ACCOUNTABILITY OFF. (Oct. 7, 2014), <https://www.gao.gov/products/GAO-15-38>.

²³⁰ Donnelle Eller, *EPA Reaffirms Finding That Glyphosate Does Not Cause Cancer*, DES MOINES REG. (Apr. 30, 2019, 4:04 PM), <https://www.desmoinesregister.com/story/money/agriculture/2019/04/30/epa-glyphosate-does-not-cause-cancer-herbicide-weed-killer-carcinogens-monsanto-roundup-bayer-iowa/3624978002/> (quoting Alexandra Dunn, an EPA assistant administrator for chemical safety and pollution prevention).

²³¹ *Glyphosate Residue Free*, DETOX PROJECT, <https://detoxproject.org/certification/glyphosate-residue-free/> (last visited Feb. 11, 2020).

²³² Sarah D. Young, *Bayer to Invest \$5.6 Billion in Developing Alternatives to Glyphosate*, CONSUMER AFF. (June 14, 2019), <https://www.consumeraffairs.com/news/bayer-to-invest-56-billion-in-developing-alternatives-to-glyphosate-061419.html>.

²³³ Donelle Eller, *Bayer AG Says It Will Cut Environmental Impact 30%, Invest \$5.6 Billion into Finding Glyphosate Alternatives*, DES MOINES REG. (June 14, 2019, 6:56 PM), <https://www.desmoinesregister.com/story/money/agriculture/2019/06/14/monsanto-parent-bayer-ag-investing-billions-find-alternatives-glyphosate-based-roundup-weed-killer/1446940001/>.

continue to spread in those states in which preemption is not an obstacle to local authority.

IV. TOWARD A PUBLIC HEALTH EXCEPTION?

In a wide range of regulatory regimes, there exist public health exceptions to allow for governments at different levels to protect the health of their residents.²³⁴ The basic idea is that the authority of governments ought not to be unduly limited in carrying out the core function of protecting public health.²³⁵ Even in states with some of the most draconian statewide preemption laws which constrain the powers of localities, there is a growing sensitivity to the idea that public health and safety are somehow different and deserving of being treated as an exception.²³⁶ Public health exceptions are also embedded in a range of international contexts, including the European Union and the World Trade Organization. Indeed, such exceptions have been important to allowing for national tobacco regulation around the world.

The United States Supreme Court has been reluctant to find such public health exceptions to federal preemption where there is no explicit statutory language creating such an exception.²³⁷ Nonetheless, the Supreme Court has also rejected the idea that federal law creates the basis for broad state preemption of local public health regulation when it is not explicit in statutory language.²³⁸ Thus, it remains to be seen whether the law regulating preemption of pesticides and electronic cigarettes might be moving toward such a public health exception but available models are useful for better understanding how that might work.

Exceptions for public health also exist at the international level in recognition of government responsibility to protect the health and safety of its residents. For example, the General Agreement on Tariffs and Trade, in article XX, provides an explicit exception for public health, and the 2001 Doha Declaration on TRIPS and Public Health creates specific exceptions to

²³⁴ Altman & Morgan, *supra* note 8, at 16.

²³⁵ *Id.* at 28.

²³⁶ See Howard Fischer, *Ducey Weighs in on Tucson City Council Raising Smoking Age to 21*, TUCSON.COM (Oct. 25, 2019), https://tucson.com/news/local/ducey-weighs-in-on-tucson-city-council-raising-smoking-age/article_5f0eefb6-b2a0-54d7-a3c8-0d3b9044377b.html (quoting the Governor as saying, “I like to see uniformity. . . [a]n exception that I would be open-minded to would be around public health and safety,” in response to the Tucson City Council raising the minimum age to buy tobacco products to 21 despite the risk that under state law the city could forfeit half of its state revenue sharing if the Attorney General determined that a local ordinance conflicts with state law).

²³⁷ See *Rowe v. N.H. Motor Transp. Ass’n*, 552 U.S. 364 (2008); *Riegel v. Medtronic, Inc.*, 552 U.S. 312 (2008).

²³⁸ *Wis. Pub. Intervenor v. Mortier*, 501 U.S. 597, 605 (1991) (“It is, finally, axiomatic that ‘for the purposes of the Supremacy Clause, the constitutionality of local ordinances is analyzed in the same way as that of statewide laws.’” (quoting *Hillsborough Cty. v. Automated Med. Labs., Inc.*, 471 U.S. 707, 713 (1985))).

intellectual property protections for public health protection. Both the General Agreement on Tariffs and Trade and the General Agreement on Trade in Services provide a limited exception for rules designed to protect human health so long as they do not represent “arbitrary or unjustifiable discrimination” and are not more trade restrictive than necessary.²³⁹

Rulings in cases before the World Trade Organization reflect the reach of these public health exceptions. A French ban on the import of asbestos products, which Canada challenged before the World Trade Organization Appellate Body, was found to be protected under Article XX of the General Agreement on Tariffs and Trade.²⁴⁰ Under Article XX, such health protective measures are acceptable if they are likely to make a material contribution to safeguarding health.²⁴¹ However, in a case challenging the ban on clove cigarettes in the Tobacco Control Act, the Appellate Body found discrimination because of the failure to also ban menthol flavored cigarettes.²⁴² Yet the same provision protected extensive tobacco regulation by the government of Thailand²⁴³ and later by the government of Australia with its adoption of plain packaging for tobacco products.²⁴⁴ In the Australia decision, the panel

²³⁹ *Article XX: General Exceptions*, WORLD TRADE ORG., https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art20_e.pdf (last visited Feb. 15, 2020).

²⁴⁰ Appellate Body Report, *European Communities—Measuring Affecting Asbestos and Asbestos Containing Products*, ¶ 172 WTO Doc. WT/DS135/AB/R (adopted Mar. 12, 2001) (concluding that “the objective pursued by the measure is the preservation of human life,” which “is both vital and important in the highest degree”).

²⁴¹ See Appellate Body Report, *Brazil—Measures Affecting Imports of Retreaded Tyres*, WTO Doc. WT/DS332/AB/R (adopted Dec. 3, 2007).

²⁴² Appellate Body Report, *United States—Measures Affecting the Production and Sale of Clove Cigarettes*, ¶ 233–34 WTO Doc. WT/DS406/AB/R (adopted Apr. 4, 2012) (holding “albeit for different reasons, the Panel’s finding, in paragraph 7.292 of the Panel Report, that, by banning clove cigarettes while exempting menthol cigarettes from the ban, Section 907(a)(1)(A) of the FFDCA accords imported clove cigarettes less favourable treatment than that accorded to domestic menthol cigarettes, within the meaning of Article 2.1 of the *TBT Agreement*” and “uphold[ing], albeit for different reasons, the Panel’s finding, in paragraphs 7.293 and 8.1(b) of the Panel Report, that Section 907(a)(1)(A) of the FFDCA is inconsistent with Article 2.1 of the *TBT Agreement* because it accords to imported clove cigarettes less favourable treatment than that accorded to like menthol cigarettes of national origin”).

²⁴³ Appellate Body Report, *Thailand—Customs and Fiscal Measures on Cigarettes from the Philippines*, WTO Doc. WT/DS371/AB/R (adopted June 17, 2011) (holding that policies seeking to diminish the use of cigarettes are protected by the public health exception).

²⁴⁴ Panel Report, *Australia—Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging*, WTO Doc. WT/DS/467/23 (adopted Aug. 30, 2018) (finding the complainants had not demonstrated that Australia’s tobacco plain packaging measures were inconsistent with Article 2.2 of the TBT Agreement on the basis that they are more trade-restrictive than necessary to achieve a legitimate objective).

characterized the preservation of public health as “vital and important to the highest degree.”²⁴⁵

In the United States, some statutes explicitly carve out public health exceptions in order to facilitate the work of public health authorities in certain circumstances.²⁴⁶ Similar arguments about public health exceptionalism have also been litigated in the context of federal preemption.²⁴⁷ In the absence of such an explicit public health exception, states have argued for the existence of an implied public health exception in regulating tobacco products.²⁴⁸ The state of Maine, for example, sought to prevent the sale of tobacco products to youth and adopted an act regulating the delivery and sale of tobacco products.²⁴⁹

In *Rowe v. New Hampshire Motor Transportation Association*,²⁵⁰ Maine argued for the existence of an implied public health exception from federal preemption in order to prevent the sale of tobacco products to minors.²⁵¹ In defense of this proposition, Maine cited the federal Synar Amendment which denies states federal funds unless they forbid the sale of tobacco to minors.²⁵² Writing for a majority of the Supreme Court, Justice Stephen Breyer explained that:

Maine’s inability to find significant support for some kind of “public health” exception is not surprising. “Public health” does not define itself. Many products create “public health” risks of differing kind and degree. To accept Maine’s justification in respect to a rule regulating services would legitimate rules regulating routes or rates for similar public health reasons. . . . Given . . . the difficulty of finding a legal criterion for separating permissible from impermissible public-health-oriented

²⁴⁵ *An Initial Overview of the WTO Panel Decision in Australia-Plain Packaging*, WHO FRAMEWORK CONVENTION TOBACCO CONTROL (July 3, 2018), <https://untobaccocontrol.org/kh/legal-challenges/initial-overview-wto-panel-decision-australia-plain-packaging/>.

²⁴⁶ The Health Insurance Portability and Accountability Act (“HIPAA”) includes a public health exception to allow for the disclosure for specific public health purposes of information. *Summary of the HIPAA Privacy Rule*, U.S. DEP’T HEALTH & HUMAN SERVICES, <https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html> (last visited Feb. 15, 2020).

²⁴⁷ *Preemption in Public Health*, PUB. HEALTH L. CTR. <https://www.publichealthlawcenter.org/topics/other-public-health-law/preemption-public-health> (last visited Feb. 15th, 2020).

²⁴⁸ *Id.*

²⁴⁹ ME. REV. STAT. ANN. tit. 22, §§ 1554-A to 1556-A (2020).

²⁵⁰ 552 U.S. 364 (2008).

²⁵¹ *Id.* at 373–74 (“In Maine’s view, federal law does not preempt a State’s efforts to protect its citizens public health, particularly when those laws regulate so dangerous an activity as underage smoking.”).

²⁵² *Id.* at 375.

regulations, Congress is unlikely to have intended an implicit general “public health” exception broad enough to cover even the shipments at issue here.²⁵³

The type of age-verification system for the purchase of tobacco products via the internet that Maine was encouraging is the very thing that JUUL is now being forced to adopt with respect to electronic cigarettes.²⁵⁴ Despite the Supreme Court’s skepticism about a broad public health exception in the context of federal preemption of carrier services in *Rowe*, the same Court in *Wisconsin Public Intervenor v. Mortier* demonstrated support for vigorous local authority when it comes to the regulation of pesticides.²⁵⁵

It will be up to both legislators and judges to assess whether such public health exceptions ought to become the norm to protect local populations. Over a relatively short period of time, the movement of regulatory innovation of electronic cigarettes from the local, to the state, to the national level reflects the centrality of local governments as first movers in a still highly decentralized regulatory regime. At the same time, the fairly limited impact thus far of local regulation in the pesticide area suggests that widespread state preemption is a key constraint on the evolution of bottom-up regulatory innovation in other domains. Ironically, the field in which the Supreme Court has expressed skepticism of state and local initiative has proven to be more susceptible to such influence than the field in which the Supreme Court has given explicit sanction to local regulation.

V. CONCLUSION

State preemption poses a growing challenge for local efforts to protect public health. While the history of tobacco policy preemption demonstrates that this dynamic is not entirely new, it also reveals the significant role of certain industries in shaping the regulatory options of localities when it comes to public health. A number of scholars have suggested that the broader scope of the new preemption reflects lessons from this earlier history of tobacco regulation in which local action ultimately drove the response at higher levels of government.²⁵⁶ At the same time, there are ways in which the new preemption is

²⁵³ *Id.* at 374–75 (“Despite the importance of the public health objective, we cannot agree with Maine that the federal law creates an exception on that basis, exempting state laws that it would otherwise preempt. The Act says nothing about a public health exception. To the contrary, it explicitly lists a set of exceptions . . . [that] says nothing about public health.”).

²⁵⁴ *Id.* at 368–69; Jennifer Maloney, *Juul Introduces Checkout System to Combat Underage Purchases*, WALL STREET J. (Aug. 28, 2019), <https://www.wsj.com/articles/juul-introduces-checkout-system-to-combat-underage-purchases-11567051140>.

²⁵⁵ See *supra* text accompanying notes 182–186.

²⁵⁶ See Paul A. Diller, *Why Do Cities Innovate in Public Health? Implications of Scale and Structure*, 91 WASH. U. L. REV. 1219, 1225 (2014); Pomeranz & Pertschuk, *supra* note 1, at 900

much broader in both its scope and in terms of the potential consequences it imposes on local actors.²⁵⁷ Nonetheless, the examples of electronic cigarettes and glyphosate suggest that growing research on and awareness of health risks will continue to drive local regulatory action long before national or even state regulation.

While not unique to public health, the accountability gap created by state preemption without accompanying state regulation is particularly acute in the context of public health.²⁵⁸ It also reflects the growing spatial divides within the United States. Some scholars have recently suggested that metropolitan areas need new authorities to respond to the accountability gap between state and local governments in the 21st century.²⁵⁹ Leaving aside the larger questions raised by these challenges for the future of federalism, there are a number of more modest near-term responses that might promote more robust local authority in the context of public health.

Among the potential solutions to these conflicts is a requirement that states themselves regulate in areas in which they preempt local action. Alternatively, states could allow local regulation unless state preemptive action is narrowly tailored. Finally, localities could be given a safe harbor to regulate in areas in which the local impact is greatest. Such an approach might support the idea of a public health exception within broader preemption statutes. This is an approach that could be developed by state legislatures, through citizen-led initiatives, or potentially through state courts. A world in which local actors have too little authority over public health and state actors have too little incentive to regulate in the interest of public health poses serious risks to the well-being of both existing institutions and people they are intended to serve.

(“State and local governments traditionally protect the health and safety of their populations more strenuously than does the federal government. . . . Municipalities around the country are increasingly unable to address acute public health issues that will have lasting consequences for the health of communities.”).

²⁵⁷ See Briffault, *supra* note 24, at 1997 (“Several state legislatures have adopted *punitive preemption* laws that do not merely nullify inconsistent local rules—the traditional effect of preemption—but rather impose harsh penalties on local officials or governments simply for having such measures on their books.”).

²⁵⁸ Pomeranz & Pertschuk, *supra* note 1.

²⁵⁹ Richard C. Schragger, *Federalism, Metropolitanism, and the Problem of States*, 105 VA. L. REV. 1537, 1592 (2019). “Under our current state-based system, however, the most populous and productive jurisdictions in the country are heavily constrained in their ability to raise and spend their own resources or to regulate their own residents and businesses.” *Id.* at 1541. Schragger also argues “that twenty-first-century political economy requires increased political autonomy at the sub state level, in the cities and metropolitan regions that are economically ascendant.” *Id.* at 1543.