

Reframing the Opioid Crisis as a Natural Disaster

David Kim, Student, North Carolina School of Science and Mathematics
kim23d@ncssm.edu
919-998-8567
652 Angelica Circle
Cary, NC 27518

The United States' opioid crisis continues to worsen. Opioid overdose deaths have drastically increased since the escalated prescribing of opioids in the 1990s and the introduction of synthetic fentanyl in the 2010s. The CDC's National Center for Health Statistics estimates 107,622 drug overdose deaths in the United States in 2021, nearly 15% higher than the estimated toll of 93,655 in 2020. Further, overdose deaths involving opioids, primarily synthetic opioids like fentanyl, increased from an estimated 70,029 in 2020 to 80,816 in 2021.¹ The opioid crisis takes over 130 lives in the United States every day and leads to an economic burden of over \$78.5 billion annually.²

Increased violence is also associated with the opioid crisis. Studies have found that counties with higher opioid pill distribution tend to have elevated arrest rates for intimate partner violence.^{3,4} An analysis of counties in Kentucky found that increased firearm violence is also a consequence of the opioid crisis, particularly in rural counties.⁵ The opioid crisis is especially detrimental to economically disadvantaged areas since opioid overdoses are also more common in areas with higher poverty rates and lower quality of education.⁶

Another alarming consequence of the opioid crisis is the Human Immunodeficiency Virus (HIV) and Hepatitis C Virus (HCV) epidemics. People who inject drugs (PWIDs) are at high risk for HIV and HCV infection, as well as other bloodborne illnesses, through sharing needles and

¹ "U.S. Overdose Deaths in 2021 Increased Half as Much as in 2020 - but Are Still up 15%." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, May 11, 2022. https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/202205.htm.

² Florence, Curtis S., Chao Zhou, Feijun Luo, and Likang Xu. "The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013." *Medical Care*. Ovid Technologies (Wolters Kluwer Health), October 2016. <https://doi.org/10.1097/mlr.0000000000000625>.

³ Pryor, Cori, John H. Boman IV, and Paul Hemez. "Using Arrest and Prescription Data to Examine the Relationship between Intimate Partner Violence and Opioid Prescriptions in the United States, 2006-2012." *Drug and Alcohol Dependence*. Elsevier BV, January 2021. <https://doi.org/10.1016/j.drugalcdep.2020.108389>.

⁴ Stone, Rebecca, and Emily F. Rothman. "Opioid Use and Intimate Partner Violence: A Systematic Review." *Current Epidemiology Reports*. Springer Science and Business Media LLC, May 1, 2019. <https://doi.org/10.1007/s40471-019-00197-2>.

⁵ Dittmer, Sarah J., Daniel L. Davenport, Douglas R. Oyler, and Andrew C. Bernard. "The Influence of the Opioid Epidemic on Firearm Violence in Kentucky Counties." *Journal of Surgical Research*. Elsevier BV, August 2021. <https://doi.org/10.1016/j.jss.2021.02.011>.

⁶ Mack, Karin A., Christopher M. Jones, and Michael F. Ballesteros. "Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas-United States." *American Journal of Transplantation*. Wiley, November 16, 2017. <https://doi.org/10.1111/ajt.14555>.

other drug-related equipment. According to 2014 CDC data, 1.2 million Americans are infected with HIV, and 3.5 million are infected with HCV, with increased rates of infection among PWIDs.⁷ Since then, infection rates have continued to rise, and among reported cases of HCV in 2019, 67% reported injection drug use.⁸ The spread of these deadly illnesses demonstrates the severe impact of the opioid crisis on the United States' public health.

Due to the severity of these consequences, how Americans frame this crisis is of great importance because public perception of the opioid crisis will inform the treatment of those affected by the opioid crisis. Specifically, whether the opioid crisis is a criminal justice issue or a public health issue will affect what solutions we pursue.

One study of media coverage on the opioid crisis from 1998 to 2012 found that only 51% of news stories mentioned a solution, and those mainly focused on criminal justice solutions. These criminal justice solutions include arresting and prosecuting those who illegally buy or sell prescription opioids. However, none of this news mentioned harm reduction solutions like naloxone access, syringe services programs, or safe consumption sites—solutions with the specific goal of reducing negative consequences associated with drug use rather than abstinence.⁹ Since news media influences audiences' perceptions of pertinent issues, news coverage is vital to how the public brands the opioid crisis.¹⁰ This national emergency is often branded as an increasing population's widespread misuse of prescription drugs, implying that this epidemic's victims are culpable for harmful decisions that impair their health.

Though recent studies have shown increased news coverage on public health-oriented and evidence-based harm reduction solutions, the criminal justice-oriented view of the opioid crisis is still prevalent.¹¹ Since harm reduction solutions decrease drug-related overdoses and the spread of bloodborne illnesses, efforts to frame the opioid crisis as a public health issue are needed.¹² If we are to mitigate the consequences of the opioid crisis effectively, we need to

⁷“Addressing the Intersection of HIV, Hepatitis C Virus, and Opioid Use Disorder.” American Psychological Association. <https://www.apa.org/pi/aids/resources/exchange/2019/01/intersections>.

⁸“Hepatitis C Surveillance in the United States for 2019.” Centers for Disease Control and Prevention, May 14, 2021. <https://www.cdc.gov/hepatitis/statistics/2019surveillance/HepC.htm>.

⁹McGinty, Emma E., Alene Kennedy-Hendricks, Julia Baller, Jeff Niederdeppe, Sarah Gollust, and Colleen L. Barry. “Criminal Activity or Treatable Health Condition? News Media Framing of Opioid Analgesic Abuse in the United States, 1998–2012.” *Psychiatric Services*. American Psychiatric Association Publishing, April 2016. <https://doi.org/10.1176/appi.ps.201500065>.

¹⁰McIntyre, Karen. “Solutions Journalism.” *Journalism Practice*. Informa UK Limited, December 14, 2017. <https://doi.org/10.1080/17512786.2017.1409647>.

¹¹McGinty, Emma E., Elizabeth M. Stone, Alene Kennedy-Hendricks, Kaylynn Sanders, Alexa Beacham, and Colleen L. Barry. “U.S. News Media Coverage of Solutions to the Opioid Crisis, 2013–2017.” *Preventive Medicine*. Elsevier BV, September 2019. <https://doi.org/10.1016/j.ypmed.2019.105771>.

¹²Rees, Daniel, Joseph J. Sabia, Laura M. Argys, Joshua Latshaw, and Dhaval Dave. *With a little help from my friends: the effects of naloxone access and good samaritan laws on opioid-related deaths*. Cato Institute., 2018.

brand the opioid crisis as a natural disaster and respond to it as such. People do not blame the victims of natural disasters but rather support public health solutions that minimize harm.

Addiction is a health issue, not a criminal issue, so the opioid crisis is a health matter, not a criminal justice matter. Like heart disease or cancer, addiction is a treatable illness that the criminal justice system cannot cure.¹³ Instead, the criminal justice system's response to the opioid crisis increases health risks for PWIDs. An analysis of interviews with defense counsel, probation officers, and public interest lawyers revealed a significant lack of understanding of addiction in the justice system and the disproportionate effect of lengthy prison sentences on PWIDs.¹⁴

Though research has allowed scientists to understand the mechanisms of addiction better, the criminal justice system has not caught up. Current drug use policies harm the health of people living with addiction,¹⁵ and approximately 56-90% of PWIDs will be incarcerated during their life.¹⁶ Since the justice system's response is ignorant of evidence-based public health responses, the criminalization of addiction worsens the opioid crisis.

People commonly label addiction as a problem involving self-control and willpower,¹⁷ but this false perception simply serves as a reason why the justice system acts against the health of those with addictions. Many people who use substances do so to avoid withdrawal symptoms rather than get high. Further, many conditions, including poverty, social isolation, and mental illness, increase addiction vulnerability.¹⁸ Indeed, the stigma and criminalization of addicts slow down the translation of addiction research into societal improvements, frustrating scholars and doctors in the healthcare system.¹⁹

¹³ Englander, Honora, Devin Collins, Sylvia Peterson Perry, Molly Rabinowitz, Elena Phoutrides, and Christina Nicolaidis. "" We've Learned It's a Medical Illness, Not a Moral Choice": Qualitative Study of the Effects of a Multicomponent Addiction Intervention on Hospital Providers' Attitudes and Experiences." *Journal of Hospital Medicine* 13, no. 11 (2018): 752-758.

¹⁴ Hrymak, Haley. "The opioid crisis as health crisis, not criminal crisis: implications for the criminal justice system." *Dalhousie LJ* 43 (2020): 281.

¹⁵ Expert letter from Dr. Evan Wood to New West Minister Court (13 September 2017) in Haley Hrymak, "5.1.4 Appendix D—Expert Letter," *The opioid crisis as health crisis, not criminal crisis: implications for the criminal justice system*, (LLM Thesis, University of British Columbia, 2018) [unpublished], online: <open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0371246> [perma.cc/8M38-SWF8] [Dr. Wood Letter], citing Andrew Ball et al, *Multi-Centre Study on Drug Injecting and Risk of HIV Infection a Report Prepared on Behalf of the WHO International Collaborative Group for the Programme on Substance Abuse* (Geneva: World Health Organization, 1995).

¹⁶ UNAIDS, *The Gap Report 2014: People Who Inject Drugs* (Geneva: UNAIDS, 2014) at 6, online: <www.unaids.org/sites/default/files/media_asset/05_Peoplewhoinjectdrugs.pdf> [perma.cc/2R7T-VY3N].

¹⁷ See Charles Dackis & Charles O'Brien, "Neurobiology of Addiction: Treatment and Public Policy Ramifications" (2005) 8:11 *Nature Neuroscience* 1431 at 1431

¹⁸ "About VANDU," online: VANDU <vandureplace.wordpress.com/> [perma.cc/U8AY-LCRQ].

¹⁹ Tony Kirby, "Evan Wood: Bringing change to Addiction Medicine" (28 November 2015) 386:10009 *The Lancet* 2131 at 2131, quoting Dr. Evan Wood

Because the criminal justice system's actions directly impact public health and safety, the lack of understanding of addiction is a huge concern during the opioid crisis. Courts are not shifting toward more sustainable drug policies,²⁰ even when it becomes increasingly clear that the opioid crisis is not a criminal justice issue.

Several harmful approaches have dominated the national perception of opioids for decades, notably the war on drugs and defining drug use as a moral failing. It is well-documented that the increase in drug-related incarceration caused by the war on drugs has had detrimental effects on many urban communities—especially those of color^{21,22}—while failing to reduce access to drugs significantly.^{23,24} Likewise, the moral failure approach does not consider biological and social triggers of addiction, including trauma and adverse childhood experiences.²⁵ Further, the single-minded focus on abstinence rather than health deters victims of addictions away from evidence-based treatments such as methadone,²⁶ buprenorphine,²⁷ and harm reduction interventions.²⁸

Policymakers need to notice the institutions that exacerbate the opioid crisis. The rise in opioid use, overdose, and addiction in the past three decades is attributed mainly to pharmaceutical marketing minimizing addiction potential,²⁹ promoting off-label use,³⁰ and irresponsible

²⁰ Experts spoke of two general positive parts of the criminal justice system within the Greater Vancouver area: Drug Treatment Courts (DTCs) and the Downtown Community District Court (DCD).

²¹ Lopez G. Under Trump and Sessions, federal prosecutors are ramping up the war on drugs. Vox. October 24, 2017. <https://www.vox.com/policy-and-politics/2017/10/24/16534812/trump-sessions-war-on-drugs>.

²² National Academies of Science, Engineering, and Medicine. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Washington, DC: National Academies Press; 2014.

²³ Pollack HA, Reuter P. Does tougher enforcement make drugs more expensive? *Addiction*. 2014;109(12):1959-1966.

²⁴ Csete J, Kamarulzaman A, Kazatchkine M, et al. Public health and international drug policy. *Lancet*. 2016;387(10026): 1427-1480.

²⁵ National Institute on Drug Abuse. Preface: drugs, brains, and behavior: the science of addiction. <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preface>. Published 2014.

²⁶ Mattick RP, Breen C, Kimber J, Davoli M. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database Syst Rev*. 2009;(3): CD002209.

²⁷ Mattick RP, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev*. 2008;(2): CD002207.

²⁸ Nadelmann E, LaSalle L. Two steps forward, one step back: current harm reduction policy and politics in the United States. *Harm Reduct J*. 2017;14(1):37.

²⁹ Griffin H, Miller B. OxyContin and a regulation deficiency of the pharmaceutical industry: rethinking state-corporate crime. *Crit Criminol*. 2011; 19(3):213–226.

³⁰ US Department of Justice. Bio-pharmaceutical company, Cephalon, to pay \$425 million & enter plea to resolve allegations of off-label marketing. Available at: <https://www.justice.gov/archive/opa/pr/2008/September/08-civ-860.html>.

physicians.³¹ Moreover, people must not ignore the connections between poor health and structural factors such as poverty, lack of opportunity, and substandard living conditions. For example, poverty and substance use are connected, and their interaction is reinforced by psychiatric disorders and unstable housing.³² Jobs in poorer communities also commonly have physical hazards, and work-related injuries can spur poverty and opioid use. Indeed, the social, economic, and political forces involved in this epidemic point to the responsibility of institutions, not drug users.^{33,34}

A recent analysis of health behavior models developed a novel public health approach to the opioid crisis that considers multiple determinants that drive drug use, including structural factors and institutions, the inadequate management of pain, and poor access to addiction treatment and harm reduction services.³⁵ This approach makes clear that reducing opioid-related deaths can only happen by addressing the social, political, and economic factors that drive opioid use and the context of drug use. Specifically, safer prescribing methods, stigma-reduction campaigns, increased spending on harm reduction services, and criminal justice system reform can all reduce overdose deaths.³⁶

³¹ US Attorney's Office District of Massachusetts. Pharmaceutical executives charged in racketeering scheme. Available at: <https://www.justice.gov/usao-ma/pr/pharmaceutical-executives-charged-racketeering-scheme>.

³² Dasgupta, Nabarun, Leo Beletsky, and Daniel Ciccarone. "Opioid crisis: no easy fix to its social and economic determinants." *American journal of public health* 108, no. 2 (2018): 182-186.

³³ Rigg KK, Monnat SM. Urban vs. rural differences in prescription opioid misuse among adults in the United States: informing region specific drug policies and interventions. *Int J Drug Policy*. 2015; 26(5):484–491.

³⁴ Zoorob MJ, Salemi JL. Bowling alone, dying together: the role of social capital in mitigating the drug overdose epidemic in the United States. *Drug Alcohol Depend*. 2017;173:1–9.

³⁵ Alana Klein, "Criminal Law and the Counter-Hegemonic Potential of Harm Reduction" (2015) 38:2 *Dal LJ* 2

³⁶ Saloner, Brendan, Emma E. McGinty, Leo Beletsky, Ricky Bluthenthal, Chris Beyrer, Michael Botticelli, and Susan G. Sherman. "A Public Health Strategy for the Opioid Crisis." *Public Health Reports*. SAGE Publications, November 2018. <https://doi.org/10.1177/0033354918793627>.

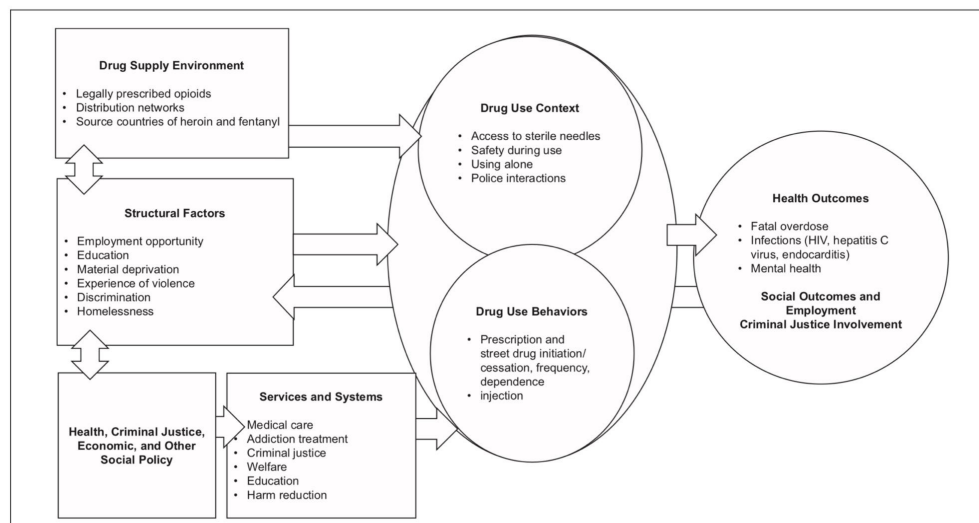


Figure. A conceptual framework for the opioid overdose epidemic.

A novel conceptual framework for the opioid overdose epidemic.³⁷

The need for a public health approach to the opioid crisis is apparent. The current criminal justice-oriented view of the opioid crisis causes great harm to victims, and the harsh sentences and incarceration associated with opioid use have severe consequences. Research has shown that longer prison sentences are ineffective; they do not affect crime deterrence.³⁸ Moreover, prison sentences are detrimental; they remove people from their communities, terminate employment arrangements, and increase the risk of homelessness.³⁹ Prison sentences also disproportionately affect opioid crisis victims through disrupting support systems, limiting their access to opioid agonist treatments, and increasing recidivism rates among drug users.⁴⁰ Moreover, rural communities are especially vulnerable to the opioid crisis and related incarcerations. Rural communities often have reduced health care access, little to no harm reduction services, and fewer addiction treatment programs.^{41,42}

³⁷ Saloner, Brendan, Emma E. McGinty, Leo Beletsky, Ricky Bluthenthal, Chris Beyrer, Michael Botticelli, and Susan G. Sherman. "A Public Health Strategy for the Opioid Crisis." Public Health Reports. SAGE Publications, November 2018. <https://doi.org/10.1177/0033354918793627>.

³⁸ Michael Weinrath & John Gartrell, "Specic Deterrence and Sentence Length" (2001) 17:2 J Contemporary Crim Justice 105

³⁹ Kevin Tilley, Justice Denied: The Causes of B.C.'s Criminal Justice System Crisis ed by David Eby (Vancouver, BC Civil Liberties Association, 2012) at 6 [Tilley], citing John Howard Society of Toronto, Homeless and Jailed: Jailed and Homeless (August 2010) [John Howard].

⁴⁰ Sylvestre, Marie-Eve, Nicholas K. Blomley, William Damon, and Céline Bellot. Red zones and other spatial conditions of release imposed on marginalized people in Vancouver. Social Sciences and Humanities Research Council of Canada, 2017.

⁴¹ Hodder, Sally L, Judith Feinberg, Steffanie A Strathdee, Steven Shoptaw, Frederick L Altice, Louis Ortenzio, and Chris Beyrer. "The Opioid Crisis and HIV in the USA: Deadly Synergies." The Lancet. Elsevier BV, March 2021. [https://doi.org/10.1016/s0140-6736\(21\)00391-3](https://doi.org/10.1016/s0140-6736(21)00391-3).

⁴² Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The changing face of heroin use in the United States: a retrospective analysis of the past 50 years. JAMA Psychiatry. 2014;71(7):821-826.

It is noteworthy that despite the severity of the opioid crisis, federal and state governments have only recently put safety measures in place.⁴³ Indeed, the relationship between the government and pharmaceutical companies points out that the opioid crisis is not a simple issue of people making bad decisions. In the last decade, many states have begun instructing physicians, promoting harm reduction measures, and leading litigation against pharmaceutical manufacturers for misleading marketing.⁴⁴ Similarly, the federal government has started to shut down pill mills,⁴⁵ require strict marketing language for opioids,^{46,47} and educate providers and the general public.⁴⁸ Still, there needs to be more research on the federal government's role in the deregulation of pharmaceutical companies and why it has taken so long to implement effective responses.

Research on effective drug treatments has refuted many of the criminal justice system's approaches to the opioid crisis. Notably, the detention of people who use drugs does not reduce their drug dependency, rehabilitate them, or mitigate the spread of bloodborne illnesses.^{49,50} An alternative approach is harm reduction, including needle-syringe programs (NSPs) and opioid substitution therapy (OST).⁵¹ NSPs are public health measures that reduce the spread of infections like HIV and HCV among PWID through the distribution of sterile equipment for drug use.^{52,53} OST aims to reduce drug dependency among PWID and the frequency of injection use by prescribing dependent users opioid substitutes like methadone that can diminish the use and

⁴³ Soelberg, Cobin D., Raeford E. Brown Jr, Derick Du Vivier, John E. Meyer, and Banu K. Ramachandran. "The US Opioid Crisis." *Anesthesia & Analgesia*. Ovid Technologies (Wolters Kluwer Health), November 2017. <https://doi.org/10.1213/ane.0000000000002403>.

⁴⁴ Ausness, Richard C. "The Current State of Opioid Litigation." *SCL Rev.* 70 (2018): 565.

⁴⁵ Fed. Reg. Vol. 82, No. 53 (Tuesday, March 21, 2017), at 14490–14494.

⁴⁶ Opioids, Abuse-Deterrent. "Evaluation and labeling guidance for industry." US Department of Health and Human Services Food and Drug Administration Center for Drug Evaluation and Research (CDER) Clinical Medical (2015).

⁴⁷ Food and Drug Administration. "General principles for evaluating the abuse deterrence of generic solid oral opioid drug products." 2020-9-25] <https://www.fda.gov/media/96643/download> (2017).

⁴⁸ Levy, Benjamin, Leonard Paulozzi, Karin A. Mack, and Christopher M. Jones. "Trends in opioid analgesic-prescribing rates by specialty, US, 2007–2012." *American journal of preventive medicine* 49, no. 3 (2015): 409-413.

⁴⁹ Hall, Wayne, Thomas Babor, Griffith Edwards, Ronaldo Laranjeira, John Marsden, Peter Miller, Isidore Obot, Nancy Petry, Thaksaphon Thamarangsi, and Robert West. "Compulsory detention, forced detoxification and enforced labour are not ethically acceptable or effective ways to treat addiction." *Addiction* (Abingdon, England) 107, no. 11 (2012): 1891-1893.

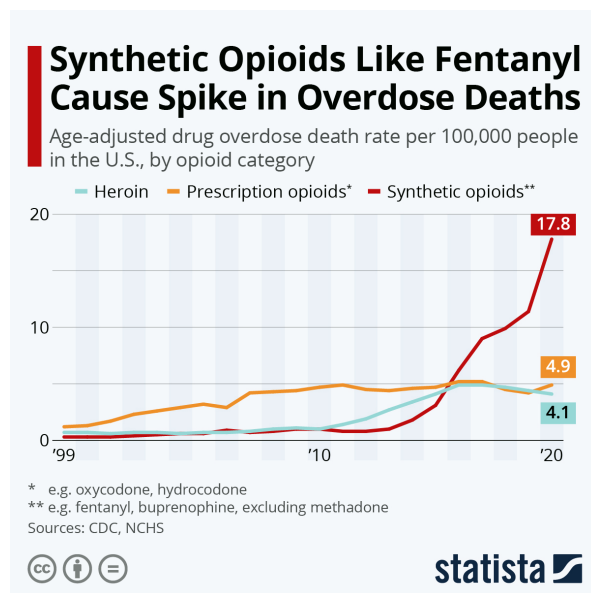
⁵⁰ World Health Organization. "Assessment of compulsory treatment of people who use drugs in Cambodia, China, Malaysia and Viet Nam: an application of selected human rights principles." (2009).

⁵¹ Wilson, David P., Braedon Donald, Andrew J. Shattock, David Wilson, and Nicole Fraser-Hurt. "The Cost-Effectiveness of Harm Reduction." *International Journal of Drug Policy*. Elsevier BV, February 2015. <https://doi.org/10.1016/j.drugpo.2014.11.007>.

⁵² Heimer, Robert. "Syringe exchange programs: lowering the transmission of syringe-borne diseases and beyond." *Public Health Reports* 113, no. Suppl 1 (1998): 67.

⁵³ Kidorf, Michael, and Van L. King. "Expanding the public health benefits of syringe exchange programs." *The Canadian Journal of Psychiatry* 53, no. 8 (2008): 487-495.

effects of opioids.⁵⁴ Since this epidemic continues to include more potent and toxic illicit drugs including synthetic opioids like fentanyl, the provision of legal opioid alternatives is a promising approach to reducing overdose deaths.⁵⁵



The opioid crisis continues to evolve through more potent and toxic synthetic opioids like fentanyl.⁵⁶

To this end, there is a growing need to displace the existing dangerous drug supply with access to safer opioids. One way to provide this access is through supervised injection sites (SISs), where PWIDs can inject under the supervision of healthcare professionals.⁵⁷ SISs remain controversial and rare despite the growing evidence that they reduce overdose deaths.^{58,59} One study from an SIS in Vancouver, Canada, found a 26% net reduction in overdose deaths in the surrounding areas.⁶⁰ An SIS in Barcelona, Spain, reduced surrounding overdose rates by 50%

⁵⁴ MacArthur, Georgie J., Silvia Minozzi, Natasha Martin, Peter Vickerman, Sherry Deren, Julie Bruneau, Louisa Degenhardt, and Matthew Hickman. "Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis." *Bmj* 345 (2012).

⁵⁵ Kerr, Thomas. "Public Health Responses to the Opioid Crisis in North America." *Journal of Epidemiology and Community Health*. BMJ, February 5, 2019. <https://doi.org/10.1136/jech-2018-210599>.

⁵⁶ Buchholz, Katharina, and Felix Richter. "Infographic: Synthetic Opioids like Fentanyl Cause Spike in Overdose Deaths." Statista Infographics, May 12, 2022. <https://www.statista.com/chart/16273/age-adjusted-drug-overdose-death-rate-per-100000-people/>.

⁵⁷ Coppel, Anne. "Drug consumption rooms: An overview of provision and evidence." (2015).

⁵⁸ Finke, Jorge, and Jie Chan. "The Case for Supervised Injection Sites in the United States." *American Family Physician* 105, no. 5 (2022): 454-455.

⁵⁹ Gostin, Lawrence O., James G. Hodge, and Chelsea L. Gulinson. "Supervised injection facilities: legal and policy reforms." *Jama* 321, no. 8 (2019): 745-746.

⁶⁰ Levenson, Timothy W., Grace H. Yoon, Melissa J. Davoust, Shannon N. Ogden, Brandon DL Marshall, Sean R. Cahill, and Angela R. Bazzi. "Supervised injection facilities as harm reduction: a systematic review." *American Journal of Preventive Medicine* 61, no. 5 (2021): 738-749.

from 1991 to 2008.⁶¹ These sites reduce the transmission rates of HIV and HCV by preventing PWIDs from sharing needles.⁶²

Despite the positive effects that SISs have on public health and safety, government officials often discourage their establishment. Since the 2021 opening of the United States' first SIS in New York City, the federal government has fought to prevent the opening of more SISs, contending that these sites lead to increased criminal activity or drug use. Research refutes these claims. One study in Vancouver, Canada, observed a sudden, sharp decrease in crime after opening a SIS.⁶³ Moreover, areas with an SIS experience less nuisance from public drug use or discarded needles.

Aside from the public health benefits of SISs, modeling studies predict that legally sanctioning SISs in the United States would reduce health care costs by preventing transmissions of bloodborne illnesses, hospitalizations due to infections, overdose deaths, and emergency visits. A cost-benefit analysis of Baltimore, Maryland, predicted that an SIS would cost \$1.8 million annually while generating \$7.8 million in savings annually.⁶⁴ Another estimate predicted that an SIS in New York City would save \$800,000 to \$1.6 million in annual health care costs.⁶⁵

Aside from SISs, another approach to making the current drug supply safer is providing access to safer opioids outside of treatment settings and the overdose-reversing drug naloxone. Since substance use treatment systems often fail to engage drug users, relapse rates remain high, and many people who use drugs do not seek treatment. Therefore, measures to distribute naloxone may be a more reliable approach.⁶⁶ To increase the number of people carrying naloxone, it is vital to undermine the stigma associated with drug use and treatment. Blaming opioid crisis victims has led policymakers away from sustainable substance use treatments. There is a dire need for reframing the opioid crisis as a natural disaster because substance use treatments centered on reducing harms associated with substance use have emerged as more sustainable and effective.

⁶¹ Gostin, Lawrence O., James G. Hodge, and Chelsea L. Gulinson. "Supervised injection facilities: legal and policy reforms." *Jama* 321, no. 8 (2019): 745-746.

⁶² Kral, Alex H., and Peter J. Davidson. "Addressing the nation's opioid epidemic: lessons from an unsanctioned supervised injection site in the US." *American journal of preventive medicine* 53, no. 6 (2017): 919-922.

⁶³ Levensgood, Timothy W., Grace H. Yoon, Melissa J. Davoust, Shannon N. Ogden, Brandon DL Marshall, Sean R. Cahill, and Angela R. Bazzi. "Supervised injection facilities as harm reduction: a systematic review." *American Journal of Preventive Medicine* 61, no. 5 (2021): 738-749.

⁶⁴ Irwin, Amos, Ehsan Jozaghi, Brian W. Weir, Sean T. Allen, Andrew Lindsay, and Susan G. Sherman. "Mitigating the heroin crisis in Baltimore, MD, USA: a cost-benefit analysis of a hypothetical supervised injection facility." *Harm reduction journal* 14, no. 1 (2017): 1-14.

⁶⁵ Behrends, Czarina N., Denise Paone, Michelle L. Nolan, Ellenie Tuazon, Sean M. Murphy, Shashi N. Kapadia, Philip J. Jeng, Ahmed M. Bayoumi, Hillary V. Kunins, and Bruce R. Schackman. "Estimated impact of supervised injection facilities on overdose fatalities and healthcare costs in New York City." *Journal of Substance Abuse Treatment* 106 (2019): 79-88.

⁶⁶ Ivsins, Andrew, Jade Boyd, Leo Beletsky, and Ryan McNeil. "Tackling the overdose crisis: the role of safe supply." *International Journal of Drug Policy* 80 (2020): 102769.