

RSV Cases Dropped by 97% During the Pandemic

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Respiratory Syncytial Virus (RSV) is a common cause of acute cough in kids and is the most common cause of pneumonia in infants.¹ Similar to influenza, RSV can cause mild respiratory symptoms or can become severe and require hospitalization.² We saw that influenza infections drastically dropped during October through March of the 2020-2021 respiratory season³ and wondered whether RSV infections did as well. Figure 1 shows weekly volumes of RSV positive tests for three age groups: 0-4, 5-64, and 65+.

Abstract: The number of positive test results for RSV decreased despite increased testing rates in some age groups.

Total Weekly RSV Positive Lab Results by Age Group

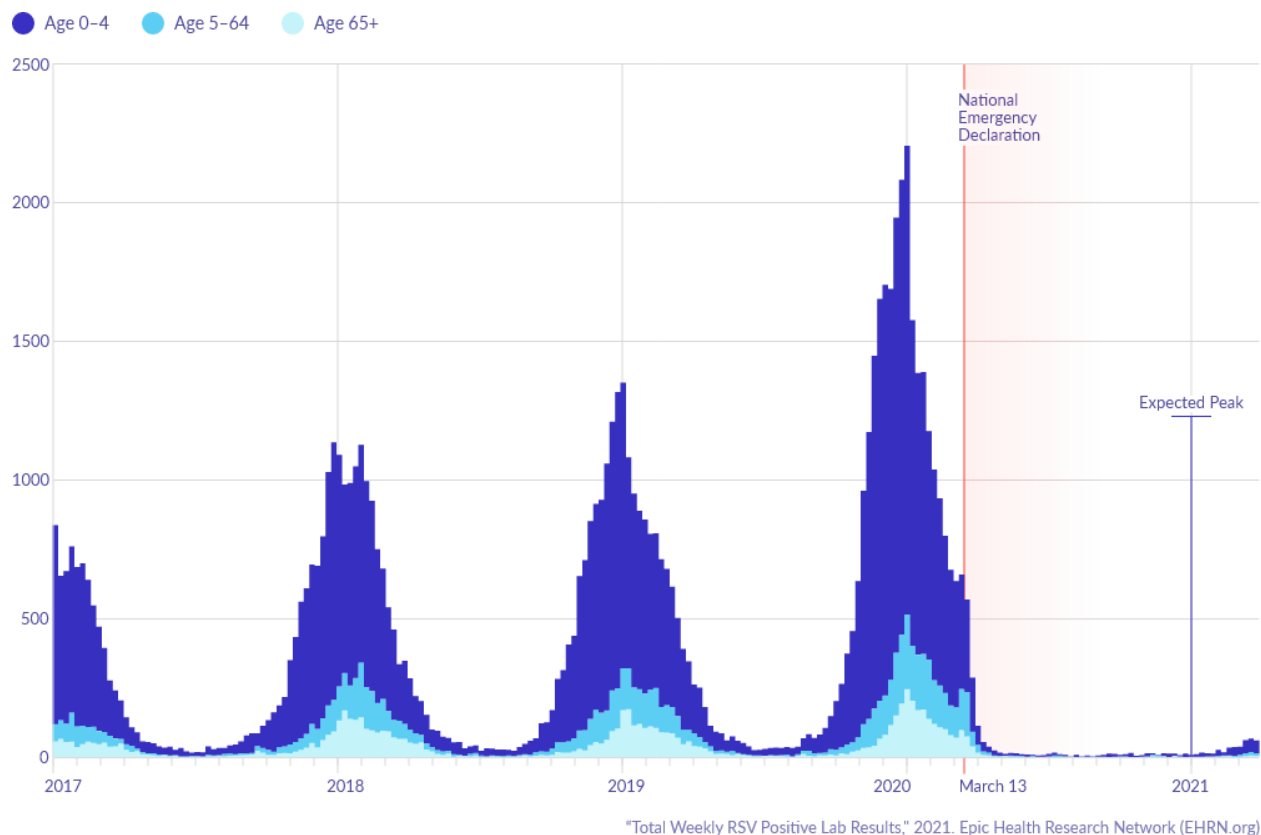


Figure 1. Weekly volumes of positive RSV lab tests by age group between January 1, 2017, and March 31, 2021. The expected peak line indicates the expected peak weekly volume of positive tests for the 0-4 age group during the 2020-2021 season based on historical averages.

Overall, the number of positive RSV tests decreased by 97.4%, from an average of 21,449 positive tests each season from 2017-2020 to 560 for the 2020-2021 season. Testing rates remained similar. This season, 191,674 RSV tests were performed, as compared to an average of 200,334 tests in each of the last four seasons. The testing volumes likely remained near usual rates because RSV can be tested on the same swab as COVID-19. The decline in RSV is consistent with the decline we saw for influenza.

These data come from Cosmos, a HIPAA-limited set of EHR data of more than 107 million patients contributed by Epic customers. This study was completed by two teams each comprised of a clinician and a research scientist who worked independently analyzing the volume of RSV tests. The two teams came to similar conclusions. Data are pooled from 70 healthcare organizations representing 311 hospitals that span 46 states and cover 50 million patients.

References

1. National Institute of Allergy and Infectious Disease, National Institute of Health. Respiratory Syncytial Virus (RSV). <https://www.niaid.nih.gov/diseases-conditions/respiratory-syncytial-virus-rsv#:~:text=In%20the%20United%20States%2C%20nearly.causes%20160%2C000%20deaths%20each%20year>. Published Dec 12, 2008. Accessed May 24, 2021.
2. Centers for Disease Control (CDC). RSV (Respiratory Syncytial Virus). <https://www.cdc.gov/rsv/index.html>. Published Dec 18, 2020. Accessed May 24, 2021.
3. Allen S, Butler S, Gallagher K, et al. Seasonal Influenza Rates Drop to Historic Lows During the COVID-19 Pandemic. Epic Health Research Network. <https://www.ehrn.org/articles/seasonal-influenza-rates-drop-to-historic-lows-during-the-covid-19-pandemic>. Published May 6, 2021. Accessed May 28, 2021

Data Definitions

Term	Definition
RSV Lab Test	Finalized labs categorized to LOINC codes 14129-1, 17520-8, 30075-6, 30076-4, 31949-1, 31950-9, 32040-8, 33045-6, 40987-0, 40988-8, 49037-5, 50329-2, 55100-2, 5874-3, 5875-0, 5876-8, 5877-6, 60271-4, 68966-1, 72885-7, 76088-4, 76089-2, 77022-2, 77023-0, 77389-5, 77390-3, 80597-8, 80598-6, 82176-9, 85479-4, 88202-7, 88204-3, 88527-7, 88528-5, 88595-4, 88597-0, 88909-7, 91133-9, 91782-3, 91785-6, 91794-8, 91795-5, 92131-2, 92880-4, 92881-2, 92957-0 with a result value that is discernably positive or negative.