**Title**: Estimating pediatric cases of COVID-19 over time in the United States: Filling in a gap in public use data

**Background**

COVID-19 continues to disturb nearly all aspects of life, leaving us striving to reach herd immunity. Currently, only weekly standardized incidence rate data per age group are publicly available, limiting assessment of herd immunity. Here, we estimate the time-series case counts of COVID-19 among age groups currently ineligible for vaccination in the USA.

**METHODS**

This was a secondary analysis of publicly available COVID-19 data from the Centers for Disease Control and Prevention (CDC). COVID-19 case counts by age groups were computed using incidence rate data from the CDC and population estimates from the US Census Bureau. We also created a web-based application to allow on demand analysis.

**RESULTS**

A total of 78 weeks of data were incorporated in the analysis, suggesting the highest peak in cases within the 5-11 year age group on week ending 2021-01-09 (n=61,095) followed by the 12-15 year age group (n=58,093). As of 2021-07-24, case counts in the 5-11 year age group have expanded beyond other groups rapidly.

**DISCUSSION**

This study suggests it is possible to estimate pediatric case counts of COVID-19. National agencies such as the CDC should report COVID-19 time series case counts for pediatric age cohorts. These data will enhance our ability to estimate the population at risk and tailor interventions accordingly.