

## A major expansion of opioid agonist treatment is needed to reduce overdose deaths in the USA



Over the past three years, the USA has had an unprecedented decline in life expectancy among middle-aged white adults.<sup>1,2</sup> This decline has largely—but not solely—been driven by drug poisoning deaths, initially due to pharmaceutical opioids but more recently caused by heroin and illicit fentanyl use as numbers of opioid prescriptions have declined.<sup>3</sup>

It is a popular misconception that drug poisoning deaths are concentrated among white people who live in rural areas with low socioeconomic status and high unemployment. In *The Lancet Public Health*, Meredith Shiels and colleagues<sup>4</sup> analysis of premature deaths in adults aged 25 to 64 years in the USA between 2000 and 2015 challenges this narrative. They used data on deaths reported by the US National Center for Health Statistics to describe county-level trends in premature deaths, and in all-cause and drug poisoning deaths within three racial and ethnic groups (white, black, and Latino) in counties characterised by their socioeconomic status, education, income, and rurality.

Shiels and colleagues<sup>4</sup> found a steep increase in drug poisoning mortality, as previously reported.<sup>3</sup> Interestingly, they also found that all-cause premature mortality in black and Latino people generally declined, whereas premature mortality increased among white men and women with low socioeconomic status. Premature deaths from drug poisonings increased in all three ethnic groups, but the rate of increase was steepest in white people. Opioid overdose deaths occurred at a higher rate in rural counties with populations of poor unemployed white people with low socioeconomic status. Nonetheless, most drug poisoning deaths (75%) occurred among white people with low socioeconomic status living in urban areas, simply because many more Americans live in urban than in rural areas.

A national public health response is needed to reduce drug overdose deaths, which are widely distributed in the US population.<sup>5</sup> This response should include—but not be confined to—reduction of opioid prescribing. Reducing overdose deaths caused by heroin and fentanyl will require an expansion of opioid agonist treatment, using methadone and buprenorphine to get as many people with opioid use disorder into treatment across

all socioeconomic and racial and ethnic strata. Removal of the burdensome requirement that clinicians obtain a waiver to prescribe buprenorphine to treat opioid dependence is a crucial step to improving treatment access; if this is not politically possible, health-care services need to increase the number of physicians, nurse practitioners, and physician assistants who are approved to prescribe buprenorphine.<sup>6</sup>

Expanded access to opioid agonist treatment will need to be accompanied by organised efforts to reduce stigma and educate the US public and health-care professionals about the benefits of this treatment in reducing overdose deaths and improving the lives of people who are dependent on opioids.<sup>5</sup> Public information campaigns need to combat the misconception that opioid agonist treatment is merely substituting one opioid for another, that imprisonment is an effective response to opioid dependence, and that overdose deaths can be reduced by legally coercing people who are opioid dependent into entering Narcotics Anonymous and abstinence-oriented residential rehabilitation programmes. Increased imprisonment and enforced abstinence-only treatment are more likely to increase rather than decrease overdose deaths in the short term when opioid users leave prison or treatment and return to using opioids with reduced tolerance.<sup>7</sup>

Other public health measures should include increased access to naloxone among people using opioids and their contacts.<sup>8</sup> Responses that are not yet legally available in the USA also need to be considered, such as supervised injection facilities and overdose prevention sites (in areas with the highest concentrations of overdose deaths), and heroin prescribing for people who do not respond to opioid agonist treatment.<sup>9</sup>

Although opioid overdose deaths have been seen as the major explanation for declining life expectancy in the USA, these deaths are just one of multiple so-called diseases of despair that have contributed to the decline.<sup>2</sup> Other contributory conditions include non-opioid (including alcohol, methamphetamine, and cocaine) poisonings, alcohol-related liver disease, and suicide, all of which are strongly associated with low

Published Online  
January 14, 2019  
[http://dx.doi.org/10.1016/S2468-2667\(19\)30001-5](http://dx.doi.org/10.1016/S2468-2667(19)30001-5)  
See [Articles](#) page e97

education, unemployment, and poverty. A sustained reduction in the unconscionable toll produced by these diseases of despair in the USA will also require policies to address these structural drivers of social inequality and hopelessness.

Sarah Larney, \*Wayne Hall

National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia (SL); Centre for Youth Substance Abuse Research, University of Queensland, Brisbane, QLD 4072, Australia (WH); and National Addiction Centre, Kings College London, London, UK (WH)  
w.hall@uq.edu.au

SL reports grants from Indivior outside the submitted work. WH declares no competing interests.

Copyright © 2019 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY-NC-ND 4.0 license.

- 1 US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. Health, United States, 2017 with special feature on mortality. Hyattsville: US Department of Health and Human Services, 2018.
- 2 Case A, Deaton A. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proc Natl Acad Sci USA* 2015; **112**: 15 078–83.
- 3 Volkow ND, Jones EB, Einstein EB, Wargo EM. Prevention and treatment of opioid misuse and addiction: a review. *JAMA Psychiatry* 2018; published online Dec 5. DOI:10.1001/jamapsychiatry.2018.3126.
- 4 Shiels MS, Berrington de González A, Best AF, et al. Premature mortality from all causes and drug poisonings in the USA according to socioeconomic status and rurality: an analysis of death certificate data by county from 2000–15. *Lancet Public Health* 2019; published online Jan 14. [http://dx.doi.org/10.1016/S2468-2667\(18\)30208-1](http://dx.doi.org/10.1016/S2468-2667(18)30208-1).
- 5 Saloner B, McGinty EE, Beletsky L, et al. A public health strategy for the opioid crisis. *Public Health Rep* 2018; **133** (suppl 1): 245–345.
- 6 Haffajee RL, Bohnert ASB, Lagisetty PA. Policy pathways to address provider workforce barriers to buprenorphine treatment. *Am J Prev Med* 2018; **53** (6S3): S230–42.
- 7 Binswanger IA, Blatchford PJ, Mueller SR, Stern MF. Mortality after prison release: opioid overdose and other causes of death, risk factors, and time trends from 1999 to 2009. *Ann Intern Med* 2013; **159**: 592–600.
- 8 Uyei J, Fiellin D, Buchelli M, Rodriguez-Santana R, Braithwaite RS. Effects of naloxone distribution alone or in combination with addiction treatment with or without pre-exposure prophylaxis for HIV prevention in people who inject drugs: a cost-effectiveness modelling study. *Lancet Public Health* 2017; **2**: e133–40.
- 9 Pardo B, Reuter P. Facing fentanyl: should the USA consider trialling prescription heroin? *Lancet Psychiatry* 2018; **5**: 613–15.