New Data Shows Surge in Child Obesity Rates in Greater Cincinnati During Pandemic



BMI Change over 2018–2020 vs 2020–2021: pre-COVID vs COVID years





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My research and clinical interests involve obesity treatment and prevention, exercise, and behavioral economic interventions. Please reach out to me with any questions at Bob.Siegel@cchmc.org.

An analysis of electronic medical records of patients treated at Cincinnati Children's showed a dramatic increase in the body mass index (BMI) in children compared to the rate of BMI change before the pandemic.

BMI is a measure that uses a child's height and weight to track changes. Researchers looked at BMI changes in children between the ages of 2 and 19 over a ten-year period.

In all, 2,459,554 encounters were analyzed with 712,945 visits in years 2018-21. The prevalence of overweight/obesity was relatively stable with a gradual rise from 35% to 36.4% from 2011 to 2020. The year of the COVID shutdown, however, showed an increase in overweight/obesity to 39.7%, (8.3% increase). The greatest BMI percentage increase was in children with severe obesity.

"The COVID-19 pandemic presented a great challenge to children and their families with lockdowns, school closures, decreased exercise opportunities, stress, and potential overeating with home confinement," says Robert Siegel, MD, medical director of the Center for Better Health and Nutrition at Cincinnati Children's Heart Institute. "This data suggests that greater efforts are now needed to reverse the increase in weight status as obesity is a risk factor for poor outcome with COVID disease."

Researchers recently presented their findings at The Obesity Society's annual event ObesityWeek, which offers the largest and most comprehensive scientific conference on obesity in the world. A larger study with a more detailed breakdown of BMI by specific ages is pending.

"At this stage in the pandemic, I believe the best way to get our children back on track is through vaccination, if eligible, and continuing to follow proven safety precautions," Siegel says. "Masks, social distancing, hand hygiene, are all part of an overall strategy so we can get back to a normal environment where they can thrive."