

# The political economy of drug and alcohol regulation during the COVID-19 pandemic

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## Abstract

States tightly regulate access to alcohol and other substances. During the pandemic and related state of emergency, state and federal governments adopted a variety of regulations affecting this access. State shelter-in-place orders included decisions about whether liquor stores and marijuana dispensaries are essential businesses. Decisions about telehealth access to medical marijuana or treatments for substance use disorders were made at the state and federal levels. This article examines the political economy behind these decisions, focusing on deviations from the norm including Pennsylvania's decision to close state-run liquor stores. Interest groups and other political considerations help explain state and federal policy changes affecting access to alcohol and other substances.

## KEYWORDS

alcohol policy, bureaucracy, COVID 19, illicit drug policy, interventionism, public choice, public unions, rent-seeking, unintended consequences

## JEL CLASSIFICATION

D72; D73; I18; H75

## 1 | INTRODUCTION

Alcohol and drug use are common in the United States. Roughly half of the population aged 12 and older used alcohol in the past month (51.1%). About a quarter were binge alcohol

users (24.5%) and 6.1% were heavy alcohol users (SAMHSA, 2019).<sup>1</sup> Although alcohol use is the most common of substance use, roughly one in five people aged 12 and older in the United States used illicit drugs in 2019. Marijuana use continues to slightly increase—15.9% of the population aged 12 and older used marijuana in the past year. Cocaine use remains around 2% of the population. Prescription pain reliever misuse is down to 3.6% of the population. Opioid misuse is down to 3.7%; this includes heroin users. Heroin users are 0.3% of the population.

Alcohol and marijuana sales are highly regulated, with regulations differing across states. The pandemic caused by COVID-19 led most states to adopt policies affecting consumers' access to alcohol, marijuana, and other substances. In almost all states, liquor stores were deemed essential and allowed to remain open; in almost all states with medical or recreational marijuana dispensaries, these dispensaries were declared essential and remained open. There were, however, a few exceptions to how states treated liquor stores and marijuana dispensaries. Pennsylvania closed its liquor stores as part of the stay-at-home order. Massachusetts closed recreational marijuana dispensaries for more than 2 months, although medical marijuana dispensaries remained opened.

Below we consider why Pennsylvania and Massachusetts differed in their responses to the pandemic. We examine political economy factors behind these decisions, shedding light on factors shaping policymakers' actions toward access to various substances. The pandemic provides an interesting window into whether—and when—highly regulated industries may expand or contract the regulatory regime. Political considerations appear to drive decision-making in these industries, with likely consequences to consumers and to public health outcomes.

Federal drug policy changed early in the pandemic as well. Federal agencies relaxed rules regarding access to medication for opioid use disorder. State and federal agencies permitted—and had Medicaid and Medicare pay for—telehealth services in a wider variety of situations, including for substance use disorder treatment and prescription of controlled substances. Given the extensive and entrenched federal regulatory regime toward scheduled drugs, understanding conditions in which these regulations may be relaxed provides insights for those seeking to facilitate access for substance use disorder treatment.

In Section 2, we briefly describe drug and alcohol policy leading up to the COVID-19 pandemic. We review general trends in these policies at the state and federal level in addition to the specific policies of Pennsylvania and Massachusetts, two states whose pandemic policies we specifically discuss in later sections. We integrate the public choice and theory of interventionism literatures in our description to highlight how these factors have shaped alcohol and drug policy historically. Section 3 outlines the policy changes introduced in the wake of the pandemic with specific attention given to Pennsylvania and Massachusetts for their alcohol and marijuana policies. In this outline, we emphasize the public choice influences. Section 4 details the outcomes of these policy changes with emphasis on the knowledge problems faced by policymakers that resulted in many unintended consequences that undermined policymakers' stated goals. Section 5 concludes.

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<sup>1</sup>Binge drinking is defined as five or more drinks on the same occasion for men and four or more for women on at least 1 day in the past month. Heavy alcohol users are those self-reporting binge drinking on 5 or more days in the past month.

## 2 | PREPANDEMIC REGULATIONS OF ALCOHOL AND OTHER SUBSTANCES

Markets for alcohol and other drugs are highly regulated. These regulations have expanded and ebbed across states and time.

Ease of obtaining alcohol differs from state to state. With alcohol, for example, beer, wine, and distilled spirits can be purchased in grocery stores in some states such as Arizona and California; in other states, distilled spirits must be purchased in separate stores (Georgia, Oklahoma) or in state-run liquor stores (Idaho, Montana); in others, only beer can be purchased in grocery stores (Connecticut, New York).

Seventeen states are control states; in these states, a government alcohol control board controls the sale of distilled spirits and, in some cases, including in Pennsylvania, the sale of wine.<sup>2</sup> Alcohol control across these locations is not uniform and these states vary significantly in their oversight of the wholesale and retail of alcoholic beverages. Some states require the retail sale of distilled spirits from state-run liquor stores only (including Alabama, North Carolina, Pennsylvania, and Virginia), whereas other states, such as Idaho, have state-run liquor stores, but also permit retail stores under contract with the Idaho State Liquor Division to sell distilled spirits.

Over the last 50 years, state-controlled alcohol has declined. Many controlled states have decentralized the control of beer, wine, and low alcohol-by-volume (ABV) spirits by permitting their retail sale in grocery stores. Other control states such as West Virginia and Iowa have moved to private liquor sales, but their state alcohol control boards still control the wholesale of distilled spirits. Ohio and Vermont's alcohol control boards contract with licensed private stores (referred to as "agencies") to sell distilled spirits. Washington, following the passage of Initiative 1183 in 2011, privatized liquor sales and is no longer a control state.

Current marijuana laws differ by state.<sup>3</sup> As of July 2020, 28 states had decriminalized the possession of marijuana; 34 states had adopted medical marijuana laws, with ease of obtaining medical marijuana approaching legalization in some states; and 12 states and the District of Columbia had legalized recreational marijuana. Federal law lists marijuana as a Schedule I substance, "drugs with no currently accepted medical use and a high potential for abuse."<sup>4</sup> Most medical marijuana states have at least one medical marijuana dispensary.<sup>5</sup>

Many opioid misusers misuse prescription opioids. Most—over 60%—acquire their opioids from illegal dealers, although roughly 25% acquire opioids via a prescription from a doctor (Cicero *et al.*, 2011). A variety of state and federal laws seek to limit doctor shopping. This includes

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<sup>2</sup>The 17 control states are Alabama, Idaho, Iowa, Maine, Michigan, Mississippi, Montana, New Hampshire, North Carolina, Ohio, Oregon, Pennsylvania, Utah, Vermont, Virginia, West Virginia, and Wyoming. In Mississippi, New Hampshire, Pennsylvania, and Wyoming control is over liquor and wine. In Mississippi, wine with less than 5% alcohol is treated like beer. Utah controls the sale of all alcoholic beverages except beer with less than 4% alcohol by volume. Montgomery County, MD also controls the sale of all alcoholic beverages (NABCA, 2020).

<sup>3</sup>In Oregon, legal treatment of other scheduled substances also differs. Initiative 44, the Drug Addiction Treatment and Recovery Act of 2020, was voted on in Oregon in November 2020. See P. Blumenthal (2020a). This act "remove [s] criminal penalties for low-level drug possession" and would make possession of a controlled substance (Schedule I–IV) guilty of a Class E violation instead of a Class A or Class C misdemeanor. See "Drug Addiction Treatment and Recovery Act" <http://oregonvotes.org/irr/2020/044text.pdf>. Accessed October 6, 2020.

<sup>4</sup>Drug scheduling influences, for example, the severity of penalty for those caught possessing the substance. All handlers of scheduled drugs must be registered by the DEA and comply with their record-keeping and reporting requirements (DEA 2020a).

<sup>5</sup>See Statista (2020) and NCSL (2020). Missouri's medical marijuana dispensaries are not yet open as of November 2020.

the federal Ryan Haight Act of 2008, requiring valid prescriptions of scheduled drugs to be preceded by an in-person evaluation by a “covering practitioner.”<sup>6</sup> State-level prescription drug monitoring programs (PDMP) also seek to limit doctor shopping. These programs maintain a list of prescriptions and patients. In some states, prescribing physicians are required to access the PDMP to check for existing prescriptions prior to writing a new one.

Interest groups are prevalent in markets for and policies governing substances including alcohol, marijuana, and illicit drugs. Rent seeking can pay large dividends to lobbyists if policymakers alter policy proposals and their voting behavior to align with these interest groups (see Krueger, 1974; Tullock, 1967). However, rent seeking is costly to society because it uses up resources without creating value, only transfers (Buchanan, 1983). Several studies find that special interest groups play a big role in alcohol policy at the federal, state, and local level. The “Beer Bill of 1933” legalized beer up to 3.2% alcohol by weight (ABW) during Prohibition. Poelmans *et al.* (2018) find “strong evidence consistent with the special interest hypothesis” (p. 104) with representatives from states with strong brewing interests more likely to support the bill. They find no evidence to support the hypothesis that policymakers voted in the interest of voter preferences, as in the median voter hypothesis. Horpedahl (2020), illustrating a literal example of Yandle’s (1983) “Bootleggers and Baptists” explanation of coalition formation, documents the power that interest groups, namely liquor stores in neighboring “wet” counties, play in county-level alcohol policy.

Granting the state monopoly privileges over liquor sales is one such alcohol policy highly influenced by interest groups. Benson *et al.* (2003), building on Nelson (1990) and Benjamin and Anderson (1996), find evidence that the motivation for state monopolies on liquor sales is not to reduce consumption but to increase revenues for the state. Public policymakers benefit from the monopolization of liquor stores due to the increase in revenue they can spend on future projects. In 2019, Virginia ABC contributed \$499.5 million to the commonwealth’s General Fund, of which \$196.7 million (39%) came from retail liquor sale profits.<sup>7</sup> In 2019, the sale of “regular spirits” by Pennsylvania’s Fine Wine & Good Spirits stores brought in \$1.38 billion and the sales of “luxury spirits” brought in \$11.2 million.<sup>8</sup> These sales, in part, financed the Pennsylvania Liquor Control Board contribution of \$717.2 million to the state’s General Fund.

In addition to policymakers, employees of the state monopoly benefit from monopolization (Benson *et al.*, 2003). Public employee unions are powerful and effective interest groups advocating on behalf of their employees. Union political power is a determining factor in higher pay for union versus nonemployees (Chandler and Gely, 1995). Public employee unions engaging in direct lobbying efforts are more successful in attaining pay raises than both nonorganized public employees and private employees (Bellante and Long, 1981). Bellante and Long (1981) note that public unions engage exert political pressure in other ways, emphasizing “the financial resources which public employee organizations can provide to incumbent legislators or candidates for office who are “friendly” to the interest of public employees are an avenue of influence that should not be ignored” (Bellante and Long, 1981, p. 4). They go further to explain that “public sector jobs are frequently dispensed (and sometimes created) as rewards for political

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<sup>6</sup>Ryan Haight Act of 2008: “No controlled substance that is a prescription drug as determined under the Federal Food, Drug, and Cosmetic Act may be delivered, distributed, or dispensed by means of the Internet without a valid prescription.” Where a valid prescription requires at least one in-person medical evaluation by a covering practitioner. (<https://www.govtrack.us/congress/bills/110/hr6353/text>).

<sup>7</sup>See Virginia Alcoholic Beverage Control Authority (2020).

<sup>8</sup>See Pennsylvania Liquor Control Board (2020a).

campaign effort... A public sector job with little to no counterpart in the private sector—a virtual monopoly—is created in return for political support” (p. 5).

For liquor-store employees, specifically, unionization may be quite beneficial. The number of state liquor store employees is quite small, relative to the number of state residents. State liquor store unionization provides the potential for possible wealth transfers with costs dispersed across the total spirit-consuming population (see Benson and Engen, 1988; Olson, 1965). Anzia and Moe (2015), in two distinct empirical studies, find that public sector unions increase the costs of government. Marlow and Orzechowski (1996) also find that increases in public sector unions are associated with increased public spending. Increased compensation is a common benefit of unionization.<sup>9</sup> Zardkoohi and Sheer (1984) compare public and private liquor sales, documenting a variety of differences. Private liquor store employees are almost never unionized although “over 48 percent of retail liquor clerks are organized in the public ownership states” (p. 1061).<sup>10</sup> Union presence in control states’ liquor stores leads to less intensive employment (p. 1075) and increased pay (p. 1066) compared to private liquor store clerks. These differences contribute to higher liquor prices in public monopoly states than otherwise would exist absent the union presence (p. 1075).

The evolution of illicit drug policy has also been heavily shaped by interest groups. In the early years of drug prohibition in the United States, organizations like the American Medical Association, the American Pharmaceutical Association, the Food and Drug Administration, and the Narcotics Division of the Internal Revenue Service appealed to Congress to continue state-level and possible federal-level prohibition of drugs such as cocaine, morphine, and heroin due to the impact of drug use on their ability to perform their jobs (see Musto, 1973; Courtwright, [1982] 2001; Hamowy, 1987; Redford and Powell, 2016). Throughout the 20th century, newly adopted state and federal drug policy enforcement mechanisms created new interest groups in the form of federal bureaus overseeing the enforcement of prohibition. These bureaus consequently expand their budgets and scope, leading to mission creep and the search for new enforcement avenues to justify their expansion (see Boettke *et al.*, 2013; Niskanen, 1971). For example, the Harrison Narcotics Tax Act of 1914 led to the Treasury Department’s heavy involvement in enforcing federal drug policy (Recio, 2002). The Narcotic Import and Export Act of 1922 and the Marihuana Tax Act of 1937 intensified the Treasury Department’s involvement with the creation of the Federal Bureau of Narcotics, thus expanding the Treasury Department’s budget and power. This process continued with the passage of the Boggs Act of 1951 and the Narcotic Control Act of 1956. These policies increased the strength of the Federal Bureau of Narcotics as a powerful interest group, and established policies such as mandatory minimum sentences for drug crimes and civil asset forfeiture. In the late 1960s, the Federal Bureau of Narcotics, combined with the Bureau of Drug Abuse Control, expanded into the Bureau of Narcotics and Dangerous Drugs under the Department of Justice.

In 1973, the Drug Enforcement Administration (DEA) was established by combining several bureaus (including the Bureau of Narcotics and Dangerous Drugs) within the Department of Justice. The budget, employment, and purview of the DEA has expanded greatly in the past

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<sup>9</sup>Nelson (1990) explains “one possibility is that some or all of the monopoly rents are captured by labor unions in the form of higher wages, shorter working hours, and so forth” (p. 94).

<sup>10</sup>Since 1984, Washington, West Virginia, Iowa, and other states have privatized liquor retail sales. As a result, the prevalence of unionization among liquor store employees has declined in these states. As a result, unions like the UFCW Local 21 and Teamsters Local 174 in Washington are no longer direct interest groups in setting liquor policy. They are still present, however, as they represent many retail workers operating in the retail locations in which liquor is sold.

near half century (see Boettke *et al.*, 2013). In Fiscal Year 2019, the DEA employed 10,169 people, operated on a budget of \$3.136 billion, and arrested 27,819 individuals in the United States.<sup>11</sup> Furthermore, the DEA also works in tandem with many local law enforcement bureaus. By working with the DEA, local law enforcement bureaus can expand their budgets through proceeds from civil asset forfeitures (Benson *et al.*, 1995). The evolution of the discretion and power of police bureaus as interest groups has influenced modern policies in the War on Drugs (see Benson and Rasmussen, 1996).

In addition to interest group politics, political economy provides insights into the complex regulatory structure surrounding alcohol and marijuana policies leading up to the COVID-19 pandemic. We highlight one feature: the entanglement of policymakers with market actors implies unintended consequences resulting from policy. These unintended consequences include entrepreneurial behavior and innovation in response to adopted policies.

Mises ([1940] 2011), for example, cautions that market intervention to correct “market failures” incentivize entrepreneurial behavior and innovation in response to the intervention, undermining the attempts of policymakers to “fix” a problem. These unintended consequences likely create or exacerbate other problems in the market, leading policymakers to respond with further intervention; continued intervention can result in a complicated web of government regulations. Wagner (2016a, vii) emphasizes that the market and government action are overlapping and intertwined.

Government enterprises are explicitly intertwined with the market. Government enterprises operate similarly to business enterprises in that they compete among other enterprises, seek out profits/seek to avoid losses, and require investment (Wagner, 2016a). This competition clearly occurs in alcohol and marijuana markets. In control states, public liquor stores compete against other alcohol sales and generate substantial tax revenues. In states with legal recreational marijuana dispensaries, marijuana sales also generate substantial tax revenues.

Wagner (2016b) uses the example of alcohol and drug prohibition to illustrate that prohibitionist policies do not result in prohibition but instead “induce creative searches for new paths of commerce that are accompanied by new sets of prices” (Wagner, 2016b, p. 544). All prohibition can accomplish “is to empower one set of agents to try to prevent activities that another set of agents desires to undertake” (p. 544). Mises (1940 [2011]) also points this out—“Concededly, the interventionist measures may give certain individuals or certain groups of individuals advantages at the expense of others.” Ikeda (1997) explains that not only will incentive effects manifest as unintended consequences of interventions, but discovery effects will as well. Ikeda outlines, “Both [incentive and discovery] effects need to be taken into account to appreciate the nature of the interventionist dynamics in the mixed economy, but the second effect deserves special emphasis” (1997, p. 103). Ikeda argues that discovery effects are unpredictable and become the unintended consequences that perpetuate the dynamic cycle of interventionist policies. Market participants find new ways to cope with new interventions—not just the ways intended by policymakers, but also unexpected ways. Ikeda also highlights that a theory of intervention should “be concerned with the dynamic process underlying both the expansion and contraction phases of state growth” (1997, p. 15).

We observe these discovery effects in illicit drug markets. Redford (2017a) details how illicit drug entrepreneurs create new analogs or derivatives of existing drugs to bypass the federal drug schedule to reduce their punishment if they get caught by law enforcement. A new drug, however, can create a problem because it varies in potency from its precursor and is sold on the

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<sup>11</sup>See Drug Enforcement Agency (2020b) and (2020c).



street with limited information about its potency, thus creating significant information asymmetries for consumers. Entrepreneurs focus on opioid analogs or synthetic opioids because synthetic opioids can be produced in a lab, whereas opiates, such as heroin, require the cultivation of opium. Growing poppies in the United States to produce heroin is rare because of the stiff penalties if caught; most imported heroin is produced using poppies grown in Latin America (Pappas, 2017). Because the War on Drugs increased the cost of drug trafficking across national borders, entrepreneurs shifted away from opiates. This incentivizes illicit drug entrepreneurs to seek out production alternatives that are more robust to international trafficking limitations, such as synthetic opioids. Further, Redford (2017b) emphasizes that enforcement of the War on Drugs creates incentives for illicit drug enterprises to invest in law enforcement evasion at the expense of product quality enhancement. As long as these organizations must adapt to changing law enforcement strategies, their incentives will not be to prioritize their drugs' safety standards, and as such, these dangerous variants are more likely to exist in illicit markets than in legal ones.

### 3 | CHANGES IN REGULATION DUE TO COVID-19

On February 9, President Trump declared a public health emergency in the United States due to the novel coronavirus. The World Health Organization declared it a pandemic on March 11; President Trump declared it a national emergency on March 13.<sup>12</sup> States shut down many business and meetings of more than small numbers of people (Kaiser Family Foundation, 2020). All shutdowns and shelter-in-place orders defined a set of business as “essential;”<sup>13</sup> these include grocery stores, home improvement stores, medical providers, and the like. Presidential proclamations restricted international travel, forbidding entry for foreign nationals traveling from a variety of countries including the Schengen Area of Europe (March 13), the United Kingdom and Ireland (effective March 16), China (January 30), Iran (March 2), and Brazil (May 26).<sup>14</sup> Private airlines slashed offered international flights (Silverman, 2020). Some states and cities have restricted travel into their state unless travelers quarantine upon arrival, provide negative test results, or both.<sup>15</sup>

States differ in their timing and intensity of stay-at-home orders. McCannon and Hall (2021) demonstrate that more economically free states prior to the pandemic were slower to adopt stay-at-home orders. Hallas *et al.* (2020) catalog states' stay-at-home conditions and timing. They provide a rank order of states based on length of time spent in a stringent shutdown, defined as above 60 on their index. New Mexico, for example, spent the longest time (by far) in a stringent shutdown; North Dakota spent the least. Massachusetts spent the 16th longest time and Pennsylvania the 22nd. Massachusetts is the ninth most stringent shutdown (Hallas *et al.*, 2020, p. 16). Both states are above the median in their stay-at-home strictness, but relatively typical in their policies, particularly for the Northeast region.

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<sup>12</sup>See AJMC (2020).

<sup>13</sup>Storr *et al.* (2021) examine the knowledge problems inherent in the determination of essential businesses.

<sup>14</sup>The Bureau of Consular Affairs provides links to these proclamations here: <https://travel.state.gov/content/travel/en/News/visas-news/presidential-proclamation-coronavirus.html>.

<sup>15</sup>As of January 5, 2021, these include Alaska; California; ski county Pitkin County, Colorado; Connecticut; Hawaii; Chicago, Illinois; Kentucky; Maine; Maryland; Massachusetts; Minnesota; New Hampshire; New Mexico; New York; Pennsylvania; Rhode Island; Vermont; and Washington, DC (Brown and Marples, 2021).

We emphasize two types of legal changes during the pandemic: whether liquor stores and marijuana dispensaries are “essential businesses” and access to treatments for opioid use disorder.

### 3.1 | Liquor stores as (not-so) essential businesses

States with shelter-in-place orders provided lists of essential business that could remain open. In almost all cases this included liquor stores. New York Governor Cuomo placed liquor stores in the food and beverage store category when justifying his decision to deem them essential businesses (Melamed, 2020). Some in public health emphasize the need to maintain access to liquor for those with alcohol use disorder (Tiako *et al.*, 2020). In addition to adding liquor stores to the list of essential businesses that could remain open for in-person operations, several states also relaxed the rules surrounding the sale of spirits for off-premise consumption, thus allowing bars and restaurants to temporarily sell “to-go” mixed beverages.

Virginia, a state with notoriously rigid alcohol laws, granted permission to restaurants to temporarily sell to-go alcoholic beverages. Governor Northam stated: “Allowing them to sell mixed beverages with takeout or delivery order, will help them augment the revenue streams so they can continue to operate and employ Virginians” (quoted in WTVR CBS 6 Web Staff, 2020). In addition to permitting to-go cocktails, between March 13, 2020, and May 13, 2020, Virginia ABC relaxed an additional 15 different alcohol controls in response to executive orders passed by Governor Northam. These relaxations include no longer requiring signature at the time of delivery between wholesaler and retailer for beer or wine, permitting drive-through and curbside pickup of beer and wine by customers for off-premise consumption, permitting curbside pickup and delivery of distilled spirits by Virginia distilleries, and permitting restaurants to deliver alcohol for off-premise consumption (see Hill, 2020). In 2018, Virginia restaurants realized approximately \$18.1 billion in sales (National Restaurant Association, 2019). The state collected taxes on prepared meals, alcohol sales to bars and restaurants, property taxes on restaurant locations, and many cities, such as Richmond, Virginia, collect an additional tax on restaurant meals. The ability to sell mixed beverages with takeout or delivery would increase revenue for restaurants regardless of the presence of a pandemic. However, the pandemic altered the stakes for restaurant operators since most states forced them to restrict operations to takeout and delivery; the ability to sell alcohol in these new capacities was crucial to their being able to profitably keep their business in operation. The ability for restaurants to remain open is not only of interest to the workers of those restaurants, but to local and state-level policymakers who rely on those restaurants operating as a tax revenue stream, especially during a time in which many other tax revenue streams are drying up.

On March 6, Governor Wolf proclaimed a disaster emergency for Pennsylvania. The City of Philadelphia issued a stay-at-home order on March 22, effective the next day.<sup>16</sup> The governor followed on March 23, with stay-at-home orders for seven counties.<sup>17</sup> Counties were added over

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<sup>16</sup><https://www.phila.gov/2020-03-22-city-issues-stay-at-home-order-clarifying-restrictions-on-business-activity-in-philadelphia/#:~:text=All%20Philadelphia%20residents%20must%20remain,food%20or%20seeking%20medical%20attention.>

<sup>17</sup>The seven counties are Allegheny, Bucks, Chester, Delaware, Monroe, Montgomery, and Philadelphia. These counties are part of the metropolitan areas of Philadelphia-Reading-Camden (Bucks, Chester, Delaware, Montgomery, Philadelphia), and Pittsburgh (Allegheny). Monroe is part of the New York-Newark CSA. There are 67 counties in Pennsylvania; nine are included as part of the Pittsburgh-New Castle-Weirton CSA, six as Philadelphia-Reading-Camden, and five as part of New York-Newark. See the BLS crosswalk here: <https://www.bls.gov/cew/classifications/areas/county-msa-csa-crosswalk.htm>.



the next weeks with evidence of community spread or concern about increased cases (Novak, 2020). Exempt services included life-sustaining business activities and service to low-income residents, medical services, child care services for those employed in exempt services, media, law enforcement, federal government, and religious services. Hallas *et al.* (2020) rank Pennsylvania in the middle of length of time in a stringent shutdown.

Pennsylvania, however, is an anomaly in its alcohol policy changes at the beginning of the pandemic. On March 16, 2020, the Pennsylvania Liquor Control Board (PLCB) announced the end of online liquor and wine sales and closure of all “Fine Wine & Good Spirits” stores and online sales as of March 17 at 9 p.m. Online sales reopened on April 1, although the PLCB was unable to keep up with online orders. Pennsylvania kept brick and mortar liquor stores closed for 4 weeks, until April 20. At that point, liquor stores began offering curbside pickup (Cassese, 2020). Beginning in May, Fine Wine & Good Spirits stores gradually reopened for in-person shopping. Pennsylvania was not the only place in the United States to attempt to close liquor stores. They were, however, the only place to keep them closed for weeks. Mayor Michael Hancock of Denver, Colorado announced on March 23, 2020, that liquor stores and recreational marijuana dispensaries were “nonessential businesses,” thus requiring them to close indefinitely as a part of Denver’s stay-at-home order (Johnson, 2020). Denver residents flocked to these stores in large numbers, creating long waiting lines. In response, within 3 h, Mayor Hancock reversed the decision and declared liquor stores and marijuana dispensaries exempt from the city’s stay-at-home order so long as social distancing precautions were taken (Sexton *et al.*, 2020).

As outlined in Section 2, special interest groups play a powerful role in the formation of alcohol legislation. Interestingly, most policy changes during the pandemic have been in the form of executive order or directive straight from the state governor’s office. Policy making from the governor’s office means that the interest groups do not have to lobby to multiple policymakers with competing interests, but only advocate to the governor’s office. In the case of Pennsylvania, the PLCB worked closely with Governor Wolf’s office leading up to their decision to close liquor stores. In fact, this was a point of contention with several state policymakers when they discovered that the PLCB never took a vote on the issue and instead deferred to Governor Wolf’s recommendation (see Smith, 2020). When asked about the decision to close liquor stores, Governor Wolf stated, “Our liquor stores are closed, and I think that’s going to be good for our employees in the liquor stores” (quoted in Goodin-Smith and Hughes, 2020). When asked later about the decision to close liquor stores, PLCB Chairman Holden is quoted as saying, “I think it was the public safety and the public health of our employees and citizens of the commonwealth. I don’t think it was economically driven at all” (quoted in Murphy, 2020). In numerous quotes and press conferences, representatives from the PLCB and Governor Wolf emphasize that the health of employees was an important consideration in their decision to keep liquor stores closed.

As of June 30, 2019, the PLCB employed 2,453 full-time positions and 1,773 part-time positions in liquor stores across the state (4,226 total).<sup>18</sup> Roughly 3,500 Fine Wine & Good Spirits store clerks are members of the United Food and Commercial Worker’s Local 1776 Keystone State union, according to Local 1776 president Wendell Young IV (quoted in Scolforo, Levy, and Rubinkam, 2020). The Local 1776 Keystone State is a well-known, large, and powerful union in Pennsylvania. They have been actively involved in many efforts to keep state control of liquor sales, as roughly 10% of their entire union membership are liquor store employees.

<sup>18</sup>See the PLCB Fine Wine & Good Spirits Annual Report for Fiscal Year 2018–2019.

Wendell Young IV has testified in hearings in front of the state senate, making the union's stance of liquor sales and the protection of union jobs clear. In one such hearing, he testified, "Our union, as you know, has spent decades fighting liquor privatization. And to be clear, our union does not hide from why we oppose measures that weaken our state's Wine and Spirits stores. We do everything in our power to save the jobs of every single one of the 3500 members [state liquor store employees] we represent at the PLCB" (Young IV, 2019). In 2015, Pennsylvania passed a liquor privatization bill that the Local 1776 union as well as the PLCB did not approve, and Governor Wolf vetoed the bill (Langley, 2015). Following 2015, Pennsylvania policymakers, including Governor Wolf, have relaxed some of the laws surrounding the sale of wine and beer, but Governor Wolf strongly opposes loosening liquor laws and receives support from the Local 1776 union. According to a statement on the UFCW Local 1776 Keystone State website, Wendell Young IV and Local 1776KS have been working closely with Governor Wolf to protect workers and customers during the COVID-19 pandemic (UFCW Local 1776 Keystone State, 2020).

Choosing to close liquor stores due to liquor store employees' union pressure is consistent with evidence from DeAngelis and Makridis (2020). Their working article finds that, during the COVID-19 pandemic, measures of COVID-19 risk were not correlated with school district decisions not to reopen, but the strength of teachers' unions is correlated with school districts not reopening. Teachers' unions were effective in this context because the benefits were concentrated to their members (teachers who did not have to return to school) and the costs were dispersed over a much larger population (the students and families of students who would attend school virtually).

### 3.2 | Marijuana dispensaries as (not-so) essential businesses

Most states with state-legal medical marijuana or adult-use marijuana provide routes for dispensaries to sell state-legal marijuana. Many states in their shelter-in-place orders relied on guidance from the federal Cybersecurity and Infrastructure Security Agency for the definition of essential business.<sup>19</sup> Marijuana, however, is illegal to sell under federal law; for state-legal dispensaries, their status was unclear. Most states issuing shelter-in-place orders either specified medical marijuana dispensaries as essential or provided guidance to medical marijuana dispensaries that these dispensaries could remain open. In some states, such as California and Washington, cannabis retailers were listed specifically as a medical facility.<sup>20</sup> Other states did not deem dispensaries as 'essential' but allowed curbside pick-up (Alaska, Delaware, New Hampshire), deliveries (Arizona, Louisiana, North Dakota), or both (Oregon, Utah) as options for operations (NORML, 2020).

In states with legal adult-use marijuana, the operating status of recreational marijuana dispensaries was less clear. Marijuana Policy Project, however, reports that recreational marijuana dispensaries were open in almost all states, albeit under social distancing requirements. One exception is Massachusetts. The first recreational marijuana dispensaries in Massachusetts opened in November 2018. On March 23, 2020, Governor Charlie Baker closed all nonessential business, including the newly opened dispensaries (Copeland, 2020). Five of the dispensaries

<sup>19</sup>See their guidance on essential businesses at CISA (2020).

<sup>20</sup>For Washington, see Inslee (2020); for California, see California State Public Health Officer (2020); for Illinois, see Pritzker (2020).

unsuccessfully sued. Governor Baker argued that, because the surrounding states have not yet legalized recreational marijuana, keeping the dispensaries open would lead to out-of-state visitors and the potential for increased virus spread.

Massachusetts closed in-person dining, public and private schools, and gatherings larger than 25 people on March 17 (R. Blumenthal, 2020b). Governor Baker issued a stay-at-home order, effective March 24, closing all but essential businesses (Reed, 2020). Massachusetts adopted less stringent measures than many states but remained with moderately high stringency restrictions for a longer period of time than most (Hallas *et al.*, 2020).

Massachusetts differs in two ways that are likely to drive the political economy factors at play. Its novel dispensaries are taxed relatively lightly, and one interest group highly concerned about access to recreational marijuana—veterans—are only lightly represented in the state.

The Tax Foundation lists tax rates on marijuana among the adult-use states (Cammenga, 2019). Massachusetts is the lowest at 10.75%. Most states tax more than 15%, with many having taxes at varied stages adding up to much more than that. Alaska's tax is \$50 an ounce; with prices roughly \$300/ounce, this is a 16.6% tax rate. California is 15% plus another \$2.75–\$9.25 per ounce; Colorado: 15% from cultivator to retailer, 15% sales tax, and the standard 2.9% state sales tax; Michigan: 10% retail excise tax plus 6% state sales tax; Nevada: 15% excise tax plus 10% sales tax; Oregon: 17% sales tax; Washington: 37% sales tax.

To date, Massachusetts has collected \$122 million in retail tax revenue from marijuana (Bartlett, 2020). About half of these funds have been spent, almost entirely on their Division of Alcoholism Administration and the Cannabis Control Commission. Sales tax revenue goes into the general fund (\$38.16 million); excise tax revenue (\$65.63 million), by law, goes to the Marijuana Regulation Fund.

These figures pale in comparison to the much larger revenues collected in Colorado (\$302 million in 2019) and Washington (\$395.5 million in 2019), although similar to that collected in Oregon (\$116 million for the state and \$18 million for localities in 2019).<sup>21</sup> In these states, much of the tax revenue is undesignated and enters the general fund. In Colorado, about one-third of marijuana tax revenues are undesignated; another large fraction is allocated to public schools; the marijuana tax cash fund must be spent on health and law enforcement (Paul, 2019). In Oregon, marijuana sales tax revenues are allocated to the State School Fund (40%); Mental Health, Alcoholism, and Drug Services (20%); Oregon State Police (15%); the Oregon Health Authority (5%); and to cities and counties (20%).<sup>22</sup> Washington State's Treasurer reports the allocation of their 2019 almost \$400 million in sales tax revenue and fees: 29% to the General Fund; 47.6% to the Basic Health Plan Trust Account; and smaller fractions to education, prevention, research, other, and cities and counties (Davidson, 2020a).

Veterans' groups are particularly interested in recreational marijuana dispensaries because they cannot register for medical marijuana cards without fear of losing their military benefits. Massachusetts is one of the four states with the smallest proportion of veterans, with 5.5% veterans (Harrington, 2019). In comparison Oregon has 8.5%; Colorado, 8.7%; and Washington, 9.4%.

Like Governor Wolf's political efforts against liberalizing distilled spirit access prepandemic in Pennsylvania, Massachusetts Governor Charlie Baker has a history opposing liberal marijuana laws. Governor Baker campaigned against legalizing marijuana and expanding liquor

<sup>21</sup>For Colorado see Colorado Department of Revenue Marijuana Tax Reports (Colorado Department of Revenue, 2020). For Washington see Davidson (2020a). For Oregon, these are authors' calculations from Oregon Department of Revenue (2020).

<sup>22</sup>See the Oregon Department of Revenue (2020).

licenses (Miller, 2016a).<sup>23</sup> As a Republican, this is consistent with the results in Hall and Schiefelbeig (2011), who find that states that are less religious, less Republican-leaning, and less economically free are more likely to adopt medical marijuana laws.

### 3.3 | Changes in policy involving prescription drug access, substance use treatment, and illicit drugs

The Centers for Medicare and Medicaid Services (CMS) announced, retroactive to March 6, that Medicare would reimburse telehealth services at the same rates as in-person services.<sup>24</sup> Some private insurance plans and state Medicaid plans followed (Rosenberg, 2020). The Substance Abuse and Mental Health Services Administration issued Opioid Treatment Program (OTP) guidance on March 16 stating that all states: “may request blanket exceptions for all stable patients in an OTP to receive 28 days of Take-Home doses of the patient’s medication for opioid use disorder. The state may request up to 14 days of Take-Home medication for those patients who are less stable but who the OTP believes can safely handle this level of Take-Home medication” (SAMHSA, 2020).

Similarly, many states relaxed rules around renewals of medical marijuana cards through permitting telehealth appointments.<sup>25</sup> Both changes increased the ease with which substance use disorder patients might access medical care. States adopted or, more commonly, relaxed a variety of restrictions related to substance use disorder treatment. Typically, these legal changes include expanding billing codes usable with telemedicine and relaxing the rules around prescribing controlled substances. Research on state laws requiring private, ERISA health insurance plans to cover services provided by telehealth (if covered face-to-face), demonstrates reductions in death rates by suicides (Chen and Dills, 2020). Anecdotally, an article in the Dayton Daily News (Turay, 2020) states that the rates at which substance use disorder patients showed for sessions increased as counseling switched to telehealth delivery (see footnote 11). Permitting telemedicine has facilitated regular counseling with patients’ providers; many patients report appreciating the privacy afforded by not having to visit a clinic (Rosenberg, 2020).

In addition to the changes brought about by the CMS announcement regarding telehealth reimbursement, the role of the Drug Enforcement Administration has functionally changed. On March 20, 2020, the DEA announced that “the DEA is responding appropriately to ensure Americans continue to have access to necessary medications and controlled substances. The DEA’s efforts include supporting prescribing practices that limit exposure, enabling uninterrupted access to practitioners, and safeguarding a consistent and reliable drug supply” (Drug Enforcement Administration, 2020d).

## 4 | OUTCOMES OF THE PANDEMIC POLICY CHANGES

Pennsylvania and Massachusetts, unlike other U.S. states, declared liquor stores and marijuana dispensaries, respectively, nonessential. Federal and state governments relaxed rules limiting

<sup>23</sup>Those against the recreational marijuana law included Massachusetts Hospital Association (Scharfenberg, 2016) and the Massachusetts Association of School Superintendents (Miller, 2016b).

<sup>24</sup>The Coronavirus Preparedness and Response Supplemental Appropriations Act, signed into law on March 6, 2020, permitted “telehealth services furnished during emergency periods” for Medicare patients (text is here: [https://www.govtrack.us/congress/bills/116/hr6074/text/enr#link=B\\_101&nearest=H43DD419ADD2146148B9A7E2F8F456F19](https://www.govtrack.us/congress/bills/116/hr6074/text/enr#link=B_101&nearest=H43DD419ADD2146148B9A7E2F8F456F19)).

<sup>25</sup>The Marijuana Policy Project (2020) details these changes.

access to opioids and substance-use disorder treatments. Social health planners are ill-equipped for decision-making, facing significant knowledge problems and unobserved trade-offs (Coyne *et al.*, 2021). Below, we describe the results, so far, of these decisions.

In deciding to close liquor stores, Pennsylvania Governor Wolf and PLCB Chairman Tim Holden emphasized that closing these stores was in the interest of public health and the health of employees. This decision to close liquor stores, however, had the opposite effect with two unintended consequences. First, like Denver, Pennsylvania liquor stores had an immediate influx of customers waiting in long lines to purchase liquor before the stores closed. Within hours of the announcement, people formed lines extending the length of a city block and beyond. “On March 16, the day the closures were announced, wine and liquor sales hit \$29.9 million—a record high for single-day sales in at least a decade” (Simonton, 2020). This policy unintentionally incentivized many Pennsylvania residents to leave their homes, stand in crowded lines, and shop in crowded liquor stores, thus completely undermining the policy’s intention to keep employees and customers safe.<sup>26</sup>

Second, after Pennsylvania stores closed, many Pennsylvania residents traveled to neighboring states to acquire liquor (Thompson, 2020). The policy decision encouraged Pennsylvania residents to travel across state lines to purchase liquor, greatly increasing public safety risks and contradicting their stated goals. Neighboring states responded by adopting their own policy changes to stop Pennsylvanians from crossing state lines to purchase liquor. On April 13, 2020, the Governor of Ohio announced that all liquor stores in Ashtabula, Trumbull, Mahoning, Columbiana, Jefferson, and Belmont counties, the six Ohio counties closest to Pennsylvania, were no longer permitted to sell liquor to non-Ohio residents (Mullins, 2020). Monongalia County of West Virginia also limited liquor sales to only West Virginians after an increase in Pennsylvanians crossing the state line to acquire liquor (Wilson, 2020). Pennsylvania policy interventions led to further interventions in neighboring states.

In fiscal year 2019–2020, the Pennsylvania Liquor Control Board contributed almost \$745 million to state and local governments and other beneficiaries (PLCB, 2020c). In 2018–2019, this figure was \$770 million—with no sales for 14 days in March and limited, online-only sales 19 days in April, the PLCB was 3.2% down in sales. In the first 2 weeks that Fine Wine & Good Spirits stores were closed, it is estimated that PLCB lost \$91 million in revenue (Tomasic, 2020). As of April 1, 2020, each day that Fine Wine & Good Spirits was closed resulted in a \$6.5 million loss in sales (Tomasic, 2020).

Closing liquor stores generated a variety of problems for Pennsylvania: a rush to purchase leading to crowded stores, out-of-state travel to purchase, and lost revenues. Given these problems, why did Pennsylvania choose this route, unlike other states? The interventionism framework outlined above explains that policymakers often enact policies to solve a problem but that result in unintended consequences. However, the framework allows for policymakers to disintervene (rollback) those policies when they realize that the intervention directly undermines their self-interest. The decision reversal in Denver outlined above is a clear example. The fact that Governor Wolf and the PLCB did not re-open liquor stores for weeks suggests that there were other factors influencing this decision that overrode the loss of revenue, the negative press, and public sentiment that liquor store closing harmed consumers and risked their safety.

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<sup>26</sup>Coyne *et al.* (2021) provide an overview of the knowledge problems and trade-offs facing social health planners during the pandemic. The unintended consequences of the decisions in Pennsylvania and Massachusetts illustrate some of this tradeoff.

By closing liquor stores, Pennsylvania Governor Wolf and the PLCB provided a functional wealth transfer to the liquor store clerks by permitting them to remain at home while receiving full pay and giving Pennsylvanians limited options in the acquisition of spirits. Despite claims that the impetus for closing liquor stores was to protect public health, the motivation for closing liquor stores was to protect liquor store employees' health and leisure at the expense of the public. However, because the benefits were accrued to a relatively small group, liquor store employees, and the costs were dispersed onto liquor consumers in Pennsylvania, there was strong incentive for Governor Wolf and the PLCB to adopt such a policy.

Eventually the PLCB announced it was opening online sales of liquor and wine from Fine Wine & Good Spirits at the beginning of April. The decision to allow liquor sales online came only when employees were going to lose their pay if they were still unable to work. On April 3, 2020, Governor Wolf announced that to reduce state expenditures, state employees that were unable to work due to the pandemic would no longer receive paychecks unless they used vacation days or sick leave (Couloumbis, 2020). Included in the 9,000 state employees who were unable perform their jobs through teleworking that were impacted by this decision were the over 4,000 liquor store employees, 3,500 of which are Local 1776 union members. This change decreased the benefits to the unionized liquor store employees of keeping liquor stores closed.

In the same week, PLCB announced that Fine Wine & Good Spirits would reopen its online store (which had been closed since March 17), and thus would need to bring back many of its employees in order to fulfill the considerable influx of online orders. When faced with the loss of their pay, the UFCW Local 1776 Keystone and liquor store employees became actively involved in the process to get these workers back to work and open more liquor store locations to function as fulfillment centers for online orders (Simonton, 2020). In the first 11 days of online sales, the Fine Wine & Good Spirits website brought in 15,017 customer orders amounting to \$1.4 million in sales (Davidson, 2020b). This was almost half of their total online sales for the entire 2019 year (see PLCB, 2020b). It is clear from this return to work that, once again, the motivation for closing liquor stores and then later permitting online sales was not public health consideration, but instead motivated by the interest group of employees and a method to generate revenue for the state at the expense of the public.

Despite a reduction in annual overdose deaths in 2018, provisional death counts from the CDC show an increase in drug overdose deaths in 2019 and 2020 even before the onset of the pandemic in the United States. Unfortunately, due to data restrictions and lagged data collection, consistent and reliable data to measure the amount of substance misuse across the country since the onset of the pandemic is unavailable. News searches, however, reveal cities or states in every part of the country reporting large increases in substance use and overdose rates. Table A1 summarizes a selection of these by states. Some preliminary aggregate data suggests that unintentional drug overdoses are on the rise. The Overdose Detection Mapping Application Program (ODMAP) collects county-level data from first responders in the majority of U.S. counties. Although the data are only available to participating police, fire, other first responders, and public health departments, summary information demonstrate a large increase in overdoses compared to 2019. Year-over-year, overdoses were 18% higher in March, 29% in April, and 42% in May (Wan and Long, 2020). The CDC Health Advisory released in December 2020 shows that overdose deaths, including opioid overdose deaths, were trending upward throughout 2019 and into 2020. "The increases in drug overdose deaths appear to have accelerated during the COVID-19 pandemic. Provisional overdose death estimates indicate that the largest monthly increases in drug overdose deaths occurred in the 12-months ending in February 2020 (74,185 deaths)... the 12-months ending in March 2020 (75,696 deaths)... the



12-months ending in April 2020 (77,842 deaths) to the 12-months ending in May 2020 (81,230 deaths)” (Centers for Disease Control and Prevention, 2020, p. 1).

At this time, it is unclear exactly what is causing this increase. The pandemic, the shut-downs, and the resulting recession likely have strong effects on substance use. Stress and loneliness are known contributors to substance misuse. CDC documents that 13.3% of survey respondents report “having started or increased substance use to cope with stress of emotions related to COVID-19” (Czeisler *et al.*, 2020, p. 1049). Additionally, economic downturns are associated with higher overdose rates and overdose death rates. Hollingsworth *et al.* (2017) find that a one percentage point increase in the unemployment rate is associated with a 3.55% increase in opioid deaths and a 7% increase in opioid overdose emergency department visits. As Cachanosky *et al.* (2021) note, the contraction of the U.S. economy starting in March 2020 is the steepest in U.S. history, with the U.S. unemployment rate rising to 14.7% in April 2020. In February 2020, the unemployment rate was just 3.5%. Mulligan (2020) reports preliminary findings of fatal opioid overdose death rates between 10 and 60% higher as a result of the pandemic and recession compared to before the pandemic.

Although concerns about pain management and access to controlled substances for legitimate use existed before the pandemic, the DEA had to balance the enforcement of drug prohibitionist policies with maintaining access to controlled substances—two tasks often in tension with each other. While increased regulation on prescription painkiller access decreases the likelihood of diversion into illegal markets, it also makes legitimate acquisition of painkillers by those experiencing pain more challenging. During a pandemic in which limited legal access to painkillers could result in more deaths, the DEA focused more on deregulation and ease of legal access and less on illicit drug enforcement. In early April, “DEA has issued a final order to increase the 2020 APQ [Aggregate Production Quotas] by 15 percent for certain substances needed for the treatment of COVID-19, including fentanyl, morphine, hydromorphone, codeine, ephedrine, pseudoephedrine, and certain controlled substance intermediates which are essential to their production... Since the beginning of the pandemic, DEA has been implementing measures aimed at improving access and reducing barriers to controlled substances for patients in need” (Drug Enforcement Administration, 2020e). To effectively care for individuals who contracted COVID-19, the DEA had to relax many of the production and distribution restrictions on the pain medications needed for treatment. The costs that the DEA faces have changed as a result of the pandemic due to the increase in hospitalizations and need for pain medication, and thus their focus has also shifted to permit a larger amount of opioids and other necessary medications into circulation.

An alternative hypothesis for the increase in drug overdoses during the pandemic is that as the illegal supply chain of drugs has been disrupted due to restricted domestic and international travel, quality control of illicit drugs has declined. Drug trafficking and money laundering activities are much more difficult to accomplish, resulting in greater ease of detection by law enforcement (Blankstein *et al.*, 2020). When suppliers have a challenging time making their product available, they will often seek out other alternatives by innovating (or malnovating) in their approaches. In a recent research brief, the United Nations Office on Drugs and Crime documents that increased patrol at the Mexican border has disrupted the trafficking of heroin into the United States (2020, p. 18). The report further explains that an increase in the use of fentanyl and other synthetic alternatives to heroin is likely as a consequence of this supply chain disruption (United Nations Office on Drugs and Crime, 2020, p. 34). As more heroin users substitute into the relatively less safe alternatives such as fentanyl and other synthetic opioids, overdose death rates will likely continue to rise. In 2018, 67% of opioid-related deaths involved synthetic opioids (Wilson *et al.*, 2020, p. 291). There is evidence in Indiana and Illinois that a new opioid analog called

Isotonitazene is being sold and resulting in overdoses (Markoff *et al.*, 2020), consistent with Redford (2017a). Consequently, increased border patrol to enforce federal travel restrictions due to the pandemic contributes to greater risks in the market for opioids in the United States.

Consistent with the theory of interventionism outlined in Section 2, over the past century, illicit drug regulation and enforcement have created a tangled web of problematic policies. The current health crisis of the COVID-19 pandemic exposed the vulnerabilities of these policies. As a result, many state policymakers, namely governors via executive order decrees, are responding to the impact of the pandemic on the substance use crises by suspending components of the apparatus that are causing the most bottlenecks and impediments to care.<sup>27</sup>

## 5 | CONCLUSION

Alcohol, marijuana, and other scheduled drugs comprise highly regulated markets in the United States. In less regulated markets, changing market conditions led to innovative, entrepreneurial responses. In these highly regulated markets, the abrupt changes brought about by the pandemic and related interventions provide an opportunity to observe the entangled political interventions as governments changed a variety of rules affecting ease of access.

These changes at the state and federal level make an interesting case study in political economy. Our article documents the incentive problems as well as the knowledge problems at play during the policymaking process. The analysis describes how special interests can shape public policy in the time of a crisis to benefit their own interests under the pretense of the public interest (in this case public health). Specifically, we document how unionized public liquor store employees in Pennsylvania influenced alcohol policy to maximize private benefits while dispersing the costs onto Pennsylvania residents and the bordering states. By contrast, dispensary owners in Massachusetts, despite being a small, concentrated group, were unable to form a strong enough coalition to convince the governor to designate them as an essential business.

The governors of Pennsylvania and Massachusetts seized the opportunity of the pandemic to implement rules more consistent with their previous policy efforts and responding to the special interest groups in their state, or lack thereof. We illustrate that due to the knowledge problem, such policy choices directly undermine the stated policy goals by encouraging consumers and entrepreneurs to engage in less safe alternatives. These rules led consumers to flood liquor stores and marijuana dispensaries and travel between states, likely undoing the stated coronavirus-reduction intentions of the policies.

We document how the same crisis, in this case a pandemic, can lead to the expansion and contraction of regulatory regimes of highly regulated industries based on the political considerations. A crisis can provide the impetus to eliminate or scale down existing policies that subsequently create significant bottlenecks to the crisis recovery process (so long as a powerful opposition interest group is not in the way). The pandemic exposed problems in the regulatory structure surrounding prescription and illicit drugs. Policymakers at the state and federal level are searching for those policies causing significant bottlenecks in the ability of individuals to

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<sup>27</sup>After Hurricane Katrina destroyed Gulf Coast towns including New Orleans, Louisiana and other states receiving refugees, including Texas, temporarily modified their prescription rules in similar ways (Koutnik-Fotopoulos, 2005; The Associated Press, 2005). Although we were unable to find research documenting the effects of these relaxations, the press coverage and disaster planning highlight overarching concerns about how drug users cope in disasters (see de la Cretaz, 2017; Thomas, 2017).

continue to seek out treatment during the pandemic. We describe how the federal government and some states permitted telehealth access for substance use disorder treatments and medical marijuana card renewals.

Although the data to test for the effects of these policy changes on substance use and related harms is not yet available, the decisions in Pennsylvania and Massachusetts to close liquor stores and marijuana dispensaries likely led to additional harms. Alcohol and marijuana are substances commonly used to self-medicate (Sarvet *et al.*, 2018). Restricting access to these goods likely increased the stress and distress residents experienced during the pandemic, especially considering the isolation from sheltering-in-place and reductions in seeking mental health and other medical treatment. Furthermore, the inability to access these substances encouraged individuals to seek out other alternatives or travel across state lines to find legal options.

Deregulation measures likely limited the negative effects of increased substance use during the pandemic by improving access to substance use disorder treatments. Other negative effects occur, however, when substance use increases. Much violence occurs under the influence of alcohol. Domestic violence, child abuse, and assault all decrease when the price of alcohol increases (Markowitz, 2000; Markowitz, 2005; Markowitz and Grossman, 1998, 2000). A meta-analysis estimates statistically significant and economically important effects of alcohol prices on injury outcomes, violence, traffic crashes, sexually transmitted diseases, crime, and other drug use (Wagenaar *et al.*, 2010).

Similar work finds smaller or no relationship between marijuana or cocaine use and physical child abuse (Markowitz and Grossman, 2000); some relationship between cocaine prices and assault (Markowitz, 2005); and penalties for marijuana use and assault (Markowitz, 2005). A meta-analysis finds that substance use is associated with higher rates of IPV victimization with effect sizes of 0.18–0.23 (Cafferky *et al.*, 2018). Anecdotally, CASA in Sebastian County, Arkansas, reports increases in sexual abuse cases due to COVID-19 and an increase in use of methamphetamines (Bryan, 2020).

Although harms arise with increased alcohol and other substance use, policymakers struggle to navigate a complex regulatory regime fraught with special interests and knowledge problems entangled with politics. Simplifying consumer access to quality goods by allowing entrepreneurs to provide consumers with products they desire and facilitating access to treatment for those with substance use disorders likely would improve a variety of public health outcomes. Davis and Samuels (2020) explain that telehealth options could be effective after the pandemic to assist individuals who previously lacked access to traditional outpatient methods of obtaining medication for an opioid use disorder. Removing telemedicine barriers in the treatment for opioid use disorder could help to address the disparity in access to outpatient administration of medications like buprenorphine in majority white counties versus Black and Hispanic/Latino counties. The continued elimination of these burdensome regulations following the pandemic will expand the ability of treatment programs to reach greater and more vulnerable portions of the population.

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## APPENDIX A

TABLE A1 Evidence suggesting increases in overdose deaths by state

State name	Pull quote	Link to article
Alabama	“Statewide ER visits for drug overdoses have increased in recent months peaking in July at 1169 visits...In Jefferson County, opioid-related overdose deaths from January to June of this year were up 32.5% from last year.”	<a href="https://www.wbr.com/2020/08/18/opioid-overdoses-rise-since-pandemic-began/">https://www.wbr.com/2020/08/18/opioid-overdoses-rise-since-pandemic-began/</a>
Alabama	“In Alabama, there has been a 50 percent increase in alcohol use during the pandemic, as well as increased emergency room visits and opioid overdose deaths.”	<a href="https://mountaineagle.com/stories/overdoses-on-the-rise-in-pandemic,28650">https://mountaineagle.com/stories/overdoses-on-the-rise-in-pandemic,28650</a>
Arizona	“In March...at least 473 people died from a drug overdose, a nearly 40% increase compared to March 2019.”	<a href="https://www.abc15.com/news/rebound/keeping-you-safe/amid-covid-19-pandemic-the-opioid-epidemic-rages-on-here-are-resources-to-get-help">https://www.abc15.com/news/rebound/keeping-you-safe/amid-covid-19-pandemic-the-opioid-epidemic-rages-on-here-are-resources-to-get-help</a>
Arizona	“Since January, the Pima County Medical Examiner has recorded 221 overdose fatalities. With just four months left in the year, drug-related deaths are projected to surpass 400 in 2020, compared to 337 in 2019.”	<a href="https://tucson.com/news/tucson-rise-in-drug-overdose-deaths-could-be-linked-to-pandemic/article_ed773af2-5dfc-5fc6-85c1-2ddd0b9cde02.html">https://tucson.com/news/tucson-rise-in-drug-overdose-deaths-could-be-linked-to-pandemic/article_ed773af2-5dfc-5fc6-85c1-2ddd0b9cde02.html</a>
Arkansas	“Fort Smith paramedics from May to July have on average responded to 50 overdose calls per month - a 40%–60% response increase to these kinds of calls from the first four months of the year.”	<a href="https://www.arkansasnews.com/news/20200809/drug-overdoses-skyrocket-in-fort-smith-during-covid-19">https://www.arkansasnews.com/news/20200809/drug-overdoses-skyrocket-in-fort-smith-during-covid-19</a>
Arkansas	“Arkansas from March through July has seen a 130% administration increase in the opioid counter agent naloxone”	<a href="https://www.swtimes.com/news/20200809/drug-overdoses-skyrocket-in-fort-smith-during-covid-19">https://www.swtimes.com/news/20200809/drug-overdoses-skyrocket-in-fort-smith-during-covid-19</a>
California	[San Diego County]: “In July and August numbers of overdose deaths were more than 50% higher than in February and March of 2020, with an average of about three people dying per day in the County.”	<a href="https://www.countynewscenter.com/3-san-diegans-die-daily-from-opioid-other-drug-overdoses/">https://www.countynewscenter.com/3-san-diegans-die-daily-from-opioid-other-drug-overdoses/</a>
Colorado	“About 130 people died of overdoses in May across the state, nearly doubling the average from recent years...State health department data reported 73 deaths in 2019, 79 in 2018, and 64 in 2017.”	<a href="https://www.denverpost.com/2020/09/28/colorado-drug-overdose-rise-covid-stress/">https://www.denverpost.com/2020/09/28/colorado-drug-overdose-rise-covid-stress/</a>
Colorado	“During March through June of 2020, we have recorded 454 total drug overdose deaths thus far, an increase of 39% over the average of the past three years for this period. Among these, we have seen 298 overdose deaths involving opioids (a 65% increase) and 155 overdose deaths involving fentanyl specifically (a 339% increase).”	<a href="https://www.9news.com/article/news/local/next/coronavirus-pandemic-impacting-opioid-addiction-health-crisis/73-3010b7cc-86be-4009-a8e8-c66b9e1e15ac">https://www.9news.com/article/news/local/next/coronavirus-pandemic-impacting-opioid-addiction-health-crisis/73-3010b7cc-86be-4009-a8e8-c66b9e1e15ac</a>

**TABLE A1** (Continued)

State name	Pull quote	Link to article
Connecticut	“Earlier this week, Sen. Richard Blumenthal revealed the startling statistic that there’s been a 22 percent increase in opioid overdose deaths in 2020. At this rate...Connecticut will surpass last year’s record of nearly 1200 drug overdose deaths. Lt. Governor Susan Bysiewicz said 531 people died of drug overdoses in Connecticut from January to May of this year, a 22 percent increase during the same five-month period a year ago when 435 lives were lost.”	<a href="https://www.nbcconnecticut.com/news/local/governor-to-hold-news-conference-on-addiction-overdoses/2324688/">https://www.nbcconnecticut.com/news/local/governor-to-hold-news-conference-on-addiction-overdoses/2324688/</a>
Connecticut	“Based on the first six months of the year, Connecticut’s accidental overdose deaths are expected to be 13.5% higher than last year. In 2019 there were 1200 accidental overdoses. Connecticut is projected to end the year with 1362 overdoses. In the first six months of 2020, Connecticut saw 681 accidental overdoses, most or 93% involving opioids.”	<a href="https://www.nbcconnecticut.com/news/local/overdose-deaths-on-the-rise-but-recovery-help-is-available/2343732/">https://www.nbcconnecticut.com/news/local/overdose-deaths-on-the-rise-but-recovery-help-is-available/2343732/</a>
Connecticut	“Nearly 650 people in Connecticut died of unintentional drug overdoses from January to June, an 18% increase over the same period last year.”	<a href="https://abc7ny.com/ct-news-connecticut-covid-19-coronavirus-update/6397299/">https://abc7ny.com/ct-news-connecticut-covid-19-coronavirus-update/6397299/</a>
Connecticut	“Connecticut officials are speaking out to raise awareness about drug overdoses, which have increased nearly 20% compared with last year.”	<a href="https://abc7ny.com/ct-news-connecticut-covid-19-coronavirus-update/6397299/">https://abc7ny.com/ct-news-connecticut-covid-19-coronavirus-update/6397299/</a>
Delaware	“Through May 31, 160 people have died from suspected overdoses in Delaware. That total is a 60% increase over a similar period in 2019 and a 48% increase over the same period in 2018.”	<a href="https://news.delaware.gov/2020/06/16/suspected-overdose-deaths-for-may-in-delaware-tie-previous-monthly-high-set-in-2018/">https://news.delaware.gov/2020/06/16/suspected-overdose-deaths-for-may-in-delaware-tie-previous-monthly-high-set-in-2018/</a>
DC	“47 people died of opioid overdoses in April - the most in a single month dating back to 2016. The report shows 140 people died of overdoses between January and April. If this pace continues, the toll would exceed recent annual highs - in 2017 and 2019, when 281 people died - by 49 percent.”	<a href="https://www.washingtonpost.com/local/drug-overdose-washington-coronavirus/2020/08/20/2a4c64b8-e0a4-11ea-ade1-28daf1a5e919_story.html">https://www.washingtonpost.com/local/drug-overdose-washington-coronavirus/2020/08/20/2a4c64b8-e0a4-11ea-ade1-28daf1a5e919_story.html</a>
Florida	“In a one thousand-person survey, Broward-based Victory Recovery Center found 57 percent saw an increase in their substance use.”	<a href="https://miami.cbslocal.com/2020/09/01/coronavirus-substance-abuse-south-florida/">https://miami.cbslocal.com/2020/09/01/coronavirus-substance-abuse-south-florida/</a>
Florida	“In Seminole County, reported opioid overdoses are up roughly 65 percent so far this year compared with the same months in 2019, and in Orange, overdoses increased by 46 percent.”	<a href="https://www.orlandosentinel.com/coronavirus/os-ne-coronavirus-big-increase-in-substance-abuse-mental-health-20200918-kuesqudc2vb6rkoyph2nuwjgbi-story.html">https://www.orlandosentinel.com/coronavirus/os-ne-coronavirus-big-increase-in-substance-abuse-mental-health-20200918-kuesqudc2vb6rkoyph2nuwjgbi-story.html</a>

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TABLE A1 (Continued)

State name	Pull quote	Link to article
Florida	[Ocala, FL]: “We’ve seen almost a double in the number of overdoses since COVID-19, from February to the current day...We had 160 calls for service and that translated into 212 administration of Narcan.”	<a href="https://www.wftv.com/news/local/marion-county/ocala-sees-spike-opioid-overdoses-during-covid-19-pandemic/RNB5A2BILBCTJFUPU3IG7UDZL4/">https://www.wftv.com/news/local/marion-county/ocala-sees-spike-opioid-overdoses-during-covid-19-pandemic/RNB5A2BILBCTJFUPU3IG7UDZL4/</a>
Florida	“Jacksonville Fire and Rescue Department is averaging 15 calls a day for overdoses, which is 40 percent higher than the same time last year.”	<a href="https://www.firstcoastnews.com/article/entertainment/television/programs/gmj/jfrd-averaging-15-overdose-calls-a-day-group-provides-narcan-training-in-response/77-fa78a385-d445-4e64-b31c-bcabb57a0925">https://www.firstcoastnews.com/article/entertainment/television/programs/gmj/jfrd-averaging-15-overdose-calls-a-day-group-provides-narcan-training-in-response/77-fa78a385-d445-4e64-b31c-bcabb57a0925</a>
Florida	“Manatee County reports 44% increase in opioid overdoses since last year...Overdose deaths stand at 49 through June, which is three more than the first six months of last year...Non-fatal overdoses have also spiked; through June, there were 121, compared to 88 total last year.”	<a href="https://www.fox13news.com/news/manatee-county-reports-44-increase-in-opioid-overdoses-since-last-year">https://www.fox13news.com/news/manatee-county-reports-44-increase-in-opioid-overdoses-since-last-year</a>
Florida	“Jacksonville Fire and Rescue...agency saw a 20% increase in overdose calls from February to March.”	<a href="https://www.news4jax.com/news/local/2020/04/14/jfrd-jacksonville-overdose-calls-increased-by-20-in-march/">https://www.news4jax.com/news/local/2020/04/14/jfrd-jacksonville-overdose-calls-increased-by-20-in-march/</a>
Georgia	“...the number of fentanyl-involved overdose deaths in the state has risen by 17% from December 2019 through April 2020 when compared to the previous five-month period.”	<a href="https://www.wabe.org/nonprofits-respond-to-a-reported-rise-in-overdoses-in-georgia-amid-the-pandemic/">https://www.wabe.org/nonprofits-respond-to-a-reported-rise-in-overdoses-in-georgia-amid-the-pandemic/</a>
Georgia	For nine weeks beginning April an average weekly increase of 3 percent in ED visits with drug overdose syndrome...over the same 11-period week, beginning March 22...identified an average weekly increase of 5.9 percent in opioid-involved ED visits among patients with drug overdose syndrome...average weekly increase of 6.4 percent in suspected heroin-involved ED visits among patients with drug overdose syndrome... preliminary results for fentanyl-involved overdose deaths among Georgia residents show a 17 percent increase comparing the five-month period - December 2019 to April 2020 - to the previous five-month period - July to November 2019.”	<a href="https://times-herald.com/news/2020/08/dph-warns-of-overdose-increases-in-georgia-amid-covid-19">https://times-herald.com/news/2020/08/dph-warns-of-overdose-increases-in-georgia-amid-covid-19</a>
Illinois	“More than twice as many people have died or are suspected to have died of opioid overdoses in the first five months of the year in Cook County, when compared with the same period last year...There have been at least 924 confirmed or suspected overdose deaths so far in 2020; there were 461 at this time last year.”	<a href="https://www.propublica.org/article/overdose-deaths-have-skyrocketed-in-chicago-and-the-coronavirus-pandemic-may-be-making-it-worse">https://www.propublica.org/article/overdose-deaths-have-skyrocketed-in-chicago-and-the-coronavirus-pandemic-may-be-making-it-worse</a>



TABLE A1 (Continued)

State name	Pull quote	Link to article
Indiana	“Data was collected from Marion County, Indiana (Indianapolis)...despite a mild 4% increase in all EMS CFS [calls for service], overdose CFS increased 43% and CFS with naloxone administration increased 61% after the stay-at home order. Deaths from drug overdoses increased by 47%.”	<a href="https://pubmed.ncbi.nlm.nih.gov/33005988/">https://pubmed.ncbi.nlm.nih.gov/33005988/</a>
Indiana	“...between January and June 2019 Fort Wayne reported 348 non-fatal overdoses and between January and June of this year there were 541...the increase from May 2019 which was 37 non-fatal overdoses to 129 in May of this year...the amount of fatal overdoses has been relatively similar to previous years.”	<a href="https://www.wane.com/community/health/coronavirus/an-epidemic-of-their-own-relapse-and-overdose-rates-surge-amidst-coronavirus-lockdowns/">https://www.wane.com/community/health/coronavirus/an-epidemic-of-their-own-relapse-and-overdose-rates-surge-amidst-coronavirus-lockdowns/</a>
Indiana	“The use of naloxone to treat overdoses...has almost doubled in Clark County in recent months...there has been a 35% statewide increase from last year and a 95.83% increase in Clark County... Naloxone...was used 1306 times in Indiana in April, the highest month for usage in the state's history.”	<a href="https://www.usnews.com/news/best-states/indiana/articles/2020-05-29/naloxone-use-opioid-overdoses-increase-amid-virus-pandemic">https://www.usnews.com/news/best-states/indiana/articles/2020-05-29/naloxone-use-opioid-overdoses-increase-amid-virus-pandemic</a>
Iowa	“Lockdowners Anonymous said some states have seen an even greater jump in interest in substance abuse treatments like Iowa, which had a 61.38 percent increase in such inquiries.”	<a href="https://www.timesrecordnews.com/story/news/local/2020/09/17/substance-abuse-treatment-inquires-increased-22-since-covid-19-pandemic/3479485001/">https://www.timesrecordnews.com/story/news/local/2020/09/17/substance-abuse-treatment-inquires-increased-22-since-covid-19-pandemic/3479485001/</a>
Kentucky	“The number of overdose deaths so far this year has surpassed the 128 drug-related fatalities in 2019...as of Aug. 17, 130 people have died due to drug overdose.”	<a href="https://www.kentucky.com/news/local/counties/fayette-county/article245379110.html">https://www.kentucky.com/news/local/counties/fayette-county/article245379110.html</a>
Kentucky	“Kentucky has experienced a significant increase in the number of suspected opioid overdose responses by emergency medical services...statistically significant spikes in daily counts...were observed as early as March 26 and have occurred over the following weeks. The seven-day rolling average is the highest it has been in the two years that this data have been analyzed.”	<a href="http://www.mc.uky.edu/kiprc/pubs/files/July%202020%20KyOD2A%20final.pdf">http://www.mc.uky.edu/kiprc/pubs/files/July%202020%20KyOD2A%20final.pdf</a>
Kentucky	“Fatal overdoses in Kentucky's second largest city [Lexington] have increased at least 42 percent compared to this time last year, and participation in the local syringe exchange program is higher than it's ever been.”	<a href="https://www.kentucky.com/news/coronavirus/article242926656.html">https://www.kentucky.com/news/coronavirus/article242926656.html</a>
Louisiana	“On July 13, the Advocate reported that opioid overdose deaths in East Baton Rouge Parish have increased 93% through June of this year compared to last year.”	<a href="https://www.shreveporttimes.com/story/opinion/columnists/2020/07/20/dr-nicholas-goeders-hidden-health-crisis-results-covid-19/5471082002/">https://www.shreveporttimes.com/story/opinion/columnists/2020/07/20/dr-nicholas-goeders-hidden-health-crisis-results-covid-19/5471082002/</a>

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TABLE A1 (Continued)

State name	Pull quote	Link to article
Maine	“In just the first three months of 2020, 127 Maine people died of overdoses. That’s a 23 percent increase from the last quarter of 2019...these worrying numbers put Maine on track to exceed the 418 overdose deaths recorded in 2017, the deadliest year on record.”	<a href="https://bangordailynews.com/2020/08/30/opinion/editorials/maines-other-pandemic-drug-overdose-deaths-needs-urgent-attention/">https://bangordailynews.com/2020/08/30/opinion/editorials/maines-other-pandemic-drug-overdose-deaths-needs-urgent-attention/</a>
Maryland	“The first six months of 2020 saw 32 confirmed fatal opioid related overdoses, with two possible opioid related overdoses...If this trend continues for the remainder of 2020, we could see a significant increase in opioid overdose deaths...There was a 2.6% increase in overdose fatalities for the first quarter of this year over the same time period for 2019.”	<a href="https://www.fredericknewspost.com/opinion/columns/in-the-shadow-of-covid-19-opioid-crisis-continues-unabated-attack/article_e3e6347d-1ea2-5a6e-869e-02f6bda56297.html">https://www.fredericknewspost.com/opinion/columns/in-the-shadow-of-covid-19-opioid-crisis-continues-unabated-attack/article_e3e6347d-1ea2-5a6e-869e-02f6bda56297.html</a>
Maryland	“...there were 561 opioid-related deaths across the state in the first quarter of 2020, which marks a 2.6% increase compared to the same time last year.”	<a href="https://www.times-news.com/news/local_news/health-officials-say-covid-19-might-be-worsening-opioid-crisis/article_57e05f07-8018-5b7a-b678-a3ccefffd8d.html">https://www.times-news.com/news/local_news/health-officials-say-covid-19-might-be-worsening-opioid-crisis/article_57e05f07-8018-5b7a-b678-a3ccefffd8d.html</a>
Maryland	“The first-quarter results...were 626 reported intoxication deaths from all types of drugs and alcohol, representing an increase of 0.8 percent from the 621 intoxication deaths reported in the first three months of 2019. Opioids accounted for 89.6 percent of all such fatalities. The synthetic opioid fentanyl was involved in 83.5 percent of all cases. The data also reveal that opioid-related emergency department visits and EMS naloxone administrations were down substantially in the first quarter of 2020. Typically, these statistics would rise in correlation with fatalities, and their decline indicates disruptions in the broader response systems.”	<a href="https://thedailyrecord.com/2020/06/10/pandemic-cited-as-md-opioid-fatalities-inch-up/">https://thedailyrecord.com/2020/06/10/pandemic-cited-as-md-opioid-fatalities-inch-up/</a>
Massachusetts	“The Massachusetts Department of Public Health’s data from the first quarter of 2020 show that despite an overall decline in overdose deaths compared to the first quarter of 2019, rates of opioid overdose deaths for Black men, Hispanic men, and Black women all increased notably.”	<a href="https://www.masslive.com/opinion/2020/08/sounding-the-alarm-seeing-warning-signs-of-an-epidemic-within-the-covid-pandemic-viewpoint.html">https://www.masslive.com/opinion/2020/08/sounding-the-alarm-seeing-warning-signs-of-an-epidemic-within-the-covid-pandemic-viewpoint.html</a>
Massachusetts	“Preliminary data from January–March 2020 show there were 467 confirmed and estimated opioid-related overdose deaths, an estimated 28 fewer deaths, which is a 5.7 percent decline compared to the first three months of 2018.”	<a href="https://www.mass.gov/doc/opioid-related-overdose-deaths-among-ma-residents-june-2020/download">https://www.mass.gov/doc/opioid-related-overdose-deaths-among-ma-residents-june-2020/download</a>

TABLE A1 (Continued)

State name	Pull quote	Link to article
Michigan	“The Macomb County Medical Control Authority reports a 23% increase in the use of naloxone... by emergency medical technicians during responses for the three-month period from May through July 2020 compared to the same time frame in 2019.”	<a href="https://www.macombdaily.com/news/local/macomb-county-medical-board-ems-opioids-overdose-treatment-up-during-covid-19/article_057f7500-e3fe-11ea-bb48-c7f2d0f6945a.html">https://www.macombdaily.com/news/local/macomb-county-medical-board-ems-opioids-overdose-treatment-up-during-covid-19/article_057f7500-e3fe-11ea-bb48-c7f2d0f6945a.html</a>
Michigan	“Spectrum Health says they are seeing a daily increase of 20–30% in new patients asking for help with substance abuse, ranging from alcohol to drug use.”	<a href="https://www.fox17online.com/news/local-news/grand-rapids/20-increase-in-patients-seeking-substance-abuse-treatment">https://www.fox17online.com/news/local-news/grand-rapids/20-increase-in-patients-seeking-substance-abuse-treatment</a>
Minnesota	[Duluth]: “The first quarter was one of the deadliest on record...There have been 90 reported overdoses in Duluth so far this year compared with 174 in all of 2019. As of last week 10 people have died in Duluth from overdoses; 15 died all of last year.”	<a href="https://www.startribune.com/in-duluth-ods-spike-as-pandemic-decreases-access-to-aid/570895192/">https://www.startribune.com/in-duluth-ods-spike-as-pandemic-decreases-access-to-aid/570895192/</a>
Minnesota	“Minnesota agents have recovered about 46,000 counterfeit pills in the first seven months of the year, nearly four times what was seized in all of 2019.”	<a href="https://kstp.com/news/drug-enforcement-administration-says-significant-increase-in-counterfeit-pills-in-minnesota/5824400/?cat=1">https://kstp.com/news/drug-enforcement-administration-says-significant-increase-in-counterfeit-pills-in-minnesota/5824400/?cat=1</a>
Missouri	“The St. Louis County Medical Examiner’s Office reports preliminary opioid-related deaths for the first five months in 2020 were up 17 percent from the year before (112 deaths in 2019 and 131 in 2020).”	<a href="https://www.thesalemnewsonline.com/news/local_news/article_bc048678-ec71-11ea-aa59-bb8db363c4f0.html">https://www.thesalemnewsonline.com/news/local_news/article_bc048678-ec71-11ea-aa59-bb8db363c4f0.html</a>
Montana	“Millennium Health reported a 34% increase in urine samples that tested positive for methamphetamine after President Trump declared a national state of emergency on March 13...other states saw more dramatic increases in meth-positive urine samples. Nevada saw a 195% increase. Mississippi saw an 83% increase. Nationally, there was a 20% increase.”	<a href="https://billingsgazette.com/news/state-and-regional/crime-and-courts/meth-use-rose-as-pandemic-hit-montana-other-states-urine-tests-showed/article_ee3a910e-9bde-5be3-9506-9509d3aeaeab.html">https://billingsgazette.com/news/state-and-regional/crime-and-courts/meth-use-rose-as-pandemic-hit-montana-other-states-urine-tests-showed/article_ee3a910e-9bde-5be3-9506-9509d3aeaeab.html</a>
Nevada	“From January to May 2020, Nevada saw 23 percent more opioid-related overdose deaths than during the same period in 2019.”	<a href="https://thenevadaindependent.com/article/with-opioid-related-overdoses-on-the-rise-health-care-providers-try-preparing-everyday-nevadans-to-respond-to-a-crisis">https://thenevadaindependent.com/article/with-opioid-related-overdoses-on-the-rise-health-care-providers-try-preparing-everyday-nevadans-to-respond-to-a-crisis</a>
Nevada	“With the year about halfway through, 63 people in Clark County have died of fentanyl, or one less death than in all of 2019. In 2018, there were just 46 deaths.”	<a href="https://lasvegassun.com/news/2020/jul/29/fentanyl-contributes-rising-death-toll-las-vegas/">https://lasvegassun.com/news/2020/jul/29/fentanyl-contributes-rising-death-toll-las-vegas/</a>
New Hampshire	“There have been at least 200 fatal overdoses in New Hampshire this year...the numbers are current through Aug. 18 and do not include 57 deaths with causes still awaiting determination.”	<a href="https://www.sentinelsource.com/news/local/nh-has-seen-at-least-200-fatal-drug-overdoses-so-far-this-year/article_a04ea351-e402-5375-bcf6-51e4ecfe49c2.html">https://www.sentinelsource.com/news/local/nh-has-seen-at-least-200-fatal-drug-overdoses-so-far-this-year/article_a04ea351-e402-5375-bcf6-51e4ecfe49c2.html</a>

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TABLE A1 (Continued)

State name	Pull quote	Link to article
New Jersey	“Between March and July of this year, there were almost 1300 suspected overdose deaths. By comparison, the state saw just under 1200 in all of 2019.”	<a href="https://abc7ny.com/drug-overdose-oid-oid-crisis-naloxone-narcan/6504624/">https://abc7ny.com/drug-overdose-oid-oid-crisis-naloxone-narcan/6504624/</a>
New Jersey	“In Orange County, according to preliminary data, there have already been 95 opioid-involved overdose deaths as of Sept 2. That’s a 25 percent increase over the same period in 2019...Total suspected overdoses in Orange are up by 19 percent, with 330 so far in 2020 compared to 277 to the same date in 2019.”	<a href="https://www.recordonline.com/story/news/2020/09/08/pandemic-and-shutdown-masked-spike-in-mid-hudson-drug-overdoses/5701477002/">https://www.recordonline.com/story/news/2020/09/08/pandemic-and-shutdown-masked-spike-in-mid-hudson-drug-overdoses/5701477002/</a>
New Jersey	“State officials now say overdose deaths in New Jersey are up 20% through May.”	<a href="https://www.njherald.com/story/news/2020/07/09/is-covid-19-pandemic-fueling-20-rise-in-nj-overdose-deaths/42255441/">https://www.njherald.com/story/news/2020/07/09/is-covid-19-pandemic-fueling-20-rise-in-nj-overdose-deaths/42255441/</a>
New York	“Eighty-five people died in Erie County from presumed overdoses through the first four months of the year. That’s up from 48 during the same period last year and 64 in 2018.”	<a href="https://www.investigativepost.org/2020/05/21/covid-19-cited-in-spike-of-opioid-overdoses/">https://www.investigativepost.org/2020/05/21/covid-19-cited-in-spike-of-opioid-overdoses/</a>
New York	“In just five months, Queens has had a 56 percent increase in overdose deaths compared to 2019.”	<a href="http://theforumnewsgroup.com/2020/06/05/opioid-addiction-overdoses-on-rise-da/">http://theforumnewsgroup.com/2020/06/05/opioid-addiction-overdoses-on-rise-da/</a>
North Carolina	“Between January and August, Rockingham County emergency rooms saw 46% more opioid overdose cases than during the same time in 2019...data showed 92 people were admitted to hospitals here during the nine month span, compared to 63 patients last year.”	<a href="https://greensboro.com/rockingham_now/news/opioid-ods-way-up-ers-see-46-case-hike/article_155a410efc80-11ea-b36a-a3876ce79885.html">https://greensboro.com/rockingham_now/news/opioid-ods-way-up-ers-see-46-case-hike/article_155a410efc80-11ea-b36a-a3876ce79885.html</a>
North Carolina	“The state has seen a 15 percent spike in opioid overdoses since the pandemic began.”	<a href="https://www.northcarolinahealthnews.org/2020/08/14/nc-organizations-fighting-the-rural-opioid-crisis-receive-a-4m-federal-boost/">https://www.northcarolinahealthnews.org/2020/08/14/nc-organizations-fighting-the-rural-opioid-crisis-receive-a-4m-federal-boost/</a>
North Carolina	“Before March 1, officials in [Salisbury County] were responding to about 24 overdoses a month. After March 1, that number went up to about 58 a month and in the past two months, they have been responding to more than 70 overdoses a month.”	<a href="https://www.wsocvtv.com/news/local/covid-19-may-be-leading-more-drug-overdoses-charlotte-area-officials-say/3D4TTU47KNDILDI OQ73EPJJBHE/">https://www.wsocvtv.com/news/local/covid-19-may-be-leading-more-drug-overdoses-charlotte-area-officials-say/3D4TTU47KNDILDI OQ73EPJJBHE/</a>
North Carolina	“Drug overdose calls more than doubled during the pandemic, compared to the same time frame last year, according to statistics kept by the Rockingham County Sheriff’s Office. From March 1–July 31, 2019, authorities responded to 41 suspected overdose calls. This year, the number rose to 91 during the same time span.”	<a href="https://greensboro.com/rockingham_now/news/overdoses-way-up-officials-try-new-approach-to-fighting-drug-abuse-during-pandemic/article_863d0ae7-62b0-51f8-8df3-e9dc9396b0db.html">https://greensboro.com/rockingham_now/news/overdoses-way-up-officials-try-new-approach-to-fighting-drug-abuse-during-pandemic/article_863d0ae7-62b0-51f8-8df3-e9dc9396b0db.html</a>

TABLE A1 (Continued)

State name	Pull quote	Link to article
North Dakota	“The Grand Forks Police Department reports 23 opioid overdoses in the city since January, one of which was fatal...there were 30 opioid overdoses in Grand Forks in all of 2019. This year, there were a total of four overdoses in January, February, and March. In April through August, there have been 19.”	<a href="https://www.grandforksherald.com/newsmd/coronavirus/6648974-Grand-Forks-law-enforcement-state-officials-report-increase-in-opioid-overdoses-during-pandemic">https://www.grandforksherald.com/newsmd/coronavirus/6648974-Grand-Forks-law-enforcement-state-officials-report-increase-in-opioid-overdoses-during-pandemic</a>
North Dakota	“In 2019 Minot Police responded to a total of 28 overdose incidents that resulted in 3 deaths. During the first four months of 2020 alone those numbers have been easily surpassed with police responding to 39 overdose incidents, 8 of which ended in death.”	<a href="https://www.minotdailynews.com/news/local-news/2020/05/drug-overdose-deaths-climb-dramatically-in-minot/">https://www.minotdailynews.com/news/local-news/2020/05/drug-overdose-deaths-climb-dramatically-in-minot/</a>
Ohio	“Ohio, for example, saw emergency department visits related to suspected overdoses increase from 2868 in April to 3666 in May after nine months of those numbers declining.”	<a href="https://wfpl.org/overdose-incidents-rose-sharply-around-ohio-valley-during-pandemic/">https://wfpl.org/overdose-incidents-rose-sharply-around-ohio-valley-during-pandemic/</a>
Ohio	“Dr. Anahi M. Ortiz, the Franklin County coroner, said overdose deaths were up 65% through the first half of 2020 and are headed toward record-breaking results...597 people died from overdoses in 2019, a 14% increase over the previous year. That number could easily reach 700 this year.”	<a href="https://www.dispatch.com/story/news/local/2020/09/04/covid-19-not-slowng-drug-trafficking-overdose-deaths/113660090/">https://www.dispatch.com/story/news/local/2020/09/04/covid-19-not-slowng-drug-trafficking-overdose-deaths/113660090/</a>
Ohio	“Drug overdoses killed more Ohioans in May than in any month in at least 14 years, a potential side effect of the coronavirus pandemic that leaders fear could flare up again”	<a href="https://www.dispatch.com/story/news/drugs/2020/10/01/covid-19-despair-resulting-more-ohioans-overdosing-opioids/3585961001/">https://www.dispatch.com/story/news/drugs/2020/10/01/covid-19-despair-resulting-more-ohioans-overdosing-opioids/3585961001/</a>
Ohio	“At least 520 Ohioans died of an overdose in May, preliminary statistics from the Ohio Department of Health’s mortality database shows.”	<a href="https://www.daily-jeff.com/story/news/2020/10/08/covid-19-despair-resulting-more-ohioans-overdosing-opioids/5870506002/">https://www.daily-jeff.com/story/news/2020/10/08/covid-19-despair-resulting-more-ohioans-overdosing-opioids/5870506002/</a>
Ohio	“Ohio...saw emergency department visits related to suspected overdoses increase from 2868 in April to 3666 in May after nine months of those numbers declining.”	<a href="https://wfpl.org/overdose-incidents-rose-sharply-around-ohio-valley-during-pandemic/">https://wfpl.org/overdose-incidents-rose-sharply-around-ohio-valley-during-pandemic/</a>
Ohio	“Franklin County, OH...reported the first four months of 2020 showed 50% more deaths than in the same period of 2019.”	<a href="http://www.odmap.org/Content/docs/news/2020/ODMAP-Report-May-2020.pdf">http://www.odmap.org/Content/docs/news/2020/ODMAP-Report-May-2020.pdf</a>
Oklahoma	“Almost one in five Oklahomans who have lost their jobs because of the pandemic have turned to the bottle to cope...and 18% of newly unemployed participants are drinking more than usual.”	<a href="https://okcfox.com/news/local/oklahoma-recovery-center-reports-surge-in-alcohol-abuse">https://okcfox.com/news/local/oklahoma-recovery-center-reports-surge-in-alcohol-abuse</a>
Oregon	“Oregon saw a 20 percent year-over-year jump in overdose deaths in April...Overdose deaths were up 8 percent in the first quarter of 2020 compared to the same period of 2019. They rose 10 percent in April compared to March.”	<a href="https://www.bizjournals.com/portland/news/2020/10/02/opioid-overdose-deaths-rose-in-oregon-in-april.html">https://www.bizjournals.com/portland/news/2020/10/02/opioid-overdose-deaths-rose-in-oregon-in-april.html</a>

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TABLE A1 (Continued)

State name	Pull quote	Link to article
Pennsylvania	"...in York County....According to County Coroner Pamela Gay, 100 people in the county have died this year of an overdose, as of June 11 - a roughly 75 percent spike in deaths this year to date. Fewer than 60 people died as a result of drug overdose during the same time last year."	<a href="https://theappeal.org/pennsylvania-overdose-crisis-covid/">https://theappeal.org/pennsylvania-overdose-crisis-covid/</a>
Pennsylvania	"In Beaver County, overdose deaths are up 30 percent from the first three months of the year."	<a href="https://www.timesonline.com/story/news/2020/09/05/covid-sends-opioid-crisis-into-tailspin/5715587002/">https://www.timesonline.com/story/news/2020/09/05/covid-sends-opioid-crisis-into-tailspin/5715587002/</a>
Rhode Island	"The 128 overdose deaths during the first four months of the year represent a 29 percent increase over the same period last year and a 38 percent jump from the same period in 2018"	<a href="https://www.bostonglobe.com/2020/08/05/metro/another-pandemic-fallout-deaths-accidental-drug-overdoses-are-soaring-rhode-island/">https://www.bostonglobe.com/2020/08/05/metro/another-pandemic-fallout-deaths-accidental-drug-overdoses-are-soaring-rhode-island/</a>
Rhode Island	"Data compiled by the State Department of Health show that overdose deaths in the first five months of 2020 were greater than the year before, with 30 deaths this past January, compared to 27 that month in 2019; 33 in February, compared to 22; 31 in March, compared to 28; 34 in April, compared to 22; and 38 in May, compared to 25."	<a href="https://www.providencejournal.com/news/20200910/codac-expanding-treatment-services-as-ri-sees-uptick-in-overdoses">https://www.providencejournal.com/news/20200910/codac-expanding-treatment-services-as-ri-sees-uptick-in-overdoses</a>
Rhode Island	"This represents roughly a 22% increase in accidental drug overdose deaths compared to the same time period in 2019."	<a href="https://www.providencejournal.com/news/20200623/ri-reports-spike-in-deaths-from-drug-overdose">https://www.providencejournal.com/news/20200623/ri-reports-spike-in-deaths-from-drug-overdose</a>
South Carolina	"Since March, South Carolina has seen a steady increase in suspected opioid overdoses and first responder Narcan administrations over last year. In May alone, EMS personnel responded to an estimated 915 suspected opioid overdoses in South Carolina, the highest monthly number in the state's history and nearly twice that reported for May 2019. Year-to-date preliminary data suggests an upward trend in overdoses from both prescribed and illicitly manufactured substances and overdoses involving other drugs like benzodiazepines."	<a href="https://abcnews4.com/news/local/dhec-warns-of-increased-opioid-addiction-in-south-carolina-amid-pandemic">https://abcnews4.com/news/local/dhec-warns-of-increased-opioid-addiction-in-south-carolina-amid-pandemic</a>
South Carolina	"In June, emergency crews responded to 900 suspected opioid overdoses, nearly double the amount they responded to during the same month last year."	<a href="https://www.live5news.com/2020/07/30/pandemic-blamed-increase-drug-overdoses/">https://www.live5news.com/2020/07/30/pandemic-blamed-increase-drug-overdoses/</a>
Tennessee	"So far in 2020, 218 people in Knox County have died to suspected overdose. That's higher than at this point in 2019, when the number of suspected overdoses sat at 170 at the end of August."	<a href="https://www.wbir.com/article/news/local/od-epidemic/covid-19-hurting-efforts-to-combat-overdose-deaths/51-ae4b643-63ae-4bcb-999d-a59af7cceb78">https://www.wbir.com/article/news/local/od-epidemic/covid-19-hurting-efforts-to-combat-overdose-deaths/51-ae4b643-63ae-4bcb-999d-a59af7cceb78</a>



TABLE A1 (Continued)

State name	Pull quote	Link to article
Tennessee	“In May, suspected overdose deaths in Shelby County spiked reaching a 16-month high with approximately 50 reported deaths. After a decline in June and July, suspected overdose deaths spiked again in August...with approximately 40 deaths. That’s the third highest number in the past 18 months.”	<a href="https://www.wmcactionnews5.com/2020/10/04/experts-concerned-about-recent-spike-overdose-deaths-amid-pandemic/">https://www.wmcactionnews5.com/2020/10/04/experts-concerned-about-recent-spike-overdose-deaths-amid-pandemic/</a>
Tennessee	“Shelby County, TN...reported 391 suspected overdoses from April 7, 2020 to May 7, 2020, 58 of which were fatal, the most in a 30-day period since tracking began on January 1, 2019.”	<a href="http://www.odmap.org/Content/docs/news/2020/ODMAP-Report-May-2020.pdf">http://www.odmap.org/Content/docs/news/2020/ODMAP-Report-May-2020.pdf</a>
Tennessee	“Between March and May of this year....100 people died of a suspected overdose-related death. During the same time period in 2019, 71 people died. That is a 40% increase of overdose-related deaths.”	<a href="https://wreg.com/news/knox-county-sees-increase-of-overdose-related-deaths-since-start-of-coronavirus-pandemic/">https://wreg.com/news/knox-county-sees-increase-of-overdose-related-deaths-since-start-of-coronavirus-pandemic/</a>
Texas	“An estimated 88% to 95% of patients are clean at any given time [normally], and with the pandemic, it [has fallen] to 40 to 50%. The center saw a 25% increase in patients just over the last month, including a significant number of returning clients who detoxed years ago.”	<a href="https://www.dallasnews.com/news/2020/08/13/dallas-methadone-clinics-are-overwhelmed-by-an-influx-of-patients-during-the-covid-19-pandemic/">https://www.dallasnews.com/news/2020/08/13/dallas-methadone-clinics-are-overwhelmed-by-an-influx-of-patients-during-the-covid-19-pandemic/</a>
Texas	“Officials say the number of overdose calls has increased five-fold since the beginning of April, all of which have involved counterfeit pills.”	<a href="https://talk1370.radio.com/articles/wilco-sees-spike-in-opioid-overdose-calls-counterfeit-pills">https://talk1370.radio.com/articles/wilco-sees-spike-in-opioid-overdose-calls-counterfeit-pills</a>
Utah	“But in recent months, Utah Naloxone has documented a rising number of overdoses, likely a result of drugs like “hulk.” In August, the organization reported 175 overdose reversals, a sharp increase from the 125 in July and 99 in June...between July 6–12, Utah’s first responders were called to 275 suspected overdoses, a three-year high. Five weeks later, they responded to 278...On average, the department responded to 151 overdoses and administered naloxone 44 times each month since January. In August, they were dispatched to 164 overdoses, and administered naloxone 52 times.”	<a href="https://www.deseret.com/utah/2020/9/7/21417645/overdose-utah-salt-lake-city-fentanyl-heroin-opioid-utah-naloxone-covid19">https://www.deseret.com/utah/2020/9/7/21417645/overdose-utah-salt-lake-city-fentanyl-heroin-opioid-utah-naloxone-covid19</a>
Utah	“Another warning sign is that overall admissions at Odyssey House are down but there’s a nearly 78% hike in people seeking treatment for alcohol misuse compared to the same time period last year.”	<a href="https://kutv.com/news/addicted-utah/experts-watching-concerning-substance-use-treatment-trends-during-pandemic">https://kutv.com/news/addicted-utah/experts-watching-concerning-substance-use-treatment-trends-during-pandemic</a>
Vermont	“According to the Vermont Department of Health, 72 people died of overdoses from January to June of this year, compared to 48 in the same period last year.”	<a href="https://vtdigger.org/2020/09/11/tom-dalton-the-deadly-nexus-between-covid-19-and-overdose/">https://vtdigger.org/2020/09/11/tom-dalton-the-deadly-nexus-between-covid-19-and-overdose/</a>

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TABLE A1 (Continued)

State name	Pull quote	Link to article
Vermont	“But Vermont saw 82 opioid overdoses through July of this year, up from 60 during the same period last year.”	<a href="https://www.nytimes.com/2020/09/29/health/coronavirus-opioids-addiction.html?action=click&amp;module=News&amp;pgtype=Homepage">https://www.nytimes.com/2020/09/29/health/coronavirus-opioids-addiction.html?action=click&amp;module=News&amp;pgtype=Homepage</a>
Vermont	“Out of 10,000 people who got admitted to emergency departments statewide last month, around 22 were treated for an opioid overdose - the figure in June 2019 was around 10. Some 72 Vermonters died from accidental opioid overdoses versus 48 during the same period last year.”	<a href="https://www.benningtonbanner.com/stories/bennington-recovery-center-seeing-rise-in-opioid-overdoses,612664">https://www.benningtonbanner.com/stories/bennington-recovery-center-seeing-rise-in-opioid-overdoses,612664</a>
Virginia	“Data from law enforcement agencies in Richmond and the counties of Chesterfield, Hanover, and Henrico show a nearly 60% increase in overdose cases when comparing the first six months of 2019 to the same period this year....Fatal overdose cases in the same period increased 47%.”	<a href="https://richmond.com/news/local/with-drug-overdose-cases-up-60-in-richmond-area-henrico-allocates-184-000-to-addiction/article_ba6c5e48-8243-564e-b389-f6454d05f5ee.html">https://richmond.com/news/local/with-drug-overdose-cases-up-60-in-richmond-area-henrico-allocates-184-000-to-addiction/article_ba6c5e48-8243-564e-b389-f6454d05f5ee.html</a>
Virginia	“The study by Ochalek et al found that the number of cases of non-fatal opioid-related overdose in 1 emergency department in Virginia increased from 102 cases in March–June 2019 to 227 cases in March–June 2020.”	<a href="https://jamanetwork.com/journals/jama/fullarticle/2770985">https://jamanetwork.com/journals/jama/fullarticle/2770985</a>
Virginia	“The decreases in western Virginia came amidst overall increases in that state of almost 9%.”	<a href="https://www.directrelief.org/2020/05/opioid-overdose-deaths-plunge-in-virginia-counties-after-influx-of-naloxone/">https://www.directrelief.org/2020/05/opioid-overdose-deaths-plunge-in-virginia-counties-after-influx-of-naloxone/</a>
Washington	“Data out of King County, Washington, for example, which includes Seattle, shows that fentanyl overdose deaths from April through June of this year are 133% higher than last year.”	<a href="https://abcnews.go.com/Health/opioid-overdoses-rise-covid-19-pandemic-telemedicine-care/story?id=72442735">https://abcnews.go.com/Health/opioid-overdoses-rise-covid-19-pandemic-telemedicine-care/story?id=72442735</a>
Washington	“The overall number of fentanyl-related deaths in Seattle has increased this year, as there were 38 fentanyl-related overdoses over January to March compared to 24 in the same time period last year.”	<a href="https://dailyhive.com/seattle/king-county-spike-overdose-deaths">https://dailyhive.com/seattle/king-county-spike-overdose-deaths</a>
West Virginia	“According to Bill Powell US Attorney for the Northern District of West Virginia, EMS calls for suspected overdoses increased by 24% compared to the same period in 2019 in Harrison, Monongalia, Marion, Berkeley, and Jefferson counties.”	<a href="https://www.wvnews.com/drug-overdoses-increase-during-months-of-covid-19-pandemic/article_805b8036-0427-5993-831c-d4e2971208f5.html">https://www.wvnews.com/drug-overdoses-increase-during-months-of-covid-19-pandemic/article_805b8036-0427-5993-831c-d4e2971208f5.html</a>
West Virginia	“In May 2020, paramedics across West Virginia responded to 923 calls about people suspected of suffering an overdose, a nearly 50% increase over last May and 200 calls more than in any other month over the last two years.”	<a href="https://www.wvgazetteemail.com/coronavirus/how-are-we-going-to-keep-people-alive-behind-the-pandemic-overdoses-are-rising-across/article_6df7f23b-ef35-54fc-94e3-360662f5a123.html">https://www.wvgazetteemail.com/coronavirus/how-are-we-going-to-keep-people-alive-behind-the-pandemic-overdoses-are-rising-across/article_6df7f23b-ef35-54fc-94e3-360662f5a123.html</a>

TABLE A1 (Continued)

State name	Pull quote	Link to article
Wisconsin	“Milwaukee County’s Emergency Medical Services Division has seen...a 54 percent increase in responses to drug overdoses...[looking at calls during March and April and comparing them to calls during the same months in 2019.”	<a href="https://urbanmilwaukee.com/2020/05/07/ems-calls-show-54-spike-in-drug-overdoses-80-increase-in-suicide-attempts/">https://urbanmilwaukee.com/2020/05/07/ems-calls-show-54-spike-in-drug-overdoses-80-increase-in-suicide-attempts/</a>
Wisconsin	“Data for the first half of 2020, which is concurrent with the pandemic, shows a 40% rise year to year over last year.”	<a href="https://spectrumnews1.com/wi/milwaukee/health/2020/09/08/deadly-overdoses-spike-in-wisconsin-during-coronavirus-pandemic-">https://spectrumnews1.com/wi/milwaukee/health/2020/09/08/deadly-overdoses-spike-in-wisconsin-during-coronavirus-pandemic-</a>
Wisconsin	“Between January and June, the Madison police department received 139 overdose calls, compared to 102 in the same time period in 2019, a 36 percent increase.”	<a href="https://www.uwhealth.org/news/covid-19-pandemic-coincides-with-rise-of-opioid-overdoses-w/53462">https://www.uwhealth.org/news/covid-19-pandemic-coincides-with-rise-of-opioid-overdoses-w/53462</a>
Wisconsin	“Madison police reported in the first three months of 2020, they have responded to 64 heroin overdoses, an increase of 60 percent from the first quarter of 2019. They also reported ten overdose deaths, an increase of 25 percent.”	<a href="https://www.nbc15.com/content/news/Opioid-crisis-getting-worse-during-COVID-19-pandemic-medical-professionals-say-569900351.html">https://www.nbc15.com/content/news/Opioid-crisis-getting-worse-during-COVID-19-pandemic-medical-professionals-say-569900351.html</a>
National	“...overdoses (not all were fatal) increased by 18 percent in March 2020 compared with the same month last year. They jumped by 29 percent in April and 42 percent in May.”	<a href="https://journals.lww.com/em-news/fulltext/2020/09000/special_report__covid_19_reignites_substance_use.4.aspx">https://journals.lww.com/em-news/fulltext/2020/09000/special_report__covid_19_reignites_substance_use.4.aspx</a>
National	From the same data source as above [ODMAP program]: “In all, more than 60% of counties participating in the information-gathering project reported increases in drug overdoses.”	<a href="https://www.npr.org/sections/coronavirus-live-updates/2020/08/13/901627189/u-s-sees-deadly-drug-overdose-spike-during-pandemic">https://www.npr.org/sections/coronavirus-live-updates/2020/08/13/901627189/u-s-sees-deadly-drug-overdose-spike-during-pandemic</a>
National	“A survey of more than 1000 people conducted by the Addiction Policy Forum found that 20 percent said they or a family member have increased substance use since COVID-19 began.”	<a href="https://thehill.com/policy/healthcare/501923-substance-use-up-amid-pandemic-survey">https://thehill.com/policy/healthcare/501923-substance-use-up-amid-pandemic-survey</a>
National	“Nationally, suspected overdose submissions to ODMAP rose nearly 16.6 percent this year, based on a 30-day rolling mean comparison of January through April 2019 to the same time frame in 2020. The raw numbers show an increase of almost 11.4 percent for fatal overdoses, and an increase of 18.6 percent for nonfatal overdoses during that time frame.”	<a href="https://www.rollcall.com/2020/05/27/drug-overdoses-climb-during-covid-19-pandemic/">https://www.rollcall.com/2020/05/27/drug-overdoses-climb-during-covid-19-pandemic/</a>
National	“...findings by the US Centers for Disease Control. Its survey of US adults found that 13% of respondents in June reported starting or increasing substance abuse to deal with COVID-19-related stress.”	<a href="https://www.enidnews.com/oklahoma/guest-editorial-pandemic-makes-fighting-opioid-abuse-even-tougher/article_506a7186-f76e-11ea-87b8-9f0b98c2de58.html">https://www.enidnews.com/oklahoma/guest-editorial-pandemic-makes-fighting-opioid-abuse-even-tougher/article_506a7186-f76e-11ea-87b8-9f0b98c2de58.html</a>