

Omicron wave hospitalized 5 times as many young children as Delta did

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Omicron appears to have hit America's youngest children much harder

than any previous variant of the virus, a new government report shows.

Five times as many kids aged 4 and younger landed in the hospital during the Omicron wave than were hospitalized when Delta was the predominant strain, according to findings published March 15 in *Morbidity and Mortality Weekly Report*, a publication of the U.S. Centers for Disease Control and Prevention

It was even worse for babies younger than 6 months—six times as many were hospitalized during Omicron as during Delta.

Fortunately, in-hospital death rates remained the same during both waves, with only 0.5% of [children](#) dying from COVID.

"The vast majority of kids were treated and did well and were discharged home. The death rate was very, very, very low in both the Omicron and Delta phases for children," said Dr. Sam Dominguez, a pediatric infectious disease specialist with Children's Hospital Colorado in Aurora.

And there were indicators that while Omicron hospitalized more kids than Delta, those who wound up in the hospital with Delta were sicker.

Children tended to stay two days in the hospital with Delta versus 1.5 days for Omicron, researchers found. Further, 27% of young children hospitalized with Delta wound up in the ICU, versus 21% for Omicron.

"It suggests that, overall, the kids that were admitted to hospital had somewhat lower severity of disease" during the Omicron wave, Dominguez said.

For this study, researchers led by Kristin Marks, an epidemic intelligence service officer at the CDC, looked at [hospitalization rates](#)

for children 4 and younger in 14 states participating in COVID-NET, the Coronavirus Disease 19-Associated Hospitalization Surveillance Network.

The study compared pediatric hospitalizations during the Delta wave of COVID—June 27 to Dec. 18, 2021—to those that took place when Omicron became the predominant strain, from Dec. 19, 2021, to Jan. 31, 2022.

The peak hospitalization rate during Omicron was 14.5 children per 100,000, about five times the peak during Delta, which was 2.9 per 100,000.

Omicron hospitalization rates remained higher at every age group among young children, the researchers found:

- Babies younger than 6 months: 68.1 per 100,000 during Omicron, 11.1 during Delta.
- Children 6 months to 2 years: 16.9 during Omicron, 3.3 during Delta.
- Toddlers 2 to 4 years: 4.7 during Omicron, 1.4 during Delta.

In part, this is a numbers game, since Omicron spread so quickly to so many more people, said Dr. Amesh Adalja, a senior scholar with the Johns Hopkins Center for Health Security in Baltimore.

"Hospitalizations would be expected to go up with a more highly contagious variant such as Omicron, especially in high-risk unvaccinated children," Adalja explained.

However, Adalja noted that young children might also have been harder hit because they have smaller airways, and Omicron tended to infect and block the upper airway more than previous variants.

The new study can't provide a full picture of the two COVID waves' impact on young kids because the researchers didn't look at all children throughout the community who became infected with either Omicron or Delta, Dominguez noted.

But based on the hospitalization rates, Dominguez agreed that "overall, it's most likely a numbers game."

Since COVID vaccines aren't yet approved for children this young, parents worried by these numbers can "cocoon" their kids against infection by making sure that as many people in their lives as possible get vaccinated, Dominguez said.

Good data on the indirect effects of COVID vaccination suggest that for [young children](#) "the risk of getting infected was much lower in those in households where both parents were vaccinated, more so than one parent vaccinated and more so than zero parents vaccinated," Dominguez said.

Pregnant women should also get vaccinated against COVID to protect their newborns from infection, he added.

"Mothers who are pregnant who get vaccinated, it really provides protection for their kids in the first six months of life," Dominguez said. Data show there's a lower risk of COVID hospitalization for babies born to vaccinated mothers—even compared to those born to women who were infected by COVID during their pregnancy.

Parents also can keep an eye on local COVID rates, Dominguez said, "to decide how safe or unsafe it is to be out and about in the community.

"What's happening locally is very important in terms of thinking about what your overall risk is," Dominguez noted.

Dominguez added that COVID isn't his main infectious concern right now—it's the longtime nemesis, the flu.

"Unfortunately, we're seeing a small resurgence of influenza," Dominguez said. "We're seeing more influenza circulating than we are SARS-CoV-2. We're still in the thick of respiratory season, and we still recommend getting your flu vaccine.

"Young kids can still get the flu vaccine who are 6 months of age or older. It's not too late, even though it's March," Dominguez said.

More information: Kristin J. Marks et al, Hospitalization of Infants and Children Aged 0–4 Years with Laboratory-Confirmed COVID-19—COVID-NET, 14 States, March 2020–February 2022, *MMWR. Morbidity and Mortality Weekly Report* (2022). [DOI: 10.15585/mmwr.mm7111e2](https://doi.org/10.15585/mmwr.mm7111e2)

Johns Hopkins has more about [COVID and children](#).

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