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Reflections on "Solving" Drug Crises: Let's Renew Attention to the Social Determinants of Health

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Introduction. For more than five years now, I have been conducting research and engaging in community service to address the opioid crisis in Delaware. Delaware is a small microcosm of the US¹ that consistently has had one of the worst opioid problems in the country². Early reports, unfortunately, suggest the opioid overdose problem could be worsening during the Covid-19 pandemic in Delaware³ and across the nation.⁴

To address this menacing problem, our country has heavily relied on two medical interventions: naloxone (an overdose-reversing drug) and medications for opioid disorder (i.e., MOUDs, such as methadone, buprenorphine, and naltrexone). Naloxone and MOUDs are endorsed widely across the nation by government agencies (e.g., the CDC, NIDA), policy-makers, practitioners, researchers, medical stakeholders, community officials, and surviving parents and family members as part of a more public health-oriented response to our country's latest, and most deadly, drug crisis. For example, former Surgeon General Jerome Adams recently stated "increasing the availability and targeted distribution of naloxone is a critical

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Delaware News Journal, Nov 14, 2020—see https://www.usatoday.com/story/news/politics/elections/2020/11/14/open-letter-president-elect-joe-biden-delaware-residents/6297497002/?fbclid=IwAR2hqKf9jrPWCN3XX0J6HApqG3fx8fcHQcXOKU3uW1biyj2DpnG8LANE9dI

²https://www.cdc.gov/nchs/pressroom/sosmap/drug_poisoning_mortality/drug_poisoning.htm

³Did virus cause spike in overdose deaths?: 47% rise in fatalities in first 6 months from 2019 Horn, Brittany. The News Journal; Wilmington, Del. [Wilmington, Del]13 Aug 2020: A.4.

⁴Ochalek TA, Cumpston KL, Wills BK, Gal TS, Moeller FG. Nonfatal Opioid Overdoses at an Urban Emergency Department During the COVID-19 Pandemic. *JAMA*. 2020;324(16):1673–1674. doi:10.1001/jama.2020.17477,

Glober, N., Mohler, G., Huynh, P. et al. Impact of COVID-19 Pandemic on Drug Overdoses in Indianapolis. *J Urban Health* 97, 802–807 (2020). https://doi.org/10.1007/s11524-020-00484-0

component of our efforts to reduce opioid-related overdose deaths" and has urged the public to carry the life-saving drug.⁵ The Office of National Drug Control policy (ONDCP) provides funding for naloxone through state-level substance abuse block grants awarded by the Substance Abuse and Mental Health Services Administration, though most naloxone is provided by community and private agencies. ONDCP and the National Institute of Drug Abuse fund "evidence-based" treatment interventions, which mostly include MOUDs like methadone and buprenorphine⁶.

The arrival of naloxone and wider distribution of MOUDs signifies a welcome shift in our nation's handling of drug problems to a "softer" disease or medical model of addiction where individuals are viewed as patients to be treated rather than miscreants to be punished. Yet, despite billions allocated by Presidents Obama and Trump for such "disease-care" efforts, opioid use, overdose deaths, and other consequences remain high—and are predicted to escalate with the Covid-19 pandemic (CDC 2020). While there are likely many reasons for the opioid epidemic's persistence, I would propose one reason could be the relative lack of attention and support given to the social determinants of health.

The Social Determinants of Health. In 1979, the US Department of Health and Human Services launched the Healthy People initiative to "promote health and prevent disease through changes in lifestyle and environmental factors," in other words, through the social determinants of health. The current 2030 campaign defines the social determinants of health as "the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Five main domains are currently recognized in promoting the best health outcomes: economic stability, educational access and quality, healthcare access and quality, strong neighborhoods and built environments, and positive social and community contexts.

During my 30+ year career studying substance abuse, officials and experts have proposed public health approaches as a more humane and promising alternative to the largely ineffective and punitive policies of drug wars. Yet, these alternatives have been ineffective in moving beyond drug-specific interventions to addressing these wider social determinants.¹⁰ Moreover,

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 $^{^5} https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-administration-working-every-day-help-bring-end-opioid-crisis/\\$

⁶ONDCP. 2020. National Drug Con troll Strategy, FY 2021 Funding Highlights, Washington, DC: The White House.

⁷Ahmad FB, Rossen LM, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2020.

⁸See https://www.cdc.gov/nchs/healthy_people/hp2000.htm

⁹See https://health.gov/healthypeople/objectives-and-data/social-determinants-health

¹⁰See Nabarun Dasgupta, PhD, MPH, Leo Beletsky, JD, MPH, and Daniel Ciccarone, MD, MPH. 2018. Opioid Crisis: No Easy Fix to Its Social and Economic Determinants, Am J Public Health. February; 108(2): 182–186.

the White House has failed to embrace the Healthy People campaign, instead devoting more money to law enforcement efforts to limit drug supply, narrowing opioid treatment support to MOUDs and underfunding prevention programs.¹¹ There is very little attention and support to addressing the social determinants that drive addiction.

History shows cultural, social and psychological solutions were relevant in prior campaigns to eliminate substance abuse. For example, Dr. Robert DuPont- the first Director of the National Institute on Drug Abuse and President Nixon's Drug Czar— was a strong advocate for both medical and social or environmental approaches to combat addiction despite Nixon's launching of our nation's first war on drugs. A medical doctor by training, Dupont advocated for neurological and genetic solutions to heroin addiction in the 1970s but also understood the problem was correlated to social determinants like socioeconomic status, family composition, parenting style, and urban residence. Before DuPont's work, President Kennedy shifted the nation's orientation away from punitive approaches to substance abuse in the post-Prohibition era to those based in mental health, stress, anxiety and social standing. His administration endorsed education and treatment as solutions, or what we would now call an interdisciplinary approach addressing both biological roots of addiction as well as its social determinants. 13

Shortcomings with Medical Interventions. Today's naloxone and MOUDs are individual-level interventions divorced from the larger environmental, community, family, and economic contexts that contribute to opioid abuse in the first place. This is because their medicalization framework has de-coupled addiction – now viewed as a brain disease –from simple drug use, thereby stripping the phenomena of any social or cultural ties. Disease is viewed as an individualized problem contained within a human body or in an even smaller space like the human brain. Individuals are subsequently 'treated' or 'fixed' through individualized treatment. ¹⁴ The role of more distal environmental influences on addiction are left out or downplayed, thus relieving social policy, institutions and cultural practices of responsibility in producing it

Take the case of naloxone. Its deployment is based on a faulty assumption of the medical model: that the "revived" patient will be rational and choose healthy behavior (drug absti-

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¹¹See above ONDCP 2020.

¹²DuPont, R. 2009. 'Reflections on the Early History of National Institute on Drug Abuse (NIDA): Implications for Today.' Journal of Drug Issues, 9(1): 5–14.

¹³Anderson, Tammy L., Swan, Holly and Lane, David. 2010. "Institutional Fads and the Medicalization of Drug Addiction." Sociology Compass, 4(7): 476-494.

¹⁴Clarke, A. E., J. K. Shim, L. Mamo, J. R. Fosket and J. R. Fishman 2003. 'Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine.' American Sociological Review 68(2): 161–94. And Conrad, P. 2005. 'The Shifting Engines of Medicalization.' Journal of Health and Social Behavior 46(1): 3–14.

nence) after his/her brush with death. However, if rational choice and human behavior play little role in becoming addicted, because addiction is a function of the brain's chemistry, then how can we expect those affected to choose and adhere to more healthy, drug-free lives after being revived with naloxone? Delaware's Governor John Carney recently relayed a story illustrating such challenges:

I met with an emergency room nurse who has made it her mission to get the addicts she sees into treatment. She had tears in her eyes as she told me about the overdose patient who finally, after his fifth, sixth or tenth overdose, is ready to get clean. But by the time she's able to get the patient into treatment, it's three or four days later and he's back to using again.¹⁵

It may be unreasonable then to expect naloxone administration will reduce demand for opioids—legal and otherwise. While we must invest in and expand its use to saves lives, naloxone has been insufficient in reducing opioid abstinence and demand for any period of time¹⁶.

There are similar shortcomings with MOUDs. During an earlier opioid crisis (i.e., heroin abuse in the Vietnam era), Dole and Nyswander's¹⁷ research helped redefine heroin addiction as an objective, identifiable metabolic disease and endorsed methadone as the proper course of treatment. Subsequently, the National Institutes of Health (NIH) declared methadone maintenance to be the most effective modality for treating heroin addiction in the 1980s and 1990s.¹⁸ Over the years, however, methadone has come under fire for its failure to keep individuals abstinent from substance abuse. Methadone patients are on the drug for long periods of time.¹⁹ This is because methadone prevents withdrawal from opioids but it doesn't replace the high or taste of the opioids people crave. People on methadone often relapse and some do not necessarily see a problem with returning to illicit drugs. As David Frank, a recovering addict and

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¹⁵The News Journal (August 7, 2016), Multi-pronged effort to fight opioid crisis vital for Delaware The News Journal; Wilmington, Del.

¹⁶See CNN report by Nadia Kounang, (October 30, 2017) "Naloxone reverses 93% of overdoses, but many recipients don't survive a year," accessed online at https://www.cnn.com/2017/10/30/health/naloxone-reversal-success-study/index.html or the New York Times report by Katharine Q. Seeyle. (July 27, 2016). Naloxone Saves Lives, but is no Cure for Heroin Epidemic. Accessed online at https://www-nytimes-com.udel.idm.oclc.org/2016/07/28/us/naloxone-eases-pain-of-heroin-epidemic-but-not-without-consequences.html

¹⁷Dole, V.D. and Nyswander, M. 1966. Rehabilitation of Heroin Addicts after Blockade with Methadone. *N.Y. State J. of Medicine*. 66: 2011–2017.

¹⁸Bourgois, P. 2000. 'Disciplining Addictions: The Bio-Politics of Methadone and Heroin in the United States.' Culture, Medicine and Psychiatry 24(2): 165–95.

¹⁹Martin, W. et al. 1973. Methadone - A Reevaluation. *Arch. Gen. Psych.* 28: 286 and Marvin E. Perkins and Harriet I. Bloch. 2006. A Study of Some Failures in Methadone Treatment. Journal of Psychiatry, Published Online:1 Apr 2006 https://doi.org/10.1176/ajp.128.1.47

current substance abuse researcher, points out "they are happy methadone has given them a way to prevent withdrawal and reduced their need to score and commit crime daily, but it also doesn't give them the pleasure they once enjoyed."²⁰

Conclusion. The US opioid epidemic shows no sign of abating after two + decades and billions of dollars in aid. In fact, researchers²¹ and public officials²² now warn about a possible fourth wave of the problem featuring opioid use (i.e., mostly illegal fentanyl) combined with stimulants such as cocaine and methamphetamines. This new wave comes at a time when Covid-19 is threatening to worsen substance abuse and its most dangerous consequences: drug overdose deaths. While many are claiming a spike in overdose deaths may follow from Covid-19 mitigation tactics and social fears that stymic naloxone distribution and MOUD compliance, the pandemic is also worsening the social determinants of health: joblessness, poverty, educational access and quality, housing security, racial inequality and healthcare disparities. While naloxone and MOUDs are necessary for people suffering opioid use disorders, they are insufficient alone and must complimented by a more comprehensive response anchored in the social determinants of health.

The call for an approach to addiction, anchored in the social determinants of health, is widely endorsed and has been argued eloquently over time by experts like sociologist Harry Levine²³ and by leading opioid researchers. Recently, Dasgupta, Beletsky and Ciccarone maintained:

By ignoring the underlying drivers of drug consumption, current interventions are aggravating its trajectory. The structural and social determinants of health framework is widely understood to be critical in responding to public health challenges. Until we adopt this framework, we will continue to fail in our efforts to turn the tide of the opioid crisis.

So, let us renew our attention to and support of the social determinants of health that

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²⁰David Frank (2017): "I Was Not Sick and I Didn't Need to Recover": Methadone Maintenance Treatment (MMT) as a Refuge from Criminalization, *Substance Use & Misuse*, DOI: 10.1080/10826084.2017.1310247

²¹LaRue L, Twillman RK, Dawson E, et al. Rate of Fentanyl Positivity Among Urine Drug Test Results Positive for Cocaine or Methamphetamine. *JAMA Netw Open.* 2019;2(4):e192851. doi:10.1001/jamanetworkopen.2019.2851

²²Julie O'Donnell; R. Matt Gladden; Christine L. Mattson; Calli T. Hunter; and Nicole L. Davis, September 4, 2020

Vital Signs: Characteristics of Drug Overdose Deaths Involving Opioids and Stimulants — 24 States and the District of Columbia, January–June 2019. MMWR report Vol 69: 35. Centers for Disease Control and Prevention, Atlanta, GA.

²³Levine, Harry G, "The Discovery of Addiction: Changing Conceptions of Habitual Drunkenness in America" Journal of Studies on Alcohol. 1978; 15: pp. 493-506

drive our problem with opioids and other substances. Forging ahead with an interdisciplinary approach that utilizes efficacious biomedical interventions along with increased social and financial investment in community and individual empowerment programs will help us realize improved behavioral health for all.