

COVID-19 Impact on the Disability Community

2022 Literature Review

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After two years of living through a global pandemic, many Americans feel that it is behind them. Masks have come off, social distancing is a thing of the past, and indoor spaces are back to operating at full capacity. Though the general population might not feel the need to continue taking precautions, many in the disability community feel differently. The disability community has been disproportionately affected by COVID-19 and as layers of protection are fading away, the community feels it is at more risk now, than they were at the beginning of the pandemic.

Throughout the COVID-19 pandemic, researchers have tried to track how this virus affected different demographics, including people with disabilities. In this report you might see some conflicting accounts. It is important to note that data from research are obtained differently and that the researchers are not always looking at the same populations, and the data has been analyzed during different points in the pandemic. You will also see terms like “case fatality rate” and “mortality rate.” These are not the same thing. The *case fatality rate* is the proportion of those infected who will die, while the *mortality rate* relates to the total population. (For example, in a country with a population of 100 people: Let's assume 20 people become infected and from that 20, one person dies. The case fatality rate would be 5%, and the mortality rate would be 1%.)

With all that in mind, the research to date demonstrates a significant and undeniable relationship between intellectual or developmental disability (I/DD) and the likelihood of profound or even fatal outcomes from contracting COVID-19. Results of publicly available research on the I/DD community show us the following:

In 2020, Truk, M., et al. wanted to examine the case fatality trends of COVID-19 for people with intellectual and developmental disabilities using an electronic database called TriNetX and looking at a total of 30,282 people. This data looked at COVID cases through May 14, 2020, and found that the overall fatality rate of those with

I/DD and those without were similar (5.1% vs. 5.4%). However, when this data is examined by age, a wide disparity is evident in COVID fatality rates. For those 17 and younger, the fatality rate for a person with I/DD was 1.6% vs. 0.01% without I/DD. For ages 18-74, the fatality rate was 4.5% vs. 2.7% without I/DD. For those 75 and older, the fatality rate was 21.1% vs. 20.7%. What this research shows is that the fatality rate for people with I/DD goes up as the age drops, suggesting that younger people with I/DD are more vulnerable to fatality from COVID than their peers.

In January 2021, Henderson, A., et al. studied infection and mortality rates of people within Scotland's population between January and August 2020. They found that adults with intellectual disabilities were almost twice as likely to become infected with COVID-19, 2.3 times as likely to have severe infection, 2.3 times as likely to have COVID mortality, and had 25% higher COVID case fatality. After standardizing for age, sex, and neighborhood deprivation (high unemployment, low education, low paying jobs), people with intellectual disabilities were 3.2 times more at risk of COVID-19 mortality and 2.6 times more at risk of severe infection relative to those with no intellectual disabilities.

In March 2021, the same question was asked by researchers in the United States, and a different database (Vizient Clinical Database/Resource Manager) was used. This enabled researchers to look at a larger sample set, studying 64,858,490 patients across 547 health-care organizations. What they found was that "having an intellectual disability was the strongest risk factor for presenting with a COVID-19 diagnosis and the strongest independent risk factor other than age for COVID-19 mortality." Patients with I/DD were more likely to contract COVID (3.1% vs. 0.9%), be hospitalized (63.1% vs. 29.1%), have a stay in the ICU (14.5% vs. 6.3%), and/or die of COVID-19 (8.2% vs. 3.8%). In fact, patients having I/DD had greater odds of mortality than patients with heart failure, kidney disease, or lung disease. And these numbers may not even reflect the overall severity of the impact of COVID-19 on the I/DD community because people who live in institutional settings were excluded from the study (Gleason, J., et al. 2021).

In June 2021, Lunskey, Y., et al. looked at the hospitalization rate and mortality rate in Canada for people with I/DD. They found that people with I/DD were twice as likely to be hospitalized and to die from COVID-19 than their peers. When broken down by age, they found "adults under age 55, and adults 55 to 64 were 4.6 times as likely and 2.5 times as likely," respectively, to be hospitalized as their typically developing peers. In terms of mortality, they found that people with I/DD under 55 were 16.77

times more likely to die than their counterparts without I/DD. Those 55 to 64 with I/DD were 9.24 times more likely to die than their peers.

Among certain I/DD diagnoses, the severity of outcomes related to contracting COVID was especially pronounced. People with epilepsy and Down syndrome were among those at greatest risk of death from the virus.

Epilepsy is a neurological disorder in which brain activity becomes abnormal, resulting in seizures. Since vaccines can bring about fevers, and fevers can lead to seizures, many caregivers for people with epilepsy expressed concern over getting the COVID-19 vaccine for their loved ones. Yet based on whole country analysis of the risks of mortality associated with epileptics, more may need to be done to increase vaccination rates among this population. A study conducted in Hungary looked at the mortality rate of COVID-19 and patients with epilepsy. Researchers found that 9.3% of those who died under 50 had epilepsy (Horvath, R., et al. 2021). A whole country analysis was conducted in the UK and Ireland between March 13, 2020, and January 23, 2021, to find associations between risk factors and comorbidities found in COVID-19 deaths. The results showed that people with epilepsy were overrepresented (22.5%) and this diagnosis alone contributed to significantly higher premature mortality (Perera, B., et al. 2020).

Down syndrome is another disability that has been studied throughout the pandemic and early on showed increased rates of mortality. Down syndrome is a genetic disorder caused by a third copy of chromosome 21 and often results in intellectual disability. The same UK and Ireland study mentioned above found that one-third of individuals with I/DD who died had Down syndrome (Perera, B., et al. 2020). Lunskey, Y., et al. researched the mortality rates for people with and without intellectual disabilities in Ontario, Canada, from January 15, 2020, to January 10, 2021. They discovered that for adults with Down syndrome the mortality rates were 6.59 times higher than for those without I/DD.

The COVID-19 vaccine is now available to children 6 months to 5 years of age. A comprehensive study on children focused on those who had been ventilated after being diagnosed with COVID-19. Of the 108 children who were ventilated, only 48 had an in-depth medical history. Of those ventilated, 75% had comorbidities defined as cardiac disease, respiratory disease, and obesity (Williams, N., et al. 2020). Intubation is a procedure that's used when you can't breathe on your own. Your doctor puts a tube down your throat and into your windpipe to make it easier to get

air into and out of your lungs. A machine called a ventilator pumps in air with extra oxygen.

On July 17, 2022, the CDC also released data regarding the occurrence of and hospitalization rates of COVID-19 amongst Medicare recipients in the U.S. from Jan. 1, 2021, to Nov. 20, 2021. This data shows there was a higher rate of COVID occurrence and hospitalization in those who were disability-eligible over those who were age-eligible, further highlighting the need for greater levels of vaccination and COVID-19 prevention strategies among people with disabilities (Yan Yuan, MS., et al. 2022).

This literature review has shown how the disability community has been disproportionately affected by the COVID-19 pandemic. As restrictions are lifted and as life resumes for many, those in the disability community remain at higher risk of hospitalization and death due to their underlying health conditions. Our hope is that this paper brings greater awareness regarding the risks the disability community faces and the importance of taking preventative steps to protect them.

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