

Non-COVID Vaccination Numbers Are Lagging for Teens, Rebounding for Younger Kids

Team A: Tyler Team A: Steve Allen, MD; Xander Posner, MPH

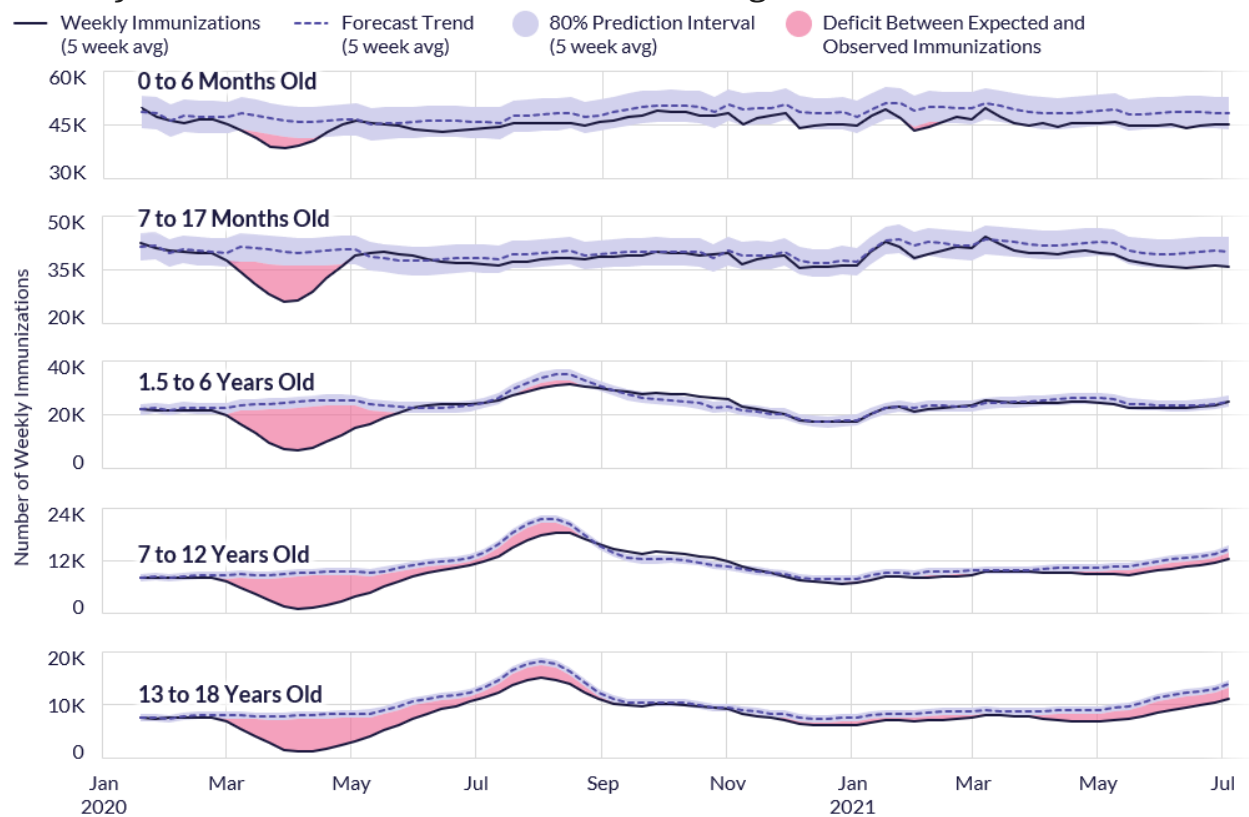
Team B: Brad Fox, MD; Neil Sandberg; Justin Lo, PhD, MT(ASCP)

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Abstract: Pediatric vaccination rates increased in 2021, though they remain slightly below pre-pandemic levels.

A previous EHRN study showed that immunizations for pediatric patients decreased by 42% in the spring of 2020¹. We completed a follow-up study of 6,525,735 pediatric patients to assess whether pandemic-era immunization rates for CDC-recommended immunizations² have returned to historical rates. As shown in Figure 1, younger age groups have largely returned to predicted levels while older groups have remained below expected levels.

Weekly Immunization Administrations During COVID-19



"Weekly Immunization Administrations During COVID-19," 2021. Epic Health Research Network (EHRN.org)

Figure 1: Weekly immunization administrations during the COVID-19 pandemic compared to prior years, split into patient age group.

For school-age children, immunization volume typically spikes from mid-July through August as patients get immunizations required for the school year. In 2020, this increase was smaller than in pre-pandemic years, especially for older patients.

In 2021, pediatric vaccination rates have improved from their pandemic lows. Patients 6 years old and younger received almost all the expected immunizations, patients 7-12 years old received fewer immunizations than expected, and patients 13-18 years old continued to show the largest gap between expected and received immunizations.

These data come from Cosmos, a HIPAA-Limited Data Set of more than 118 million patients from 136 Epic organizations including 705 hospitals and 12,172 clinics, serving patients in all 50 states. This study was completed by two teams, composed of clinicians and data scientists, that independently acquired and analyzed data. Both teams were involved in the interpretation of results and drafting of this brief. Overall, the two teams came to similar conclusions.

References

1. "Pediatric Immunizations Drop in the Wake of COVID-19," Epic Health Research Network, May 19, 2020.
2. Recommended child and adolescent immunization schedule for ages 18 and younger. Published 2021. doi:<https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>. Accessed 31 August 2021.

Data Definitions

Term	Definition
Vaccination	An immunization in Epic for a qualifying type of vaccine: DTaP, HepA, HepB, Hib, HPV, IPV, MenACWY, MenB, MMR/MMRV, Varicella, PCV13/PPSV23, PPSV, RV
Pediatric	Of or pertaining to a patient 18 years old or younger.