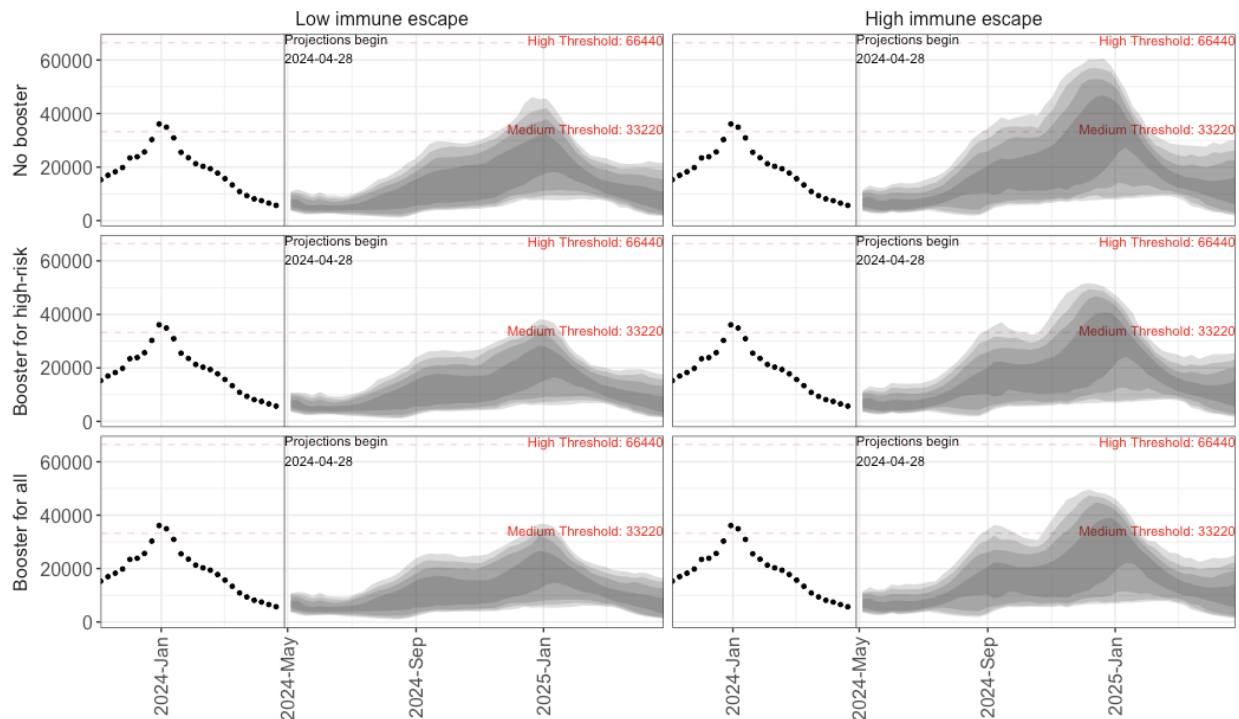


Scenario Modeling Hub Round 18 Executive Summary

GENERAL DYNAMICS

- **COVID-19 Hospitalizations and deaths will begin to rise nationally in late summer 2024 and peak in mid-December 2024 through mid-January 2025.** Peak hospitalizations will be similar to the 2023-24 season assuming the same vaccination recommendation (all eligible individuals) and high immune escape.

National ensemble projection intervals - Hospitalizations

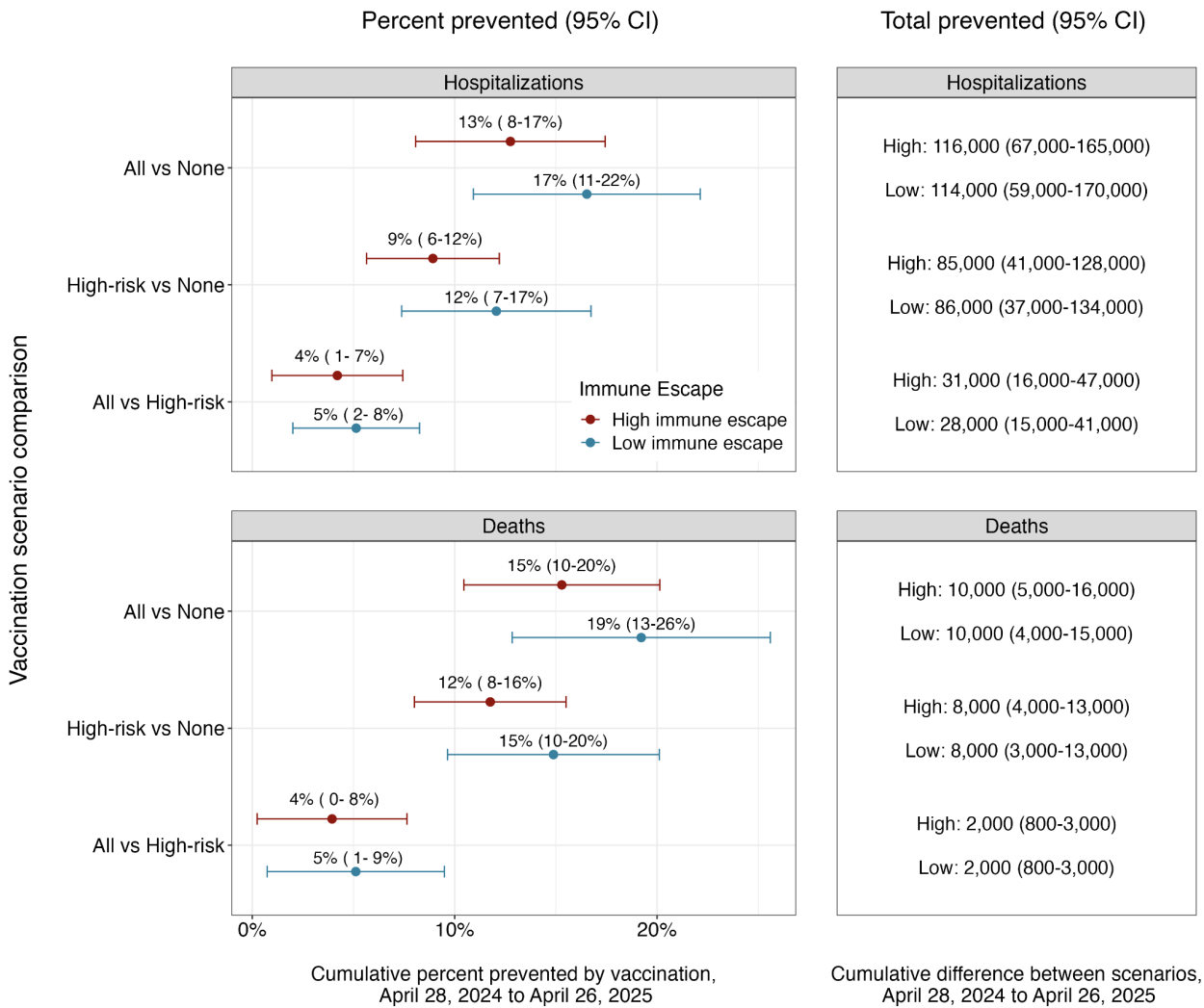


From lightest to darkest shading represents 95%, 90%, 80% and 50% projection intervals

- **Over the course of the projection period (April 28, 2024-April 26, 2025) we project 791,000 hospitalizations (95% PI 0.4-1.2 million) and 67,000 deaths (95% PI 21,000-121,000).** This presumes high immune escape and vaccination recommended to all eligible individuals (conditions similar to the 2023-24 season). Our worst case (no vaccination, high immune escape) projects 926,000 hospitalizations and 84,000 deaths, while the best case (universal vaccination, low immune escape) projects 539,000 hospitalizations and 47,000 deaths.
- **Without vaccination, 56% of hospitalizations and 72% of deaths are projected to be in those 65+.** This is presuming high immune escape. It is expected most deaths and hospitalizations in younger age groups would be in high-risk individuals, however these numbers were not explicitly modeled.

VACCINE IMPACT

- **Vaccination of high-risk individuals is projected to prevent over 85,000 hospitalizations and 8,000 deaths.** Assuming high immune escape, hospitalizations are reduced by 85,000 [9%] (95% CI: 41,000-128,000) and deaths by 8,000 [12%] (95% CI: 4,000-13,000). The majority of this impact comes from reductions in hospitalizations and deaths in those 65+ (79,000 and 8,000).



- **A recommendation for vaccination on all individuals leads to further reductions in hospitalizations and deaths, including in those 65 and older.** Assuming high immune escape, a universal vaccine recommendation reduces hospitalizations by an additional 31,000 [4%] (95% CI 16,000-47,000) and deaths by an additional 2,000 [4%] (95% CI 800-3,000). This further reduction includes reductions in hospitalizations and deaths in those 65+ (12,000 and 2,000).