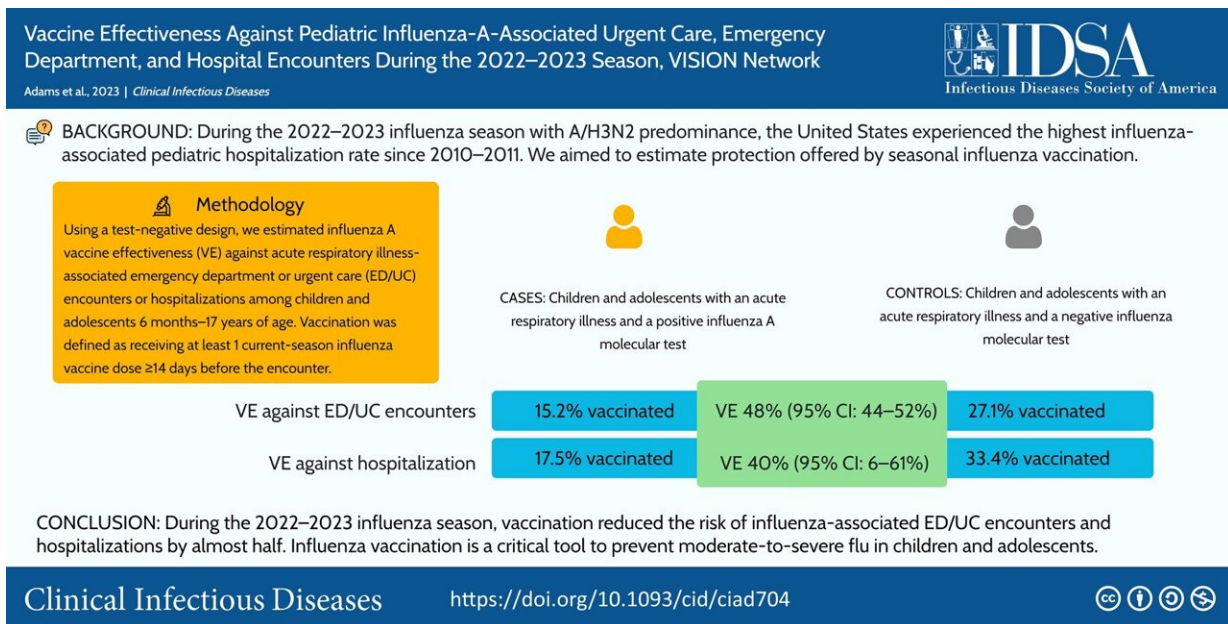


# Research finds flu vaccines were effective in 2022–2023 flu season

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Graphical Abstract. Credit: *The Journal of Infectious Diseases* (2023). DOI: 10.1093/infdis/jiad542

The prospect of the worrisome triple threat of COVID, RSV, and flu was assuaged last year by the effectiveness of flu vaccines. Two recent studies from the Centers for Disease Control and Prevention's VISION Network have found that flu vaccines were effective for all ages against both moderate and severe flu in the U.S. during the 2022-2023 flu season.

Both the pediatric and adult VISION Network studies analyzed flu-associated [emergency department](#) (E.D.)/urgent care visits (indicative of moderate disease) and hospitalization (indicative of severe disease) from October 2022 through March 2023, a flu [season](#) in which far fewer individuals were social distancing or wearing masks than during the two previous flu seasons.

Vaccination reduced the risk of flu-related E.D./urgent care visits and hospitalization for those 6 months to 17 years by almost half. For adults, regardless of age, vaccination reduced the risk of E.D. urgent care visits by almost half and reduced the risk of hospitalization by slightly more than a third.

These results led the authors of both studies to conclude that flu vaccination is likely to substantially reduce illness, death, and strain on health care resources.

"We study the effectiveness of flu and other vaccines to ensure that our processes for forecasting the most effective vaccines are working well and therefore might potentially also be translatable to other diseases as well," said Shaun Grannis, M.D., M.S., a co-author of both the pediatric and adult VISION Network studies, Regenstrief Institute vice president for data and analytics and a family practice physician.

"Given influenza's significant disease burden—for example, the H1N1 (swine) flu killed over a quarter of a million people worldwide in 2009-2010—we want to make sure that we understand virus trends as well as other factors and that we're continuing to do as well as and as much as we can to reduce the flu disease burden."

Both the pediatric and adult studies evaluated electronic health record (EHR) data from sites across three health care systems in California, Utah, Minnesota, and Wisconsin.

## **Flu vaccine effectiveness: 2022-2023 flu season for ages 6 months to 17 years**

Vaccination reduced the risk of flu-related E.D./urgent care visits (moderate disease) by 48 percent and hospitalization (severe disease) by 40 percent overall across ages 6 months to 17 years. Broken down by age, risk reduction was greater for those aged 6 months to 4 years than for [older children](#) and adolescents.

### **Ages 6 months to four years**

- Vaccination reduced the risk of E.D./urgent care visits (moderate disease) by 53 percent.
- Vaccination reduced the risk of hospitalization (severe disease) by 56 percent.

### **Ages 5 to 17 years**

- Vaccination reduced the risk of E.D./ urgent care visits (moderate disease) by 38 percent.
- Vaccination reduced the risk of hospitalization by 46 percent.

Approximately 30 percent of E.D./critical care visits for acute respiratory illness in children and adolescents were positive for flu, as were 14 percent of hospitalizations.

["Vaccine Effectiveness Against Pediatric Influenza-A-Associated Urgent Care, Emergency Department, and Hospital Encounters During the 2022-2023 Season, VISION Network"](#) is published in *Clinical Infectious Diseases*.

## **Flu vaccine effectiveness: 2022-2023 flu season for**

## ages 18-64

Vaccine effectiveness was 45 percent against E.D./critical care visits(moderate disease) for adults under age 65. Effectiveness against hospitalization (severe disease) was 23 percent.

Adults younger than 65 typically received standard-dose inactivated vaccines.

## Flu vaccine effectiveness: 2022-2023 flu season for ages 65 and older

Vaccine effectiveness was 41 percent against both flu-associated E.D./urgent care visits (moderate disease) and hospitalization (serious disease) for this age group.

Adults age 65 and older typically received enhanced vaccine products.

["Influenza vaccine effectiveness against influenza-A-associated emergency department, urgent care, and hospitalization encounters among U.S. adults, 2022-2023"](#) is published in the *Journal of Infectious Diseases*.

"As with COVID, the dynamics of flu differs between children and adults. But we found that for both children and adults, vaccination significantly reduced the need for trips to the E.D. or critical care center and for hospitalization for flu-related illnesses last flu season, and this is encouraging," said Dr. Grannis.

"I'm hopeful that we will see similar or even better vaccine effectiveness during the current flu season. Even if they do experience symptoms, people who are vaccinated typically tend to have milder, shorter cases of

the flu, a viral illness which can carry a severe disease burden.

"The [vaccine effectiveness](#) we saw in last year's flu season is encouraging. As both a research scientist and a primary care physician, I urge everyone to be vaccinated for flu this year and every year—it's good for each person's health and the health of your community."

**More information:** Mark W Tenforde et al, Influenza Vaccine Effectiveness Against Influenza A–Associated Emergency Department, Urgent Care, and Hospitalization Encounters Among US Adults, 2022–2023, *The Journal of Infectious Diseases* (2023). [DOI: 10.1093/infdis/jiad542](#)

Katherine Adams et al, Vaccine Effectiveness Against Pediatric Influenza-A–Associated Urgent Care, Emergency Department, and Hospital Encounters During the 2022–2023 Season: VISION Network, *Clinical Infectious Diseases* (2023). [DOI: 10.1093/cid/ciad704](#)

Provided by Regenstrief Institute

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