

Q&A: The rising rates of immunosuppression among US adults

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Early in the COVID-19 pandemic, as it became clear that people with suppressed immune systems were particularly vulnerable to the worst of the virus, public health officials prioritized their protection. Leaders

presented stay-at-home orders and masking requirements as measures to prevent the virus from spreading to high-risk individuals. And when vaccines became available, many governments placed immunocompromised people near the front of the line.

All the while, [public health officials](#) believed only about 3% of the American population was immunocompromised.

New research from the University of Washington suggests that number may have been a drastic undercount. The study, [published](#) in the *Journal of the American Medical Association*, places the prevalence of immunosuppression at around 6.6% of American adults—more than twice as high as previously understood. That rise could have broad implications for how we navigate the late stages of COVID-19 and prepare for future pandemics.

UW News spoke with co-author Melissa Martinson, a UW associate professor of social work, about the reasons behind the rise and how public health officials can better serve this growing population.

Immunosuppression and the experiences of immunocompromised people have become more visible in recent years, with the COVID-19 pandemic and our collective attempts to slow its spread. How has that added visibility affected people's experiences?

The COVID-19 [pandemic](#) really brought the experiences of immunosuppressed (more commonly called immunocompromised) people to the public attention, and the voices of this population and other medically vulnerable people were important to how people interacted in

their communities in the early days of the pandemic.

Early in the pandemic, public health guidance was focused on protecting medically vulnerable people. Four years on, that guidance has changed, and most folks are engaging in activities similarly to before the pandemic.

However, for some immunocompromised people, the lack of community protections today despite their continued risk of contracting COVID-19, can be an isolating experience.

You set out to find a better estimate of the prevalence of immunosuppression nationwide. Why is a more accurate number important?

We were surprised by reports in the popular media that said about 3% of American adults were immunocompromised. Much of my research focuses on framing U.S. health in an international context, and we had seen estimates of immunocompromise prevalence in countries like the United Kingdom and Canada that were much higher than the widely reported American estimate.

Getting an updated and accurate estimate is important because immunosuppressed people are more likely to experience viral and bacterial infections, and these infections are more likely to be severe. We also now know that this population is still advised to take precautions against COVID-19 due to the higher risk of serious outcomes like hospitalization, death, and long COVID.

This is a group who also has access to public health tools like additional vaccine doses and antiviral treatment (such as Paxlovid) regardless of age, so it is important that these tools are readily available to this

population. Having an accurate estimate of the prevalence of immunosuppression can ensure that we have adequate supply of these tools.

You estimate that about 6.6% of American adults have immunosuppression, which is more than twice as high as the figure in 2013 (2.7%). That's quite the jump. What's behind it?

Unfortunately, we can't answer this question definitively with the available data. However, we know that since prevalence was last estimated, immunosuppressive therapies for autoimmune diseases have been prescribed much more frequently and more of these medications are available. It might also be that more people have a better understanding of their immunocompromised health status due to conversations with their health care providers during the COVID-19 pandemic, along with awareness from public health guidance.

We also found that the proportional increase in prevalence was almost 2.5 times between 2013 and 2021, and this increase was even higher for some subpopulations including males, people with Hispanic ethnicity, adults under 50, and older adults ages 70 to 79.

You write that the COVID-19 pandemic may have contributed to the increase of immunosuppression prevalence. One obvious possibility is that the virus itself weakened people's immune systems, but do you see any other ways in which the pandemic might have contributed to that rise?

New evidence does suggest that COVID-19 leads to an increased risk of autoimmune conditions that may result in immunosuppression either through the condition itself or medication to treat the condition. We also looked at the data available for the second half of 2020, and the rates were similar to 2021.

To us, this suggests that more people may have been informed about their immunosuppressed status in light of the COVID-19 pandemic and conversations they may have had with their health care providers due to their increased risk of serious outcomes from infection.

From a public health perspective, what changes might we need to consider making in the face of these findings? How do we help to protect a population that might be twice as large as previously thought?

It is important to note that almost 1 in 15 adults is immunosuppressed and that this population may need additional precautions in workplaces, schools and universities, and especially medical settings. Making sure that our gatherings and built environment are accessible to people who are at greater risk is something that we can all do. Measures such as ventilation, air filtration, and mask use can protect immunocompromised people in public settings.

The pandemic has been a difficult time for everyone, but this is a medically vulnerable group who is still advised to follow precautions that many people have given up at the end of the public health emergency in 2023.

Given the recent changes in COVID-19 isolation guidelines from the CDC, it is important for the public—and policymakers—to consider that between older adults and this immunosuppressed population at high risk,

it is worthwhile to use and promote tools like testing, vaccines, sick leave and staying home when ill, and use of masks or respirators to reduce virus spread to [vulnerable people](#).

More information: Melissa L. Martinson et al, Prevalence of Immunosuppression Among US Adults, *JAMA* (2024). [DOI: 10.1001/jama.2023.28019](#)

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