

**Centers for Disease Control and Prevention**  
National Center for Immunization and Respiratory Diseases

# **COVID-19–Associated Hospitalizations among Adults — COVID-NET, 2023–2024**

**Advisory Committee on Immunization Practices (ACIP)**

**February 28, 2024**

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Surveillance and Prevention Branch

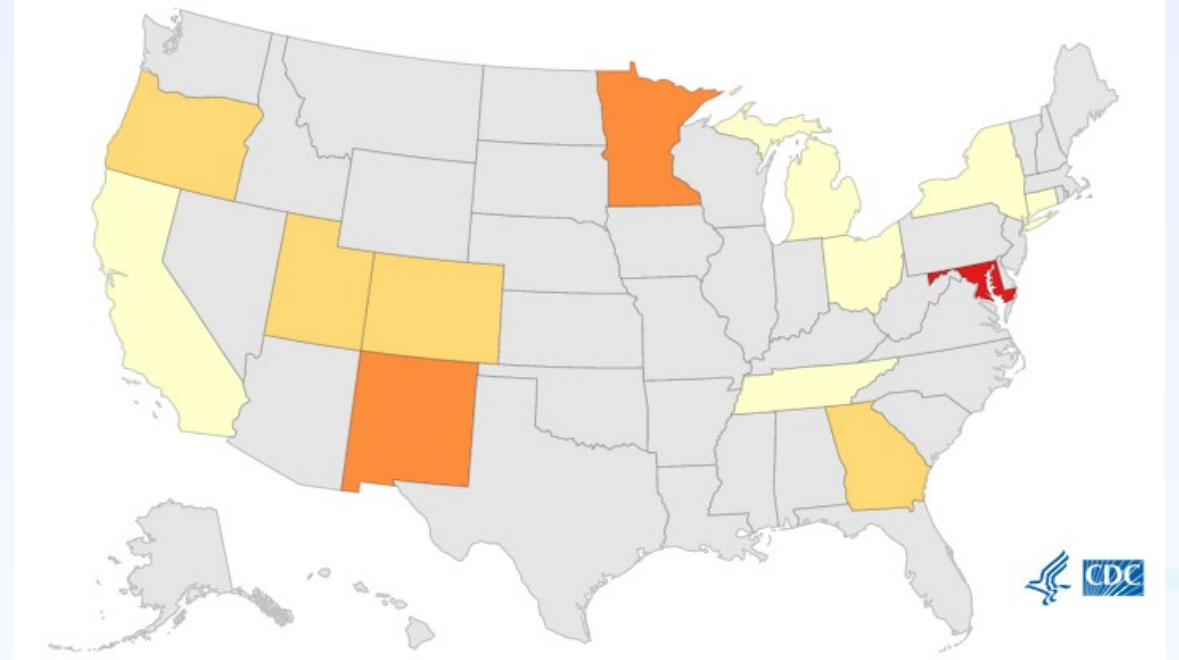
Coronavirus and Other Respiratory Viruses Division



National Center for Immunization  
and Respiratory Diseases

# 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



Percentage of state population represented by participating COVID-NET counties

- 9% - < 31.75%
- 31.75% - < 54.5%
- 54.5% - < 77.25%
- 77.25% - 100%

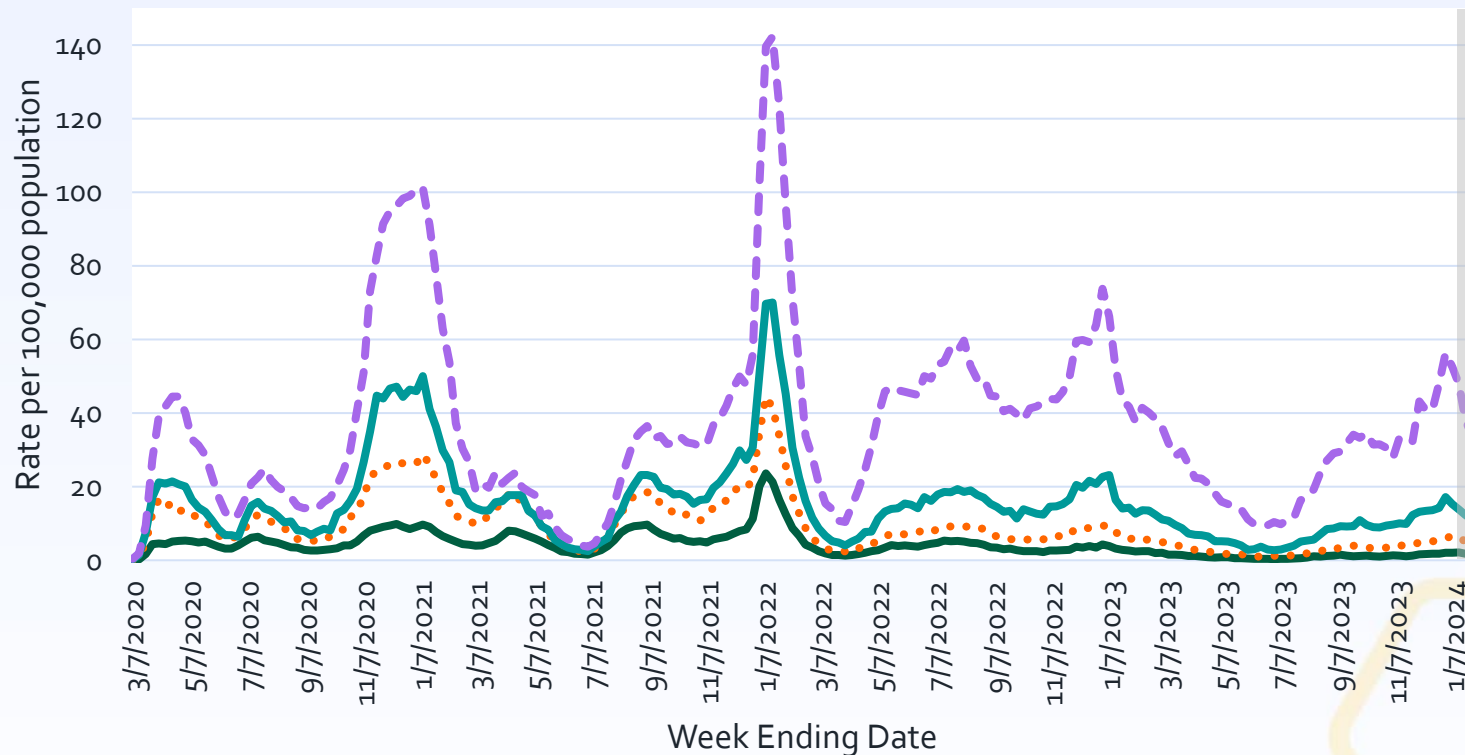


# Epidemiology of COVID-19–associated hospitalizations among adults



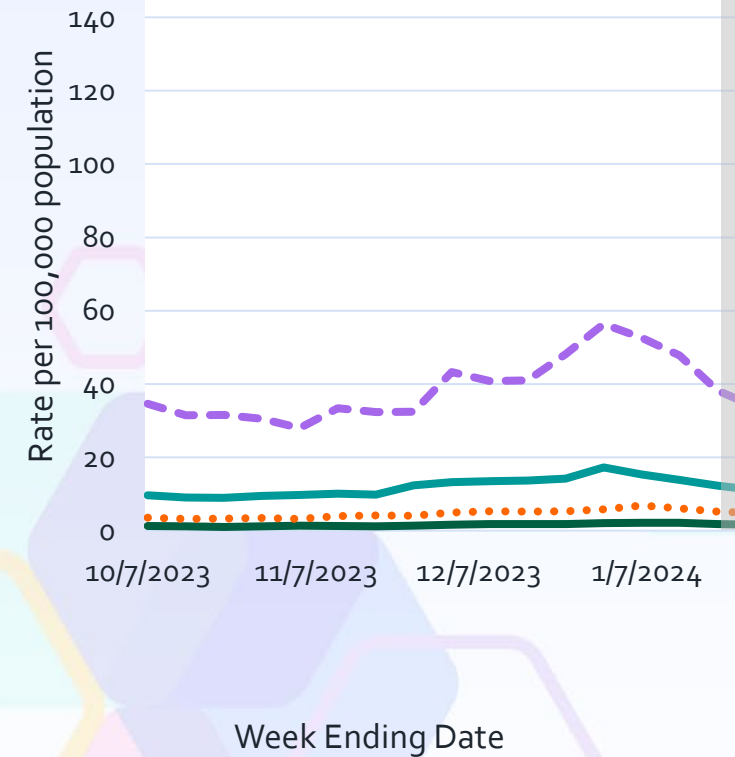
# Weekly Population-Based Rates of COVID-19-Associated Hospitalizations — COVID-NET, March 2020–January 2024

March 1, 2020–January 27, 2024



— 18–49 years    ••••• 50–64 years    — 65–74 years    - - - - ≥75 years

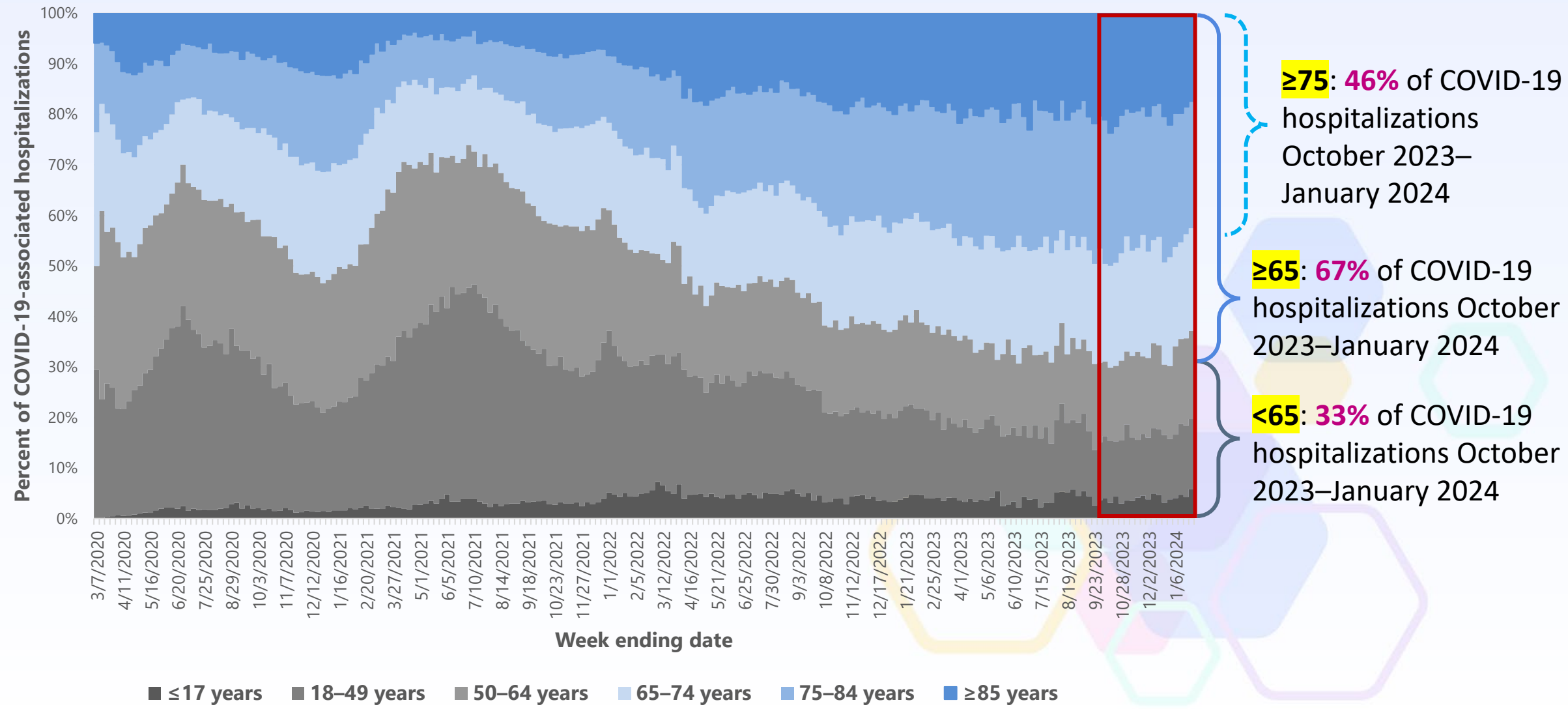
October 2023–January 2024



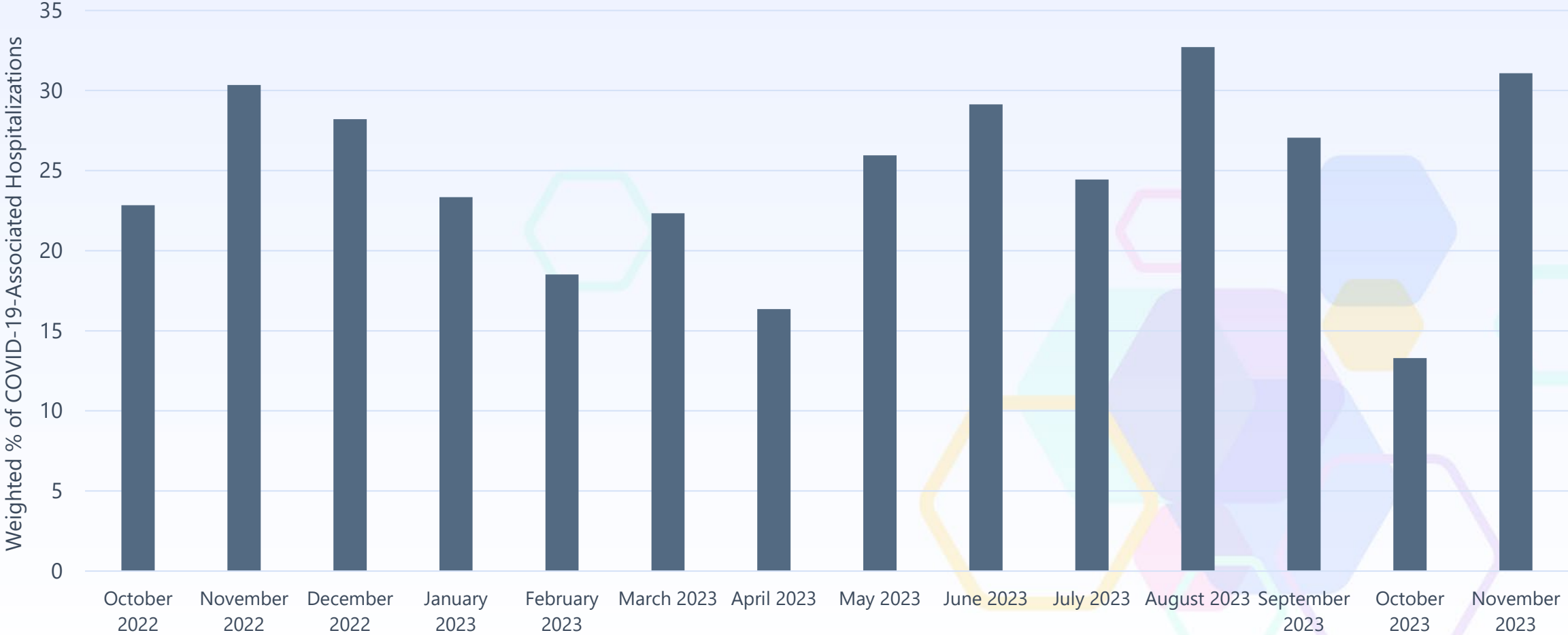
**Rates highest in adults ages ≥75 years.**

Gray boxes indicate potential reporting delays. Interpretation of trends should be excluded from these weeks.

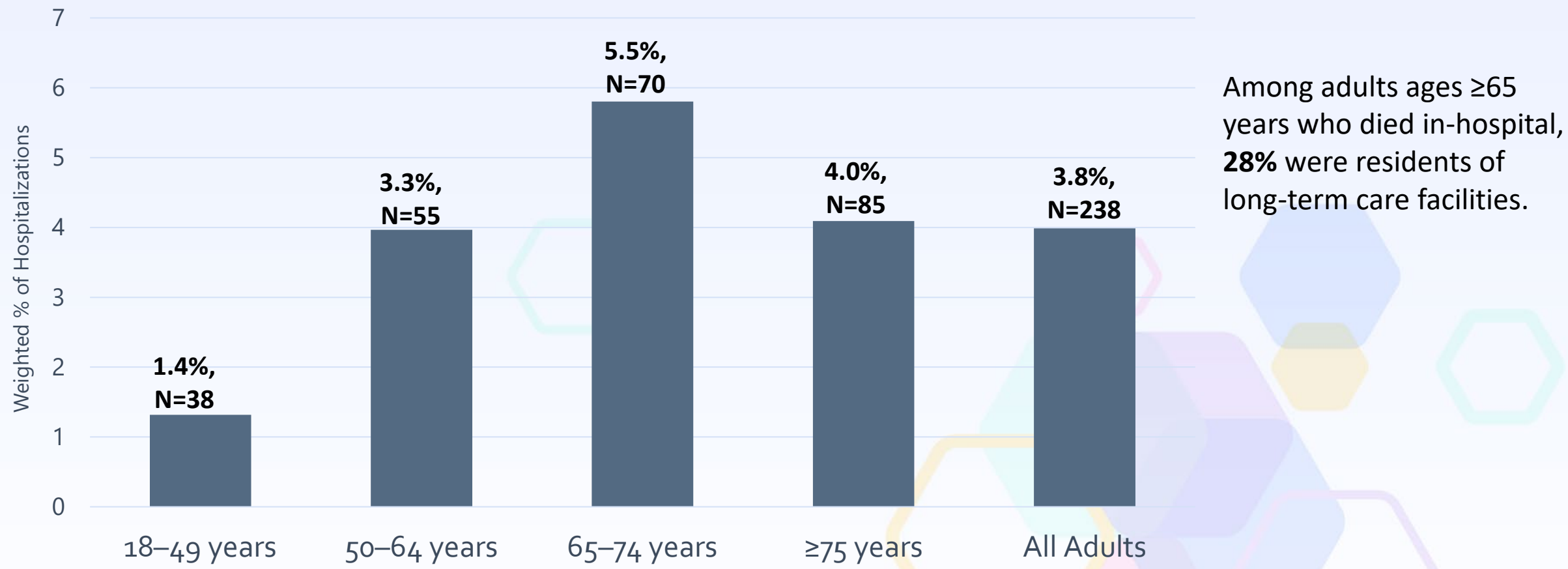
# Percent of Weekly Hospitalizations by Age Group — COVID-NET, March 2020–January 2024



# Among adults ages $\geq 75$ years during October 2022–November 2023, 25% of COVID-19-associated hospitalizations were residents of a long-term care facility.

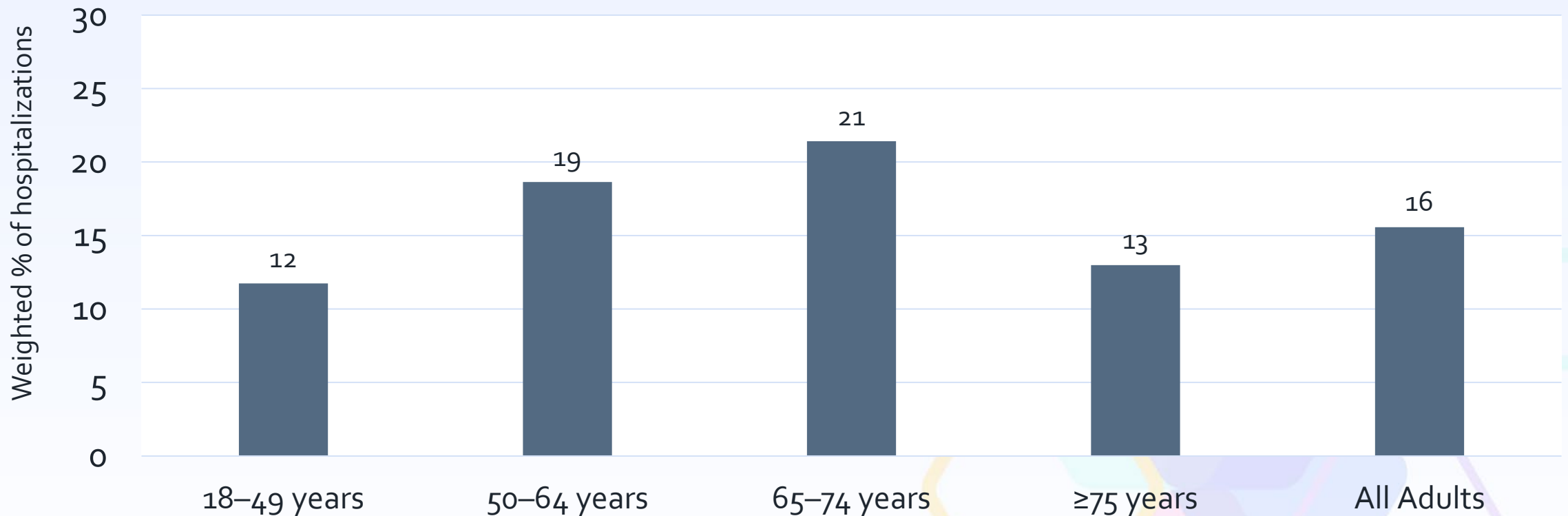


# Percent of COVID-19-Associated Hospitalizations Resulting in In-Hospital Death, by Age Group — COVID-NET, October 2022–November 2023



An examination of death certificate data from March 2020–April 2022 found that among all deaths in adults with COVID-19-associated hospitalization, 67% occurred in-hospital and 33% occurred  $\leq 30$  days post-discharge.

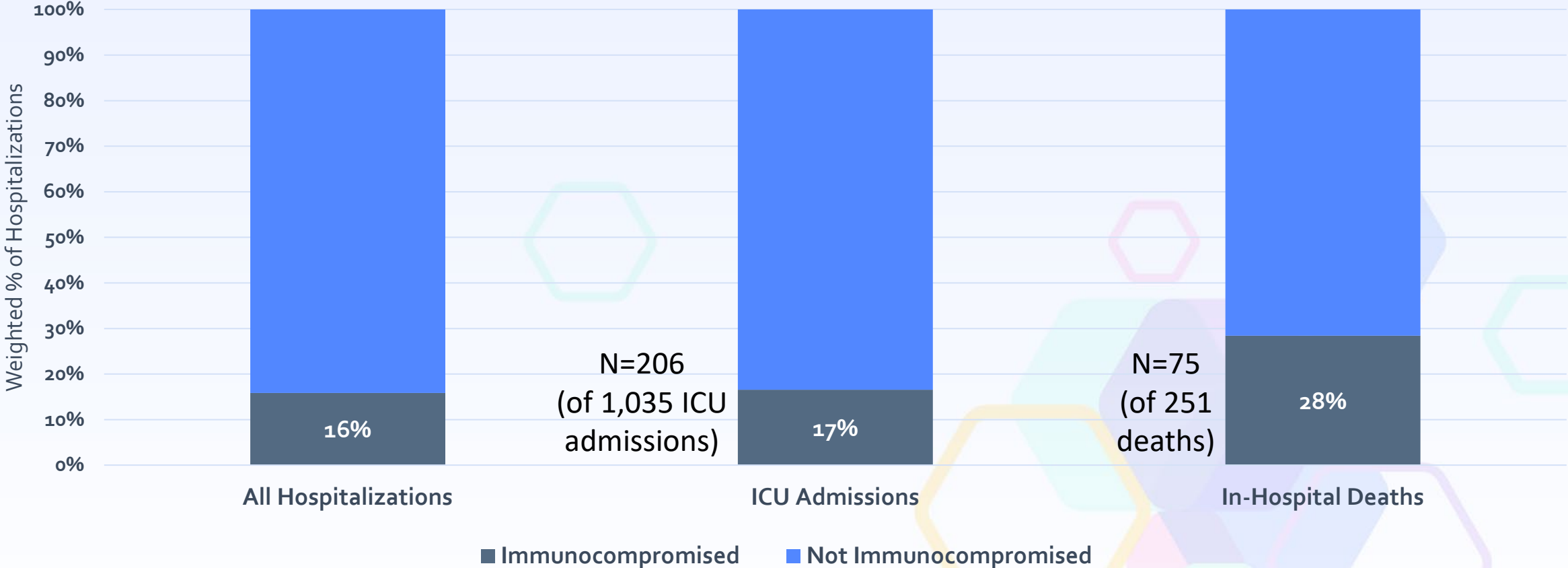
# Percent of COVID-19-Associated Hospitalizations with Immunocompromising Conditions\*, by Age Group — COVID-NET, October 2022–November 2023



\* Immunocompromising conditions include AIDS or CD4 count<200, complement deficiency, graft vs host disease, HIV, immunoglobulin deficiency, receipt of immunosuppressive therapy, leukemia, lymphoma, solid organ malignancy, bone marrow transplant, metastatic cancer, multiple myeloma, steroid therapy, solid organ transplant, and other conditions adjudicated by RESP-NET physicians to be immunocompromising in nature.



# Percent of COVID-19-Associated Hospitalizations with Immunocompromising Conditions among All Adults Ages $\geq 18$ Years, Overall and by Outcome — COVID-NET, October 2022–November 2023



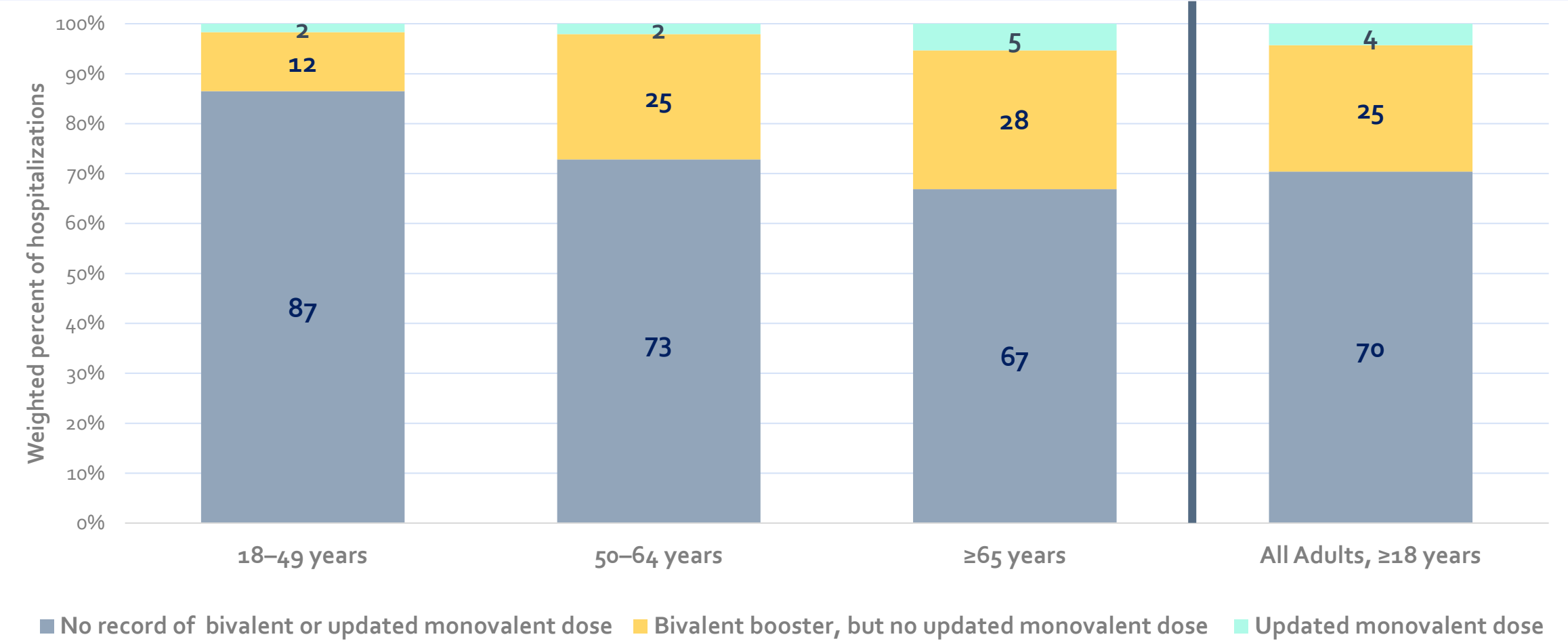
\* Immunocompromising conditions include AIDS or CD4 count < 200, complement deficiency, graft vs host disease, HIV, immunoglobulin deficiency, receipt of immunosuppressive therapy, leukemia, lymphoma, solid organ malignancy, bone marrow transplant, metastatic cancer, multiple myeloma, steroid therapy, solid organ transplant, and other conditions adjudicated by RESP-NET physicians to be immunocompromising in nature.

## Percent of Hospitalizations among Adults Ages $\geq 18$ Years with Underlying Medical Conditions by Age Group, with Top 4 Conditions Highlighted — COVID-NET, October 2022–November 2023

Condition	18–49 yrs	50–64 yrs	65–74 yrs	$\geq 75$ yrs
Chronic lung disease	23	36	45	34
Asthma	19	17	14	9
COPD/Bronchitis	3	16	24	16
Cardiovascular disease	20	47	61	67
CAD/CABG/MI	5	17	27	27
CHF/Cardiomyopathy	6	18	25	25
Stroke/TIA	3	13	15	20
Diabetes	21	40	44	37
Immunocompromising condition	12	19	21	13
Neurologic condition	18	26	30	42
Dementia	0	1	6	29
Renal Disease	8	21	24	31
Obesity	42	43	39	23

# COVID-19 Vaccination Status by Age Group among Adults Ages ≥18 Years

## Hospitalized with COVID-19 — COVID-NET, October–November 2023 (Preliminary)



**No record of bivalent or updated monovalent dose:** No recorded doses of COVID-19 bivalent or updated 2023-2024 monovalent dose. **Bivalent booster, but no updated monovalent doses:** Received COVID-19 bivalent booster vaccination but no record of receiving updated 2023-2024 monovalent booster dose. **Updated monovalent dose:** Received updated 2023-2024 monovalent dose. Persons with unknown vaccination status are excluded.

# Acknowledgements

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For more information, contact CDC  
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