A

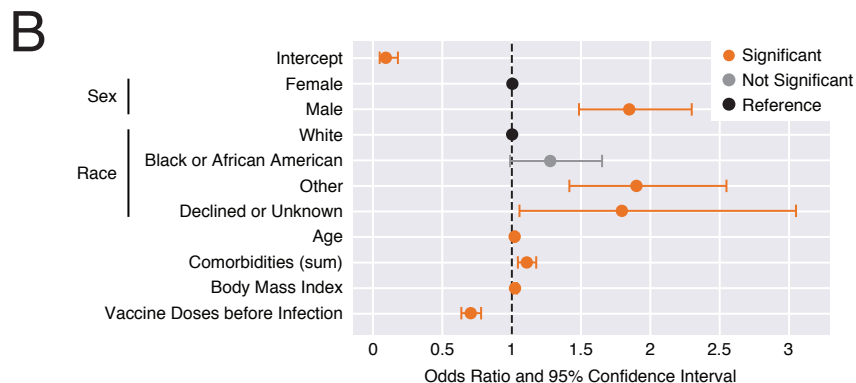**Outcome ~ Sex + Race + Age + Comorbidities + BMI + Vaccine Doses**

Variable	Coefficient	Standard Error	z	p-value	95% Confidence Interval
Intercept	-2.4084	0.345	-6.981	**0.000**	[-3.085, -1.732]
Sex - Male	0.6107	0.112	54.77	**0.000**	[0.392, 0.829]
Race - Black or African American	0.2415	0.131	1.842	0.066	[-0.016, 0.499]
Race - Declined or Unknown	0.5815	0.271	2.146	**0.032**	[0.051, 1.113]
Race - Other	0.6385	0.15	4.252	**0.000**	[0.344, 0.933]
Age	0.0169	0.004	4.709	**0.000**	[0.01, 0.024]
Comorbidities (sum)	0.0992	0.03	3.254	**0.001**	[0.039, 0.159]
Body Mass Index	0.0195	0.007	2.698	**0.007**	[0.005, 0.034]
Vaccine Doses before Infection	-0.3553	0.052	-6.876	**0.000**	[-0.457, -0.254]

Note: The most frequent categorical variables for sex (female) and race (white) were set as the reference.

B

Odds Ratio and 95% Confidence Interval

C

Outcome ~ Clade + Sex + Race + Age + Comorbidities + BMI + Vaccine Doses

Variable	Coefficient	Standard Error	z	p-value	95% Confidence Interval
Intercept	-1.3847	0.873	-1.586	0.113	[-3.096, 0.327]
Clade - 20B	0.1477	0.674	0.219	0.826	[-1.172, 1.468]
Clade - 20C	0.301	0.533	0.564	0.573	[-0.745, 1.347]
Clade - 20G	-0.6677	0.542	-1.232	0.218	[-1.73, 0.394]
Clade - 20I (Alpha)	-0.994	0.547	-1.816	0.069	[-2.067, 0.079]
Clade - 21J/I/A (Delta)	-0.8076	0.484	-1.668	0.095	[-1.757, 0.141]
Clade - 21M/K/L (Omicron)	-0.6697	0.575	-1.166	0.244	[-1.796, 0.456]
Clade - Other	-0.7309	0.533	-1.372	0.17	[-1.775, 0.313]
Sex - Male	0.4416	0.261	1.691	0.091	[-0.07, 0.953]
Race - Black or African American	0.5954	0.329	1.809	0.071	[-0.05, 1.241]
Race - Declined or Unknown	0.2532	0.528	0.48	0.631	[-0.781, 1.287]
Race - Other	0.5857	0.344	1.703	0.089	[-0.088, 1.26]
Age	0.0165	0.008	1.983	**0.047**	[0, 0.033]
Comorbidities (sum)	0.0974	0.076	1.283	0.199	[-0.051, 0.246]
Body Mass Index	0.0262	0.017	1.572	0.116	[-0.006, 0.059]
Vaccine Doses before Infection	-0.3925	0.175	-2.237	**0.025**	[-0.736, -0.049]

Note: The most frequent categorical variables for sex (female) and race (white) were set as the reference.
Clade 20A served as the reference for the categorical variable 'clade'.