
Infectious-Diseases-Related Emergency Department Visits among US Adults with Intellectual and Developmental Disabilities

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Data on visits to emergency departments in the United States indicate that adults with intellectual and developmental disabilities (IDD) have significantly higher risks than adults without IDD of visiting emergency departments and of subsequently being hospitalized and dying. This brief discusses these disparities and suggests the need for interventions that focus on improving access to healthcare, increasing the awareness of risks, and promoting health for people with IDD.

Introduction

This brief presents findings from an analysis of data on national emergency-department visits pertaining to the risk of infectious diseases and health outcomes among adults with intellectual and developmental disabilities (IDD) in the United States. We show that IDD adults have significantly higher risk of infectious-diseases-related emergency department visits and of subsequent hospitalization and death compared to non-IDD adults. These findings highlight the necessity of developing specific and targeted

interventions for the IDD population, their families, and their care providers in order to reduce the burden of infectious diseases among people with IDD.

Background

Emerging evidence on the disproportionate risk of COVID-19 infection and mortality among people with intellectual and developmental disabilities suggests a general and underlying risk of infectious diseases (IDs) in this population.¹ According to the findings of a recent study, people with IDD are among the groups at highest risk of being infected with COVID-19 and, when they become infected, they are more likely to die than any group.² There was little information on the risk of other infectious diseases and health outcomes among people with IDD prior to the pandemic.

Methods

The Nationwide Emergency Department Sample (NEDS), part of the Healthcare Cost and Utilization Project (HCUP), is the largest database on emergency department (ED) visits in the United States.³ NEDS contains data on approximately 33 million ED visits each year. A sample of ED visits involving IDD adults was created and matched with non-IDD adults using the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) codes. The dependent variables were infectious-diseases-related ED visits, hospitalization, and mortality, which were also created using the ICD-10-CM codes.

The figure below shows the risks of infectious-diseases-related ED visits, hospitalization, and death between the IDD sample and the non-IDD sample. As seen, the risk of visiting an ED with an infectious disease is significantly higher among IDD adults compared to non-IDD adults. After presenting at an ED with an infectious-disease diagnosis, IDD adults have a higher risk of

hospital admission and death compared to non-IDD adults. The magnitude of difference in risk of ED visits, hospitalization, and mortality between IDD and non-IDD adults in the women's sample is particularly high compared to that between IDD and non-IDD adults in the men's sample.

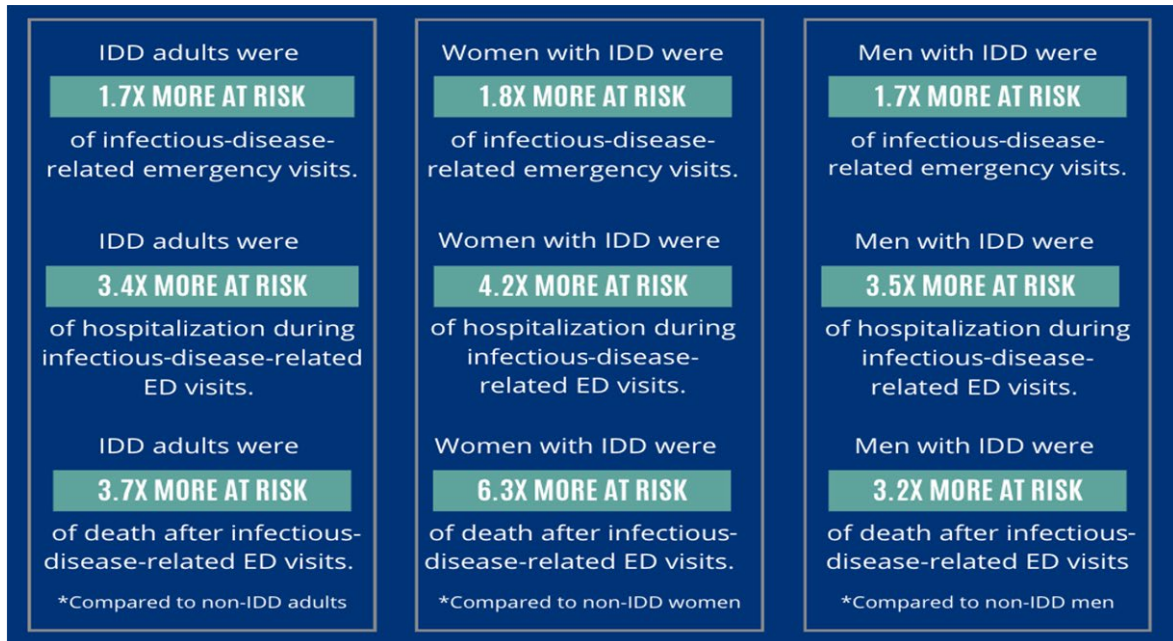


Figure 1. Risk of infectious-diseases-related ED visit, hospitalization, and mortality among IDD men and women. See Appendix for [accessible version](#).

There are several possible explanations for these findings, but poor access to medical and preventative care, higher rates of residence in long-term care facilities, higher rates of trauma and injury, and presence of chronic diseases and other health conditions all are factors that could contribute to making the IDD population susceptible to infectious diseases.

Conclusion

Adults with IDD are more likely than non-IDD adults to visit emergency departments because of infectious diseases. They are also more likely to be hospitalized and to die when they do present with an infectious disease at an ED. These disparities highlight the need for a concerted and targeted intervention that includes improved access to preventative healthcare,

increased awareness of risks, and promotion of health for people with intellectual and developmental disabilities. At the systems level, health surveillance and healthcare coordination in the form of medical homes could result in early detection and improve the uptake of appropriate preventive healthcare services.⁴

Credit

Adapted from Zandam, H., Akobirshoev, I., Li, F., Mitra, M., & Ne’eman, A. (2021). Infectious diseases-related emergency department visits among non-elderly adults with intellectual and developmental disabilities in the United States. *Population Health Management*, 16(5): e0251183. <https://doi.org/10.1371/journal.pone.0251183>

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Appendix

Risk of infectious-diseases-related emergency department visit, hospitalization, and mortality among IDD men and women: Accessible version

Compared to non-IDD adults, IDD adults were:

- 1.7 times more at risk of infectious-disease-related emergency visits;
- 3.4 times more at risk of hospitalization during infectious-disease-related emergency-department visits; and

- 3.7 times more at risk of death after infectious-disease-related emergency department visits.

Compared to non-IDD women, women with IDD were:

- 1.8 times more at risk of infectious-disease-related emergency visits;
- 4.2 times more at risk of hospitalization during infectious-disease-related emergency-department visits; and
- 6.3 times more at risk of death after infectious-disease-related emergency department visits.

Compared to non-IDD men, men with IDD were:

- 1.7 times more at risk of infectious-disease-related emergency visits;
- 3.5 times more at risk of hospitalization during infectious-disease-related emergency-department visits; and
- 3.2 times more at risk of death after infectious-disease-related emergency department visits.