2023–24 End of Season Influenza Vaccine Effectiveness – United States

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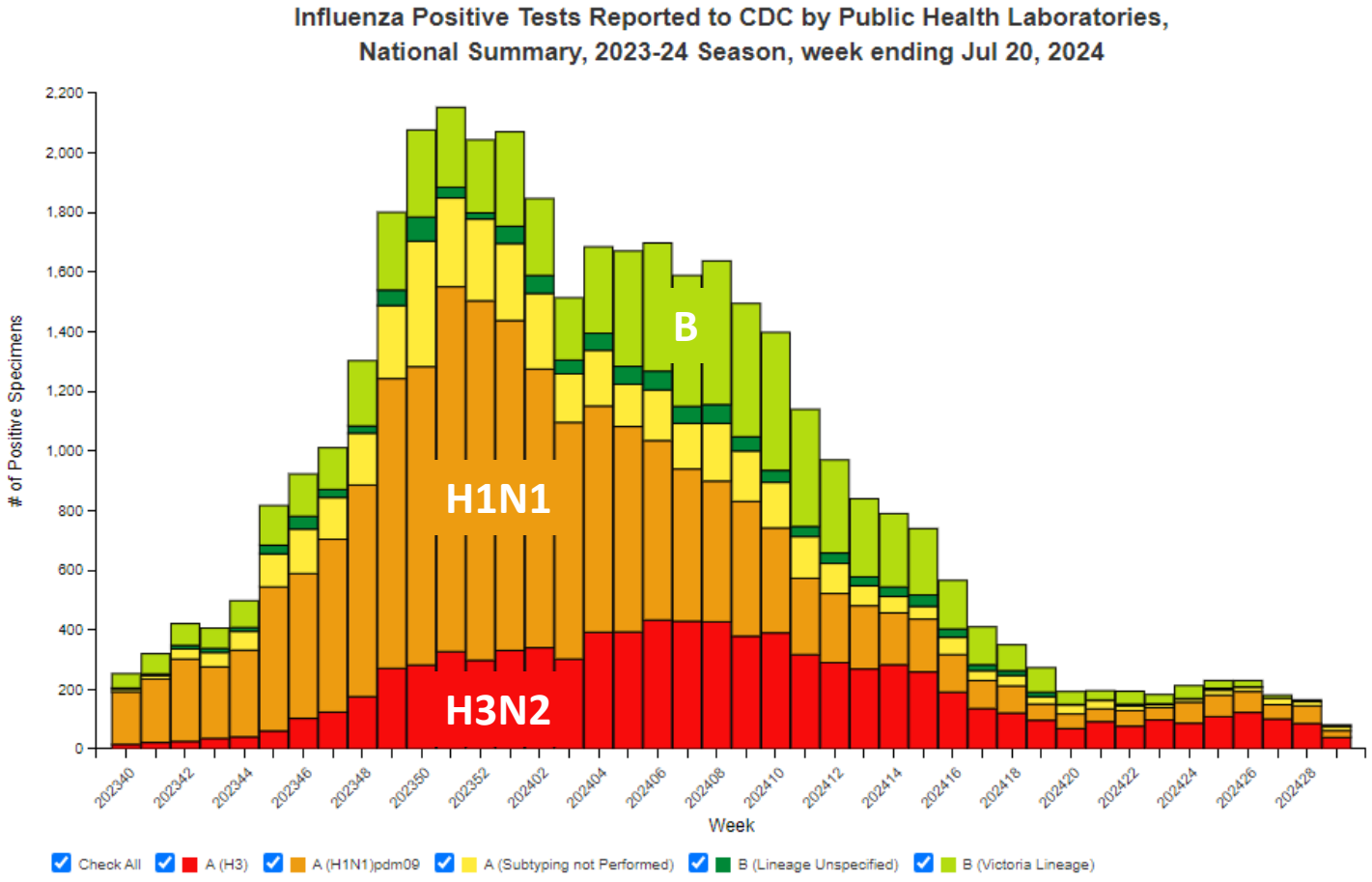
2023–2024 Influenza Season

- A(H1N1)pdm09 predominant
- Lower levels of A(H3N2) and B/Victoria circulation
- Peak activity 2023 week 52
- Vaccines were quadrivalent and included A(H1N1)pdm09, A(H3N2), and B components

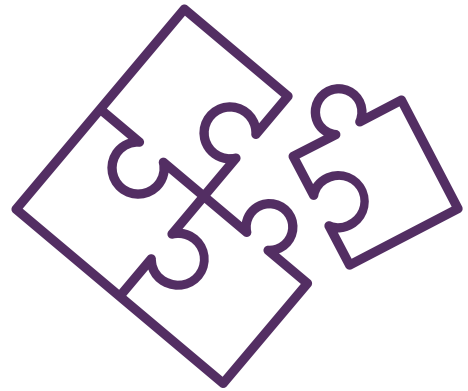


CDC Influenza Vaccine Effectiveness Networks

Investigating Respiratory Viruses in the Acutely Ill (IVY)

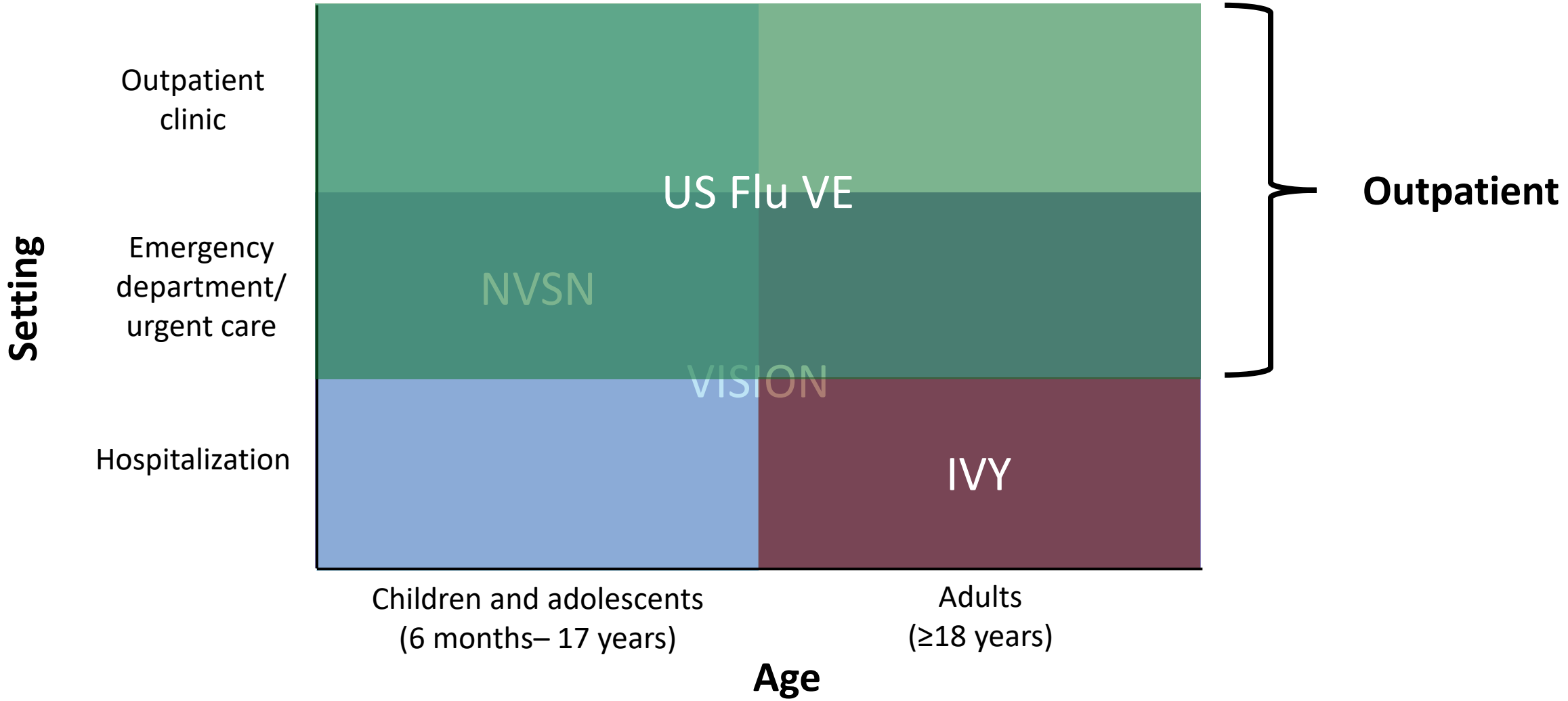
New Vaccine Surveillance Network (NVSN)

US Flu Vaccine Effectiveness Network (US Flu VE)

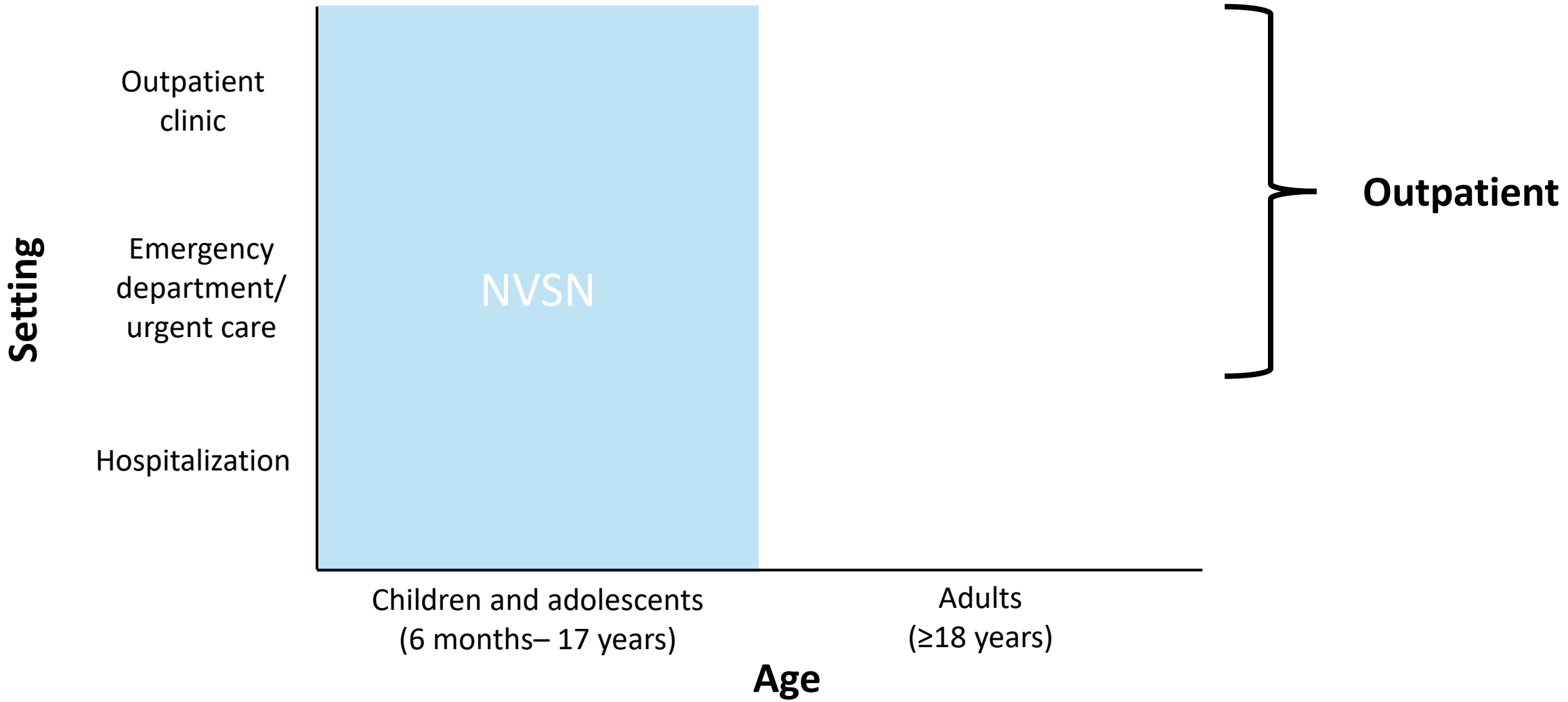


Virtual SARS-CoV-2, Influenza, and Other respiratory viruses Network (VISION)

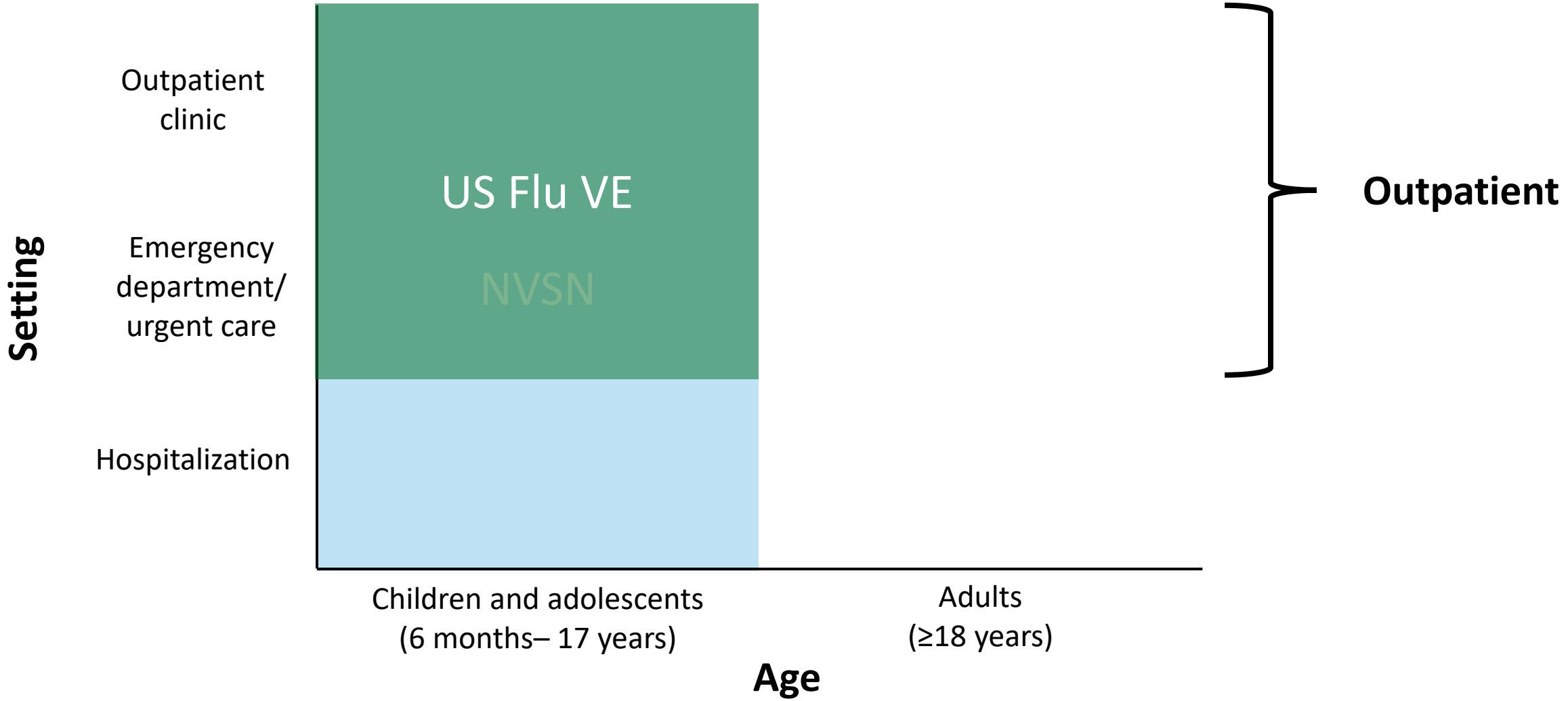
These networks include all ages across settings



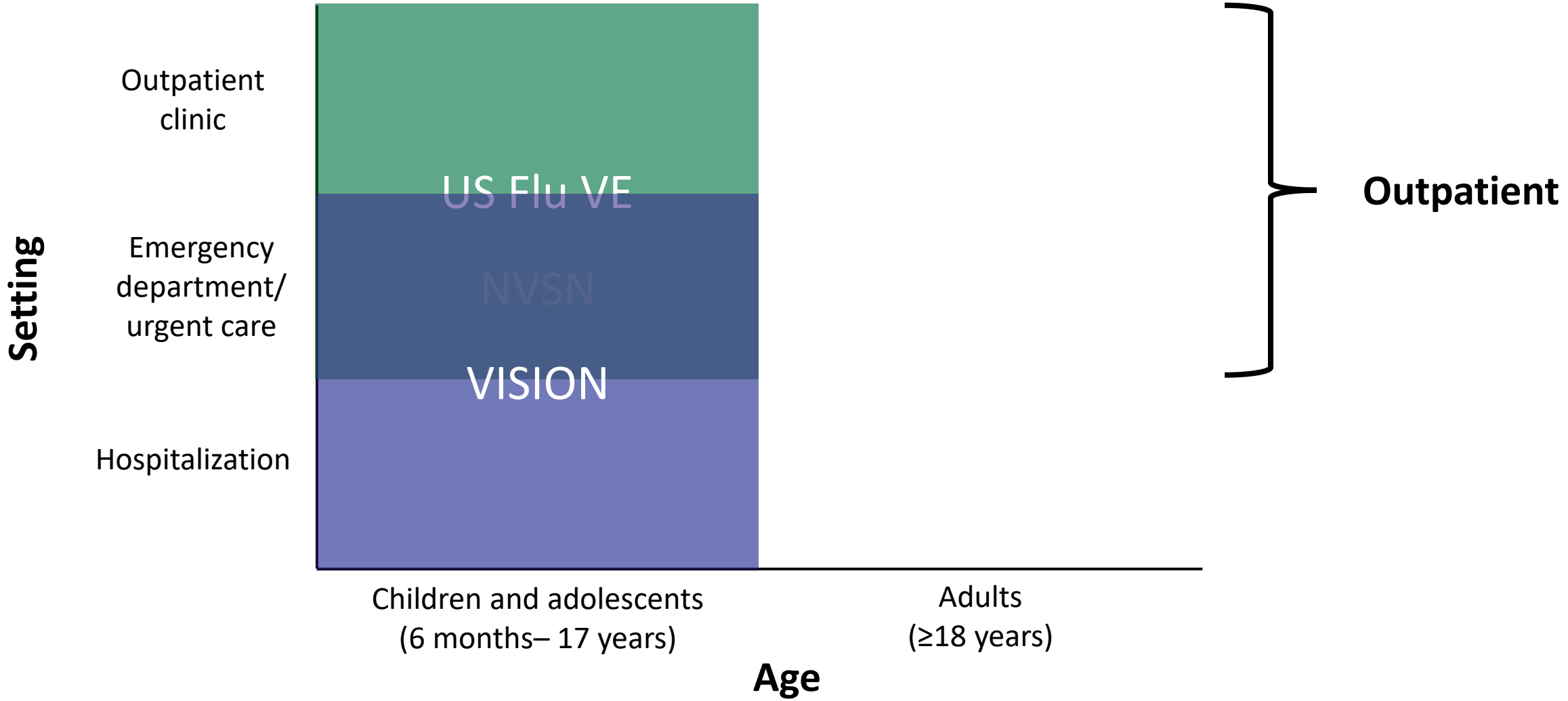
NVSN: all settings



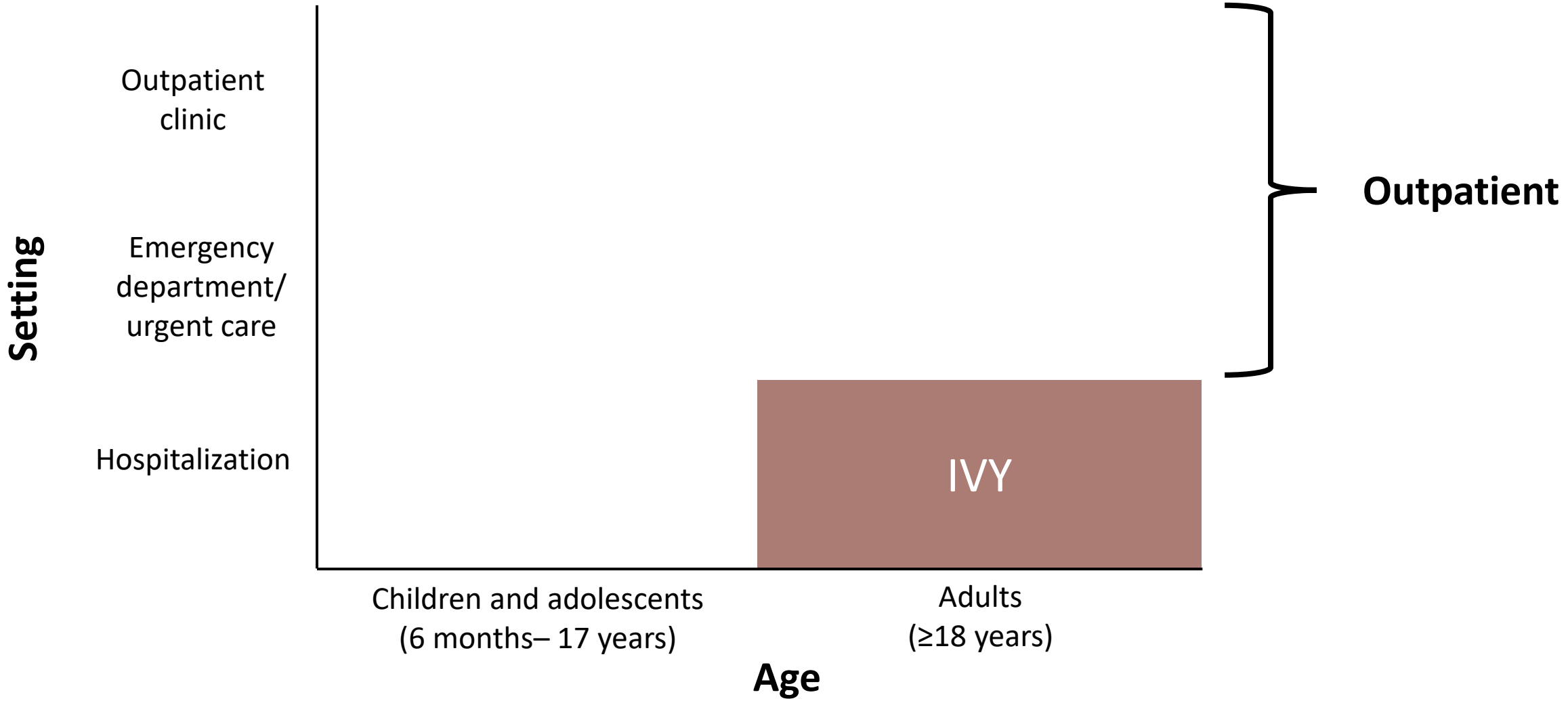
US Flu VE: Outpatient clinic and ED/UC



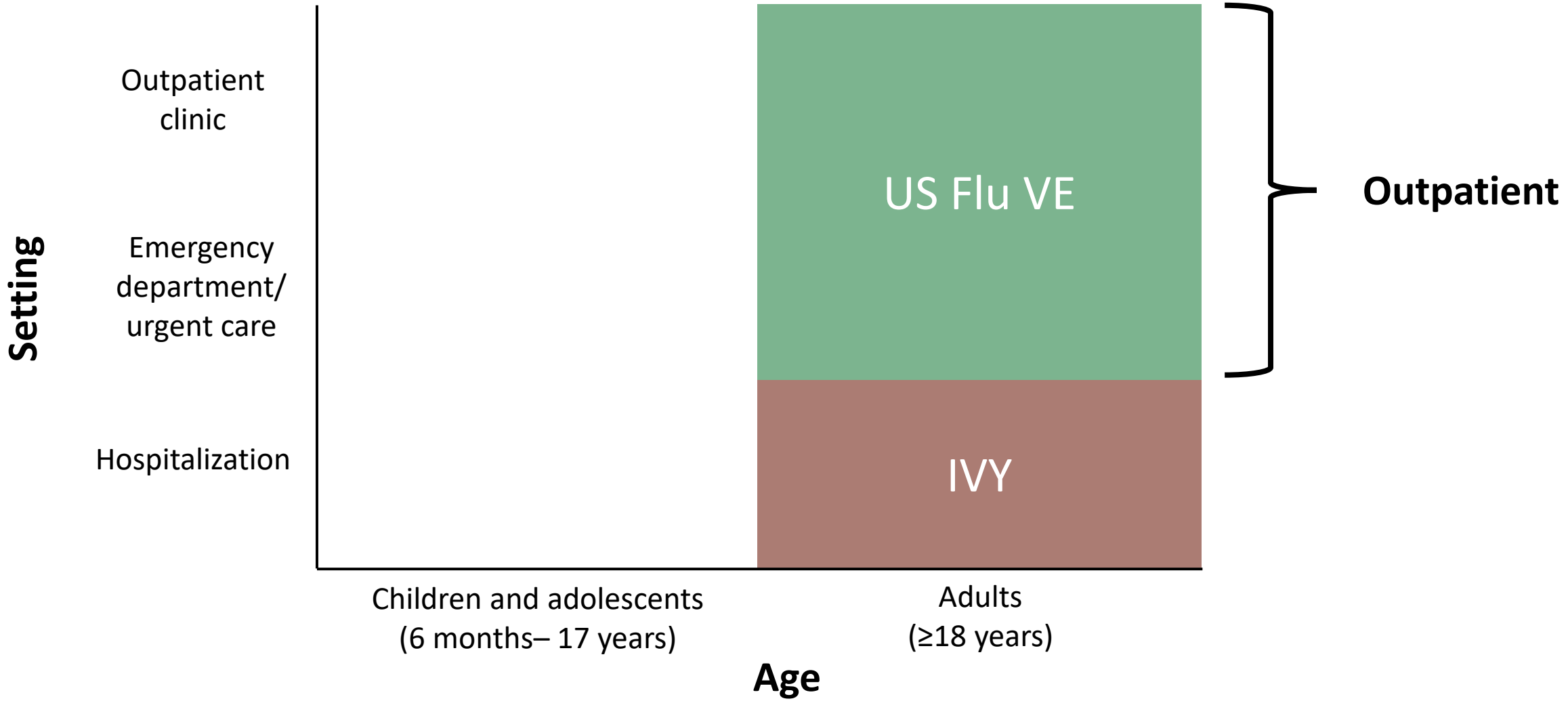
VISION: ED/UC & hospitalization



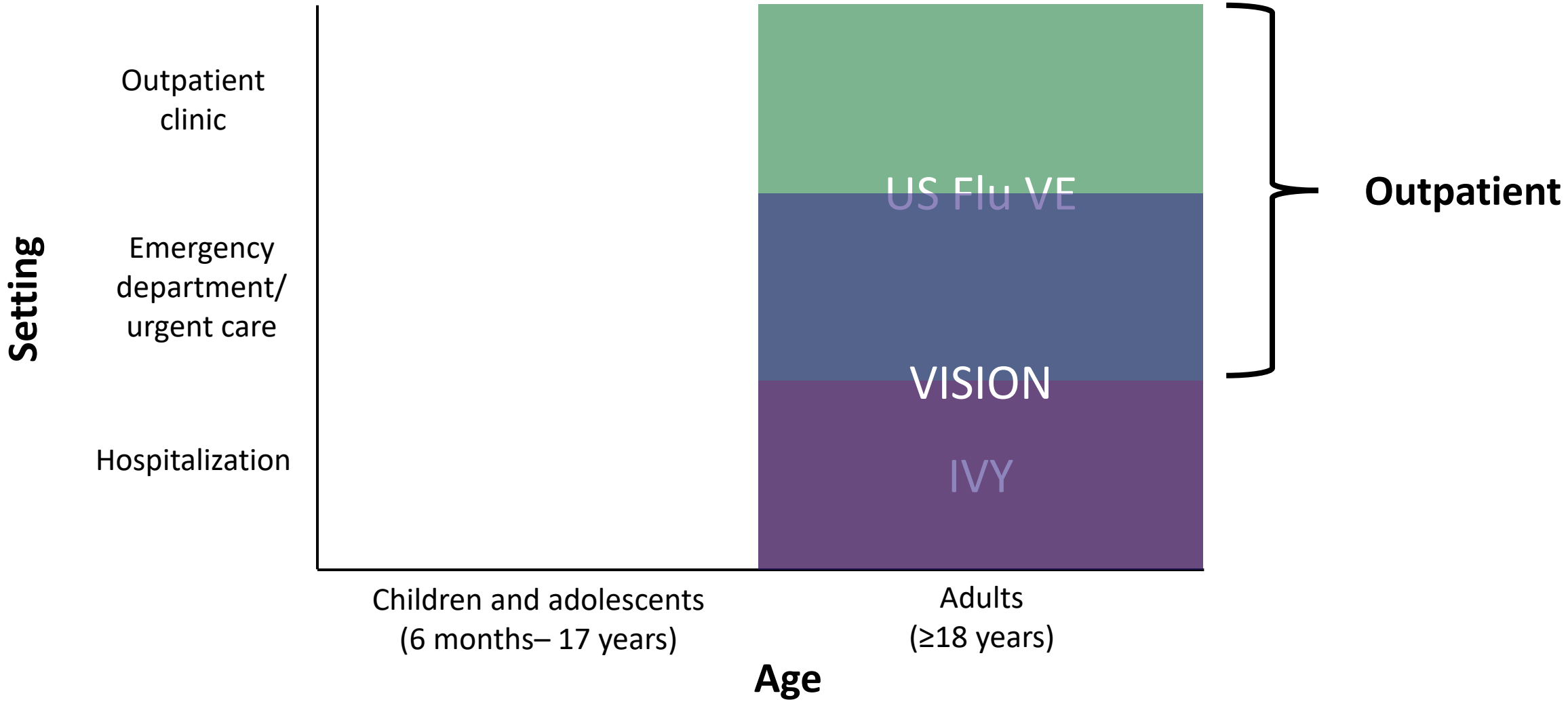
IVY: hospitalization



US Flu VE: Outpatient clinic and ED/UC



VISION: ED/UC & hospitalization



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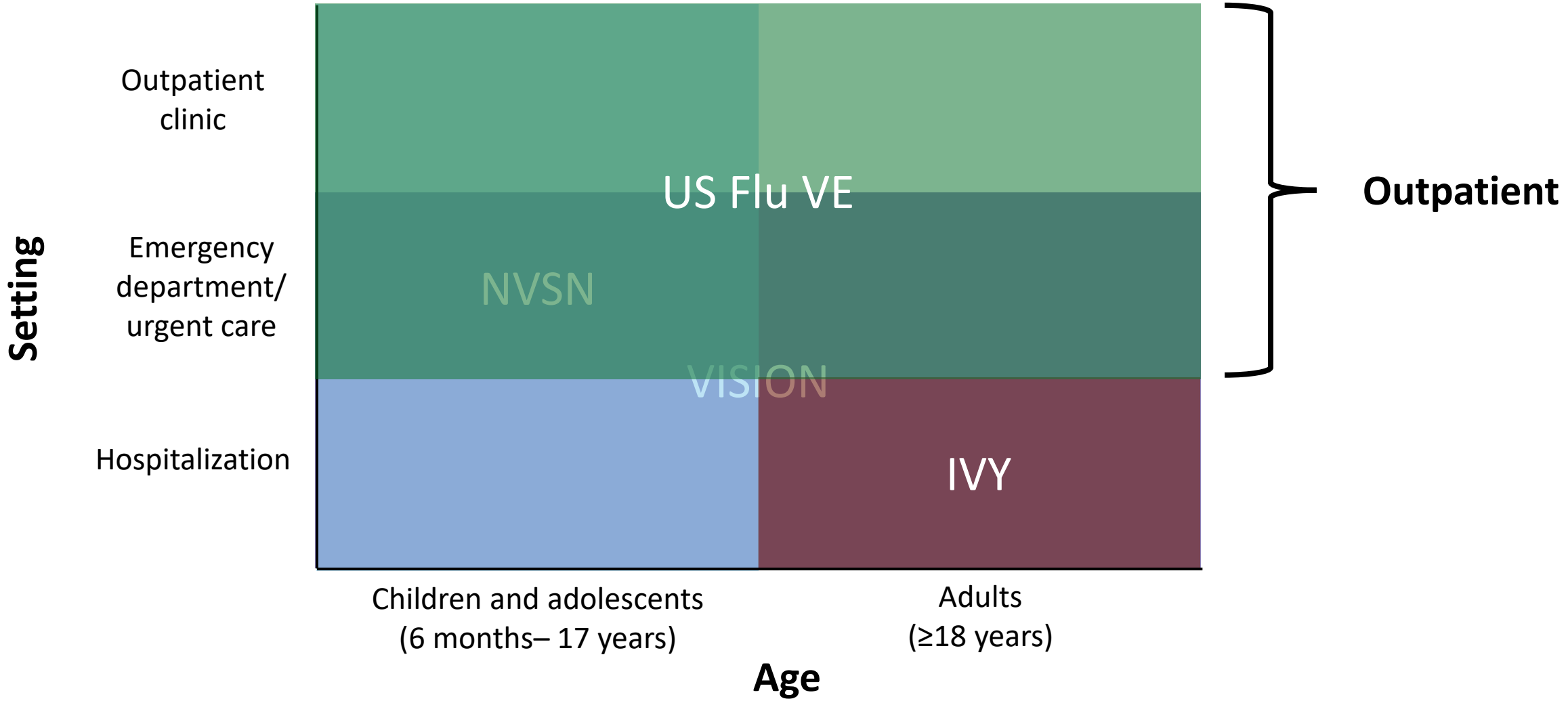
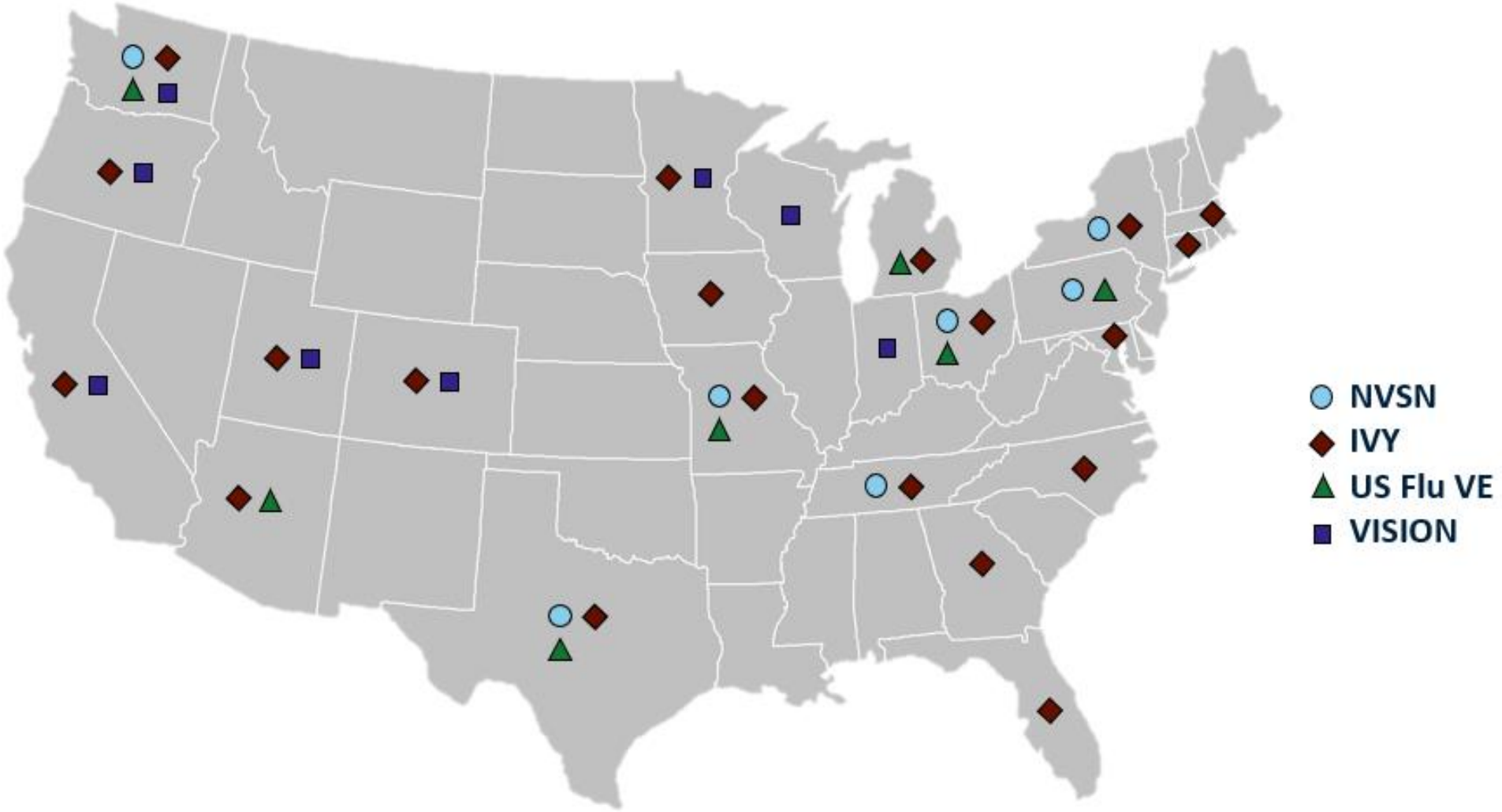


CDC influenza VE networks include patients from 23 states



Morbidity and Mortality Weekly Report

Interim Estimates of 2023–24 Seasonal Influenza Vaccine Effectiveness — United States

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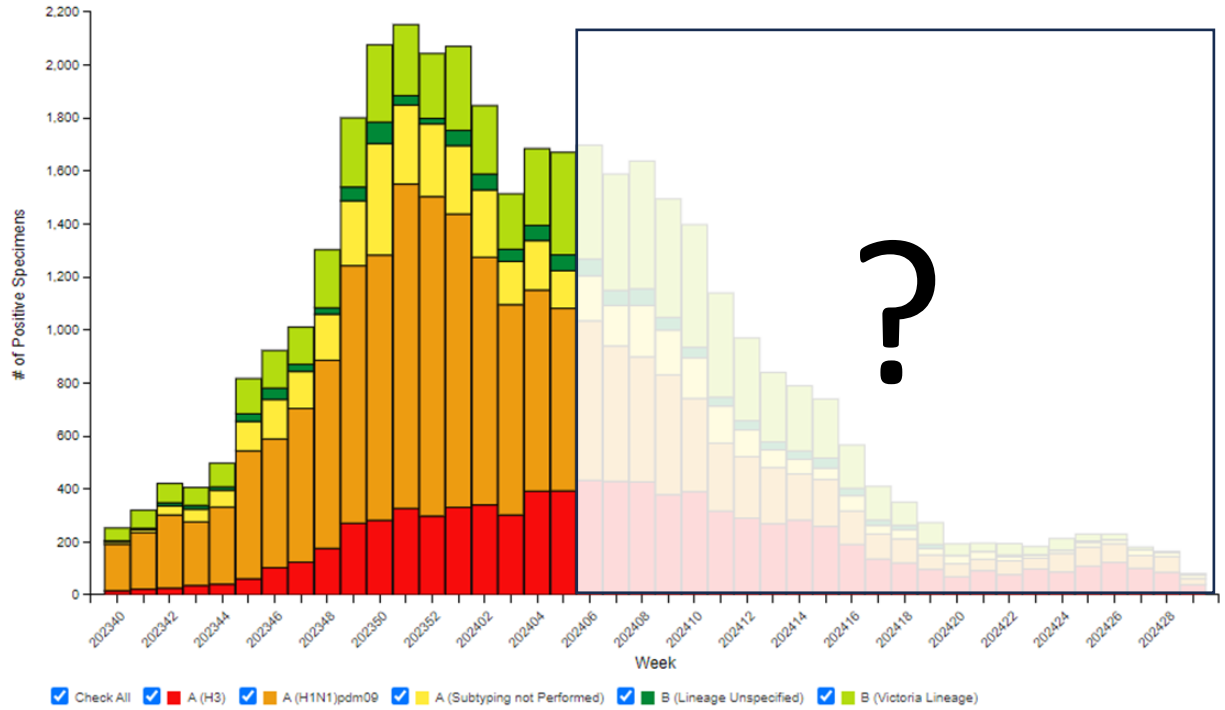


2023–2024 Influenza VE Methods

Enrollees: Have acute respiratory illness and present for medical care

Dates of enrollment: Fall 2023–April/May 2024

Design: Test-negative design

- Comparing vaccination odds among case patients with influenza confirmed by molecular assay versus control patients testing negative for influenza and SARS-CoV-2
- Vaccination status: receipt of any 2023–24 seasonal flu vaccine according to medical records, immunization registries, claims data, and/or self-report

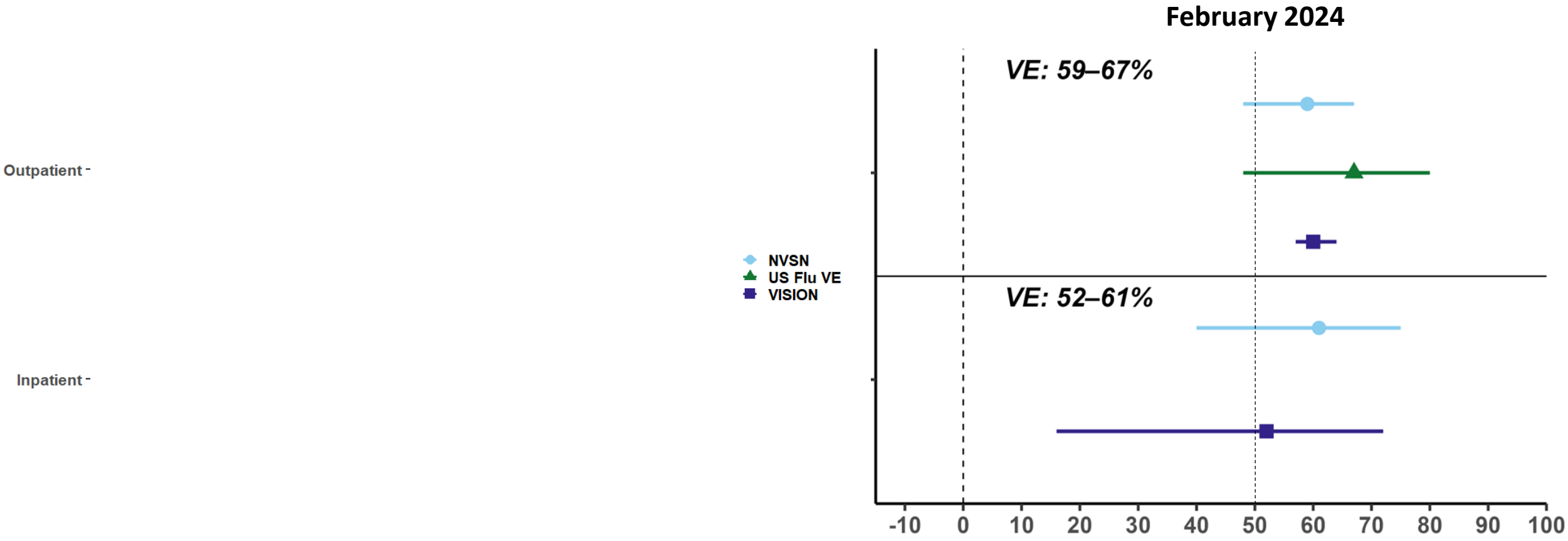
2023–2024 Influenza VE Methods

Analysis: VE = (1 – adjusted OR) x 100%

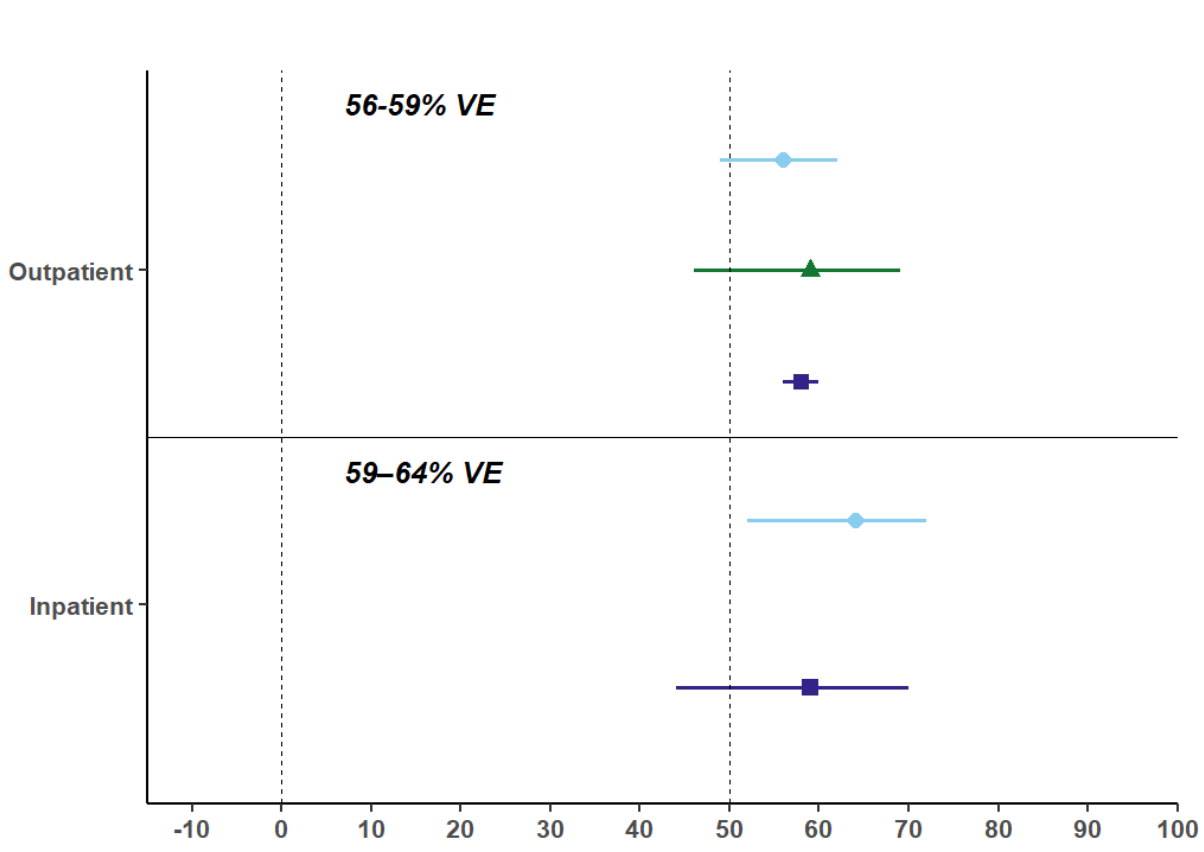
- Adjusted for geographic region, age, calendar time of illness
  - IVY, US Flu VE, and VISION also adjusted for sex and race and ethnicity
  - US Flu VE also adjusted for days between illness onset and enrollment and self-reported general health status

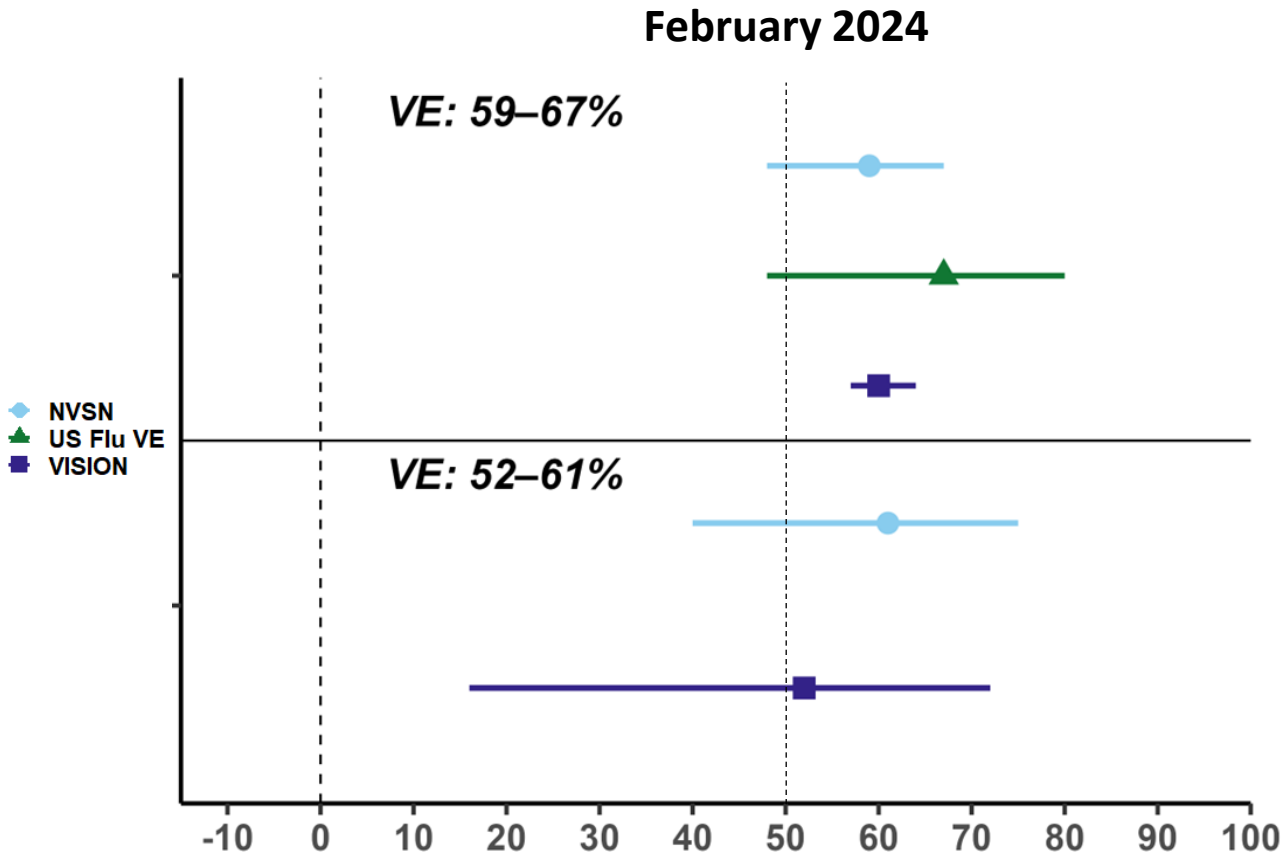
VE among children and adolescents aged 6 months – 17 years

Pediatric VE against any influenza

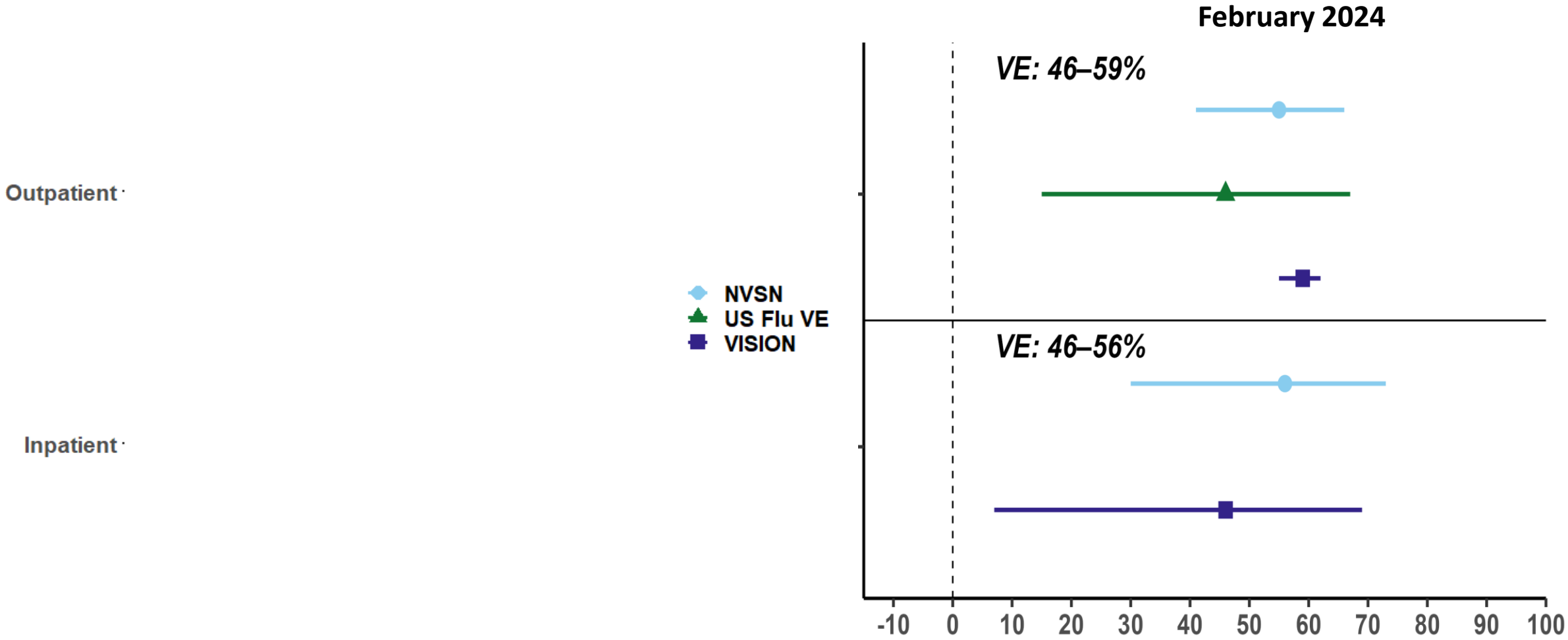


Pediatric VE against any influenza

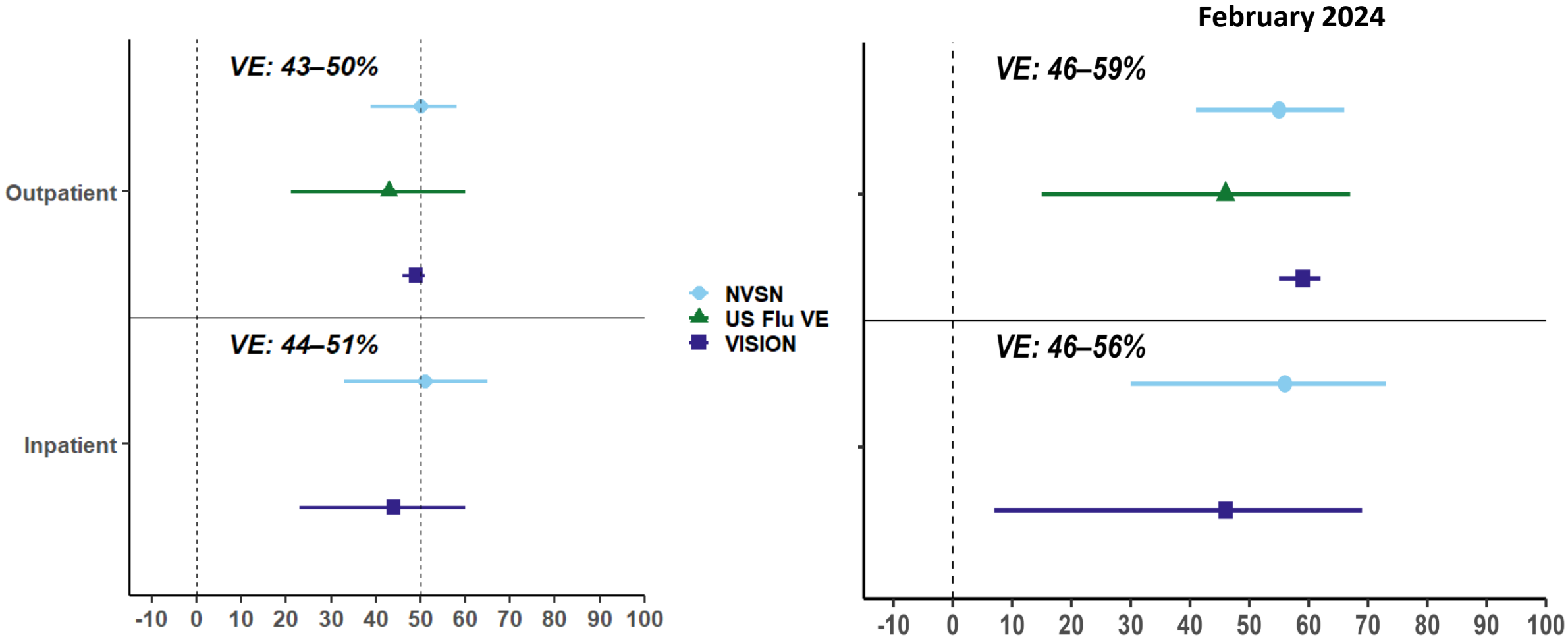




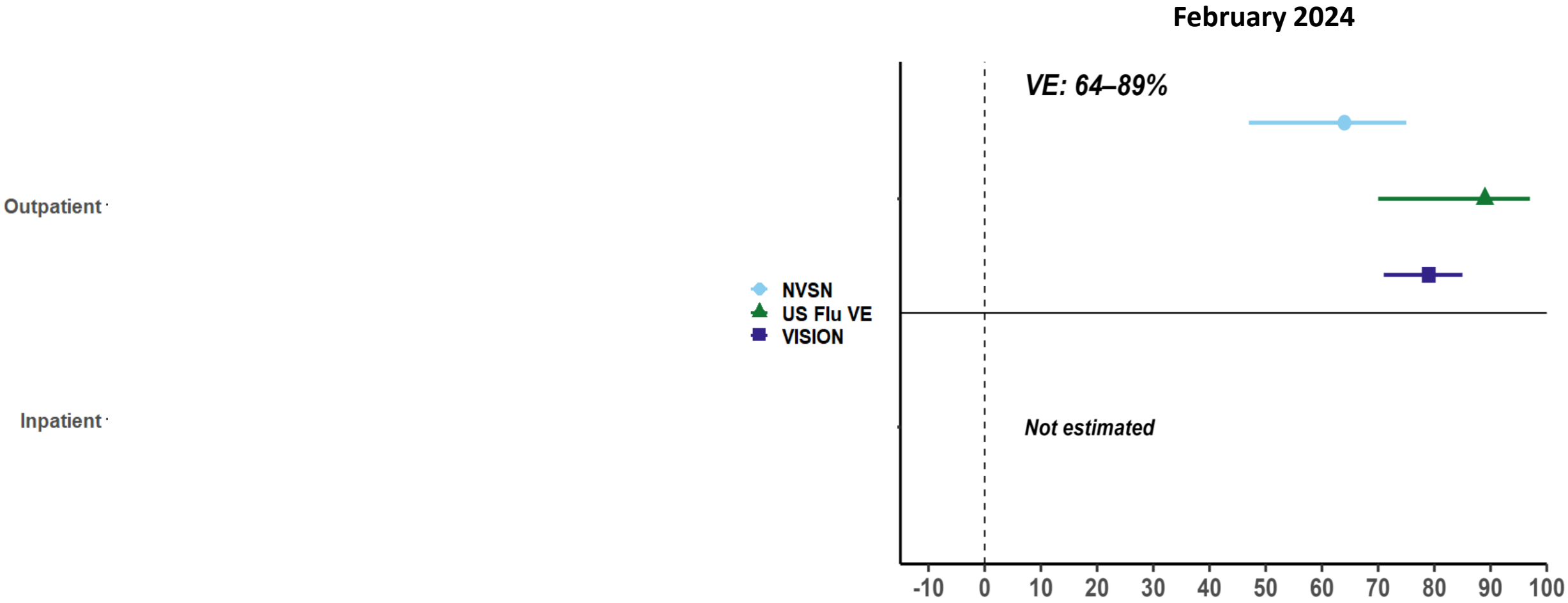
Pediatric VE against influenza A



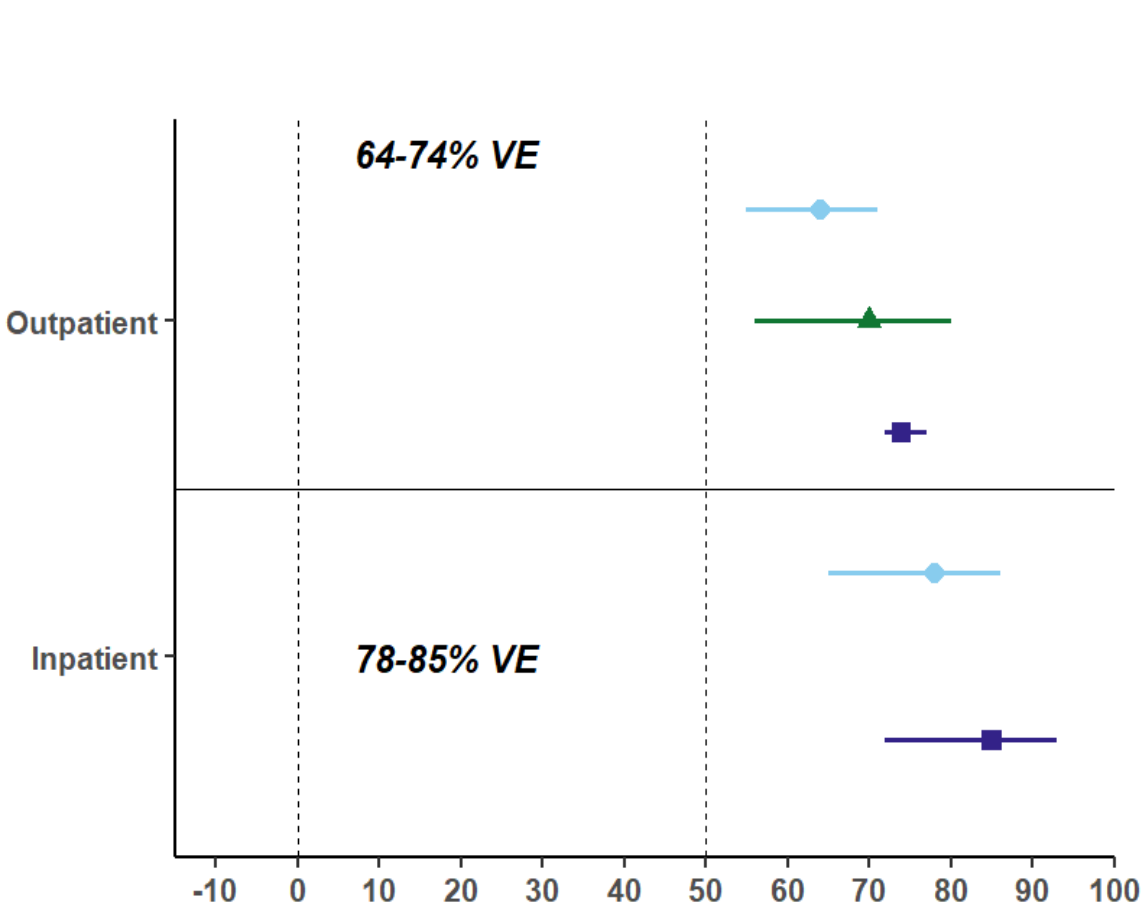
Pediatric VE against influenza A



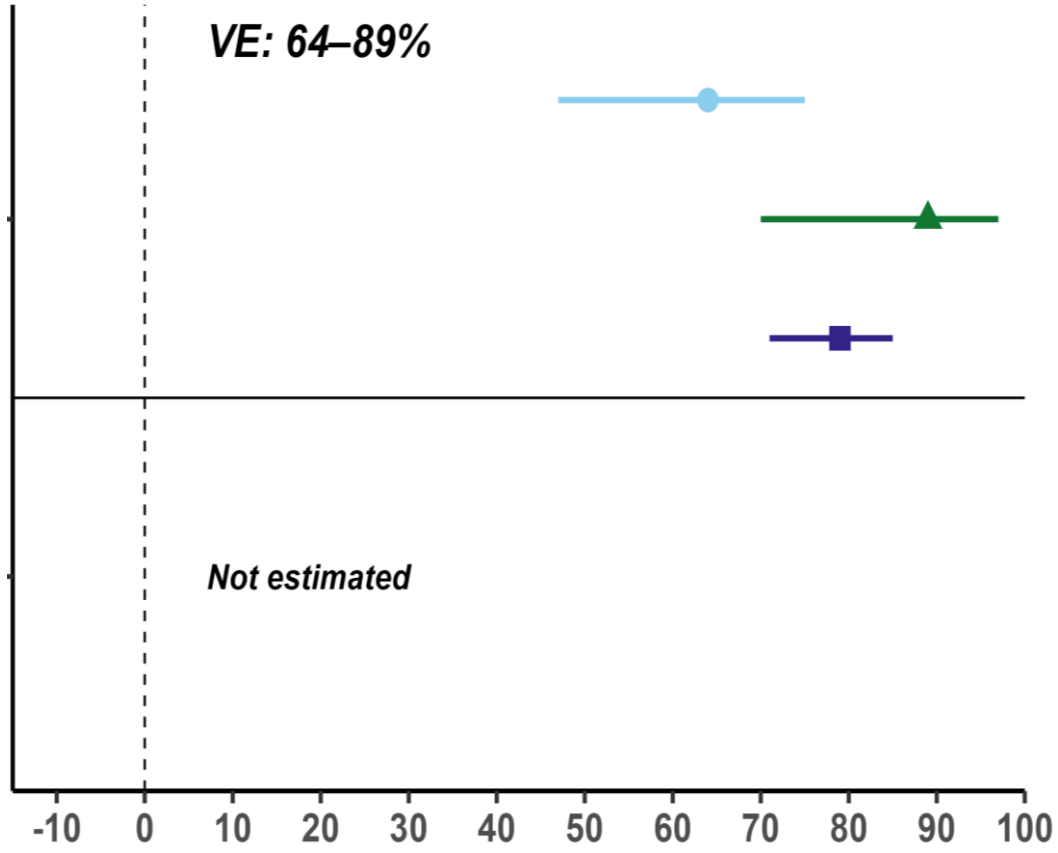
Pediatric VE against influenza B



Pediatric VE against influenza B

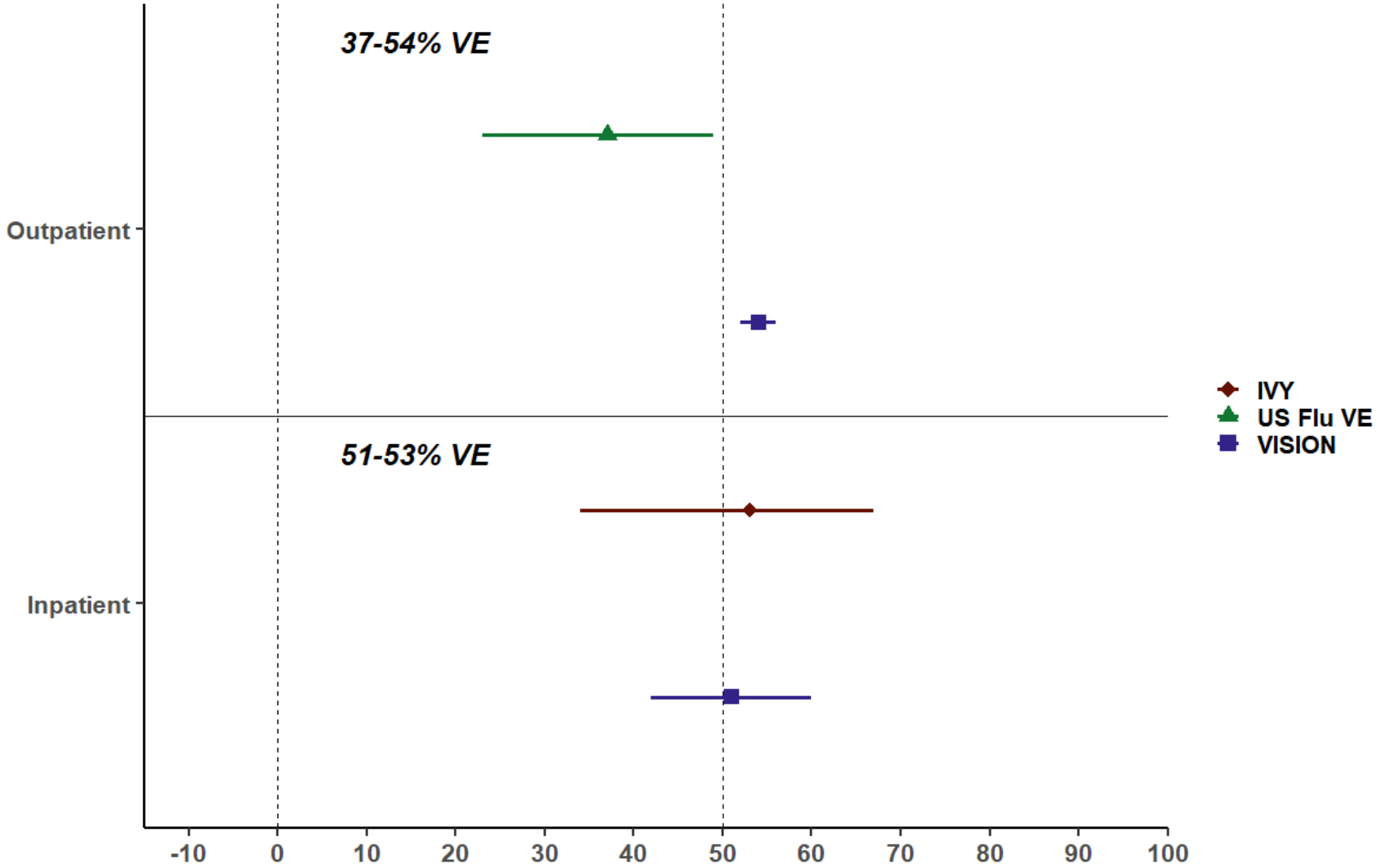


February 2024

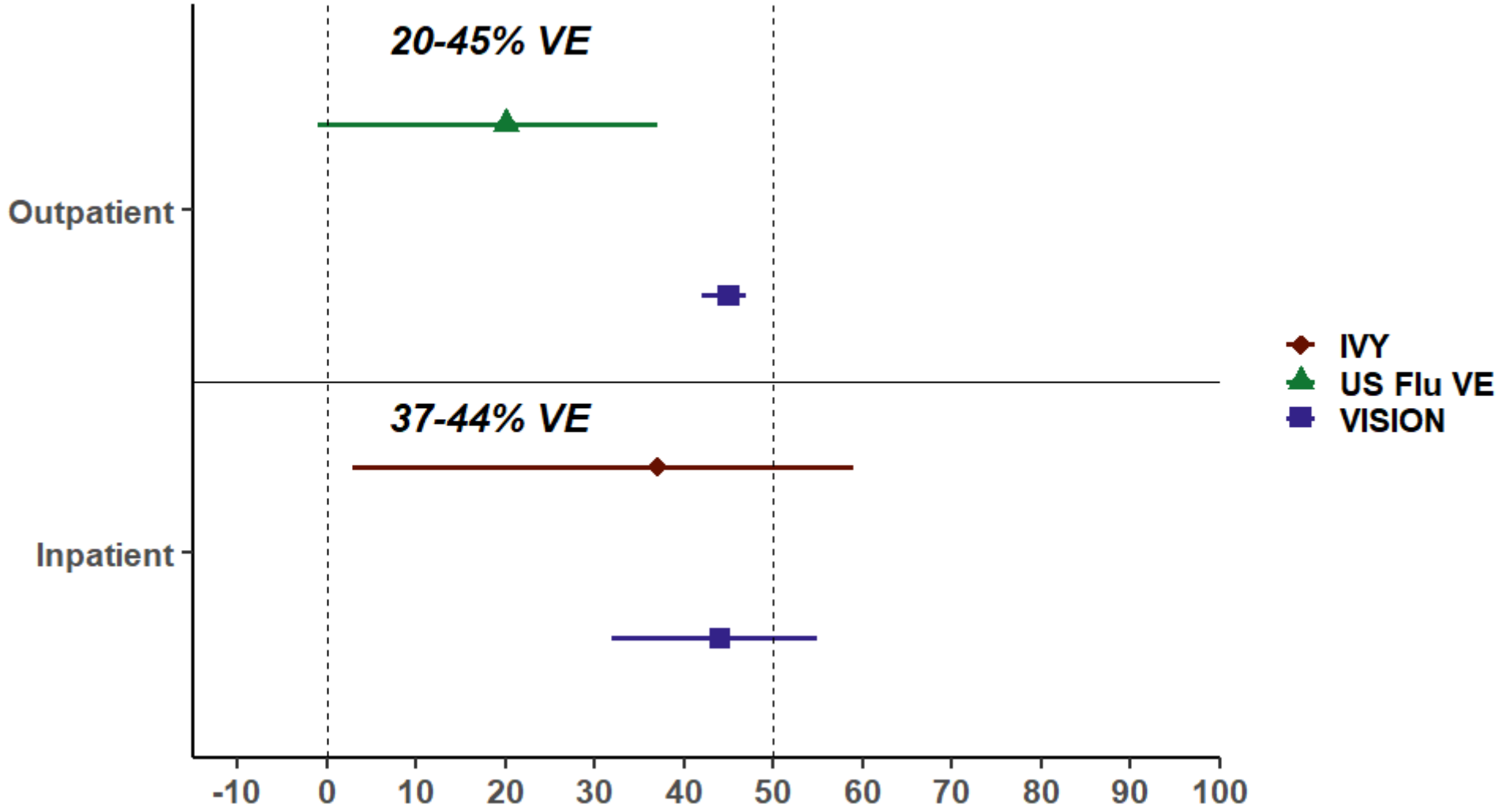


VE among adults ages 18–49 years

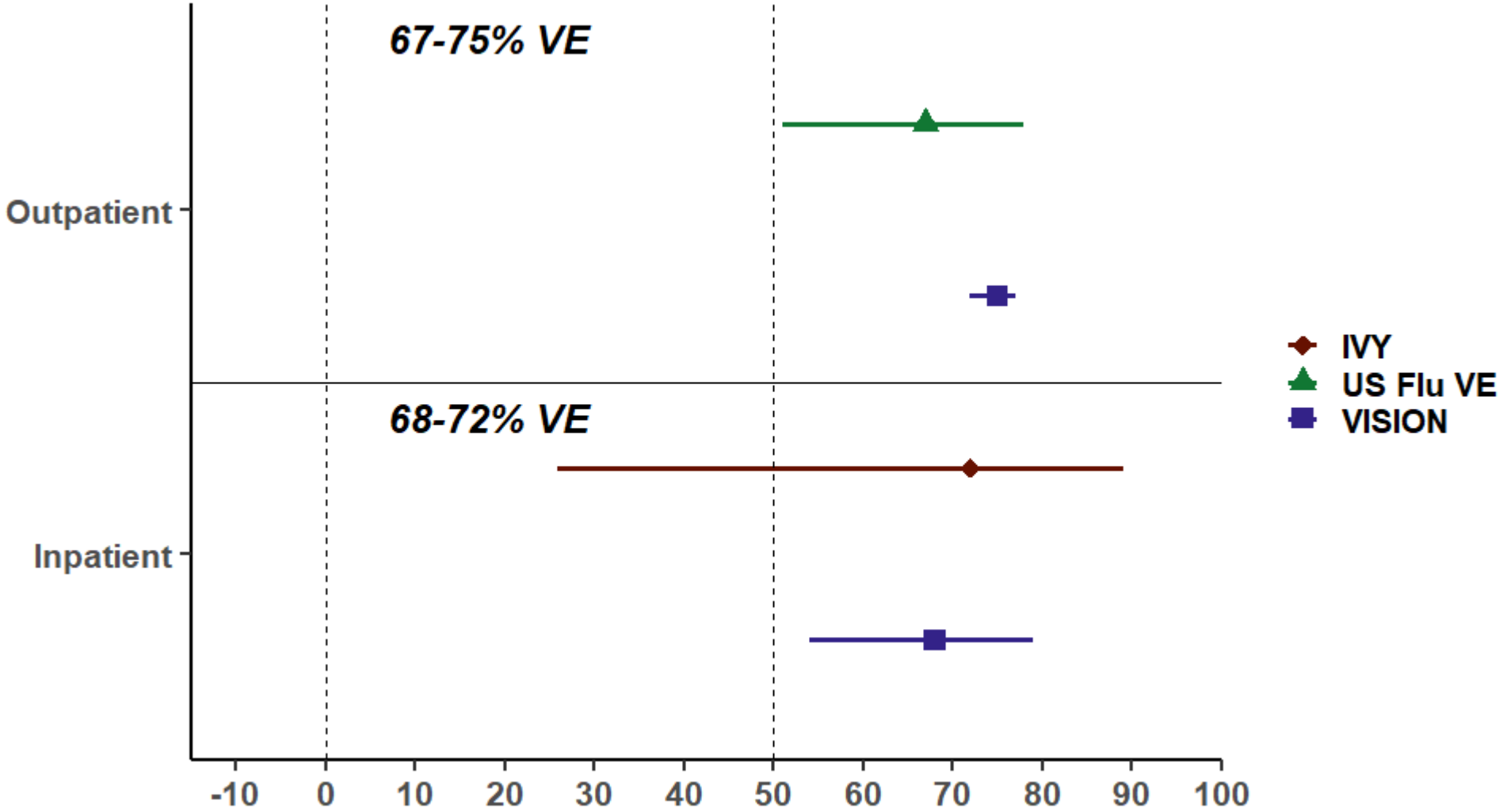
Adult (aged 18–49 years) VE against any influenza



Adult (aged 18–49 years) against VE influenza A

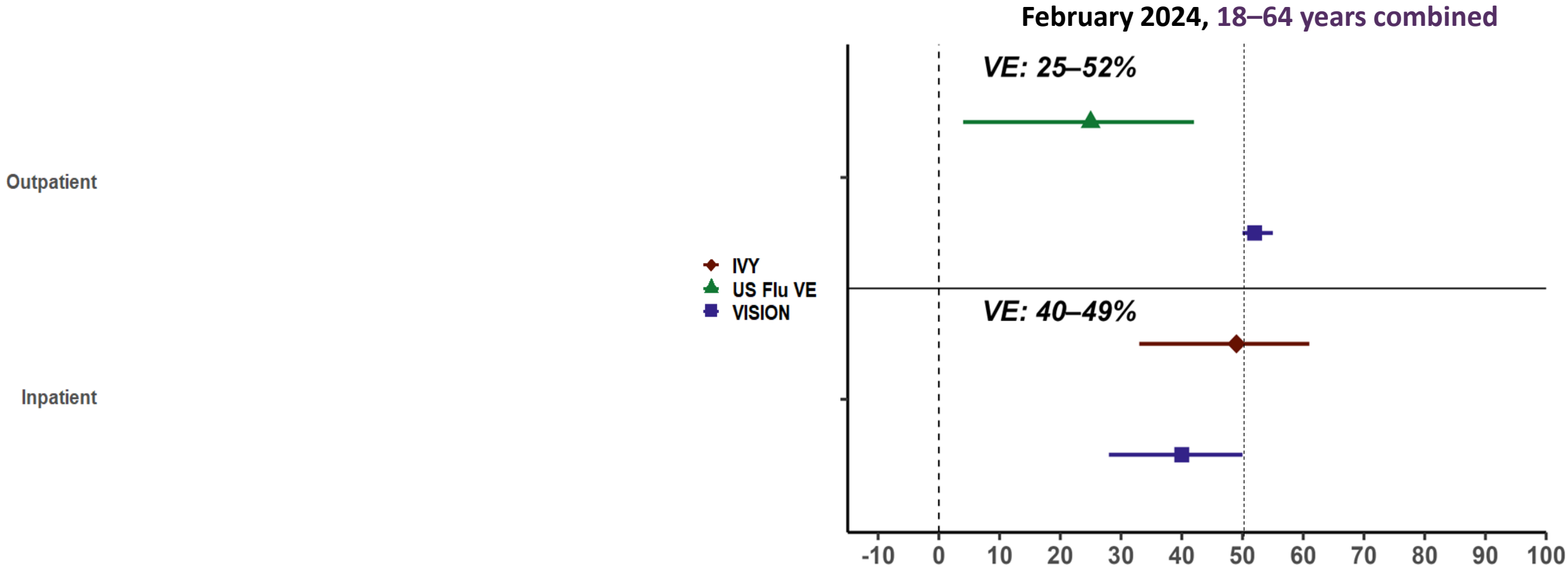


Adult (aged 18–49 years) VE against influenza B

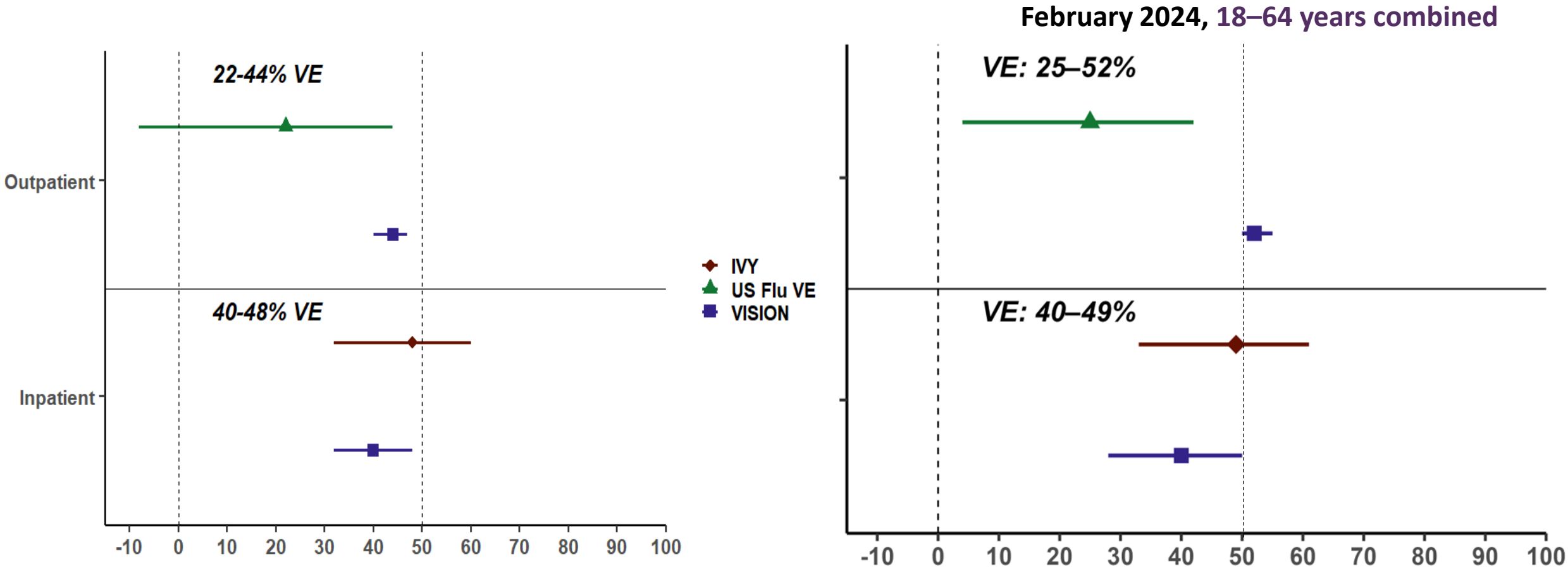


VE among adults aged 50–64 years

Adult (aged 50–64 years) VE against any influenza

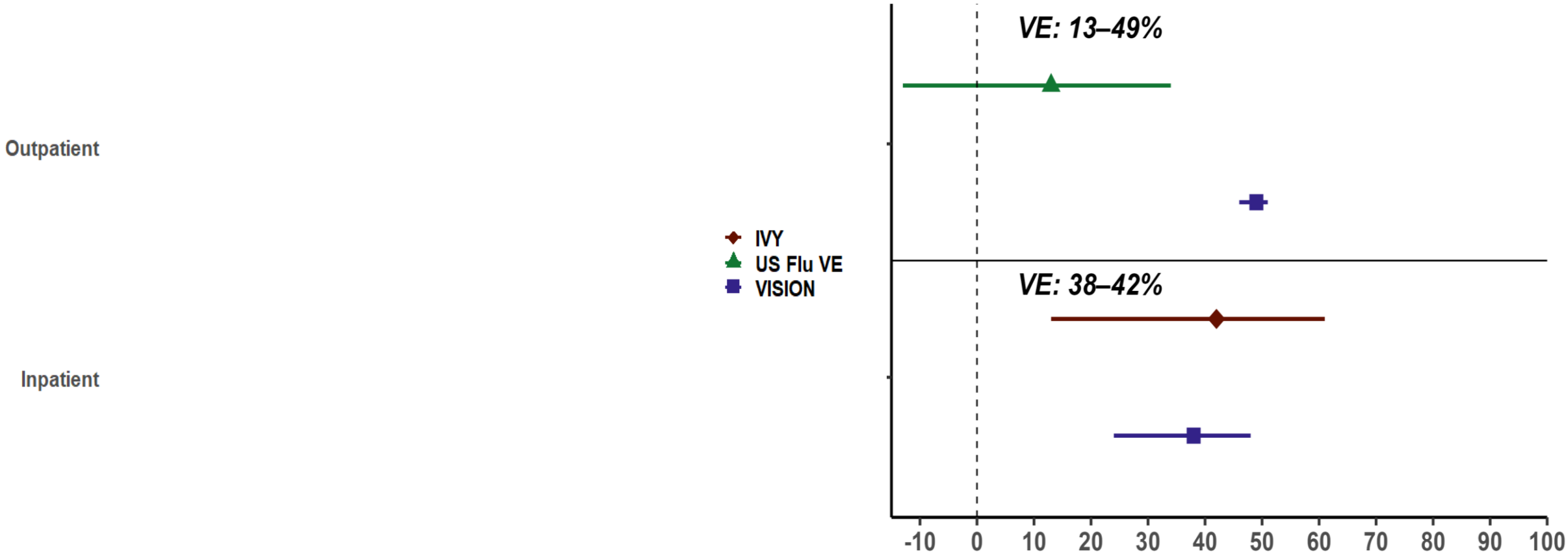


Adult (aged 50–64 years) VE against any influenza



Adult (aged 50–64 years) VE against influenza A

February 2024, 18–64 years combined



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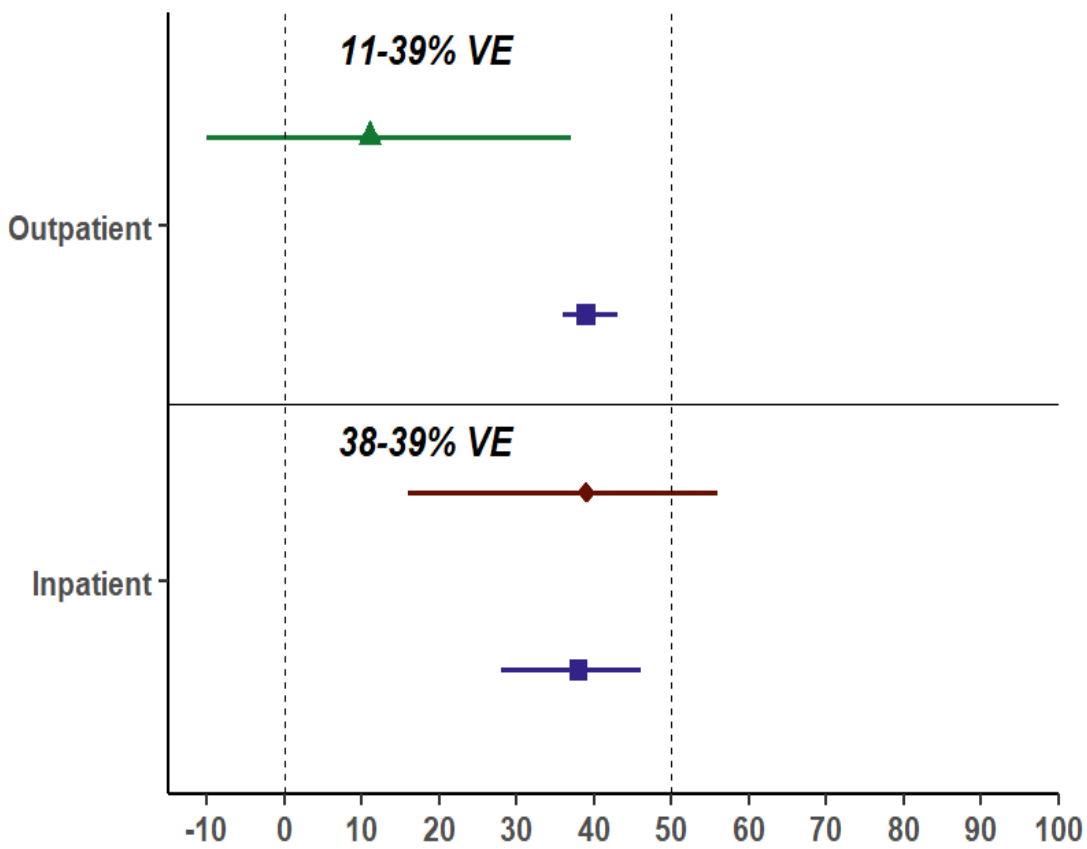
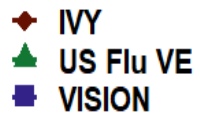
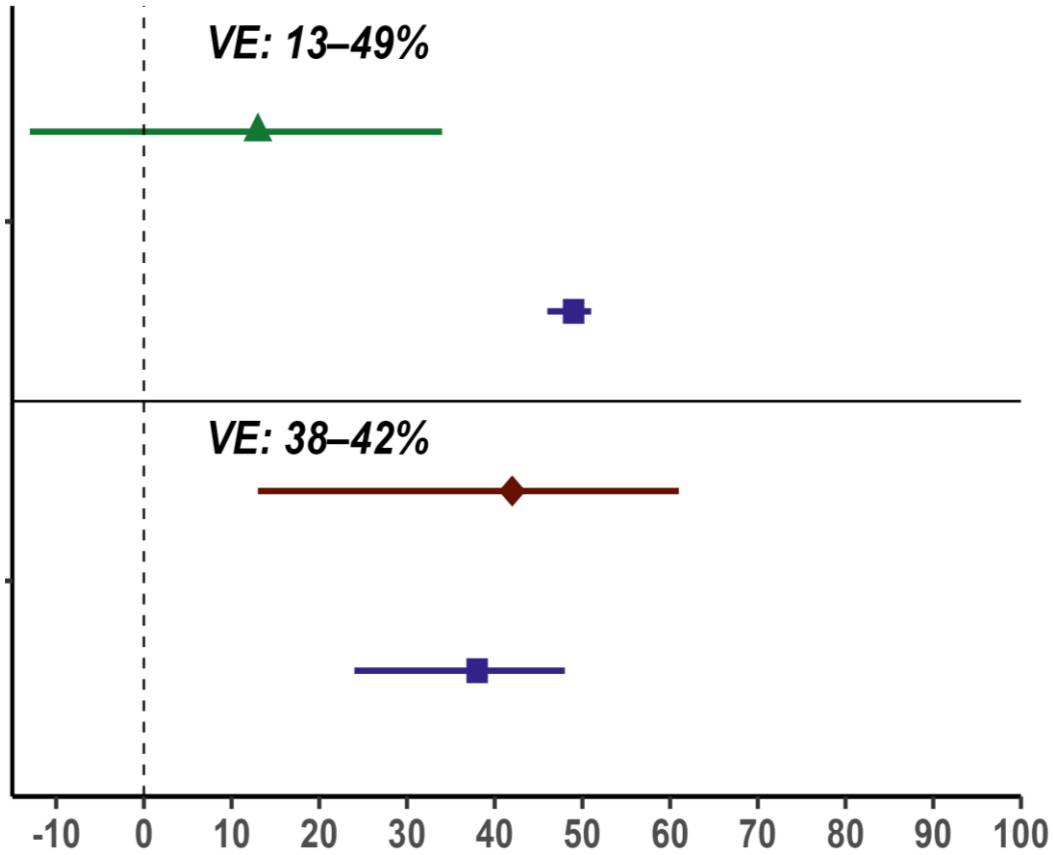
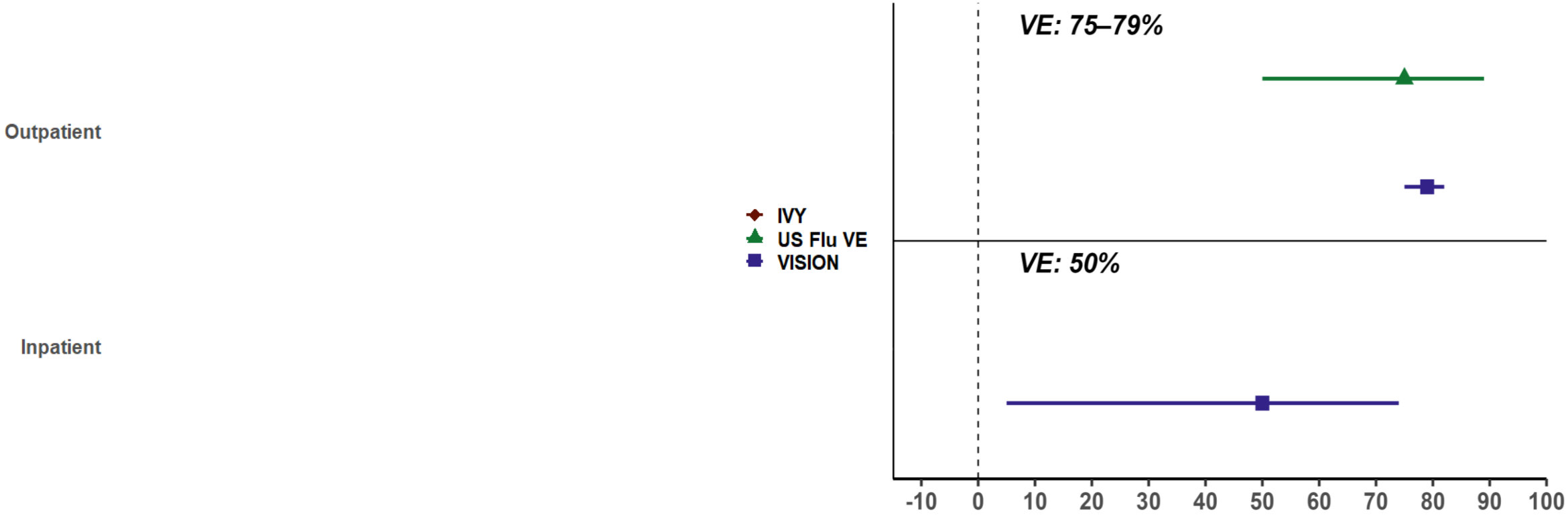






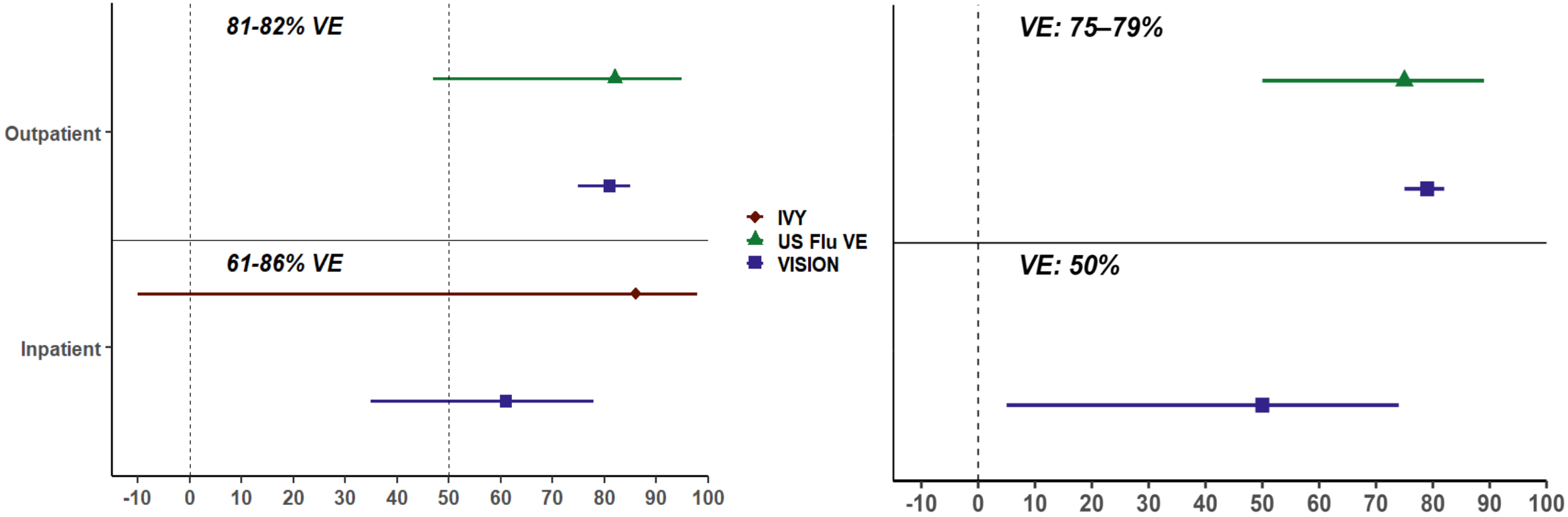
Adult (aged 50–64 years) VE against influenza B

February 2024, 18–64 years combined



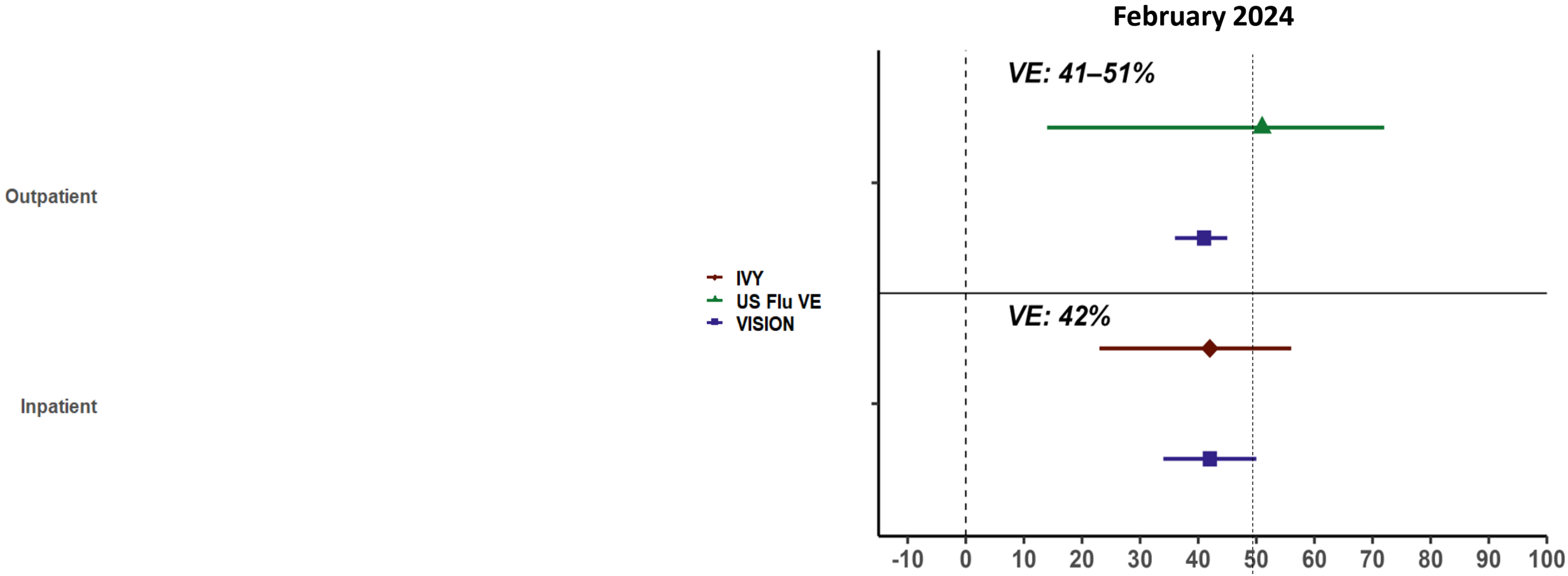
Adult (aged 50–64 years) VE against influenza B

February 2024, 18–64 years combined

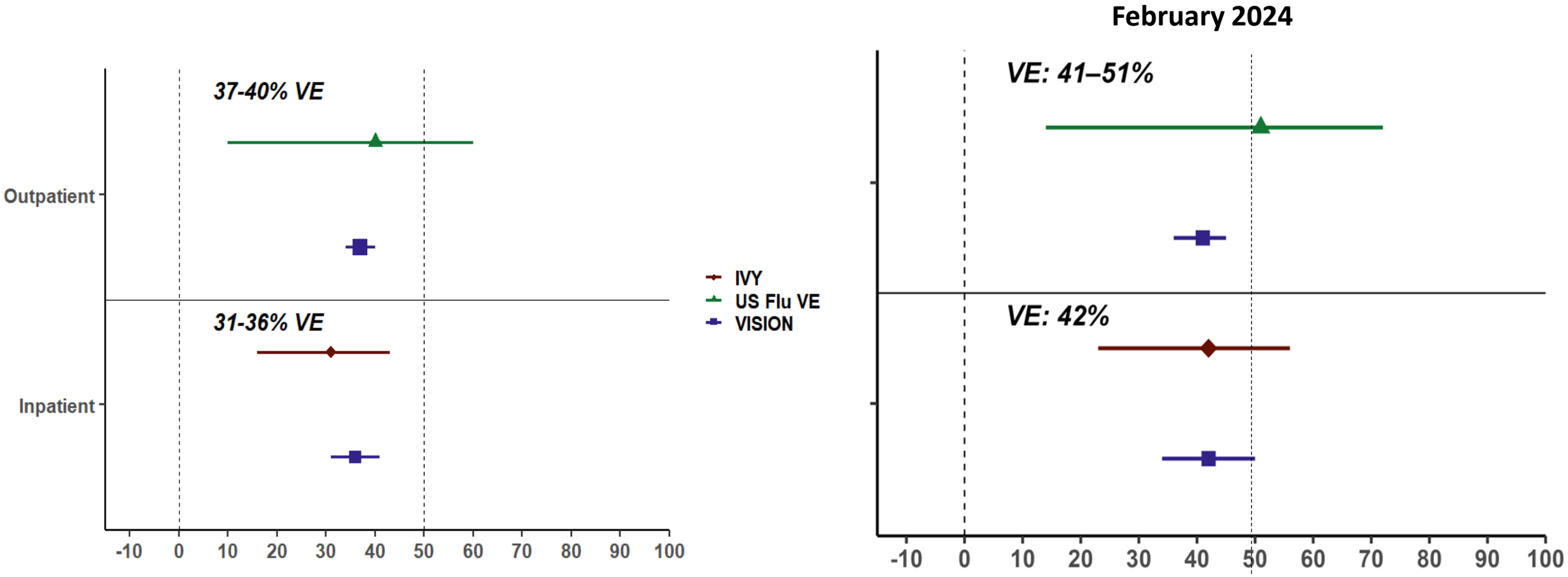


VE among adults aged ≥65 years

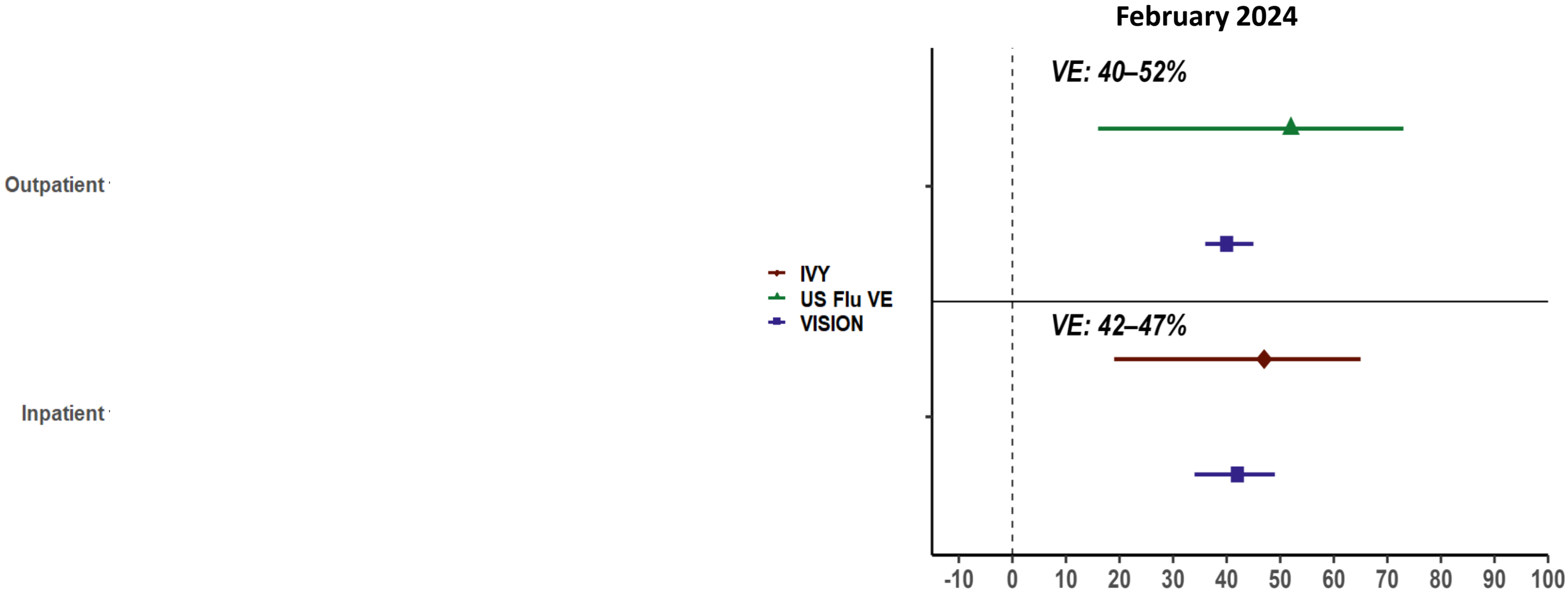
Adult (aged ≥65) VE against any influenza



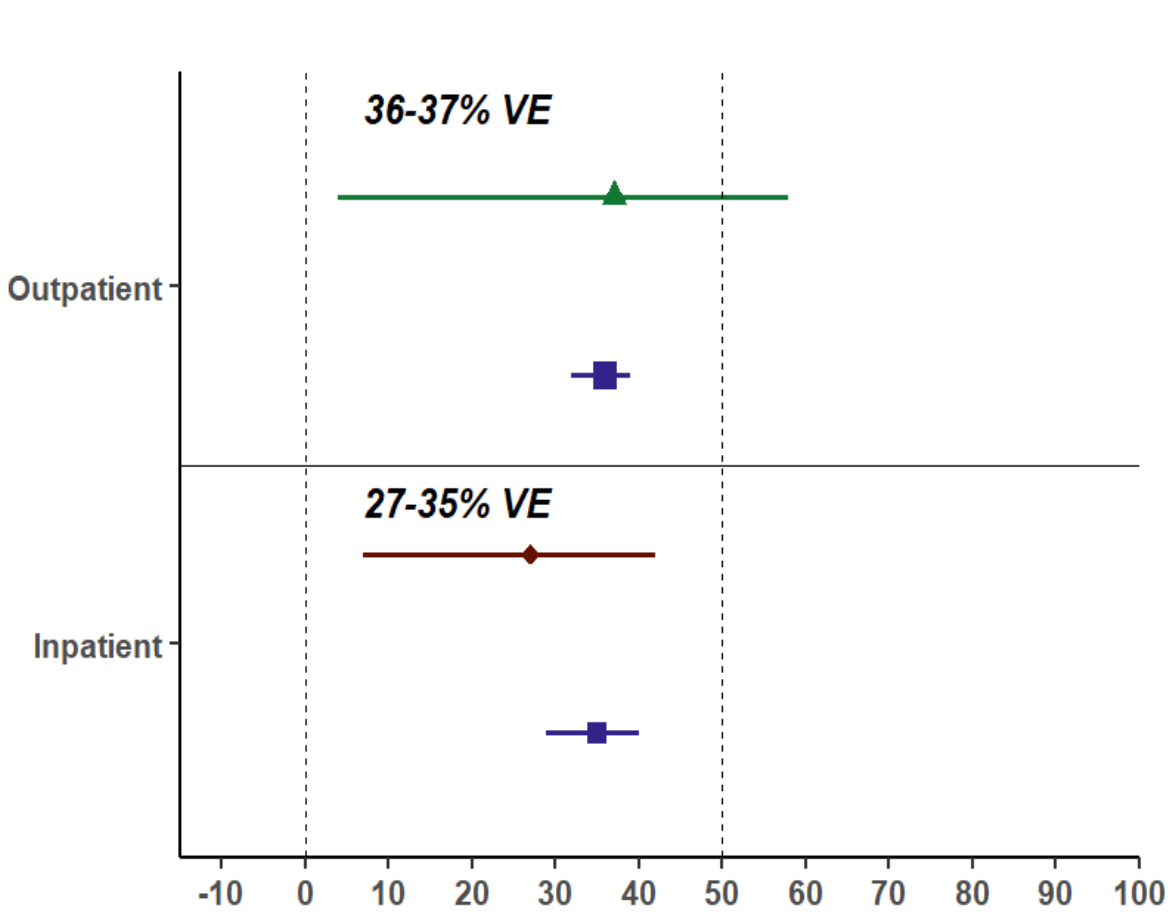
Adult (aged ≥65) VE against any influenza



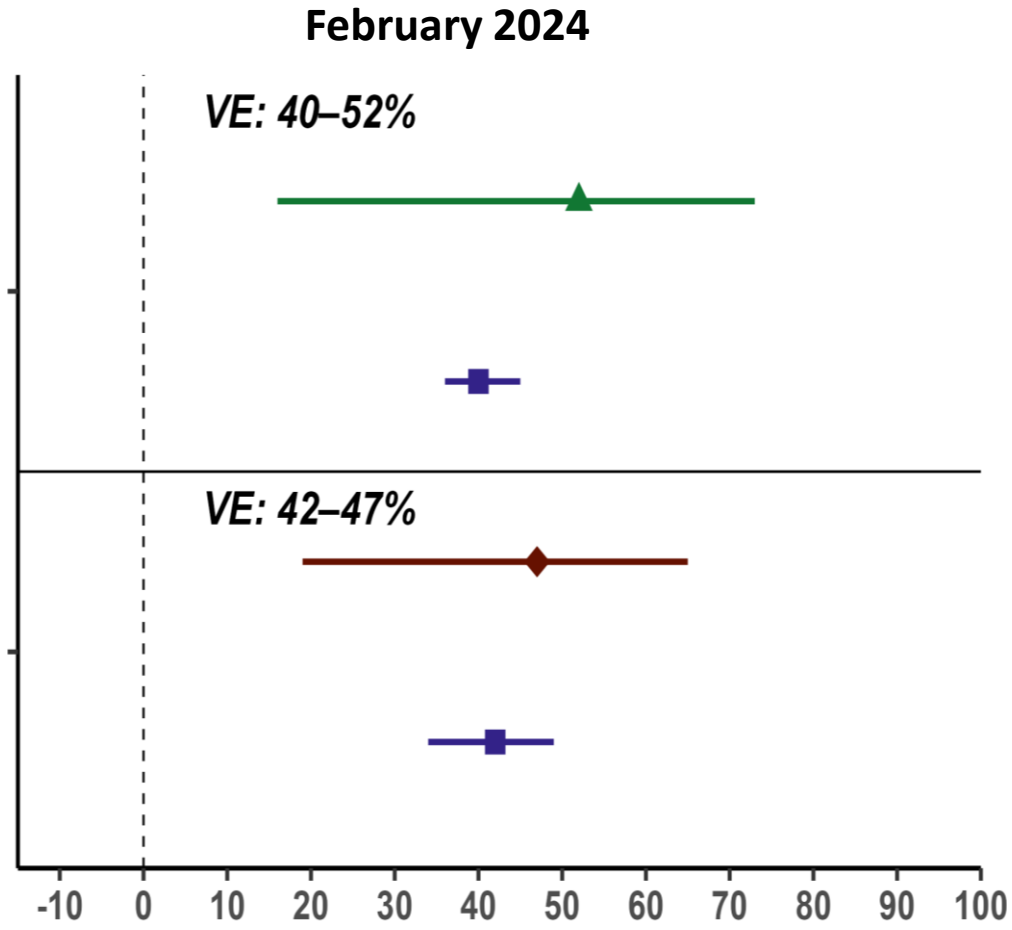
Adult (aged ≥65) VE against influenza A



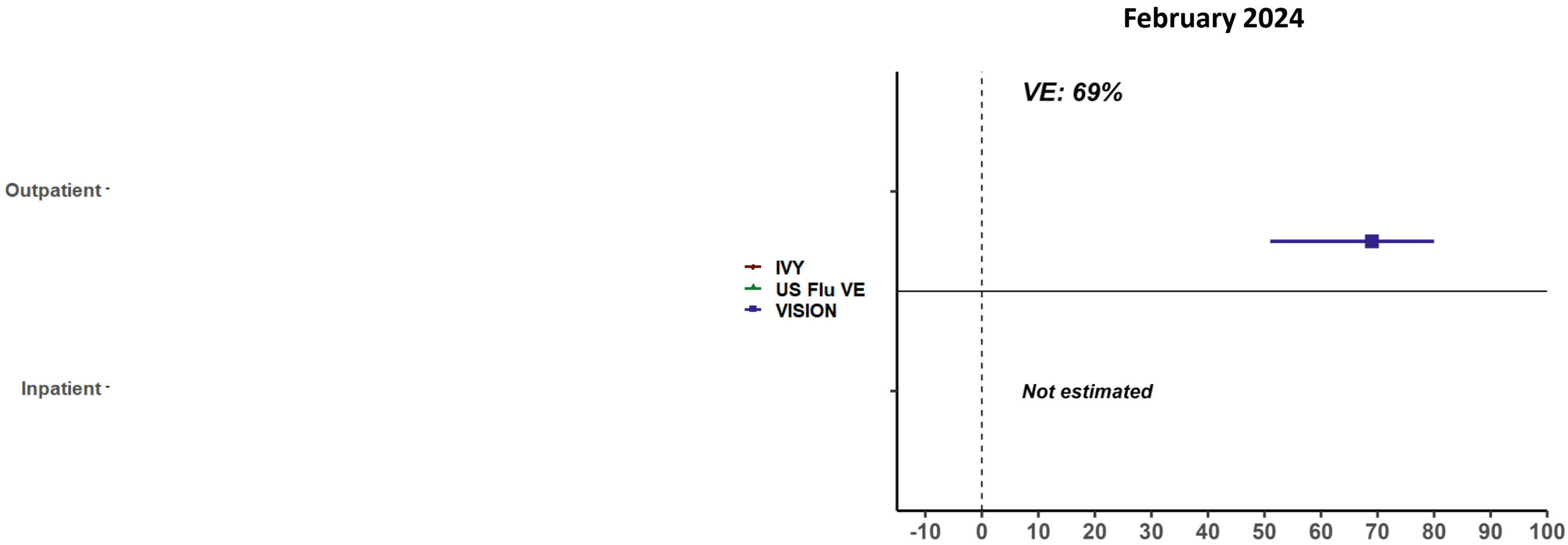
Adult (aged ≥65) VE against influenza A



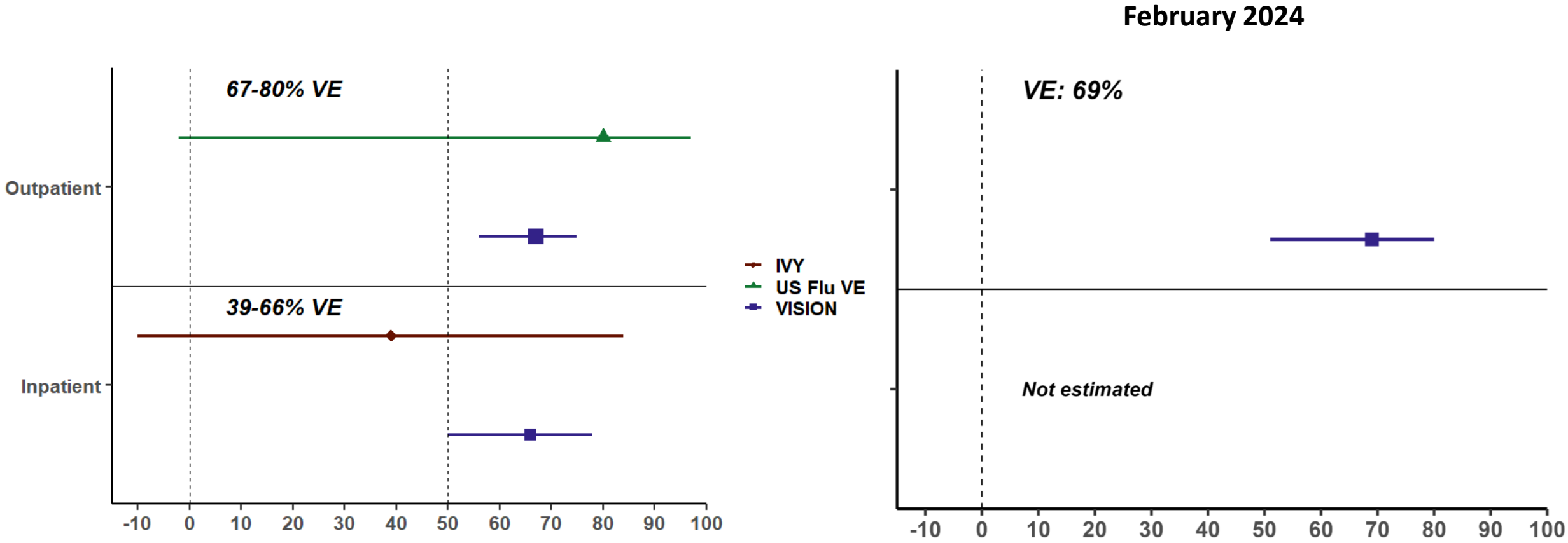
February 2024



Adult (aged ≥65) VE against influenza B

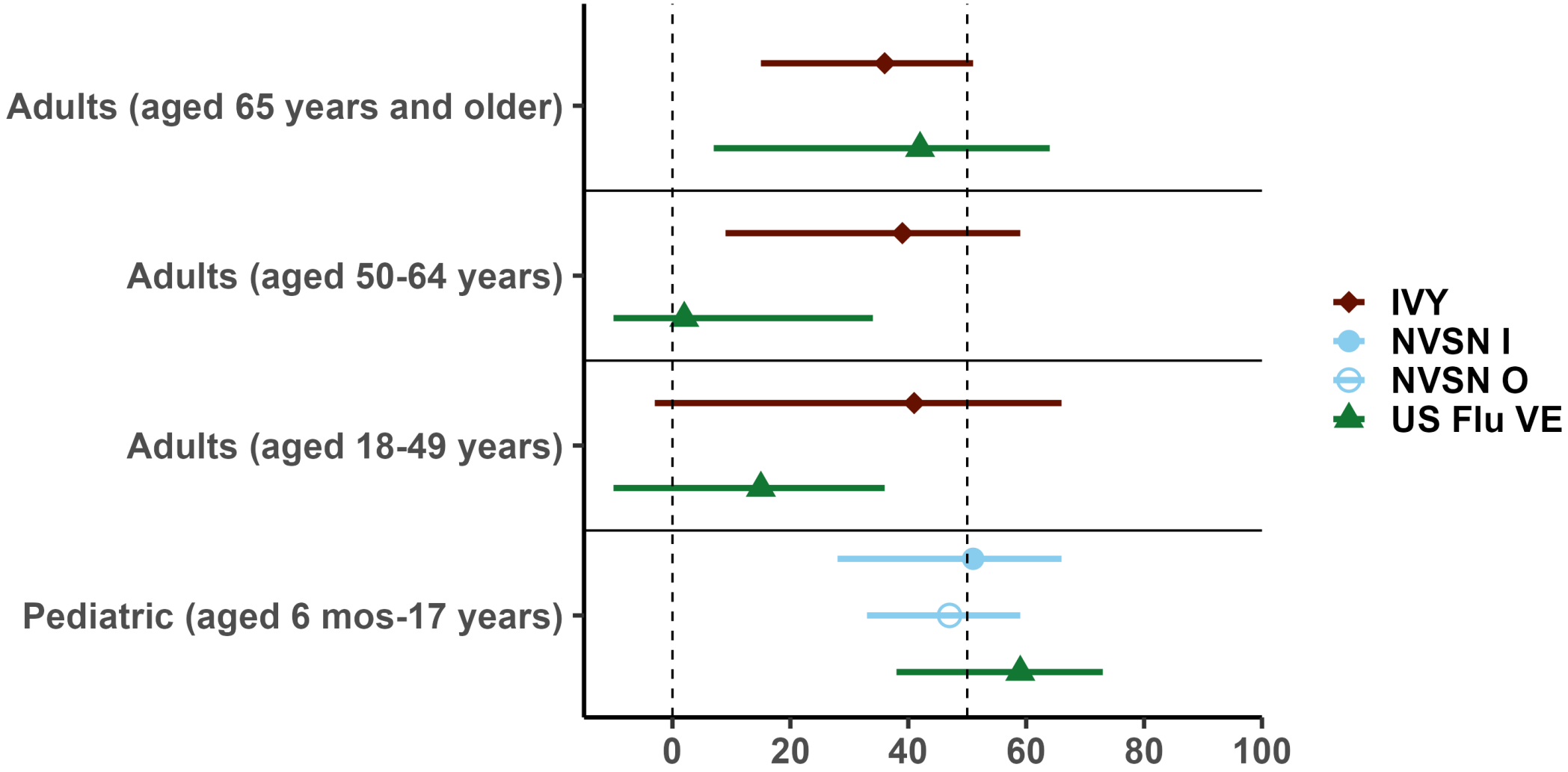


Adult (aged ≥65) VE against influenza B

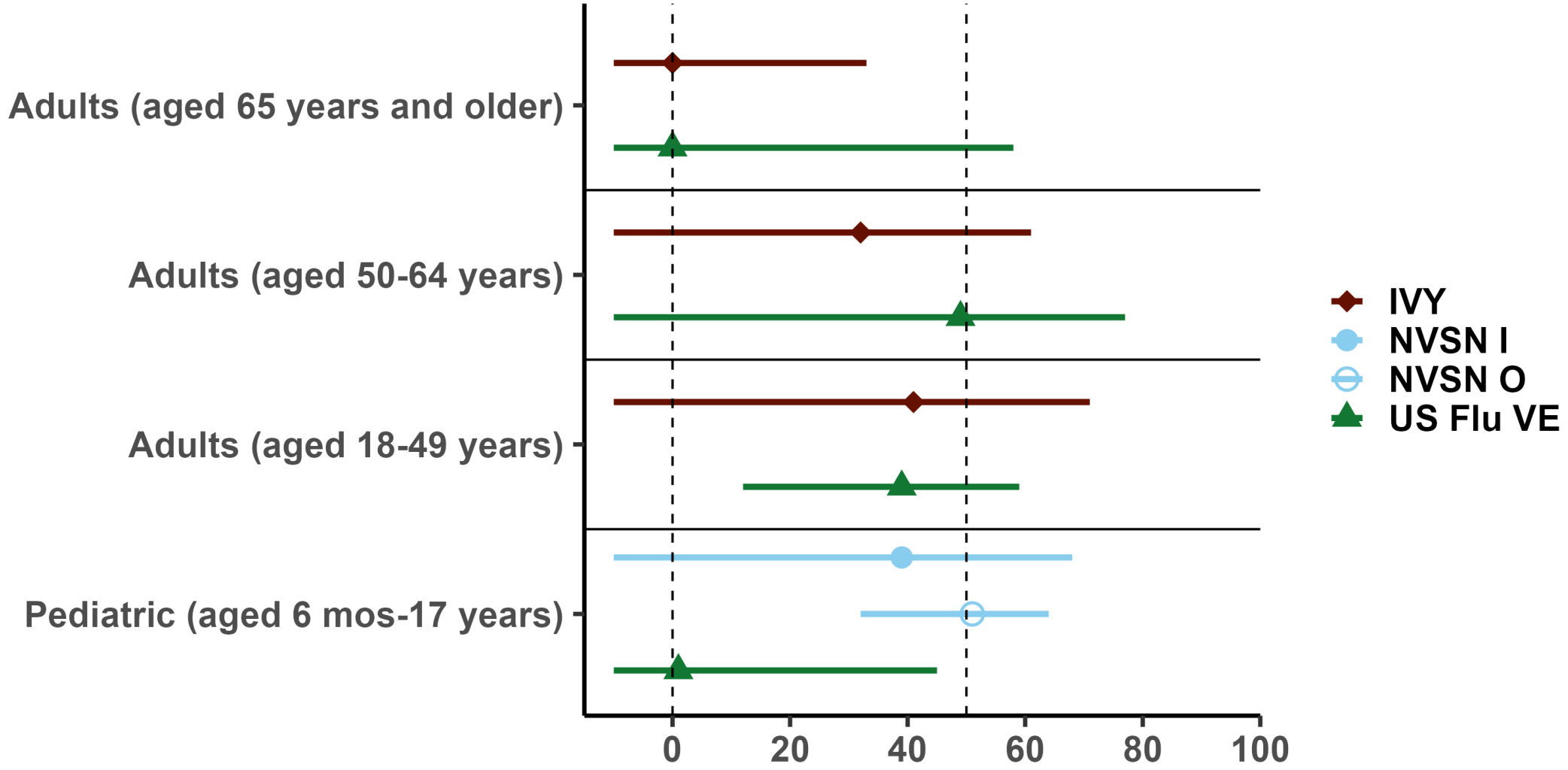


VE by A subtype

VE against influenza A(H1N1)pdm09



VE against influenza A(H3N2)



Discussion

Summary of four CDC influenza VE networks

Vaccination with a 2023–2024 influenza vaccine **reduced the risk** of medically attended influenza **outpatient visits** and **hospitalizations** among **children, adolescents, adults,** and the **elderly**.

Results were **consistent** across **4 networks** in 23 states.

Preliminary **end-of-season** estimates are **similar to interim** estimates from February.

Thank you

We'd like to thank our many collaborators from CDC, IVY, NVSN, US Flu VE, and VISION

For more information, contact CDC
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TTY: 1-888-232-6348 www.cdc.gov