Young children can contract coronavirus disease 2019 (COVID-19) at childcare facilities and spread the virus to other close contacts, according to findings from a new study from the US Centers for Disease Control and Prevention (CDC). In 3 outbreaks in childcare centers in Utah, the children with infections had mild to no symptoms, and 2 of the children without symptoms likely transmitted severe acute respiratory coronavirus 2 (SARS-CoV-2) to parents, other family members, and possibly their teachers, said the report, which was published in the CDC's Morbidity and Mortality Weekly Report. Previous studies have found that the infection is less severe in children than adults but that children can nonetheless play a role in transmission.

The role of children in spreading SARS-CoV-2 has become a point of contention, with President Trump and White House adviser Scott Atlas, MD, respectively, claiming without evidence that children are "virtually immune" or "almost never" spread the virus. The CDC report authors noted that research has shown that school-aged children can transmit SARS-CoV-2 within school settings, although little information has been available about transmission of the virus from younger children, particularly in childcare facilities.

However, in addition to the outbreaks described in the new CDC report, California’s Sonoma County has reportedly traced an outbreak of at least 30 COVID-19 cases to a student at a childcare center there. According to a September 21, 2020, article in the Los Angeles Times, a county health officer said the center closed for a 2-week quarantine after at least 16 students, 11 relatives, and 3 staff members had tested positive for SARS-CoV-2.

The CDC report describes how researchers used contact tracing data collected between April 1 and July 10, 2020, through Utah’s National Electronic Disease Surveillance System to retrospectively construct transmission chains, identifying 3 outbreaks of COVID-19 at 3 small to large childcare centers in Salt Lake City. They found that in these outbreaks, which were initially linked to 3 index cases of COVID-19 in adults, more than half of the cases eventually linked to the facilities were in children. Of the 22 individuals who likely acquired SARS-CoV-2 infection in the childcare centers, 12 were children, including 9 with mild symptoms and 3 with no symptoms.

Among 162 contacts linked to cases (in both adults and children) at the Salt Lake City childcare centers, there were 9 confirmed and 7 probable cases. Nearly all of the remaining contacts had negative test results or were asymptomatic and not tested. (Information about symptoms and testing was absent for 2 individuals.)

The children with confirmed COVID-19 had “likely” transmitted the virus to 12 of the 46 contacts (household members) they had outside of the centers. Noting that 2 of 3 children who were asymptomatic likely spread the virus to their parents and possibly their teachers, the authors said that making SARS-CoV-2 testing available with timely results, as well as testing contacts of patients in childcare settings regardless of symptoms, would help prevent transmission and improve understanding of the role children play in transmitting COVID-19.

In addition, the investigation revealed that staff members had worked at the centers while their household contacts were ill with symptoms compatible with COVID-19. This finding supports the CDC guidance for childcare programs that advises staff members and attendees to quarantine and seek testing if household members have symptoms, the report said.

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The authors of the new CDC study said that mitigation strategies “could have helped limit SARS-CoV-2 transmission in these facilities,” noting that use of masks is recommended for individuals aged 2 years or older. However, they added, some children are too young to wear masks but can transmit COVID-19, as was demonstrated by a child aged 8 months at one of the facilities who transmitted SARS-CoV-2 to both parents. When caring for children too young to wear masks, the authors said, it is especially important that staff members wear a mask themselves, as well as using strategies such as hand washing and frequent disinfection of high-touch surfaces. To help prevent further spread, testing of contacts of people with confirmed COVID-19 cases in childcare centers, including children who might not have symptoms, “could improve control of transmission from child care attendees to family members,” they said.

ARTICLE INFORMATION

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