Results of COVID-19 Vaccine Effectiveness Studies: An Ongoing Systematic Review

Forest Plots: Vaccine Effectiveness against Omicron Variant of Concern

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Prepared by:

International Vaccine Access Center,
Johns Hopkins Bloomberg School of Public Health

and

World Health Organization

and

Coalition for Epidemic Preparedness Innovations

For comments or questions, please contact: Melissa Higdon at mhigdon@jhu.edu.

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METHODS FOR INCLUSION IN FOREST PLOTS

Vaccine Effectiveness (VE) estimates included in these plots are from an ongoing systematic review of COVID-19 vaccine effectiveness studies. Due to the predominance of the Omicron variant across the globe, the plots in this document are restricted to studies conducted during a period when the Omicron variant was the dominant circulating variant. The previous version of the plots (posted regularly between November 18, 2021 and June 2, 2022) also showed results for the Delta variant, and an earlier version (prior to November 18, 2021) showed results from all studies, regardless of dominant variant at the time. These earlier versions are available on the VIEW-hub resources page (https://view-hub.org/resources). Complete details on the method of the systematic review as well as a summary table of results can also be found on the VIEW-hub Resources Page:

- "COVID-19 Vaccine Effectiveness and Impact Studies Review Methods"
- "COVID-19 Vaccine Effectiveness Results Summary Table"

The VE estimates included in the plots are a subset of the estimates abstracted from the systematic literature review. A single study can include many VE estimates. In an effort to not overrepresent the amount of evidence that exists for each vaccine, the following criteria are used to determine which VE estimates are displayed in the forest plots located on the VIEW-hub resources page (https://view-hub.org/resources). There are some instances when more than one estimate from a study will be displayed in the same plot (e.g. a study includes VE estimates from two distinct populations). Reference numbers are included for each VE estimate displayed so users can identify when a study is represented more than once within a plot. More information on each reference can be found in the weekly literature review summary table located on VIEW-HUB (https://view-hub.org/resources).

- Complete vaccination is defined as ≥7 days post final dose; partial vaccination is defined as ≥14 days post first dose of a 2-dose vaccine.
- If a study reports results for the same outcome for both combined and individual vaccines, only individual vaccine VE estimates are displayed. This criterion only apples to studies evaluating VE of BNT162b2 (Pfizer) and mRNA-1273 (Moderna) vaccines.
- If a study reports results from 2 different evaluation designs (e.g. test-negative design and cohort design) on the same population, VE estimates from the primary analysis only are displayed.
- If a study reports VE estimates for the same disease outcome for different populations, the general population VE estimate is displayed when available. If a general population estimate is not available, the VE from each population is displayed (exception is when there are estimates for similar age groups in which case the more stable VE estimate will be displayed).
- If a study reports VE estimates on more than one 'severe' disease outcome (e.g. 'severe disease', 'hospitalization', and 'ICU admission'), the more inclusive disease outcome including a larger population is displayed. These different types of severe outcomes are labeled as 'severe disease' in the plots, however it is important to keep in mind that the definition of severe disease varies and may explain some differences in VE estimates for severe disease outcomes.
- If a study reports VE estimates for different time intervals from the final dose, those from the earlier time intervals are plotted in an effort to remove the effect of possible waning of immunity. Studies that report only VE estimates that include a follow-up time that extends beyond 4 months post final dose are indicated with a '+'. Studies that report only VE estimates that are restricted to time intervals beyond 4 months are indicated with a '*'.

ABBREVIATIONS

asymp = asymptomatic

HCW = healthcare workers

HHC = household contacts

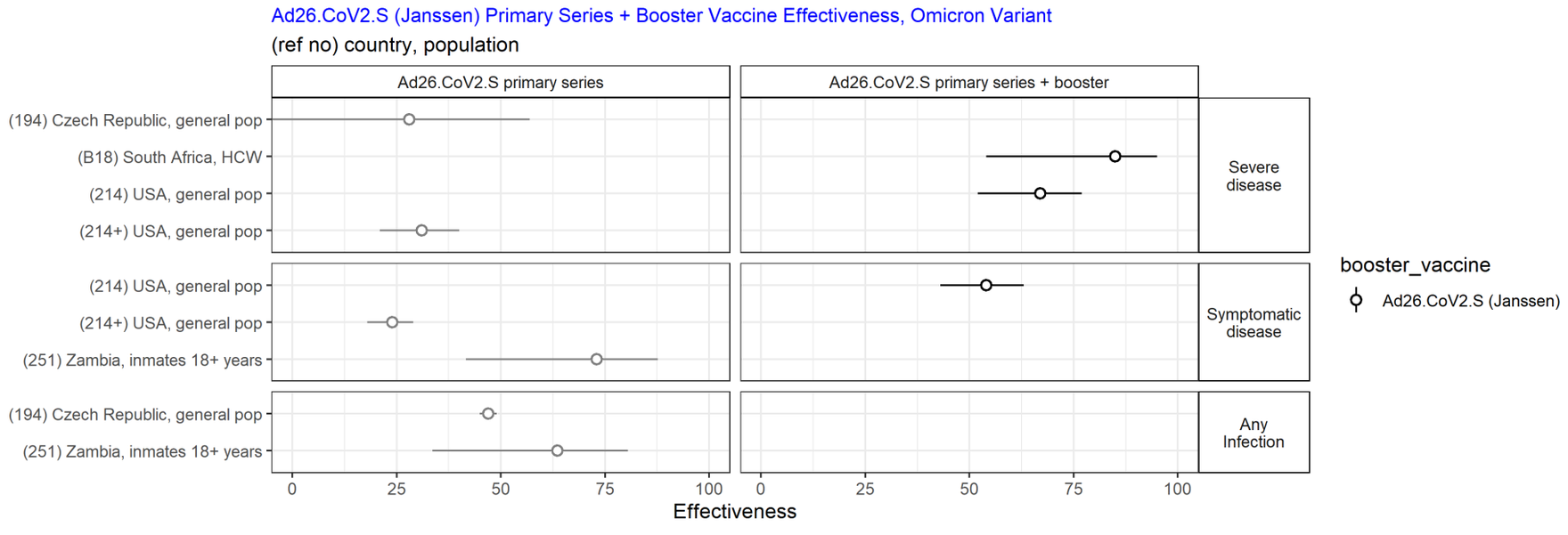
LTCF = long-term care facility

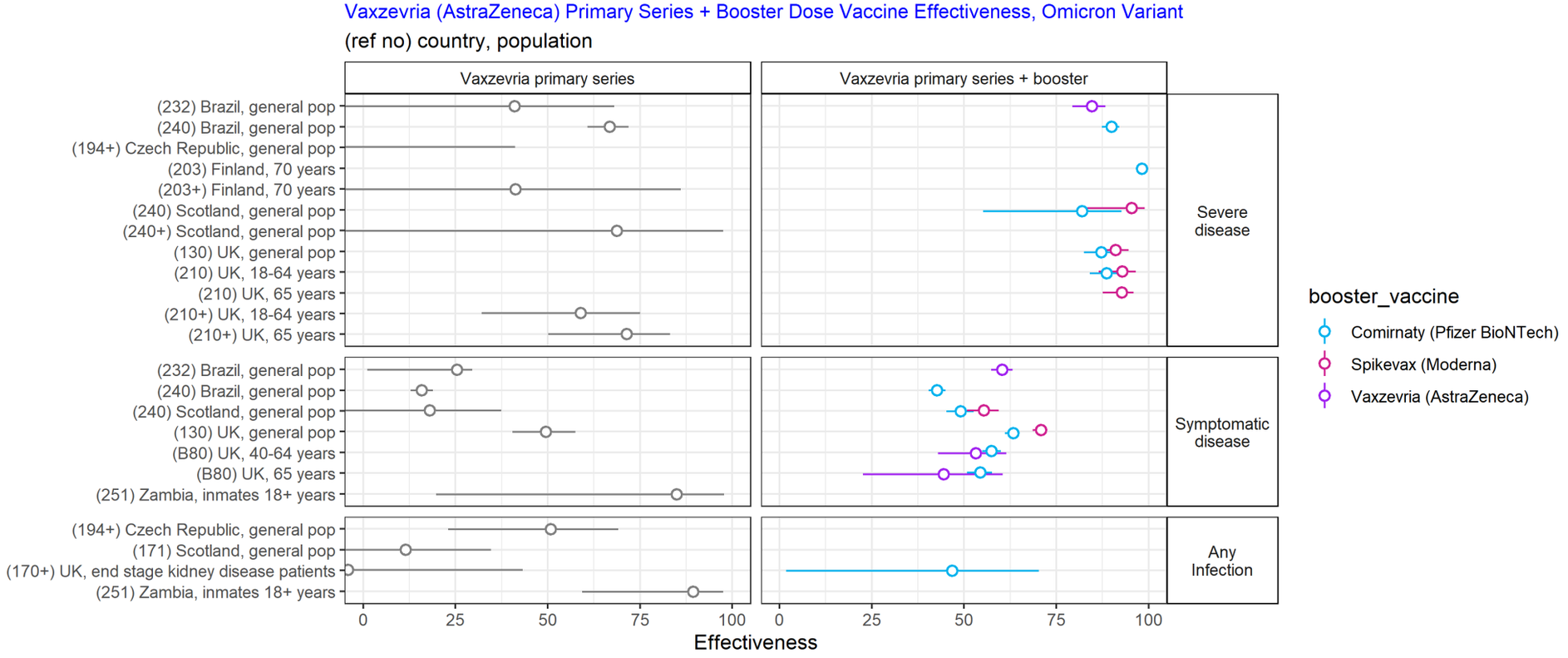
pop = population

SNF= skilled nursing facility

OMICRON VARIANT OF CONCERN

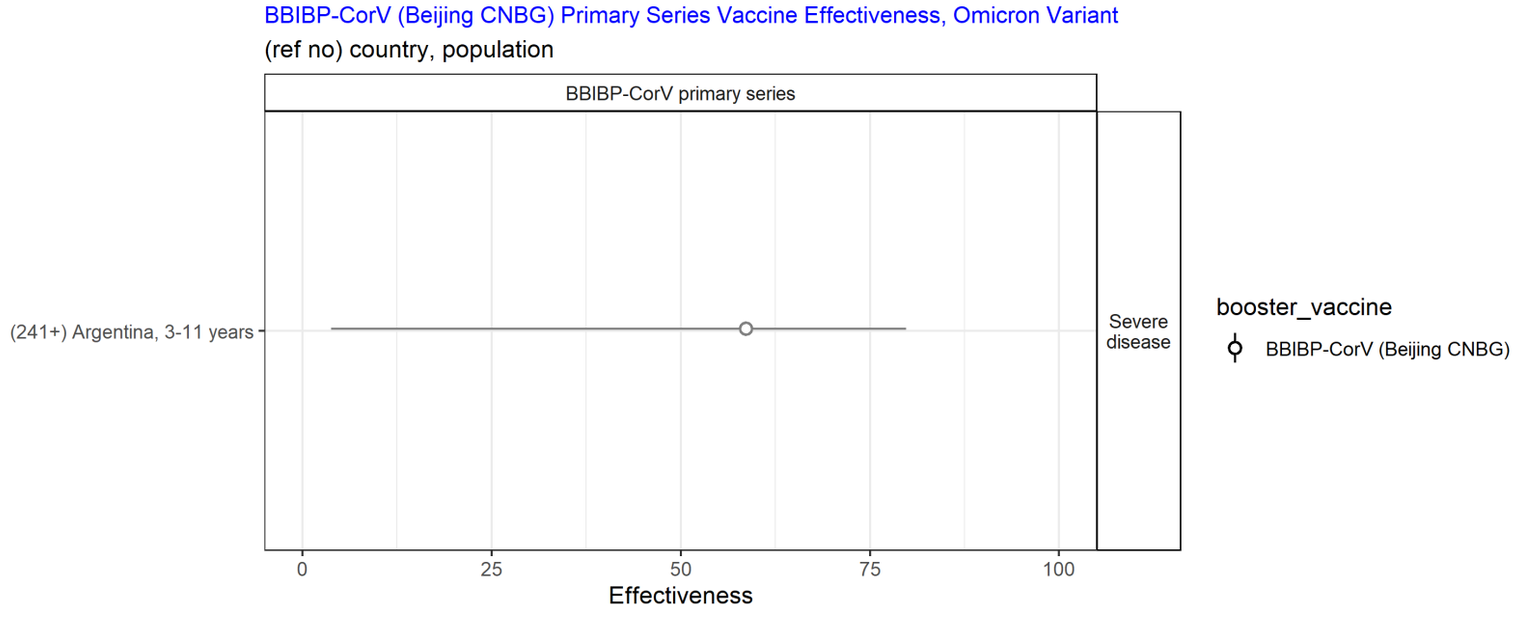
By Vaccine



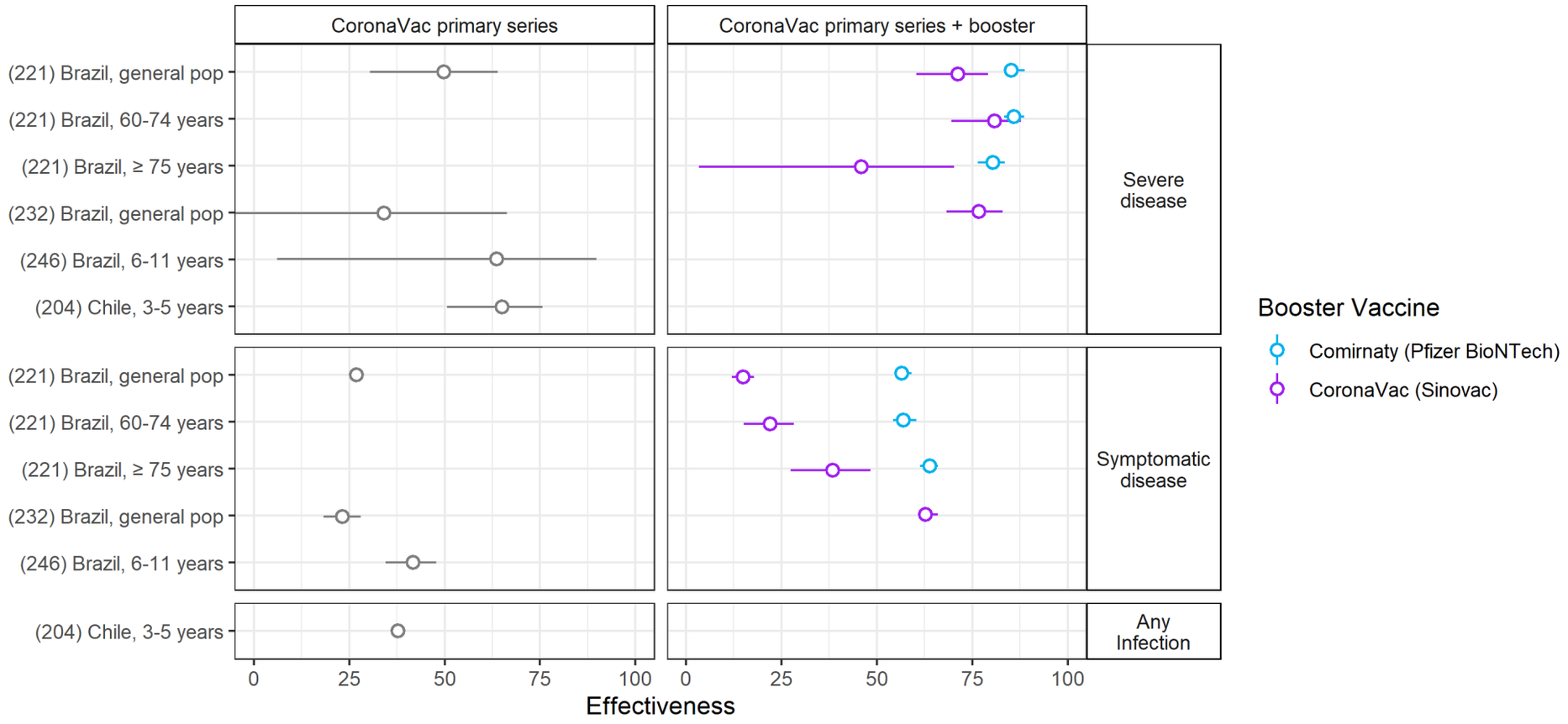


+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.

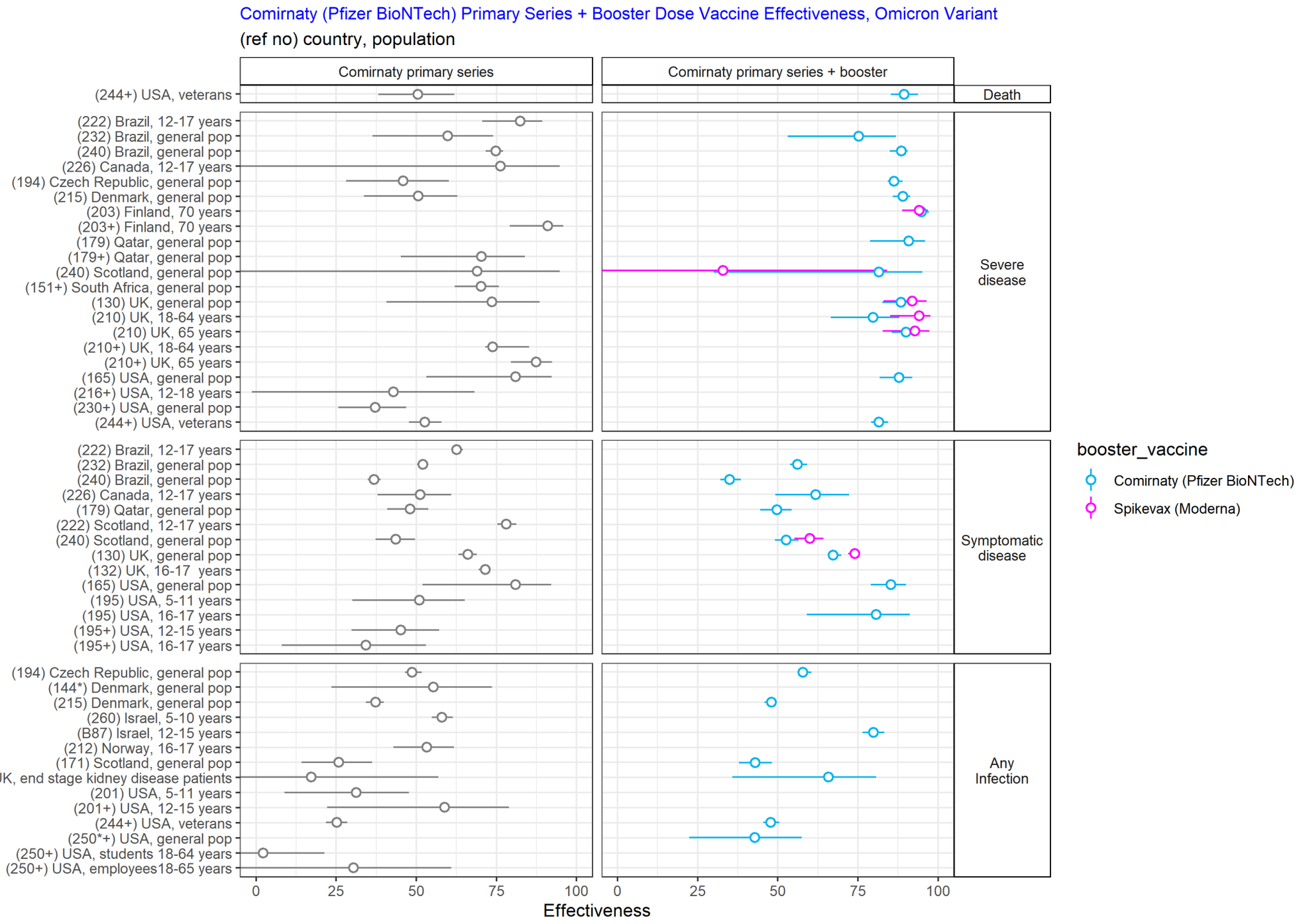
BBIBP-CorV (Beijing CNBG) Primary Series Vaccine Effectiveness, Omicron Variant



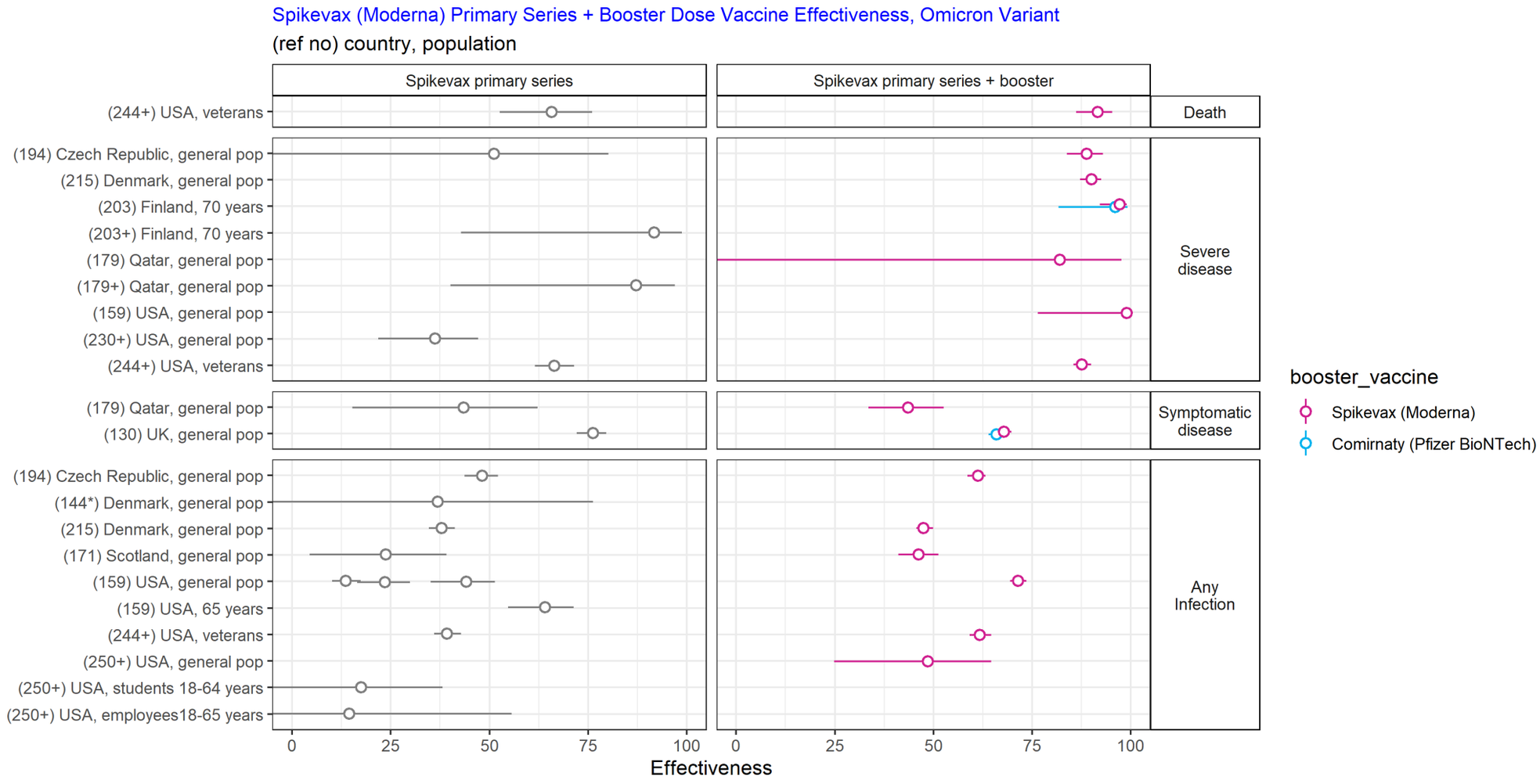
CoronaVac (Sinovac) Primary Series and Booster Dose Vaccine Effectiveness, Omicron



+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.

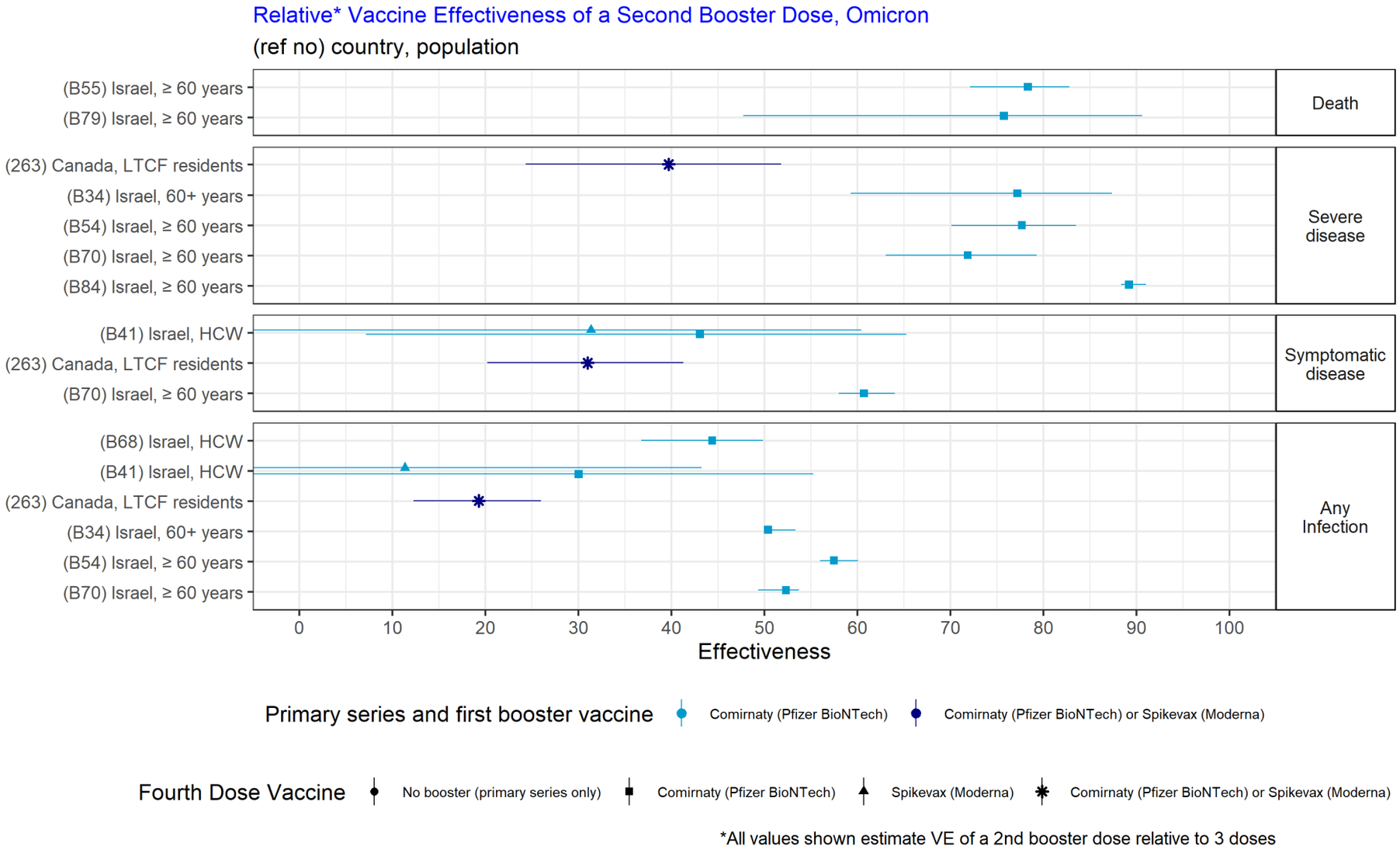


+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.



+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.

SECOND BOOSTER DOSE VACCINE EFFECTIVENESS AGAINST OMICRON



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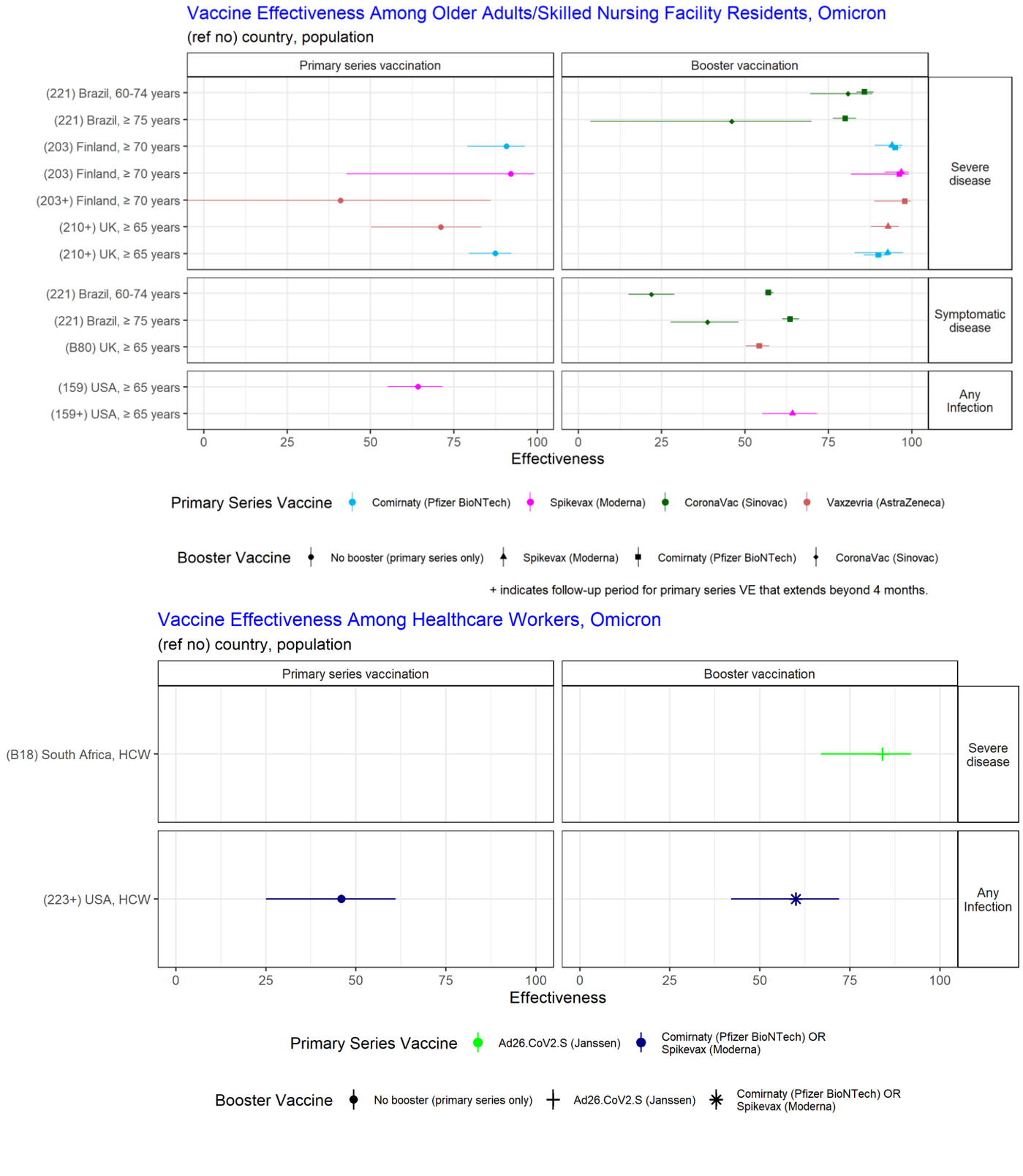
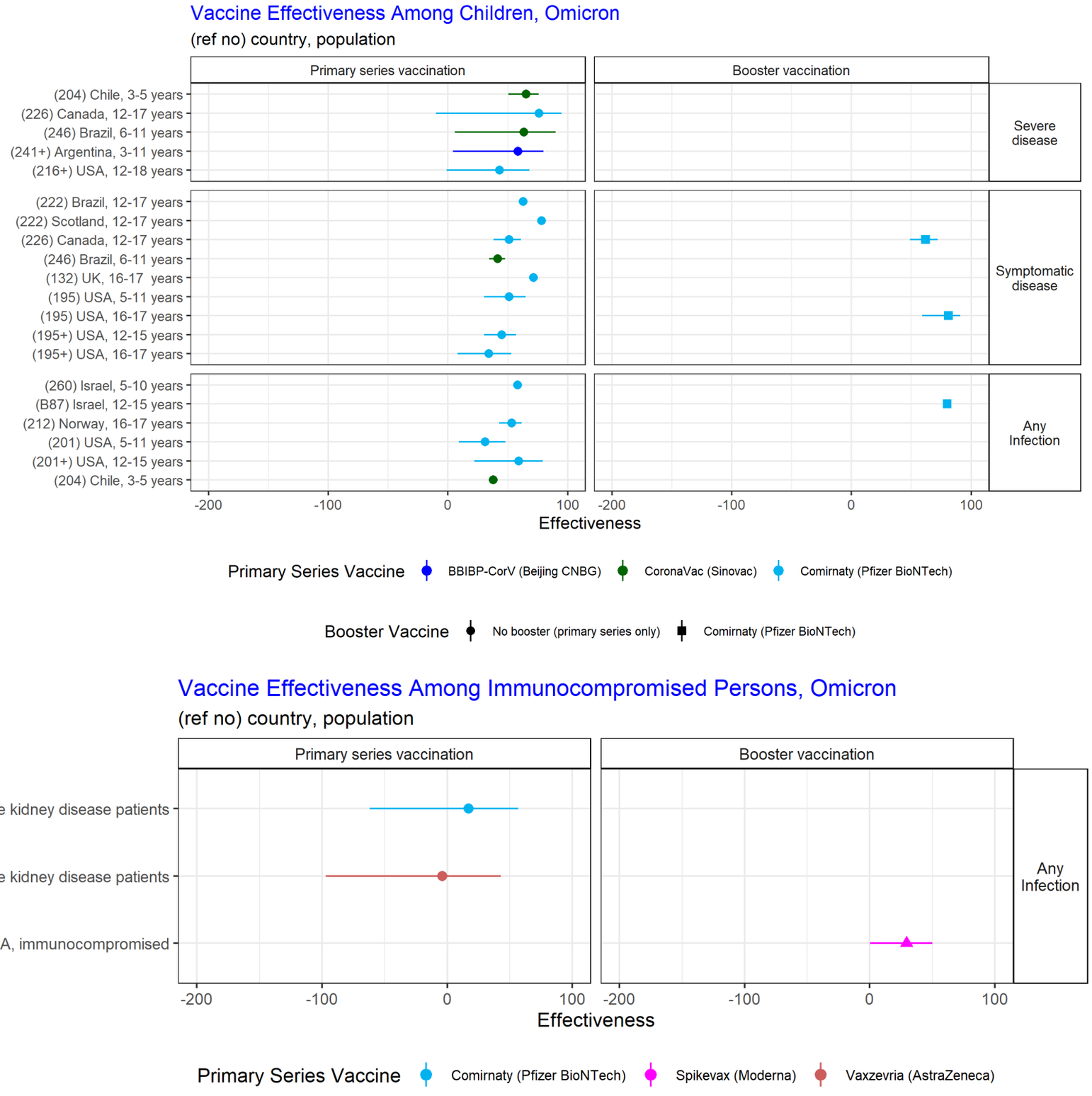
By Study Population of Special Interest



+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.



+ Indicates estimates that that include a follow-up time extending beyond 4 months post final dose.

DURATION OF VACCINE EFFECTIVENESS AGAINST OMICRON