

COVID-19: Potential Implications for Individuals with Substance Use Disorders

March 12, 2020

As people across the U.S. and the rest of the world contend with coronavirus disease 2019 (COVID-19), the research community should be alert to the possibility that it could hit some populations with substance use disorders (SUDs) particularly hard. Because it attacks the lungs, the coronavirus that causes COVID-19 could be an especially serious threat to those who smoke tobacco or marijuana or who vape. People with opioid use disorder (OUD) and methamphetamine use disorder may also be vulnerable due to those drugs' effects on respiratory and pulmonary health. Additionally, individuals with a substance use disorder are more likely to experience homelessness or incarceration than those in the general population, and these circumstances pose unique challenges regarding transmission of the virus that causes COVID-19. All these possibilities should be a focus of active surveillance as we work to understand this emerging health threat.

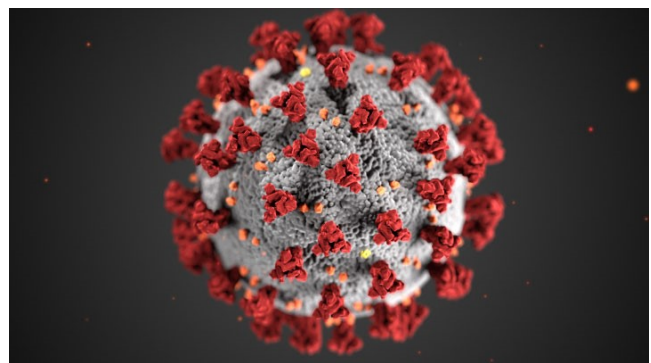


Image by [CDC/ Alissa Eckert, MS; Dan Higgins, MAMS](#)

This illustration, created at the Centers for Disease Control and Prevention (CDC), reveals ultrastructural morphology exhibited by coronaviruses. Note the spikes that adorn the outer surface of the virus, which impart the look of a corona surrounding the virion, when viewed electron microscopically. A novel coronavirus, named Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2), was identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China in 2019. The illness caused by this virus has been named coronavirus disease 2019 (COVID-19).

Was this article helpful?



NIH has posted a [compilation](#) of updates for applicants and grantees, including a [Guide Notice](#) on administrative flexibilities and [accompanying FAQs](#).

SARS-CoV-2, the virus that causes COVID-19 is believed to have jumped species from other mammals (likely bats) to first infect humans in Wuhan, capital of China's Hubei province, in late 2019. It attacks the respiratory tract and appears to have a higher fatality rate than seasonal influenza. The exact fatality rate is still unknown, since it depends on the number of undiagnosed and asymptomatic cases, and further analyses are needed to determine those figures. Thus far, deaths and serious illness from COVID-19 seem concentrated among those who are older and who have underlying health issues, such as diabetes, cancer, and respiratory conditions. It is therefore reasonable to be concerned that compromised lung function or lung disease related to smoking history, such as chronic obstructive pulmonary disease (COPD), could put people at risk for serious complications of COVID-19.

Co-occurring conditions including COPD, cardiovascular disease, and other respiratory diseases have been found to worsen prognosis in patients with other coronaviruses that affect the respiratory system, such as those that cause [SARS and MERS](#). According to a case series published in [JAMA](#) based on data from the Chinese Center for Disease Control and Prevention ([China CDC](#)), the case fatality rate (CFR) for COVID-19 was 6.3 percent for those with chronic respiratory disease, compared to a CFR of 2.3 percent overall. In China, [52.9 percent](#) of men smoke, in contrast to just 2.4 percent of women; further analysis of the emerging COVID-19 data from China could help determine if this disparity is contributing to the higher mortality observed in men compared to women, as reported by China CDC. While data thus far are preliminary, they do highlight the need for further research to clarify the role of underlying illness and other factors in susceptibility to COVID-19 and its clinical course.

Vaping, like smoking, may also harm lung health. Whether it can lead to COPD is still unknown, but emerging evidence suggests that exposure to aerosols from e-cigarettes harms the cells of the lung and diminishes the ability to respond to infection. In [one NIH-supported study](#), for instance, influenza virus-infected mice exposed to these aerosols had enhanced tissue damage and inflammation.

People who use opioids at high doses medically or who have OUD face separate challenges to their respiratory health. Since opioids act in the brainstem to slow breathing, their use not only puts the user at risk of life-threatening or fatal overdose, it may also cause a harmful decrease in oxygen in the blood (hypoxemia). Lack of oxygen can be especially damaging to the brain; while brain cells can withstand short periods of low oxygen, they can suffer damage when this state persists. Chronic respiratory disease is already known to [increase](#)

Was this article helpful? 

Yes

No

[overdose mortality](#) risk among people taking opioids, and thus diminished lung capacity from COVID-19 could similarly endanger this population.

A history of methamphetamine use may also put people at risk. Methamphetamine constricts the blood vessels, which is one of the properties that contributes to pulmonary damage and pulmonary hypertension in people who use it. Clinicians should be prepared to monitor the possible adverse effects of methamphetamine use, the prevalence of which is increasing in our country, when treating those with COVID-19.

Other risks for people with substance use disorders include decreased access to health care, housing insecurity, and greater likelihood for incarceration. Limited access to health care places people with addiction at greater risk for many illnesses, but if hospitals and clinics are pushed to their capacity, it could be that people with addiction—who are already stigmatized and underserved by the healthcare system—will experience even greater barriers to treatment for COVID-19. Homelessness or incarceration can expose people to environments where they are in close contact with others who might also be at higher risk for infections. The prospect of self-quarantine and other public health measures may also disrupt access to syringe services, medications, and other support needed by people with OUD.

We know very little right now about COVID-19 and even less about its intersection with substance use disorders. But we can make educated guesses based on past experience that people with compromised health due to smoking or vaping and people with opioid, methamphetamine, cannabis, and other substance use disorders could find themselves at increased risk of COVID-19 and its more serious complications—for multiple physiological and social/environmental reasons. The research community should thus be alert to associations between COVID-19 case severity/mortality and substance use, smoking or vaping history, and smoking- or vaping-related lung disease. We must also ensure that patients with substance use disorders are not discriminated against if a rise in COVID-19 cases places added burden on our healthcare system.

As we strive to confront the major health challenges of opioid and other drug overdoses—and now the rising infections with COVID-19—NIDA encourages researchers to request supplements that will allow them to obtain data on the risks for COVID-19 in individuals experiencing substance use disorders.

Was this article helpful?



Latest Information from the CDC on Coronavirus Disease 2019 (COVID-19)



Yes

No

This page was last updated March 2020

Comments

COVID-19 information

Submitted by Geoffrey Laredo on March 12, 2020

Thank you for getting this out so quickly. Very helpful.

vulnerable populations

Submitted by Dennis G Fisher on March 13, 2020

The most vulnerable to Covid-19 among substance abuses is going to be the crack-smoking homeless. The homeless are vulnerable just by being homeless, but add to that the lung damage from smoking crack and the risk is compounded. As Dr. Volkow points out, tobacco and marijuana smoking are also more prevalent among those who are homeless. This is going to be an important area of research.

Other COVID implications on folks with substance abuse disorders

Submitted by Robert Jarmick on March 13, 2020

Some 12 step programs are cancelling meetings because of COVID. This means less access to one means of supporting longer term recovery, thus perhaps exacerbating another health issue, substance abuse?.

COVID-19 and substance use

Submitted by Bertha madras on March 13, 2020

Was this article helpful?



An excellent and informative essay. Missing is whether poor public health among homeless substance users may exacerbate risks of spreading disease. Eg non-hygienic

disposal of bodily waste which have been shown to harbor virus, discarded syringes, smoking butts, other paraphernalia. Also smokers and vaperers tend to forcefully expel smoke or vapor, which could spread virus more efficiently than normal exhalation.

Potential for rapid spread in correctional facilities

Submitted by Jody Rich, MD, MPH on March 14, 2020

50% of people behind bars have at least one chronic disease, and these facilities are poorly designed to prevent widespread and rapid transmission, and large boluses of sick individuals may hit the healthcare system when we can least afford it. Prepare now by 1) releasing as many as possible, especially elderly and ill (also least likely to commit crime), 2) urge courts and police to stop sentencing and arresting 3) aggressive screening and isolation both upstream (police and courts) and in the facilities, cohort. Transfer out sick ASAP. Identify those who are infected early and recover who can help with custodial and care efforts as they are likely to be immune and there will be severe staff shortages. Disastrous wide scale rioting in Italy is a somber warning of what to avoid.

Estamos preparados?

Submitted by Duvan on March 14, 2020

It is very interesting to be well informed because the media widely disperses the information.

But are we ready for a pandemic?

Mutual help

Submitted by Frank Ponziano on March 14, 2020

Mutual help organizations such as 12 step programs that are be canceled are offering virtual meetings via phone and other virtual software such as zoom and blue jean

Was this article helpful?

Yes

No



Has Any testing been done?

Submitted by damnderelict on March 15, 2020

As preliminary tests show that Influenza type A can actually be slowed by methamphetamine use, has any testing been attempted along the same clinical lines with Methamphetamine? I am prescribed desoxyn for ADHD and I am concerned about any issues this may cause with my use of my prescription and the interaction with the corona virus. Thank you!

More research is needed on

Submitted by NIDA on March 16, 2020

More research is needed on this question. In the meanwhile, talk to your healthcare provider if you are experiencing concerning symptoms, and do not discontinue or change your use of any medications without following their instructions.

This seems like "creating black sheep"

Submitted by Taarna on March 15, 2020

This article did not seem helpful except maybe in helping people find reasons to hate homeless people or drug addicts- I refer you to the comment above saying that smokers expel forcefully (hahahahaha!!) which will only spread the virus further- nothing but nonsense!! These people are NOT at greater risk of passing on the disease (how far does the average person stay from homeless people or drug addicts Or smokers!?!? They're usually given a wide, wide berth anyway!) They're only more likely to suffer a more severe form of the disease. But... duh- they're also more likely to suffer from LIFE more than the average person. No need to single out a group of people. Viruses don't know the difference!!

Was this article helpful? 

Yes

No

COVID19 & POT

Submitted by Blair Anderson on March 15, 2020

No mention of the correlate to cannabis and the immunoresponse, anti-inflammatory, anti-anxiolotic effects in this suggesting a shallow examination, where cannabis being illegal has more of a play in health promotion failure, begging the question? where is the don't share spit message?

I am a 40 year old male

Submitted by Jeff on March 16, 2020

I am a 40 year old male currently prescribed methadone for opioid abuse in the U.S. I am also a smoker. This article was extremely informative and thank you for releasing it in such a timely manner. In my experience it is always better to be well informed then uninformed.

pathogenesis of covid-19

Submitted by Adnan Abdullah Saeed Al absari on March 16, 2020

hello misters...

covid-19 different from SARS for targeted receptor. if the covid-19 targeted toward ACE2 why we not observing any oral manifestation for like reaction during incubation periods of the virus? although the oral mucosa enriched by ACE2 !

the targeted receptor represented by the phospholipids / protien links ,,of surfictant (DPPC) SP-A, SP-B, SP-C, SP-D after breaking of those links the virus having easy pathway for enterance with assistance of Zn ions via thinned cell membranes of alveolar cells .

Was this article helpful?



MMTP

Yes

No

Submitted by peter moinichen on March 16, 2020

what is being done to loosen take-home restrictions for patients on MAT? Acknowledging that there may be a problem fails to present adequate solutions. they talk, we die.

Guidance to opioid treatment programs

Submitted by NIDA on March 17, 2020

On 3/16/20, the Substance Abuse and Mental Health Services Administration issued [guidance](#) to opioid treatment programs to provide take-home medication for longer durations for many patients during the pandemic, reducing the need for frequent clinic visits.

Still no answer for us who rely on MAT...

Submitted by Jen on March 17, 2020

Medication Assisted Treatment (MAT) whether it is methadone, suboxone, vivitol, or subutex...some of us rely on these daily dose medications to survive. It has been proven that cutting someone who is on a Federally funded and prescribed medication for outpatient treatment is DANGEROUS AND DEADLY. I am 31 and relatively healthy, but my mother is 67 years old, had battled cancer 5x, and suffers from chronic kidney disease. I am taking safety precautions and proper hand washing, but still it is terrifying the risk I am taking as I am required to go into the methadone clinic daily with questions and concerns....hoping for some take homes, or the ability to not have to put my mother at risk by coming in 6 days a week. The only answer I get is "methadone is federally funded, it won't stop" that's all well and good...but isn't there something I can do? And being just one of the 4000 patients at my clinic, I know I can't be the only one with a at risk person at home. What steps will be taken to change this everyday risk, and when? I pray day and night that my mother will not have to be the one to die, for an example to be made and a medically necessary need for change to happen, NOW! PLEASE HELP!



Was this article helpful?

Guidance to opioid treatment programs

Yes

No

Submitted by NIDA on March 17, 2020

On 3/16/20, the Substance Abuse and Mental Health Services Administration issued [guidance](#) to opioid treatment programs to provide take-home medication for longer durations for many patients during the pandemic, reducing the need for frequent clinic visits.

Substance Abuse

Submitted by Jay on March 17, 2020

The main issue in regards to substance abuse and use is that by using mind altering chemicals or alcohol, the bodies immune system is weakened. The sharing of any drug related equipment along with a suppressed immune sytem could deff spread quite quickly. Not to mention that it will be hard for any ED dept to determine symptoms due to withdrawal of any mind altering chemical, or while under the influence as addicts do not know their bodies like a sober person would. It will take the Detox facilities and treatment centers by storm if not taken seriously enough, hopefully screening will be utilized and helpful with these facilities as well. Not to mention the importance of hygiene and the lack there of by those who may be using or abusing their bodies. I would hope that these test kits are coming quick so that these certain facilities can properly go about helping people. Thanks all and may you stay healthy!

SUD OP AND RESIDENTIAL TREATMENT GROUPS

Submitted by James Johnson Jr on March 17, 2020

I'm a treatment director in Minnesota looking for guidance on facilitating group in a residential and outpatient setting. We have group sizes of often 10 to 16 period it will be a huge burden to try to staff to do smaller groups and provide the same level of care especially in a residential programs is there any specific guidance on this period.

Sharing this with my clients

Submitted by Jason Cityy, LCSW, LCASA on March 17, 2020

Was this article helpful?

Yes

No



Thank you for sharing this so quickly, great information, sharing this with my smoking clients.

Outpatient Substance Abuse Treatment

Submitted by RE on March 17, 2020

I am a counselor at an outpatient substance abuse treatment center in a state that has over 30 cases and 1 death. As of now, we have no access or plans in place for telehealth / telecounseling services at our center and are continuing to operate "business as usual." It seems like an enormous risk to continue our outpatient counseling groups as much of our clients fall into this vulnerable category (pre-existing conditions, low income, limited access to healthcare, etc). I wonder, now, if outpatient alcohol and drug counseling should be considered "medically necessary" as our director described it, or if we should be protecting the health of our clients by postponing group services. I want to support my clients in their recovery journey without putting them at what seems to be substantial risk.

Find Help Near You

The following website can help you find substance abuse or other mental health services in your area: www.samhsa.gov/find-treatment. If you are in an emergency situation, people at this toll-free, 24-hour hotline can help you get through this difficult time: [1-800-273-TALK](tel:1-800-273-TALK). Or click on: www.suicidepreventionlifeline.org. We also have [step by step guides](#) on what to do to help yourself, a friend or a family member on our Treatment page.

Add new comment

Your name

Was this article helpful?



Subject

	Yes	No
--	-----	----

Comment *

You have 250 word(s) left.

I'm not a robot reCAPTCHA
[Privacy](#) - [Terms](#)

Save

Preview

Was this article helpful? 

Yes

No