

January 2018

Un-burying the Lead:

Public health tools are the key to beating the opioid epidemic

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This report is available online at: <https://www.brookings.edu/research/un-burying-the-lead-public-health-tools-are-the-key-to-beating-the-opioid-epidemic>

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This white paper is part of the USC-Brookings Schaeffer Initiative for Health Policy, which is a partnership between the Center for Health Policy at Brookings and the USC Schaeffer Center for Health Policy & Economics. The Initiative aims to inform the national health care debate with rigorous, evidence-based analysis leading to practical recommendations using the collaborative strengths of USC and Brookings.

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ACKNOWLEDGEMENTS

I gratefully acknowledge the outstanding research support I received from Graham Pittman, University of Virginia Class of 2018, comments on earlier drafts received from my Brookings colleagues, Stuart Butler, Loren Adler, and Caitlin Brandt, Benjamin Miller (Wellbeing Trust), David Keahey (American Association of Physician Assistants), and Professor Timothy M. Westmoreland (Georgetown Law). Any errors that remain are my own.

Introduction

On November 1st, the President’s Commission on Combating Drug Addiction and the Opioid Crisis, chaired by Governor Chris Christie, released its report and recommendations for fighting “the worst drug overdose epidemic in U.S. history.”¹ The Report repeatedly underscores the scope and urgency of the nation’s opioid epidemic that is ravaging families and communities in all 50 states. It claims 175 lives daily.² In addition to these deaths, other tragic and costly health consequences of this epidemic include unprecedented increases in the incidence and prevalence of addiction,³ increased hospitalizations and emergency room visits,⁴ and a dramatic increase in the number of babies born with neonatal abstinence syndrome.⁵

There is much in the Report to praise. For example, the Commission recommended that the president declare the opioid crisis a national public health emergency and the president adopted this recommendation.⁶ The declaration of a public health emergency will eventually allow states to apply for and Congress to fund long-term interventions to prevent and treat drug abuse.⁷ Moreover, the Commission’s recommendations that emphasize treatment and harm reduction admirably include systemic changes that would have long-term impact, such as:

- Development of new quality measures to incentivize early screening and treatment referrals;
- Waiver of Institutions for Mental Diseases (IMD) exclusions within Medicaid to expand capacity for in-patient treatment;
- Broad expansion of federal drug courts to divert individuals away from prison and into treatment programs; and

¹ Kolodny, A., et al., (2015). The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction, *Annual Review of Public Health* 2015 36:559-74.

² Centers for Disease Control and Prevention. (2017). Provisional Counts of Drug Overdose Deaths, as of 8/6/2017, from https://www.cdc.gov/nchs/data/health_policy/monthly-drug-overdose-death-estimates.pdf

³ Ahrnsbrak, R. et al., (2017). “Key Substance Use and Mental Health Indicators in the United States: Results from the 2016 National Survey on Drug Use and Health.” Retrieved from, <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.htm#fig32>.

⁴ Weiss, A.J., et al. (2016). “Opioid-Related Inpatient Stays and Emergency Department Visits by State, 2009-2014,” (Healthcare Cost and Utilization Project (HCUP). Retrieved from <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.jsp>.

⁵ McQueen, K. et al., (2016). Neonatal Abstinence Syndrome, *New England Journal of Medicine*, 375:2468-2479 (December 22, 2016).

⁶ HHS Acting Secretary Declares Public Health Emergency to Address National Opioid Crisis. HHS Press Release October 26, 2017. Retrieved from <https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html>

⁷ The Commission’s recommendation preceded the report’s November 1st release and proposed two alternative declarations, saying “the first and most urgent recommendation of this commission” was that the president declare a national emergency under *either* the Public Health Service Act or the Stafford Disaster Relief and Emergency Assistance Act. Arguably, the Stafford Act would have provided funding for immediate intervention and responses, but would have taxed already stressed Federal Emergency Management Agency coffers.

- Insurer regulations and penalties for mental health parity violations.

However, this report argues that it is the Commission’s final six recommendations—buried in the back of the report--that offer the most far-reaching and promising opportunities for state and federal leaders to strike at the root causes of the opioid crisis. These final recommendations, listed on the left side of Table 1 below, signal that our government may be willing to seriously address the opioid crisis as the public health emergency that it is. They aim at changing the fundamental social and environmental conditions that are risk factors for the populations among which addiction and death rates are soaring. As such, they have the greatest potential for impact because they reach the broadest segments of the community where addictions flourish.⁸ But even they do not go far enough. These good ideas need to be accompanied by action steps to implement them with the immediacy that this crisis warrants. This report suggests the logical “next steps” that should accompany the Commission’s recommendations. They are listed on the right side of Table 1 below.

This report proceeds in three parts. It first calls attention to the Commission’s final six recommendations. It argues that these proposals, which focus on reforming housing, employment, family, criminal justice and educational determinants of opioid addiction, are the most important interventions of all. Second, this report places the current opioid epidemic into historic context; America has seen terrible spikes in opioid and other drug related deaths in this country during two prior periods. The public health lessons from earlier epidemics provide strong support for the Commission’s final six recommendations, and counsel a comprehensive approach to the social and economic risk factors associated with opioid addiction.

Finally, this report asserts that the Commission’s recommendations will have limited impact unless they are implemented with immediate action steps to ensure, and even expand, their concrete impact. Therefore, for each one of the Commission’s final six recommendations, this report proposes a related action step for housing⁹ and employment,¹⁰ community engagement,¹¹ and criminal justice interventions¹² that are essential to defeating the worsening opioid crisis in this country. Moreover, this section urges the Administration to reach back 50 years in America’s self-proclaimed drug “war” and extend the public health framework it has now adopted toward opioid addiction to the victims of America’s earlier opioid crisis, and to those who became addicted to successor drugs. These victims of America’s earlier opioid crises tragically were subjected to a criminal justice rather than public health approach to their disease. This report argues it is not too late to correct that error, by applying the public health framework to all populations affected by the disease of addiction.

In conclusion, this report outlines a comprehensive and equitable strategy that federal, state, and local governments, as well as affected communities can take to effectively address the social determinants of opioid addiction.

⁸ See, Frieden, T.R., A Framework for Public Health Action: The Health Impact Pyramid, *American Journal of Public Health* 100(4):590-595.

⁹ Krieger, J., and Higgins, D.L., (2002) Housing and Health: Time Again for Public Health Action, *American Journal of Public Health* 92(5):758-868.

¹⁰ Linn, M.W. et al., (1985). Effects of Unemployment on Mental and Physical Health, *American Journal of Public Health* 75(5):502-506.

¹¹ Hawkins, J. David et al. (2009). Results of a Type 2 Translational Research Trial to Prevent Adolescent Drug Use and Delinquency: A Test of Communities That Care, *Arch Pediatric Adolescent Medicine* 163(9):789-798.

¹² Chandler, R.K. et al., (2009). Treating Drug Abuse and Addiction in the Criminal Justice System – Improving Public Health and Safety, *JAMA* 301(2):183-190.

Table 1
Recommendations That Address Social and Environmental Risk Factors
Contributing to American Opioid Epidemic

Commission Proposal	Next Steps Needed
Implement reimbursement for Recovery Support Services for job training, supportive and recovery housing	Utilize Medicaid to reimburse supportive housing programs that co-locate employment, education, and health services
Develop family-centered treatment and disseminate best practice for family access to screening, treatment, and parental support such as kinship care strategies	Promote and finance two-generation, family-centered treatment and support for children under foster and kinship care
Support College Recovery Programs that include “sober housing” to help students recover from addiction	Involve community leaders in designing preventive systems for younger children to promote healthy behaviors, social skills, community opportunities, and pro-social involvement
Develop best practices for employer education and support to allow employers to hire, retain, and facilitate treatment for employees seeking help for substance use disorders	Broaden public health-based approaches to rebuild workforce capacity among victims of past drug epidemics
Develop model state regulations and legislation to decouple felony convictions and eligibility for business and occupational licenses	Extend the benefits of public health-based interventions to individuals who were burdened by criminal justice rather than public health approaches to the disease of addiction during America’s earlier opioid crisis
Collaborate to develop housing strategies that develop best practices for recovery residences, remove zoning restrictions, and discriminatory provisions that prevent MAT patients from being housed in communities during recovery	Strengthen supports for public housing providers to avoid eviction when residents are amenable to treatment for opioid addiction

The Commission Report makes a total of fifty-six recommendations. The first three sound the dominant theme of the Report, urging Congress and the Administration to create uniform block grants to shift the focus of the battle against the opioid epidemic from the federal government to the states. The remaining recommendations divide roughly into three categories: primary prevention to reduce opioid supply, secondary and tertiary prevention to treat addicted individuals, and a fourth category of far-reaching recommendations that address the environmental and social contexts in which addiction occurs. This report reverses the priority order in which the President’s Commission makes its recommendations, and focuses attention on this last category of proposals.

The final six proposals have the greatest potential to reduce risky behavior that leads to addiction over the long term, and to increase the effectiveness of treatment resources that drug using populations need to recover in the near term. Moreover, and most importantly, these six recommendations and others like them are key to addressing the social determinants of drug use and health that must be prioritized in order to fundamentally and sustainably reverse the opioid epidemic

for good. To support this claim, the next section of this report places the current opioid epidemic into historical context to glean the lessons from past epidemics that should inform current policy.

Social Determinants and the Opioid Crisis

The Commission's final six Recommendations summarized in Table 1 are important because social and economic factors fundamentally shape risk behavior, access to resources, and the health of drug users. Social risk factors directly and indirectly influence individual drug-use behavior and drug addicts' ability to recover their health. Moreover, social factors contribute to health disparities directly by affecting the availability of resources and access to social support systems in ways that increase marginalization and decrease compliance with treatment and medication.¹³ Yet, the Commission's description of the "Origins of the Current Crisis" makes no mention of the role that social risk factors have played in contributing to the current epidemic.¹⁴

It is true that to some extent, social risk factors may also be the result, instead of the direct cause, of opioid addiction. However, as other commentators have noted, the fact that economic hardship and high rates of unemployment consistently characterize vastly different communities hit hard by the opioid crisis such as Appalachia and urban centers in the United States, as well as Russian communities dislocated by the Soviet Union's economic collapse, plausibly shows that social determinants contribute to hopelessness and social trauma that "set the stage" for opioid abuse and dependency.¹⁵ Leading social scientists understand that social factors play a key role in directly and indirectly determining the incidence and prevalence of addiction disease. The reasons, however, are not yet well understood.

Some researchers suggest that low educational attainment, income, and employment success produces poor social networks, low levels of power, prestige and self-mastery that contribute to illicit drug use.¹⁶ Also, social conditions such as homelessness or high exposure to violence can shape health behaviors by increasing opportunities and perceived reasons for engaging in high risk behavior. Social determinants such as poor housing conditions are often accompanied by neighborhood-level conditions that limit access to health care, risk-reduction information, and treatment alternatives, which are protective resources and can disrupt behaviors that ultimately lead to opioid addiction.¹⁷ In addition, neighborhoods with high economic and social risk factors also experience disproportionately high incarceration rates, shifting segments of the population to prisons where a concentration of drug users heightens risk behaviors.¹⁸ This continues when this

¹³ Galea, S., MD, MPH, & Vlahov, D., PhD. (2002). Social Determinants and the Health of Drug Users: Socioeconomic Status, Homelessness, and Incarceration. *Public Health Reports, 2002(117 (Suppl 1), S135-S145*. Retrieved October 21, 2017, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1913691/>.

¹⁴ Commission Report, pages 19-23.

¹⁵ Blumenthal, D. and Seerval, S. (October 26, 2017). To Combat the Opioid Epidemic, We Must be Honest About All its Causes, *Harvard Business Review*. Retrieved from, <https://hbr.org/2017/10/to-combat-the-opioid-epidemic-we-must-be-honest-about-all-its-causes>.

¹⁶ *Id.*, Galea et al.

¹⁷ Boardman, J.D., et al., (2001). Neighborhood Disadvantage, Stress, and Drug Use Among Adults, *Journal of Health and Social Behavior, 42*:151-165.

¹⁸ Galea, S., Nandi, A., and Vlahov, D. (2004). The Social Epidemiology of Substance Use, *Epidemiologic Reviews, 26(1)*:36-52.

populations returns to communities with limited housing, employment, and opportunity may compound the incentives to use and abuse opioids.

The relationship between social determinants and opioid abuse among disparate geographic populations during this current opioid epidemic has also been demonstrated in America's historical experience with opioid crises over the past 175 years. However, Appendix 2 of the Commission Report, which purports to recount the "History of Opiate Use and Abuse" reveals a potentially fatal blind-spot in the Commission's understanding of drug use in America. The Report makes absolutely no mention of the second, albeit smaller spike in opioid-related deaths that occurred in America during the 1970's and tragically claimed the lives of tens of thousands of substance users. Thus, the White House Commission completely overlooks all-important lessons that might inform the prevention effort during the current epidemic.¹⁹

Important Missed Lessons from History

The first opioid addiction epidemic in America occurred in the second half of the 19th Century, between 1840 and approximately 1920. Some of the evidence is anecdotal. For instance, in the *Opium Habit*, published in 1868, Horace B. Day estimated that 80,000 to 100,000 Americans were addicted to opium.²⁰ Drug historian David Courtwright reports that during that period, opioid consumption soared by over 700%,²¹ tapering at the turn of the century so that by 1920, it is estimated that fewer than two persons were addicted per 1,000 Americans.²² These estimates are confirmed by the data from the Bureau of Narcotics, presented in David Courtwright's book, *Dark Paradise: A History of Opiate Addiction in America*.²³ These data show that approximately 100,000 Americans suffered a non-medical addiction to opioids just after 1920.

Like the current epidemic, the main source of drugs during this first nation-wide crisis was the result of physicians overprescribing morphine and opium to treat poorly understood medical conditions. Also like the current crisis, the federal government's interventions focused primarily on controlling drug prescribing practices and supply lines.²⁴ Importantly, however, the social and economic risk factors of addicts in the 19th and early 20th Centuries was entirely different from the social determinants of today's addicted populations.

Three groups of substance users were affected during the first American drug epidemic. Opioids were readily available to upper class housewives in the 1800s and many became addicted as

¹⁹Commission Report, pages 113-114.

²⁰ Carroll, D.J. (2016). Civil War Veterans and Opiate Addiction in the Gilded Age. *The Journal of the Civil War Era*. From <https://journalofthecivilwarera.org/2016/11/civil-war-veterans-opiate-addiction-gilded-age/>

²¹ Estimates suggest there were fewer than 0.72 addicts per thousand persons prior to 1842, rising to 5.49 per thousand by the 1890s. See, Courtwright, D.T. (2001). *Dark Paradise: A History of Opioid Addiction in America* (Cambridge, Massachusetts and London, England: Harvard University Press).

²² *Id.*, Courtwright, D.T. (2001); The U.S. Census Bureau reports the American resident population was 106.02 million in 1920 (see, https://www.census.gov/history/www/through_the_decades/fast_facts/1920_fast_facts.html).

²³ Courtwright, D.T., *Dark Paradise: A History of Opiate Addiction in America*, (Harvard University Press, Cambridge, London 2001).

²⁴ A noteworthy difference between this first epidemic and the current one is the role the medical profession played in self-regulating. Research suggests that the downswing in opioid use during this time period (~1840-1920) was the result of interventions in the medical community – mainly a growing understanding of addiction and better prescribing practices. The federal government's supply controls did not occur until the early 1900s, after the initial spike in addiction had begun to subside.

they treated everything from children's coughs to monthly cramps with opium-laced tinctures. Soldiers wounded in the Civil and First World Wars became addicted from use that began to treat diarrhea and injuries. Finally, Chinese immigrant laborers smoked opium, a habit developed, most likely, in China where opium was made plentiful by the British. Europeans grew opium in India and sold the drug to the Chinese in order to finance trade in silks, teas, and porcelain. Among these three groups, addiction was most prevalent among white, native-born, middle-class and wealthy women and the physicians who prescribed opioids to them. For this population of addicts, government interventions that focused on reducing the supply of drugs worked well.

The Pure Food and Drug Act of 1906 required disclosure of narcotic content in medicines that educated housewives commonly abused. The Harrison Narcotics Tax Act of 1914 restricted physician prescription practices and ultimately resulted in physician incarcerations and closure of all public drug treatment clinics except those that operated as both prisons and hospitals. The Heroin Act of 1924 criminalized the manufacture, importation, and possession of heroin even for medicinal uses. Distribution of professional literature warned of the dangers of morphine. These laws worked to dramatically change physician prescribing practices and reversed the incidence of addiction among well-to-do whites – the primary group who were affected by this first opioid crisis. During this crisis, supply-side solutions also worked to address the diseases among the other population affected – Chinese immigrant laborers. The Smoking Opium Exclusion Act of 1909 banned opium imports used by this population group and thus successfully curbed addiction among Chinese.²⁵ Working together, physicians, pharmacists, and law enforcement officers finally contained the first American opioid crisis. By the middle of the 20th Century, the Second World War disrupted global heroin supply routes and opioid use in the United States all but disappeared.

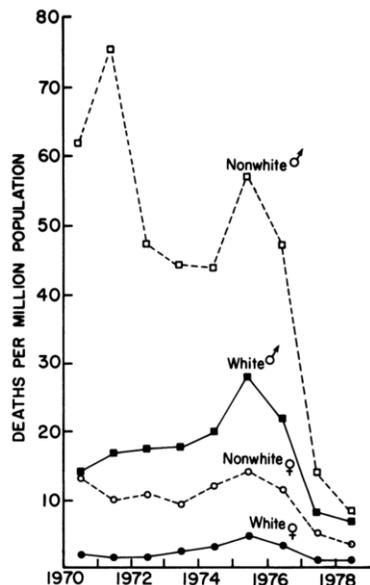
The second opioid addiction epidemic emerged during the later 1960s and lasted until the early 1980s.²⁶ The victims of this second opioid crisis bore little resemblance to the first epidemic, especially with respect to the distinctive social and economic risk factors that described the addicted populations afflicted during each period. The National Center for Health Statistics (NCHS) reported that drug overdose deaths due to heroin during this second epidemic was highest among non-white young males aged 20-29 years old, peaking in 1970 at nearly 80,000 deaths in that year. (See Figure 2) America's second opioid crisis affected primarily low-income youths living in urban settings, in contrast to the households most frequently affected during the latter half of the 19th Century. By the mid 1980's, the *New York Times* reported, "there are 500,000 heroin addicts in the United States – 200,000 of them in New York City," although the opioid crisis in urban communities later gave way to abuse of other drugs such as the cocaine derivative, "crack."²⁷

²⁵ *Id.*; see also, O'Hear, M.M., (2004). Federalism and Drug Control, *Vanderbilt Law Review* 57:783-882.

²⁶ Courtwright, D.T. (2001).

²⁷ Kerr, P. "Growth in Heroin Use Ending as City Users Turn to Crack," *New York Times* (September 13, 1986).

Figure 2
Second Opioid Epidemic
Deaths per Million, By Race Due to Opioid Poisoning



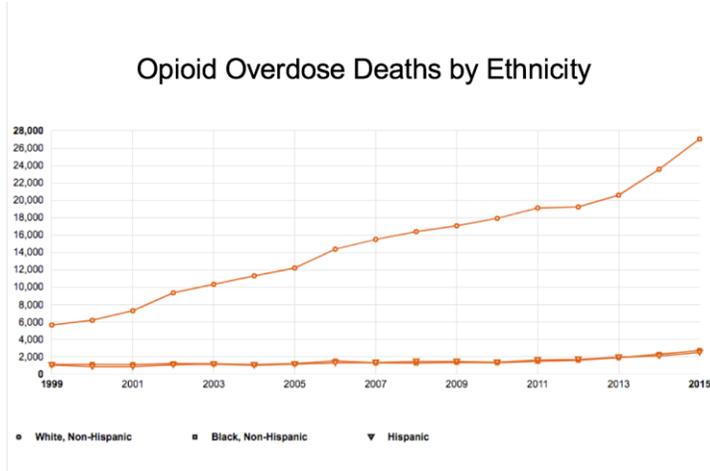
Source: Samkoff, J.S. and Baker, S.P. (1982). Recent Trends in Fatal Poisoning by Opiates in the United States, *American Journal of Public Health* 72(11):1251-1256.

These numbers are unquestionably tragic. However, they contain important lessons for today. Today's opioid epidemic, which began roughly around 1999 (See Figure 3), is, in some ways, distinguishable from the second opioid crisis that claimed tens of thousands of lives between 1970 and 1978.²⁸ Racially, opioid users today are predominantly white. Indeed, by race, the predominate population of opioid users today resembles the population most affected by America's first opioid crisis that began in the 19th Century. However, the similarities between those populations end there. Victims of the current crisis occupy a lower socio-economic status than the 19th Century addicts that preceded them.²⁹ Today's opioid users are more often young males, as compared to the women who dominated the population of addicts in the late 1800's and early 1900's. Opioid abuse is prevalent in rural communities today, while suburban communities were hardest hit at the turn of the 20th Century. Therefore, arguably, the supply reduction interventions that were effective to defeat that first opioid crisis may not alone be sufficient to defeat the current crisis. Instead, similarities between the social and economic risk factors associated with addicted populations today and the overlooked addicted populations from America's second opioid crisis should counsel an emphasis on social interventions that are appropriate to the conditions that have given rise to the current epidemic. Although the afflicted substance abusers are of different ethnic and racial groups, this should not be a reason to appreciate the ways in which the two populations share many health needs and consequent health outcomes.

²⁸ Samkoff, J.S., (1982). Recent Trends in Fatal Poisoning by Opiates in the United States, *American Journal of Public Health* 72(11):1251-1256; See also, Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report (MMWR) (January 13, 2012), "CDC Grand Rounds: Prescription Drug Overdoses – a U.S. Epidemic." Retrieved from, <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6101a3.htm#fig1>.

²⁹ Cicero, T.J. et al., (July 2014). The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years, *JAMA Psychiatry* 71(7):821-6.

Figure 3
Third (Current) Opioid Epidemic
Opioid Overdose Deaths by Ethnicity, 1999-2015



Source: Kaiser Family Foundation, State Health Facts (2017). *Opioid Overdose Deaths by Race/Ethnicity, 1999-2015*.

Both populations are predominately low-income.³⁰ During the 1960s and 1970s, heroin use rates were highest in the lowest-income neighborhoods.³¹ In 2016, misuse of opioids in the past year by percentage of the population aged 12 and older was most prevalent among people below 100% of the poverty level (5.9%), followed by people between 100%-199% of the poverty level (4.8%). A smaller percentage of people with incomes above 200% of the poverty level, 3.9%, misused opioids during 2016.³² Misuse of pain relievers during 2007-2012 in the United States decreased with increasing income. Among adults, aged 20 years or older, 8.9% who had family incomes below 200% of the federal poverty threshold used an opioid analgesic in the preceding 30 days, compared with 7.1% of those with incomes 200%-399% of the poverty threshold and 4.9% of those with incomes equal to or greater than 400% of the poverty threshold. The relationship between income and opioid use was observed for both men and women.³³

³⁰ For evidence that income inequality rather than low- or high- income may be a determinant of opioid mortality, see King, N.B., (2014). Determinants of Increased Opioid-Related Mortality in the United States and Canada, 1990-2013: A Systematic Review, *American Journal of Public Health* 104(8):e32-e42. (New York spatial analysis showed that opioid deaths clustered in high income inequality, high poverty, and low median income neighborhoods from 1990-2006, but shifted to neighborhoods with high income inequality and higher income by 2000).

³¹ See, National Institute on Drug Abuse. Division of Epidemiology and Statistical Analysis. *Epidemiology of Heroin: 1964-1984*. Rockville, Md.: U.S. Dept. of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, National Institute on Drug Abuse, Division of Epidemiology and Statistical Analysis, 1985.

³² SAMHSA, Center for Behavioral Health Statistics and Quality. (2017). Results from the 2016 National Survey on Drug Use and Health: Detailed Tables. Retrieved October 21, 2017, from <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm>

³³ "QuickStats: Use of Prescription Opioid Analgesics in the Preceding 30 Days Among Adults Aged ≥20 Years, by Poverty Level and Sex — National Health and Nutrition Examination Survey, United States, 2007–2012." *Morbidity and Mortality Weekly Report (MMWR)*, Centers for Disease Control and Prevention, 24 Apr. 2015, www.cdc.gov/mmwr/preview/mmwrhtml/mm6415a10.htm.

The population at highest risk of opioid addiction today, as during the second opioid crisis, are less educated than non-addicted Americans. In 2015, for example, 9.3% of adults aged 18 to 25 misused opioids in the past year while 6.1% of college graduates had similarly misused opioids.³⁴ The gap was smaller in 2016 among the same age group; but in each age category, higher educational attainment was consistently associated with slightly decreased opioid misuse.³⁵ The difference may be attributable, in part, to the frequency with which prescribers provide opioids to people with less education. In a study of emergency department treatment practices, researchers found that opioids were given to 54% of patients who did not complete high school vs. 10% of patients with post-college education. Even after adjusting for age, sex, income, and pain severity, patients with the highest educational attainment were three times less likely to receive opioids than patients with the lowest education attainment. The results suggest that patient educational attainment has even a stronger influence on emergency department opioid prescribing than does patient income.³⁶

Unemployment and under-employment disproportionately burdened both populations suffering opioid addiction today and during the second opioid crisis. In 2016, past year misuse of opioids among persons aged 18 or older was highest among unemployed individuals (9.1%), followed by individuals with part-time employment (4.9%), individuals with full-time employment (4.7%), and individuals classified as “other” (3.3%).³⁷ Unemployment is also closely correlated with opioid deaths, although the directionality is unclear. As the county unemployment rate increases by one percentage point, the opioid death rate per 100,000 rises by 0.19 (3.6%) and the opioid overdose emergency room visit rate per 100,000 increases by 0.95 (7.0%).³⁸ This does not, of course, prove causality. Yet, citing Alan Krueger’s research published in the Brookings Papers on Economic Activity (Fall 2017)³⁹, the Commission was compelled to acknowledge the strong association between opioid addiction and participation in the labor force.

Housing conditions can mean the difference between life and death among those struggling with opioid abuse today, just as housing conditions figured prominently in the opioid crisis of the 1970’s and 1980’s.⁴⁰ It is well known that opioid overdoses are very high among persons

³⁴ SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2015 and 2016 (Table 1.65B) Retrieved from, <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm#tab1-65A>.

³⁵ *Id.*

³⁶ Platts-Mills, T. F., Hunold, K. M., Bortsov, A. V., Soward, A. C., Peak, D. A., Jones, J. S., ... McLean, S. A. (2012). More Educated Emergency Department Patients are Less Likely to Receive Opioids for Acute Pain. *Pain*, 153(5), 967–973. <http://doi.org/10.1016/j.pain.2012.01.013>

³⁷ “Other” includes students, persons keeping house or caring for children full time, retired or disabled persons, and other persons not in the labor force. See, SAMHSA, Center for Behavioral Health Statistics and Quality. (2017). Results from the 2016 National Survey on Drug Use and Health: Detailed Tables. Retrieved October 21, 2017, from <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.htm>

³⁸ Hollingsworth, A., Ruhm, C. J., & Simon, K. (2017). Macroeconomic Conditions and Opioid Abuse [Abstract]. *Journal of Health Economics*. doi:10.3386/w23192

³⁹ Dews, F. (2017). How the opioid epidemic has effected the U.S. labor force, county-by-county. The Brookings Institution. From <https://www.brookings.edu/blog/brookings-now/2017/09/07/how-the-opioid-epidemic-has-affected-the-u-s-labor-force-county-by-county/>

⁴⁰ See, Garrett, Gerald R. “Homelessness, Alcohol, and Other Drug Abuse: Research Traditions and Policy Responses.” *New England Journal of Public Policy*, vol. 8, no. 1, 23 Apr. 1992, pp. 353–369. Retrieved from, scholarworks.umb.edu/cgi/viewcontent.cgi?article=1562&context=nejpp.

experiencing homelessness;⁴¹ homelessness can be both a cause and a result of addiction.⁴² A large study of individuals experiencing homelessness treated by Boston Health Care for the Homeless in 2003-2008 found drug overdose to be a leading cause of death, with opioids present in 81% of overdoses. This correlation, also apparent during the second opioid crisis,⁴³ seems to be worsening as the death rate from overdose has tripled compared to a 1988-1993 cohort.⁴⁴

Today, as during the 1960's and 1970's, poverty, unemployment,⁴⁵ and homelessness are closely associated with heroin use. Importantly, Brookings scholars, Carol Graham and Sergio Pinto have reported that the largely poor, uneducated, and unemployed whites who are victims of today's opioid crisis share the same extreme desperation and despair as the tragic victims of addiction during the late 1960's, 1970's, and 1980's⁴⁶. It is important to respond to the similarities in these data. They make a strong case that social determinant interventions that address housing, employment, joblessness, and family status are essential to a successful strategy to end the opioid epidemic in this country. Further, these data also argue persuasively for strategies that reach back to provide better quality treatment and social determinant interventions for victims of earlier drug epidemics. Therefore, as important as the Commission's final six recommendations are, they still lack the urgency and scope that these data compel. The next section fills that void.

Six “Next Steps” to Implement Social Determinant Interventions

This section sets forth six concrete “Next Steps” that policy-makers can undertake to move the Commission's social determinant recommendations from the pages of the Commission's Report into the communities, homes and lives where they are most needed. They are designed to provide “shovel-ready” steps to implement an efficient, effective, and equitable strategy to combat opioid addiction in this country.

#1: Use Medicaid to Reimburse Supportive Housing Services Shown to Improve Health

Reforming health care reimbursement is the single most important action step needed to improve population health outcomes related to the social determinants of health. Nowhere is this reform more important than in the fight against opioid addiction. Paying for supports that address the social risk factors that are part of addiction will encourage and enable medical providers to treat addiction as the disease that it is. Medicaid reimbursement policy, which covers or could cover much of the population affected by opioid addiction, already contains considerable flexibility, sufficient to allow states to pay for important social determinant interventions that can support opioid addicts' recovery. Based on emerging research that associates supportive housing with improved health

⁴¹ See, Fischer, B. et al., (2004). Determinants of Overdose Incidents among Illicit Opioid Users in 5 Canadian Cities,” *Canadian Medical Association Journal* 171(3):235-239.

⁴² See, National Coalition for the Homeless, “Substance Abuse and Homelessness” (July 2009). Retrieved from, <http://www.nationalhomeless.org/factsheets/addiction.pdf>.

⁴³ Kolata, G. “Drug Addicts Among the Homeless: Case Studies of Some ‘Lost Dreams,’” *New York Times* (May 30, 1989)

⁴⁴ Baggett TP, Hwang SW, O'Connell JJ, et al. Mortality among homeless adults in Boston: Shifts in causes of death over a 15-year period. *JAMA Intern Med.* 2013 Feb 11; 173(3): 189–195. doi: 10.1001/jamainternmed.2013.1604.

⁴⁵ See, Courtwright, D.T. (2001).

⁴⁶ Graham, C., Pinto, S. (2017). Unequal hopes and lives in the U.S. The Brookings Institution. Retrieved from <https://www.brookings.edu/research/unequal-hopes-and-lives-in-the-u-s/>

outcomes, Medicaid funds should be used to pay for supportive housing to provide substance use treatment, improve health outcomes, and reduce costs for opioid addicts.⁴⁷

Supportive housing that includes collocated substance treatment, health care, and job training services is an example of this kind of integrated care for patients well beyond the clinical setting that has been proven to reduce opioid mortality. Mercy Maricopa Integrated Care, a health plan located in Phoenix, Arizona, is an example of supportive housing program designed around the needs of adults with mental illness and substance use disorders. Partnering with the City Housing Department and the United Way, Mercy Maricopa offers a comprehensive program that includes Section 8 housing vouchers, supportive employment services, and Medicaid covered services ranging from financial management and budgeting training to drug counseling. Preliminarily, Mercy Maricopa residents show decreases in psychiatric hospital admissions, crisis service utilization, and increased housing stability.⁴⁸ This is an example of the way that housing may be the locus for coordinating social determinants intervention needed to help individuals overcome opioid addiction.

In June 2015, the Centers for Medicare and Medicaid Services (CMS) published an Informational Bulletin which expressly outlined the circumstances under which Medicaid would reimburse for housing related activities.⁴⁹ While the Bulletin focused narrowly on disabled populations, it opened the discussion of Medicaid waiver authorities available to states to cover housing for other populations as well. The waivers available include targeted case management and managed care services under Section 1915(b); ACA demonstration projects such as “Money Follows the Person;” and 1115 demonstration waivers. Medicaid managed care plans have the flexibility to partner with or pay for housing agencies and programs that can integrate health and housing services. This is a strategy states can and should use to pay for steps that immediately implement the Commission’s social determinant recommendations.

#2: Provide federal funding to children of addicted parents and those supporting them.

The Commission recommends the development of family-centered treatment that would allow children to remain in their homes with family members when appropriate, in order to recover from the trauma of having a parent succumb to opioid addiction. We also need to invest in funding prevention and multi-generational family services to help extended and foster families caring for children left orphaned by the opioid crisis. These children—and their caregivers—need trauma-informed treatment and in-home skill programs that the federal government should provide. The Family First Prevention Services Act of 2017 (H.R. 253), introduced in Congress on January 4, 2017, addresses many of these issues. This bill is instructive to policymakers considering the degree to which legislation could implement this important recommendation from the Commission’s report.

#3: Involve Community Leaders in Designing Preventive Systems for Younger Children

⁴⁷ Julia Paradise and Donn Cohen Ross, “Linking Medicaid and supportive Housing: Opportunities and On-the-Ground Examples, (January 27, 2017). Retrieved from, <https://www.kff.org/report-section/linking-medicare-and-supportive-housing-issue-brief/>.

⁴⁸ Mercy Maricopa won two Best Practice awards from the Institute for Medicaid Innovation, recognizing its initial outcomes in behavioral health. See, <https://www.mercymaricopa.org/innovation-awards2>.

⁴⁹ Department of Health and Human Services, CMCS Informational Bulletin, From Vikki Wachino, Director, Center for Medicaid and CHIP Services “Coverage of Housing-Related Activities and Services for Individuals with Disabilities” (June 26, 2015). Retrieved from, <https://www.medicare.gov/federal-policy-guidance/downloads/cib-06-26-2015.pdf>

While the Commission’s recommendation for College Recovery Programs is important, substance-abuse prevention should begin well before college. Promoting certain social development skills among youths has been proven to reduce substance abuse. Moreover, prevention programs should involve community leaders, parents, and family members. Indeed, significant community engagement is an important aspect of effective prevention efforts that has not received adequate attention in the Report. Science-based programs such as the “Communities That Care (CTC)” Program,⁵⁰ give community members the tools to design prevention systems that reduce levels of adolescent substance use as well as other delinquent behaviors. The CTC training program involves children from birth through early adulthood, with community leaders who design clear standards for behavior, coping and refusal skills, prosocial involvement, and other skills for healthy behavioral choices. CTC has been implemented in 24 communities across seven states and the early evidence is that middle school children involved in the program are less likely to initiate the types of delinquent behavior that are associated with early substance use between 5th and 7th grade than children without such programming. Such community engaged approaches have proved promising and deserve further funding and broader implementation nation-wide.⁵¹ State legislatures, local school districts and schools, public health departments, and cities⁵² should provide funding and in-kind resources to support further development, implementation, and assessment of community-based interventions like the CTC program that target preventive efforts toward younger children.

#4: Broaden Public Health-Based Approaches to Re-Build Workforce Capacity

Recommendation #50 proposes that states and other stakeholders develop “model state legislation/regulation for states to decouple felony convictions and eligibility for business/occupational licenses, where appropriate.” Current federal and state laws prohibit drug offenders from holding a number of jobs, even when their past drug history creates no unique risks for future employment success. Changing these laws could fundamentally alter the long-lasting, adverse consequences that thwart recovery efforts by those seeking to move past the disease of drug addiction. With this Report, the Administration has taken important steps to lead the nation toward a comprehensive public health response to the opioid crisis. This approach should extend to all drug users, not only those who are victims of America’s most recent drug epidemic.

#5: Broaden the New Public Health Approach to All Drug Users

States and federal governments should extend the new and important understanding of the opioid crisis as a public health emergency to substance abusers from the second opioid crisis, and to those who succeeded them during later drug epidemics. The most obvious and immediate approach would be to systematically review, revise, and reverse extreme sentences for non-violent individuals imprisoned for crimes associated with opioid use disorder and other drug dependencies from the second opioid epidemic that ravaged communities during the 1960’s, 70’s and 80’s. Governor

⁵⁰ Koh, H. (August 22, 2017). “JAMA Forum: Community-Based Prevention and Strategies for the Opioid Crisis,” Retrieved from, <https://newsatjama.jama.com/2017/08/22/jama-forum-community-based-prevention-and-strategies-for-the-opioid-crisis/>; see also <https://www.communitiesthatcare.net/research-results/>;

⁵¹ Hawkins, J.D. et al., (2008). Early Effects of Communities That Care on Targeted Risks and Initiation of Delinquent Behavior and Substance Use, *Journal of Adolescent Health*, 43(1):1-9; see also (targeted risks for students by seventh grade were significantly lower in CTC communities compared with controls); but c.f., Kim, B.K.E., (2015) Assessing Sustained Effects of Communities that Care on Youth Protective Factors, *Journal of the Society for Social Work and Research* 6(4):565-589 (protective effects are not sustained through high school).

⁵² See, Blueprints Program Rating: Communities That Care Funding Overview, retrieved from <http://www.blueprintsprograms.com/funding/communities-that-care>.

Christie's pardon of Gail Naples is an example of how this approach could work.⁵³ While addicted to heroin, Ms. Naples was typical of many addicts who stole in order to finance their habits. However, once she received treatment, she not only beat her habit, but also had the benefit of a fresh start when the governor pardoned her for a series of non-violent crimes she committed while addicted. Finally, Congress should similarly allow those once caught in a web of drug use and crime to put their past lives behind them. Congress could do this by enacting legislation such as the Reverse Mass Incarceration Act of 2017 (S.1458)⁵⁴ to establish a grant program for states and localities to take meaningful steps to reduce prison populations.

The Commission Report already contains proposals to construct an infrastructure to support a revision of outdated and failed criminal justice approaches to addiction. The Commission's 38th recommendation to expand the use of federal drug courts should be broadly employed to address individuals serving time for past drug offenses, and provide alternatives to incarceration for appropriate inmates. Drug court programs could be extended to connect currently incarcerated inmates to medication-assisted treatment (MAT), in order to put them on the road to early release and supported community re-integration. Recommendation #37 advocates the use of MAT for current substance abusers, and could be equally effective to reduce recidivism rates for those drug addicts from earlier drug crises who are presently caught in the web of our over-burdened criminal justice system.

#6: Strengthen Supports to Allow Subsidized Housing Owners and Agents Not to Evict Opioid Addicts from Public Housing

Because opioids are classified as Schedule I drugs under the Federal Controlled Substances Act (21 U.S.C. §801), subsidized housing owners and agents may exercise discretion to either evict or refrain from evicting a current resident who is abusing opioids. The touchstone is that when a person is using opioids, they have violated their lease prohibitions against engaging in illegal activity and interfering with other people's quiet enjoyment. Yet, the U.S. Department of Housing and Urban Development (HUD)'s Handbook Section 4350.3 provides guidance that allows lessors to consider mitigating factors such as whether the resident is in treatment, the effect on the community of terminating the tenancy, and the seriousness of the problem. These guidelines are helpful in theory but they do not go far enough to support either the housing provider or their tenants in obtaining treatment that will prevent eviction and possible homelessness. For example, HUD could collaborate with local health departments as well as the U.S. Department of Health & Human Services (HHS) and the Substance Abuse and Mental Health Services Administration (SAMHSA) to provide fast-tracked access to substance abuse treatment for residents of public housing in danger of eviction. HUD and local housing authorities could modify lease agreements to list mitigating circumstances such as involvement in treatment, engagement in an active search for treatment, or referral to drug court that could increase the opportunity to maintain housing that could defer eviction. Moreover, states could use federal funds to convert crumbling public housing properties into supportive housing developments⁵⁵ with co-located drug counseling and treatment services onsite to increase access to services.

⁵³ See, "Christie Pardons Woman Who Recovered from Drug Addiction," September 22, 2017, retrieved from <http://www.nj.com/politics/index.ssf/2017/09/christies-anti-opioid-crusade-turns-to-clemency.html>,

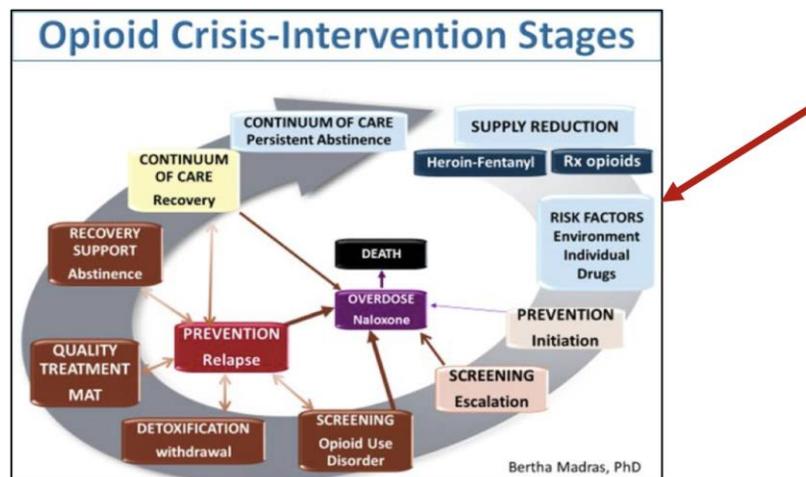
⁵⁴ S.1458 Reverse Mass Incarceration Act of 2017, retrieved from <https://www.congress.gov/bill/115th-congress/senate-bill/1458/text>

⁵⁵ Hall, G., Davidson, C., Neighbors, C., Hogue, A., & Morgenstern, J. (2014). Public Service Use and Costs Associated with NY/NY III's Supportive Housing for Active Substance Users. Retrieved October 22, 2017, from https://www.centeronaddiction.org/sites/default/files/files/4_public-service-use-and-costs-associated-with-ny-ny-iii-

Conclusion

Although the scientific record is still emerging, the best evidence shows that a multi-faceted response to the opioid drug epidemic is warranted.⁵⁶ This will require the Administration, states, and localities to elevate the importance of interventions that remove barriers to housing,⁵⁷ increase job training and educational opportunities, and assist families with accessing multi-generational treatment and resources. Figure 4 below outlines multiple intervention stages; the blue boxes divide the possibilities into three categories. While the Commission Report focused on two – supply reduction and preventive interventions along the continuum of care – the environmental risk factors highlighted by the arrow in Figure 4 must be the core of any successful public health strategy to reverse the opioid epidemic.

Figure 4
The Importance of Environmental Interventions



Source: The President's Commission on Combatting Drug Addiction and the Opioid Crisis Final Report

[supportive-housing-for-active-substance-users.pdf](#) (Study found New York's supportive housing (NY/NY III) program was successful in reducing placed participant utilization of shelters, jail, and medical services as well as linking clients to public benefits.)

⁵⁶ King, N.B., (2014). Determinants of Increased Opioid-Related Mortality in the United States and Canada, 1990-2013: A Systematic Review, *American Journal of Public Health* 104(8):e32-e42.

⁵⁷ Hall, G., Davidson, C., Neighbors, C., Hogue, A., & Morgenstern, J. (2014). Public Service Use and Costs Associated with NY/NY III's Supportive Housing for Active Substance Users. Retrieved October 22, 2017, from https://www.centeronaddiction.org/sites/default/files/files/4_public-service-use-and-costs-associated-with-ny-ny-iii-supportive-housing-for-active-substance-users.pdf (Study found New York's supportive housing (NY/NY III) program was successful in reducing placed participant utilization of shelters, jail, and medical services as well as linking clients to public benefits.)

Relying solely upon the treatment and supply-reduction tools that curbed opioid abuse that emerged in the late 19th Century, given the differences between that epidemic and today's crisis, is short-sighted. Ignoring similarities between the nation's second heroin crisis and the current epidemic will destine the good work, good money, and good intentions that the President's Commission and others have invested in crafting a national, anti-opioid strategy, to failure. The key to a successful battle against opioid addiction will be prioritizing interventions aimed squarely at environmental risk factors in order to address true impacts that social determinants have on opioid dependent populations, while also continuing efforts begun to address prevention and treatment aimed at the supply side and continuum of care.

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