



COVID-19 less severe in children than adults: study

by Melissa Jenco, News Content Editor

Editor's note: For the latest news on coronavirus disease 2019, visit <https://www.aapublications.org/news/2020/01/28/coronavirus>.

Cases of coronavirus disease 2019 (COVID-19) among children in China have been less severe than those in adults, according to a new study.

However, being in a young age group wasn't entirely protective. Infants had higher rates of severe illness than older children. Experts also say more testing and research will be needed to understand children's role in spreading the virus in their communities.

COVID-19, the disease caused by the novel coronavirus SARS-CoV-2, was first identified in December 2019 in China and since has spread around the world. More than 174,000 people have been infected, including more than 3,800 in the U.S. The World Health Organization recently declared it a global pandemic, and the U.S. has declared a national emergency.

Researchers set out to look at the impact of the disease on children younger than 18 years, so they analyzed data from Jan. 16 to Feb. 8 on 2,143 children in China. The team reported its findings today in "Epidemiology of COVID-19 Among Children in China," (Dong Y, et al. *Pediatrics*. March 16, 2020, <http://bit.ly/33ljvcy>).

About two-thirds of the children had suspected cases of COVID-19, and the rest of the cases were laboratory-confirmed. There were no major differences in the number of boys and girls.

About 4% of children were asymptomatic, 51% had mild illness and 39% had moderate illness. About 6% had severe or critical illness, compared to 18.5% of adults. One child, a 14-year-old boy, died. Authors called the gap between children and adults "puzzling" and said it "may be related to both exposure and host factors." They proposed several possible reasons for the difference, including children having fewer opportunities for exposure, higher levels of antibodies against viruses or different responses from their developing immune systems. The virus also may not bind as well to children's cells.

The study also found infants had higher rates of serious illness than older children. Just under 11% of infants had severe or critical cases compared to 7% of children ages 1-5, 4% of those 6-10, 4% of those 11-15 and 3% of those 16 and older.

Yvonne A. Maldonado, M.D., FAAP, chair of the AAP Committee on Infectious Diseases, noted because the virus is novel, infants wouldn't be able to get antibodies from their mothers, which could be one of multiple factors.

The study was limited by a short window of time and a high percentage of severe and critical cases without laboratory confirmation. Those cases potentially could have been other respiratory infections.

Dr. Maldonado advised being cautious in extrapolating results to the U.S., as children in China may have different baseline health and access to care. Still, she said the study provides valuable information and highlights the need for more research and testing capabilities to understand children's ability to spread the virus, especially without symptoms.

"That's a big variable because we know asymptomatic shedding is actually probably more likely to perpetuate an epidemic within a population," she said. "So social distancing measures may really be the way to keep that from happening."



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