

Protection provided by covid-19 vaccines and previous infection against the Omicron variant

Supplementary Material 2 – Results of Statistical Estimation

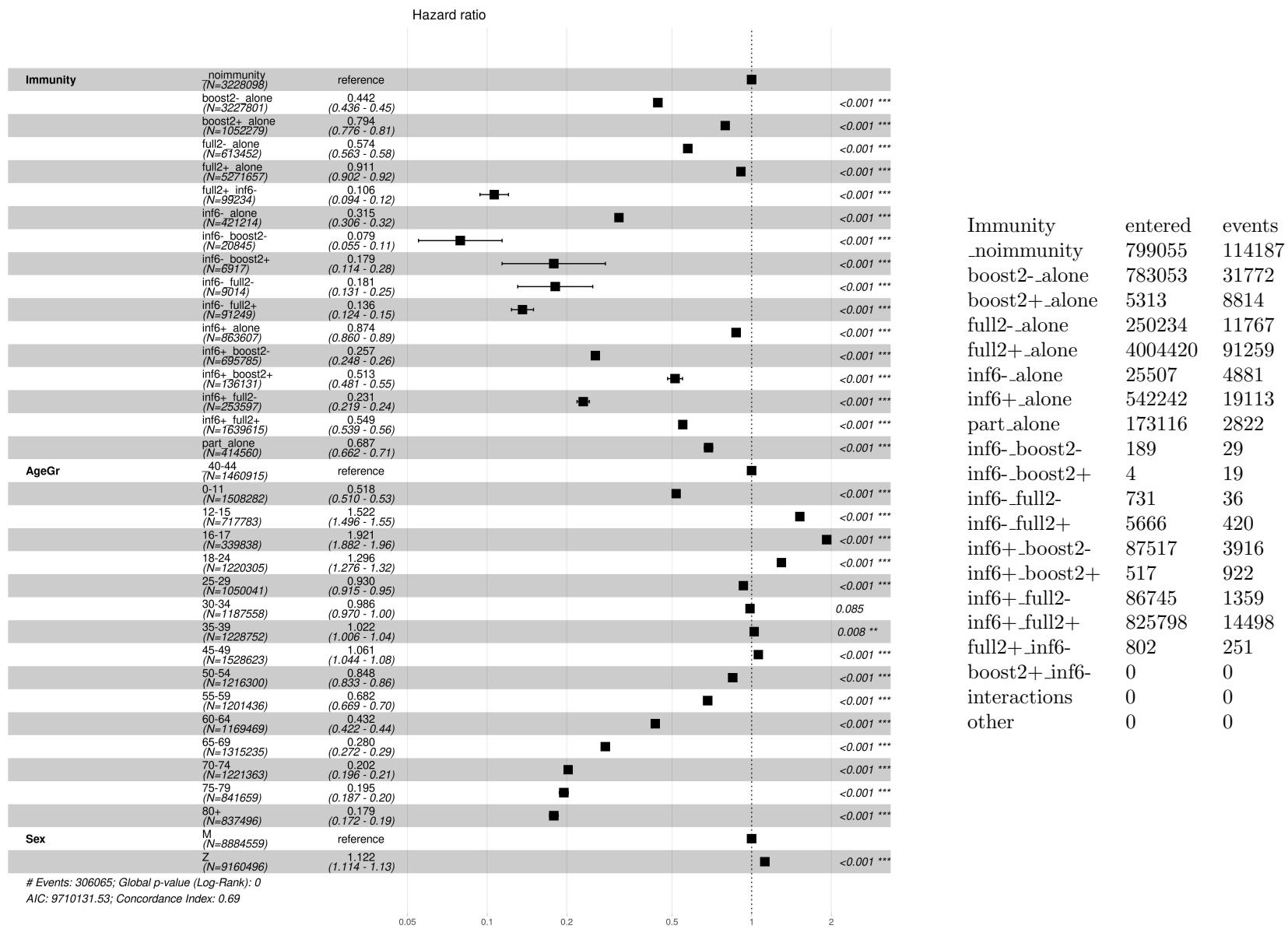
February 26, 2022 *

This material contains results of the analyses by Cox Regression (1–14) and Logistic Regression (15–19). The output information of the former include a forest plot of hazard ratios (the VE's and the protections can be computed by subtraction from one) and tables with the numbers of individuals¹ entering the study with the individual immunity statuses and the outcome numbers among people with the corresponding immunity statuses. The results of logistic regressions include forest plots of individual covariates and, in particular, the odds ratios between variants.

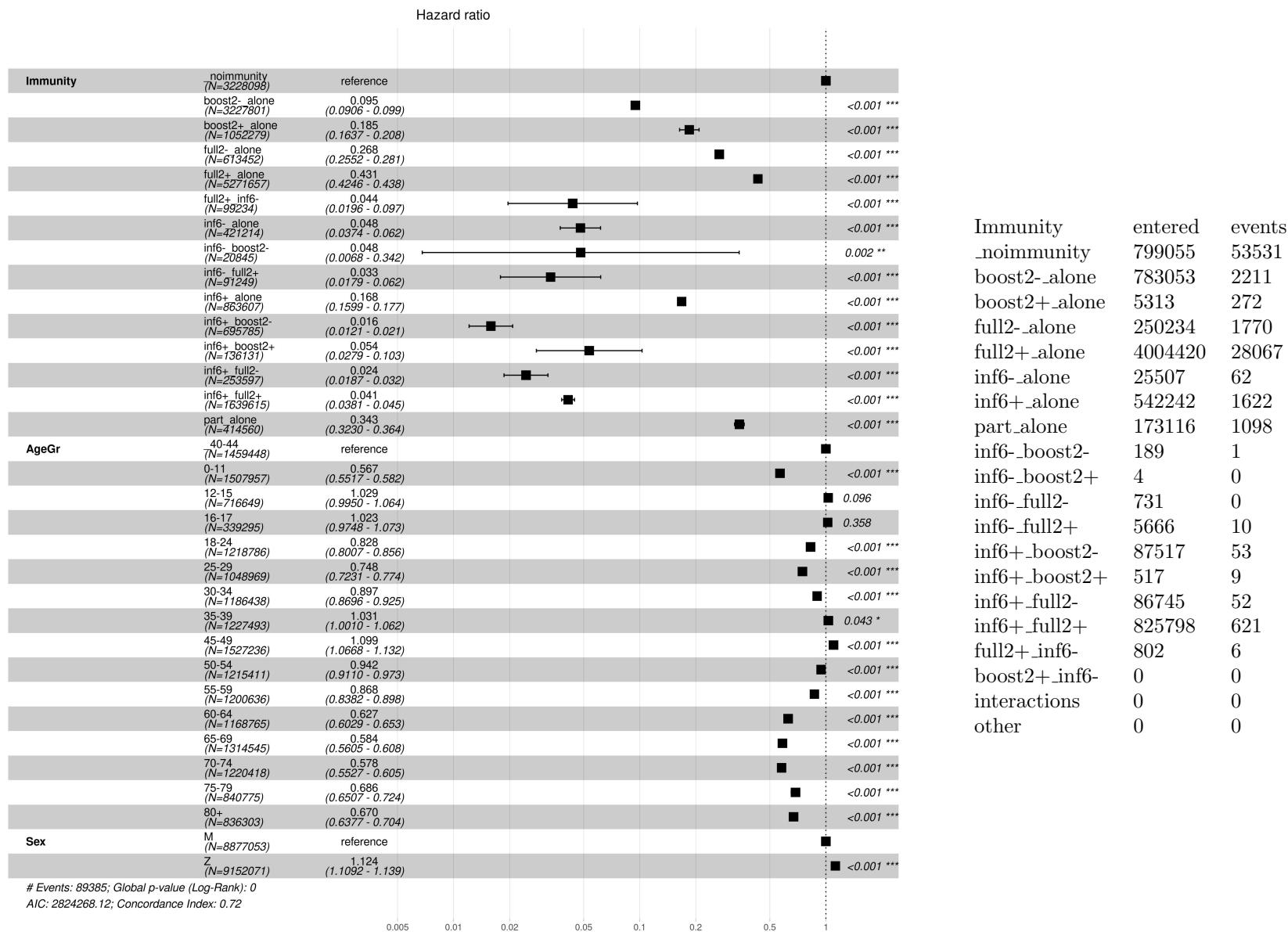
*Minor corrections on July 24,22: (i) Wrong numbers of events in tables 7–10 corrected, (ii) rare categories grouped in Secs 16–19 to avoid the R's misleading reporting of zero event categories, (iii) typos and reformulations in the preamble corrected and an explanatory footnote added.

¹Only the individuals from the IHIS database are recorded here.

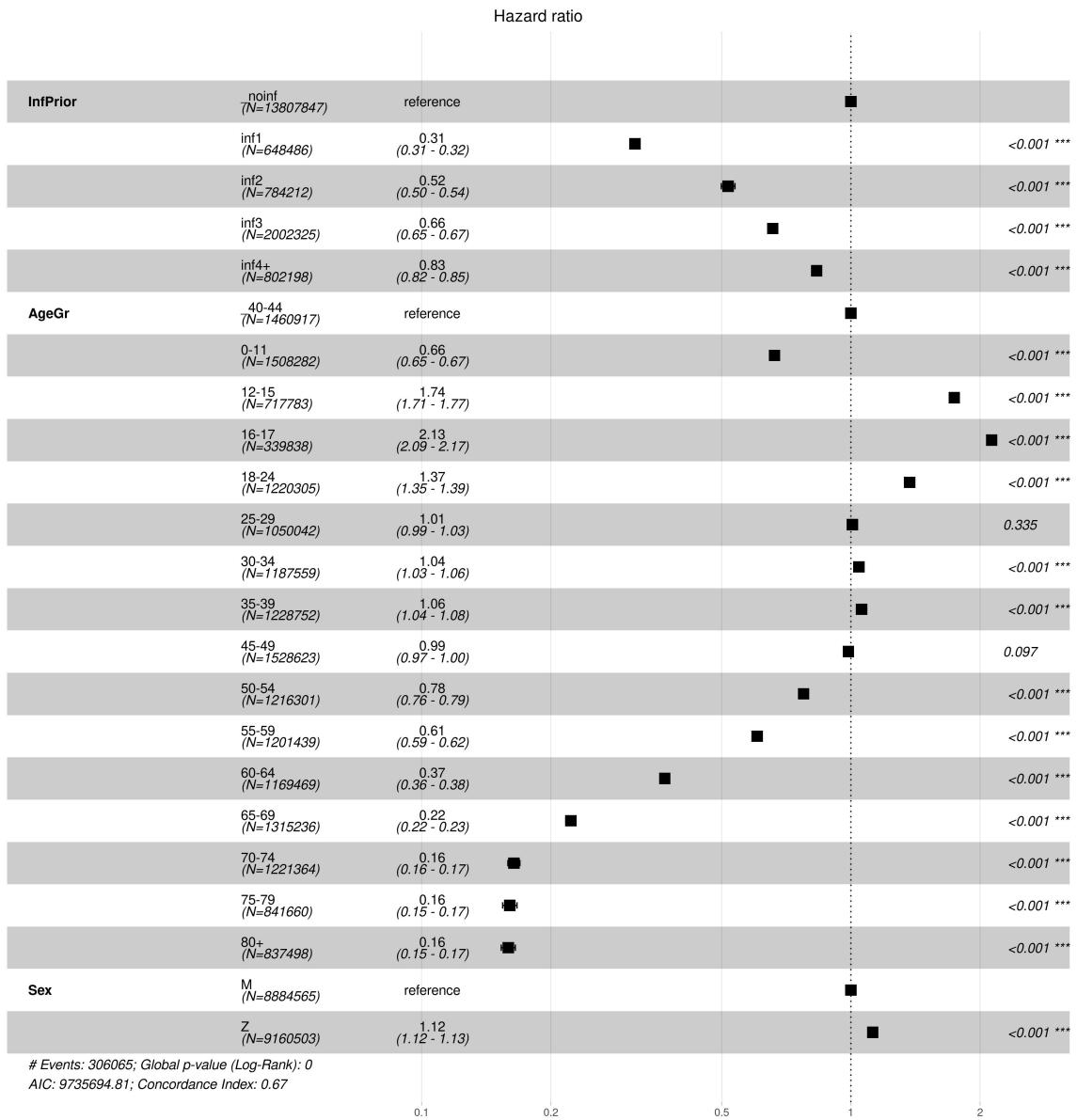
1 Infections – Omicron



2 Infections – Delta

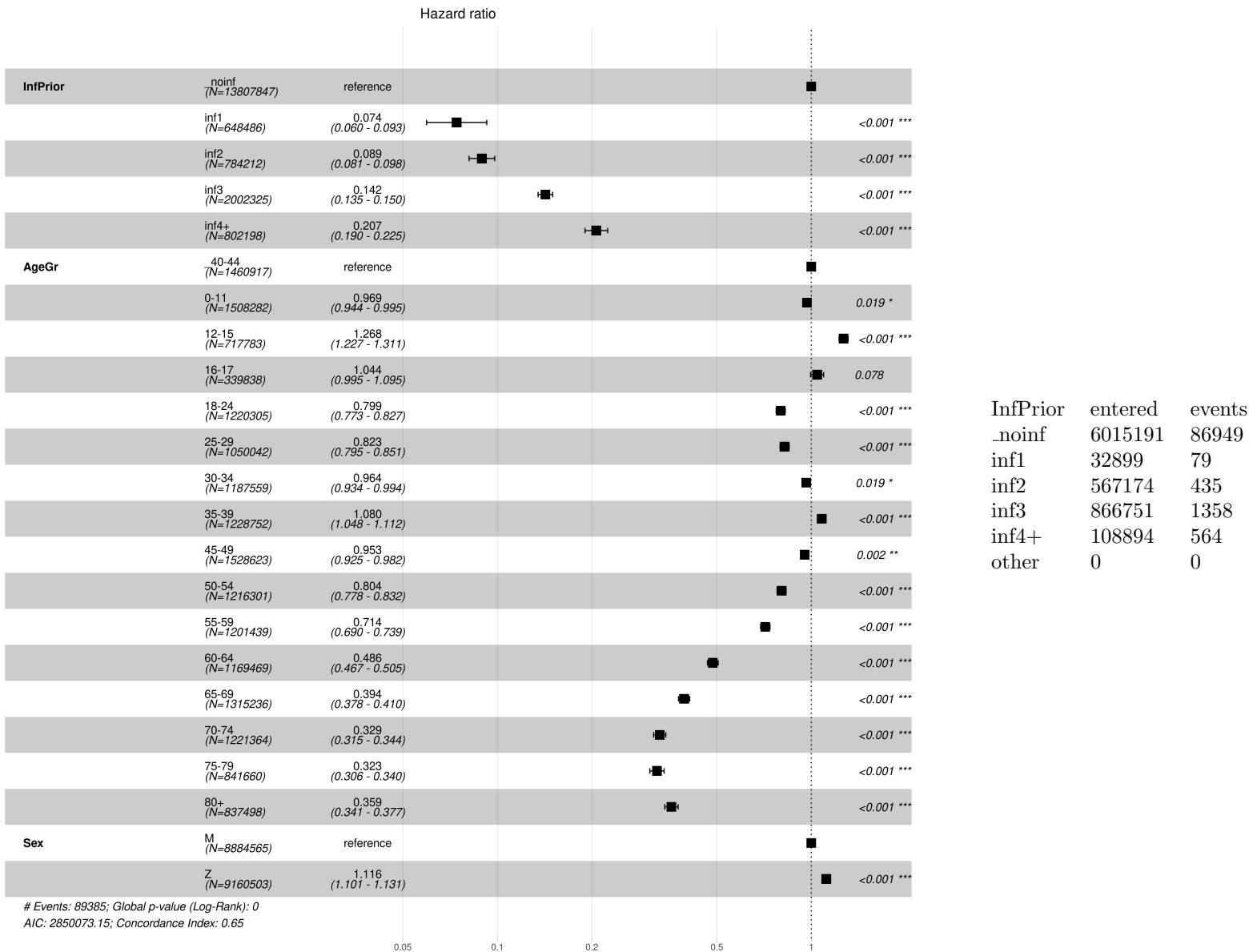


3 Protection by Infection – Omicron

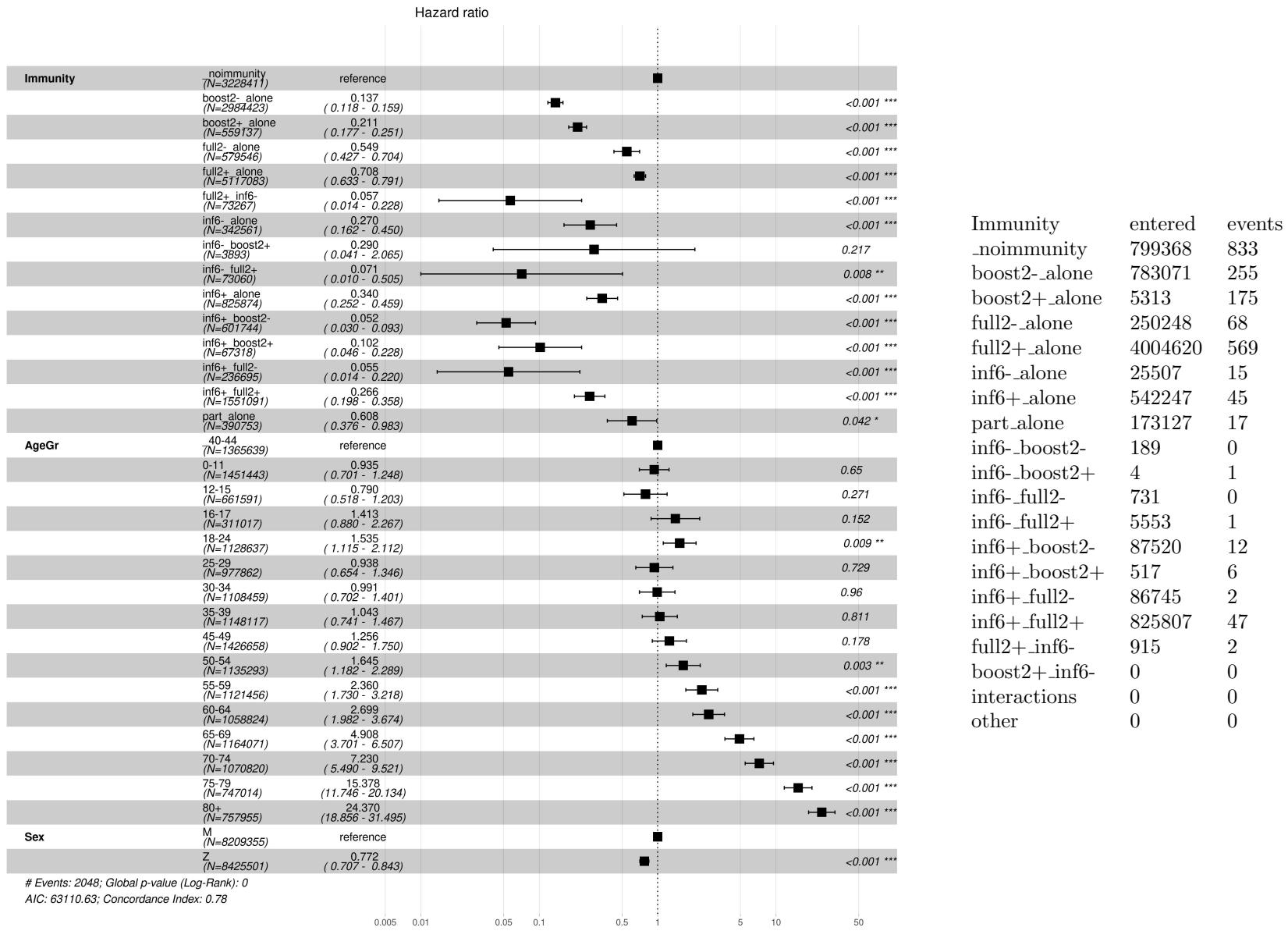


InfPrior	entered	events
_noinf	6015191	260621
inf1	32899	5636
inf2	567174	2885
inf3	866751	22399
inf4+	108894	14524
other	0	0

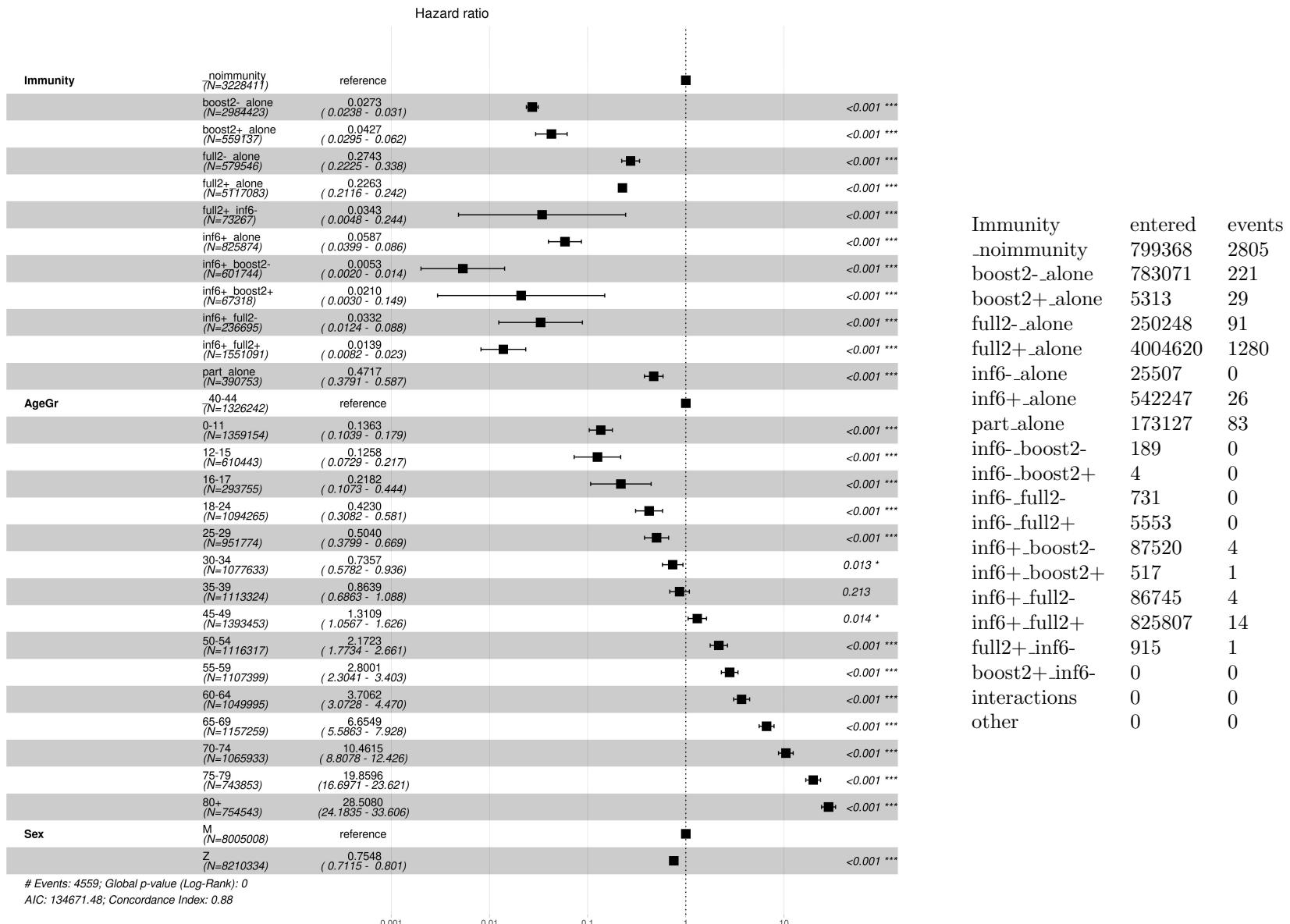
4 Protection by Infection – Delta



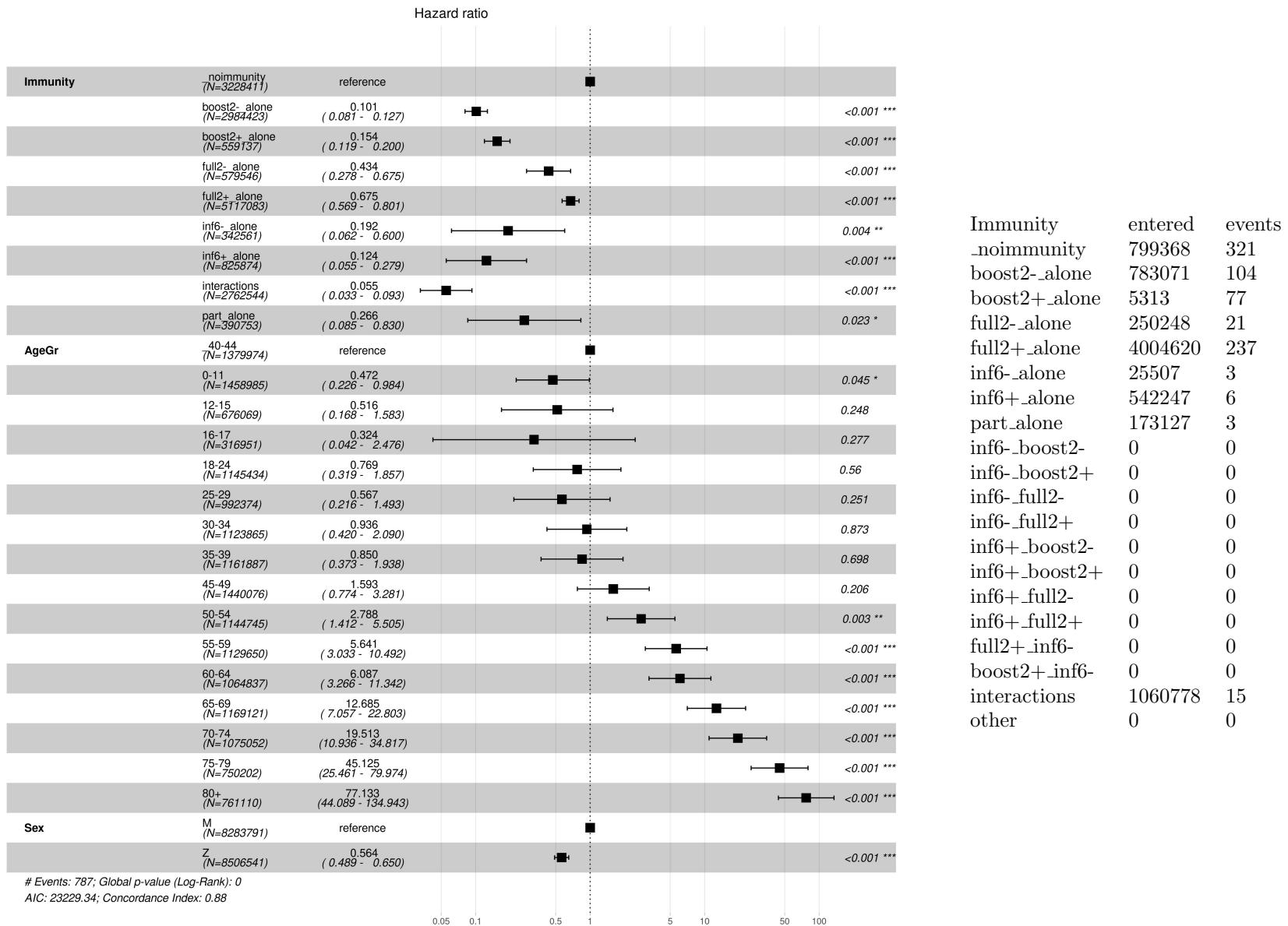
5 Hospitalizations – Omicron



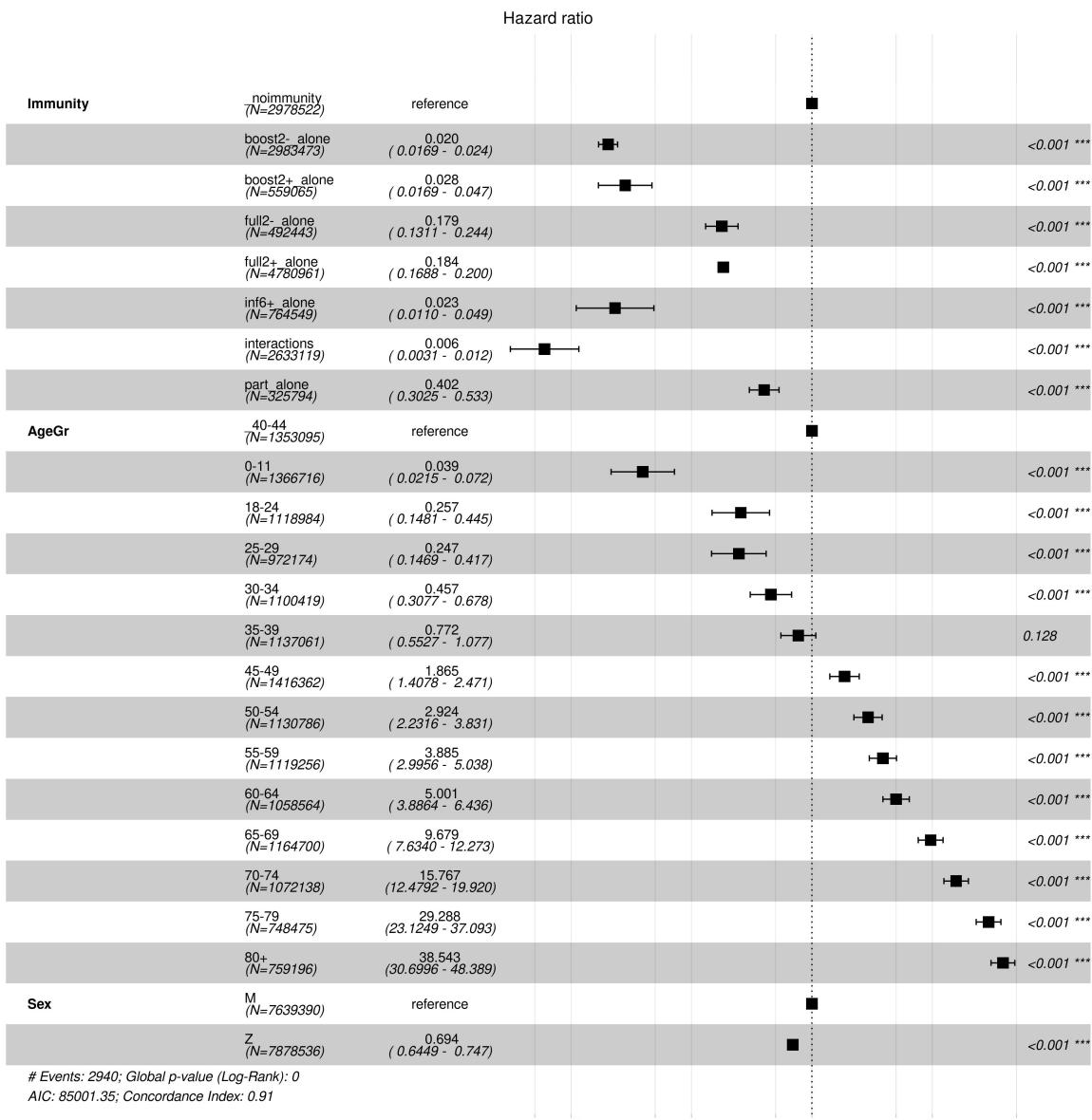
6 Hospitalizations – Delta



7 Oxygen therapy – Omicron



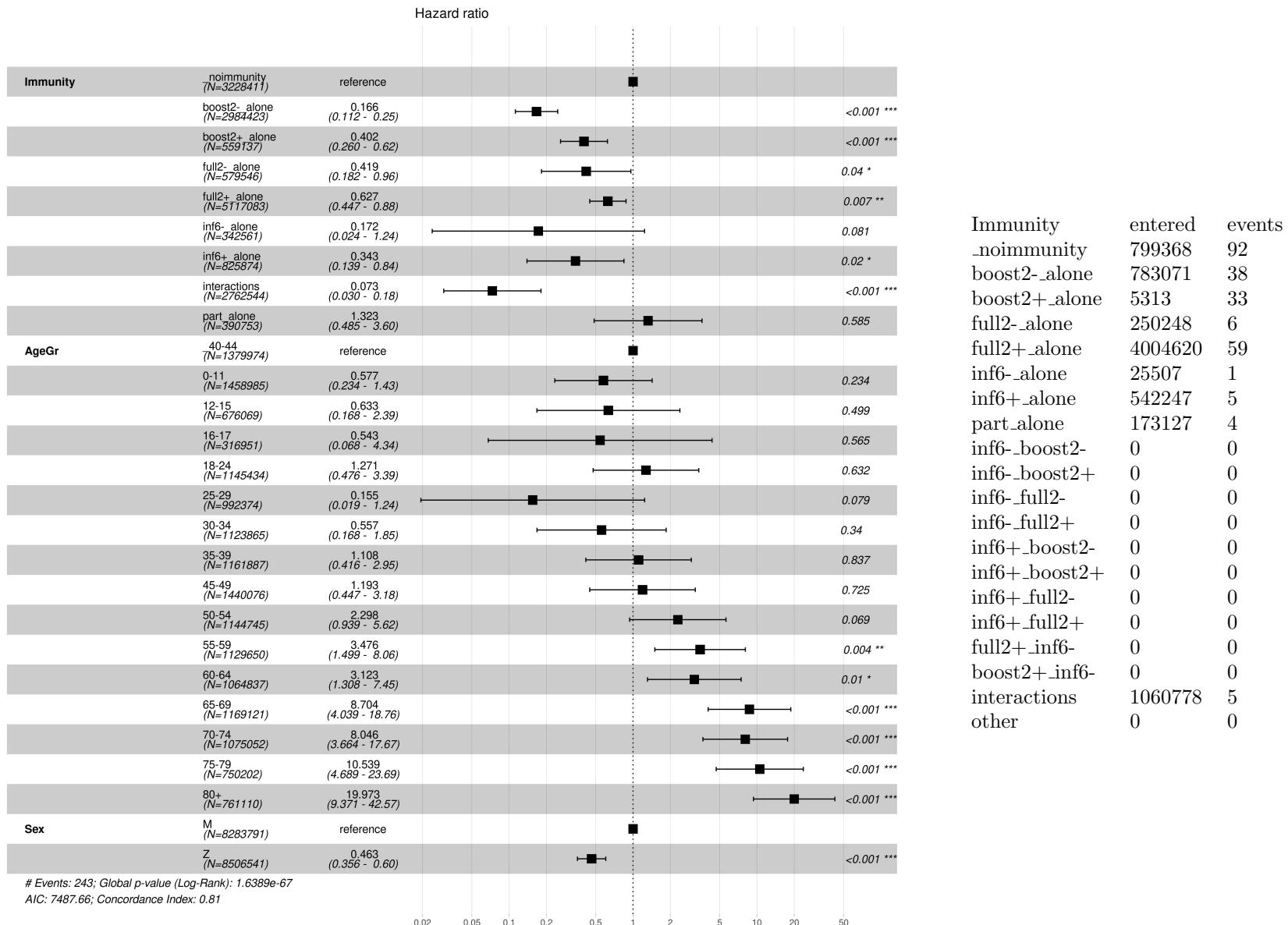
8 Oxygen therapy – Delta



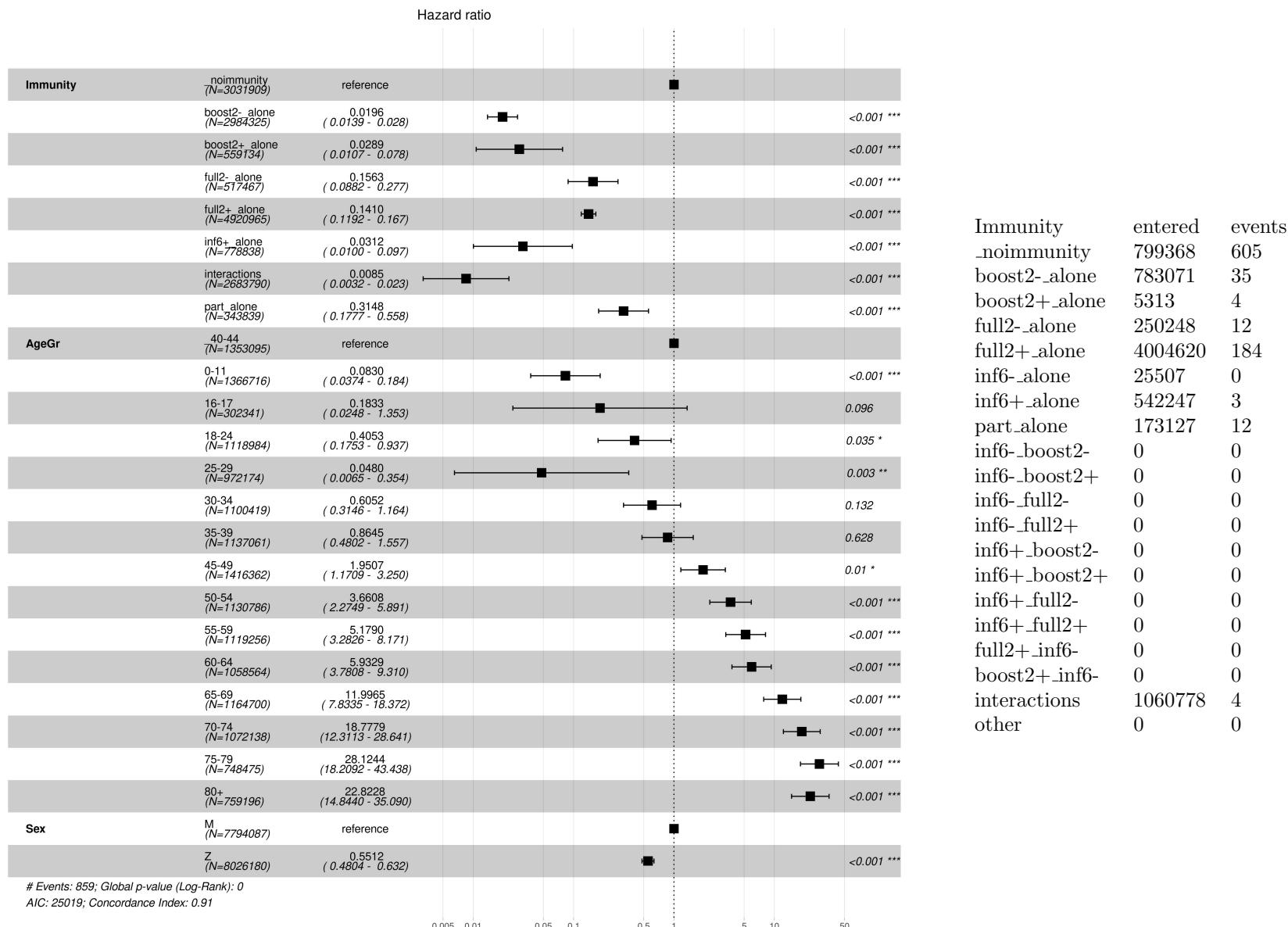
Events: 2940; Global p-value (Log-Rank): 0
AIC: 85001.35; Concordance Index: 0.91

Immunity	entered	events
_noimmunity	799368	1939
boost2-alone	783071	126
boost2+_alone	5313	15
full2-alone	250248	41
full2+_alone	4004620	754
inf6-alone	25507	0
inf6+_alone	542247	7
part-alone	173127	49
inf6-boost2-	0	0
inf6-boost2+	0	0
inf6_full2-	0	0
inf6_full2+	0	0
inf6+_boost2-	0	0
inf6+_boost2+	0	0
inf6+_full2-	0	0
inf6+_full2+	0	0
full2+_inf6-	0	0
boost2+_inf6-	0	0
interactions	1060778	9
other	0	0

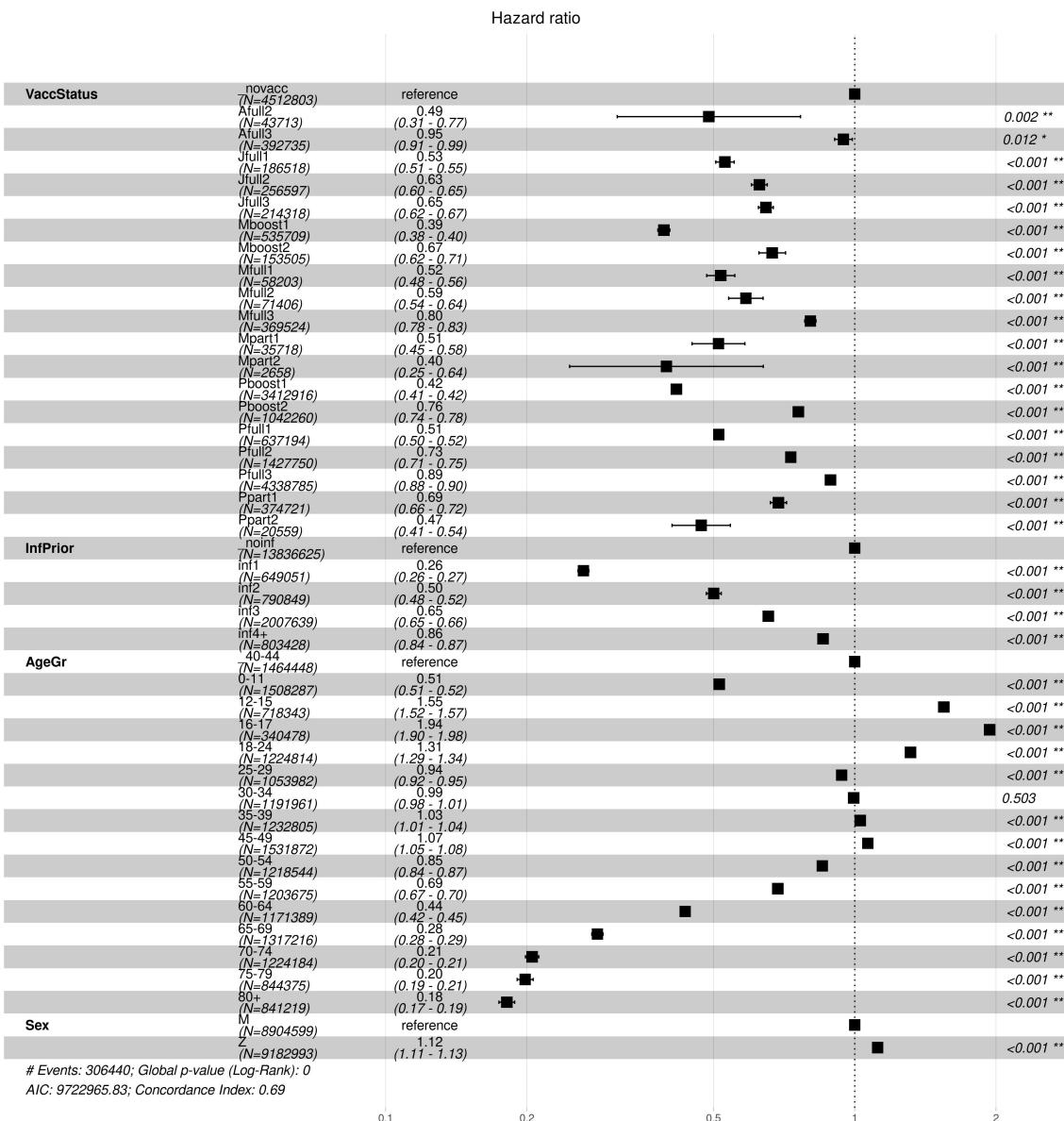
9 ICU therapy – Omicron



10 ICU therapy – Delta

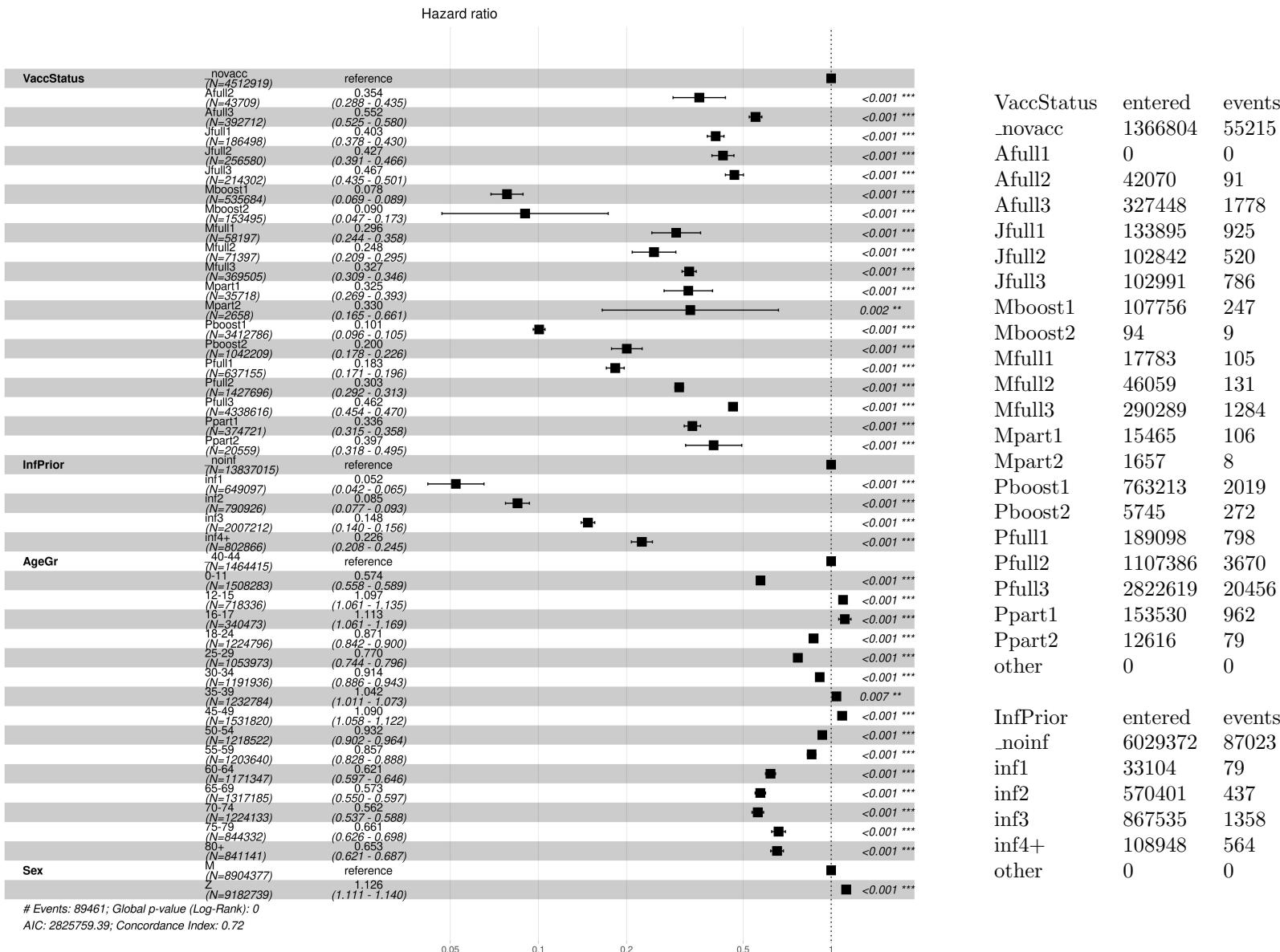


11 Infections by Vaccines - Omicron

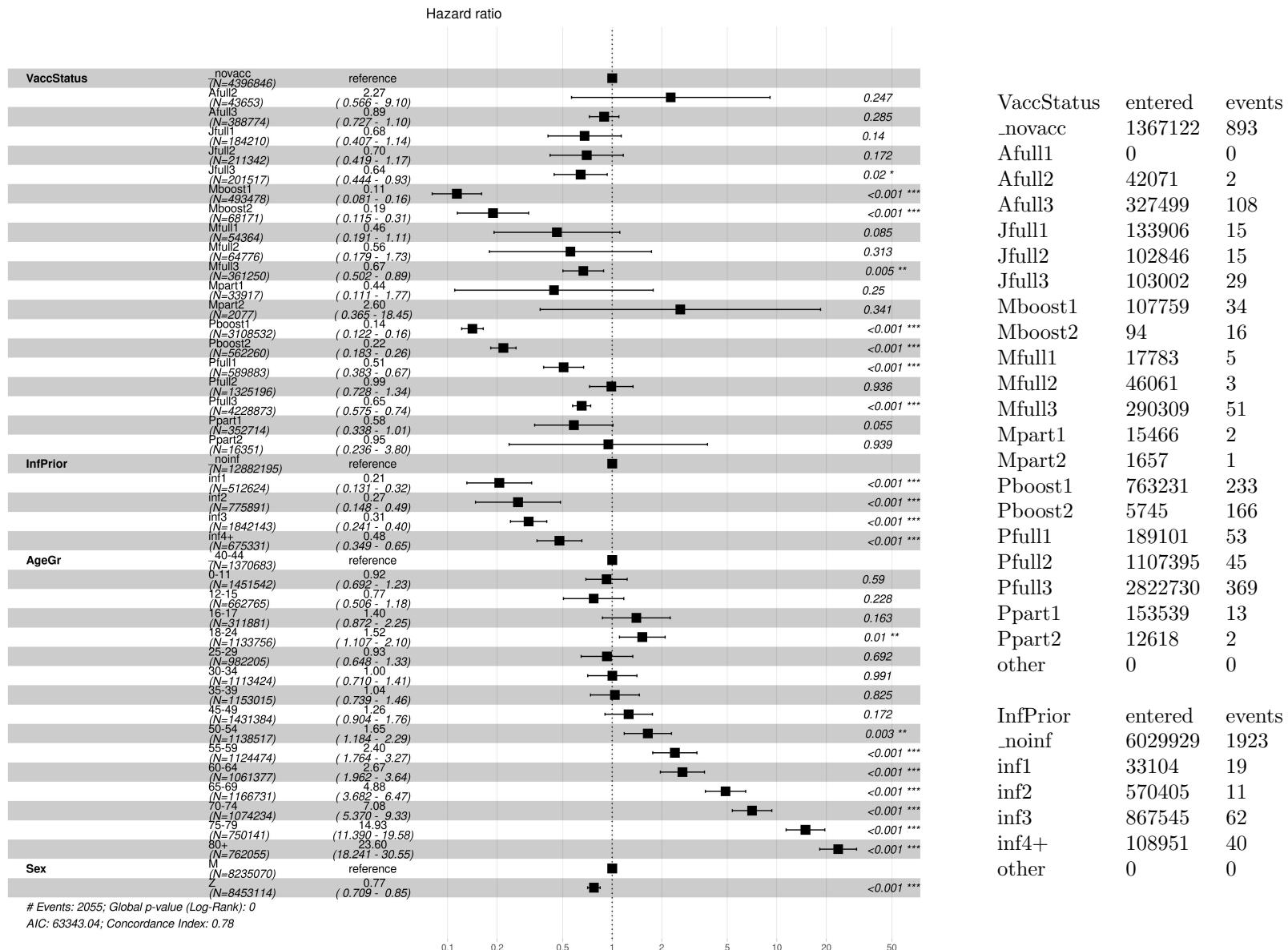


VaccStatus	entered	events
_novacc	1366991	138221
Afull1	0	0
Afull2	42071	19
Afull3	327462	2127
Jfull1	133906	1915
Jfull2	102848	2634
Jfull3	102994	2976
Mboost1	107763	4696
Mboost2	94	923
Mfull1	17787	814
Mfull2	46063	540
Mfull3	290301	5285
Mpart1	15465	229
Mpart2	1657	17
Pboost1	763252	31043
Pboost2	5745	8840
Pfull1	189107	10510
Pfull2	1107421	8255
Pfull3	2822713	84716
Ppart1	153530	2492
Ppart2	12616	188
other	0	0
InfPrior	entered	events
_noinf	6029372	260863
inf1	33108	5643
inf2	570381	2915
inf3	867879	22471
inf4+	109046	14548
other	0	0

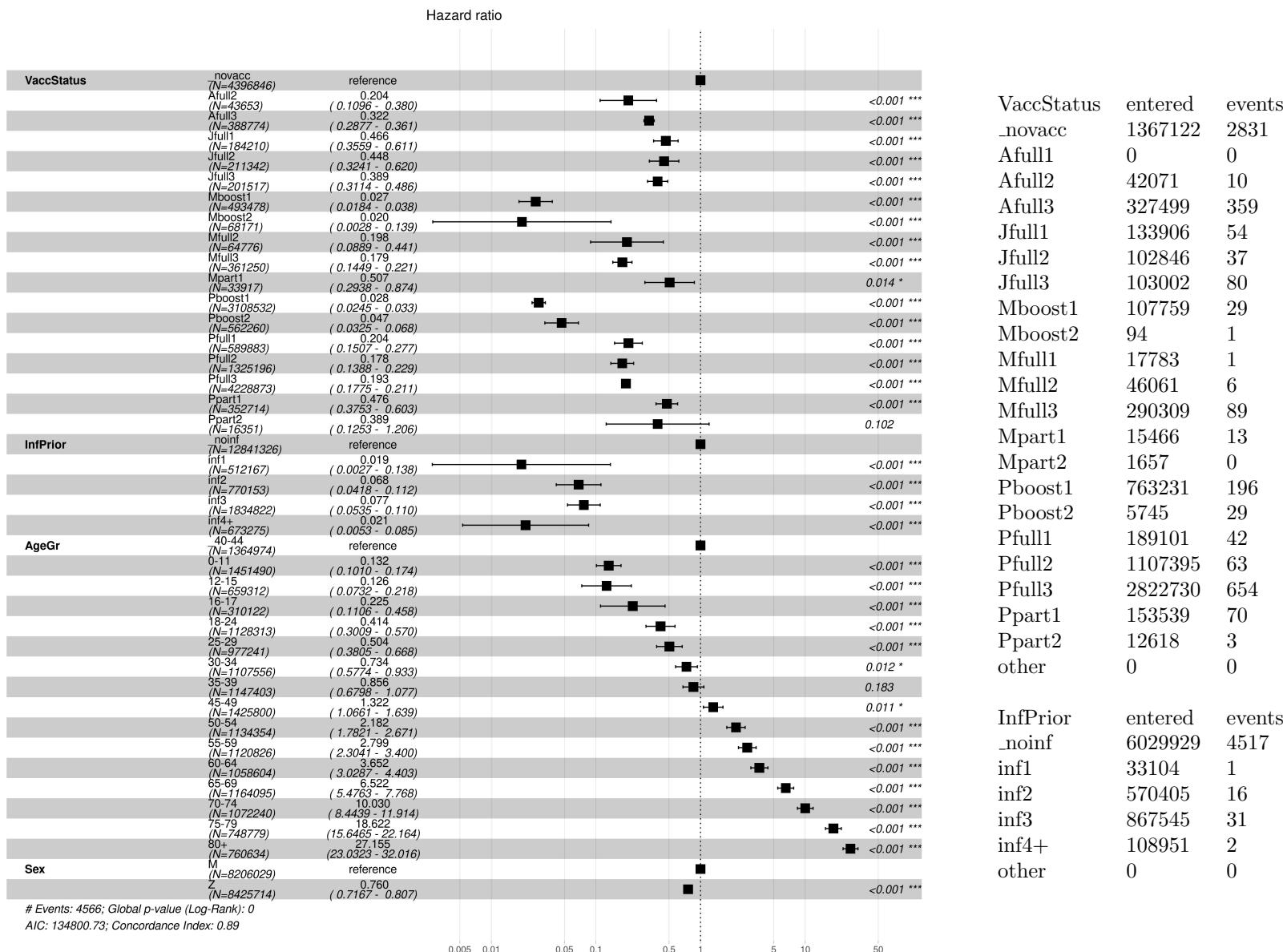
12 Infections by Vaccines - Delta



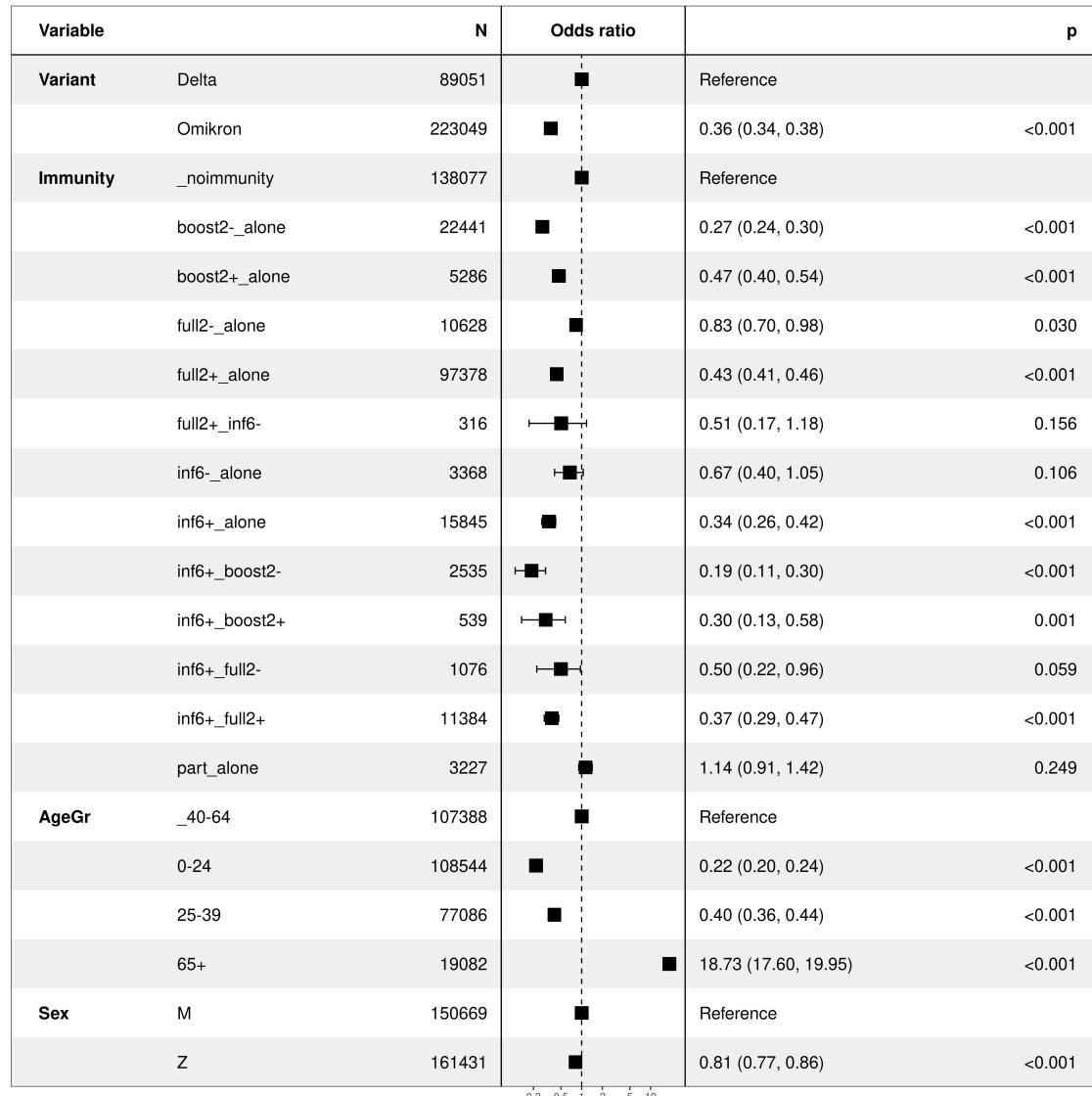
13 Hospitalizations by Vaccines - Omicron



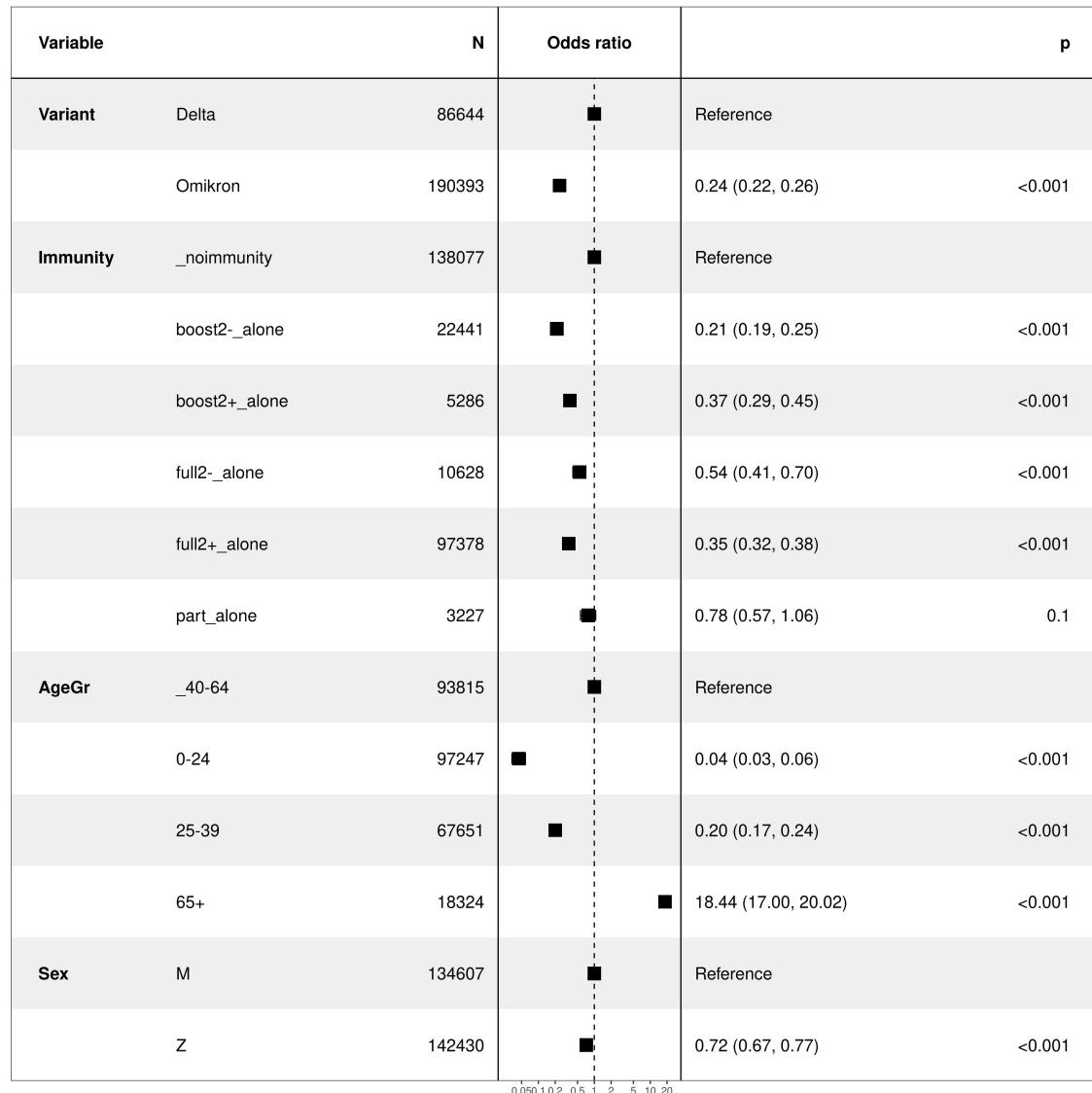
14 Hospitalizations by Vaccines - Delta



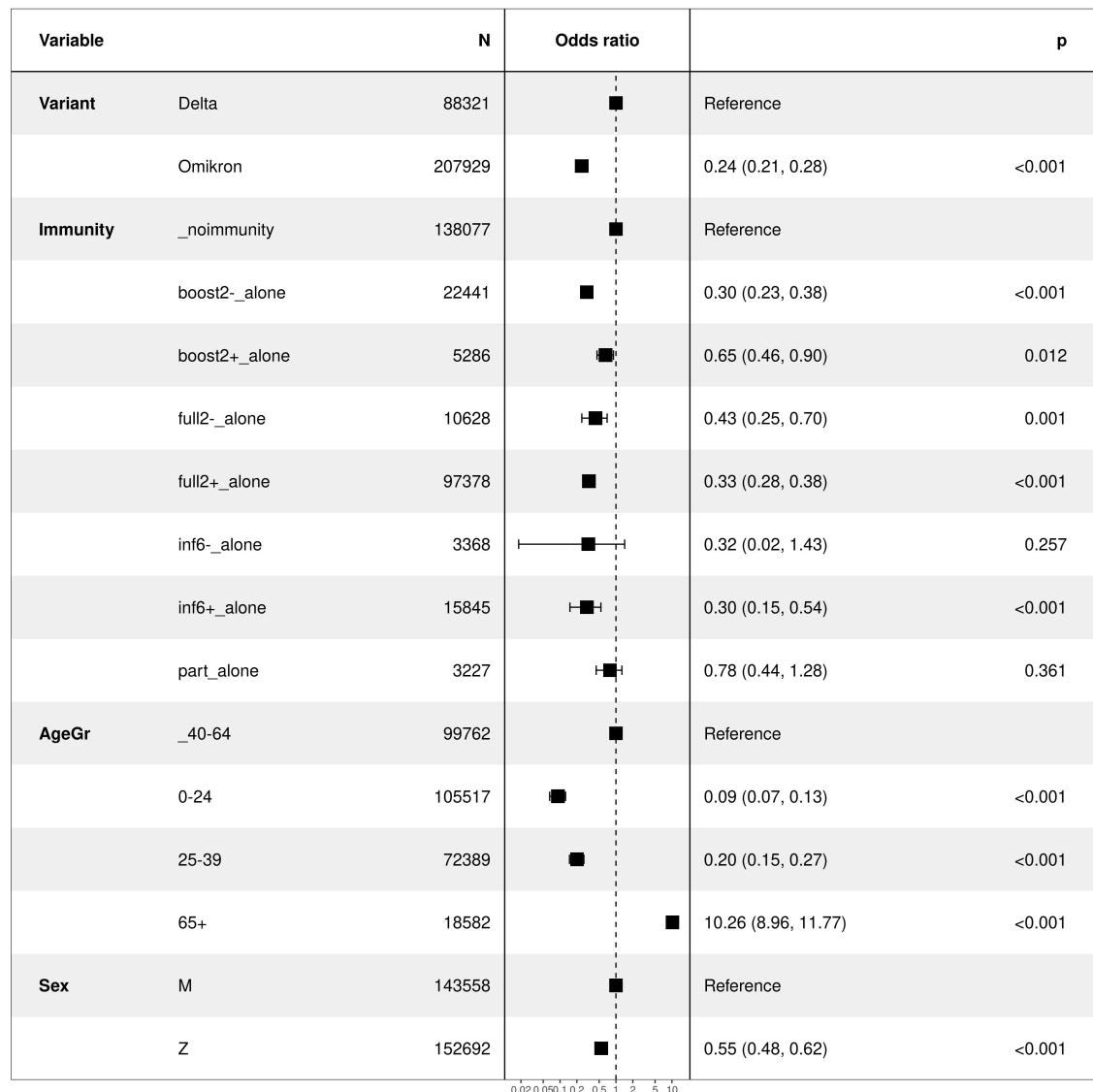
15 Hospitalization given Infection



16 Oxygen given Infection



17 ICU given Infection



18 Oxagen given Hospitalization

