



COVID-19–Associated Hospitalizations Update — COVID-NET, July 2023–September 2024

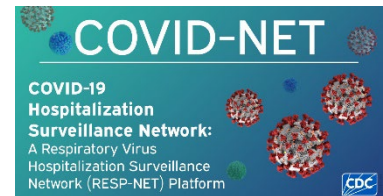
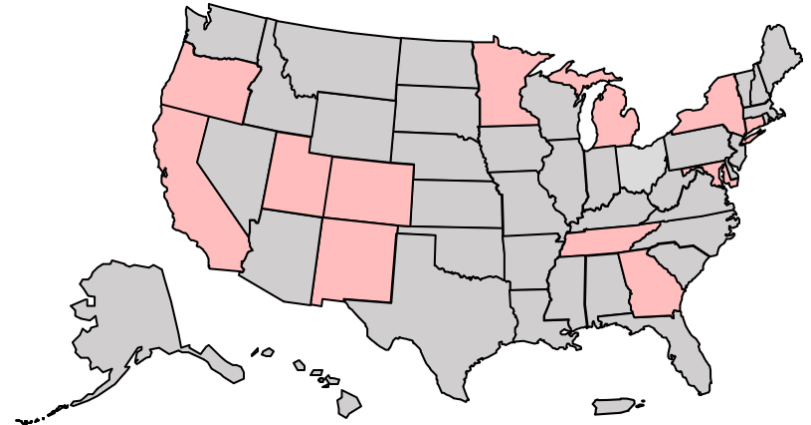
Adults Ages ≥ 65 Years and Persons with Immunocompromising Conditions

Christopher A. Taylor, PhD
RESP-NET Hospitalization Surveillance Team
Coronavirus and Other Respiratory Viruses Division

Meeting of the Advisory Committee on Immunization Practices (ACIP)
October 23, 2024

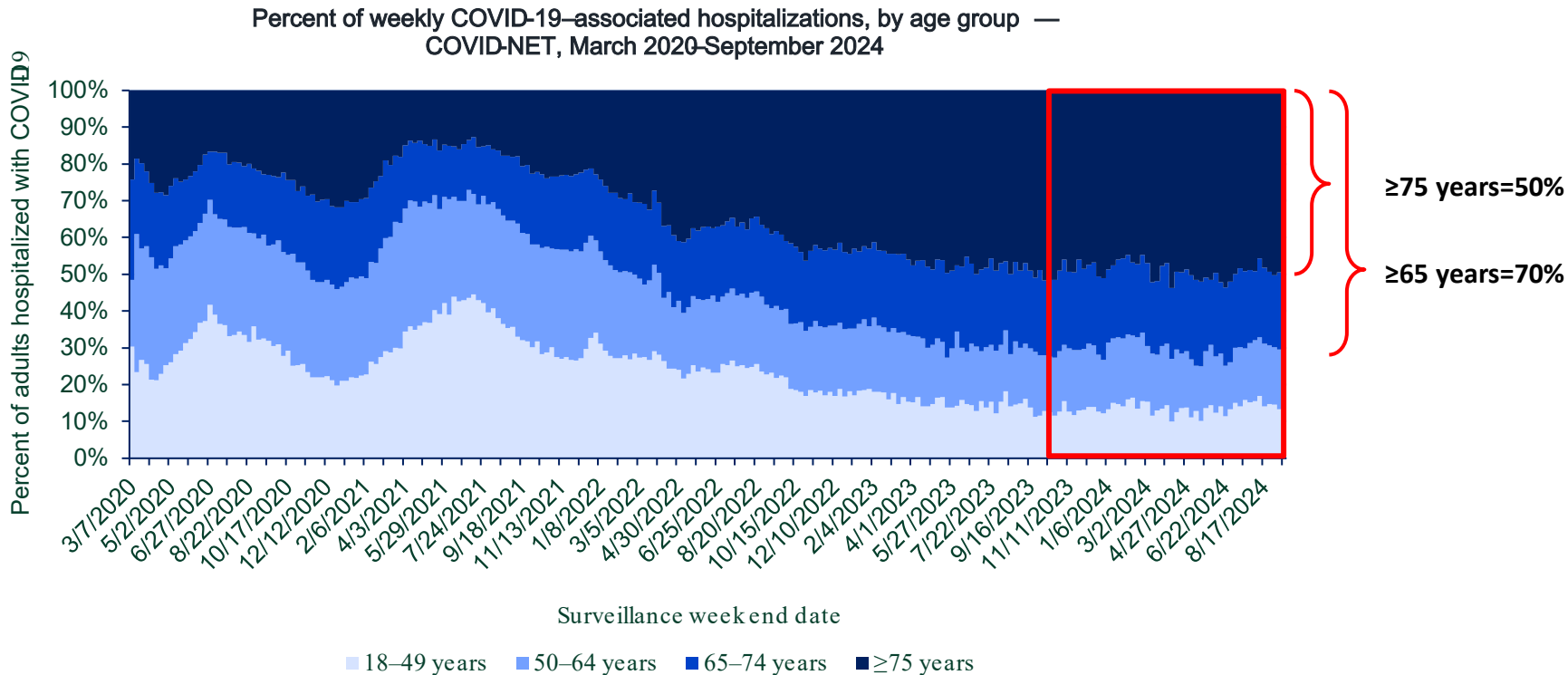
COVID-NET is a population-based hospitalization surveillance platform.

- **RESP-NET: COVID-NET, RSV-NET, FluSurv-NET**
- **>300 acute-care hospitals**
- **98 counties in 13 states**
 - 90 counties in 12 states for this analysis due to incomplete data
- **Approx. 10% of the U.S. population**
- **Positive SARS-CoV-2 test ≤ 14 days before admission or during hospitalization**
- **Screening or clinician-driven testing**
- **Clinical data: stratified random sample**



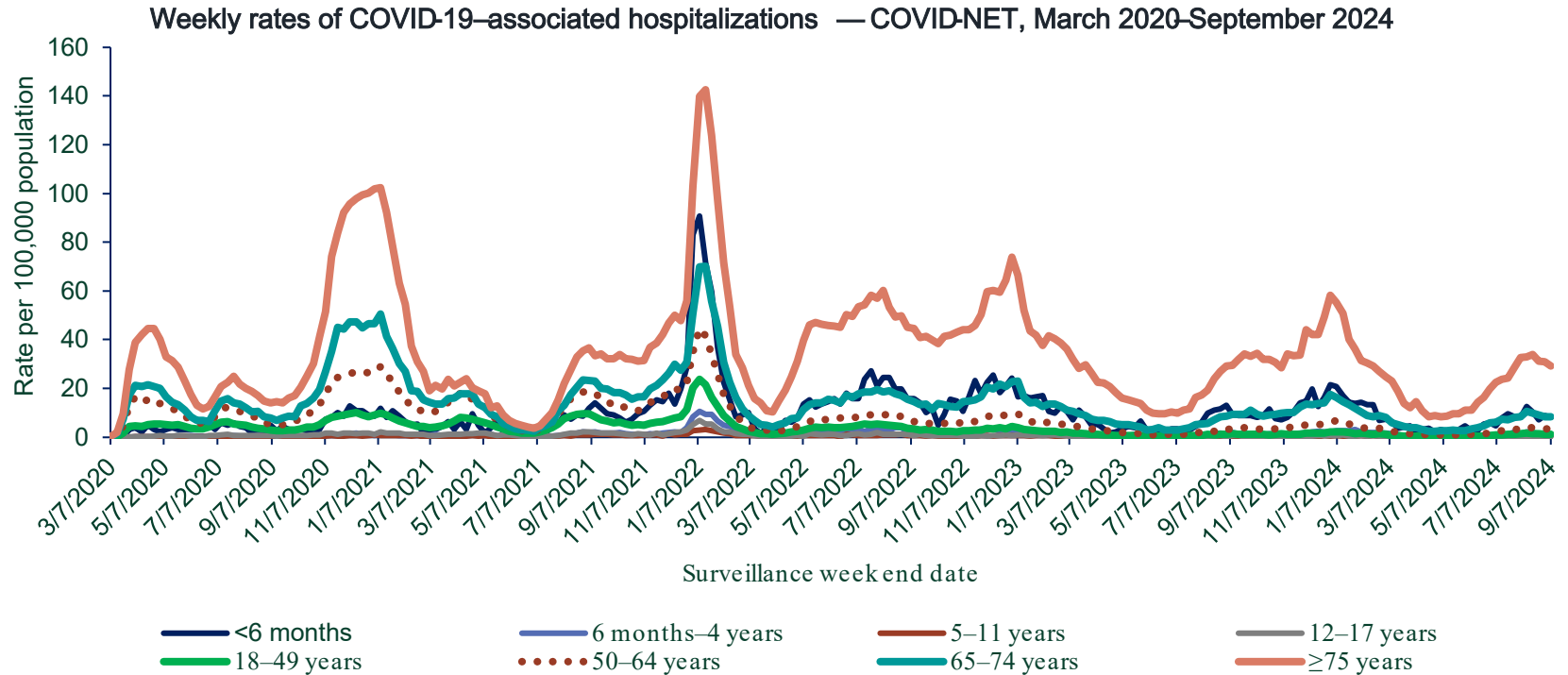
COVID-19–Associated Hospitalizations Among Adults Ages ≥ 65 Years

Adults ages ≥ 65 years comprise 2/3 of all COVID-19–associated hospitalizations among adults.

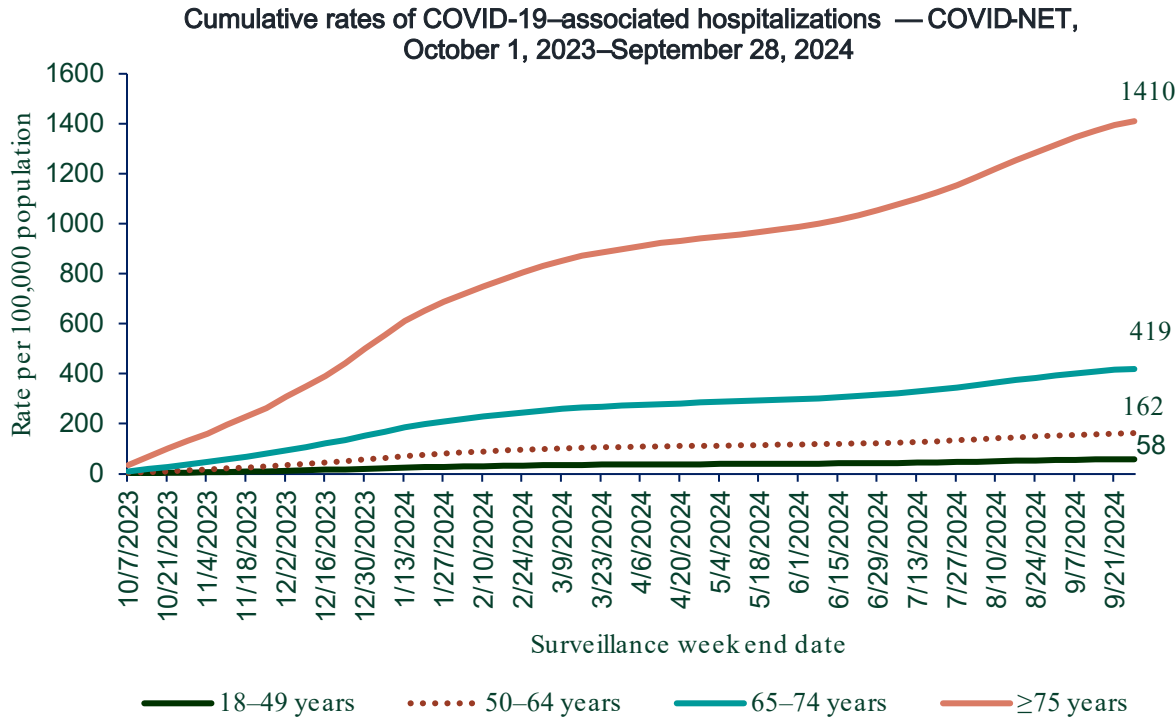


during this same period of October 2023 through August 2024, children and adolescents ages 17 years and younger comprised 4% of all COVID-19-associated hospitalizations.

Rates of COVID-19 hospitalizations are highest among adults ages ≥ 75 years.



Among adults, rates of COVID-19–associated hospitalizations increase with age.

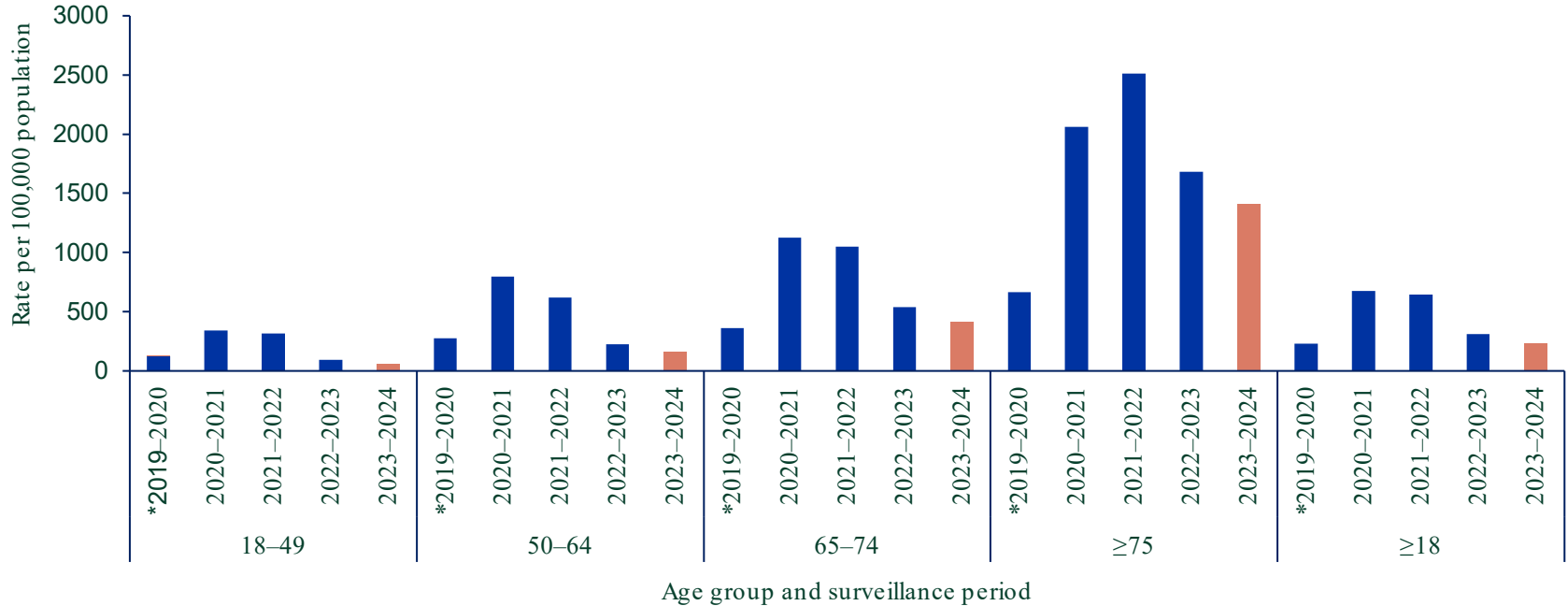


Age group	Rate ratio of ≥ 75 years relative to adult age groups
18–49	24.4
50–64	8.7
65–74	3.4
≥ 75	1.0

Rates among adults ages ≥ 75 years are many times higher compared to younger adults.

Rates of COVID-19–associated hospitalizations among adults ages ≥ 65 years have decreased over time.

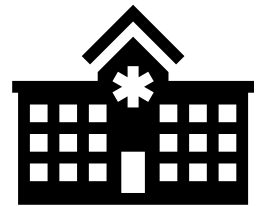
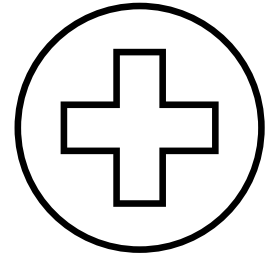
Cumulative rates of COVID-19–associated hospitalizations — COVID-NET, March 2020–September 2024



* The 2019–2020 surveillance period includes March 2020–September 2021.

Most adults ages ≥ 65 years hospitalized with COVID-19 have underlying medical conditions.

- Among adults ages ≥ 65 years:
 - 19% are residents of a long-term care facility (LTCF)
 - 83% have ≥ 2 underlying medical conditions.
- Among adults ages ≥ 75 years:
 - 24% are residents of a LTCF
 - 86% have ≥ 2 underlying conditions



Adults ages ≥ 65 years remain at risk for severe outcomes during COVID-19–associated hospitalization.

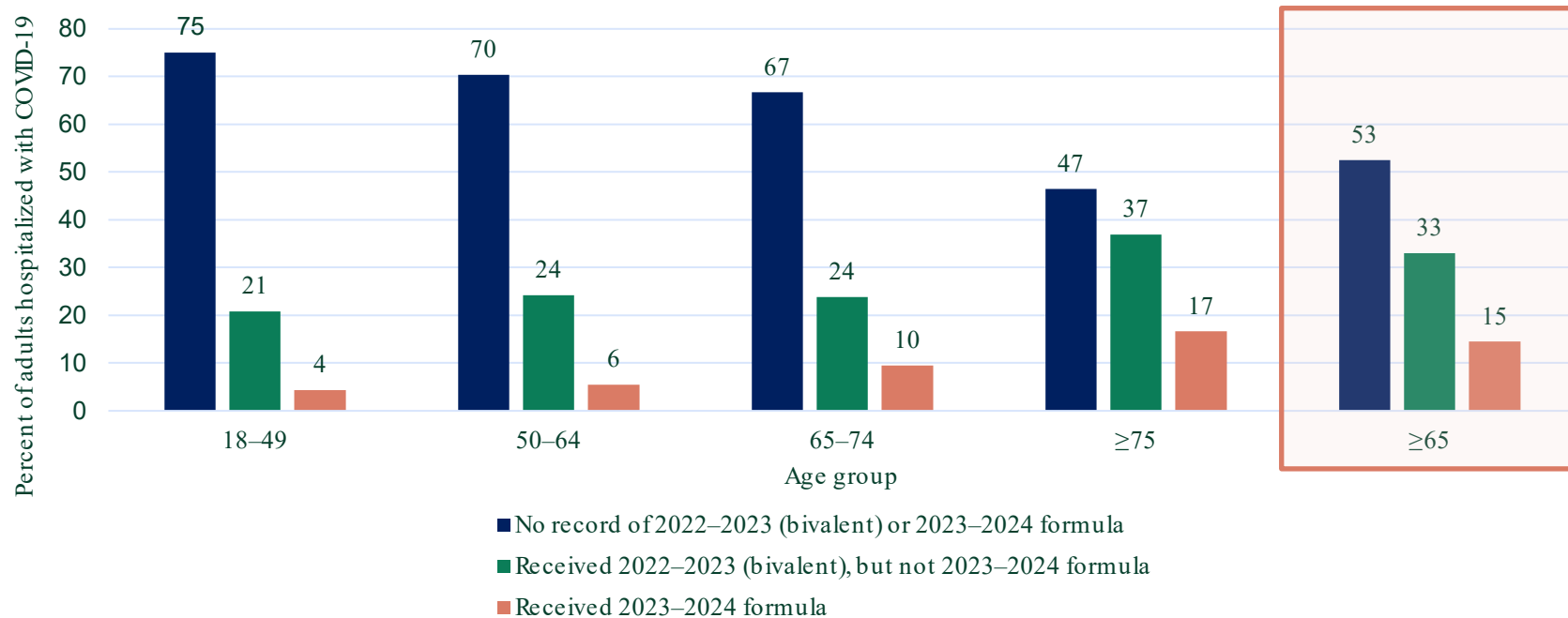
Percent of outcomes and interventions among COVID -19–associated hospitalizations, by age group — COVID-NET, October 2023–May 2024

	18–49	50–64	≥ 65
Length of stay, days (median)	2.9	3.4	3.5
Length of stay, days (IQR)	1.4–5.5	1.9–7.9	1.9–7.1
ICU admission	17.9%	21.5%	17.7%
Invasive mechanical ventilation	5.9%	12.8%	8.1%
In-hospital death	2.1%	11.3%	7.7%

During this period, 80% of all adults hospitalized with COVID-19 who died in-hospital were ages ≥ 65 years.

Fewer than half of adults ages ≥ 65 years hospitalized with COVID-19 received any COVID-19 vaccine since September 2022.

Vaccination status among adults with COVID-19–associated hospitalization, by age group —
COVID-NET, October 2023–May 2024



COVID-19–Associated Hospitalizations Among Persons with Immunocompromising Conditions

Immunocompromising conditions among patients hospitalized with COVID-19 include:

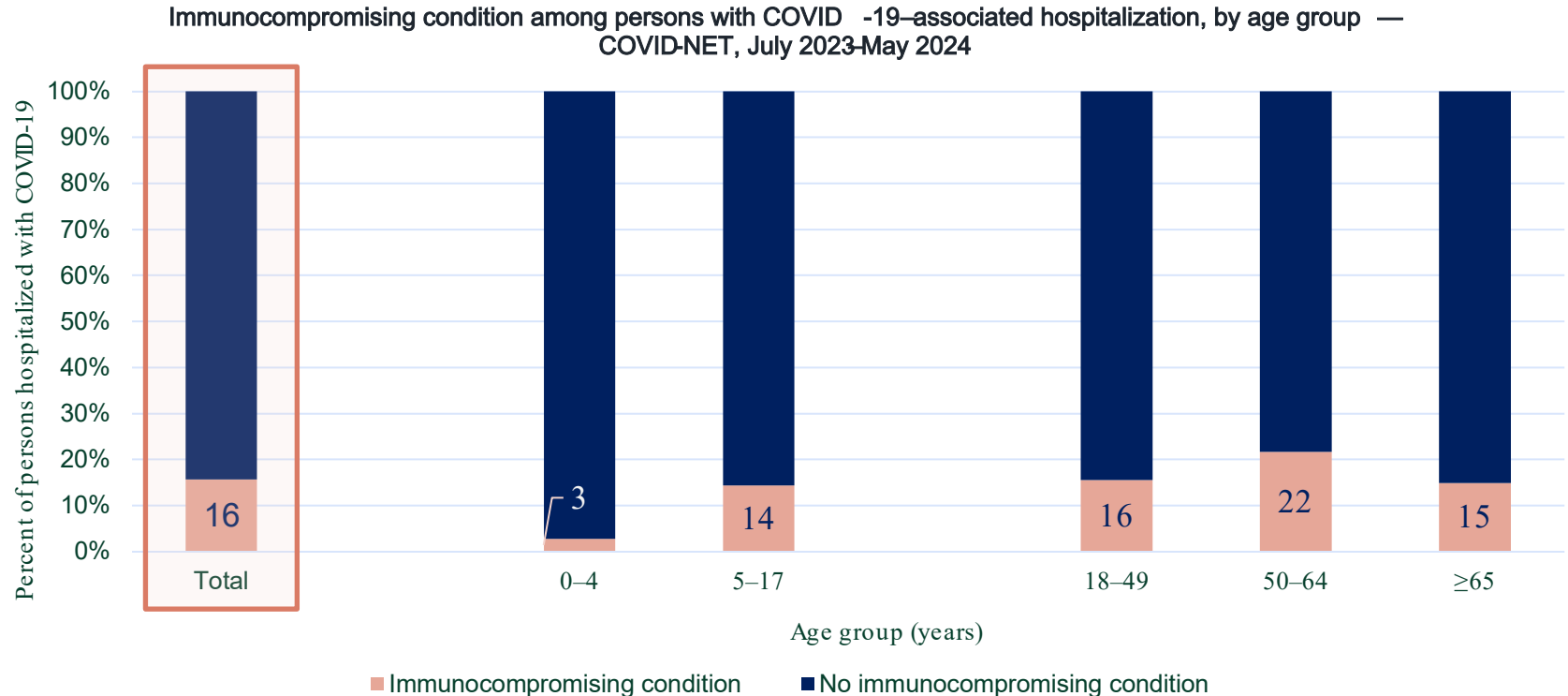
- AIDS or CD4 count <200
- Complement deficiency
- Graft vs. host disease
- HIV infection
- Immunoglobulin deficiency
- Immunosuppressive therapy*
- Leukemia**
- Lymphoma**
- Malignancy (solid organ)**
- Bone marrow transplant
- Metastatic cancer**
- Multiple myeloma**
- Steroid therapy***
- Solid organ transplant
- Other conditions typically associated with immunocompromised status upon review

* Within the 12 months before admission

** Current/in treatment or diagnosed in the 12 months before admission

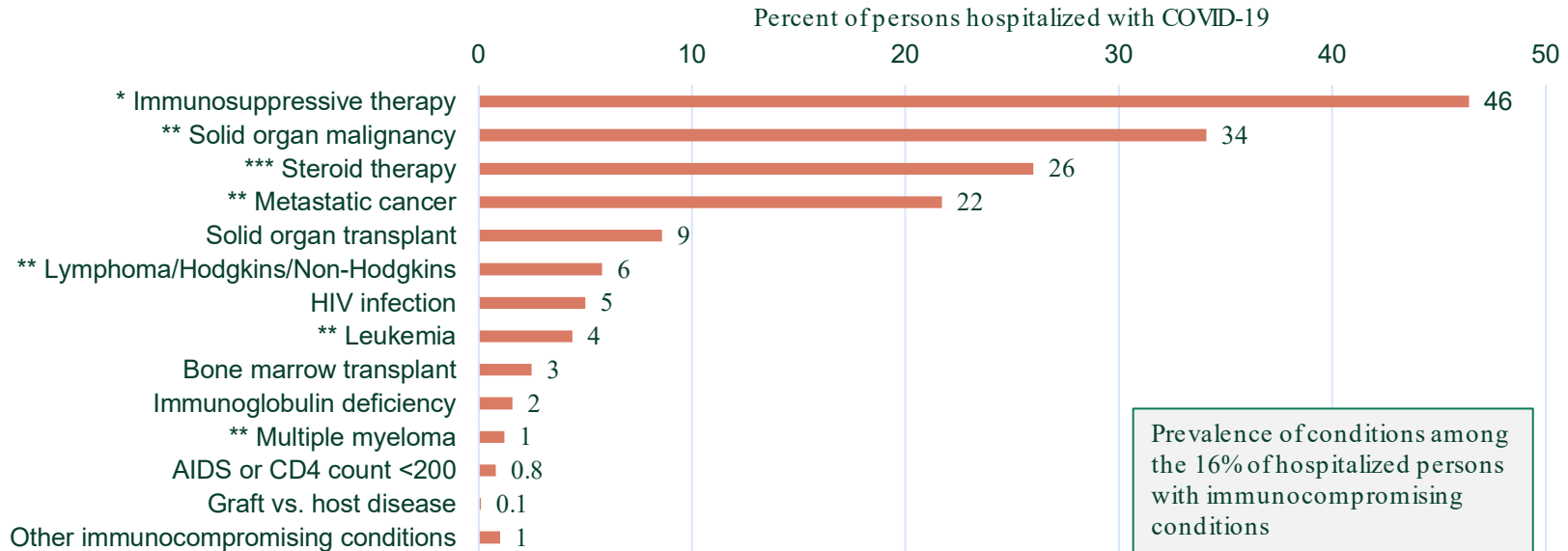
*** Within 2 weeks before admission. Does not include inhaled, intranasal steroids or intramuscular or intra-articular injection of steroids.

About 1 in 6 (15.6%) persons hospitalized with COVID-19 have an immunocompromising condition.



The most common immunocompromising conditions among persons hospitalized with COVID-19 include:

Prevalence of immunocompromising conditions among persons hospitalized with COVID-19 with immunocompromised status — COVID-NET, July 2023-May 2024



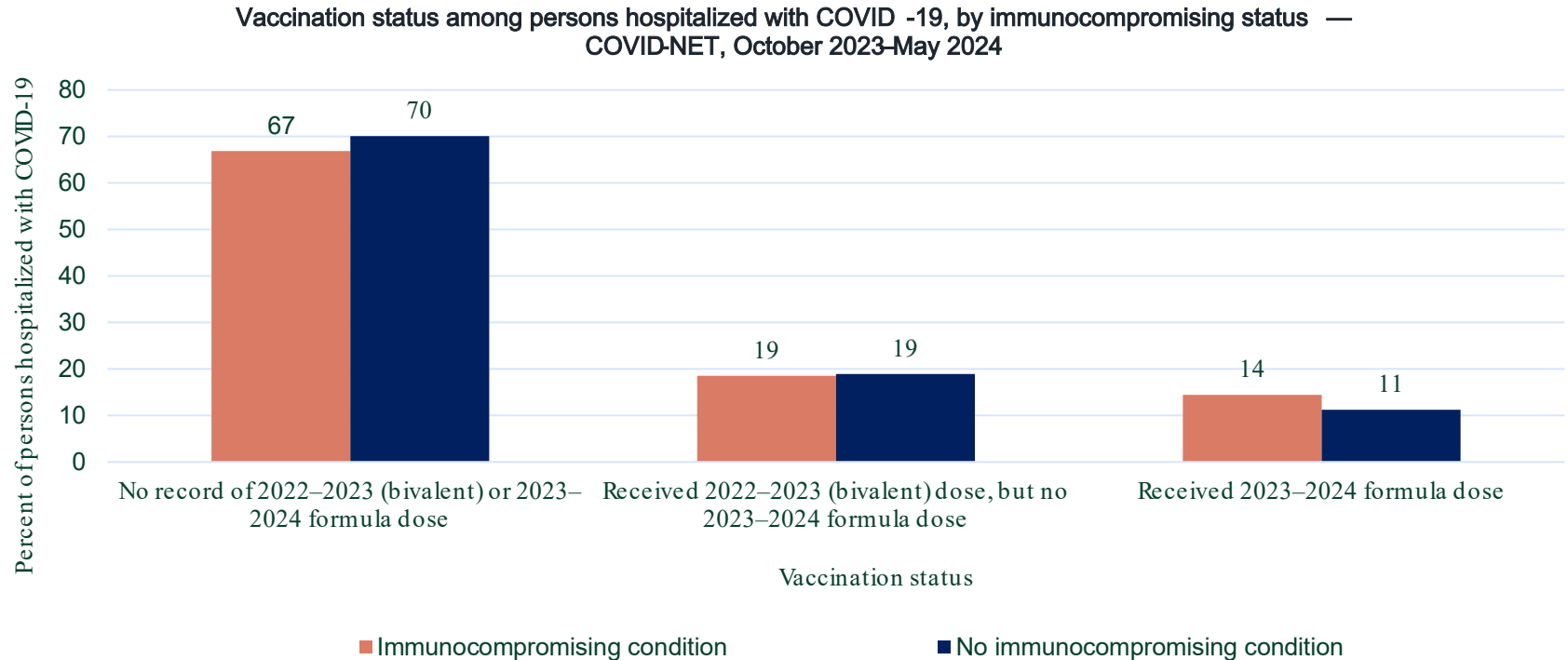
* Within the 12 months before admission

** Current/in treatment or diagnosed in the 12 months before admission

*** Within 2 weeks before admission. Does not include inhaled, intranasal steroids or intramuscular or intra-articular injection of steroids.

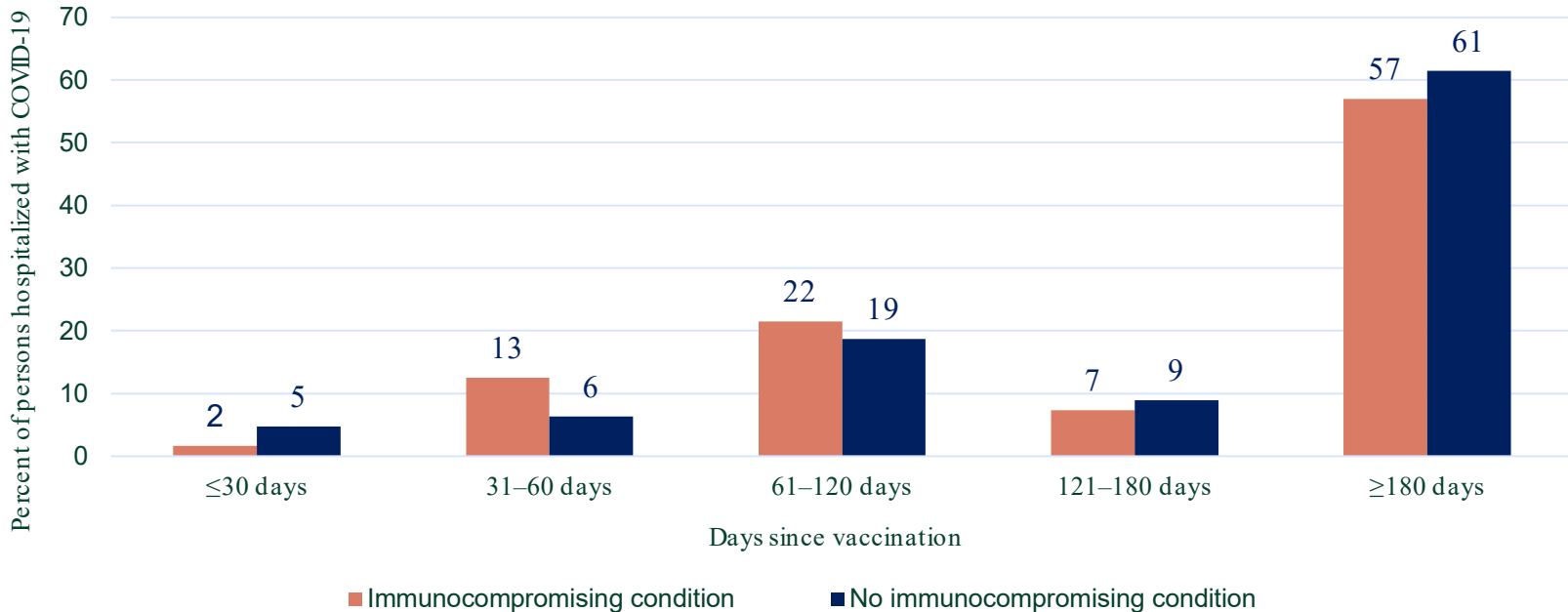
Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission.

Few persons with an immunocompromising condition hospitalized with COVID-19 received any COVID-19 vaccine since September 2022.



Time since receipt of most recent COVID-19 vaccine varies little by immunocompromising condition status.

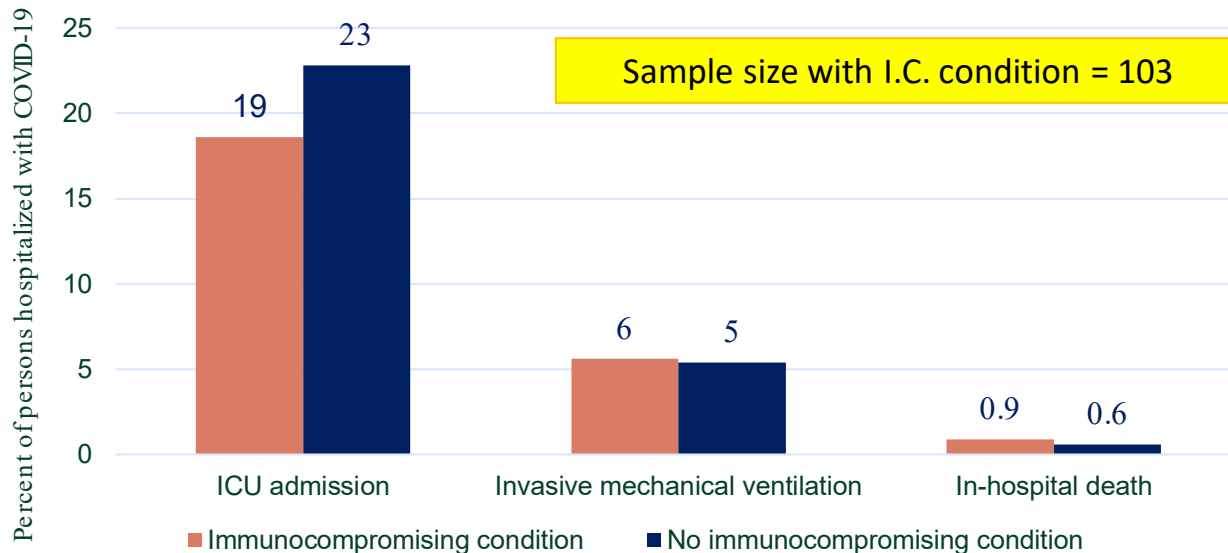
Time since receipt of most recent COVID-19 vaccine among persons hospitalized with COVID-19, by immunocompromising status — COVID-NET, October 2023–May 2024



Limited to persons hospitalized with COVID-19 who received either a 2022–2023 (bivalent) or 2023–2024 formula COVID-19 vaccine since September 1, 2022. Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission.

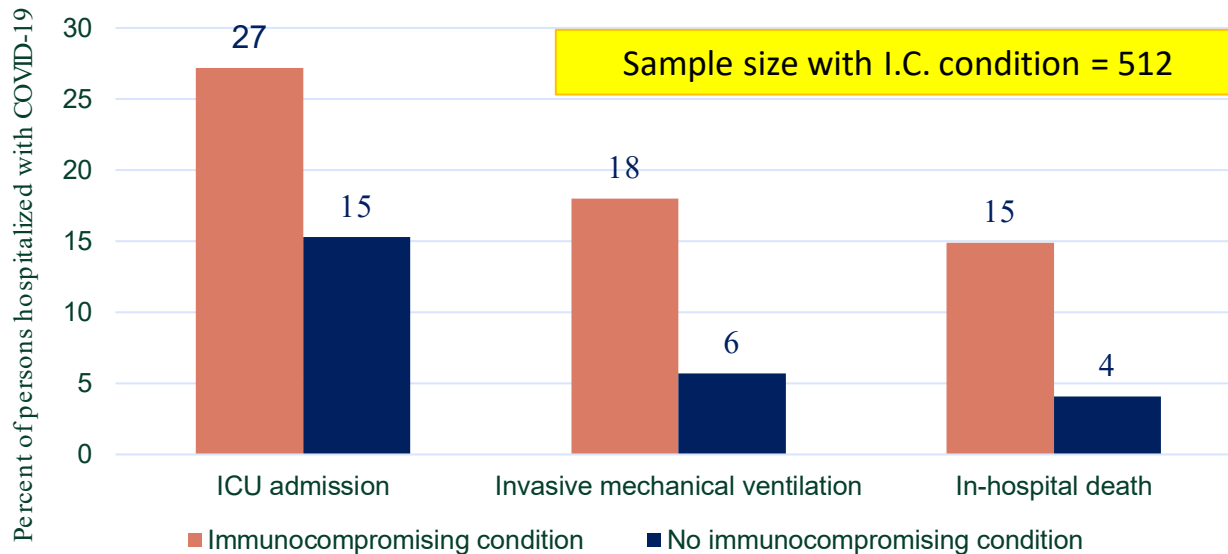
Risk for severe outcomes during COVID-19–associated hospitalization among children and adolescents varies little by immunocompromising condition status.

Prevalence of outcomes and interventions among children and adolescents aged ≤ 17 years hospitalized with COVID-19, by immunocompromising condition status — COVID-NET, July 2023–May 2024



Risk for severe outcomes during COVID-19–associated hospitalization among adults varies by immunocompromising condition status.

Prevalence of outcomes and interventions among adults ages ≥ 18 years hospitalized with COVID -19, by immunocompromising condition status — COVID-NET, July 2023–May 2024



Questions