

# COVID-19's Impact on the Health and Healthcare of People with Disabilities

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# Project Overview

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- Title: COVID-19's Impact on the Health and Healthcare of People with Disabilities
- Dataset: National Survey on Health and Disability, 2021-2023.
- Methodology: Descriptive analyses using STATA on a broad variety of COVID-related outcome measures, with subpopulation analyses as sample size permits.



# Project Team

We are from the Department of Community and Behavioral Health, part of the Elson S. Floyd College of Medicine at Washington State University in Spokane, Washington.

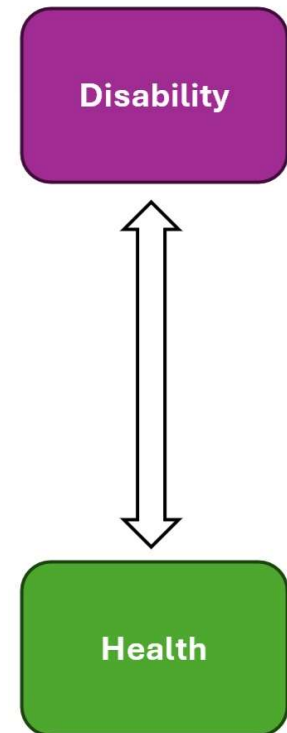
Our team includes:

- Dr. Liz Wood (PI)
- Dr. Jae Kennedy (co-I)
- Dr. Marissa Diaz (post-doc)
- Dr. Weili Yuan (post-doc)

# Background

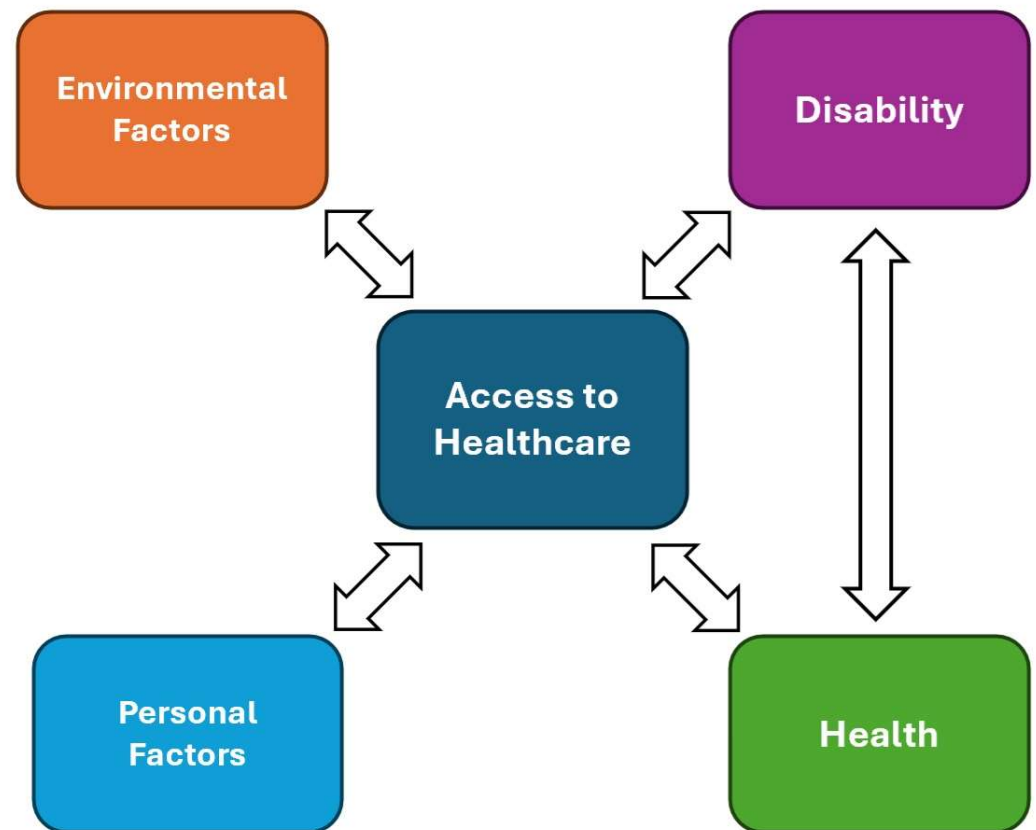
We still make many public health and healthcare system decisions based on thinking about disability as primarily or exclusively a dimension of health. This includes some decisions during the pandemic.

Although disability and health are closely linked, the ways in which they influence each other are more complex than this approach reflects. Disability is a personal characteristic that can affect an individual's health through many pathways, both direct and indirect. When we miss that complexity, we miss many opportunities to protect and improve the health of people with disabilities.



In 2015, authors Mahmoudi, Meade, and Lee published a conceptual framework illustrating the intersection of disability and healthcare disparities. This framework positions disability as a personal characteristic that interacts with an individual's environment to affect their health in various complex ways. To the right is a simplified version of this model that demonstrates the most relevant relationships for the purposes of this research:

1. The relationship between environmental factors and access to healthcare.
2. The relationship between disability and access to healthcare.
3. The relationship between personal factors and access to healthcare.
4. The relationship between access to healthcare and health.



This version is adapted and simplified for presentation purposes. Please see Meade, M. A, Lee, Mahmoudi, E., & Lee, S.-Y. (2015). The intersection of disability and healthcare disparities: a conceptual framework. *Disability & Rehabilitation*, 37(7), 632-641 for a more in-depth and thorough discussion of their model

# Direct Health Impacts of COVID on People with Disabilities

The first step in our project was simply to document the reported direct health impacts of COVID on people with disabilities. Keep in mind for these analyses that they only reflect people who were well enough to participate in the NSHD, so we are probably undercounting on these measures to some degree.

We examined:

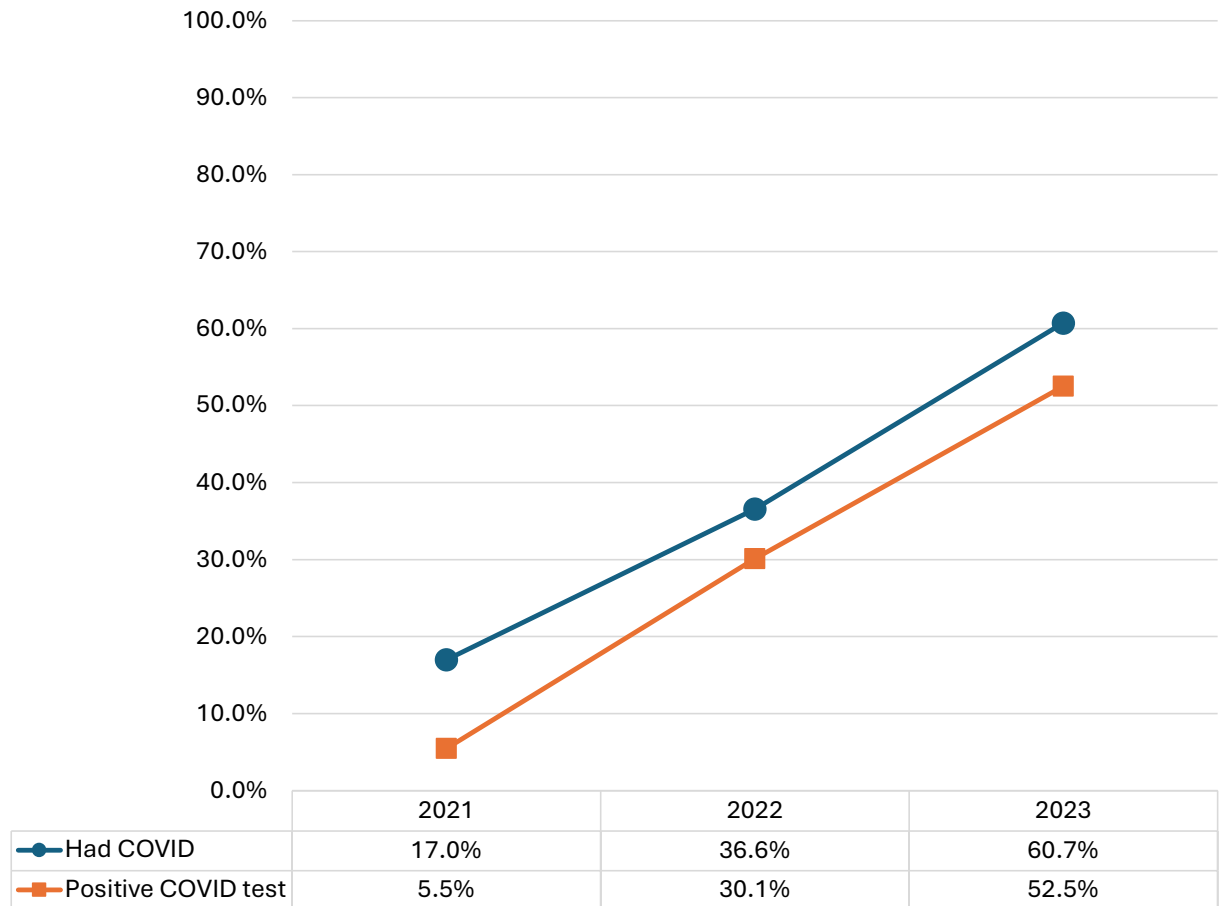
- Having had COVID (either diagnosed or believe you have had it)
- Having had a positive COVID test
- COVID symptom severity (2021-2022 only)
- COVID hospitalization rates (2021-2022 only)



By the time of the third survey wave (late 2023/early 2024), 60.7% of people with disabilities said they either had been diagnosed with COVID, or they believed that they had had COVID at least once. More than half (52.5%) reported having a positive COVID test.

In 2021, 0.73% of the sample reported having been hospitalized for COVID; in 2022, 2.6% of the sample reported having been hospitalized for COVID (not shown on chart).

Rates of having COVID or having a positive COVID test among adults with disabilities, 2021-2023



# COVID Vaccinations

- By 2023, 93% of people with disabilities had received at least one dose of the COVID-19 vaccine.
- 45% reported encountering some kind of barrier to obtaining the vaccine. (2022 sample only)
- The most commonly-cited vaccination barrier overall is “Trouble getting to the vaccination site.”
- The most commonly-cited barrier among unvaccinated respondents is “I choose not to get the vaccine.”





# Impacts of COVID on Access to Healthcare

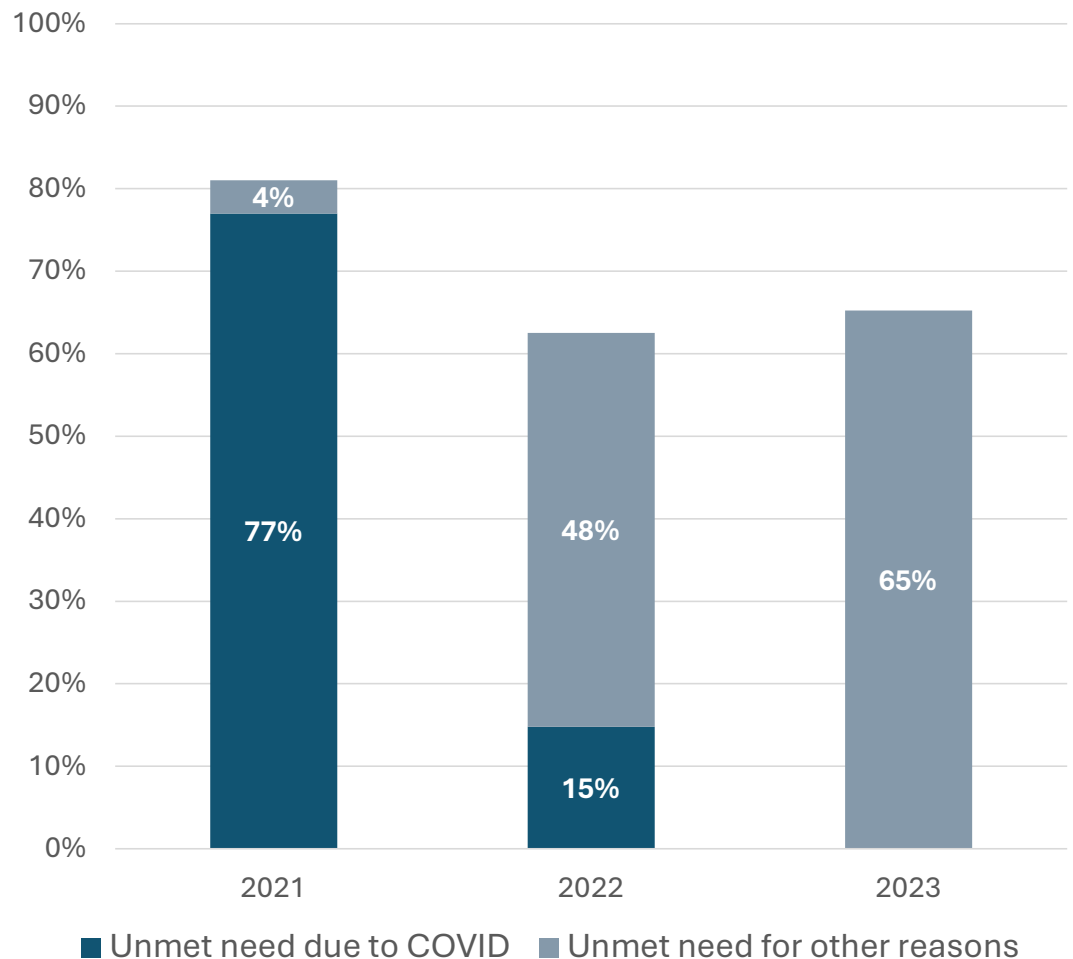
In this phase of the project, we looked at access to healthcare during the 2021-2023 timeframe. We examined:

- All-cause unmet need for healthcare, overall and by service type.
- COVID-driven unmet need for healthcare, overall and by service type.

In 2021, 81% of respondents reported having to delay or skip needed healthcare since the pandemic began in March of 2020. 77% of respondents said that they experienced unmet need due to COVID, while 4% said that they experienced unmet need due to transportation barriers, cost, or other issues.

In 2022, 63% of respondents reported not obtaining needed healthcare, but COVID no longer was the primary driver of unmet healthcare need. Only 15% of respondents said that they experienced unmet need due to COVID, while 48% of respondents experienced unmet need for other reasons.

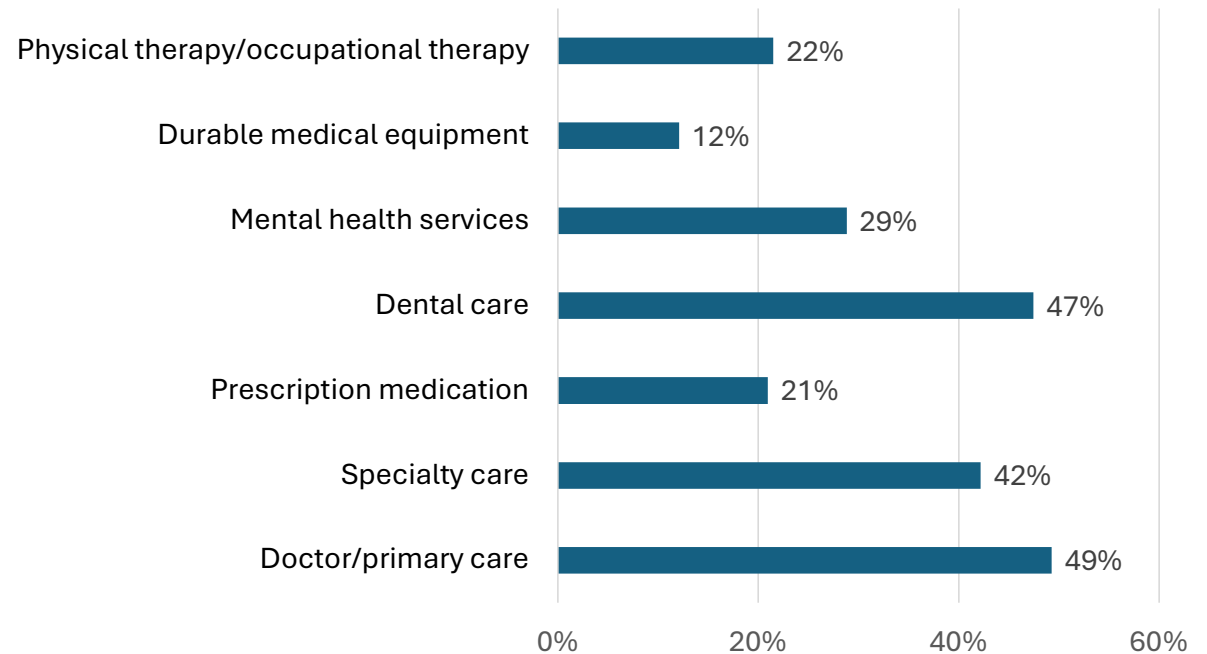
### Unmet Healthcare Need Attributed to COVID and Other Reasons, 2021-2023



# COVID-Related Unmet Need by Service Type

Nearly half of people with disabilities (49%) in 2021 were not able to receive necessary primary care due to COVID. Almost as many (47%) were unable to receive needed dental treatment.

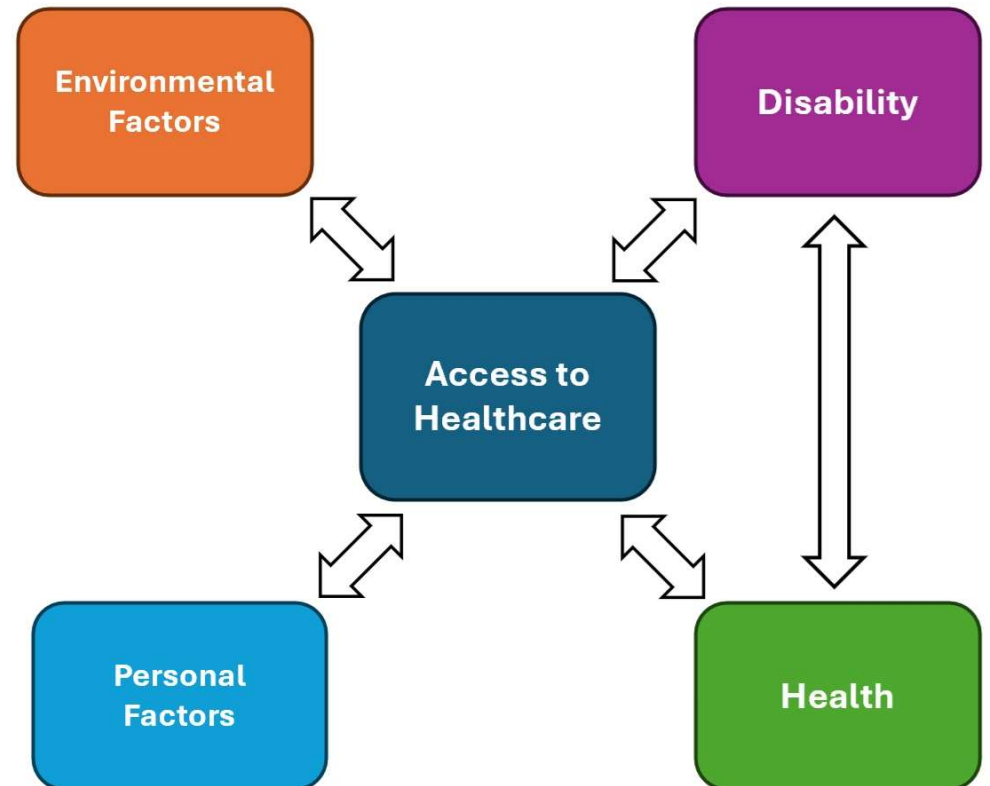
Fewer people with disabilities reported access barriers to prescription medication (21%) and durable medical equipment (12%).



To revisit this model from earlier, we have now seen evidence that *environmental factors (i.e., the COVID pandemic)* affect access to healthcare.

The next step is to show how access to healthcare affects health for people with disabilities.

(Personal factors are also important in this model. Our analyses show that these factors can make a significant difference in access to healthcare for people with disabilities. However, in the interest of time, we will not dig into those sub-population analyses today.)



# Impacts of All-Cause and COVID-Driven Unmet Healthcare Need on Health, Function, and Healthcare Utilization

NSHD respondents who reported unmet healthcare need were asked whether they had experienced health, function, or healthcare utilization impacts as a result.

While we have looked at all-cause unmet need (2021-2023) and COVID-driven unmet need (2021-2022), for this presentation, we will focus specifically on the respondents in 2021 who reported COVID-driven unmet need.



## Impacts of COVID-Driven Unmet Healthcare Need

**Among people who were prevented by COVID from getting necessary healthcare, 40% had some kind of negative health or function outcome.**

- 41% reported that their physical health got worse.
- 45% reported that their mental health got worse.
- 47% reported increased pain.
- 30% reported a loss of function (e.g. decreased range of motion, increased spasticity).
- 15% missed work.





## Impacts of COVID-Driven Unmet Healthcare Need

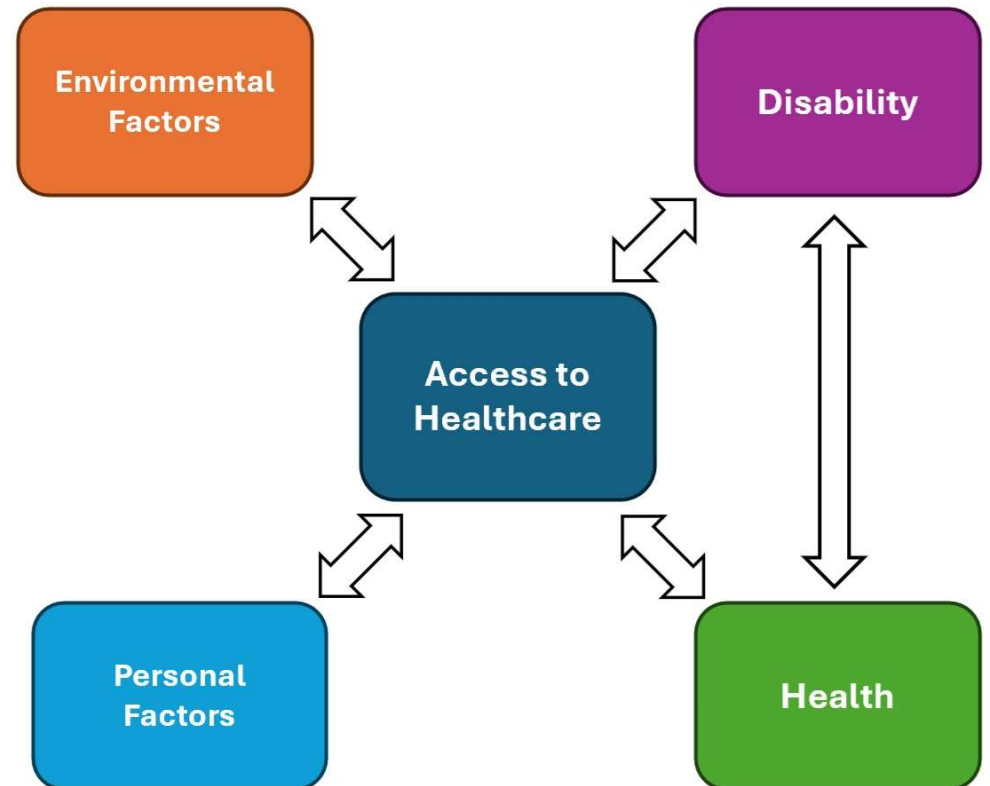
We also looked at the healthcare utilization of these respondents. **Among people who were prevented by COVID from getting necessary healthcare, 32% used some kind of additional healthcare services as a result.**

- 17% needed to take an additional prescription.
- 10% had to visit the emergency department.
- 5% needed a new surgery or surgeries.
- 5% needed to be hospitalized.

In other words,

1. ***Environmental and personal factors*** affect ***access to care*** for people with disabilities.
2. ***Access to care*** affects ***health*** for people with disabilities.

Specifically, our results show that the healthcare access problems caused by the pandemic had a significant impact on the health, function, and healthcare utilization of people with disabilities.

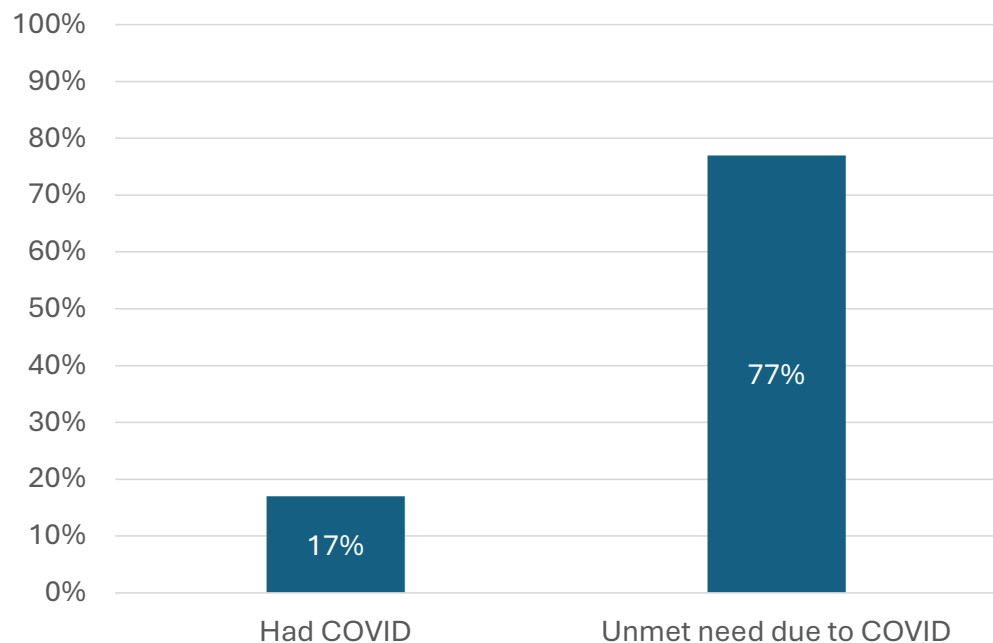


# Direct and Indirect Impacts of COVID

To put these impacts in perspective, consider the following. Between March 2020 and their survey participation in 2021:

- 17% of people with disabilities had COVID.
- 77% of people with disabilities had unmet need due to COVID.

In this sample, people with disabilities were 4.5x more likely to experience unmet need due to COVID than to experience COVID.

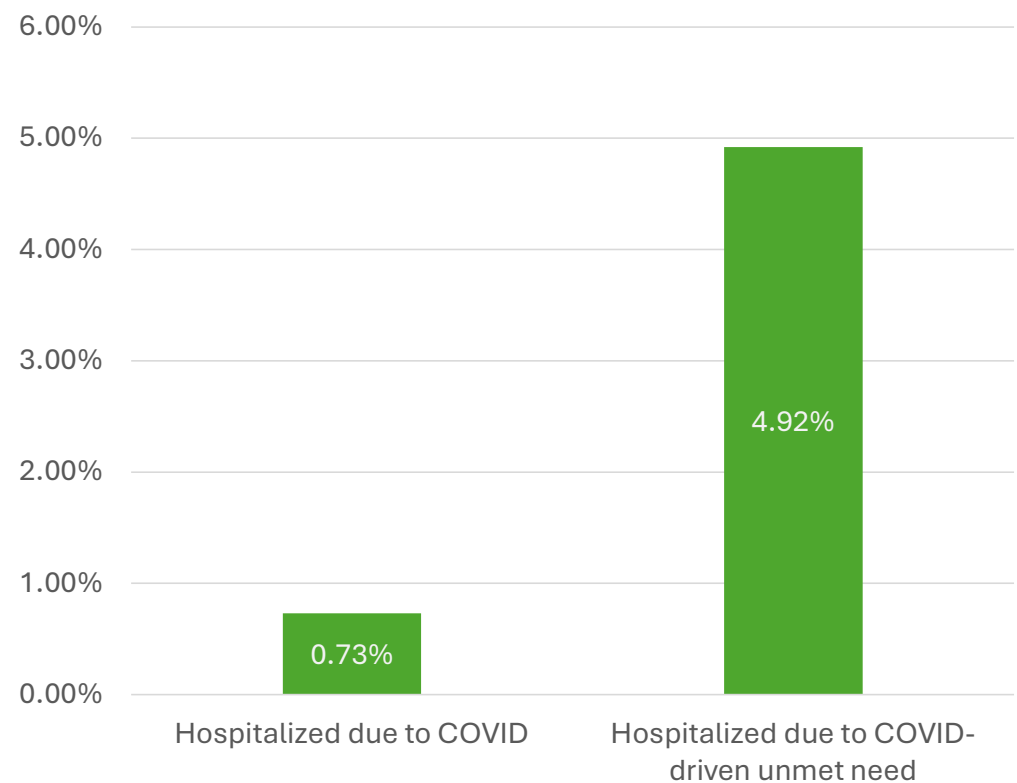


# Direct and Indirect Impacts of COVID

Between March 2020 and their survey participation in 2021:

- Less than 1% of people with disabilities were hospitalized due to COVID.\*
- Nearly 5% of people with disabilities were hospitalized due to COVID-driven unmet need.

\*Keeping in mind that this sample does not include those who were most severely affected by COVID and unable to participate in the survey.



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In 2021, out of every **10** people with disabilities...

- 3 had their physical health get worse
- 3 had their mental health get worse
- 4 experienced more pain
- 2 lost function
- 1 missed work

...because of COVID-driven unmet healthcare need.





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In 2021, for every **100** people with disabilities, COVID-driven unmet need caused:

- 13 additional prescriptions
- 4 additional surgeries
- 4 additional hospitalizations
- 8 additional emergency department visits





# Key takeaways

1. These results indicate that the COVID-19 pandemic affected the health of people with disabilities both through its direct consequences as a disease and indirectly through its effect on access to healthcare. Disrupted access to healthcare caused serious consequences for people with disabilities in terms of their health, function, and healthcare utilization.
2. Disrupted healthcare access for people with disabilities has major negative impacts on population health and healthcare system demand. This is an issue of concern for disability advocates and for the system overall.
3. Health system planning, whether during normal operations or in public health emergencies, should account for disability as a personal characteristic that affects an individual's health through multiple pathways, both direct and indirect.

# Contact Info

- The National Survey on Health and Disability:  
<https://ihdps.ku.edu/nshd>
  - **The NSHD data is available at no cost** by contacting the NSHD administrator, Noelle Kurth ([pixie@ku.edu](mailto:pixie@ku.edu)) and completing a brief data use agreement. Participation on the NSHD Data Analysis Team is encouraged by all who request NSHD data.
- You can reach me at [liz.wood@wsu.edu](mailto:liz.wood@wsu.edu)