Yale & American Academy of Pediatrics study Summary

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In light of debates over reopening child care and school facilities nationwide, a Yale research team has conducted the first large-scale study pertaining to the risk of Covid-19 transmission within U.S. child care programs. This study seeks to determine the extent to which children are efficient Covid-19 transmitters, and thus their likelihood to increase community spread upon the reopening of child care programs. The study's findings indicate that within the context of reasonable infection mitigation efforts, exposure to child care during the early months of the pandemic were not associated with an elevated risk for Covid-19 transmission to adult providers, concluding that young children are less likely to transmit the virus.

The study compares Covid-19 rates amongst child care providers that remained open during the initial three months of the Covid-19 pandemic with those that did not. The Yale research team collected data from over 57,000 child-care workers across the U.S. and Puerto Rico between May and June 2020. The largest amounts of data were reported from California, Florida, and Ohio. Approximately half of the study participants reported closing throughout the duration of the pandemic up until the time of the survey, while the remainder either stayed open, or reopened during that time period. Less than 10% reported that their program later closed due to confirmed or suspected infections.

The research findings reveal no evidence of child care services being a significant contributor to Covid-19 transmission to adults. These results are consistent with previous studies indicating a lack of association between school closures and transmission rates. However, the report does signify a higher rate of infection amongst minority care providers, as well as amongst providers working within counties with high rates of Covid-related deaths. Additionally, the study found that avoidance of high infection risk situations, including interactions with infected people, travel to high infection areas, and social events, was a protective factor in viral transmission. However, none of these variables proved to interact with the exposure to child care, further suggesting its lack of association with Covid-19 infections.

The study cautions that these results are not representative nor applicable to K-12 schools or universities, as the findings must be interpreted within the limited context of infection mitigation practices within child care programs during the initial months of the pandemic. A majority of the study participants reported smaller than average group sizes of children, as well as higher rates of frequent handwashing, daily disinfection of indoor surfaces, symptom screening, separation of children and items between child groups, and social distancing. While the effect of these mitigational efforts on the overall reduction of Covid-19 transmission remain unclear, the study notes that there is no way to know whether these findings would hold in its absence. The study concludes that community-level transmission remains a significant predictor of child care providers contracting Covid-19. This heightens the importance of only reopening child care programs where the background transmission rates are low and decreasing. While child care services may pose a minor threat to community transmission, communities may pose a considerable threat to child care providers when background transmission rates are high. It is also noteworthy that this study was limited to tracking the transmission from children to adults, and provides no indication of possible transmission of Covid-19 from adults to or amongst children themselves. Thus, the research team recommends the implementation of face coverings by child care workers in order to protect children from infection, and further infection to parents and caregivers.

The Yale study results were posted on October 14, 2020 and will be published in the January 2021 issue of Pediatrics, the American Academy of Pediatrics peer reviewed journal.