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Literature Review: People with Intellectual Disabilities Have Increased Risk for Severe COVID-19 Illness

Over 500,000 people in the United States have died of coronavirus disease COVID-19 since the onset of the ongoing global pandemic in late 2019. This public health crisis has disproportionately affected certain populations, including people with intellectual disabilities (ID), turning it into a health equity crisis. The availability of COVID-19 vaccines holds promise for stemming this pandemic; however, limited vaccine supplies in a context of high demand necessitate difficult decisions about how to allocate these scarce resources.

One of the guiding principles in these difficult decisions is the prioritization of populations at greater risk for severe COVID-19 illness and death. The following pages provide a summary of the robust scientific literature demonstrating that people with ID are at increased risk of severe illness from the virus that causes COVID-19. **This literature demonstrates the scientific basis and equitable imperative for [STATE] to designate people with IDD as a population at increased risk of severe illness from the virus, in order to help promote this population’s priority access to the COVID-19 vaccines.**

1. *People with ID die of COVID-19-related causes at higher rates and a younger age than the general population and at higher rates to populations the CDC has already recognized as high-risk for severe illness from COVID-19*

COVID-19 mortality rates for people with ID vary by state, as does the magnitude of the disparity between people with ID and the general population. Despite this variation in rates and magnitude, the data across a broad range of studies indicates a death rate 2-4 times that of the general population [1, 2, 3, 4]. The largest study to date includes almost 65 million patients and over 128,000 with intellectual disability from the Vizient data set [5]. This study indicates that the adjusted odds of COVID-19 death for people with ID are almost 6 times that of people without ID [5], confirming that people with ID are at greater risk for more severe illness from the virus that causes COVID-19, including death. Across eight states, an analysis of Medicaid data indicated that 12% of people with intellectual and developmental disabilities died from reasons related to COVID-19 compared to 6.7% of those in the general public of those states [2]. An analysis examining data from 12 states found that individuals with intellectual and developmental disabilities were, on average,

2.5 times more likely to die from COVID-19 mpared to the wider U.S. population [3]. Disparities in some states such as Virginia are particularly large, with death rates four times that of the general population [3]. An analysis of almost 500,000 individuals with private insurance claims across the U.S. indicated that those with intellectual and developmental disabilities were over three times more likely to die from COVID-19, adjusting for age and gender [4].

In addition to 2-3 times higher mortality rates than the general population, non-profit organization FAIR Health found people with intellectual and developmental disabilities died at a higher rate than people with other high risk factors for COVID-19, such as leukemia, Alzheimer’s, and heart disease [4].

At the end of 2020, the CDC added people with Down syndrome to its list of people with certain medical conditions at increased risk of severe illness from the virus that causes COVID-19. Those with Down syndrome who die of COVID-19 are, on average, younger than those in the general population without Down syndrome [13].

In these regards, the realities for people with ID more generally are similar to those of people with Down syndrome. Even prior to COVID-19, people with intellectual and developmental disabilities were more likely than the general population to develop pneumonia [6, 7]. Indeed, pneumonia is considered a severe complication of COVID-19. Furthermore, COVID-19 appears to impact younger people with intellectual and developmental disabilities more significantly in terms of cases, severity, and mortality [1, 4]. An analysis of TriNetX data (electronic health records sourced from 30 countries) found distinct differences in COVID-19 trends related to age among people with intellectual and developmental disabilities, with a higher concentration of COVID-19 cases in younger people compared to the general public [1]. The highest death rates from COVID-19 among people with intellectual and developmental disabilities were in the 18-74 age bracket, with around 4.5% of those studied succumbing to the illness; only among individuals 75+ in the general population was the death rate so high [1]. Similarly, the rates of death from COVID-19 in the Vizient data were 8.2%, significantly higher than without ID at 3.9% [5].

1. *People with ID have a high burden of comorbidities that put them at higher risk for severe COVID-19 illness. They also have support needs that make it difficult for them to social distance.*

The reasons that people with ID are particularly vulnerable to experiencing severe COVID-19 illness and death are not yet well understood in their entirety [8]. People with ID are more likely to have underlying medical conditions that scientific research has identified as independently conferring increased risk for severe illness from COVID-19. These include hereditary and cardiac conditions and inborn errors of metabolisms. Obesity rates among people with ID are higher than the general population, and obesity a condition that raises the likelihood of experiencing severe forms of infection with COVID-19 [8]. However, literature also indicates that controlling for comorbidity, ID continues to confer significant risk of death [5].

Social distancing is often impossible for people with ID living in certain congregate settings, such as group homes or assisted living, as well as those who require care from family members, aides, therapists or teachers [1]. People with ID may have difficulty wearing a mask or maintaining social distance, or even understanding why the precautions are needed [1]. Several studies have shown that the infection and mortality rates for people with intellectual and developmental disabilities living in congregate settings are higher than those living alone and the general population [8,9,10,11]. These risks were compounded when there were more people living in the residence, and the case-fatality rate was substantially higher for those living in settings that provide skilled nursing care, likely indicating a higher prevalence of pre-existing conditions [8].

Even for those with ID who not live in congregate settings, many require direct support to engage effectively in their day-to-day life where physical proximity to caregivers others is required to bridge gaps in intellectual and communication abilities [12].

There remains much to learn about COVID-19 and scientific knowledge about the virus and the illness it causes is growing every day. Nevertheless, the current literature provides clear and convincing evidence that people with ID are at significantly increased risk of severe COVID-19 illness and death. This designation is crucial to helping ensure that people with ID gain priority access to COVID-19 vaccines and avoid further disproportionate deaths in the pandemic’s health equity crisis for this population. **On these grounds, [STATE] should expressly prioritize people with IDD for access to COVID-19 vaccines.**

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