COVID-19–Associated Hospitalizations among Infants, Children and Adults — COVID-NET, January–August 2023

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COVID-NET: A RESP-NET population-based hospitalization surveillance platform

- RESP-NET: COVID-NET, RSV-NET, FluSurv-NET
- >300 acute-care hospitals
- 98 counties in 13 states
- In 9 of 10 HHS regions
- ~10% of U.S. population
- Positive SARS-CoV-2 within 14 days of or during hospitalization
- Screening or clinician-driven testing
- Clinical data: representative sample of COVID-NET patients

Gray boxes indicate potential reporting delays. Interpretation of trends should be excluded from these weeks.
Epidemiology of COVID-19–associated hospitalization among children
Weekly Population-Based Rates of COVID-19-Associated Hospitalizations among Infants, Children, and Adolescents ≤17 Years — COVID-NET, March 2020–August 26, 2023
Weekly COVID-19-Associated Hospitalization Rates among Infants, Children and Adolescents Ages 6 months – ≤17 Years — COVID-NET, March 2020–August 26, 2023

Focus on 6 months-17 years of age

Gray boxes indicate potential reporting delays. Interpretation of trends should be excluded from these weeks.
Percent of COVID-19-Associated Hospitalizations with Underlying Medical Conditions among Children and Adolescents Ages 5–17 Years by Age Group — COVID-NET, January–June 2023

- 54% of hospitalized infants, children, and adolescents ages ≤17 years have no underlying medical conditions.
- Hospitalizations children and adolescents ages ≥5 years are more likely to have underlying medical conditions relative to children and infants ages ≤4 years.

Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission. Figure displays underlying medical conditions present in ≥5% in ≥1 age group.
Cumulative Weekly Rates of **COVID-19**- and **Influenza**-Associated Hospitalizations among Infants, Children, and Adolescents Ages ≤17 Years — COVID-NET and FluSurv-NET*, October 2021—July 2023

October 2021—September 2022

October 2022—July 2023

*Influenza Hospitalization Surveillance Network. Seasonal FluSurv-NET surveillance was extended into June for the 2021-2022 season. Surveillance ended on April 30, 2023, for the 2022–2023 season. Hospitalization rates are among those with laboratory-confirmed influenza and SARS-CoV-2 and are not adjusted for likely reason for admission.
Percent of **COVID-19**- and **Influenza**-Associated Hospitalizations with **ICU Admission** among Infants, Children, and Adolescents by Age Group — COVID-NET and FluSurv-NET*, October 2022–April 2023

- **Influenza Hospitalization Surveillance Network**
  - Limited to COVID-NET hospitalizations with COVID-19-related illness as likely reason for admission
Vaccination Status by Age Group among Infants, Children and Adolescents Ages ≤17 Years Hospitalized for COVID-19 — COVID-NET, January–June 2023

![Graph showing vaccination status by age group.]

- **Unvaccinated**: No recorded doses of COVID-19 vaccine.
- **Vaccinated, but no bivalent booster**: Completed a primary series with or without ≥1 booster dose but did not receive an updated bivalent booster dose.
- **Updated bivalent booster**: Received updated bivalent booster dose.
- **Partially vaccinated**: Received at least one dose of COVID-19 but was not considered fully vaccinated at the time of a positive SARS-CoV-2 test. Persons with unknown vaccination status are excluded.

Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission.
Epidemiology of COVID-19–associated hospitalizations among adults
Weekly Population-Based Rates of COVID-19-Associated Hospitalizations among Adults Ages ≥18 Years — COVID-NET, March 2020–August 2023

Gray boxes indicate potential reporting delays. Interpretation of trends should be excluded from these weeks.
Underlying Medical Conditions among Adults Ages ≥18 Years Hospitalized for COVID-19, by Age Group — COVID-NET, January–June 2023

18–49 years: 58% with ≥3 underlying conditions
50–64 years: 72% with ≥3 underlying conditions
≥65 years: 81% with ≥3 underlying conditions

Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission.
Cumulative Weekly Rates of COVID-19- and Influenza-Associated Hospitalizations among Adults Ages ≥18 Years — COVID-NET and FluSurv-NET*, October 2022–July 2023

* Influenza Hospitalization Surveillance Network. Seasonal FluSurv-NET surveillance ended on April 30, 2023, for the 2022–2023 season.
Percent of COVID-19- and Influenza-Associated Hospitalizations with ICU admission among Adults by Age Group — COVID-NET and FluSurv-NET*, 13 States, October 2022–April 2023

- Influenza Hospitalization Surveillance Network
  Limited to COVID-NET hospitalizations with COVID-19-related illness as likely reason for admission
Percent of COVID-19- and Influenza-Associated Hospitalizations with in-hospital death among Adults by Age Group — COVID-NET and FluSurv-NET*, 13 States, October 2022–April 2023

- Influenza Hospitalization Surveillance Network
  Limited to COVID-NET hospitalizations with COVID-19-related illness as likely reason for admission
Vaccination Status by Age Group among Non-Pregnant Adults Ages ≥18 Years Hospitalized for COVID-19 — COVID-NET, January–June 2023

Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission. **Unvaccinated**: No recorded doses of COVID-19 vaccine. **Vaccinated, but no bivalent booster**: Completed a primary series with or without ≥1 booster dose but did not receive an updated bivalent booster dose. **Updated bivalent booster**: Received updated bivalent booster dose. **Partially vaccinated**: Received at least one dose of COVID-19 but was not considered fully vaccinated at the time of a positive SARS-CoV-2 test. Persons with unknown vaccination status are excluded.
Hospitalization rates increased in all age groups since mid-July
Hospitalization rates highest in older adults and infants <6 months
Most children <5 years hospitalized with COVID-19 illness have no underlying medical conditions
  – A higher proportion of hospitalized children and adolescents 5-17 years have underlying medical conditions
  – Most hospitalized adults have multiple underlying medical conditions
COVID-19 continues to cause severe illness; clinical outcomes generally comparable to influenza-associated hospitalizations
Most children and adults hospitalized for COVID-19 since January 2023 had not received an updated bivalent booster
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