

**SUPPLEMENTARY TABLE 2. Effectiveness of updated 2023–2024 (monovalent XBB.1.5) COVID-19 vaccination against laboratory-confirmed COVID-19–associated emergency department/urgent care encounters by age group, including control-patients with positive or indeterminant influenza test results — VISION Network, September 2023–January 2024**

Age group, yrs/COVID-19 vaccination dosage pattern	No. (Col %)		Median interval since last dose for vaccinated, days (IQR)	VE %* (95% CI)
	COVID-19 case-patients	COVID-19 control-patients		
<b>≥18</b>				
No updated dose <sup>†</sup> (Ref)	15,932 (92)	111,279 (88)	677 (412–801)	Ref
Received updated dose	1,297 (8)	14,638 (12)	45 (26–66)	<b>44 (40–47)</b>
7–59 days earlier	825 (5)	10,013 (8)	33 (20–46)	<b>48 (44–52)</b>
60–119 days earlier	472 (3)	4,625 (4)	74 (67–83)	<b>34 (27–41)</b>
<b>18–64</b>				
No updated dose <sup>†</sup> (Ref)	10,582 (97)	80,628 (94)	703 (503–840)	Ref
Received updated dose	377 (3)	5,337 (6)	43 (25–63)	<b>46 (40–51)</b>
7–59 days earlier	259 (2)	3,796 (4)	32 (20–45)	<b>49 (42–55)</b>
60–119 days earlier	118 (1)	1,541 (2)	74 (66–83)	<b>38 (25–49)</b>
<b>≥65</b>				
No updated dose <sup>†</sup> (Ref)	5,350 (85)	30,651 (77)	516 (364–736)	Ref
Received updated dose	920 (15)	9,301 (23)	47 (28–67)	<b>44 (40–48)</b>
7–59 days earlier	566 (9)	6,217 (16)	34 (21–47)	<b>48 (43–53)</b>
60–119 days earlier	354 (6)	3,084 (8)	74 (67–83)	<b>36 (28–44)</b>

**Abbreviations:** Ref = referent group; updated = updated (2023–2024) monovalent COVID-19 vaccine; VE = vaccine effectiveness; VISION = Virtual SARS-CoV-2, Influenza, and Other respiratory viruses Network.

\* VE was calculated as  $(1 - \text{odds ratio}) \times 100\%$  with odds ratios calculated using multivariable logistic regression. For VISION, the odds ratio was adjusted for age, sex, race and ethnicity, geographic region, and calendar time (days since January 1, 2021).

<sup>†</sup> The “no updated dose” group included all eligible persons who did not receive an updated (2023–2024) COVID-19 vaccine dose, regardless of number of previous (i.e., original monovalent and bivalent) doses received (if any).