

Child care centers unlikely source for COVID-19 transmission, study finds

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Children in child care centers are not spreading COVID-19 at significant rates to caregivers or other children at the center, nor to their households, according to a study led by University of Pittsburgh School



of Medicine and UPMC Children's Hospital of Pittsburgh pediatricianscientists and published in *JAMA Network Open*.

The findings suggest that recommendations to test symptomatic children for SARS-CoV-2, the virus that causes COVID-19, and keep positive children home from child care for prolonged periods can be revised to align with those for other serious respiratory viruses.

"We need to have an open discussion at the national level about the benefit of recommending SARS-CoV-2 testing for every child with respiratory symptoms who attends a child care program," said lead author Timothy Shope, M.D., M.P.H., professor of pediatrics at Pitt's School of Medicine and pediatrician at UPMC Children's.

"No one wants to give up on controlling SARS-CoV-2 spread, but focusing on testing and long exclusion periods for children in child care centers appears to be unnecessary, while subjecting families to the expense of frequent testing, absence from work and lost wages, and loss of education and socialization for children."

Current recommendations from the <u>U.S. Centers for Disease Control</u> and <u>Prevention</u> advise that any child with congestion, runny nose or other respiratory symptoms be tested for COVID-19 and, if positive, be kept home from child care for at least five days.

For <u>influenza</u> and <u>respiratory syncytial virus</u>—equally serious respiratory viruses that infect and spread among children in child care centers at higher rates—recommendations are for the child to return to child care when symptoms are resolving and they have been fever-free for 24 hours.

The study included 83 children in 11 child care centers in two cities and their household contacts—118 adults and 16 children—as well as 21



child care providers. They were followed from April 22, 2021 through March 31, 2022. Participants received weekly COVID-19 testing and completed symptom diaries. Child care center directors reported weekly, deidentified, self-reported COVID-19 cases for all care providers (402) and children (1,154) at their center.

The research team found that SARS-CoV-2 transmission rates within child care centers was low, about 2% to 3%, indicating that neither children nor caregivers were often spreading COVID-19 to others in the centers. Child care attendance was also a minor cause of COVID-19 in households, since only 17% of household infections resulted from children who got COVID-19 at their child care centers. Most household cases were acquired from outside the child care center.

In contrast, once someone in a household had COVID-19, transmission to other household members was high, at 50% for children and 67% for adults.

"It is interesting that such a contagious virus was transmitted at low rates in child care centers and was an uncommon reason for household infections because it goes against <u>conventional wisdom</u> and medical knowledge we have about other serious respiratory viruses," Shope said. "In households, the higher rates can be explained by much more prolonged and closer contact, especially with sick children."

In addition, the team found that only one in 20 symptomatic children attending child care centers tested positive for SARS-CoV-2.

The researchers explained that the purpose of this study did not include evaluating the efficacy of COVID-19 vaccines because they were not yet available for children under five when the study was conducted. Nevertheless, the study's results point to the importance of vaccinating children against COVID-19, which other research has shown to be safe



and effective.

"Though we found COVID-19 transmission was low in child care centers, our study shows that transmission was very high in households, and young <u>children</u> still often contracted COVID-19 from people outside the <u>child care</u> center," said Shope.

More information: Incidence and Transmission of SARS-CoV-2 in US Child Care Centers After COVID-19 Vaccines, *JAMA Network Open* (2023). DOI: 10.1001/jamanetworkopen.2023.39355

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