Research on Population Health & Impact of COVID-19 for People with Substance Use Conditions

A recent population health study reviewed electronic health records (EHR) for over 73 million patients in the U.S. – over 7,510,380 people with substance use conditions overall and more than 722,370 diagnosed with a DSM5 substance use condition in the past year.[1]

Compared to people in the general population, there is an overall higher risk for COVID infection among all people with substance use conditions.

Several factors affect this, including type of substance use diagnosis, race, and other physical health conditions.

· **Diagnosis:** Strongest effects are among those experiencing opioid and tobacco use conditions and followed by alcohol and cocaine use conditions.

>Use of medications such as methadone or naltrexone did not increase COVID-19 risk

· **Race:** Higher impact among African Americans

· **Physical Health:** People with substance use conditions have higher rates of medical illnesses considered risks for COVID-19, including kidney, liver, lung, and cardiovascular diseases, obesity, diabetes, and cancers.

People with substance use conditions were more likely to be hospitalized from COVID-19 than other people with no substance use.

· Hospitalizations related to complications of COVID-19 were significantly higher among those with substance conditions (41% v. 30%)

> For people with substance use conditions, rates of hospitalization were highest among African Americans (51% v. 35%)

People with substance use conditions were more likely to die as a result of COVID-19.

· Mortality rates related to COVID-19 among people with substance conditions also are significantly higher (10% v. 7%)

> Rates of death also were highest among African American individuals with substance use conditions (13% v. 8%)

Why substance use?

· Each year, about 70,000 Americans die from overdose.
· Opioids are particularly dangerous as they negatively affect, i.e., reduce, respiratory function. Since COVID-19 affects pulmonary function this combination could be particularly lethal.
· About 11% of U.S. adults have other substance use conditions that negatively affect respiratory and cardiac health, including chronic use of tobacco, alcohol and other drugs, all can be risk factors for COVID-19 infection.
· Substance use conditions not only increase the chances of COVID-19 infection, they also increase the risks for negative complications, including hospitalization and death.[1]

[1] Wadhera RK, Wadhera P, Gaba P, Figueroa JF, Maddox KE, Yeh RW, et al. (2020). Variation in COVID-19 hospitalizations and deaths across New York city Boroughs. *JAMA,* e207197. https://doi.org/10.1001/jama.2020.7197.

These findings demonstrate the ways in which substance use, especially opiate use, can increase risks for COVID-19. These risks also are heightened for individuals who are African American, as well as increased vulnerability to hospitalization and death from COVID-related complications. Factors including access to healthcare, socioeconomic status and other social adversity components also contribute negatively to increased risk of COVID-19 as well as to the adverse outcomes.

These data also highlight the **need to screen and treat individuals with substance use conditions** as a core part of the strategy to control the pandemic, as well as reducing disparities in access to healthcare and supports.

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[1] Wang, Q., Kaelber, D.D., Xe, R., & Volkow, N. (2021). COVID-19 risk and outcomes in patients with substance use disorders: Analysis from electronic health records in the United States. *Molecular Psychiatry, 26*, 30-39.

[1]Wadhera RK, Wadhera P, Gaba P, Figueroa JF, Maddox KE, Yeh RW, et al. (2020). Variation in COVID-19 hospitalizations and deaths across New York city Boroughs. *JAMA,* e207197. https://doi.org/10.1001/jama.2020.7197.