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Estimating the impact of the COVID-19 pandemic on rising trends in drug overdose mortality in the United States, 2018–2021

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Purpose Drug-overdose deaths have contributed significantly to the recent rise in mortality and decline in life expectancy among US men and women. The impact of the COVID-19 pandemic, which has resulted in widespread social and economic disruption, social isolation, job and income losses, and increased psychological distress, may have contributed to the increase in drug-overdose mortality. This study aims to measure the impact of the pandemic on monthly trends in drug-overdose mortality.

Methods We used the 2018–2020 final and 2021 provisional monthly deaths from the National Vital Statistics System and monthly population estimates



from the Census Bureau to compute monthly mortality rates by age, sex, and race/ethnicity. We used log-linear regression models to estimate monthly percent increases in mortality rates from January 2018 through September 2021.

Results The age-adjusted drug-overdose mortality rate increased by 31% between 2019 (70,630 deaths) and 2020 (91,799 deaths). Between February 2020 and May 2020, the drug-overdose mortality rate increased by 51% for males, 37% for females, 52% for Blacks, 51% for American Indians/Alaska Natives (AIANs), 45% for Hispanics, 45% for non-Hispanic Whites, and 42% for Asian/Pacific Islanders. During January 2018–September 2021, the monthly drug-overdose mortality rate increased by 2.14% per month for Blacks, 2.34% for AIANs, 1.48% for Asian/Pacific Islanders, and 1.01% for non-Hispanic Whites. Average monthly increases in mortality were most marked among those aged 15–24 and 35–44.

Conclusions The COVID-19 pandemic had a substantial impact on the rising trends in drug-overdose mortality during the peak months of the pandemic in 2020 and 2021.