

# Long COVID outcomes one year post mild SARS-CoV-2 infection in a nationwide study

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**Table S1 - List of health outcomes included in the study**

List of outcomes included in the study collected from several resources including the Centers for Disease Control and Prevention (CDC) reports, The World Health Organization (WHO) publications, the Israeli Ministry of Health and relevant scientific publications (See methods section). These outcomes were further sub-grouped to symptoms, chronic conditions, acute diagnoses and infectious diseases.

Outcome	Subgroup	ICD10	Taken first occurrence	Outcome group
Abdominal pain <sup>1-4</sup>		R10.9		Symptom
Anosmia and Dysgeusia <sup>5</sup>		R43.0, R43.8		Symptom
Arthralgia <sup>1,3,4</sup>		M25.5		Symptom
Bloody stool <sup>1</sup>		K92.1		Symptom
Chest pain <sup>1,4,5</sup>		R07.9, R07.1, R07.8, R07.2		Symptom
Chills <sup>3,4,6</sup>		R68.83		Symptom
Concentration and memory impairment <sup>1,4,5</sup>	Memory difficulties	R41.83, R41.2, R68.89		Symptom
	ADHD	F90.0 (314.00, Y23257)		Symptom
	Cognitive deficit	R41.83, R41.2		Symptom
Cough <sup>1,3-7</sup>		R05		Symptom
Convulsions <sup>8</sup>		R56.9, R56.01, R56.00	1	Symptom
Diarrhea <sup>1-4,6</sup>		R19.7		Symptom
Dizziness <sup>1,4</sup>		R42		Symptom
Dyspnea <sup>1,3-7</sup>		R06		Symptom
Hair loss <sup>1,4</sup>		L65.8, L65.0, L65.9		Symptom
Headache <sup>1-7</sup>		G44, G43		Symptom
Hyperhidrosis		R61		Symptom
Insomnia <sup>5,9</sup>		F51		Symptom
Loss of appetite		R63.4, R63.6		Symptom
Lymphadenopathy <sup>1</sup>		R59.9		Symptom
Menstruation abnormalities*		N91, N92	1	Symptom
Muscle atrophy <sup>1</sup>		M62.5		Symptom
Myalgia <sup>1-4,6</sup>		M60.9		Symptom
Nausea or vomiting <sup>1-4,6</sup>		R11.0, R11.2, R11.10		Symptom
Palpitations <sup>1,4</sup>		R00.0, R00.2		Symptom
Paresthesia <sup>1,5</sup>		R20		Symptom
Respiratory disorders <sup>10</sup>		J98 excluded 1,5,6,8,01 ()	1	Symptom
Rhinorrhea <sup>4</sup>		J34.8		Symptom
Skin rash <sup>1-3</sup>		R21, R50.6, R53.9		Symptom
Sore throat <sup>1,3,4,6</sup>		R07.0		Symptom
Tinnitus <sup>4</sup>		H93		Symptom
Tremor <sup>1,4</sup>		R25.9		Symptom
Visual disturbances <sup>1</sup>		H53		Symptom
Voice disorder <sup>1</sup>		R49.9		Symptom

Weakness <sup>1,2</sup>		R53		Symptom
Weight loss <sup>1,5</sup>		R63.4		Symptom
Anxiety <sup>7,9</sup>		F41	1	Chronic Condition
Cardiac arrhythmias <sup>7</sup>	Paroxysmal tachycardia	I47	1	Chronic Condition
	Atrial fibrillation and flutter	I48		
	Other cardiac arrhythmias	I49 (excluded I49.9)		
Celiac disease*		K90.0		Chronic Condition
Chronic interstitial pulmonary disease <sup>11</sup>	Interstitial pulmonary fibrosis		1	Chronic Condition
	Long interstitial pulmonary diseases	J84		
Chronic kidney disease <sup>10</sup>		N18	1	Chronic Condition
Congestive heart failure <sup>10</sup>	heart failure	I50	1	Chronic Condition
	Pulmonary edema	J81		
	Cardiomyopathy	I42 (exclude i42.6)		
Depression <sup>7</sup>		F32	1	Chronic Condition
Diabetes Mellitus <sup>7,10</sup>	Diabetes type1	E10	1	Chronic Condition
	Diabetes type2	E11	1	
Diseases of the nervous system <sup>7</sup>	Trigeminal neuralgia	G50.0	1	Chronic Condition
	Neuropathies	G50, G51, G52, G60.9		
	Myoneural junction or muscle disease	G70, G73		
	Nerve root and plexus disorders	G54.9		
	Neuropathies	G56, G57, G58, G60, G62.81, G64		
Epilepsy		G40	1	Chronic Condition
Fatty Liver <sup>10</sup>		K73, K75, K76	1	Chronic Condition
Hypertension <sup>1</sup>		I10	1	Chronic Condition
Ischemic heart disease <sup>7,9</sup>	Acute myocardial infarction	I21, I22, I24	1	Chronic Condition
	Angina pectoris	I20		
	Chronic ischemic heart disease	I25		
Parkinsonism <sup>9</sup>		G20	1	Chronic Condition
Psychosis <sup>7,9</sup>		F20, F22, F23, F24, F25, F28, F30	1	Chronic Condition
Pulmonary disease <sup>7</sup>	Emphysema	J43		Chronic Condition
	Chronic obstructive pulmonary disease	J44		
	Bronchiectasis	J47		
Acute respiratory distress syndrome <sup>11</sup>		J80	1	Acute Diagnosis
Appendicitis <sup>12</sup>		K35	1	Acute Diagnosis
Cerebral hemorrhage <sup>7,9</sup>		I60, I61, I62	1	Acute Diagnosis
Conjunctivitis <sup>1</sup>		H10		Acute Diagnosis
Diseases of the pleura	Pneumothorax	J93	1	Acute Diagnosis
	Other pleural condition	J94		
Encephalitis <sup>7,9</sup>		G04, G05, A86, A85		Acute Diagnosis
Guillain-Barré syndrome <sup>7,9</sup>		G61		Acute Diagnosis

Herpes simplex <sup>11</sup>		B00	1	Acute Diagnosis
Hospitalization				Acute Diagnosis
Hyperreactive airway disease <sup>13</sup>	Bronchitis	J40, J41, J42	1	Acute Diagnosis
	Asthma	J45	1	
Invasive pneumococcal		J13	1	Acute Diagnosis
Ischemic stroke and TIA <sup>7,9</sup>		I63, G45	1	Acute Diagnosis
Kawasaki disease and Pediatric inflammatory multisystem syndrome <sup>7</sup>	Kawasaki's disease, PIMS	M30.3		Acute Diagnosis
Lung abscess <sup>11,13</sup>		J85	1	Acute Diagnosis
Myocarditis <sup>10</sup>		I40, I41		Acute Diagnosis
Pericarditis <sup>13</sup>	Acute pericarditis	I30	1	Acute Diagnosis
	Other diseases of pericardium	I31		
Pulmonary eosinophilia <sup>7</sup>		J82	1	Acute Diagnosis
Respiratory failure <sup>10</sup>		J96	1	Acute Diagnosis
Venous thromboembolism <sup>7</sup>		I26, I80, I82		Acute Diagnosis
EBV infection*		labs - serology		Infectious Disease
Herpes Zoster <sup>11</sup>		B02		Infectious Disease
Streptococcal tonsillitis*		labs - culture		Infectious Disease

\*Outcomes reported by MHS covid-19 specialist physicians.

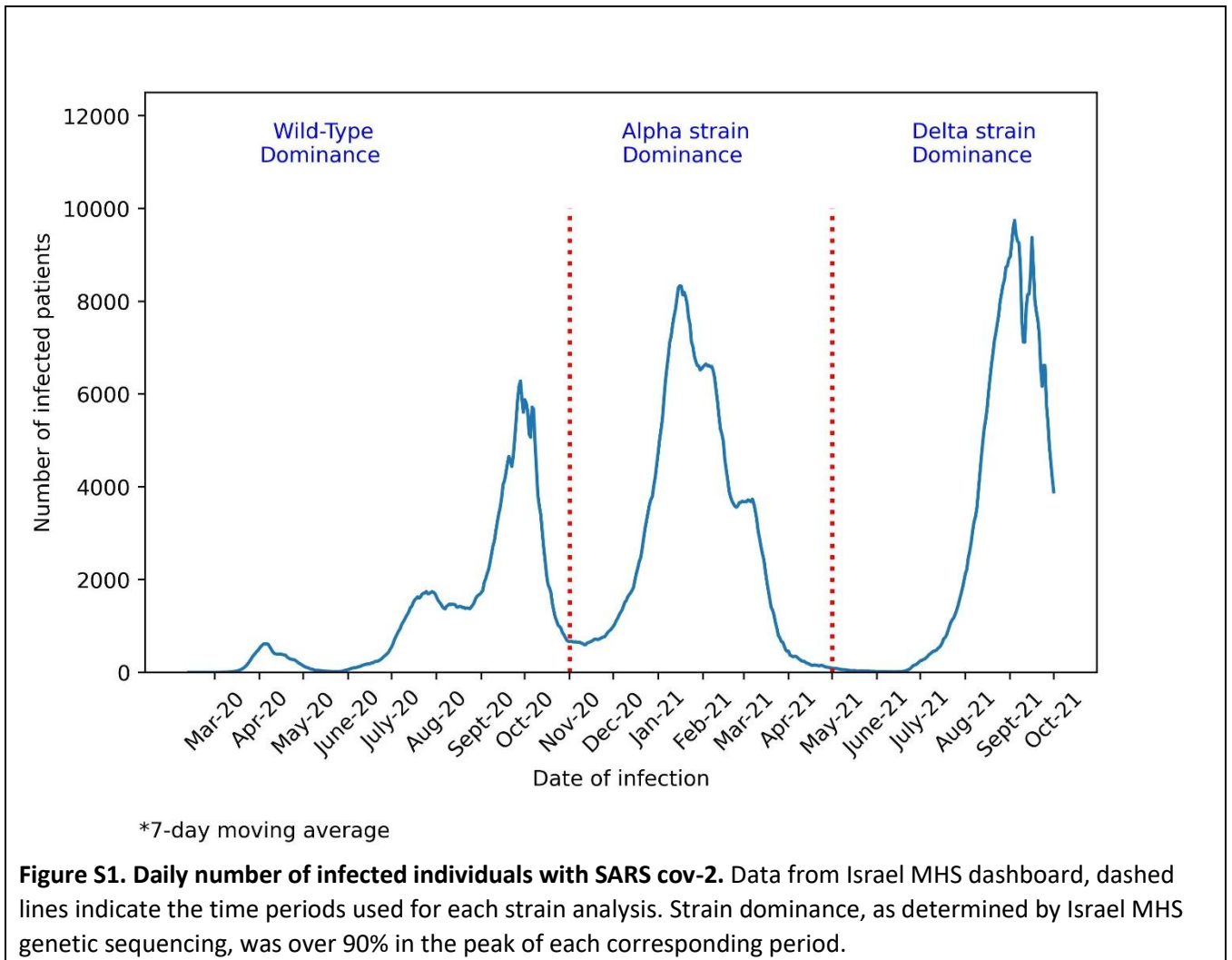
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**Figure S1:** Daily numbers of SARS-CoV-2 infected individuals in Israel, by the dominance of the COVID-19 strain.



## Health outcomes analysis

**Table S2a** - Characteristics of the sub cohort of unvaccinated individuals during Wild-Type and Alpha variants of the SARS-CoV-2 virus for all age groups

Characteristics	SARS-CoV-2 positive individuals (%) (n=170,280)	SARS-CoV-2 negative individuals (%) (n=170,280)
Age, Median (IQR) yr	24 (13-42)	24 (14-43)
Age group		
0-4 yr	12,329 (7.2%)	12,329 (7.2%)
5-11 yr	23,185 (13.6%)	23,185 (13.6%)
12-18 yr	29,188 (17.1%)	29,188 (17.1%)
19-40 yr	59,876 (35.2%)	59,876 (35.2%)
41-60 yr	34,867 (20.5%)	34,867 (20.5%)
>60 yr	10,835 (6.4%)	10,835 (6.4%)
Sex		
Female	84,500 (49.6%)	84,500 (49.6%)
Male	85,780 (50.4%)	85,780 (50.4%)
Dominant variant of the COVID-19virus		
Wild-Type	72,317 (42.5%)	72,317 (42.5%)
Alpha	97,963 (57.5%)	97,963 (57.5%)
Delta	0 (0%)	0 (0%)
Vaccine status		
Unvaccinated	170,280 (100%)	170,280 (100%)
One Vaccine dose	0 (0%)	0 (0%)
Two Vaccine doses	0 (0%)	0 (0%)
Booster dose	0 (0%)	0 (0%)

**Table S2b** – Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	135,627	4,356	344.4 [334.7-354.5]	4,671	345.7 [335.9-355.8]	0.99 [0.95-1.04]	0.93	-1.3 [(-15.3)-12.7]
Acute respiratory distress syndrome	162,631	6		1				
Anosmia and Dysgeusia	162,387	344	25.1 [22.7-27.7]	90	5.5 [4.4-6.8]	4.59 [3.63-5.80]	<0.001	19.6 [16.9-22.4]
Anxiety	128,026	549	47.4 [43.7-51.4]	541	41.7 [38.3-45.5]	1.13 [1.01-1.27]	0.18	5.7 [0.5-11.0]
Appendicitis	153,343	89	6.5 [5.3-7.9]	105	6.6 [5.4-8.1]	0.97 [0.73-1.29]	0.97	-0.2 [(-2.0)-1.7]
Arthralgia	156,771	1,139	76.3 [72.0-80.8]	1,070	68.9 [64.9-73.2]	1.11 [1.02-1.20]	0.11	7.3 [1.3-13.4]
Bloody stool	161,980	175	11.6 [10.0-13.4]	183	11.6 [10.0-13.4]	0.99 [0.81-1.22]	1.00	0.0 [(-2.4)-2.4]
Cardiac arrhythmias	154,039	165	11.4 [9.8-13.2]	152	9.6 [8.1-11.3]	1.19 [0.96-1.49]	0.34	1.8 [(-0.5)-4.2]
Celiac disease	162,051	94	5.8 [4.8-7.2]	125	7.6 [6.4-9.1]	0.77 [0.59-1.01]	0.23	-1.8 [(-3.6)-0.1]
Cerebral hemorrhage	162,070	12	0.6 [0.3-1.2]	19	1.1 [0.7-1.7]	0.63 [0.29-1.36]	0.53	-0.4 [(-1.1)-0.3]
Chest pain	151,539	2,770	197.1 [190.2-204.4]	2,125	140.8 [134.9-147.0]	1.41 [1.33-1.49]	<0.001	56.3 [47.0-65.7]
Chills	162,882	-		-				
Chronic interstitial pulmonary disease	162,739	9	0.5 [0.3-1.1]	1	0.1 [0.0-0.5]	10.65 [1.12-101.74]	0.18	0.5 [0.0-1.0]
Chronic kidney disease	159,099	20	1.3 [0.8-2.0]	23	1.6 [1.0-2.3]	0.81 [0.45-1.48]	0.78	-0.3 [(-1.2)-0.6]
Concentration and memory impairment	161,785	403	28.0 [25.5-30.7]	243	15.2 [13.4-17.2]	1.85 [1.58-2.17]	<0.001	12.8 [9.6-16.1]
Congestive heart failure	161,295	39	2.4 [1.8-3.3]	61	3.7 [2.9-4.8]	0.65 [0.43-0.97]	0.17	-1.3 [(-2.6)-(-0.1)]
Conjunctivitis	148,671	2,474	170.1 [163.5-176.9]	2,366	161.6 [155.1-168.3]	1.05 [1.00-1.12]	0.25	8.5 [(-0.8)-17.9]
Convulsions	155,920	72	5.1 [4.0-6.3]	81	5.5 [4.4-6.8]	0.93 [0.68-1.27]	0.87	-0.4 [(-2.1)-1.3]
Cough	139,170	3,851	289.0 [280.2-298.1]	3,598	266.8 [258.3-275.6]	1.09 [1.04-1.14]	0.00	22.2 [9.7-34.6]
Depression	143,401	218	17.1 [15.1-19.5]	251	17.3 [15.2-19.6]	0.99 [0.83-1.19]	1.00	-0.2 [(-3.3)-2.9]
Diabetes Mellitus	152,515	183	123.0 [10.6-14.2]	140	10.2 [8.7-11.9]	1.21 [0.98-1.50]	0.27	2.1 [(-0.3)-4.6]
Diarrhea	162,686	17	1.1 [0.7-1.7]	31	1.8 [1.2-2.6]	0.62 [0.35-1.12]	0.34	-0.7 [(-1.6)-0.2]
Diseases of the nervous system	138,284	329	26.5 [23.9-29.4]	326	22.6 [20.2-25.3]	1.16 [0.99-1.35]	0.23	3.9 [0.1-7.7]
Diseases of the		14	0.9 [0.5-1.5]	10	0.6 [0.3-1.1]	1.56 [0.68-	0.59	0.3 [(-0.3)-1.0]

pleura	162,092					3.58]		
Dizziness	155,720	1,389	94.1 [89.3-99.1]	1,260	82.7 [78.3-87.4]	1.14 [1.06-1.23]	0.01	11.4 [4.7-18.1]
Dyspnea	155,240	2,853	197.2 [190.3-204.3]	1,673	111.5 [106.3-117.0]	1.79 [1.68-1.90]	<0.001	85.7 [76.9-94.5]
EBV infection	162,882	-		-				
Encephalitis	162,834	7	0.5 [0.2-1.0]	13	0.8 [0.5-1.4]	0.62 [0.25-1.52]	0.59	-0.3 [(-0.9)-0.3]
Epilepsy	158,564	48	3.2 [2.4-4.2]	61	3.8 [2.9-4.9]	0.86 [0.59-1.26]	0.73	-0.6 [(-2.0)-0.7]
Fatty Liver	148,501	382	27.8 [25.2-30.6]	324	21.0 [18.8-23.5]	1.31 [1.13-1.52]	0.01	6.8 [3.2-10.4]
Guillain-Barre syndrome	162,853	11	0.7 [0.4-1.3]	11	0.6 [0.3-1.2]	1.12 [0.48-2.63]	0.93	0.1 [(-0.6)-0.7]
Hair loss	159,395	1,055	73.3 [69.2-77.7]	687	41.8 [38.7-45.1]	1.75 [1.59-1.93]	<0.001	31.6 [26.2-36.9]
Headache	144,950	2,847	210.6 [203.2-218.2]	2,932	204.3 [197.0-211.9]	1.03 [0.98-1.09]	0.51	6.2 [(-4.3)-16.8]
Herpes Simplex	129,338	218	18.7 [16.5-21.3]	197	14.9 [12.9-17.2]	1.25 [1.03-1.52]	0.13	3.8 [0.6-7.1]
Herpes Zoster	161,611	248	17.6 [15.6-19.8]	285	17.2 [15.3-19.4]	1.01 [0.86-1.20]	0.98	0.4 [(-2.6)-3.3]
Hospitalization	147,172	2,451	172.0 [165.4-178.9]	2,292	162.8 [156.3-169.5]	1.06 [1.01-1.13]	0.17	9.3 [(-0.2) - 18.7]
Hyperhidrosis	162,707	41	3.0 [2.3-4.0]	52	2.8 [2.1-3.8]	1.07 [0.71-1.60]	0.92	0.2 [(-1.0)-1.4]
Hyperreactive Airway Disease	95,601	339	37.0 [33.3-41.1]	296	31.9 [28.4-35.7]	1.16 [0.99-1.36]	0.23	5.1 [(-0.3)-10.5]
Hypertension	138,312	253	19.6 [17.3-22.1]	207	15.4 [13.4-17.6]	1.27 [1.06-1.53]	0.07	4.2 [1.0-7.4]
Insomnia	162,758	22	1.6 [1.1-2.4]	25	1.5 [1.0-2.2]	1.09 [0.62-1.93]	0.92	0.1 [(-0.8)-1.1]
Invasive pneumococcal	156,136	50	3.1 [2.4-4.2]	49	3.3 [2.5-4.4]	0.95 [0.64-1.41]	0.93	-0.2 [(-1.5) - 1.1]
Ischemic heart disease	155,954	125	8.7 [7.3-10.3]	162	10.2 [8.7-11.9]	0.86 [0.68-1.08]	0.47	-1.5 [(-3.7)-0.7]
Ischemic stroke and TIA	159,687	43	2.9 [2.2-3.9]	73	4.4 [3.4-5.5]	0.69 [0.47-1.00]	0.21	-1.4 [(-2.8)-(-0.1)]
Kawasaki disease,PIMS	162,869	5		2				
Loss of appetite	159,712	620	42.2 [39.1-45.6]	716	44.2 [41.0-47.6]	0.96 [0.86-1.06]	0.69	-1.9 [(-6.6)-2.7]
Lung abscess	162,784	1		1				
Lymphadenopathy	160,411	481	34.2 [31.4-37.2]	682	41.9 [38.8-45.3]	0.81 [0.72-0.91]	0.00	-7.8 [(-12.1)-(-3.4)]
Menstruation abnormalities	123,816	385	331.0 [30.0-36.5]	392	33.2 [301.0-36.6]	1.01 [0.88-1.16]	0.99	-0.1 [(-4.7)-4.6]
Muscle atrophy	162,665	83	52.0 [4.2-6.5]	61	3.8 [2.9-4.9]	1.40 [1.01-1.96]	0.19	1.4 [0.0-3.0]
Myalgia	156,946	1,287	88.0 [83.4-92.8]	1,086	70.5 [66.4-74.8]	1.24 [1.15-1.35]	<0.001	17.5 [11.2-23.8]
Myocarditis	162,841	11	0.7 [0.4-1.3]	5	0.3 [0.1-0.7]	2.60 [0.86-7.88]	0.29	0.4 [(-0.1)-1.0]
Nausea or vomiting	156,426	1,236	83.5 [79.1-88.3]	1,340	86.6 [82.0-91.4]	0.97 [0.89-1.04]	0.68	-3.1 [(-9.6)-3.5]

Palpitations	159,339	1,015	67.9 [63.9-72.1]	734	45.7 [42.5-49.2]	1.49 [1.35-1.64]	<0.001	22.1 [16.8-27.4]
Paresthesia	159,539	713	48.3 [45.0-51.9]	768	47.4 [44.1-51.0]	1.02 [0.92-1.13]	0.89	0.9 [(-4.0)-5.8]
Parkinsonism	162,289	13	0.9 [0.5-1.5]	11	0.8 [0.5-1.5]	1.04 [0.49-2.21]	0.99	0.0 [(-0.7)-0.7]
Pericarditis	161,758	35	2.3 [1.7-3.2]	28	1.7 [1.1-2.4]	1.51 [0.93-2.48]	0.30	0.6 [(-0.4)-1.7]
Psychosis	159,489	60	3.9 [3.0-5.0]	74	4.4 [3.5-5.6]	0.90 [0.64-1.28]	0.82	-0.5 [(-2.0)-1.0]
Pulmonary disease	157,381	50	3.8 [2.9-4.9]	51	3.2 [2.4-4.3]	1.14 [0.78-1.67]	0.77	0.5 [(-0.8)-1.9]
Pulmonary eosinophilia	162,835	-		1				
Respiratory disorders	161,005	97	6.3 [5.2-7.7]	44	2.6 [1.9-3.5]	2.40 [1.67-3.44]	<0.001	3.7 [2.3-5.3]
Respiratory failure	162,660	9	0.6 [0.4-1.2]	12	0.8 [0.5-1.4]	0.77 [0.34-1.74]	0.79	-0.2 [(-0.9)-0.5]
Rhinorrhea	162,561	67	4.2 [3.3-5.3]	82	5.0 [4.0-6.2]	0.84 [0.61-1.17]	0.61	-0.8 [(-2.3)-0.7]
Skin rash	155,745	1,162	80.8 [76.4-85.4]	1,322	83.3 [78.8-88.1]	0.97 [0.90-1.05]	0.79	-2.6 [(-9.0)-3.9]
Sore throat	158,660	708	44.9 [41.6-48.3]	754	49.7 [46.3-53.4]	0.90 [0.81-1.00]	0.19	-4.8 [(-9.7)-0.0]
Streptococcal tonsillitis	154,689	1,489	89.7 [85.1-94.7]	1,007	76.4 [72.1-80.9]	1.18 [1.09-1.28]	<0.001	13.4 [6.8-19.9]
Tinnitus	160,135	611	42.0 [38.9-45.4]	599	37.4 [34.5-40.6]	1.12 [1.00-1.26]	0.19	4.6 [0.2-9.1]
Tremor	162,240	154	10.1 [8.6-11.7]	143	8.9 [7.6-10.6]	1.14 [0.91-1.43]	0.56	1.1 [(-1.1)-3.3]
Venous thromboembolism	161,976	211	13.3 [11.6-15.2]	201	13.7 [12.0-15.7]	0.97 [0.80-1.17]	0.92	-0.5 [(-3.0)-2.1]
Visual disturbances	160,443	460	29.8 [27.2-32.6]	444	28.5 [26.0-31.3]	1.05 [0.92-1.20]	0.75	1.3 [(-2.5)-5.1]
Voice disorder	161,119	412	25.5 [23.1-28.2]	347	22.8 [20.5-25.3]	1.11 [0.97-1.29]	0.37	2.7 [(-0.7)-6.2]
Weakness	150,829	3,681	251.6 [243.7-259.7]	2,023	143.1 [137.1-149.3]	1.78 [1.69-1.88]	<0.001	108.5 [98.4-118.6]
Weight loss	161,235	337	22.9 [20.6-25.4]	407	24.6 [22.3-27.2]	0.92 [0.80-1.07]	0.57	-1.7 [(-5.2)-1.7]

**Table S2c** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	125,372	4,618	419.5 [407.9-431.4]	5,104	435.0 [423.2-447.1]	0.97 [0.93-1.01]	0.39	-15.5 [(-32.3)-1.2]
Acute respiratory distress syndrome	150,426	-		1				
Anosmia and Dysgeusia	150,177	208	16.7 [14.7-19.0]	83	5.8 [4.6-7.2]	2.96 [2.29-3.82]	<0.001	11.0 [8.5-13.6]
Anxiety	118,024	450	45.3 [41.4-49.5]	520	45.7 [41.8-50.0]	1.00 [0.88-1.14]	1.00	-0.4 [(-6.2)-5.4]
Appendicitis	141,902	77	5.9 [4.7-7.4]	111	8.2 [6.8-9.9]	0.73 [0.54-0.97]	0.16	-2.3 [(-4.4)-(-0.2)]
Arthralgia	144,926	1,217	95.4 [90.2-100.9]	1,137	81.6 [76.8-86.6]	1.17 [1.08-1.27]	0.00	13.8 [6.6-21.1]
Bloody stool	149,801	192	14.6 [12.7-16.8]	206	14.8 [12.9-17.0]	0.99 [0.81-1.20]	0.98	-0.2 [(-3.1)-2.7]
Cardiac arrhythmias	142,459	113	8.8 [7.3-10.6]	137	10.4 [8.8-12.4]	0.86 [0.67-1.11]	0.53	-1.7 [(-4.1)-0.8]
Celiac disease	149,881	121	8.6 [7.2-10.3]	150	10.5 [8.9-12.3]	0.81 [0.64-1.04]	0.29	-1.8 [(-4.2)-0.5]
Cerebral hemorrhage	149,905	10	0.9 [0.5-1.5]	15	1.1 [0.7-1.8]	0.83 [0.39-1.78]	0.87	-0.2 [(-1.1)-0.6]
Chest pain	140,058	2,413	198.1 [190.5-206.0]	2,479	190.7 [183.2-198.4]	1.05 [0.99-1.11]	0.30	7.4 [(-3.4)-18.3]
Chills	150,638	-		2				
Chronic interstitial pulmonary disease	150,512	2		1				
Chronic kidney disease	147,181	51	4.0 [3.0-5.3]	42	3.2 [2.4-4.4]	1.25 [0.83-1.88]	0.59	0.8 [(-0.7)-2.3]
Concentration and memory impairment	149,618	407	33.4 [30.4-36.6]	276	20.0 [17.8-22.6]	1.69 [1.45-1.96]	<0.001	13.3 [9.4-17.3]
Congestive heart failure	149,241	32	2.3 [1.7-3.3]	40	3.1 [2.3-4.2]	0.76 [0.48-1.21]	0.54	-0.7 [(-2.0)-0.5]
Conjunctivitis	137,431	2,468	198.2 [190.5-206.1]	2,462	197.7 [190.1-205.7]	1.01 [0.95-1.06]	0.94	0.4 [(-10.6)-11.5]
Convulsions	144,273	67	4.8 [3.7-6.2]	57	4.4 [3.4-5.6]	1.09 [0.77-1.57]	0.86	0.5 [(-1.2)-2.1]
Cough	128,609	3,774	333.4 [323.1-344.0]	3,788	318.6 [308.6-329.0]	1.05 [1.00-1.10]	0.19	14.7 [0.1-29.4]
Depression	132,348	226	20.5 [18.1-23.3]	254	19.6 [17.2-22.3]	1.06 [0.89-1.27]	0.78	0.9 [(-2.7)-4.6]
Diabetes Mellitus	140,991	209	16.7 [14.6-19.1]	163	12.9 [11.1-15.1]	1.28 [1.05-1.57]	0.11	3.8 [0.8-6.8]
Diarrhea	150,464	27	2.1 [1.5-3.1]	44	2.9 [2.1-4.0]	0.74 [0.46-1.19]	0.50	-0.8 [(-2.0)-0.4]
Diseases of the nervous system	127,577	337	30.6 [27.5-34.0]	306	26.0 [23.2-29.1]	1.17 [1.00-1.36]	0.20	4.5 [0.2-9.0]

Diseases of the pleura	149,917	10	0.7 [0.4-1.3]	14	1.1 [0.7-1.8]	0.66 [0.30-1.47]	0.60	-0.4 [(-1.2)-0.4]
Dizziness	143,996	1,515	118.8 [113.0-124.9]	1,355	102.1 [96.8-107.8]	1.17 [1.09-1.26]	<0.001	16.7 [8.6-24.8]
Dyspnea	143,541	2,035	160.1 [153.4-167.1]	1,640	124.7 [118.8-130.9]	1.30 [1.22-1.38]	<0.001	35.4 [26.3-44.6]
EBV infection	150,638	-		-				
Encephalitis	150,596	7	0.5 [0.2-1.1]	13	1.0 [0.6-1.7]	0.51 [0.20-1.28]	0.40	-0.4 [(-1.2)-0.3]
Epilepsy	146,672	47	3.4 [2.5-4.5]	38	2.6 [1.9-3.7]	1.24 [0.80-1.93]	0.64	0.7 [(-0.6)-2.1]
Fatty Liver	137,156	358	31.4 [28.4-34.8]	337	26.4 [23.7-29.5]	1.16 [1.00-1.34]	0.22	5.0 [0.7-9.4]
Guillain-Barre syndrome	150,609	7	0.5 [0.3-1.1]	3	0.2 [0.1-0.6]	2.90 [0.72-11.78]	0.37	0.3 [(-0.2)-0.9]
Hair loss	147,371	559	45.5 [42.0-49.2]	703	50.2 [46.5-54.2]	0.93 [0.83-1.04]	0.46	-4.7 [(-10.0)-0.6]
Headache	134,055	2,905	246.6 [237.9-255.6]	3,181	255.7 [246.9-264.8]	0.96 [0.92-1.01]	0.42	-9.1 [(-21.7)-3.4]
Herpes Simplex	119,578	217	20.3 [17.8-23.2]	228	20.1 [17.6-22.9]	0.99 [0.82-1.20]	0.99	0.2 [(-3.6)-4.1]
Herpes Zoster	149,437	260	19.9 [17.6-22.4]	330	24.3 [21.8-27.1]	0.82 [0.70-0.96]	0.10	-4.4 [(-8.0)-(-0.8)]
Hospitalization	136,240	2,410	193.5 [185.9-201.5]	2,424	198.9 [191.2-206.9]	0.97 [0.92-1.03]	0.60	-5.4 [-16.4-5.7]
Hyperhidrosis	150,476	20	1.8 [1.2-2.7]	47	2.9 [2.1-3.9]	0.58 [0.35-0.97]	0.18	-1.1 [(-2.3)-0.1]
Hyperreactive Airway Disease	88,877	353	43.2 [38.8-48.0]	302	37.4 [33.4-41.9]	1.15 [0.99-1.34]	0.25	5.8 [(-0.5)-12.0]
Hypertension	127,606	237	21.5 [19.0-24.5]	203	16.5 [14.3-19.0]	1.27 [1.05-1.53]	0.10	5.0 [1.4-8.7]
Insomnia	150,522	37	3.1 [2.2-4.2]	42	3.0 [2.2-4.1]	1.01 [0.65-1.55]	1.00	0.0 [(-1.3)-1.4]
Invasive pneumococcal	144,428	63	4.4 [3.4-5.7]	57	4.4 [3.4-5.7]	1.02 [0.71-1.47]	0.99	0.0 [(-1.6) - 1.7]
Ischemic heart disease	144,221	126	9.7 [8.1-11.6]	165	12.3 [10.5-14.4]	0.80 [0.64-1.01]	0.24	-2.6 [(-5.2)-0.0]
Ischemic stroke and TIA	147,678	54	3.9 [3.0-5.1]	53	3.9 [3.0-5.2]	1.03 [0.70-1.51]	0.98	0.0 [(-1.6)-1.5]
Kawasaki disease,PIMS	150,625	3		5				
Loss of appetite	147,706	594	47.3 [43.8-51.2]	710	50.0 [46.4-53.9]	0.95 [0.85-1.05]	0.61	-2.7 [(-8.0)-2.6]
Lung abscess	150,547	1		1				
Lymphadenopathy	148,360	501	39.9 [36.6-43.4]	658	45.4 [41.9-49.1]	0.88 [0.78-0.99]	0.15	-5.5 [(-10.5)-(-0.5)]
Menstruation abnormalities	114,014	347	34.8 [31.4-38.7]	389	38.5 [34.9-42.5]	0.91 [0.79-1.05]	0.50	-3.7 [(-9.0)-1.6]
Muscle atrophy	150,445	71	5.4 [4.3-6.8]	61	4.8 [3.7-6.1]	1.14 [0.81-1.58]	0.74	0.6 [(-1.1)-2.4]
Myalgia	145,093	1,200	94.7 [89.6-100.1]	1,184	87.7 [82.8-92.9]	1.08 [1.00-1.17]	0.21	7.0 [(-0.3)-14.3]
Myocarditis	150,600	12	1.0 [0.6-1.7]	10	0.6 [0.3-1.3]	1.60 [0.68-3.77]	0.58	0.3 [(-0.4)-1.1]
Nausea or vomiting	144,635	1,371	107.9 [102.4-113.7]	1,543	114.4 [108.7-120.3]	0.95 [0.88-1.02]	0.37	-6.5 [(-14.6)-1.6]

Palpitations	147,340	833	63.7 [59.5-68.1]	773	55.4 [51.6-59.6]	1.16 [1.05-1.27]	0.03	8.3 [2.4-14.1]
Paresthesia	147,529	711	56.1 [52.2-60.3]	889	62.6 [58.5-67.0]	0.90 [0.82-0.99]	0.17	-6.6 [(-12.4)-(-0.7)]
Parkinsonism	150,109	14	1.2 [0.7-2.0]	15	1.2 [0.8-2.0]	0.89 [0.45-1.76]	0.92	0.0 [(-0.9)-0.9]
Pericarditis	149,592	32	2.5 [1.8-3.5]	26	1.8 [1.2-2.6]	1.40 [0.83-2.36]	0.49	0.7 [(-0.4)-1.9]
Psychosis	147,522	55	3.7 [2.8-4.9]	73	5.5 [4.4-6.9]	0.66 [0.46-0.94]	0.13	-1.8 [(-3.5)-(-0.2)]
Pulmonary disease	145,514	58	5.0 [3.9-6.4]	71	5.1 [4.0-6.5]	0.98 [0.69-1.38]	0.98	-0.2 [(-1.9)-1.6]
Pulmonary eosinophilia	150,594	1		-				
Respiratory disorders	148,937	30	2.3 [1.6-3.3]	35	2.6 [1.8-3.6]	0.83 [0.52-1.34]	0.73	-0.3 [(-1.5)-1.0]
Respiratory failure	150,445	8	0.5 [0.2-1.1]	10	0.9 [0.5-1.6]	0.65 [0.25-1.67]	0.67	-0.3 [(-1.1)-0.3]
Rhinorrhea	150,350	62	4.7 [3.7-6.1]	69	4.7 [3.6-6.0]	1.02 [0.72-1.45]	0.98	0.1 [(-1.6)-1.8]
Skin rash	143,944	1,089	87.1 [82.1-92.3]	1,221	88.6 [83.6-93.8]	0.98 [0.91-1.07]	0.91	-1.5 [(-8.7)-5.7]
Sore throat	146,769	797	59.7 [55.7-64.1]	738	56.6 [52.7-60.8]	1.05 [0.95-1.16]	0.62	3.1 [(-2.7)-9.0]
Streptococcal tonsillitis	143,103	2,087	149.5 [142.9-156.4]	1,555	132.8 [126.6-139.4]	1.12 [1.05-1.20]	0.01	16.6 [7.4-25.9]
Tinnitus	148,054	547	43.0 [39.6-46.7]	665	46.2 [42.7-50.1]	0.94 [0.84-1.05]	0.59	-3.2 [(-8.3)-1.9]
Tremor	150,044	150	11.1 [9.5-13.1]	164	11.8 [10.1-13.8]	0.93 [0.75-1.17]	0.80	-0.7 [(-3.3)-1.9]
Venous thromboembolism	149,803	198	14.4 [12.5-16.6]	182	14.0 [12.1-16.1]	1.02 [0.83-1.24]	0.98	0.4 [(-2.4)-3.3]
Visual disturbances	148,369	473	36.1 [33.0-39.5]	500	36.9 [33.7-40.3]	0.98 [0.87-1.11]	0.93	-0.7 [(-5.3)-3.9]
Voice disorder	149,016	443	31.8 [28.9-35.0]	395	30.9 [28.0-34.1]	1.04 [0.91-1.19]	0.84	0.9 [(-3.4)-5.2]
Weakness	139,581	2,806	219.5 [211.5-227.8]	2,107	169.3 [162.3-176.6]	1.30 [1.22-1.37]	<0.001	50.2 [39.4-61.1]
Weight loss	149,134	310	24.7 [22.2-27.5]	408	28.2 [25.6-31.2]	0.88 [0.76-1.01]	0.26	-3.6 [(-7.5)-0.3]

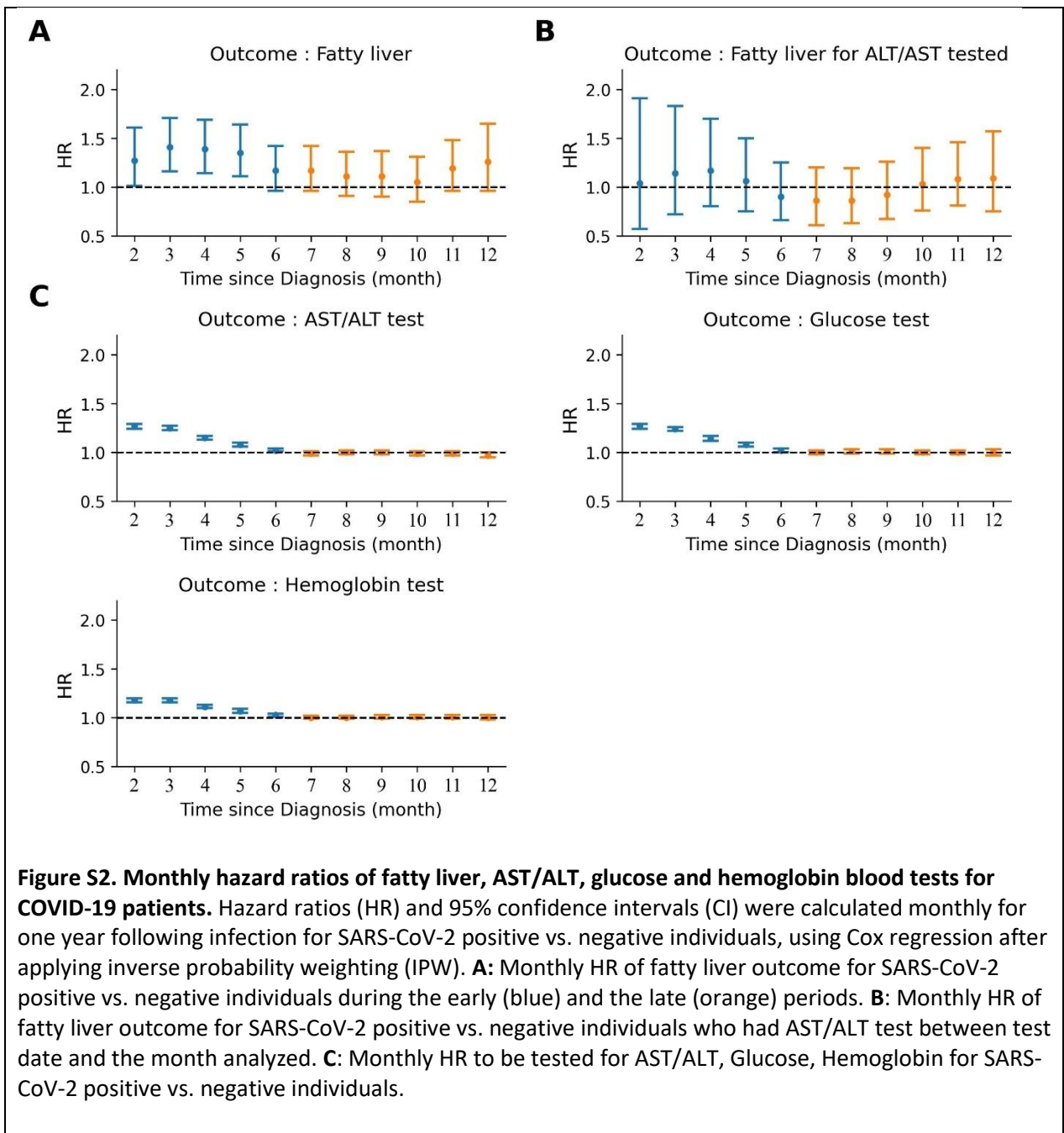


**Table S2d** - Risk difference of health outcomes in unvaccinated individuals, 30-360 days post-PCR test and evaluation of recurring reports

<b>Outcome</b>	<b>Risk Diff/10,000 persons for 30-360 days</b>
Abdominal pain	-20.2 [(-40.7)-0.4]
Anosmia and Dysgeusia	27.1 [23.6-30.7]
Anxiety	4.6 [(-3.2)-12.4]
Appendicitis	-2.5 [(-5.3)-0.3]
Arthralgia	15.5 [6.6-24.5]
Bloody stool	0.4 [(-3.3)-4.1]
Cardiac arrhythmias	0.2 [(-3.2)-3.5]
Celiac disease	-2.7 [(-5.4)-0.0]
Cerebral hemorrhage	-0.6 [(-1.7)-0.4]
Chest pain	57.2 [43.5-70.9]
Chronic interstitial pulmonary disease	0.6 [0.1-1.2]
Chronic kidney disease	0.4 [(-1.3)-2.2]
Concentration and memory impairment	22.4 [17.5-27.3]
Congestive heart failure	-2.0 [(-3.8)-(-0.3)]
Conjunctivitis	8.4 [(-5.6)-22.3]
Convulsions	0.1 [(-2.3)-2.4]
Cough	32.6 [14.4-50.8]
Depression	0.5 [(-4.2)-5.3]
Diabetes Mellitus	6.0 [2.1-9.9]
Diarrhea	-1.3 [(-2.8)-0.2]
Diseases of the nervous system	8.1 [2.3-13.9]
Diseases of the pleura	-0.1 [(-1.1)-0.9]
Dizziness	26.7 [16.6-36.8]
Dyspnea	107.4 [95.4-119.4]
Encephalitis	-0.4 [(-1.3)-0.4]
Epilepsy	0.2 [(-1.7)-2.1]
Fatty Liver	11.4 [5.7-17.1]
Guillian-Barre syndrome	0.0 [(-0.7)-0.7]
Hair loss	26.2 [19.0-33.5]
Headache	-5.7 [(-21.2)-9.8]
Herpes Simplex	3.9 [(-1.1)-9.0]
Herpes Zoster	-4.1 [(-8.7)-0.4]
Hospitalization	7.1 [(-7.0)-21.2]
Hyperhidrosis	-0.6 [(-2.3)-1.0]
Hyperreactive Airway Disease	11.0 [2.8-19.2]
Hypertension	9.2 [4.4-14.1]
Insomnia	0.3 [(-1.2)-1.9]
Invasive pneumococcal	-0.1 [(-2.2)-2]
Ischemic heart disease	-4.1 [(-7.5)-(-0.7)]
Ischemic stroke and TIA	-1.4 [(-3.5)-0.6]
Kawasaki disease, PIMS	-0.1 [(-0.6)-0.4]
Loss of appetite	-3.6 [(-10.4)-3.1]
Lymphadenopathy	-13.8 [(-20.2)-(-7.3)]
Menstruation abnormalities	-3.5 [(-10.5)-3.6]
Muscle atrophy	1.42 [(-0.8)-3.6]

Myalgia	19.0 [9.7-28.3]
Myocarditis	0.7 [(-0.2)-1.5]
Nausea or vomiting	-6.6 [(-16.8)-3.5]
Palpitations	25.9 [18.3-33.5]
Paresthesia	-5.4 [(-12.7)-1.9]
Parkinsonism	0.0 [(-1.1)-1.1]
Pericarditis	1.6 [0.1-3.1]
Psychosis	-2.2 [(-4.4)-0.0]
Pulmonary disease	0.3 [(-2.0)-2.5]
Respiratory disorders	3.4 [1.5-5.4]
Respiratory failure	-0.4 [(-1.3)-0.5]
Rhinorrhea	-0.7 [(-2.9)-1.5]
Skin rash	-3.3 [(-12.8)-6.2]
Sore throat	-1.2 [(-8.7)-6.3]
Streptococcal tonsillitis	31.8 [20.7-42.8]
Tinnitus	1.0 [(-5.5)-7.4]
Tremor	0.0 [(-3.3)-3.2]
Venous thromboembolism	0.6 [(-3.0)-4.3]
Visual disturbances	1.0 [(-4.8)-6.7]
Voice disorder	4.0 [(-1.3)-9.4]
Weakness	136.0 [121.8-150.1]
Weight loss	-4.6 [(-9.6)-0.3]

**Figure S2 – Monthly HR of Fatty liver and AST, ALT glucose and hemoglobin blood tests for COVID-19 patients.**



**Figure S2. Monthly hazard ratios of fatty liver, AST/ALT, glucose and hemoglobin blood tests for COVID-19 patients.** Hazard ratios (HR) and 95% confidence intervals (CI) were calculated monthly for one year following infection for SARS-CoV-2 positive vs. negative individuals, using Cox regression after applying inverse probability weighting (IPW). **A:** Monthly HR of fatty liver outcome for SARS-CoV-2 positive vs. negative individuals during the early (blue) and the late (orange) periods. **B:** Monthly HR of fatty liver outcome for SARS-CoV-2 positive vs. negative individuals who had AST/ALT test between test date and the month analyzed. **C:** Monthly HR to be tested for AST/ALT, Glucose, Hemoglobin for SARS-CoV-2 positive vs. negative individuals.

**Table S2e** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals, during Wild-Type and Alpha variants, monthly after PCR test

Outcome	Hazard ratio 95%CI Month2	Hazard ratio 95%CI Month3	Hazard ratio 95%CI Month4	Hazard ratio 95%CI Month5	Hazard ratio 95%CI Month6	Hazard ratio 95%CI Month7	Hazard ratio 95%CI Month8	Hazard ratio 95%CI Month9	Hazard ratio 95%CI Month10	Hazard ratio 95%CI Month11	Hazard ratio 95%CI Month12
Anosmia and Dysgeusia	4.29 [3.03-6.08]	4.18 [3.13-5.58]	5.34 [3.94-7.24]	5.05 [3.73-6.84]	5.58 [4.02-7.76]	4.47 [3.19-6.27]	4.12 [2.87-5.92]	2.66 [1.92-3.69]	2.24 [1.62-3.08]	2.21 [1.57-3.10]	2.37 [1.52-3.70]
Arthralgia	1.12 [0.98-1.27]	1.08 [0.97-1.20]	1.07 [0.96-1.18]	1.11 [1.00-1.23]	1.19 [1.07-1.32]	1.24 [1.12-1.38]	1.28 [1.15-1.43]	1.17 [1.05-1.31]	1.08 [0.97-1.20]	1.11 [0.99-1.24]	1.12 [0.97-1.28]
Chest pain	1.65 [1.52-1.79]	1.53 [1.43-1.65]	1.37 [1.27-1.47]	1.27 [1.18-1.37]	1.18 [1.1-1.27]	1.16 [1.08-1.25]	1.08 [1.01-1.16]	1.06 [0.98-1.14]	1.02 [0.95-1.10]	1.01 [0.94-1.10]	0.98 [0.89-1.08]
Concentration and memory impairment	1.69 [1.33-2.16]	1.95 [1.60-2.37]	2.08 [1.71-2.53]	1.99 [1.64-2.42]	1.97 [1.61-2.40]	2.03 [1.66-2.48]	1.90 [1.56-2.32]	1.67 [1.37-2.03]	1.55 [1.27-1.89]	1.50 [1.22-1.84]	1.50 [1.18-1.91]
Cough	1.21 [1.13-1.3]	1.14 [1.08-1.21]	1.04 [0.98-1.10]	1.02 [0.97-1.08]	1.04 [0.99-1.11]	1.03 [0.97-1.09]	1.06 [1.00-1.13]	1.06 [0.99-1.12]	1.07 [1.00-1.13]	1.07 [1.00-1.14]	1.05 [0.97-1.13]
Dizziness	1.09 [0.97-1.23]	1.09 [0.99-1.20]	1.13 [1.03-1.25]	1.15 [1.05-1.27]	1.19 [1.09-1.31]	1.2 [1.09-1.32]	1.23 [1.12-1.36]	1.18 [1.07-1.30]	1.14 [1.03-1.25]	1.12 [1.01-1.23]	1.09 [0.97-1.23]
Dyspnea	2.26 [2.06-2.47]	2.04 [1.89-2.20]	1.74 [1.62-1.88]	1.56 [1.45-1.68]	1.50 [1.39-1.62]	1.4 [1.29-1.52]	1.36 [1.24-1.48]	1.32 [1.21-1.43]	1.28 [1.17-1.39]	1.25 [1.14-1.37]	1.23 [1.10-1.38]
Fatty Liver	1.27 [1.01-1.61]	1.41 [1.16-1.71]	1.39 [1.14-1.69]	1.35 [1.11-1.64]	1.17 [0.96-1.42]	1.17 [0.96-1.42]	1.11 [0.91-1.36]	1.11 [0.90-1.37]	1.05 [0.85-1.31]	1.19 [0.96-1.48]	1.26 [0.96-1.65]
Hair loss	1.40 [1.21-1.62]	1.74 [1.55-1.96]	2.17 [1.92-2.44]	2.06 [1.82-2.33]	1.71 [1.50-1.95]	1.12 [0.97-1.29]	1.02 [0.88-1.19]	0.93 [0.80-1.08]	0.91 [0.78-1.05]	0.82 [0.71-0.95]	0.70 [0.58-0.85]
Myalgia	1.25 [1.11-1.42]	1.28 [1.16-1.41]	1.19 [1.08-1.32]	1.25 [1.13-1.38]	1.16 [1.05-1.29]	1.16 [1.05-1.29]	1.11 [1.00-1.23]	1.14 [1.03-1.27]	1.06 [0.95-1.18]	1.05 [0.94-1.18]	1.04 [0.90-1.19]
Palpitations	1.76 [1.53-2.02]	1.64 [1.46-1.84]	1.34 [1.19-1.51]	1.34 [1.19-1.51]	1.32 [1.17-1.50]	1.25 [1.10-1.42]	1.14 [1.01-1.30]	1.13 [1.00-1.29]	1.20 [1.05-1.36]	1.17 [1.02-1.34]	1.11 [0.93-1.32]
Respiratory disorders	2.67 [1.67-4.29]	2.34 [1.56-3.51]	2.01 [1.22-3.30]	2.11 [1.19-3.74]	2.31 [1.16-4.60]	0.72 [0.36-1.41]	0.54 [0.27-1.07]	0.53 [0.28-1.01]	1.10 [0.58-2.09]	1.41 [0.70-2.85]	2.12 [0.77-5.85]
Streptococcal tonsillitis	1.08 [0.94-1.24]	1.08 [0.97-1.20]	1.14 [1.04-1.26]	1.21 [1.10-1.33]	1.27 [1.15-1.40]	1.21 [1.10-1.34]	1.19 [1.08-1.31]	1.09 [1.00-1.20]	1.09 [1.00-1.18]	1.10 [1.01-1.20]	1.17 [1.05-1.30]
Weakness	2.14 [1.97-2.31]	2.05 [1.92-2.19]	1.74 [1.63-1.87]	1.62 [1.51-1.73]	1.45 [1.35-1.55]	1.39 [1.30-1.50]	1.29 [1.20-1.39]	1.23 [1.14-1.32]	1.28 [1.18-1.38]	1.33 [1.23-1.44]	1.40 [1.27-1.55]

## Respiratory related outcomes

**Table S3** - Respiratory related outcomes associated with SARS-CoV-2 infection in unvaccinated individuals, from all age groups, during Wild-Type and Alpha variants, 30-360 days post PCR test, by medication prescription

Outcome	N	Patients with no new medication prescription			Patients with new medication prescription**			Percent with med new prescription out of patients with outcome	
		SARS-CoV-2 Positive	SARS-CoV-2 Negative	RD 95% CI	SARS-CoV-2 Positive	SARS-CoV-2 Negative	RD 95% CI	SARS-CoV-2 Positive	SARS-CoV-2 Negative
At least one of the Respiratory Related Outcomes	159,507	3703	2580	92.6 [81.3 – 103.9]	1,157	828	25.7 [18.1 – 33.3]	23.8%	24.3%
Dyspnea	160,741	3423	2325	90.2 [79.5 – 100.9]	984	691	21.6 [14.6 - 28.5]	22.3%	22.9%
Hyperreactive Airway Disease	98,841	407	370	4.6 [(-1.9) – 11.1]	285	228	7.0 [1.0 - 13.0]	41.2%	38.1%
Respiratory disorders	166,678	101	70	2.2 [0.5 – 4.0]	26	9	1.5 [0.5 – 2.5]	20.5%	11.4%
Respiratory failure	168,387	18	18	0.0 [(-0.9) – 0.8]	0	4			
Acute respiratory distress syndrome	168,368	5	2		1	0			

\* At least one of the respiratory related outcomes

\*\*Patients with prior drug usage (up to 5 years before SARS-CoV-2 PCR test) were excluded from analysis; prescription drugs analyzed were drugs for obstructive airway disease (ATC R03).RD was calculated for outcomes with more than 10 occurrence.

## Analysis by age subgroups

**Table S4a**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age 0-4 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/ 10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	11,155	196	192.5 [164.3-220.7]	228	198.8 [171.3-226.3]	0.97 [0.81-1.17]	0.93	-5.1 [(-44.4)-34.2]
Anxiety	11,780	8	7.7 [2.3-13.2]	10	8.9 [2.8-14.9]	0.87 [0.36-2.11]	0.93	-1.1 [(-9.3)-7.0]
Arthralgia	11,784	8	6.4 [1.9-10.9]	5	4.8 [0.1-9.5]	1.34 [0.45-3.96]	0.86	1.6 [(-4.9)-8.1]
Bloody stool	11,701	8	8.3 [2.4-14.2]	14	12.1 [5.3-19.0]	0.69 [0.31-1.53]	0.66	-3.8 [(-12.9)-5.2]
Celiac disease	11,766	9	6.5 [2.1-10.9]	18	13.0 [6.7-19.2]	0.5 [0.21-1.16]	0.32	-6.5 [(-14.2)-1.2]
Conjunctivitis	8,531	777	960.1 [889.5-1030.7]	688	812.8 [747.7-877.9]	1.18 [1.08-1.29]	0.002	147.3 [51.3-243.3]
Convulsions	11,435	35	34.4 [22.8-45.9]	28	25.9 [15.7-36.1]	1.33 [0.89-1.99]	0.42	8.5 [(-6.9)-23.9]
Cough	7,637	932	1391.9 [1299.6-1484.1]	910	1209.6 [1125.6-1293.6]	1.13 [1.03-1.25]	0.08	161.9 [38.1-285.6]
Diarrhea	11,779	6	6.0 [1.2-10.8]	5	4.7 [0.2-9.2]	1.27 [0.49-3.31]	0.87	1.3 [(-5.3)-7.8]
Dyspnea	9,783	636	663.8 [609.9-717.7]	505	544.1 [493.4-594.8]	1.22 [1.11-1.35]	<0.001	121.9 [47.8-196.0]
Epilepsy	11,715	10	9.1 [3.2-14.9]	5	3.6 [0.4-6.9]	2.49 [0.83-7.44]	0.31	5.4 [(-1.3)-12.1]
Hair loss	11,769	10	7.6 [2.7-12.4]	9	7.3 [2.0-12.5]	1.04 [0.41-2.67]	0.99	0.3 [(-6.9)-7.5]
Headache	11,714	20	16.9 [9.3-24.6]	37	28.8 [18.9-38.6]	0.59 [0.34-1.03]	0.23	-11.8 [(-24.3)-0.6]
Herpes Simplex	11,348	32	30.7 [19.6-41.7]	25	20.7 [11.9-29.5]	1.48 [0.89-2.46]	0.37	9.9 [(-4.2)-24.1]
Herpes Zoster	11,784	5	5.2 [0.5-9.9]	6	4.1 [0.8-7.5]	1.26 [0.39-4.08]	0.92	1.1 [(-4.7)-6.8]
Hospitalization	10,408	240	232.5 [201.7-263.3]	198	196.6 [166.9-226.3]	1.16 [0.95-1.42]	0.4	37.0 [(-7.7)-81.6]
Hyperreactive Airway Disease	9,619	186	203.1 [172.8-233.3]	171	172.6 [145.3-199.9]	1.16 [0.93-1.44]	0.44	28.2 [(-12.3)-68.7]
Invasive pneumococcal	11,570	26	21.2 [12.6-29.9]	24	21.1 [12.3-29.9]	1.01 [0.67-1.52]	1	0.2 [(-12.2)-12.5]
Loss of appetite	11,398	71	62.2 [47.1-77.3]	61	54.0 [39.5-68.5]	1.15 [0.83-1.6]	0.69	8.2 [(-12.7)-29.2]
Lymphadenopathy	11,564	51	51.0 [36.6-65.5]	68	58.5 [43.4-73.7]	0.87 [0.62-1.22]	0.72	-7.5 [(-28.4)-13.5]
Myalgia	11,794	7	6.8 [1.7-11.9]	5	4.2 [0.2-8.2]	1.61 [0.53-4.93]	0.7	2.6 [(-3.9)-9.1]

Nausea or vomiting	10,513	257	262.4 [229.2-295.6]	301	285.1 [250.7-319.5]	0.92 [0.79-1.07]	0.59	-22.7 [(-70.5)-25.1]
Rhinorrhea	11,706	20	15.9 [8.6-23.2]	20	16.5 [8.9-24.1]	0.96 [0.54-1.71]	0.98	-0.6 [(-11.2)-9.9]
Skin rash	9,611	353	400.3 [357.1-443.5]	349	356.4 [316.6-396.3]	1.12 [0.99-1.27]	0.25	43.9 [(-14.9)-102.7]
Sore throat	11,715	21	17.7 [9.7-25.6]	25	21.8 [12.5-31.0]	0.81 [0.45-1.45]	0.77	-4.1 [(-16.3)-8.1]
Streptococcal tonsillitis	11,040	225	209.4 [180.7-238.2]	240	238.6 [206.1-271.1]	0.88 [0.76-1.01]	0.25	-29.2 [(-72.6)-14.2]
Tinnitus	11,730	17	14.3 [7.2-21.4]	7	7.8 [1.3-14.4]	1.83 [0.82-4.05]	0.37	6.5 [(-3.2)-16.1]
Visual disturbances	11,746	20	20.1 [11.1-29.2]	21	16.3 [8.9-23.7]	1.24 [0.69-2.23]	0.77	3.9 [(-7.8)-15.6]
Voice disorder	11,713	34	32.1 [21.0-43.1]	38	31.5 [21.0-42.0]	1.02 [0.66-1.58]	0.99	0.6 [(-14.6)-15.8]
Weakness	11,662	38	34.2 [22.8-45.6]	34	30.9 [19.5-42.2]	1.11 [0.71-1.74]	0.88	3.4 [(-12.7)-19.5]
Weight loss	11,769	7	5.2 [1.3-9.1]	8	7.0 [1.7-12.3]	0.74 [0.26-2.11]	0.84	-1.8 [(-8.3)-4.8]

\* Outcomes with 10 events or more.

**Table S4b** – Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age 5-11 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	19,237	493	283.1 [257.2-308.9]	597	304.3 [278.8-329.8]	0.93 [0.83-1.05]	0.53	-20.3 [(-56.6)-16.0]
Anxiety	21,566	62	32.2 [23.9-40.5]	65	29.0 [21.6-36.3]	1.11 [0.8-1.56]	0.80	3.3 [(-7.8)-14.4]
Appendicitis	21,965	19	10.0 [5.4-14.5]	20	8.2 [4.5-12.0]	1.21 [0.68-2.16]	0.79	1.7 [(-4.2)-7.6]
Arthralgia	22,189	32	14.9 [9.5-20.2]	27	11.5 [7.0-15.9]	1.3 [0.77-2.19]	0.63	3.4 [(-3.6)-10.3]
Bloody stool	22,244	15	8.1 [3.9-12.3]	12	5.6 [2.2-9.0]	1.46 [0.71-2.99]	0.61	2.5 [(-2.9)-8.0]
Celiac disease	22,082	16	7.5 [3.6-11.4]	23	10.1 [5.7-14.4]	0.75 [0.41-1.36]	0.65	-2.5 [(-8.4)-3.3]
Chest pain	21,976	89	45.0 [35.3-54.6]	79	34.7 [26.7-42.7]	1.3 [0.96-1.75]	0.29	10.3 [(-2.3)-22.8]
Concentration and memory impairment	22,275	6	2.9 [0.5-5.4]	9	3.8 [1.3-6.2]	0.78 [0.28-2.19]	0.87	-0.8 [(-4.3)-2.7]
Conjunctivitis	20,310	364	185.4 [165.5-205.2]	308	149.7 [132.0-167.3]	1.24 [1.07-1.43]	0.03	35.7 [9.1-62.3]
Convulsions	20,980	9	4.6 [1.5-7.8]	10	4.8 [1.8-7.8]	0.96 [0.41-2.27]	0.99	-0.1 [(-4.5)-4.2]
Cough	18,548	521	304.3 [277.3-331.3]	553	293.7 [268.2-319.3]	1.04 [0.93-1.16]	0.80	10.6 [(-26.6)-47.8]
Diseases of the nervous system	22,152	5	2.3 [0.2-4.4]	7	3.2 [0.7-5.8]	0.72 [0.23-2.26]	0.84	-0.9 [(-4.2)-2.4]
Dizziness	2,187	23	11.4 [6.5-16.3]	36	15.6 [10.3-20.8]	0.73 [0.44-1.23]	0.54	-4.1 [(-11.3)-3.0]
Dyspnea	1,510	150	72.0 [60.0-83.9]	144	66.5 [55.1-77.9]	1.08 [0.87-1.35]	0.77	6.3 [(-10.2)-22.8]
Epilepsy	1,925	9	4.4 [1.4-7.3]	19	9.5 [5.1-13.9]	0.46 [0.22-0.96]	0.18	-5.1 [(-10.5)-0.2]
Hair loss	2,186	16	7.2 [3.5-10.9]	17	8.2 [4.0-12.5]	0.88 [0.44-1.73]	0.92	-1.0 [(-6.6)-4.6]
Headache	21,015	224	115.5 [99.8-131.2]	238	112.2 [97.2-127.1]	1.03 [0.86-1.23]	0.92	3.4 [(-18.3)-25.0]
Herpes Simplex	19,794	32	18.3 [11.8-24.8]	32	17.1 [10.7-23.4]	1.07 [0.67-1.71]	0.93	1.2 [(-7.9)-10.3]
Herpes Zoster	22,264	14	6.6 [3.0-10.1]	9	4.6 [1.4-7.8]	1.44 [0.65-3.19]	0.67	2.0 [(-2.8)-6.8]
Hospitalization	21,358	149	72.7 [60.6-84.9]	144	68.6 [56.8-80.4]	1.04 [0.82-1.33]	0.85	4.7 [(-12.8)-22.2]
Hyperreactive Airway Disease	13,724	30	21.6 [13.5-29.7]	32	23.8 [15.2-32.3]	0.91 [0.59-1.4]	0.89	-2.1 [(-14.0)-9.7]
Invasive pneumococcal	21,307	9	4.6 [1.5-7.7]	1	0.4 [-0.4-1.2]	11.52 [1.22-109.07]	0.16	4.2 [1.0-7.4]
Loss of appetite	22,044	50	25.6 [18.2-	51	22.2 [15.8-	1.15 [0.79-	0.75	3.4 [(-6.4)-13.2]



			33.0]		28.6]	1.68]		
Lymphadenopathy	21,966	62	33.5 [24.9-42.0]	70	33.1 [24.8-41.5]	1.01 [0.74-1.39]	1.00	0.3 [(-11.6)-12.3]
Myalgia	22,149	32	15.1 [9.7-20.5]	40	18.4 [12.3-24.6]	0.82 [0.52-1.3]	0.69	-3.3 [(-11.5)-4.9]
Nausea or vomiting	1,380	200	99.7 [85.4-113.9]	182	83.3 [70.7-95.8]	1.2 [0.99-1.45]	0.25	16.4 [(-2.6)-35.4]
Palpitations	22,228	15	7.5 [3.6-11.4]	21	9.1 [5.0-13.1]	0.83 [0.43-1.59]	0.84	-1.6 [(-7.1)-4.0]
Rhinorrhea	22,253	8	3.8 [1.1-6.4]	10	4.1 [1.5-6.6]	0.93 [0.37-2.32]	0.98	-0.3 [(-4.0)-3.4]
Skin rash	20,759	203	104.7 [89.7-119.7]	236	109.0 [94.3-123.6]	0.96 [0.81-1.14]	0.88	-4.3 [(-25.2)-16.7]
Sore throat	21,550	112	52.3 [42.2-62.5]	113	52.7 [42.5-63.0]	0.99 [0.77-1.28]	1.00	-0.4 [(-14.8)-14.0]
Streptococcal tonsillitis	19,212	520	252.5 [229.2-275.8]	326	201.8 [178.7-224.9]	1.25 [1.15-1.36]	<0.001	50.7 [17.9-83.5]
Tinnitus	22,211	20	8.5 [4.6-12.4]	12	4.7 [2.0-7.4]	1.8 [0.84-3.87]	0.37	3.8 [(-0.9)-8.5]
Visual disturbances	21,980	41	17.9 [12.2-23.6]	40	21.1 [14.1-28.0]	0.85 [0.56-1.28]	0.73	-3.2 [(-12.2)-5.8]
Voice disorder	22,101	47	21.6 [15.2-28.1]	39	18.2 [12.1-24.3]	1.19 [0.79-1.79]	0.70	3.4 [(-5.5)-12.3]
Weakness	21,969	83	37.6 [29.0-46.1]	50	25.8 [18.0-33.6]	1.46 [1.04-2.05]	0.15	11.8 [0.2-23.4]
Weight loss	22,267	4	2.6 [0.0-5.1]	9	4.5 [1.5-7.4]	0.57 [0.2-1.62]	0.59	-1.9 [(-5.8)-2.0]

\* Outcomes with 10 events or more.

**Table S4c** – Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age 12-18 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	24,052	547	255.6 [233.3-277.8]	632	269.2 [247.2-291.2]	0.95 [0.85-1.06]	0.69	-12.5 [(-43.8)-18.8]
Anosmia and Dysgeusia	27,652	37	16.3 [10.9-21.7]	2	0.7 [-0.3-1.7]	23.5 [5.48-100.86]	<0.001	15.6 [10.1-21.0]
Anxiety	25,124	84	38.7 [30.2-47.3]	98	36.9 [29.3-44.5]	1.05 [0.79-1.39]	0.92	1.9 [(-9.6)-13.3]
Appendicitis	26,233	19	8.3 [4.5-12.2]	31	12.1 [7.7-16.6]	0.69 [0.41-1.14]	0.38	-3.8 [(-9.7)-2.1]
Arthralgia	27,217	75	30.4 [23.3-37.6]	86	30.3 [23.7-36.9]	1.01 [0.74-1.37]	1.00	0.2 [(-9.6)-9.9]
Bloody stool	27,624	14	4.8 [2.2-7.5]	18	7.8 [3.9-11.8]	0.62 [0.31-1.23]	0.43	-3.0 [(-7.7)-1.7]
Cardiac arrhythmias	27,307	10	3.5 [1.2-5.8]	23	7.7 [4.5-11.0]	0.46 [0.21-1.01]	0.21	-4.2 [(-8.2)-(-0.2)]
Celiac disease	27,467	23	8.5 [4.9-12.1]	28	9.7 [5.9-13.5]	0.87 [0.52-1.48]	0.86	-1.2 [(-6.5)-4.0]
Chest pain	26,835	232	98.2 [85.1-111.2]	249	91.3 [79.5-103.0]	1.08 [0.9-1.28]	0.70	6.9 [(-10.7)-24.5]
Concentration and memory impairment	27,655	10	4.6 [1.7-7.5]	12	4.0 [1.7-6.3]	1.15 [0.51-2.61]	0.92	0.6 [(-3.2)-4.3]
Conjunctivitis	25,967	270	112.4 [98.4-126.5]	273	106.4 [93.1-119.8]	1.06 [0.9-1.24]	0.79	6.0 [(-13.4)-25.4]
Convulsions	25,790	5	2.1 [0.2-3.9]	12	5.0 [2.0-8.0]	0.41 [0.15-1.12]	0.27	-3.0 [(-6.5)-0.6]
Cough	25,005	339	140.9 [125.2-156.7]	350	145.6 [129.4-161.7]	0.97 [0.84-1.12]	0.89	-4.6 [(-27.2)-17.9]
Depression	27,260	19	9.2 [5.0-13.4]	46	15.6 [11.0-20.3]	0.59 [0.36-0.97]	0.18	-6.4 [(-12.7)-(-0.1)]
Diabetes Mellitus	27,554	5	2.2 [0.2-4.2]	8	3.7 [0.8-6.6]	0.6 [0.23-1.54]	0.59	-1.5 [(-5.0)-2.0]
Diseases of the nervous system	27,181	20	8.6 [4.7-12.5]	13	4.8 [2.1-7.4]	1.81 [0.9-3.62]	0.30	3.8 [(-0.8)-8.5]
Dizziness	27,145	94	39.3 [31.1-47.5]	110	41.2 [33.1-49.2]	0.95 [0.73-1.25]	0.92	-1.9 [(-13.4)-9.7]
Dyspnea	27,143	181	77.8 [66.0-89.5]	125	45.7 [37.3-54.1]	1.7 [1.36-2.12]	<0.001	32.4 [17.9-46.8]
Epilepsy	26,876	7	2.7 [0.6-4.7]	10	3.3 [1.2-5.4]	0.8 [0.3-2.17]	0.89	-0.7 [(-3.6)-2.3]
Fatty Liver	27,400	14	5.6 [2.5-8.6]	18	6.3 [3.3-9.2]	0.89 [0.44-1.8]	0.92	-0.7 [(-4.9)-3.5]
Hair loss	27,290	96	37.6 [29.7-45.4]	101	36.7 [29.2-44.2]	1.02 [0.77-1.35]	0.98	0.9 [(-10.0)-11.8]
Headache	25,224	352	155.3 [138.4-172.2]	450	183.3 [165.3-201.2]	0.85 [0.74-0.97]	0.10	-28.0 [(-52.6)-(-3.3)]
Herpes Simplex	22,969	27	12.7 [7.7-17.8]	23	10.5 [6.0-14.9]	1.22 [0.7-2.1]	0.77	2.3 [(-4.4)-9.0]

Herpes Zoster	27,606	22	8.8 [5.0-12.6]	15	5.5 [2.6-8.4]	1.59 [0.84-3.0]	0.40	3.3 [(-1.5)-8.0]
Hospitalization	26,290	236	99.7 [86.5-113.0]	273	108.3 [94.8-121.8]	0.91 [0.76-1.09]	0.93	-7.2 [(-27.1)-12.8]
Hyperreactive Airway Disease	13,194	13	11.3 [4.8-17.7]	17	11.6 [5.9-17.2]	0.97 [0.49-1.94]	1.00	-0.3 [(-8.9)-8.3]
Hypertension	27,333	18	7.4 [3.9-11.0]	7	2.7 [0.6-4.7]	2.76 [1.18-6.46]	0.12	4.7 [0.6-8.8]
Loss of appetite	27,233	84	35.5 [27.7-43.4]	101	37.2 [29.5-44.9]	0.96 [0.73-1.25]	0.92	-1.7 [(-12.7)-9.3]
Lymphadenopathy	27,323	68	29.3 [22.1-36.6]	105	38.7 [30.9-46.6]	0.76 [0.57-1.01]	0.22	-9.4 [(-20.1)-1.3]
Menstruation abnormalities	26,037	118	54.2 [44.2-64.1]	149	55.9 [46.4-65.4]	0.97 [0.78-1.2]	0.93	-1.7 [(-15.5)-12.1]
Muscle atrophy	27,687	10	4.4 [1.6-7.1]	7	2.8 [0.4-5.1]	1.56 [0.62-3.92]	0.64	1.6 [(-2.1)-5.2]
Myalgia	27,237	112	45.7 [36.9-54.5]	126	46.8 [38.2-55.3]	0.98 [0.76-1.25]	0.97	-1.1 [(-13.3)-11.2]
Nausea or vomiting	26,885	140	58.6 [48.6-68.7]	180	68.2 [57.7-78.6]	0.86 [0.7-1.06]	0.42	-9.5 [(-24.0)-5.0]
Palpitations	27,452	70	27.8 [21.0-34.6]	65	23.0 [17.3-28.8]	1.21 [0.86-1.69]	0.57	4.8 [(-4.1)-13.6]
Paresthesia	27,629	23	10.3 [5.9-14.6]	26	9.1 [5.5-12.6]	1.13 [0.65-1.96]	0.89	1.2 [(-4.4)-6.8]
Psychosis	27,454	11	3.9 [1.5-6.2]	9	3.0 [1.0-4.9]	1.3 [0.51-3.29]	0.84	0.9 [(-2.2)-4.0]
Rhinorrhea	27,669	9	2.9 [0.9-4.9]	9	3.6 [1.0-6.1]	0.81 [0.32-2.05]	0.89	-0.7 [(-3.9)-2.5]
Skin rash	26,755	141	61.4 [50.9-72.0]	198	73.2 [62.4-84.1]	0.84 [0.69-1.03]	0.28	-11.8 [(-26.9)-3.3]
Sore throat	26,939	132	48.6 [39.9-57.3]	143	59.8 [49.3-70.3]	0.81 [0.65-1.02]	0.26	-11.2 [(-24.8)-2.4]
Streptococcal tonsillitis	26,152	253	92.5 [80.4-104.7]	128	55.1 [44.8-65.3]	1.68 [1.4-2.02]	<0.001	37.4 [21.5-53.3]
Tinnitus	27,530	44	18.3 [12.7-23.9]	48	17.3 [12.2-22.3]	1.06 [0.71-1.58]	0.93	1.0 [(-6.5)-8.6]
Tremor	27,636	20	7.8 [4.2-11.3]	15	5.2 [2.5-7.9]	1.49 [0.78-2.85]	0.51	2.6 [(-1.9)-7.0]
Visual disturbances	27,432	56	20.7 [15.1-26.4]	43	15.4 [10.6-20.2]	1.35 [0.91-1.99]	0.37	5.4 [(-2.1)-12.8]
Voice disorder	27,537	51	17.2 [12.2-22.2]	28	12.2 [7.3-17.2]	1.41 [0.91-2.19]	0.36	5.0 [(-2.1)-12.0]
Weakness	26,562	363	138.9 [123.8-153.9]	200	83.6 [71.2-96.0]	1.66 [1.41-1.96]	<0.001	55.2 [35.7-74.7]
Weight loss	27,464	48	20.2 [14.3-26.1]	51	18.4 [13.1-23.6]	1.1 [0.76-1.6]	0.86	1.8 [(-6.1)-9.8]

\* Outcomes with 10 events or more.

**Table S4d** – Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age 19-40 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	45,886	1,734	421.1 [400.7-441.4]	1,803	412.1 [392.2-432.0]	1.03 [0.96-1.1]	0.71	11.7 [(-16.8)-40.1]
Anosmia and Dysgeusia	56,684	164	33.3 [28.2-38.5]	32	6.4 [4.0-8.7]	5.23 [3.48-7.87]	<0.001	26.9 [21.3-32.6]
Anxiety	44,297	245	62.1 [54.1-70.1]	249	57.1 [49.6-64.6]	1.09 [0.9-1.31]	0.68	5.0 [(-6.0)-15.9]
Appendicitis	51,802	36	7.9 [5.2-10.5]	39	7.4 [4.9-9.9]	1.06 [0.65-1.72]	0.94	0.4 [(-3.2)-4.1]
Arthralgia	55,041	350	67.5 [60.2-74.8]	408	73.3 [65.8-80.7]	0.92 [0.79-1.07]	0.58	-5.8 [(-16.2)-4.7]
Bloody stool	56,681	48	9.2 [6.5-11.9]	54	9.3 [6.7-11.8]	0.99 [0.66-1.49]	1.00	-0.1 [(-3.8)-3.7]
Cardiac arrhythmias	54,940	38	7.4 [5.0-9.8]	38	6.2 [4.2-8.3]	1.19 [0.75-1.9]	0.74	1.2 [(-2.0)-4.4]
Celiac disease	56,702	25	4.5 [2.6-6.3]	40	7.9 [5.4-10.4]	0.57 [0.33-0.96]	0.16	-3.4 [(-6.5)-(-0.3)]
Chest pain	53,079	1,060	218.1 [204.5-231.6]	730	141.4 [130.5-152.2]	1.54 [1.4-1.7]	<0.001	76.7 [59.4-94.1]
Concentration and memory impairment	56,636	141	28.6 [23.8-33.4]	72	12.8 [9.7-16.0]	2.23 [1.65-3.01]	<0.001	15.7 [10.0-21.5]
Conjunctivitis	53,194	599	116.9 [107.1-126.6]	625	122.0 [111.8-132.2]	0.96 [0.85-1.08]	0.76	-5.1 [(-19.2)-9.0]
Convulsions	54,336	13	2.9 [1.3-4.4]	9	1.7 [0.6-2.8]	1.87 [0.78-4.47]	0.41	1.4 [(-0.5)-3.3]
Cough	50,501	892	187.2 [174.4-200.0]	918	192.4 [179.2-205.6]	0.97 [0.88-1.07]	0.84	-5.2 [(-23.7)-13.2]
Depression	50,761	104	23.2 [18.7-27.7]	119	22.6 [18.3-26.9]	1.03 [0.78-1.35]	0.97	0.6 [(-5.7)-6.8]
Diabetes Mellitus	56,122	27	4.1 [2.5-5.7]	11	2.4 [0.9-4.0]	1.69 [0.8-3.59]	0.43	1.7 [(-0.6)-3.9]
Diarrhea	56,843	2	0.4 [-0.2-0.9]	10	1.6 [0.6-2.6]	0.24 [0.05-1.16]	0.26	-1.2 [(-2.3)-(-0.0)]
Diseases of the nervous system	51,083	132	27.9 [23.0-32.8]	156	29.7 [24.8-34.6]	0.94 [0.74-1.2]	0.86	-1.8 [(-8.7)-5.2]
Diseases of the pleura	56,539	5	0.8 [0.0-1.5]	7	1.2 [0.3-2.1]	0.64 [0.2-2.12]	0.75	-0.4 [(-1.6)-0.7]
Dizziness	54,476	532	105.1 [95.9-114.3]	445	84.0 [75.9-92.2]	1.25 [1.1-1.43]	0.01	21.0 [8.7-33.3]
Dyspnea	55,319	732	149.0 [137.9-160.0]	318	60.0 [53.1-66.9]	2.51 [2.19-2.89]	<0.001	90.7 [77.7-103.7]
Epilepsy	55,005	13	2.8 [1.3-4.4]	10	1.7 [0.6-2.7]	1.7 [0.73-3.97]	0.50	1.2 [(-0.7)-3.1]
Fatty Liver	53,524	137	27.4 [22.6-32.1]	115	21.9 [17.6-26.1]	1.25 [0.96-1.62]	0.29	5.5 [(-0.8)-11.8]
Hair loss	54,940	503	102.1 [93.0-111.1]	380	67.1 [59.9-74.2]	1.52 [1.32-1.75]	<0.001	35.0 [23.5-46.5]
Headache	49,232	1,242	277.8 [261.9-293.7]	1,257	264.2 [248.8-279.5]	1.05 [0.97-1.14]	0.52	13.6 [(-8.5)-35.7]
Herpes Simplex	42,610	80	21.3 [16.5-26.1]	78	17.0 [13.0-20.9]	1.26 [0.91-1.74]	0.43	4.3 [(-1.9)-10.5]

Herpes Zoster	56,499	70	15.1 [11.5-18.7]	94	16.6 [13.0-20.2]	0.91 [0.66-1.26]	0.82	-1.5 [(-6.6)-3.5]
Hospitalization	52,081	887	175.9 [163.8-188.0]	799	168.2 [155.8-180.5]	1.03 [0.92-1.15]	0.51	9.9 [(-10.2)-30.0]
Hyperhidrosis	56,814	20	4.2 [2.4-6.1]	30	4.5 [2.8-6.3]	0.93 [0.52-1.67]	0.94	-0.3 [(-2.8)-2.2]
Hyperreactive Airway Disease	30,155	55	19.7 [14.3-25.1]	39	14.0 [9.2-18.8]	1.41 [0.9-2.19]	0.37	5.7 [(-1.5)-12.9]
Hypertension	53,661	52	10.3 [7.4-13.1]	53	10.4 [7.5-13.3]	0.98 [0.66-1.47]	0.99	-0.2 [(-4.3)-3.9]
Insomnia	56,874	9	2.2 [0.8-3.6]	5	0.8 [0.1-1.5]	2.8 [0.92-8.52]	0.25	1.4 [(-0.2)-3.0]
Invasive pneumococcal	55,239	8	1.6 [0.4-2.8]	8	1.4 [0.4-2.4]	1.15 [0.41-3.19]	0.93	0.2 [(-1.3)-1.7]
Ischemic heart disease	56,473	18	3.7 [1.9-5.4]	13	2.0 [0.9-3.2]	1.81 [0.87-3.73]	0.33	1.6 [(-0.4)-3.7]
Ischemic stroke and TIA	56,693	2	0.4 [-0.2-1.0]	10	1.6 [0.6-2.7]	0.26 [0.06-1.24]	0.29	-1.2 [(-2.4)-0.0]
Loss of appetite	55,972	177	36.0 [30.5-41.4]	218	38.9 [33.4-44.4]	0.92 [0.75-1.14]	0.75	-2.9 [(-10.7)-4.8]
Lymphadenopathy	56,021	176	36.1 [30.7-41.6]	262	45.3 [39.5-51.1]	0.8 [0.65-0.97]	0.15	-9.1 [(-17.1)-(-1.2)]
Menstruation abnormalities	39,371	202	52.5 [44.9-60.1]	194	54.2 [46.2-62.2]	0.97 [0.79-1.2]	0.93	-1.6 [(-12.7)-9.4]
Muscle atrophy	56,841	21	4.1 [2.2-5.9]	19	3.0 [1.6-4.4]	1.35 [0.71-2.57]	0.65	1.1 [(-1.2)-3.3]
Myalgia	54,666	473	94.6 [85.8-103.3]	432	79.9 [72.0-87.8]	1.18 [1.03-1.36]	0.10	14.6 [2.8-26.5]
Myocarditis	56,901	6	1.1 [0.2-2.0]	4	0.6 [-0.0-1.1]	2.02 [0.55-7.37]	0.59	0.6 [(-0.5)-1.7]
Nausea or vomiting	54,709	408	80.4 [72.4-88.5]	425	79.1 [71.2-87.0]	1.02 [0.88-1.17]	0.94	1.4 [(-9.9)-12.6]
Palpitations	55,648	381	75.0 [67.3-82.7]	290	53.3 [46.8-59.8]	1.41 [1.2-1.65]	<0.001	21.7 [11.6-31.7]
Paresthesia	55,724	278	55.7 [49.0-62.4]	299	53.1 [46.7-59.5]	1.05 [0.88-1.25]	0.84	2.6 [(-6.7)-11.8]
Pericarditis	56,563	17	3.7 [2.0-5.4]	3	0.6 [-0.1-1.4]	5.89 [1.56-22.22]	0.07	3.1 [1.2-4.9]
Psychosis	55,553	23	4.5 [2.6-6.4]	29	4.9 [3.1-6.8]	0.91 [0.52-1.61]	0.92	-0.4 [(-3.1)-2.2]
Pulmonary disease	55,861	3	0.7 [-0.1-1.5]	7	1.7 [0.3-3.0]	0.42 [0.1-1.79]	0.53	-1.0 [(-2.5)-0.6]
Respiratory disorders	56,390	15	2.5 [1.2-3.9]	7	1.2 [0.3-2.0]	2.19 [0.88-5.46]	0.29	1.4 [(-0.2)-3.0]
Rhinorrhea	56,816	18	3.5 [1.9-5.2]	27	4.5 [2.7-6.3]	0.78 [0.42-1.45]	0.72	-1.0 [(-3.5)-1.5]
Skin rash	55,452	278	57.0 [50.1-63.9]	325	57.1 [50.6-63.6]	1.0 [0.84-1.18]	1.00	-0.1 [(-9.6)-9.4]
Sore throat	55,179	330	61.7 [54.8-68.6]	333	62.1 [55.1-69.1]	0.99 [0.85-1.17]	0.99	-0.4 [(-10.2)-9.4]
Streptococcal tonsillitis	54,743	417	71.9 [64.5-79.3]	269	60.9 [53.1-68.7]	1.18 [1.0-1.4]	0.21	11.0 [0.3-21.8]
Tinnitus	55,984	182	37.3 [31.7-42.8]	214	38.5 [33.1-43.9]	0.97 [0.79-1.19]	0.92	-1.2 [(-9.0)-6.5]
Tremor	56,711	48	9.4 [6.7-12.2]	50	9.3 [6.5-12.0]	1.02 [0.67-1.55]	0.99	0.2 [(-3.7)-4.0]
Venous thromboembolism	56,610	55	10.0 [7.2-12.8]	52	10.7 [7.6-13.9]	0.93 [0.62-1.4]	0.92	-0.7 [(-4.9)-3.4]
Visual disturbances	56,244	135	25.3 [20.8-	132	25.3 [20.7-	1.0 [0.77-1.29]	1.00	-0.0 [(-6.4)-6.3]

			29.7]		29.9]			
Voice disorder	56,280	137	24.7 [20.3-29.0]	117	22.0 [17.8-26.2]	1.12 [0.86-1.46]	0.68	2.7 [(-3.4)-8.7]
Weakness	51,484	1,533	309.7 [293.5-326.0]	880	188.0 [174.9-201.2]	1.65 [1.51-1.8]	<0.001	121.7 [100.8-142.5]
Weight loss	56,325	117	23.4 [19.1-27.7]	135	23.8 [19.5-28.0]	0.98 [0.76-1.28]	0.98	-0.4 [(-6.5)-5.7]

\* Outcomes with 10 events or more.

**Table S4e** – Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age 41-60 years .

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	27,162	1,048	408.7 [383.2-434.1]	1,048	403.4 [377.8-428.9]	1.02 [0.94-1.1]	0.87	7.8 [(-28.2)-43.9]
Anosmia and Dysgeusia	33,681	121	42.8 [35.3-50.3]	38	10.6 [7.1-14.0]	4.05 [3.11-5.28]	<0.001	32.2 [23.9-40.5]
Anxiety	20,136	115	61.0 [49.6-72.5]	96	48.8 [38.5-59.2]	1.25 [0.97-1.61]	0.28	12.2 [(-3.2)-27.6]
Appendicitis	31,663	14	4.6 [2.1-7.1]	10	2.9 [1.1-4.8]	1.56 [0.7-3.48]	0.58	1.6 [(-1.5)-4.8]
Arthralgia	31,283	502	164.9 [150.1-179.7]	414	143.5 [129.1-158.0]	1.15 [1.02-1.29]	0.11	21.4 [0.7-42.1]
Bloody stool	33,586	55	16.1 [11.7-20.4]	49	14.8 [10.4-19.1]	1.09 [0.76-1.55]	0.88	1.3 [(-4.9)-7.5]
Cardiac arrhythmias	30,711	65	21.6 [16.3-27.0]	36	11.3 [7.5-15.1]	1.92 [1.27-2.91]	0.02	10.4 [3.8-17.0]
Celiac disease	33,729	18	5.9 [3.1-8.7]	9	2.2 [0.7-3.7]	2.67 [1.17-6.12]	0.12	3.7 [0.6-6.8]
Chest pain	29,298	1,047	384.6 [360.8-408.3]	798	282.5 [261.9-303.0]	1.36 [1.26-1.47]	<0.001	102.1 [70.7-133.6]
Chronic kidney disease	33,279	7	4.7 [2.4-6.9]	9	5.9 [3.0-8.8]	0.58 [0.23-1.43]	0.53	-1.4 [(-4.1)-1.3]
Concentration and memory impairment	33,480	164	53.3 [45.1-61.6]	91	28.1 [22.0-34.3]	1.9 [1.54-2.33]	<0.001	25.2 [14.9-35.5]
Congestive heart failure	33,488	11	3.2 [1.2-5.1]	22	6.8 [3.8-9.8]	0.46 [0.22-0.99]	0.20	-3.6 [(-7.2)-(-0.1)]
Conjunctivitis	31,335	324	108.2 [96.0-120.5]	331	108.9 [96.4-121.4]	0.99 [0.86-1.15]	0.99	-0.7 [(-18.2)-16.8]
Convulsions	33,319	5	1.5 [0.1-2.9]	8	3.0 [0.8-5.3]	0.51 [0.18-1.44]	0.49	-1.5 [(-4.1)-1.2]
Cough	29,184	836	295.6 [274.8-316.4]	606	223.2 [204.3-242.1]	1.32 [1.21-1.45]	<0.001	72.4 [44.3-100.5]
Depression	25,107	64	28.4 [21.4-35.5]	50	21.9 [15.5-28.3]	1.3 [0.93-1.82]	0.36	6.6 [(-3.0)-16.1]
Diabetes Mellitus	29,214	112	37.7 [30.5-44.9]	84	32.9 [25.7-40.1]	1.15 [0.85-1.54]	0.66	4.8 [(-5.4)-15.0]
Diseases of the nervous system	21,555	137	69.4 [57.7-81.2]	114	52.7 [42.6-62.8]	1.32 [1.05-1.66]	0.12	16.7 [1.2-32.2]
Dizziness	31,201	496	162.7 [148.0-177.3]	430	147.2 [132.7-161.7]	1.11 [0.99-1.24]	0.29	15.5 [(-5.2)-36.1]
Dyspnea	32,289	805	270.4 [251.3-289.5]	326	106.5 [94.5-118.6]	2.57 [2.3-2.87]	<0.001	166.5 [143.9-189.1]
Epilepsy	33,054	5	1.7 [0.2-3.3]	7	2.4 [0.5-4.3]	0.72 [0.25-2.08]	0.81	-0.7 [(-3.1)-1.8]
Fatty Liver	26,434	186	72.8 [62.2-83.4]	139	52.2 [43.2-61.3]	1.39 [1.15-1.68]	0.01	20.5 [6.6-34.5]
Guillain-Barre syndrome	33,829	5	1.7 [0.2-3.2]	5	1.6 [0.2-3.0]	1.08 [0.3-3.87]	0.98	0.1 [(-1.9)-2.2]
Hair loss	33,070	328	110.4 [98.4-122.4]	130	39.4 [32.2-46.6]	2.8 [2.3-3.41]	<0.001	71.0 [57.0-85.0]

Headache	28,796	808	300.0 [278.8-321.3]	743	268.4 [248.2-288.7]	1.12 [1.02-1.22]	0.11	31.6 [2.2-61.0]
Herpes Simplex	24,916	32	14.0 [8.9-19.0]	29	11.8 [7.2-16.4]	1.18 [0.73-1.93]	0.78	2.2 [(-4.6)-9.0]
Herpes Zoster	33,380	88	29.1 [22.9-35.3]	106	30.5 [24.4-36.7]	0.95 [0.77-1.18]	0.89	-1.5 [(-10.2)-7.3]
Hospitalization	29,869	590	202.0 [185.1-219.0]	541	195.4 [178.0-212.9]	1.01 [0.89-1.16]	0.49	8.4 [(-18.7)-35.6]
Hyperhidrosis	33,784	15	5.3 [2.6-8.0]	18	5.1 [2.7-7.6]	1.03 [0.54-1.97]	0.99	0.2 [(-3.5)-3.8]
Hyperreactive Airway Disease	22,714	44	20.6 [14.2-26.9]	27	13.0 [7.8-18.3]	1.58 [1.07-2.33]	0.13	7.5 [(-0.7)-15.7]
Hypertension	21,662	149	69.8 [58.4-81.2]	123	61.0 [49.7-72.2]	1.14 [0.97-1.35]	0.33	8.8 [(-7.2)-24.8]
Invasive pneumococcal	32,459	5	1.4 [0.1-2.6]	7	2.6 [0.5-4.7]	0.52 [0.17-1.56]	0.54	-1.2 [(-3.7)-1.2]
Ischemic heart disease	31,189	70	22.5 [17.1-27.9]	93	30.7 [24.1-37.4]	0.73 [0.52-1.02]	0.25	-8.2 [(-16.8)-0.3]
Ischemic stroke and TIA	32,633	19	5.8 [3.1-8.5]	18	5.8 [3.0-8.7]	0.99 [0.5-1.96]	1.00	-0.0 [(-3.9)-3.9]
Loss of appetite	33,182	151	48.0 [40.1-55.8]	167	50.9 [42.8-59.1]	0.94 [0.78-1.14]	0.81	-3.0 [(-14.3)-8.3]
Lymphadenopathy	33,341	99	31.7 [25.2-38.1]	139	41.7 [34.4-49.0]	0.76 [0.6-0.97]	0.14	-10.0 [(-19.7)-(-0.3)]
Menstruation abnormalities	18,518	58	34.9 [25.6-44.2]	44	25.8 [17.8-33.8]	1.35 [0.94-1.95]	0.32	9.1 [(-3.2)-21.4]
Muscle atrophy	33,776	30	8.6 [5.5-11.8]	19	6.0 [3.2-8.8]	1.43 [0.82-2.51]	0.49	2.6 [(-1.6)-6.9]
Myalgia	31,472	522	172.6 [157.4-187.7]	387	130.8 [117.0-144.6]	1.32 [1.17-1.48]	<0.001	41.7 [21.3-62.2]
Nausea or vomiting	33,020	163	50.6 [42.6-58.7]	167	51.3 [43.2-59.3]	0.99 [0.8-1.22]	0.99	-0.6 [(-12.0)-10.8]
Palpitations	32,541	398	125.6 [112.9-138.2]	248	76.5 [66.5-86.4]	1.64 [1.43-1.89]	<0.001	49.1 [33.0-65.2]
Paresthesia	32,289	304	97.8 [86.6-109.0]	314	100.4 [88.7-112.1]	0.97 [0.85-1.12]	0.92	-2.6 [(-18.8)-13.6]
Pericarditis	33,408	9	3.0 [1.0-5.0]	13	3.8 [1.7-6.0]	0.79 [0.33-1.9]	0.85	-0.8 [(-3.8)-2.1]
Psychosis	32,766	9	2.8 [0.9-4.6]	12	3.5 [1.5-5.5]	0.8 [0.33-1.89]	0.86	-0.7 [(-3.4)-2.0]
Pulmonary disease	31,848	22	7.8 [4.5-11.1]	23	6.8 [3.9-9.8]	1.14 [0.62-2.08]	0.89	0.9 [(-3.5)-5.4]
Respiratory disorders	33,429	40	12.1 [8.2-15.9]	9	2.6 [0.9-4.3]	4.72 [2.09-10.67]	0.00	9.5 [5.3-13.7]
Rhinorrhea	33,795	8	2.4 [0.7-4.1]	13	3.6 [1.6-5.7]	0.67 [0.28-1.56]	0.66	-1.2 [(-3.9)-1.5]
Skin rash	33,123	135	44.3 [36.6-52.1]	159	48.2 [40.3-56.0]	0.92 [0.74-1.14]	0.74	-3.8 [(-14.8)-7.2]
Sore throat	33,091	85	26.3 [20.5-32.1]	117	37.4 [30.2-44.5]	0.7 [0.54-0.92]	0.08	-11.1 [(-20.3)-(-1.9)]
Streptococcal tonsillitis	33,266	68	18.1 [13.6-22.7]	43	14.1 [9.4-18.9]	1.28 [0.88-1.86]	0.47	4.0 [(-2.6)-10.6]
Tinnitus	32,788	239	78.1 [68.0-88.2]	229	71.9 [62.1-81.6]	1.09 [0.94-1.26]	0.57	6.2 [(-7.8)-20.3]
Tremor	33,681	42	12.8 [8.8-16.8]	28	8.5 [5.2-11.8]	1.51 [0.99-2.29]	0.22	4.3 [(-0.9)-9.5]
Venous thromboembolism	33,512	84	25.1 [19.5-30.7]	74	24.1 [18.2-29.9]	1.04 [0.87-1.25]	0.88	1.0 [(-7.1)-9.1]
Visual disturbances	33,165	142	43.1 [35.8-	136	44.4 [36.6-	0.97 [0.8-1.17]	0.92	-1.3 [(-12.1)-9.4]



			50.4]		52.3]			
Voice disorder	33,337	103	29.2 [23.3-35.1]	89	29.1 [22.6-35.6]	1.0 [0.78-1.3]	1.00	0.1 [(-8.7)-8.9]
Weakness	30,265	1,241	436.6 [411.7-461.5]	582	202.8 [185.5-220.1]	2.15 [1.98-2.34]	<0.001	233.7 [203.4-264.1]
Weight loss	33,445	92	29.3 [23.2-35.4]	101	31.2 [24.8-37.6]	0.94 [0.73-1.2]	0.86	-1.9 [(-10.7)-6.9]

\* Outcomes with 10 events or more.

**Table S4f** – Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 30-180 days post PCR test, age > 60 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. events	Absolute risk/10,000 persons [95%CI]	No. events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	8,135	338	429.6 [382.1-477.2]	363	467.1 [415.2-519.0]	0.92 [0.8-1.07]	0.59	-35.5 [(-106.3)-35.4]
Anosmia and Dysgeusia	10,280	20	24.2 [13.0-35.3]	17	14.9 [7.7-22.2]	1.62 [0.9-2.93]	0.33	9.2 [(-4.0)-22.5]
Anxiety	5,123	35	70.7 [46.1-95.3]	23	48.0 [27.7-68.3]	1.47 [0.88-2.47]	0.38	22.7 [(-9.2)-54.6]
Arthralgia	9,257	172	188.4 [159.0-217.9]	130	148.5 [121.4-175.7]	1.27 [1.02-1.58]	0.17	39.9 [(-0.2)-80.0]
Bloody stool	10,144	35	36.9 [24.3-49.6]	36	38.4 [25.1-51.7]	0.96 [0.63-1.48]	0.97	-1.4 [(-19.8)-16.9]
Cardiac arrhythmias	7,103	48	70.7 [50.1-91.2]	52	79.9 [56.3-103.4]	0.88 [0.6-1.3]	0.80	-9.2 [(-40.5)-22.0]
Celiac disease	10,305	3	2.8 [-0.5-6.2]	7	6.4 [1.6-11.2]	0.44 [0.11-1.75]	0.54	-3.6 [(-9.4)-2.3]
Cerebral hemorrhage	9,997	7	7.0 [1.8-12.1]	8	7.1 [2.0-12.1]	0.99 [0.15-6.33]	1.00	-0.1 [(-7.4)-7.2]
Chest pain	8,563	340	417.4 [371.2-463.6]	263	330.3 [286.7-373.8]	1.26 [1.08-1.47]	0.03	87.1 [23.7-150.6]
Chronic kidney disease	7,972	11	52.1 [36.3-68.0]	13	48.7 [33.0-64.5]	0.87 [0.42-1.77]	0.91	-2.2 [(-14.7)-10.3]
Concentration and memory impairment	9,941	82	87.9 [68.2-107.7]	59	63.2 [45.7-80.7]	1.39 [1.03-1.87]	0.15	24.7 [(-1.6)-51.1]
Congestive heart failure	9,284	24	26.0 [15.3-36.8]	36	40.9 [26.7-55.1]	0.64 [0.41-1.0]	0.20	-14.9 [(-32.6)-2.9]
Conjunctivitis	9,334	140	150.7 [124.5-176.8]	141	154.0 [126.9-181.2]	0.98 [0.78-1.23]	0.97	-3.3 [(-41.0)-34.4]
Convulsions	10,060	5	4.1 [0.4-7.7]	13	11.4 [5.0-17.8]	0.36 [0.12-1.09]	0.25	-7.2 [(-14.6)-0.2]
Cough	8,295	331	422.0 [374.3-469.7]	261	363.2 [314.9-411.5]	1.16 [1.0-1.35]	0.21	58.8 [(-9.1)-126.7]
Depression	6,198	30	48.0 [30.3-65.7]	32	53.1 [33.4-72.8]	0.9 [0.55-1.48]	0.91	-5.1 [(-31.5)-21.3]
Diabetes Mellitus	5,566	33	61.6 [39.9-83.3]	32	62.6 [39.2-86.0]	0.98 [0.83-1.17]	0.97	-1.0 [(-32.9)-30.9]
Diarrhea	10,297	6	5.9 [1.1-10.7]	11	10.6 [4.0-17.3]	0.55 [0.24-1.27]	0.42	-4.8 [(-13.0)-3.4]
Diseases of the nervous system	4,540	33	80.4 [51.8-109.0]	34	71.6 [46.8-96.4]	1.12 [0.7-1.8]	0.87	8.8 [(-29.1)-46.6]
Dizziness	8,916	243	281.0 [244.2-317.8]	237	283.3 [244.9-321.7]	0.99 [0.84-1.18]	0.99	-2.3 [(-55.4)-50.9]
Dyspnea	9,196	349	405.8 [361.5-450.2]	240	270.7 [233.7-307.6]	1.51 [1.3-1.75]	<0.001	138.9 [81.0-196.9]
Epilepsy	9,989	4	3.1 [-0.0-6.3]	10	9.2 [3.4-15.1]	0.34 [0.1-1.22]	0.30	-6.1 [(-12.7)-0.6]
Fatty Liver	7,135	40	62.5 [42.2-82.8]	48	65.0 [46.1-84.0]	0.96 [0.64-1.44]	0.97	-2.5 [(-30.3)-25.2]
Hair loss	10,140	102	115.7 [92.8-138.7]	50	46.2 [33.0-59.3]	2.51 [1.78-3.53]	<0.001	69.6 [43.1-96.1]
Headache	8,969	201	235.8 [201.8-269.7]	207	247.4 [210.7-284.1]	0.95 [0.79-1.15]	0.86	-11.6 [(-61.6)-38.4]

Herpes Simplex	7,701	15	21.5 [10.2-32.8]	10	12.3 [4.4-20.2]	1.74 [0.78-3.92]	0.45	9.2 [(-4.6)-22.9]
Herpes Zoster	10,078	49	52.7 [37.3-68.1]	55	57.4 [40.7-74.0]	0.92 [0.66-1.28]	0.86	-4.7 [(-27.4)-18.0]
Hospitalization	7,166	349	511.0 [455.2-566.7]	337	475.3 [421.0-529.6]	1.06 [0.91-1.26]	0.51	43.1 [(-40.7)-126.9]
Hyperreactive Airway Disease	6,195	11	17.6 [6.9-28.4]	10	19.0 [6.1-31.9]	0.93 [0.42-2.07]	0.97	-1.3 [(-18.1)-15.5]
Hypertension	1,624	33	200.4 [129.3-271.6]	24	166.0 [93.5-238.6]	1.21 [0.74-1.97]	0.75	34.4 [(-67.2)-136.0]
Ischemic heart disease	6,556	36	59.9 [39.7-80.2]	52	78.4 [55.8-101.1]	0.76 [0.49-1.19]	0.53	-18.5 [(-48.9)-11.9]
Ischemic stroke and TIA	8,597	22	28.7 [16.5-41.0]	44	48.3 [33.1-63.6]	0.59 [0.4-0.89]	0.09	-19.6 [(-39.2)-(-0.1)]
Loss of appetite	9,883	87	93.1 [72.8-113.4]	118	115.6 [93.2-137.9]	0.81 [0.62-1.04]	0.31	-22.5 [(-52.7)-7.7]
Lymphadenopathy	10,196	25	29.1 [17.1-41.1]	38	39.5 [25.6-53.3]	0.74 [0.46-1.18]	0.49	-10.4 [(-28.7)-7.9]
Muscle atrophy	10,270	17	16.0 [8.2-23.8]	11	12.2 [4.1-20.4]	1.31 [0.63-2.73]	0.77	3.8 [(-7.5)-15.1]
Myalgia	9,628	141	151.1 [125.2-177.1]	96	111.1 [86.7-135.5]	1.36 [1.06-1.74]	0.10	40.1 [4.4-75.7]
Nausea or vomiting	9,919	68	73.9 [55.8-92.1]	85	91.6 [70.4-112.7]	0.81 [0.59-1.1]	0.44	-17.6 [(-45.5)-10.2]
Palpitations	9,685	147	156.3 [129.8-182.8]	109	113.2 [90.7-135.7]	1.38 [1.09-1.75]	0.06	43.1 [8.4-77.9]
Paresthesia	9,836	102	106.7 [85.3-128.1]	123	122.7 [99.8-145.6]	0.87 [0.67-1.12]	0.59	-16.0 [(-47.4)-15.4]
Parkinsonism	9,877	11	12.2 [4.8-19.6]	9	12.2 [4.3-20.0]	1.0 [0.4-2.51]	1.00	0.0 [(-10.8)-10.8]
Pericarditis	10,060	7	8.2 [2.0-14.5]	8	7.8 [2.2-13.4]	1.05 [0.82-1.35]	0.91	0.4 [(-8.0)-8.8]
Psychosis	9,664	14	16.4 [7.0-25.8]	24	24.6 [13.9-35.4]	0.67 [0.36-1.24]	0.48	-8.2 [(-22.5)-6.0]
Pulmonary disease	8,217	19	27.3 [14.9-39.7]	18	23.3 [11.6-35.1]	1.17 [0.65-2.1]	0.85	4.0 [(-13.1)-21.1]
Respiratory disorders	9,836	30	32.5 [20.6-44.4]	18	16.7 [8.3-25.0]	1.95 [0.99-3.84]	0.21	15.8 [1.3-30.4]
Respiratory failure	10,241	7	8.1 [2.2-14.0]	8	8.8 [2.5-15.1]	0.92 [0.2-4.11]	0.99	-0.7 [(-9.4)-7.9]
Skin rash	10,045	52	56.0 [39.9-72.1]	55	52.9 [38.1-67.8]	1.06 [0.73-1.54]	0.93	3.1 [(-18.8)-24.9]
Sore throat	10,186	28	28.3 [17.5-39.1]	23	28.4 [15.7-41.2]	1.0 [0.59-1.68]	1.00	-0.1 [(-16.9)-16.6]
Tinnitus	9,892	109	117.7 [94.9-140.5]	89	92.8 [72.6-113.0]	1.27 [0.98-1.64]	0.25	24.9 [(-5.6)-55.4]
Tremor	10,132	35	35.0 [22.8-47.2]	44	43.6 [30.0-57.3]	0.8 [0.55-1.18]	0.56	-8.6 [(-26.9)-9.7]
Venous thromboembolism	10,069	68	65.2 [48.8-81.5]	68	77.8 [57.8-97.8]	0.84 [0.67-1.04]	0.33	-12.7 [(-38.5)-13.2]
Visual disturbances	9,876	66	73.6 [55.4-91.8]	72	66.2 [50.5-82.0]	1.11 [0.81-1.52]	0.79	7.4 [(-16.7)-31.5]
Voice disorder	10,151	40	42.7 [28.9-56.5]	36	39.9 [24.8-55.1]	1.07 [0.7-1.62]	0.93	2.7 [(-17.8)-23.2]
Weakness	8,887	423	497.2 [447.9-546.6]	277	331.1 [288.6-373.6]	1.5 [1.3-1.73]	<0.001	166.2 [101.0-231.3]
Weight loss	9,965	69	71.9 [54.3-89.5]	103	98.2 [78.0-118.4]	0.73 [0.55-0.97]	0.15	-26.4 [(-53.2)-0.4]

\* Outcomes with 10 events or more.

**Table S4g**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age 0-4 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	10,566	274	320.8 [281.1-360.4]	329	330.5 [291.8-369.3]	0.97 [0.83-1.14]	0.92	-9.1 [(-64.5)-46.3]
Arthralgia	11,161	6	6.7 [1.2-12.2]	9	7.2 [2.5-11.9]	0.93 [0.33-2.65]	0.98	-0.5 [(-7.8)-6.8]
Bloody stool	11,081	14	13.3 [5.9-20.6]	9	9.0 [2.4-15.5]	1.48 [0.66-3.33]	0.65	4.3 [(-5.5)-14.1]
Celiac disease	11,144	18	17.9 [9.2-26.6]	27	26.5 [15.7-37.3]	0.68 [0.4-1.14]	0.38	-8.6 [(-22.4)-5.3]
Chest pain	11,166	10	13.1 [4.9-21.3]	8	7.8 [1.6-14.0]	1.68 [0.7-4.02]	0.54	5.3 [(-5.0)-15.6]
Conjunctivitis	8,073	678	1027.7 [946.6-1108.8]	632	917.9 [840.3-995.5]	1.12 [1.03-1.22]	0.08	109.8 [(-2.4)-222.1]
Convulsions	10,832	30	31.1 [21.5-44.9]	10	9.8 [5.1-18.8]	2.82 [1.34-5.93]	0.05	21.3 [8.1-35.9]
Cough	7,227	859	1572.1 [1462.3-1681.9]	856	1349.0 [1250.4-1447.6]	1.13 [1.02-1.25]	0.10	180.7 [36.6-324.8]
Dyspnea	9,265	533	662.7 [603.3-722.1]	478	606.9 [547.7-666.0]	1.09 [0.99-1.2]	0.25	55.9 [(-28.0)-139.8]
Epilepsy	11,098	9	8.4 [2.6-14.1]	5	3.6 [0.4-6.9]	2.29 [0.84-6.27]	0.32	4.7 [(-1.9)-11.3]
Hair loss	11,147	11	11.8 [4.3-19.3]	11	15.0 [5.1-24.8]	0.79 [0.37-1.69]	0.81	-3.2 [(-15.5)-9.2]
Headache	11,094	45	53.8 [37.5-70.1]	57	56.3 [40.0-72.6]	0.96 [0.66-1.39]	0.94	-2.5 [(-25.5)-20.5]
Herpes Simplex	10,755	29	29.5 [18.1-40.9]	29	32.5 [19.4-45.6]	0.91 [0.55-1.49]	0.92	-3.0 [(-20.4)-14.4]
Hospitalization	9,878	192	221.4 [188.5-254.4]	154	189.9 [156.7-223.0]	1.06 [0.85-1.32]	0.47	32.1 [(-16.4)-80.5]
Hyperreactive Airway Disease	9,095	209	272.1 [233.7-310.6]	164	198.8 [166.4-231.1]	1.35 [1.08-1.67]	0.06	69.1 [19.6-118.6]
Insomnia	11,160	8	9.8 [2.7-16.8]	7	6.9 [1.1-12.7]	1.42 [0.59-3.4]	0.72	2.9 [(-6.3)-12.0]
Invasive pneumococcal	10,958	27	23.7 [14.1-33.4]	32	30.4 [19.1-41.6]	0.78 [0.5-1.23]	0.59	-6.7 [(-21.5)-8.2]
Loss of appetite	10,793	49	50.8 [35.6-65.9]	51	53.4 [37.2-69.6]	0.95 [0.65-1.38]	0.93	-2.7 [(-24.8)-19.5]
Lymphadenopathy	10,951	74	78.1 [59.5-96.7]	63	60.9 [44.5-77.3]	1.28 [0.93-1.78]	0.37	17.2 [(-7.6)-42.0]
Nausea or vomiting	9,944	304	375.0 [331.3-418.7]	273	296.9 [258.8-335.1]	1.26 [1.06-1.5]	0.07	78.0 [20.0-136.1]
Rhinorrhea	11,090	13	13.4 [5.8-21.0]	11	11.2 [3.9-18.4]	1.2 [0.56-2.56]	0.87	2.2 [(-8.2)-12.7]
Skin rash	9,103	284	378.8 [333.0-424.6]	268	308.1 [268.4-347.8]	1.23 [1.06-1.43]	0.06	70.7 [10.1-131.3]

Sore throat	11,100	33	36.6 [23.7-49.4]	34	33.2 [21.2-45.1]	1.1 [0.69-1.76]	0.90	3.4 [(-14.2)-21.0]
Streptococcal tonsillitis	10,461	330	397.7 [352.6-442.7]	373	425.3 [378.3-472.4]	0.93 [0.83-1.05]	0.56	-27.7 [(-92.8)-37.5]
Tinnitus	11,111	11	10.1 [3.9-16.2]	11	11.7 [3.7-19.7]	0.86 [0.37-1.99]	0.92	-1.6 [(-11.7)-8.5]
Visual disturbances	11,126	14	13.8 [6.3-21.3]	17	15.2 [7.5-22.9]	0.91 [0.44-1.86]	0.93	-1.4 [(-12.2)-9.4]
Voice disorder	11,095	24	28.4 [16.6-40.3]	22	24.6 [13.3-35.9]	1.16 [0.68-1.96]	0.85	3.8 [(-12.6)-20.3]
Weakness	11,049	29	27.2 [16.9-37.6]	30	32.3 [19.3-45.3]	0.84 [0.51-1.4]	0.79	-5.1 [(-21.7)-11.5]
Weight loss	11,146	4	4.5 [-0.1-9.0]	6	6.5 [0.7-12.4]	0.68 [0.21-2.23]	0.80	-2.1 [(-9.5)-5.4]

**Table S4h**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age 5-11 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	18,082	482	339.3 [307.7-370.8]	609	382.5 [350.5-414.6]	0.89 [0.79-1.0]	0.20	-42.2 [(-87.1)-2.8]
Anxiety	20,257	52	34.0 [24.4-43.5]	69	34.6 [26.2-43.0]	0.98 [0.69-1.39]	0.99	-0.7 [(-13.4)-12.1]
Appendicitis	20,626	10	5.5 [2.0-9.1]	20	10.7 [5.7-15.7]	0.52 [0.24-1.11]	0.29	-5.1 [(-11.2)-1.0]
Arthralgia	20,843	37	21.2 [14.1-28.4]	26	13.7 [8.3-19.1]	1.55 [0.94-2.58]	0.29	7.6 [(-1.4)-16.5]
Bloody stool	20,894	7	4.0 [1.0-7.0]	10	4.6 [1.7-7.5]	0.87 [0.33-2.32]	0.93	-0.6 [(-4.8)-3.6]
Celiac disease	20,746	22	12.4 [6.9-17.8]	36	18.4 [12.1-24.7]	0.67 [0.43-1.06]	0.29	-6.0 [(-14.4)-2.3]
Chest pain	20,643	89	57.0 [44.8-69.2]	88	49.3 [38.6-60.1]	1.15 [0.87-1.54]	0.62	7.6 [(-8.7)-24.0]
Concentration and memory impairment	20,922	11	6.4 [2.5-10.2]	8	4.3 [1.2-7.3]	1.49 [0.6-3.69]	0.69	2.1 [(-2.8)-7.0]
Conjunctivitis	19,091	312	194.8 [172.1-217.5]	350	214.5 [190.4-238.6]	0.91 [0.79-1.05]	0.45	-19.7 [(-52.8)-13.4]
Convulsions	19,705	10	5.5 [1.9-9.2]	9	5.3 [1.7-9.0]	1.03 [0.44-2.44]	1.00	0.2 [(-4.9)-5.4]
Cough	17,399	465	346.3 [313.6-379.0]	532	349.4 [318.2-380.6]	0.99 [0.88-1.11]	0.98	-3.1 [(-48.3)-42.1]
Diseases of the nervous system	20,810	13	8.7 [3.7-13.6]	8	5.2 [1.2-9.2]	1.67 [0.74-3.77]	0.50	3.5 [(-2.9)-9.8]
Dizziness	20,838	27	16.6 [10.0-23.2]	30	15.4 [9.8-21.0]	1.08 [0.64-1.81]	0.93	1.2 [(-7.4)-9.9]
Dyspnea	20,198	122	72.1 [58.8-85.5]	131	71.7 [58.8-84.5]	1.0 [0.79-1.27]	1.00	1.0 [(-17.6)-19.6]
Epilepsy	20,595	9	4.8 [1.6-8.1]	9	4.6 [1.5-7.7]	1.05 [0.53-2.07]	0.98	0.2 [(-4.3)-4.8]
Fatty Liver	20,873	3	1.8 [-0.3-3.9]	7	3.7 [0.9-6.5]	0.49 [0.13-1.86]	0.59	-1.9 [(-5.4)-1.6]
Hair loss	20,840	17	10.2 [5.1-15.3]	18	11.6 [5.7-17.4]	0.88 [0.47-1.66]	0.91	-1.4 [(-9.1)-6.4]
Headache	19,747	216	135.9 [117.0-154.9]	263	151.7 [132.2-171.1]	0.9 [0.75-1.07]	0.51	-15.7 [(-42.8)-11.4]
Herpes Simplex	18,600	22	14.2 [7.9-20.4]	23	15.6 [8.7-22.6]	0.91 [0.52-1.59]	0.92	-1.5 [(-10.8)-7.9]
Herpes Zoster	20,913	7	3.7 [0.9-6.6]	10	6.1 [2.0-10.1]	0.62 [0.24-1.59]	0.62	-2.3 [(-7.3)-2.7]
Hospitalization	20,065	122	69.1 [56.2-82.0]	130	79.0 [64.3-93.6]	0.81 [0.62-1.05]	0.51	-8.9 [(-28.8)-11.0]
Hyperreactive Airway Disease	12,872	27	26.1 [15.8-36.4]	29	24.9 [15.3-34.6]	1.05 [0.65-1.68]	0.97	1.1 [(-13.0)-15.3]
Insomnia	20,921	5	2.8 [0.2-5.5]	5	2.7 [0.3-5.2]	1.04 [0.32-3.38]	1.00	0.1 [(-3.5)-3.7]
Loss of appetite	20,704		29.8 [20.9-		23.5 [16.0-	1.27 [0.86-	0.53	6.3 [(-5.3)-17.9]

		47	38.7]	44	31.0]	1.88]		
Lymphadenopathy	20,633	41	26.8 [18.4-35.3]	69	37.4 [28.0-46.7]	0.72 [0.5-1.03]	0.26	-10.5 [(-23.2)-2.1]
Menstruation abnormalities	20,931	7	3.8 [0.8-6.8]	14	7.2 [3.4-11.0]	0.53 [0.21-1.35]	0.45	-3.4 [(-8.2)-1.5]
Myalgia	20,809	35	20.3 [13.3-27.4]	46	24.0 [16.9-31.1]	0.85 [0.55-1.31]	0.75	-3.7 [(-13.6)-6.3]
Nausea or vomiting	20,078	194	121.8 [104.0-139.6]	227	130.6 [112.7-148.4]	0.93 [0.78-1.12]	0.74	-8.8 [(-34.0)-16.4]
Palpitations	20,879	13	7.2 [3.1-11.4]	25	13.3 [7.8-18.9]	0.54 [0.28-1.06]	0.26	-6.1 [(-13.0)-0.8]
Paresthesia	20,922	6	3.5 [0.5-6.5]	4	2.0 [0.0-4.0]	1.77 [0.48-6.51]	0.69	1.5 [(-2.1)-5.1]
Rhinorrhea	20,899	5	3.3 [0.3-6.2]	6	3.1 [0.6-5.6]	1.05 [0.33-3.34]	0.99	0.2 [(-3.7)-4.1]
Skin rash	19,489	192	118.9 [101.3-136.4]	202	118.6 [101.2-136.0]	1.0 [0.83-1.21]	1.00	0.3 [(-24.5)-25.0]
Sore throat	20,238	147	85.2 [70.6-99.7]	87	55.5 [42.9-68.0]	1.54 [1.2-1.97]	0.01	29.7 [10.5-48.9]
Streptococcal tonsillitis	18,065	696	450.4 [414.4-486.5]	525	400.4 [363.6-437.2]	1.12 [1.05-1.21]	0.02	50.0 [(-1.5)-101.5]
Tinnitus	20,862	11	7.1 [2.7-11.5]	18	9.6 [4.9-14.3]	0.74 [0.36-1.52]	0.70	-2.5 [(-8.9)-3.9]
Visual disturbances	20,644	45	22.1 [15.4-28.9]	41	24.6 [16.7-32.6]	0.9 [0.59-1.36]	0.86	-2.5 [(-12.9)-7.9]
Voice disorder	20,760	42	23.9 [16.4-31.4]	46	29.0 [19.6-38.4]	0.83 [0.56-1.22]	0.64	-5.1 [(-17.1)-6.9]
Weakness	20,642	64	36.1 [26.7-45.4]	53	32.7 [23.0-42.4]	1.1 [0.77-1.57]	0.85	3.4 [(-10.1)-16.8]
Weight loss	20,914	5	3.3 [0.4-6.2]	10	5.9 [2.2-9.6]	0.56 [0.21-1.52]	0.55	-2.6 [(-7.3)-2.2]

\* Outcomes with 10 events or more.

**Table S4i**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age 12-18 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	21,647	543	304.9 [278.2-331.7]	737	376.3 [347.5-405.1]	0.81 [0.73-0.91]	0.00	-69.8 [(-109.2)-(-30.5)]
Anosmia and Dysgeusia	24,929	13	6.1 [2.7-9.6]	4	2.1 [-0.1-4.2]	2.98 [1.07-8.3]	0.17	4.1 [(-0.0)-8.1]
Anxiety	22,618	75	41.7 [31.9-51.5]	91	41.9 [32.9-51.0]	0.99 [0.74-1.33]	1.00	-0.2 [(-13.6)-13.1]
Appendicitis	23,693	16	7.6 [3.6-11.5]	34	16.6 [10.8-22.4]	0.46 [0.25-0.82]	0.07	-9.0 [(-16.1)-(-2.0)]
Arthralgia	24,528	71	33.7 [25.5-41.8]	107	43.1 [34.6-51.5]	0.78 [0.58-1.06]	0.33	-9.4 [(-21.1)-2.3]
Bloody stool	24,905	16	8.3 [4.1-12.5]	22	9.6 [5.4-13.8]	0.86 [0.48-1.56]	0.87	-1.3 [(-7.3)-4.6]
Cardiac arrhythmias	24,625	8	4.6 [1.4-7.8]	18	7.0 [3.7-10.3]	0.66 [0.31-1.41]	0.59	-2.4 [(-7.0)-2.2]
Celiac disease	24,760	28	11.9 [7.3-16.6]	36	13.7 [9.0-18.3]	0.87 [0.56-1.35]	0.81	-1.8 [(-8.3)-4.8]
Chest pain	24,195	222	113.0 [97.5-128.5]	256	116.7 [101.5-131.9]	0.97 [0.81-1.15]	0.92	-3.7 [(-25.4)-18.0]
Concentration and memory impairment	24,930	13	6.6 [2.9-10.4]	17	6.9 [3.6-10.3]	0.95 [0.47-1.92]	0.98	-0.3 [(-5.4)-4.7]
Conjunctivitis	23,395	270	133.5 [116.7-150.3]	278	128.5 [112.5-144.4]	1.04 [0.89-1.22]	0.87	5.1 [(-18.1)-28.3]
Convulsions	23,252	9	3.7 [1.2-6.1]	7	3.1 [0.7-5.4]	1.2 [0.44-3.3]	0.92	0.6 [(-2.7)-4.0]
Cough	22,577	428	227.0 [204.5-249.6]	441	219.8 [197.9-241.6]	1.03 [0.91-1.17]	0.86	7.3 [(-24.1)-38.7]
Depression	24,569	23	13.5 [7.9-19.2]	47	19.6 [13.7-25.5]	0.69 [0.43-1.1]	0.34	-6.0 [(-14.2)-2.1]
Diseases of the nervous system	24,500	14	6.8 [3.1-10.5]	11	4.2 [1.7-6.7]	1.63 [0.72-3.73]	0.54	2.6 [(-1.9)-7.1]
Diseases of the pleura	24,918	4	1.9 [-0.0-3.9]	6	2.7 [0.4-5.1]	0.7 [0.18-2.66]	0.85	-0.8 [(-3.9)-2.2]
Dizziness	24,473	110	51.8 [41.6-61.9]	123	53.3 [43.5-63.1]	0.97 [0.75-1.25]	0.95	-1.6 [(-15.6)-12.5]
Dyspnea	24,466	133	68.0 [56.0-80.0]	158	66.6 [55.7-77.5]	1.02 [0.82-1.26]	0.98	1.6 [(-14.7)-17.8]
Fatty Liver	24,703	11	5.0 [2.0-7.9]	20	8.2 [4.4-12.0]	0.6 [0.28-1.29]	0.47	-3.3 [(-8.1)-1.6]
Hair loss	24,606	85	41.5 [32.2-50.7]	95	41.3 [32.5-50.1]	1.0 [0.76-1.33]	1.00	0.2 [(-12.6)-12.9]
Headache	22,767	389	206.7 [185.2-228.2]	428	202.0 [181.7-222.2]	1.02 [0.9-1.17]	0.92	4.7 [(-24.8)-34.2]
Herpes Simplex	20,733	38	21.0 [13.9-28.0]	24	12.1 [6.8-17.3]	1.74 [1.04-2.91]	0.17	8.9 [0.1-17.7]
Herpes Zoster	24,887	16	7.1 [3.4-10.8]	26	12.6 [7.2-18.0]	0.56 [0.31-1.03]	0.23	-5.5 [(-12.1)-1.0]
Hospitalization	23,698	197	97.3 [83.1-111.5]	251	115.8 [100.6-131.0]	0.77 [0.63-0.94]	0.39	-17.7 [(-39.5)-4.1]
Hyperreactive	11,982	18	16.9 [8.9-]	22	18.9 [10.4-]	0.9 [0.49-1.64]	0.92	-2.0 [(-13.6)-9.7]



Airway Disease			25.0]		27.3]			
Hypertension	24,648	10	4.2 [1.5-7.0]	10	4.1 [1.5-6.7]	1.04 [0.42-2.57]	0.99	0.2 [(-3.6)-3.9]
Ischemic heart disease	24,927	6	2.7 [0.4-4.9]	5	1.9 [0.2-3.6]	1.4 [0.42-4.67]	0.85	0.8 [(-2.1)-3.6]
Loss of appetite	24,551	76	37.2 [28.6-45.9]	117	49.6 [40.0-59.2]	0.75 [0.57-0.98]	0.18	-12.4 [(-25.3)-0.6]
Lymphadenopathy	24,639	73	35.8 [27.3-44.3]	104	46.7 [37.1-56.3]	0.77 [0.58-1.02]	0.25	-10.9 [(-23.7)-2.0]
Menstruation abnormalities	23,541	109	59.5 [48.0-71.0]	151	66.6 [55.3-77.8]	0.89 [0.73-1.1]	0.59	-7.0 [(-23.1)-9.1]
Myalgia	24,549	83	39.9 [31.0-48.9]	116	53.0 [42.6-63.4]	0.75 [0.57-0.99]	0.19	-13.0 [(-26.7)-0.7]
Nausea or vomiting	24,231	133	68.9 [56.8-80.9]	194	87.9 [75.0-100.8]	0.78 [0.63-0.97]	0.13	-19.1 [(-36.7)-(-1.4)]
Palpitations	24,755	62	29.2 [21.6-36.7]	81	33.6 [26.0-41.2]	0.87 [0.63-1.2]	0.69	-4.4 [(-15.2)-6.3]
Paresthesia	24,911	22	10.4 [5.9-15.0]	27	11.7 [7.0-16.5]	0.89 [0.51-1.56]	0.91	-1.3 [(-7.8)-5.3]
Psychosis	24,753	10	3.7 [1.3-6.1]	14	6.3 [2.8-9.9]	0.59 [0.27-1.29]	0.46	-2.6 [(-6.9)-1.7]
Rhinorrhea	24,948	10	4.7 [1.6-7.7]	16	6.4 [3.1-9.6]	0.73 [0.34-1.59]	0.73	-1.7 [(-6.1)-2.7]
Skin rash	24,100	126	64.4 [52.7-76.1]	203	92.2 [78.6-105.9]	0.7 [0.57-0.86]	0.01	-27.9 [(-45.8)-(-9.9)]
Sore throat	24,296	147	69.2 [57.4-80.9]	138	67.7 [55.7-79.7]	1.02 [0.82-1.27]	0.97	1.4 [(-15.3)-18.2]
Streptococcal tonsillitis	23,592	365	160.7 [143.0-178.4]	183	103.3 [86.9-119.8]	1.55 [1.33-1.81]	<0.001	57.3 [33.2-81.4]
Tinnitus	24,820	26	12.3 [7.3-17.3]	57	24.3 [17.6-31.0]	0.51 [0.31-0.83]	0.05	-12.0 [(-20.3)-(-3.7)]
Tremor	24,913	17	8.2 [4.2-12.3]	16	6.8 [3.3-10.3]	1.21 [0.62-2.36]	0.84	1.4 [(-4.0)-6.8]
Visual disturbances	24,725	56	27.0 [19.6-34.5]	57	25.4 [18.3-32.5]	1.07 [0.75-1.51]	0.92	1.7 [(-8.6)-11.9]
Voice disorder	24,832	43	17.0 [11.6-22.4]	36	22.5 [14.4-30.6]	0.76 [0.5-1.14]	0.45	-5.5 [(-15.2)-4.2]
Weakness	23,960	283	126.9 [111.3-142.5]	226	109.0 [93.6-124.5]	1.16 [0.98-1.38]	0.26	17.9 [(-4.1)-39.8]
Weight loss	24,760	35	17.6 [11.6-23.6]	66	27.1 [20.2-34.0]	0.65 [0.44-0.96]	0.15	-9.4 [(-18.6)-(-0.3)]

**Table S4j**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age 19-40 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	41,719	1,867	521.3 [496.9-545.8]	1,881	491.7 [468.2-515.2]	1.07 [1.0-1.14]	0.24	32.5 [(-1.4)-66.4]
Anosmia and Dysgeusia	51,606	83	18.8 [14.6-22.9]	27	5.6 [3.3-7.8]	3.38 [2.13-5.37]	<0.001	13.2 [8.5-17.9]
Anxiety	40,121	197	57.5 [49.2-65.7]	230	57.9 [49.9-65.8]	0.99 [0.81-1.21]	1.00	-0.4 [(-11.9)-11.1]
Appendicitis	47,164	28	6.7 [4.1-9.2]	46	9.3 [6.5-12.1]	0.72 [0.44-1.17]	0.46	-2.6 [(-6.4)-1.2]
Arthralgia	50,095	367	82.1 [73.4-90.8]	389	81.0 [72.5-89.5]	1.01 [0.87-1.18]	0.97	1.1 [(-11.0)-13.3]
Bloody stool	51,603	56	12.7 [9.2-16.1]	67	14.2 [10.6-17.8]	0.89 [0.61-1.3]	0.81	-1.5 [(-6.5)-3.5]
Cardiac arrhythmias	49,992	24	5.4 [3.2-7.6]	38	8.2 [5.4-11.1]	0.66 [0.38-1.13]	0.37	-2.8 [(-6.4)-0.8]
Celiac disease	51,629	32	6.2 [3.9-8.5]	26	5.9 [3.5-8.3]	1.06 [0.61-1.85]	0.96	0.4 [(-3.0)-3.7]
Chest pain	48,279	848	201.3 [187.2-215.4]	897	198.4 [184.7-212.2]	1.01 [0.92-1.12]	0.93	2.8 [(-16.8)-22.5]
Concentration and memory impairment	51,562	123	30.1 [24.7-35.6]	63	12.7 [9.4-16.1]	2.36 [1.71-3.27]	<0.001	17.4 [11.0-23.8]
Conjunctivitis	48,437	669	153.0 [140.8-165.1]	629	143.8 [131.6-155.9]	1.06 [0.95-1.2]	0.59	9.2 [(-8.0)-26.4]
Convulsions	49,490	10	1.8 [0.6-3.1]	13	3.2 [1.4-5.0]	0.62 [0.25-1.51]	0.59	-1.1 [(-3.3)-1.0]
Cough	45,976	978	242.7 [226.8-258.5]	934	221.1 [206.0-236.3]	1.1 [1.0-1.21]	0.22	21.5 [(-0.4)-43.5]
Depression	46,053	106	26.7 [21.5-32.0]	115	24.3 [19.5-29.0]	1.1 [0.84-1.45]	0.77	2.5 [(-4.6)-9.5]
Diabetes Mellitus	51,084	30	6.0 [3.8-8.2]	22	5.1 [2.8-7.3]	1.18 [0.66-2.13]	0.83	0.9 [(-2.3)-4.1]
Diarrhea	51,752	8	2.2 [0.6-3.7]	17	3.3 [1.7-5.0]	0.64 [0.27-1.55]	0.62	-1.2 [(-3.4)-1.0]
Diseases of the nervous system	46,415	133	31.9 [26.3-37.6]	134	30.8 [25.3-36.4]	1.04 [0.8-1.34]	0.93	1.1 [(-6.8)-9.0]
Dizziness	49,593	526	120.8 [110.1-131.5]	493	108.1 [98.0-118.3]	1.12 [0.98-1.27]	0.30	12.7 [(-2.1)-27.4]
Dyspnea	50,368	437	100.5 [90.8-110.3]	304	65.1 [57.4-72.9]	1.55 [1.33-1.81]	<0.001	37.1 [24.7-49.5]
Epilepsy	50,088	15	3.3 [1.5-5.0]	9	2.5 [0.7-4.2]	1.33 [0.53-3.32]	0.80	0.8 [(-1.6)-3.3]
Fatty Liver	48,703	133	31.4 [25.9-37.0]	121	28.7 [23.2-34.1]	1.1 [0.84-1.43]	0.77	2.8 [(-5.0)-10.5]
Hair loss	49,962	296	72.4 [63.9-80.8]	374	77.9 [69.5-86.2]	0.93 [0.79-1.09]	0.67	-5.5 [(-17.4)-6.4]
Headache	44,793	1,190	300.7 [283.0-318.5]	1,368	334.8 [316.1-353.5]	0.9 [0.83-0.98]	0.08	-34.1 [(-59.9)-(-8.3)]
Herpes Simplex	38,699	72	20.6 [15.6-25.5]	85	21.7 [16.8-26.7]	0.95 [0.68-1.32]	0.92	-1.2 [(-8.2)-5.8]

Herpes Zoster	51,431	87	19.3 [15.1-23.5]	103	21.9 [17.3-26.5]	0.88 [0.65-1.2]	0.70	-2.6 [(-8.9)-3.6]
Hospitalization	47,389	918	205.1 [191.1-219.2]	831	204.2 [189.4-219.1]	0.92 [0.83-1.03]	0.91	2.6 [(-21.3)-26.4]
Hyperhidrosis	51,725	15	3.9 [2.0-5.9]	23	4.0 [2.2-5.8]	0.98 [0.49-1.95]	1.00	-0.1 [(-2.7)-2.6]
Hyperreactive Airway Disease	27,603	49	19.0 [13.5-24.6]	43	17.6 [11.9-23.2]	1.08 [0.7-1.68]	0.92	1.5 [(-6.5)-9.4]
Hypertension	48,809	53	11.6 [8.3-14.8]	38	8.7 [5.7-11.6]	1.34 [0.86-2.08]	0.48	2.9 [(-1.5)-7.3]
Insomnia	51,780	9	2.5 [0.9-4.1]	12	2.2 [0.9-3.5]	1.15 [0.47-2.79]	0.92	0.3 [(-1.8)-2.4]
Invasive pneumococcal	50,305	11	2.1 [0.8-3.5]	8	2.2 [0.5-3.9]	0.98 [0.36-2.68]	1	-0.1 [(-2.2)-2.1]
Ischemic heart disease	51,422	14	3.1 [1.4-4.8]	16	3.5 [1.7-5.3]	0.89 [0.42-1.89]	0.93	-0.4 [(-2.8)-2.1]
Loss of appetite	50,954	162	37.0 [31.1-42.9]	209	41.3 [35.4-47.2]	0.9 [0.72-1.11]	0.61	-4.3 [(-12.7)-4.1]
Lymphadenopathy	51,005	188	44.7 [38.1-51.2]	249	47.9 [41.6-54.2]	0.93 [0.76-1.14]	0.77	-3.3 [(-12.3)-5.8]
Menstruation abnormalities	35,483	188	58.4 [49.7-67.1]	185	62.4 [53.1-71.8]	0.94 [0.75-1.16]	0.80	-4.0 [(-16.9)-8.8]
Muscle atrophy	51,753	20	4.9 [2.7-7.1]	15	3.4 [1.5-5.4]	1.42 [0.68-2.96]	0.65	1.4 [(-1.5)-4.4]
Myalgia	49,738	450	103.1 [93.2-113.0]	465	102.2 [92.4-112.0]	1.01 [0.88-1.16]	0.98	0.9 [(-13.0)-14.8]
Myocarditis	51,804	6	1.4 [0.3-2.5]	7	1.3 [0.3-2.2]	1.12 [0.37-3.36]	0.96	0.2 [(-1.3)-1.6]
Nausea or vomiting	49,797	480	110.5 [100.3-120.8]	515	110.7 [100.6-120.9]	1.0 [0.88-1.14]	1.00	-0.2 [(-14.6)-14.2]
Palpitations	50,643	284	65.0 [57.2-72.7]	276	57.2 [50.0-64.3]	1.14 [0.95-1.35]	0.40	7.8 [(-2.8)-18.3]
Paresthesia	50,723	224	49.9 [43.1-56.8]	315	62.2 [54.9-69.5]	0.8 [0.67-0.96]	0.11	-12.2 [(-22.2)-(-2.2)]
Pericarditis	51,490	13	2.9 [1.3-4.5]	11	2.1 [0.8-3.4]	1.36 [0.59-3.1]	0.75	0.8 [(-1.3)-2.8]
Psychosis	50,561	19	3.4 [1.8-5.1]	22	5.7 [3.2-8.2]	0.6 [0.31-1.18]	0.37	-2.3 [(-5.3)-0.7]
Pulmonary disease	50,849	6	1.4 [0.2-2.6]	11	2.3 [0.9-3.7]	0.61 [0.21-1.77]	0.66	-0.9 [(-2.7)-0.9]
Respiratory disorders	51,347	4	1.0 [0.0-1.9]	6	1.5 [0.2-2.9]	0.64 [0.17-2.39]	0.78	-0.6 [(-2.2)-1.1]
Rhinorrhea	51,734	17	4.4 [2.3-6.5]	16	3.2 [1.6-4.8]	1.37 [0.68-2.76]	0.68	1.2 [(-1.5)-3.8]
Skin rash	50,472	265	61.4 [53.7-69.0]	311	61.5 [54.3-68.7]	1.0 [0.84-1.18]	1.00	-0.1 [(-10.6)-10.4]
Sore throat	50,251	324	72.0 [63.8-80.2]	329	73.8 [65.4-82.2]	0.98 [0.83-1.15]	0.93	-1.8 [(-13.5)-10.0]
Streptococcal tonsillitis	49,856	584	120.5 [110.0-131.0]	397	102.1 [91.2-113.0]	1.18 [1.03-1.36]	0.12	18.4 [3.3-33.6]
Tinnitus	50,954	198	46.4 [39.8-53.0]	237	45.6 [39.5-51.7]	1.02 [0.84-1.24]	0.97	0.8 [(-8.2)-9.8]
Tremor	51,632	52	10.8 [7.7-13.9]	44	8.7 [6.0-11.5]	1.24 [0.81-1.9]	0.62	2.1 [(-2.0)-6.2]
Venous thromboembolism	51,532	64	13.7 [10.1-17.2]	57	13.7 [9.9-17.5]	1.0 [0.68-1.48]	1.00	0.0 [(-5.2)-5.2]
Visual disturbances	51,198	136	29.8 [24.6-35.0]	142	29.4 [24.2-34.7]	1.01 [0.79-1.3]	0.99	0.4 [(-7.0)-7.7]
Voice disorder	51,244	151	31.5 [26.2-	136	29.4 [24.1-	1.07 [0.83-	0.84	2.1 [(-5.5)-9.6]

			36.9]		34.8]	1.37]		
Weakness	46,870	1,189	275.0 [258.5-291.5]	848	207.6 [192.8-222.5]	1.32 [1.2-1.46]	<0.001	67.3 [45.1-89.5]
Weight loss	51,281	93	21.3 [16.8-25.7]	137	26.4 [21.7-31.1]	0.81 [0.61-1.06]	0.36	-5.1 [(-11.6)-1.4]

\* Outcomes with 10 events or more.

**Table S4k**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age 41-60 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	25,748	1,110	475.2 [446.2-504.1]	1,164	489.7 [459.9-519.4]	0.98 [0.9-1.05]	0.79	-12.0 [(-53.5)-29.6]
Anosmia and Dysgeusia	31,913	92	33.2 [26.4-40.0]	33	10.7 [6.7-14.7]	3.1 [2.26-4.25]	<0.001	22.5 [14.6-30.4]
Anxiety	19,066	99	56.4 [44.9-67.8]	100	56.0 [44.2-67.7]	1.01 [0.78-1.31]	1.00	0.4 [(-16.0)-16.8]
Appendicitis	30,004	19	6.7 [3.6-9.7]	9	3.6 [1.2-6.0]	1.86 [0.87-3.96]	0.32	3.1 [(-0.8)-6.9]
Arthralgia	29,649	542	194.8 [178.0-211.6]	436	155.2 [139.9-170.4]	1.26 [1.13-1.4]	<0.001	39.6 [16.9-62.3]
Bloody stool	31,825	66	21.6 [16.2-27.0]	60	20.9 [15.2-26.5]	1.04 [0.79-1.36]	0.94	0.7 [(-7.1)-8.6]
Cardiac arrhythmias	29,111	35	12.4 [8.1-16.7]	39	15.6 [10.2-21.0]	0.79 [0.55-1.14]	0.50	-3.2 [(-10.1)-3.7]
Celiac disease	31,959	18	6.2 [3.2-9.1]	22	7.8 [4.3-11.3]	0.8 [0.47-1.36]	0.70	-1.6 [(-6.1)-3.0]
Chest pain	27,781	916	362.2 [338.0-386.3]	894	347.1 [323.0-371.2]	1.04 [0.96-1.13]	0.59	15.1 [(-19.1)-49.2]
Chronic kidney disease	31,541	20	8.2 [5.0-11.4]	12	5.9 [2.8-9.1]	1.33 [0.31-5.64]	0.92	1.6 [(-2.6)-5.7]
Concentration and memory impairment	31,721	166	60.7 [51.4-70.1]	95	31.5 [24.8-38.2]	1.93 [1.61-2.3]	<0.001	29.2 [17.7-40.7]
Congestive heart failure	31,743	6	1.8 [0.3-3.4]	15	5.1 [2.4-7.8]	0.36 [0.13-0.99]	0.20	-3.2 [(-6.4)-(-0.1)]
Conjunctivitis	29,707	373	137.5 [122.9-152.0]	396	143.2 [128.2-158.3]	0.96 [0.85-1.09]	0.80	-5.8 [(-26.7)-15.1]
Convulsions	31,574	3	0.9 [-0.1-1.9]	10	3.3 [1.2-5.5]	0.27 [0.07-0.99]	0.20	-2.4 [(-4.7)-(-0.0)]
Cough	27,668	717	279.7 [258.4-301.0]	719	285.4 [263.3-307.6]	0.98 [0.89-1.08]	0.89	-5.8 [(-36.5)-25.0]
Depression	23,763	62	29.1 [21.7-36.5]	70	30.1 [22.7-37.6]	0.97 [0.7-1.34]	0.97	-1.0 [(-11.5)-9.5]
Diabetes Mellitus	27,709	130	48.9 [40.3-57.5]	106	44.6 [35.8-53.4]	1.1 [0.84-1.44]	0.78	4.3 [(-8.0)-16.6]
Diseases of the nervous system	20,426	142	72.5 [60.2-84.8]	118	64.1 [51.9-76.3]	1.13 [0.92-1.4]	0.54	8.4 [(-8.9)-25.8]
Dizziness	29,571	586	212.2 [194.5-229.8]	464	170.1 [153.8-186.5]	1.25 [1.13-1.38]	<0.001	42.0 [18.0-66.1]
Dyspnea	30,610	534	192.1 [175.3-208.9]	340	122.3 [108.7-135.8]	1.59 [1.42-1.78]	<0.001	72.8 [51.3-94.3]
Fatty Liver	25,049	161	72.4 [61.0-83.7]	139	60.3 [49.8-70.9]	1.2 [1.01-1.42]	0.16	12.0 [(-3.5)-27.5]
Hair loss	31,336	121	46.7 [38.3-55.2]	157	49.0 [40.9-57.1]	0.95 [0.77-1.19]	0.90	-2.3 [(-14.0)-9.5]
Headache	27,288	855	345.0 [321.3-368.8]	828	330.6 [306.8-354.4]	1.04 [0.96-1.14]	0.63	14.5 [(-19.2)-48.1]
Herpes Simplex	23,568	41	19.0 [13.0-24.9]	56	24.9 [18.0-31.7]	0.76 [0.52-1.12]	0.42	-5.9 [(-15.0)-3.2]
Herpes Zoster	31,625	97	33.4 [26.6-	114	37.4 [30.1-	0.89 [0.73-	0.58	-4.0 [(-14.1)-6.0]

			40.3]		44.8]	1.09]		
Hospitalization	28,338	636	239.4 [220.1-258.8]	669	259.9 [239.0-280.8]	0.84 [0.74-0.96]	0.71	-18.5 [(-50.6)-13.6]
Hyperhidrosis	32,012	3	0.9 [-0.2-1.9]	17	5.1 [2.6-7.7]	0.17 [0.05-0.61]	0.05	-4.3 [(-7.0)-(-1.5)]
Hyperreactive Airway Disease	21,515	36	15.5 [10.2-20.7]	29	13.8 [8.6-19.1]	1.12 [0.71-1.77]	0.87	1.6 [(-5.8)-9.1]
Hypertension	20,534	148	76.1 [63.7-88.5]	133	68.7 [56.3-81.1]	1.11 [1.01-1.21]	0.15	7.3 [(-10.2)-24.9]
Insomnia	32,050	8	2.8 [0.8-4.8]	4	1.8 [-0.1-3.7]	1.56 [0.58-4.23]	0.68	1.0 [(-1.7)-3.8]
Invasive pneumococcal	30,758	9	3.5 [1.2-5.8]	9	2.8 [0.9-4.7]	1.24 [0.69-2.23]	0.76	0.7 [(-2.3)-3.7]
Ischemic heart disease	29,567	69	24.4 [18.5-30.3]	98	35.0 [27.6-42.4]	0.7 [0.5-0.97]	0.15	-10.6 [(-20.1)-(-1.1)]
Ischemic stroke and TIA	30,924	29	9.6 [6.0-13.3]	29	11.2 [6.9-15.4]	0.86 [0.27-2.78]	0.94	-1.5 [(-7.1)-4.0]
Loss of appetite	31,439	164	58.8 [49.5-68.0]	179	58.8 [49.6-68.1]	1.0 [0.83-1.2]	1.00	-0.1 [(-13.1)-12.9]
Lymphadenopathy	31,590	97	34.6 [27.6-41.6]	139	43.5 [35.9-51.0]	0.8 [0.62-1.02]	0.24	-8.9 [(-19.2)-1.4]
Menstruation abnormalities	17,490	42	26.7 [18.3-35.2]	37	21.3 [13.9-28.7]	1.25 [0.82-1.92]	0.60	5.4 [(-5.8)-16.6]
Muscle atrophy	32,005	25	8.6 [5.1-12.0]	29	9.9 [6.1-13.7]	0.86 [0.5-1.5]	0.85	-1.3 [(-6.5)-3.8]
Myalgia	29,825	492	180.0 [163.7-196.3]	442	157.2 [141.7-172.6]	1.15 [1.03-1.27]	0.09	22.9 [0.4-45.3]
Nausea or vomiting	31,294	189	62.9 [53.6-72.2]	226	76.0 [65.7-86.4]	0.83 [0.69-1.0]	0.19	-13.1 [(-27.1)-0.8]
Palpitations	30,842	321	111.2 [98.7-123.7]	267	91.1 [79.7-102.6]	1.22 [1.06-1.4]	0.04	20.0 [3.1-37.0]
Paresthesia	30,610	346	125.6 [112.2-139.1]	394	136.2 [121.9-150.5]	0.92 [0.82-1.04]	0.47	-10.6 [(-30.2)-9.0]
Pericarditis	31,658	7	2.4 [0.6-4.3]	7	2.4 [0.6-4.3]	1.0 [0.37-2.71]	1.00	0.0 [(-2.6)-2.6]
Psychosis	31,060	13	3.5 [1.5-5.5]	14	4.8 [2.2-7.4]	0.73 [0.36-1.47]	0.68	-1.3 [(-4.6)-2.0]
Pulmonary disease	30,175	32	12.1 [7.9-16.3]	29	9.5 [5.9-13.2]	1.27 [0.76-2.12]	0.66	2.6 [(-3.0)-8.1]
Respiratory disorders	31,674	8	2.9 [0.9-5.0]	12	4.2 [1.6-6.7]	0.71 [0.28-1.82]	0.75	-1.2 [(-4.5)-2.1]
Rhinorrhea	32,021	14	4.6 [2.1-7.1]	17	5.3 [2.6-7.9]	0.88 [0.46-1.72]	0.92	-0.6 [(-4.2)-3.0]
Skin rash	31,385	175	64.4 [54.5-74.3]	181	60.7 [51.2-70.2]	1.06 [0.88-1.29]	0.81	3.7 [(-10.0)-17.5]
Sore throat	31,359	122	41.3 [33.7-48.9]	120	39.7 [32.2-47.1]	1.04 [0.82-1.32]	0.92	1.6 [(-9.0)-12.3]
Streptococcal tonsillitis	31,516	105	33.1 [26.3-39.9]	65	24.0 [17.6-30.3]	1.38 [1.03-1.86]	0.16	9.1 [(-0.2)-18.4]
Tinnitus	31,054	192	65.6 [56.0-75.1]	234	78.8 [68.2-89.4]	0.83 [0.7-0.99]	0.18	-13.2 [(-27.5)-1.1]
Tremor	31,920	40	12.7 [8.6-16.7]	56	19.1 [13.8-24.4]	0.66 [0.46-0.96]	0.15	-6.4 [(-13.1)-0.2]
Venous thromboembolism	31,752	82	26.0 [20.1-32.0]	75	26.7 [20.2-33.1]	0.98 [0.82-1.16]	0.93	-0.6 [(-9.4)-8.1]
Visual disturbances	31,434	141	48.5 [40.3-56.7]	140	48.7 [39.9-57.4]	1.0 [0.82-1.21]	1.00	-0.1 [(-12.1)-11.9]
Voice disorder	31,592	136	43.3 [35.6-51.0]	113	39.4 [31.6-47.2]	1.1 [0.88-1.37]	0.69	3.9 [(-7.0)-14.9]

Weakness	28,693	923	339.5 [316.7-362.2]	658	250.6 [230.3-271.0]	1.35 [1.24-1.47]	<0.001	88.8 [58.3-119.3]
Weight loss	31,693	91	31.5 [24.8-38.1]	99	33.4 [26.4-40.5]	0.94 [0.73-1.21]	0.87	-2.0 [(-11.7)-7.7]

\* Outcomes with 10 events or more.

**Table S4I**– Association of health outcomes\* with SARS-CoV-2 infection in unvaccinated individuals during Wild-Type and Alpha variants, 180-360 days post PCR test, age > 60 years.

Outcome	N	SARS-CoV-2 Positive		SARS-CoV-2 Negative		Hazard Ratio 95%CI	Q value	Risk Diff/10,000 persons
		No. event s	Absolute risk/10,000 persons [95%CI]	No. even ts	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	7,610	342	482.4 [429.0-535.8]	384	531.2 [474.1-588.3]	0.91 [0.79-1.05]	0.48	-47.3 [(-125.8)-31.3]
Anosmia and Dysgeusia	9,616	20	26.5 [14.6-38.5]	15	13.9 [6.7-21.1]	1.91 [1.02-3.58]	0.19	12.6 [(-1.3)-26.5]
Anxiety	4,803	25	58.9 [34.5-83.3]	25	56.1 [33.1-79.2]	1.05 [0.62-1.79]	0.97	2.8 [(-30.8)-36.3]
Arthralgia	8,650	194	242.0 [206.8-277.2]	170	201.0 [169.1-232.9]	1.2 [0.99-1.46]	0.23	41.0 [(-6.5)-88.5]
Bloody stool	9,493	33	37.1 [23.9-50.2]	38	38.8 [25.6-52.1]	0.95 [0.63-1.46]	0.96	-1.8 [(-20.5)-16.9]
Cardiac arrhythmias	6,724	44	65.8 [45.7-85.9]	39	58.3 [39.0-77.7]	1.13 [0.79-1.61]	0.78	7.5 [(-20.4)-35.4]
Cerebral hemorrhage	9,379	4	6.5 [0.3-12.7]	7	8.0 [1.9-14.1]	0.81 [0.36-1.83]	0.86	-1.5 [(-10.2)-7.2]
Chest pain	7,994	328	445.1 [394.8-495.3]	336	462.0 [407.8-516.1]	0.96 [0.84-1.11]	0.86	-16.9 [(-90.8)-57.0]
Chronic kidney disease	7,545	27	66.7 [48.2-85.1]	25	81.6 [60.5-102.7]	1.11 [0.28-4.43]	0.98	3.9 [(-16.8)-24.6]
Concentration and memory impairment	9,308	92	105.7 [83.2-128.2]	93	109.4 [85.4-133.5]	0.97 [0.77-1.21]	0.93	-3.8 [(-36.7)-29.2]
Congestive heart failure	8,765	23	27.1 [15.5-38.6]	23	30.8 [17.6-43.9]	0.88 [0.6-1.3]	0.79	-3.7 [(-21.2)-13.8]
Conjunctivitis	8,728	166	198.6 [166.8-230.3]	177	217.4 [182.4-252.3]	0.91 [0.75-1.12]	0.68	-18.8 [(-66.0)-28.4]
Convulsions	9,420	5	4.9 [0.5-9.4]	7	9.3 [1.6-17.0]	0.48 [0.16-1.47]	0.48	-4.9 [(-13.7)-4.0]
Cough	7,762	327	462.2 [409.7-514.6]	306	439.1 [384.8-493.5]	1.05 [0.91-1.22]	0.78	23.0 [(-52.5)-98.6]
Depression	5,863	30	56.3 [35.2-77.3]	18	31.6 [16.1-47.1]	1.78 [1.0-3.17]	0.21	24.7 [(-1.5)-50.8]
Diabetes Mellitus	5,271	48	92.7 [65.4-120.0]	28	50.9 [31.4-70.4]	1.82 [1.13-2.95]	0.10	41.8 [8.3-75.4]
Diarrhea	9,636	9	9.6 [3.2-16.1]	13	12.0 [5.2-18.8]	0.8 [0.4-1.59]	0.80	-2.4 [(-11.8)-7.0]
Diseases of the nervous system	4,274	35	95.7 [62.8-128.7]	33	79.3 [50.4-108.2]	1.21 [0.77-1.9]	0.70	16.5 [(-27.4)-60.3]
Dizziness	8,349	264	337.3 [295.0-379.7]	242	315.1 [271.3-358.9]	1.07 [0.91-1.26]	0.70	22.3 [(-38.7)-83.2]
Dyspnea	8,634	276	352.1 [308.8-395.4]	216	251.5 [216.0-286.9]	1.42 [1.2-1.67]	<0.001	105.3 [49.6-160.9]
Epilepsy	9,353	5	4.8 [0.5-9.2]	7	6.5 [1.5-11.4]	0.75 [0.27-2.11]	0.85	-1.6 [(-8.2)-5.0]
Fatty Liver	6,662	50	76.8 [54.4-99.1]	50	67.6 [48.4-86.8]	1.14 [0.77-1.67]	0.79	9.2 [(-20.3)-38.6]
Hair loss	9,480	29	36.1 [22.5-49.6]	48	45.6 [32.3-58.8]	0.79 [0.5-1.24]	0.61	-9.5 [(-28.5)-9.4]
Headache	8,366	210	268.7 [230.6-306.8]	237	294.3 [254.3-334.3]	0.91 [0.76-1.1]	0.63	-25.6 [(-80.8)-29.7]



Herpes Simplex	7,209	15	24.3 [11.6-37.0]	11	16.7 [6.2-27.2]	1.45 [0.69-3.06]	0.62	7.6 [(-8.9)-24.1]
Herpes Zoster	9,419	50	55.2 [39.3-71.1]	71	78.1 [58.3-97.8]	0.71 [0.51-0.97]	0.16	-22.9 [(-48.2)-2.5]
Hospitalization	6,872	345	532.6 [473.8-591.3]	389	599.1 [534.4-663.8]	0.82 [0.69-0.97]	0.43	-57.2 [(-150.9)-36.6]
Hyperreactive Airway Disease	5,810	14	22.9 [10.0-35.8]	15	30.6 [12.3-48.8]	0.75 [0.38-1.5]	0.71	-7.6 [(-30.0)-14.7]
Hypertension	1,554	24	163.8 [97.0-230.6]	22	155.9 [87.3-224.5]	1.05 [0.62-1.78]	0.97	7.8 [(-87.9)-103.6]
Insomnia	9,655	3	3.0 [-0.5-6.5]	10	9.9 [3.2-16.7]	0.3 [0.08-1.07]	0.23	-7.0 [(-14.6)-0.6]
Invasive pneumococcal	9,028	7	6.1 [1.4-10.8]	5	6.4 [0.3-12.5]	0.96 [0.37-2.49]	0.99	-0.3 [(-7.9)-7.4]
Ischemic heart disease	6,197	35	57.0 [37.6-76.4]	44	75.7 [52.1-99.2]	0.75 [0.59-0.96]	0.14	-18.6 [(-49.1)-11.9]
Ischemic stroke and TIA	8,085	22	26.8 [15.2-38.5]	20	22.0 [11.9-32.0]	1.22 [0.36-4.2]	0.92	4.9 [(-10.6)-20.3]
Loss of appetite	9,265	96	117.8 [93.6-142.0]	110	122.5 [97.6-147.4]	0.96 [0.75-1.23]	0.93	-4.7 [(-39.4)-30.0]
Lymphadenopathy	9,542	28	31.4 [19.4-43.4]	34	35.9 [23.4-48.4]	0.88 [0.53-1.43]	0.85	-4.5 [(-21.8)-12.9]
Muscle atrophy	9,613	15	14.8 [6.9-22.8]	13	17.3 [7.0-27.7]	0.86 [0.53-1.39]	0.80	-2.5 [(-15.5)-10.6]
Myalgia	9,001	136	158.5 [130.8-186.2]	110	122.0 [97.9-146.1]	1.3 [1.02-1.66]	0.17	36.5 [(-0.2)-73.2]
Nausea or vomiting	9,291	71	82.7 [62.7-102.8]	108	116.9 [93.6-140.2]	0.71 [0.53-0.95]	0.12	-34.2 [(-64.9)-(-3.4)]
Palpitations	9,058	149	162.9 [135.6-190.2]	119	136.6 [109.8-163.3]	1.19 [0.95-1.5]	0.37	26.3 [(-11.9)-64.5]
Paresthesia	9,197	109	129.8 [104.6-155.0]	148	164.1 [136.0-192.3]	0.79 [0.63-1.0]	0.20	-34.3 [(-72.2)-3.5]
Parkinsonism	9,267	10	12.1 [4.3-19.8]	11	14.3 [5.6-23.0]	0.85 [0.34-2.12]	0.92	-2.2 [(-13.9)-9.5]
Pericarditis	9,416	12	13.6 [5.8-21.5]	6	5.9 [1.1-10.8]	2.3 [0.86-6.17]	0.30	7.7 [(-1.6)-17.0]
Psychosis	9,066	12	15.2 [6.2-24.1]	19	19.2 [10.2-28.1]	0.79 [0.43-1.46]	0.75	-4.0 [(-16.7)-8.7]
Pulmonary disease	7,718	18	27.4 [14.3-40.4]	26	32.8 [19.5-46.1]	0.84 [0.47-1.49]	0.81	-5.4 [(-24.0)-13.2]
Respiratory disorders	9,230	11	13.3 [5.2-21.4]	8	10.8 [2.5-19.1]	1.23 [0.63-2.4]	0.80	2.5 [(-9.1)-14.1]
Respiratory failure	9,596	6	5.5 [0.8-10.2]	4	4.2 [-0.0-8.4]	1.31 [0.37-4.67]	0.89	1.3 [(-5.0)-7.6]
Skin rash	9,395	47	54.9 [38.6-71.3]	56	61.9 [44.3-79.4]	0.89 [0.61-1.3]	0.80	-7.0 [(-30.9)-17.0]
Sore throat	9,525	24	24.9 [14.7-35.2]	30	32.0 [20.3-43.6]	0.78 [0.45-1.34]	0.68	-7.0 [(-22.5)-8.5]
Streptococcal tonsillitis	9,613	7	7.2 [1.5-13.0]	12	16.9 [5.9-27.8]	0.43 [0.17-1.07]	0.25	-9.6 [(-22.0)-2.8]
Tinnitus	9,253	109	132.4 [106.6-158.2]	108	114.9 [92.4-137.5]	1.15 [0.89-1.49]	0.58	17.5 [(-16.8)-51.7]
Tremor	9,476	35	40.7 [26.8-54.6]	47	54.2 [37.7-70.7]	0.75 [0.51-1.11]	0.40	-13.5 [(-35.0)-8.1]
Venous thromboembolism	9,436	49	49.0 [34.4-63.7]	46	51.9 [35.4-68.4]	0.94 [0.69-1.3]	0.92	-2.9 [(-24.9)-19.2]
Visual disturbances	9,242	81	99.2 [76.7-121.8]	103	119.0 [94.0-144.0]	0.83 [0.65-1.08]	0.42	-19.8 [(-53.4)-13.8]

Voice disorder	9,493	47	51.1 [35.9-66.3]	42	44.7 [29.5-59.8]	1.14 [0.76-1.71]	0.79	6.4 [(-15.1)-27.8]
Weakness	8,367	318	416.2 [368.3-464.0]	292	376.7 [329.7-423.7]	1.1 [0.95-1.28]	0.46	39.4 [(-27.6)-106.5]
Weight loss	9,340	82	100.8 [78.5-123.1]	90	96.8 [75.3-118.2]	1.04 [0.8-1.36]	0.93	4.0 [(-26.9)-34.9]
Abdominal pain	7,610	342	482.4 [429.0-535.8]	384	531.2 [474.1-588.3]	0.91 [0.79-1.05]	0.48	-47.3 [(-125.8)-31.3]
Anosmia and Dysgeusia	9,616	20	26.5 [14.6-38.5]	15	13.9 [6.7-21.1]	1.91 [1.02-3.58]	0.19	12.6 [(-1.3)-26.5]
Anxiety	4,803	25	58.9 [34.5-83.3]	25	56.1 [33.1-79.2]	1.05 [0.62-1.79]	0.97	2.8 [(-30.8)-36.3]
Arthralgia	8,650	194	242.0 [206.8-277.2]	170	201.0 [169.1-232.9]	1.2 [0.99-1.46]	0.23	41.0 [(-6.5)-88.5]
Bloody stool	9,493	33	37.1 [23.9-50.2]	38	38.8 [25.6-52.1]	0.95 [0.63-1.46]	0.96	-1.8 [(-20.5)-16.9]

\* Outcomes with 10 events or more.

**Table S4m**– Age heterogeneity in the association between SARS-CoV-2 and post-acute health outcomes in unvaccinated individuals during Wild-Type and Alpha variants 30-180 days post PCR test.

<b>Outcome</b>	<b>Interaction p-value</b>	<b>Interaction q-value</b>
Anosmia and Dysgeusia	0.11	0.31
Cardiac arrhythmias	0.22	0.56
Chest pain	0.11	0.31
Concentration and memory impairment	0.53	0.67
Conjunctivitis	0.3	0.65
Cough	0.03	0.16
Dizziness	0.51	0.67
Dyspnea	<0.001	<0.001
Hair loss	<0.001	0.003
Myalgia	0.53	0.67
Palpitations	0.48	0.67
Respiratory disorders	0.34	0.65
Streptococcal tonsillitis	0.04	0.19
Weakness	0.01	0.10

\*For significant outcomes found in the age analysis 30-180 post PCR test.

**Table S4n**– Age heterogeneity in the association between SARS-CoV-2 and post-acute health outcomes in unvaccinated individuals during Wild-Type and Alpha variants 180-360 days post PCR test.

<b>Outcome</b>	<b>Interaction p-value</b>	<b>Interaction q-value</b>
Anosmia and Dysgeusia	0.39	0.66
Arthralgia	0.29	0.65
Concentration and memory impairment	0.03	0.16
Dizziness	0.82	0.93
Dyspnea	0.01	0.10
Palpitations	0.5	0.67
Sore throat	0.4	0.66
Streptococcal tonsillitis	0.02	0.16
Weakness	0.45	0.67

\*For significant outcomes found in the age analysis 180-360 days post pct test.

## Analysis by sex

**Table S5a** - Characteristics of the sub cohort of Female vs. Male unvaccinated individuals, during Wild-Type and Alpha variants of the SARS-CoV-2 virus

Characteristics	Female		Male	
	SARS-CoV-2 positive individuals (%) (n= 84,500)	SARS-CoV-2 negative individuals (%) (n= 84,500)	SARS-CoV-2 positive individuals (%) (n= 85,780)	SARS-CoV-2 negative individuals (%) (n= 85,780)
Age, Median (IQR) yr	25 (14-43)	26 (14-44)	23 (13-41)	24 (13-41)
Age group				
0-4 yr	6,006 (7.1%)	6,006 (7.1%)	6,323 (7.4%)	6,323 (7.4%)
5-11 yr	11,090 (13.1%)	11,090 (13.1%)	12,095 (14.1%)	12,095 (14.1%)
12-18 yr	13,313 (15.7%)	13,313 (15.7%)	15,875 (18.5%)	15,875 (18.5%)
19-40 yr	30,222 (35.8%)	30,222 (35.8%)	29,654 (34.6%)	29,654 (34.6%)
41-60 yr	18,377 (21.7%)	18,377 (21.7%)	16,490 (19.2%)	16,490 (19.2%)
>60 yr	5,492 (6.5%)	5,492 (6.5%)	5,343 (6.2%)	5,343 (6.2%)
Sex				
Female	84,500 (100%)	84,500 (100%)	0 (0%)	0 (0%)
Male	0 (0%)	0 (0%)	85,780 (100%)	85,780 (100%)
Dominant strain during positive/negative test				
Wild-Type	33,837 (40%)	33,837 (40%)	38,480 (44.9%)	38,480 (44.9%)
Alpha	50,663 (60%)	50,663 (60%)	47,300 (55.1%)	47,300 (55.1%)
Delta	0 (0%)	0 (0%)	0	0
Vaccine status				
Unvaccinated	84,500 (100%)	84,500 (100%)	85,780 (100%)	85,780 (100%)
One Vaccine dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Two Vaccine doses	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Booster dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)

**Table S5b** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals\*, during Wild-Type and Alpha variants, 30-180 days post PCR test, by sex

Outcome	Male								Female								Sex difference Q-value
	N	SARS-CoV-2 positive		SARS-CoV-2 negative		HR (95% CI)	Q-value	RD/10,000 patients	N	SARS-CoV-2 positive		SARS-CoV-2 negative		HR (95% CI)	Q-value	RD/10,000 patients	
		SARS-CoV-2 positive	Absolute risk/10,000 persons [95%CI]	SARS-CoV-2 negative	Absolute risk/10,000 persons [95%CI]					SARS-CoV-2 positive	Absolute risk/10,000 persons [95%CI]	SARS-CoV-2 negative	Absolute risk/10,000 persons [95%CI]				
Abdominal pain	71,922	1,687	256.4 [240.2-272.7]	1,871	265.5 [249.0-282.0]	0.97 [0.91-1.03]	0.56	-9.1 [(-32.2)-14.1]	63,705	2,669	457.4 [432.3-482.5]	2,800	457.6 [432.5-482.7]	1.0 [0.95-1.06]	1.00	-0.2 [(-35.7)-35.3]	0.95
Anosmia and Dysgeusia	81,536	135	19.4 [15.2-23.6]	32	4.0 [2.4-5.5]	4.89 [3.39-7.08]	<0.001	15.4 [11.0-19.9]	80,851	209	30.4 [25.0-35.8]	58	7.0 [4.9-9.2]	4.33 [3.19-5.89]	<0.001	23.4 [17.6-29.2]	0.95
Anxiety	67,171	230	38.4 [31.8-45.0]	231	34.9 [28.8-41.0]	1.1 [0.93-1.3]	0.56	3.5 [(-5.5)-12.6]	60,855	319	57.7 [48.8-66.6]	310	50.6 [42.5-58.6]	1.14 [0.97-1.34]	0.33	7.2 [(-4.8)-19.1]	0.98
Appendicitis	77,012	48	7.1 [4.4-9.7]	55	7.3 [4.6-9.9]	0.98 [0.68-1.4]	0.99	-0.2 [(-4.0)-3.6]	76,331	41	5.9 [3.6-8.3]	50	6.1 [3.8-8.3]	0.98 [0.64-1.5]	0.99	-0.1 [(-3.4)-3.1]	1.00
Arthralgia	79,362	460	62.4 [55.0-69.7]	474	61.2 [53.9-68.4]	1.02 [0.91-1.15]	0.92	1.2 [(-9.1)-11.5]	77,409	679	90.6 [81.4-99.9]	596	78.8 [70.3-87.3]	1.15 [1.02-1.29]	0.11	11.8 [(-0.8)-24.4]	0.95
Bloody stool	81,260	86	10.9 [7.6-14.2]	103	13.4 [9.5-17.3]	0.81 [0.63-1.04]	0.30	-2.5 [(-7.7)-2.6]	80,720	89	12.1 [8.5-15.6]	80	9.9 [6.8-13.0]	1.22 [0.89-1.67]	0.51	2.2 [(-2.5)-6.9]	0.95
Cardiac arrhythmias	77,198	82	11.7 [8.4-15.1]	83	10.5 [7.4-13.5]	1.12 [0.84-1.49]	0.73	1.2 [(-3.3)-5.8]	76,841	83	10.8 [7.8-13.9]	69	8.8 [6.1-11.5]	1.23 [0.88-1.72]	0.51	2.0 [(-2.0)-6.1]	0.95
Celiac disease	81,435	40	4.7 [2.7-6.6]	54	6.6 [4.1-9.1]	0.71 [0.48-1.06]	0.29	-1.9 [(-5.1)-1.3]	80,616	54	7.1 [4.5-9.8]	71	8.7 [5.6-11.7]	0.82 [0.57-1.19]	0.59	-1.5 [(-5.6)-2.5]	0.95
Cerebral hemorrhage	81,287	8	0.9 [0.1-1.8]	10	1.2 [0.2-2.1]	0.8 [0.23-2.75]	0.92	-0.2 [(-1.5)-1.1]	80,783	4	0.4 [-0.1-0.9]	9	1.0 [0.1-1.8]	0.4 [0.12-1.31]	0.37	-0.6 [(-1.6)-0.4]	0.95

Chest pain	76,048	1,337	193.9 [179.8-208.0]	1,089	145.3 [133.8-156.7]	1.33 [1.25-1.43]	<0.001	48.6 [30.5-66.8]	75,491	1,433	205.7 [191.4-219.9]	1,036	141.6 [130.4-152.8]	1.45 [1.33-1.58]	<0.001	64.0 [45.9-82.2]	0.95
Chronic kidney disease	79,480	14	4.8 [3.0-6.6]	14	4.5 [2.7-6.3]	1.07 [0.71-1.6]	0.92	0.3 [(-2.2)-2.9]	79,619	6	3.2 [1.8-4.5]	9	3.5 [1.9-5.0]	0.9 [0.51-1.6]	0.92	-0.3 [(-2.4)-1.7]	0.95
Concentration and memory impairment	81,301	146	20.3 [16.2-24.5]	96	12.1 [9.1-15.0]	1.69 [1.34-2.13]	<0.001	8.3 [3.2-13.4]	80,484	257	35.4 [29.5-41.2]	147	18.5 [14.7-22.4]	1.91 [1.54-2.36]	<0.001	16.8 [9.9-23.8]	0.95
Congestive heart failure	80,783	27	3.5 [1.9-5.1]	32	4.0 [2.2-5.8]	0.88 [0.55-1.4]	0.85	-0.5 [(-2.9)-2.0]	80,512	12	1.4 [0.5-2.3]	29	3.8 [2.0-5.6]	0.36 [0.18-0.74]	0.05	-2.4 [(-4.4)-(-0.4)]	0.95
Conjunctivitis	74,876	1,201	167.5 [153.7-181.2]	1,171	160.3 [147.0-173.7]	1.04 [0.97-1.12]	0.53	7.1 [(-12.0)-26.3]	73,795	1,273	180.4 [166.0-194.9]	1,195	163.6 [150.1-177.1]	1.1 [1.01-1.2]	0.13	16.8 [(-2.9)-36.6]	0.95
Convulsions	77,982	34	4.7 [2.5-7.0]	44	5.5 [3.0-7.9]	0.86 [0.61-1.22]	0.70	-0.7 [(-4.0)-2.6]	77,938	38	5.4 [3.0-7.8]	37	5.2 [2.8-7.5]	1.04 [0.65-1.69]	0.97	0.2 [(-3.2)-3.6]	0.95
Cough	70,019	1,858	285.4 [266.5-304.3]	1,688	250.0 [232.9-267.2]	1.14 [1.08-1.21]	<0.001	35.4 [9.9-60.9]	69,151	1,993	311.0 [291.0-331.0]	1,910	289.5 [270.5-308.6]	1.07 [1.01-1.15]	0.17	21.5 [(-6.1)-49.1]	0.95
Depression	74,321	77	11.3 [8.2-14.4]	112	14.8 [11.2-18.4]	0.76 [0.58-0.99]	0.19	-3.5 [(-8.3)-1.2]	69,080	141	23.4 [18.5-28.4]	139	20.2 [15.8-24.6]	1.16 [0.91-1.48]	0.52	3.3 [(-3.4)-9.9]	0.95
Diabetes Mellitus	75,838	95	12.8 [9.0-16.5]	79	11.8 [8.2-15.4]	1.08 [0.86-1.37]	0.79	1.0 [(-4.2)-6.1]	76,677	88	11.7 [8.4-15.1]	61	8.9 [6.0-11.8]	1.32 [0.93-1.85]	0.34	2.8 [(-1.6)-7.3]	0.95
Diarrhea	81,657	10	1.3 [0.3-2.4]	21	2.4 [0.8-4.0]	0.54 [0.33-0.91]	0.12	-1.1 [(-3.0)-0.8]	81,029	7	0.9 [0.1-1.8]	10	1.2 [0.2-2.2]	0.78 [0.28-2.19]	0.87	-0.3 [(-1.6)-1.0]	0.95
Diseases of the nervous system	71,835	143	23.0 [18.2-27.9]	151	20.8 [16.4-25.2]	1.11 [0.89-1.37]	0.66	2.2 [(-4.4)-8.7]	66,449	186	29.9 [24.2-35.5]	175	25.5 [20.5-30.6]	1.17 [0.94-1.45]	0.40	4.3 [(-3.2)-11.9]	0.97
Diseases of the pleura	81,167	8	1.17 [0.15-2.19]	9	1.09 [0.1-2.07]	1.07 [0.14-8.22]	1.00	0.1 [(-1.3)-1.5]									
Dizziness	79,335	473	62.7 [55.6-69.8]	475	63.6 [56.4-70.9]	0.98 [0.87-1.11]	0.94	-1.0 [(-11.1)-9.2]	76,385	916	127.3 [116.0-138.6]	785	105.4 [95.4-115.3]	1.21 [1.09-1.33]	0.00	21.9 [6.8-37.0]	0.95

Dyspnea	77,952	1,317	184.5 [169.7-199.3]	846	111.5 [101.3-121.8]	1.65 [1.54-1.78]	<0.001	73.0 [55.0-91.0]	77,288	1,536	215.3 [198.9-231.7]	827	110.6 [100.5-120.8]	1.95 [1.78-2.13]	<0.001	104.7 [85.4-124.0]	0.95
Encephalitis									81,112	4	0.6 [(-0.1)-1.3]	8	0.9[0-1.8]	0.66 [0.2-2.23]	0.78	-0.3 [(-1.5)-0.9]	
Epilepsy	79,472	19	2.4 [1.0-3.8]	35	4.4 [2.2-6.7]	0.54 [0.31-0.93]	0.14	-2.1 [(-4.7)-0.6]	79,092	29	4.1 [2.0-6.3]	26	3.1 [1.4-4.8]	1.32 [0.77-2.27]	0.61	1.0 [(-1.7)-3.8]	0.95
Fatty Liver	73,420	200	30.2 [24.7-35.6]	189	24.8 [20.1-29.5]	1.22 [1.02-1.45]	0.15	5.4 [(-1.8)-12.6]	75,081	182	25.3 [20.7-29.9]	135	18.3 [14.5-22.1]	1.38 [1.1-1.75]	0.05	7.0 [1.1-12.9]	0.95
Guillian-Barre syndrome									81,128	4	0.5 [(-0.1)-1.1]	9	1.1[0.1-2.1]	0.46 [0.13-1.57]	0.50	-0.6 [(-1.7)-0.6]	
Hair loss	80,766	197	25.9 [21.5-30.2]	216	26.8 [22.3-31.2]	0.97 [0.8-1.17]	0.92	-0.9 [(-7.1)-5.3]	78,629	858	122.1 [110.2-134.0]	471	58.4 [51.2-65.5]	2.09 [1.86-2.35]	<0.001	63.7 [49.8-77.6]	<0.001
Headache	75,141	1,083	154.8 [142.8-166.7]	1,174	161.6 [149.3-173.9]	0.96 [0.89-1.03]	0.56	-6.8 [(-24.0)-10.4]	69,809	1,764	277.0 [258.9-295.0]	1,758	259.8 [242.5-277.0]	1.07 [0.99-1.14]	0.25	17.2 [(-7.8)-42.2]	0.95
Herpes Simplex	68,174	79	12.3 [8.6-16.0]	85	12.1 [8.5-15.6]	1.02 [0.77-1.36]	0.98	0.3 [(-4.9)-5.4]	61,164	139	25.6 [19.2-32.1]	112	18.1 [13.1-23.0]	1.42 [1.09-1.85]	0.07	7.6 [(-0.6)-15.8]	0.95
Herpes Zoster	81,152	112	15.4 [11.6-19.2]	133	15.5 [11.8-19.3]	0.99 [0.81-1.23]	1.00	-0.1 [(-5.4)-5.2]	80,459	136	19.5 [15.1-23.9]	152	19.4 [15.0-23.8]	1.0 [0.78-1.28]	1.00	0.0 [(-6.2)-6.3]	1.00
Hospitalization	74,534	1,086	154.8 [146.1-164.1]	1,084	147.7 [139.1-156.9]	1.05 [0.97-1.14]	0.51	7.1 [(-5.6) -19.8]	72,638	1,365	189.0 [179.2-199.3]	1,208	177.7 [168.2-187.7]	1.07 [0.99-1.16]	0.26	11.3 [(-2.7) -25.3]	0.95
Hyperhidrosis	81,676	20	2.8 [1.3-4.4]	20	2.3 [1.0-3.6]	1.22 [0.69-2.18]	0.78	0.5 [(-1.5)-2.5]	81,031	21	3.2 [1.6-4.8]	32	3.4 [1.8-5.0]	0.93 [0.53-1.64]	0.93	-0.2 [(-2.5)-2.0]	0.95
Hyperreactive Airway Disease	46,345	178	41.4 [32.6-50.1]	146	32.1 [24.8-39.3]	1.29 [1.06-1.56]	0.07	9.3 [(-2.1)-20.7]	49,256	161	33.6 [26.3-40.9]	150	30.3 [23.5-37.0]	1.11 [0.88-1.4]	0.68	3.3 [(-6.6)-13.3]	0.95
Hypertension	68,719	134	20.7 [16.3-25.2]	95	14.1 [10.6-17.6]	1.47 [1.17-1.86]	0.01	6.7 [1.0-12.3]	69,593	119	18.1 [14.1-22.1]	112	17.3 [13.3-21.2]	1.05 [0.8-1.37]	0.92	0.8 [(-4.8)-6.4]	0.95



Insomnia	81,668	14	1.9 [0.4-3.4]	17	2.1 [0.6-3.6]	0.91 [0.5-1.69]	0.93	-0.2 [(-2.3)-1.9]	81,090	8	1.3 [0.2-2.4]	8	0.9 [0.1-1.6]	1.53 [0.56-4.15]	0.69	0.5 [(-0.9)-1.8]	0.95
Invasive pneumococcal	78,142	22	2.8 [1.2-4.5]	32	4.3 [2.1-6.6]	0.65 [0.41-1.05]	0.26	-1.5 [(-4.3)-1.3]	77,994	28	3.5 [1.6-5.4]	17	2.2 [0.8-3.6]	1.6 [0.84-3.03]	0.40	1.3 [(-1.0)-3.6]	0.95
Ischemic heart disease	77,107	76	10.7 [7.8-13.6]	110	14.4 [10.9-17.9]	0.74 [0.57-0.96]	0.14	-3.7 [(-8.2)-0.9]	78,847	49	6.6 [4.5-8.8]	52	6.3 [4.3-8.3]	1.06 [0.7-1.59]	0.93	0.4 [(-2.6)-3.3]	0.95
Ischemic stroke and TIA	80,205	21	3.1 [1.6-4.6]	37	4.1 [2.4-5.8]	0.75 [0.47-1.2]	0.52	-1.0 [(-3.3)-1.2]	79,482	22	2.8 [1.4-4.1]	36	4.7 [2.8-6.6]	0.59 [0.34-1.04]	0.25	-1.9 [(-4.2)-0.4]	0.95
Loss of appetite	80,442	235	31.9 [26.5-37.4]	287	36.0 [30.1-41.9]	0.89 [0.76-1.04]	0.37	-4.1 [(-12.1)-4.0]	79,270	385	53.0 [45.3-60.7]	429	53.1 [45.4-60.8]	1.0 [0.86-1.15]	1.00	-0.1 [(-11.0)-10.8]	0.95
Lymphadenopathy	80,711	206	29.7 [24.3-35.1]	305	37.5 [31.3-43.7]	0.79 [0.68-0.92]	0.03	-7.8 [(-16.0)-0.5]	79,700	275	38.8 [32.4-45.3]	377	47.3 [39.9-54.7]	0.82 [0.7-0.97]	0.11	-8.4 [(-18.3)-1.4]	0.98
Menstruation abnormalities									42,194	383	98.6 [85.1-112.1]	389	96.5 [83.1-109.9]	1.02 [0.88-1.19]	0.93	2.1 [(-16.9)-21.1]	
Muscle atrophy	81,627	22	2.9 [1.3-4.4]	31	3.7 [1.9-5.4]	0.78 [0.48-1.27]	0.62	-0.8 [(-3.1)-1.5]	81,038	61	7.7 [4.7-10.7]	30	3.9 [2.0-5.8]	1.96 [1.23-3.13]	0.04	3.8 [0.2-7.4]	0.95
Myalgia	79,498	478	64.8 [57.3-72.3]	422	55.6 [48.8-62.4]	1.17 [1.03-1.31]	0.09	9.2 [(-1.0)-19.4]	77,448	809	111.6 [100.9-122.4]	664	87.9 [78.8-97.0]	1.27 [1.14-1.41]	<0.001	23.7 [9.6-37.8]	0.95
Myocarditis	81,708	10	1.27 [(-0.02)-2.57]	4	0.44 [(-0.13)-1.1]	2.91 [0.5-16.97]	0.53	0.8 [(-0.6)-2.3]									
Nausea or vomiting	79,305	438	59.6 [52.2-67.0]	540	68.7 [60.5-76.8]	0.87 [0.77-0.98]	0.11	-9.0 [(-20.0)-2.0]	77,121	798	110.0 [98.4-121.5]	800	105.3 [94.1-116.4]	1.04 [0.94-1.16]	0.69	4.7 [(-11.3)-20.8]	0.95
Palpitations	80,657	344	45.6 [39.4-51.7]	252	30.9 [26.2-35.7]	1.47 [1.26-1.72]	<0.001	14.6 [6.9-22.4]	78,682	671	90.7 [81.1-100.3]	482	61.8 [54.4-69.2]	1.47 [1.3-1.66]	<0.001	28.8 [16.7-40.9]	1.00
Paresthesia	80,374	278	37.5 [32.1-42.9]	297	37.4 [32.0-42.8]	1.0 [0.86-1.17]	1.00	0.1 [(-7.5)-7.7]	79,165	435	59.2 [52.2-66.3]	471	58.8 [51.8-65.8]	1.01 [0.88-1.15]	0.99	0.4 [(-9.5)-10.4]	1.00

Parkinsonism	81,446	4	0.6 [-0.0-1.2]	6	0.9 [0.1-1.7]	0.67 [0.31-1.42]	0.59	-0.3 [(-1.3)-0.7]	80,843	9	1.1 [0.3-2.0]	5	0.8 [0.0-1.7]	1.36 [0.42-4.45]	0.85	0.3 [(-0.9)-1.5]	0.95
Pericarditis	81,088	16	2.4 [0.9-3.8]	17	2.1 [0.8-3.4]	1.12 [0.59-2.13]	0.92	0.2 [(-1.7)-2.2]	80,670	19	2.7 [1.2-4.2]	11	1.3 [0.4-2.2]	2.1 [0.98-4.51]	0.22	1.4 [(-0.4)-3.2]	0.95
Psychosis	79,793	30	3.7 [1.9-5.5]	46	5.6 [3.2-8.0]	0.66 [0.44-0.99]	0.19	-1.9 [(-4.9)-1.1]	79,696	30	4.2 [2.3-6.2]	28	3.3 [1.7-4.9]	1.29 [0.74-2.23]	0.67	0.9 [(-1.6)-3.5]	0.95
Pulmonary disease	78,758	31	4.9 [2.6-7.2]	26	3.0 [1.4-4.7]	1.62 [0.95-2.76]	0.26	-1.0 [(-3.4)-1.3]	78,623	19	2.6 [1.1-4.0]	25	3.6 [1.7-5.5]	0.71 [0.37-1.35]	0.59	-1.1 [(-3.5)-1.3]	0.95
Respiratory disorders	80,795	52	6.8 [3.9-9.7]	26	2.9 [1.4-4.4]	2.36 [1.64-3.39]	<0.001	3.9 [0.7-7.2]	80,210	45	5.7 [3.2-8.2]	18	2.4 [1.0-3.8]	2.36 [1.32-4.25]	0.03	3.3 [0.4-6.2]	1.00
Respiratory failure	81,629	6	0.8 [0.0-1.7]	4	0.5 [-0.1-1.1]	1.67 [0.65-4.28]	0.59	0.3 [(-0.7)-1.4]	81,031	3	0.4 [-0.1-1.0]	8	1.2 [0.2-2.2]	0.35 [0.09-1.39]	0.37	-0.8 [(-1.9)-0.4]	0.95
Rhinorrhea	81,570	32	4.2 [2.2-6.2]	36	4.7 [2.5-6.9]	0.89 [0.56-1.43]	0.88	-0.5 [(-3.5)-2.5]	80,991	35	4.2 [2.2-6.2]	46	5.1 [2.8-7.4]	0.82 [0.52-1.29]	0.69	-0.9 [(-3.9)-2.1]	0.98
Skin rash	78,487	508	71.5 [62.9-80.1]	577	72.8 [64.3-81.4]	0.98 [0.88-1.09]	0.92	-1.3 [(-13.4)-10.8]	77,258	654	93.4 [83.1-103.8]	745	93.4 [83.2-103.6]	1.0 [0.9-1.12]	1.00	0.0 [(-14.5)-14.6]	0.98
Sore throat	80,006	287	35.8 [30.2-41.5]	290	39.3 [33.2-45.5]	0.91 [0.78-1.06]	0.53	-3.5 [(-11.9)-4.9]	78,654	421	54.4 [46.9-61.9]	464	61.4 [53.2-69.7]	0.89 [0.77-1.02]	0.28	-7.0 [(-18.2)-4.2]	0.98
Streptococcal tonsillitis	77,999	675	83.3 [74.1-92.5]	450	66.8 [58.6-75.0]	1.25 [1.13-1.37]	<0.001	16.5 [4.2-28.9]	76,690	814	98.6 [88.2-108.9]	557	86.4 [76.5-96.3]	1.14 [1.02-1.28]	0.15	12.2 [(-2.2)-26.5]	0.95
Tinnitus	80,422	281	38.7 [32.7-44.7]	306	38.8 [32.8-44.8]	1.0 [0.87-1.15]	1.00	-0.1 [(-8.6)-8.4]	79,713	330	45.4 [38.8-51.9]	293	37.0 [31.3-42.7]	1.22 [1.04-1.44]	0.10	8.3 [(-0.4)-17.0]	0.95
Tremor	81,418	70	9.1 [6.2-12.1]	72	9.0 [6.1-11.8]	1.02 [0.76-1.36]	0.98	0.2 [(-3.9)-4.3]	80,822	84	11.0 [7.8-14.3]	71	9.0 [6.1-11.8]	1.23 [0.88-1.71]	0.52	2.0 [(-2.3)-6.4]	0.95
Venous thromboembolism	81,391	77	10.1 [7.3-12.8]	91	11.6 [8.5-14.6]	0.87 [0.68-1.12]	0.58	-1.5 [(-5.6)-2.6]	80,585	134	16.2 [12.6-19.9]	110	16.1 [12.3-19.9]	1.01 [0.77-1.32]	1.00	0.1 [(-5.2)-5.4]	0.95

Visual disturbances	80,694	181	23.1 [18.5-27.6]	191	24.7 [19.8-29.6]	0.93 [0.78-1.12]	0.76	-1.6 [(-8.3)-5.0]	79,749	279	36.7 [30.5-43.0]	253	32.7 [26.9-38.6]	1.12 [0.94-1.34]	0.50	4.0 [(-4.6)-12.5]	0.95
Voice disorder	80,981	213	25.7 [20.5-30.9]	156	22.4 [17.5-27.3]	1.15 [0.96-1.38]	0.37	3.3 [(-3.8)-10.5]	80,138	199	25.5 [20.3-30.7]	191	23.7 [18.8-28.7]	1.07 [0.87-1.33]	0.78	1.8 [(-5.4)-9.0]	0.95
Weakness	77,212	1,442	194.1 [180.4-207.8]	803	115.5 [105.4-125.6]	1.68 [1.56-1.81]	<0.001	78.6 [61.6-95.7]	73,617	2,239	320.6 [301.1-340.2]	1,220	176.3 [163.2-189.4]	1.82 [1.69-1.96]	<0.001	144.3 [120.8-167.8]	0.95
Weight loss	81,036	131	18.0 [14.0-22.0]	187	23.2 [18.6-27.9]	0.78 [0.63-0.95]	0.10	-5.2 [(-11.3)-0.9]	80,199	206	27.8 [22.6-33.0]	220	26.9 [21.9-32.0]	1.03 [0.85-1.26]	0.92	0.9 [(-6.4)-8.1]	0.95

\* Outcomes with 10 and more SARS-CoV-2 positive cases in Table S2b

**Table S5c** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals\*, during Wild-Type and Alpha variant, 180-360 days post PCR test, by sex

Outcome	Male								Female								Sex difference Q-value
	N	SARS-CoV-2 positive		SARS-CoV-2 negative		HR (95% CI)	Q-value	RD/10,000 patients	N	SARS-CoV-2 positive		SARS-CoV-2 negative		HR (95% CI)	Q-value	RD/10,000 patients	
		SARS-CoV-2 positive	Absolute risk/10,000 persons [95%CI]	SARS-CoV-2 negative	Absolute risk/10,000 persons [95%CI]					SARS-CoV-2 positive	Absolute risk/10,000 persons [95%CI]	SARS-CoV-2 negative	Absolute risk/10,000 persons [95%CI]				
Abdominal pain	65,885	1,808	319.3 [299.5-339.1]	2,046	336.2 [315.9-356.5]	0.95 [0.9-1.01]	0.27	-16.9 [(-45.2)-11.4]	59,487	2,810	551.5 [521.7-581.3]	3,058	565.9 [535.5-596.3]	0.97 [0.92-1.03]	0.65	-14.4 [(-57.0)-28.1]	0.95
Anosmia and Dysgeusia	74,736	78	12.2 [8.7-15.7]	30	4.2 [2.4-6.0]	2.9 [1.97-4.29]	<0.001	8.0 [4.1-12.0]	75,441	130	20.5 [15.7-25.2]	53	7.0 [4.7-9.4]	2.92 [2.08-4.1]	<0.001	13.5 [8.2-18.8]	1.00
Anxiety	61,393	213	40.5 [33.2-47.8]	233	37.7 [30.9-44.4]	1.08 [0.91-1.27]	0.69	2.9 [(-7.1)-12.8]	56,631	237	49.9 [41.4-58.4]	287	53.7 [44.9-62.6]	0.93 [0.77-1.11]	0.71	-3.8 [(-16.1)-8.4]	0.95
Appendicitis	70,654	32	4.5 [2.5-6.5]	46	6.9 [4.2-9.7]	0.65 [0.42-1.01]	0.22	-2.4 [(-5.8)-1.0]	71,248	45	7.5 [4.6-10.4]	65	9.6 [6.2-13.0]	0.78 [0.53-1.16]	0.51	-2.1 [(-6.6)-2.4]	0.95
Arthralgia	72,716	467	72.0 [63.6-80.4]	479	67.1 [59.2-75.1]	1.07 [0.95-1.21]	0.56	4.8 [(-6.7)-16.4]	72,210	750	114.8 [103.5-126.1]	658	95.4 [85.5-105.3]	1.2 [1.08-1.34]	0.01	19.4 [4.4-34.4]	0.95
Bloody stool	74,480	99	14.4 [10.3-18.4]	98	14.7 [10.5-18.9]	0.98 [0.77-1.25]	0.98	-0.3 [(-6.1)-5.5]	75,321	93	14.3 [10.4-18.2]	108	14.6 [10.7-18.5]	0.98 [0.73-1.31]	0.98	-0.3 [(-5.9)-5.2]	1.00
Cardiac arrhythmias	70,739	64	9.5 [6.4-12.7]	82	12.3 [8.4-16.1]	0.78 [0.6-1.01]	0.23	-2.7 [(-7.7)-2.2]	71,720	49	7.7 [5.0-10.4]	55	8.2 [5.3-11.0]	0.94 [0.63-1.42]	0.93	-0.5 [(-4.4)-3.5]	0.95
Celiac disease	74,647	57	7.7 [4.9-10.5]	63	8.7 [5.6-11.7]	0.89 [0.64-1.24]	0.78	-1.0 [(-5.1)-3.2]	75,234	64	9.8 [6.4-13.2]	87	12.6 [8.5-16.6]	0.78 [0.55-1.09]	0.39	-2.8 [(-8.1)-2.5]	0.95
Cerebral hemorrhage	74,518	6	1.2 [0.1-2.3]	9	1.2 [0.2-2.3]	1.0 [0.41-2.43]	1.00	-0.0 [(-1.5)-1.5]	75,387	4	0.5 [-0.1-1.1]	6	0.9 [0.0-1.8]	0.57 [0.15-2.09]	0.69	-0.4 [(-1.4)-0.7]	0.95

Chest pain	69,634	1,214	200.7 [185.2-216.2]	1,286	196.2 [181.1-211.3]	1.02 [0.96-1.09]	0.78	4.5 [(-17.1)-26.2]	70,424	1,199	193.8 [179.3-208.4]	1,193	185.5 [171.3-199.8]	1.04 [0.96-1.14]	0.61	8.3 [(-12.1)-28.7]	0.97
Chronic kidney disease	72,860	33	7.4 [4.8-9.9]	33	8.6 [5.6-11.6]	0.86 [0.6-1.23]	0.70	-1.2 [(-5.1)-2.7]	74,321	18	4.6 [2.8-6.5]	9	3.8 [2.1-5.5]	1.2 [0.71-2.02]	0.77	0.8 [(-1.7)-3.3]	0.95
Concentration and memory impairment	74,513	154	23.6 [18.8-28.5]	113	15.8 [12.1-19.5]	1.5 [1.21-1.85]	0.00	7.8 [1.8-13.9]	75,105	253	40.9 [34.0-47.9]	163	23.3 [18.6-28.1]	1.75 [1.42-2.16]	<0.001	17.6 [9.2-26.0]	0.95
Congestive heart failure	74,084	20	2.9 [1.2-4.5]	25	3.4 [1.6-5.1]	0.85 [0.64-1.13]	0.56	-0.5 [(-2.9)-1.9]	75,157	12	1.6 [0.5-2.6]	15	2.7 [1.0-4.3]	0.59 [0.26-1.35]	0.50	-1.1 [(-3.0)-0.9]	0.95
Conjunctivitis	68,592	1,178	195.7 [179.4-212.0]	1,157	189.5 [173.5-205.5]	1.03 [0.96-1.11]	0.67	6.2 [(-16.7)-29.0]	68,839	1,290	216.3 [198.9-233.6]	1,305	212.2 [195.1-229.4]	1.02 [0.94-1.11]	0.88	4.0 [(-20.4)-28.4]	0.98
Convulsions	71,503	39	5.9 [3.0-8.8]	33	4.9 [2.4-7.3]	1.2 [0.82-1.76]	0.64	1.0 [(-2.8)-4.8]	72,770	28	3.9 [1.8-6.0]	24	3.9 [1.7-6.0]	1.02 [0.57-1.82]	1.00	0.1 [(-2.9)-3.1]	0.95
Cough	64,160	1,745	324.7 [302.7-346.6]	1,784	309.4 [288.3-330.5]	1.05 [0.99-1.11]	0.31	15.3 [(-15.2)-45.7]	64,449	2,029	375.2 [351.0-399.4]	2,004	347.0 [324.3-369.8]	1.08 [1.01-1.15]	0.12	28.2 [(-5.0)-61.4]	0.95
Depression	68,003	105	18.4 [13.9-22.8]	107	15.5 [11.6-19.4]	1.18 [0.92-1.51]	0.46	2.8 [(-3.1)-8.8]	64,345	121	22.1 [17.1-27.2]	147	23.0 [17.9-28.1]	0.96 [0.75-1.24]	0.92	-0.9 [(-8.0)-6.3]	0.95
Diabetes Mellitus	69,439	120	18.6 [14.3-22.8]	87	13.9 [10.3-17.5]	1.33 [1.06-1.68]	0.09	4.6 [(-0.9)-10.2]	71,552	89	13.4 [10.0-16.7]	76	11.6 [8.5-14.8]	1.15 [0.83-1.58]	0.69	1.7 [(-2.9)-6.3]	0.95
Diarrhea	74,851	16	2.6 [0.9-4.3]	24	3.0 [1.2-4.8]	0.87 [0.5-1.52]	0.87	-0.4 [(-2.9)-2.1]	75,613	11	1.6 [0.4-2.8]	20	2.8 [1.0-4.5]	0.59 [0.27-1.26]	0.43	-1.1 [(-3.2)-1.0]	0.95
Diseases of the nervous system	65,694	135	23.6 [18.4-28.8]	148	23.8 [18.6-28.9]	0.99 [0.81-1.22]	1.00	-0.2 [(-7.5)-7.1]	61,883	202	35.9 [29.2-42.6]	158	28.0 [22.1-33.8]	1.28 [1.03-1.6]	0.15	7.9 [(-0.9)-16.8]	0.95
Diseases of the pleura	74,403	9	1.35 [(-0.03)-2.74]	12	1.75 [0.03-3.48]	0.77 [0.31-1.88]	1.00	-0.4 [(-2.6)-1.8]									
Dizziness	72,718	546	83.6 [74.6-92.5]	494	74.1 [65.7-82.5]	1.13 [1.01-1.26]	0.17	9.5 [(-2.8)-21.8]	71,278	969	151.5 [138.3-164.7]	861	129.9 [118.0-141.8]	1.17 [1.06-1.29]	0.02	21.6 [3.9-39.4]	0.95

Dyspnea	71,429	964	155.0 [140.6-169.3]	781	118.6 [106.8-130.4]	1.31 [1.21-1.42]	<0.001	36.4 [17.8-55.0]	72,112	1,071	172.2 [156.9-187.5]	859	129.8 [117.3-142.2]	1.33 [1.21-1.46]	<0.001	42.4 [22.7-62.1]	0.98
Encephalitis									75,691	4	0.6 [(-0.1)-1.3]	9	1.4 [0.1-2.7]	0.41 [0.12-1.45]	0.42	-0.8 [(-2.3)-0.7]	
Epilepsy	72,862	24	3.4 [1.4-5.4]	24	3.4 [1.4-5.4]	1.0 [0.62-1.63]	1.00	0.0 [(-2.9)-2.9]	73,810	23	3.3 [1.3-5.2]	14	2.0 [0.6-3.4]	1.64 [0.8-3.39]	0.45	1.3 [(-1.1)-3.7]	0.95
Fatty Liver	67,162	161	26.8 [21.5-32.0]	170	27.1 [21.9-32.4]	0.99 [0.82-1.19]	0.98	-0.4 [(-7.8)-7.1]	69,994	197	32.7 [27.1-38.4]	167	25.6 [20.8-30.5]	1.28 [1.03-1.59]	0.15	7.1 [(-0.4)-14.5]	0.95
Hair loss	74,025	144	23.7 [18.9-28.5]	208	29.2 [23.9-34.4]	0.81 [0.67-0.99]	0.18	-5.5 [(-12.6)-1.7]	73,346	415	67.8 [58.6-77.0]	495	70.3 [61.0-79.6]	0.96 [0.84-1.11]	0.85	-2.5 [(-15.6)-10.6]	0.95
Headache	68,890	1,112	182.6 [168.4-196.7]	1,314	208.8 [193.3-224.3]	0.87 [0.81-0.94]	0.00	-26.3 [(-47.2)-(-5.3)]	65,165	1,793	316.2 [295.4-337.0]	1,867	312.5 [291.8-333.2]	1.01 [0.94-1.08]	0.92	3.7 [(-25.6)-33.0]	0.95
Herpes Simplex	62,519	83	14.1 [9.9-18.3]	106	18.3 [13.2-23.4]	0.77 [0.59-1.0]	0.21	-4.2 [(-10.8)-2.4]	57,059	134	27.1 [20.1-34.1]	122	22.8 [16.6-28.9]	1.19 [0.92-1.55]	0.46	4.3 [(-4.9)-13.6]	0.95
Herpes Zoster	74,368	120	17.7 [13.3-22.1]	149	21.6 [16.6-26.7]	0.82 [0.67-1.0]	0.21	-3.9 [(-10.6)-2.7]	75,069	140	20.9 [16.2-25.7]	181	26.3 [20.7-31.9]	0.8 [0.63-1.01]	0.22	-5.4 [(-12.7)-2.0]	1.00
Hospitalization	68,344	991	160.5 [150.8-170.8]	1,140	179.9 [169.6-190.8]	0.90 [0.82-0.98]	0.07	-19.4 [(-33.9)-(-4.9)]	67,896	1,419	226.8 [215.2-239.0]	1,284	217.2 [205.9-229.1]	1.04 [0.96-1.12]	0.63	9.6 [(-7.1)-26.2]	0.94
Hyperhidrosis	74,862	10	1.5 [0.5-2.6]	10	1.2 [0.4-2.0]	1.28 [0.59-2.78]	0.80	0.3 [(-1.0)-1.7]	75,614	10	1.7 [0.5-2.9]	37	4.5 [2.6-6.5]	0.38 [0.18-0.8]	0.08	-2.8 [(-5.1)-(-0.5)]	0.95
Hyperreactive Airway Disease	42,794	181	49.0 [38.5-59.5]	148	38.7 [30.0-47.5]	1.26 [1.05-1.53]	0.10	10.2 [(-3.4)-23.9]	46,083	172	41.2 [32.3-50.0]	154	35.9 [27.8-43.9]	1.15 [0.91-1.45]	0.54	5.3 [(-6.7)-17.2]	0.95
Hypertension	62,743	124	21.9 [17.1-26.8]	120	19.8 [15.3-24.3]	1.11 [0.89-1.38]	0.68	2.1 [(-4.5)-8.7]	64,863	113	18.8 [14.6-23.1]	83	13.5 [10.0-17.0]	1.4 [1.04-1.88]	0.15	5.3 [(-0.2)-10.9]	0.95
Insomnia	74,854	24	3.6 [1.4-5.9]	26	3.9 [1.5-6.2]	0.93 [0.66-1.33]	0.92	-0.3 [(-3.5)-3.0]	75,668	13	2.5 [0.7-4.2]	16	2.1 [0.7-3.6]	1.16 [0.54-2.48]	0.91	0.3 [(-1.9)-2.6]	0.95

Invasive pneumococcal	71,654	28	4.1 [1.9-6.2]	29	4.0 [1.9-6.1]	1.01 [0.66-1.54]	1.00	0.0 [(-3.0)-3.1]	72,774	35	5.0 [2.5-7.4]	28	4.6 [2.1-7.0]	1.08 [0.63-1.87]	0.93	0.4 [(-3.1)-3.9]	1.00
Ischemic heart disease	70,625	80	12.1 [8.6-15.7]	111	16.7 [12.3-21.1]	0.73 [0.56-0.94]	0.11	-4.5 [(-10.2)-1.1]	73,596	46	6.8 [4.5-9.2]	54	7.5 [5.0-10.0]	0.91 [0.61-1.37]	0.88	-0.7 [(-4.1)-2.8]	0.95
Ischemic stroke and TIA	73,507	30	4.4 [2.5-6.3]	27	3.8 [2.1-5.5]	1.17 [0.75-1.83]	0.78	0.6 [(-1.9)-3.2]	74,171	24	3.2 [1.7-4.6]	26	3.8 [2.0-5.6]	0.83 [0.46-1.51]	0.80	-0.6 [(-3.0)-1.7]	0.95
Loss of appetite	73,740	260	41.6 [34.7-48.6]	306	43.3 [36.2-50.4]	0.96 [0.83-1.11]	0.85	-1.7 [(-11.7)-8.2]	73,966	334	52.4 [44.3-60.5]	404	56.4 [47.9-64.8]	0.93 [0.8-1.08]	0.65	-4.0 [(-15.7)-7.7]	0.98
Lymphadenopathy	73,984	223	36.7 [30.2-43.3]	266	37.1 [30.7-43.5]	0.99 [0.84-1.17]	0.99	-0.4 [(-9.5)-8.7]	74,376	278	43.4 [36.2-50.5]	392	53.8 [45.5-62.0]	0.81 [0.69-0.95]	0.07	-10.4 [(-21.3)-0.5]	0.95
Menstruation abnormalities									39,202	346	102.9 [87.7-118.1]	386	111 [95-127]	0.93 [0.79-1.08]	0.64	-8.1 [(-30.1)-14.0]	
Muscle atrophy	74,822	24	3.6 [1.8-5.5]	34	4.9 [2.6-7.2]	0.74 [0.5-1.08]	0.34	-1.3 [(-4.2)-1.7]	75,623	47	6.9 [4.1-9.6]	27	4.5 [2.3-6.7]	1.52 [0.91-2.53]	0.33	2.3 [(-1.2)-5.9]	0.95
Myalgia	72,851	441	68.0 [59.8-76.1]	465	69.2 [61.0-77.4]	0.98 [0.87-1.11]	0.93	-1.2 [(-12.8)-10.3]	72,242	759	118.7 [107.2-130.1]	719	105.7 [95.1-116.4]	1.12 [1.01-1.25]	0.17	12.9 [(-2.7)-28.6]	0.95
Myocarditis	74,891	10	1.71 [0.22-3.21]	7	0.87 [(-0.05)-1.79]	1.96 [0.6-6.44]	0.56	0.8 [(-0.9)-2.6]									
Nausea or vomiting	72,670	499	81.5 [71.9-91.0]	556	81.3 [72.0-90.7]	1.0 [0.9-1.12]	1.00	0.1 [(-13.2)-13.5]	71,965	872	139.6 [125.7-153.5]	987	150.1 [135.4-164.8]	0.93 [0.84-1.02]	0.38	-10.5 [(-30.7)-9.7]	0.95
Palpitations	73,927	251	37.3 [31.4-43.1]	247	33.9 [28.5-39.2]	1.1 [0.93-1.3]	0.56	3.4 [(-4.5)-11.3]	73,413	582	87.8 [77.7-98.0]	526	76.1 [67.0-85.3]	1.15 [1.02-1.31]	0.14	11.7 [(-2.0)-25.4]	0.95
Paresthesia	73,658	277	42.5 [36.3-48.7]	356	48.3 [41.8-54.9]	0.88 [0.76-1.01]	0.26	-5.9 [(-14.9)-3.2]	73,871	434	66.8 [58.7-74.8]	533	75.5 [66.8-84.2]	0.88 [0.77-1.01]	0.25	-8.8 [(-20.6)-3.1]	1.00
Parkinsonism	74,659	10	1.4 [0.4-2.5]	9	1.4 [0.3-2.5]	1.05 [0.41-2.69]	0.99	0.1 [(-1.5)-1.6]	75,450	4	0.7 [(-0.1)-1.5]	6	1.1 [0.1-2.2]	0.62 [0.16-2.4]	0.77	-0.4 [(-1.7)-0.8]	0.95

Pericarditis	74,32 2	15	2.1 [0.8- 3.4]	18	2.3 [1.0- 3.7]	0.89 [0.5- 1.58]	0.91	-0.3 [(-2.1)- 1.6]	75,27 0	17	2.7 [1.2- 4.2]	8	1.1 [0.2- 2.0]	2.33 [0.97- 5.59]	0.22	1.5 [(-0.2)- 3.3]	0.95
Psychosis	73,14 0	38	4.8 [2.6- 7.0]	45	6.8 [3.9- 9.7]	0.71 [0.49- 1.01]	0.23	-2.0 [(-5.7)- 1.7]	74,38 2	17	2.3 [1.0- 3.7]	28	4.1 [2.1- 6.2]	0.56 [0.3- 1.07]	0.26	-1.8 [(-4.3)- 0.7]	0.95
Pulmonary disease	72,17 9	35	5.5 [3.0- 8.0]	31	4.5 [2.4- 6.6]	1.22 [0.82- 1.81]	0.63	1.0 [(-2.3)- 4.3]	73,33 5	23	4.0 [2.0- 6.0]	40	5.4 [3.1- 7.7]	0.74 [0.43- 1.26]	0.56	-1.4 [(-4.5)- 1.7]	0.95
Respiratory disorders	74,07 1	13	1.7 [0.4- 3.1]	17	2.8 [0.8- 4.7]	0.63 [0.36- 1.11]	0.33	-1.0 [(-3.4)- 1.4]	74,86 6	17	2.7 [0.9- 4.6]	18	2.7 [0.9- 4.6]	1.01 [0.49- 2.06]	1.00	0.0 [(-2.6)- 2.6]	0.95
Respiratory failure	74,82 3	5	0.67 [(- 0.11)- 1.46]	9	1.5 [0.07- 2.94]	0.45 [0.07- 2.75]	0.69	-0.8 [(-2.5)- 0.8]									
Rhinorrhea	74,77 2	26	3.9 [1.9- 5.9]	35	4.8 [2.5- 7.1]	0.81 [0.5- 1.32]	0.69	-0.9 [(-4.0)- 2.2]	75,57 8	36	5.9 [3.1- 8.7]	34	4.6 [2.4- 6.9]	1.27 [0.78- 2.08]	0.63	1.3 [(-2.3)- 4.8]	0.95
Skin rash	71,88 6	462	76.3 [66.6- 85.9]	535	78.1 [68.5- 87.7]	0.98 [0.87- 1.09]	0.90	-1.9 [(-15.5)- 11.8]	72,05 8	627	103.7 [91.8- 115.6]	686	101.3 [89.7- 112.9]	1.02 [0.91- 1.15]	0.90	2.4 [(-14.3)- 19.0]	0.95
Sore throat	73,34 3	318	48.5 [41.2- 55.9]	251	38.7 [32.4- 45.0]	1.25 [1.08- 1.46]	0.03	9.8 [0.1-19.5]	73,42 6	479	72.4 [62.8- 82.0]	487	76.5 [66.4- 86.7]	0.95 [0.83- 1.08]	0.70	-4.1 [(-18.1)- 9.8]	0.95
Streptococcal tonsillitis	71,52 0	978	150.3 [136.2- 164.3]	729	131.6 [118.4- 144.8]	1.14 [1.06- 1.23]	0.01	18.7 [(-0.6)- 37.9]	71,58 3	1,109	171.3 [155.9- 186.8]	826	150.2 [135.7- 164.7]	1.14 [1.03- 1.26]	0.07	21.1 [(-0.1)- 42.3]	1.00
Tinnitus	73,69 3	275	42.4 [35.6- 49.2]	351	48.1 [40.9- 55.3]	0.88 [0.77- 1.01]	0.26	-5.7 [(-15.6)- 4.2]	74,36 1	272	41.9 [35.4- 48.5]	314	42.9 [36.4- 49.5]	0.98 [0.82- 1.16]	0.93	-1.0 [(-10.3)- 8.3]	0.95
Tremor	74,62 5	63	8.7 [5.9- 11.5]	85	12.1 [8.5- 15.7]	0.71 [0.53- 0.96]	0.14	-3.5 [(-8.0)- 1.1]	75,41 9	87	12.7 [9.1- 16.3]	79	11.2 [7.9- 14.5]	1.14 [0.82- 1.57]	0.72	1.5 [(-3.4)- 6.4]	0.95
Venous thromboemb olism	74,60 2	66	9.5 [6.7- 12.2]	73	10.6 [7.6- 13.7]	0.89 [0.67- 1.19]	0.73	-1.2 [(-5.3)- 3.0]	75,20 1	132	17.9 [13.9- 22.0]	109	17.0 [12.9- 21.1]	1.06 [0.8- 1.39]	0.91	1.0 [(-4.8)- 6.7]	0.95
Visual disturbances	73,96 0	198	30.3 [24.5- 36.1]	220	31.4 [25.5- 37.4]	0.96 [0.82- 1.14]	0.90	-1.1 [(-9.4)- 7.2]	74,40 9	275	40.8 [33.8- 47.7]	280	41.7 [34.5- 48.9]	0.98 [0.82- 1.17]	0.93	-1.0 [(-11.0)- 9.1]	1.00



Voice disorder	74,226	219	30.0 [23.9-36.0]	137	22.7 [17.5-27.9]	1.32 [1.1-1.59]	0.03	7.3 [(-0.7)-15.3]	74,790	224	33.6 [27.1-40.2]	258	39.0 [31.6-46.4]	0.86 [0.71-1.04]	0.37	-5.4 [(-15.2)-4.5]	0.95
Weakness	70,843	1,069	160.1 [147.0-173.1]	761	119.8 [108.8-130.9]	1.34 [1.23-1.45]	<0.001	40.2 [23.1-57.3]	68,738	1,737	276.2 [257.2-295.2]	1,346	221.8 [205.3-238.4]	1.25 [1.15-1.34]	<0.001	54.4 [29.1-79.6]	0.95
Weight loss	74,290	141	22.7 [17.8-27.7]	188	26.3 [20.9-31.6]	0.87 [0.72-1.05]	0.37	-3.5 [(-10.8)-3.8]	74,844	169	25.7 [20.5-30.9]	220	29.7 [24.0-35.4]	0.87 [0.7-1.07]	0.45	-4.0 [(-11.7)-3.7]	1.00

\* Outcomes with 10 and more SARS-CoV-2 positive cases in Table S2c

**Table S5d**– Sex heterogeneity in the association between SARS-CoV-2 and post-acute health outcomes in unvaccinated individuals during Wild-Type and Alpha variants 30-180 days post PCR test.

Outcome	Interaction p-value	Interaction q-value
Anosmia and Dysgeusia	0.73	0.88
Chest pain	0.3	0.65
Concentration and memory impairment	0.6	0.74
Cough	0.35	0.65
Dizziness	0.07	0.22
Dyspnea	0.06	0.22
Hair loss	<0.001	<0.001
Hypertension	0.19	0.51
Lymphadenopathy	0.83	0.93
Muscle atrophy	0.07	0.22
Myalgia	0.47	0.67
Palpitations	0.97	1.00
Respiratory disorders	1.00	1.00
Streptococcal tonsillitis	0.44	0.67
Weakness	0.32	0.65

\*For significant outcomes found in the sex analysis 30-180 days post PCR test.

**Table S5e**– Sex heterogeneity in the association between SARS-CoV-2 and post-acute health outcomes in unvaccinated individuals during Wild-Type and Alpha variants 180-360 days post PCR test.

Outcome	Interaction p-value	Interaction q-value
Anosmia and Dysgeusia	0.99	1.00
Arthralgia	0.34	0.65
Concentration and memory impairment	0.48	0.67
Dizziness	0.76	0.89
Dyspnea	0.87	0.95
Headache	0.05	0.22
Sore throat	0.06	0.22
Streptococcal tonsillitis	0.99	1.00
Voice disorder	0.03	0.16

\*For significant outcomes found in the sex analysis 180-360 days post pct test.

## Analysis by SARS-CoV-2 variants: Wild-Type vs. Alpha

**Table S6a** - Characteristics of the sub cohort of SARS-CoV-2 Wild-Type variant vs. Alpha variant, unvaccinated individuals, matched by age and sex

Characteristics	Wild-Type variant		Alpha variant	
	SARS-CoV-2 positive individuals (%) (n= 66,207)	SARS-CoV-2 negative individuals (%) (n= 66,207)	SARS-CoV-2 positive individuals (%) (n= 66,207)	SARS-CoV-2 negative individuals (%) (n= 66,207)
Age, Median (IQR) yr	27 (16-45)	28 (17-46)	27 (16-45)	27 (16-46)
Age group				
0-4 yr	3,453 (5.2%)	3,453 (5.2%)	3,453 (5.2%)	3,453 (5.2%)
5-11 yr	6,734 (10.2%)	6,734 (10.2%)	6,734 (10.2%)	6,734 (10.2%)
12-18 yr	10,689 (16.1%)	10,689 (16.1%)	10,689 (16.1%)	10,689 (16.1%)
19-40 yr	24,784 (37.4%)	24,784 (37.4%)	24,784 (37.4%)	24,784 (37.4%)
41-60 yr	16,098 (24.3%)	16,098 (24.3%)	16,098 (24.3%)	16,098 (24.3%)
>60 yr	4,449 (6.7%)	4,449 (6.7%)	4,449 (6.7%)	4,449 (6.7%)
Sex				
Female	32,300 (48.8%)	32,300 (48.8%)	32,300 (48.8%)	32,300 (48.8%)
Male	33,907 (51.2%)	33,907 (51.2%)	33,907 (51.2%)	33,907 (51.2%)
Dominant strain during positive /negative test				
Wild-Type	66,207 (100%)	66,207 (100%)	0 (0%)	0 (0%)
Alpha	0 (0%)	0 (0%)	66,207 (100%)	66,207 (100%)
Delta	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Vaccine status				
Unvaccinated	66,207 (100%)	66,207 (100%)	66,207 (100%)	66,207 (100%)
One Vaccine dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Two Vaccine doses	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Booster dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)

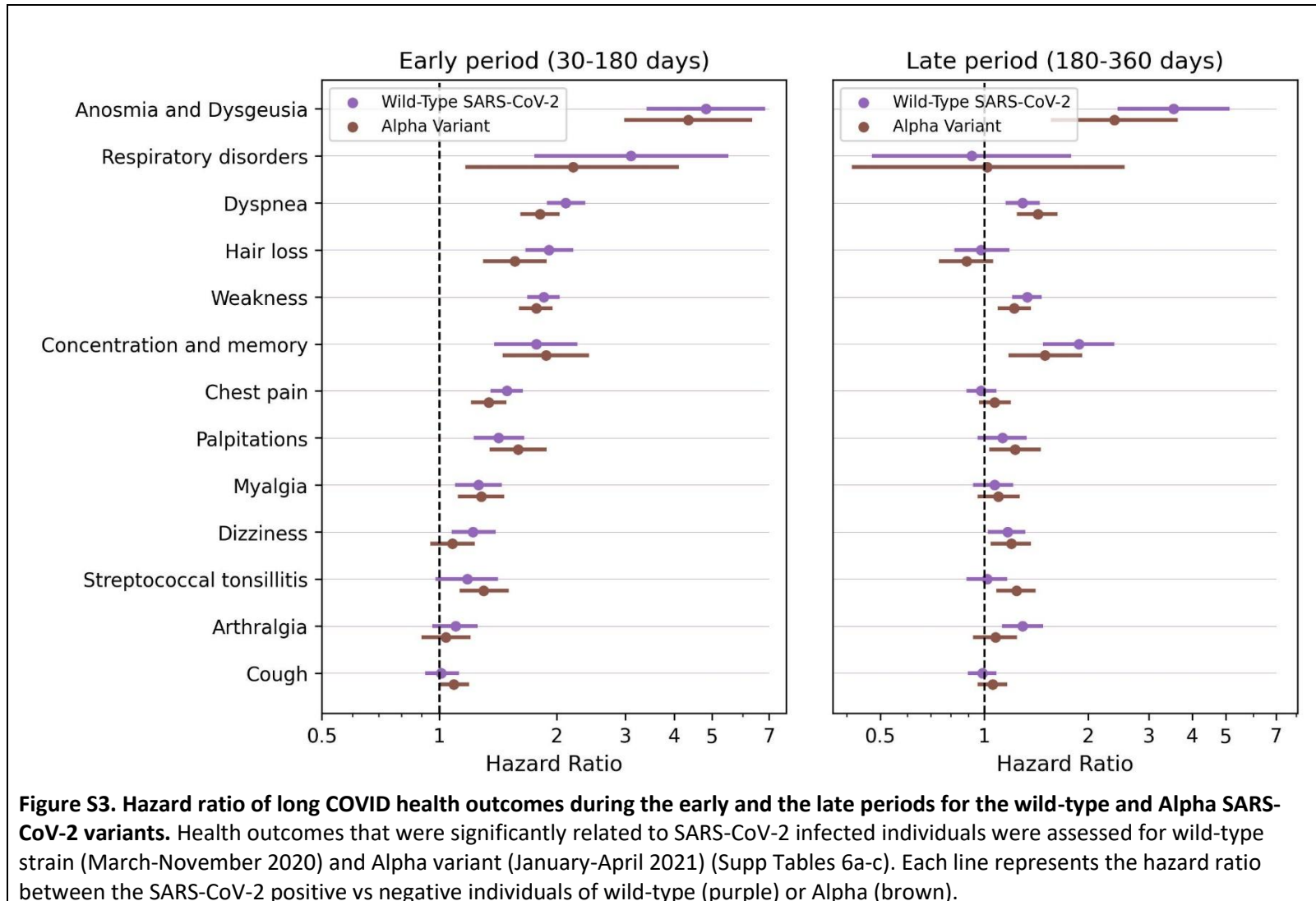
**Table S6b** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals, 30-180 days post PCR test, by Wild-Type vs Alpha variants

Outcome	N	Wild-Type Variant				Alpha Variant				Variant difference Q-value
		SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	
Anosmia and Dysgeusia	65,376	172	42	4.83 [3.44-6.77]	<0.001	136	40	4.34 [3.01-6.27]	<0.001	0.85
Arthralgia	60,573	486	488	1.1 [0.97-1.24]	0.2	448	421	1.04 [0.91-1.19]	0.65	0.77
Chest pain	56,372	1,177	891	1.49 [1.37-1.62]	<0.001	1,054	811	1.34 [1.22-1.47]	<0.001	0.46
Concentration and memory impairment	64,876	176	116	1.77 [1.4-2.23]	<0.001	175	97	1.88 [1.47-2.39]	<0.001	0.85
Cough	48,743	1,006	996	1.01 [0.93-1.11]	0.83	1,278	1,164	1.09 [1.01-1.18]	0.04	0.51
Dizziness	59,779	570	512	1.22 [1.09-1.38]	0.002	552	502	1.08 [0.96-1.22]	0.28	0.5
Dyspnea	60,065	1,080	568	2.11 [1.91-2.34]	<0.001	935	534	1.81 [1.63-2.01]	<0.001	0.46
Hair loss	62,929	598	374	1.91 [1.68-2.18]	<0.001	314	221	1.56 [1.31-1.86]	<0.001	0.46
Myalgia	60,720	536	460	1.26 [1.11-1.43]	<0.001	547	435	1.28 [1.13-1.45]	<0.001	0.92
Palpitations	62,799	455	360	1.42 [1.24-1.63]	<0.001	402	263	1.59 [1.36-1.86]	<0.001	0.66
Respiratory disorders	64,221	47	17	3.1 [1.77-5.45]	<0.001	34	17	2.2 [1.18-4.07]	0.02	0.74
Streptococcal tonsillitis	59,639	324	214	1.18 [0.99-1.4]	0.1	577	325	1.3 [1.14-1.49]	<0.001	0.74
Weakness	55,974	1,531	823	1.85 [1.7-2.01]	<0.001	1,339	735	1.77 [1.62-1.93]	<0.001	0.75

**Table S6c** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals, 180-360 days post PCR test, by Wild-Type vs Alpha variants

Outcome	N	Wild-Type Variant				Alpha Variant				Variant difference Q-value
		SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	
Anosmia and Dysgeusia	59,173	116	36	3.53 [2.46-5.07]	<0.001	69	36	2.38 [1.58-3.59]	<0.001	0.41
Arthralgia	54,762	557	485	1.29 [1.14-1.46]	<0.001	441	435	1.08 [0.94-1.23]	0.33	0.41
Chest pain	50,885	914	1,009	0.98 [0.9-1.07]	0.78	939	920	1.07 [0.98-1.18]	0.18	0.41
Concentration and memory impairment	58,718	191	124	1.88 [1.5-2.35]	<0.001	159	112	1.5 [1.19-1.9]	0.001	0.41
Cough	44,094	1,171	1,260	0.99 [0.91-1.07]	0.83	1,167	1,123	1.06 [0.97-1.15]	0.26	0.48
Dizziness	54,042	643	604	1.17 [1.04-1.3]	0.01	572	474	1.2 [1.06-1.35]	0.008	0.9
Dyspnea	54,299	796	654	1.29 [1.17-1.43]	<0.001	633	464	1.43 [1.26-1.61]	<0.001	0.41
Hair loss	56,930	226	279	0.98 [0.83-1.17]	0.88	219	290	0.89 [0.75-1.05]	0.23	0.63
Myalgia	54,853	509	528	1.07 [0.94-1.2]	0.36	469	440	1.1 [0.97-1.25]	0.2	0.9
Palpitations	56,815	343	339	1.13 [0.97-1.31]	0.17	338	278	1.23 [1.05-1.44]	0.02	0.63
Respiratory disorders	58,144	17	17	0.92 [0.48-1.76]	0.85	9	11	1.02 [0.42-2.52]	0.96	0.91
Streptococcal tonsillitis	54,075	626	443	1.02 [0.9-1.15]	0.83	662	467	1.24 [1.1-1.39]	<0.001	0.38
Weakness	50,676	1,214	898	1.33 [1.22-1.45]	<0.001	921	723	1.22 [1.11-1.35]	<0.001	0.41

**Figure S3 - Hazard ratio of long COVID health outcomes during the early and the late periods for the wild-type and Alpha SARS-CoV-2**



## Analysis by SARS-CoV-2 variants: Wild-Type and Alpha vs. Delta

**Table S7a** - Characteristics of the sub cohort of SARS-CoV-2 Wild-Type/Alpha variant vs. Delta variant, unvaccinated individuals, matched by age and sex

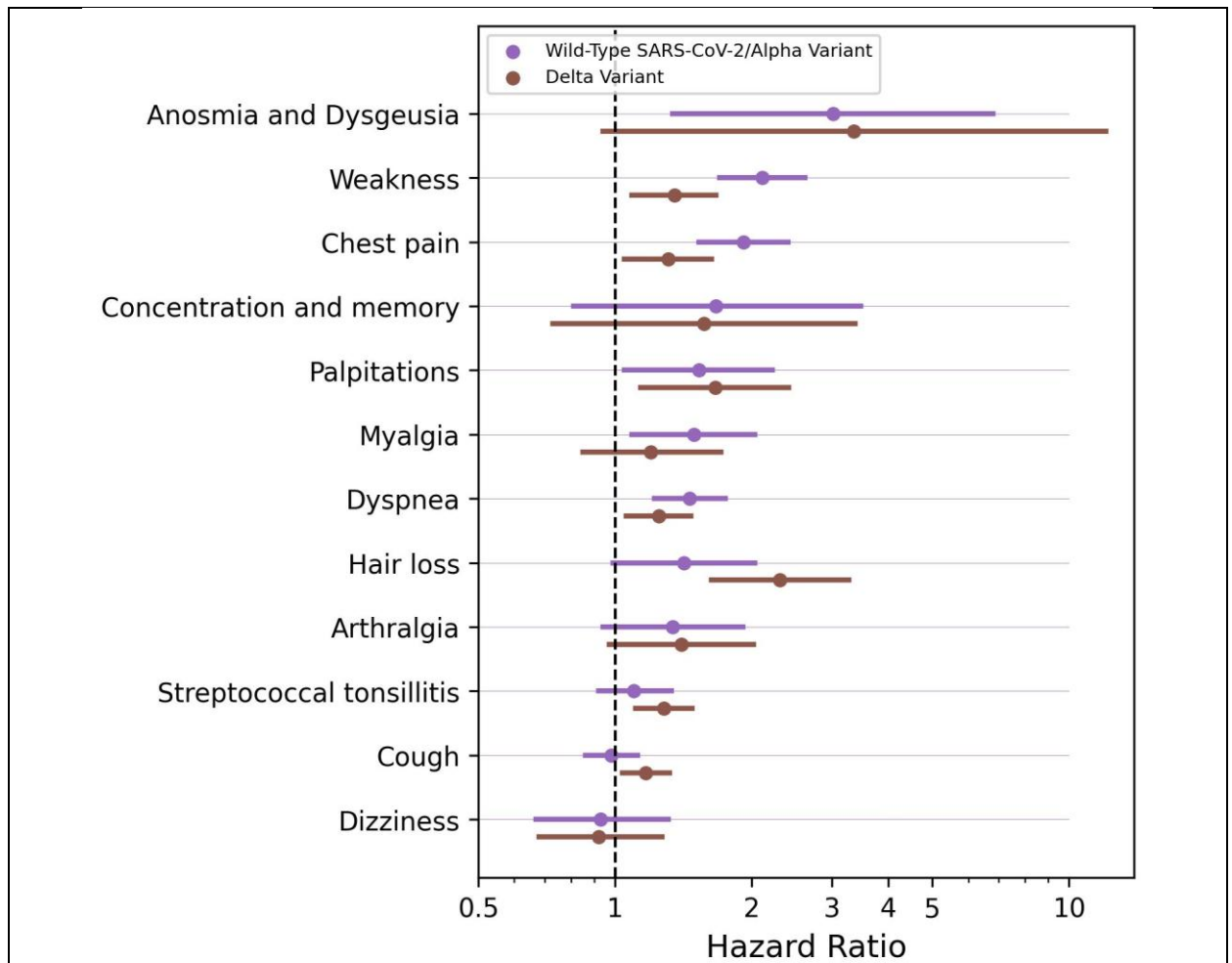
Characteristics	Wild-Type/Alpha variants		Delta variant	
	SARS-CoV-2 positive individuals (%) (n= 51,562)	SARS-CoV-2 negative individuals (%) (n= 51,562)	SARS-CoV-2 positive individuals (%) (n= 51,562)	SARS-CoV-2 negative individuals (%) (n= 51,562)
Age , Median (IQR) yr	9 (5-15)	10 (6-15)	9 (5-15)	10 (6-15)
Age group				
0-4 yr	10,330 (20.0%)	10,330 (20.0%)	10,330 (20.0%)	10,330 (20.0%)
5-11 yr	22,362 (43.4%)	22,362 (43.4%)	22,362 (43.4%)	22,362 (43.4%)
12-18 yr	8,440 (16.4%)	8,440 (16.4%)	8,440 (16.4%)	8,440 (16.4%)
19-40 yr	6,146 (11.9%)	6,146 (11.9%)	6,146 (11.9%)	6,146 (11.9%)
41-60 yr	3,433 (6.7%)	3,433 (6.7%)	3,433 (6.7%)	3,433 (6.7%)
>60 yr	851 (1.7%)	851 (1.7%)	851 (1.7%)	851 (1.7%)
Sex				
Female	25,949 (50.3%)	25,949 (50.3%)	25,949 (50.3%)	25,949 (50.3%)
Male	25,613 (49.7%)	25,613 (49.7%)	25,613 (49.7%)	25,613 (49.7%)
Dominant strain during positive /negative test				
Wild-Type	20,073 (38.9%)	20,073 (38.9%)	0 (0%)	0 (0%)
Alpha	31,489 (61.1%)	31,489 (61.1%)	0 (0%)	0 (0%)
Delta	0 (0%)	0 (0%)	51,562 (100%)	51,562 (100%)
Vaccine status				
Unvaccinated	51,562 (100%)	51,562 (100%)	51,562 (100%)	51,562 (100%)
One Vaccine dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Two Vaccine doses	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Booster dose	0 (0%)	0 (0%)	0 (0%)	0 (0%)



**Table S7b** - Association of health outcomes with SARS-CoV-2 infection in unvaccinated individuals, 30-90 days post PCR test, by Wild-Type/Alpha variants vs. Delta variant

Outcome	N	Wild-Type/Alpha variants				Delta variant				Variant difference Q-value
		SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	SARS-CoV-2 positive	SARS-CoV-2 negative	HR (95% CI)	Q-value	
Anosmia and Dysgeusia	50,846	21	8	3.02 [1.34-6.79]	0.03	10	3	3.36 [0.94-12.04]	0.11	0.96
Arthralgia	49,480	69	56	1.34 [0.94-1.91]	0.16	68	50	1.40 [0.97-2.02]	0.11	0.43
Chest pain	48,095	205	126	1.92 [1.53-2.40]	<0.001	184	136	1.31 [1.05-1.63]	0.04	0.96
Concentration and memory impairment	50,689	17	12	1.67 [0.81-3.48]	0.24	17	10	1.57 [0.73-3.38]	0.34	0.96
Cough	35,129	427	439	0.98 [0.86-1.12]	0.77	568	486	1.17 [1.04-1.32]	0.03	0.96
Dizziness	49,239	64	64	0.93 [0.67-1.31]	0.72	75	82	0.92 [0.68-1.27]	0.67	0.96
Dyspnea	45,038	280	197	1.46 [1.22-1.75]	<0.001	316	244	1.25 [1.06-1.47]	0.03	0.19
Hair loss	49,994	67	58	1.42 [0.99-2.03]	0.1	103	47	2.31 [1.63-3.27]	<0.001	0.96
Myalgia	49,332	90	70	1.49 [1.09-2.03]	0.03	68	58	1.2 [0.85-1.71]	0.37	0.43
Palpitations	50,004	70	49	1.53 [1.05-2.22]	0.05	73	45	1.66 [1.14-2.41]	0.03	0.59
Respiratory disorders	50,176	14	3			5	2			
Streptococcal tonsillitis	43,732	252	183	1.1 [0.92-1.33]	0.37	431	328	1.28 [1.11-1.48]	0.004	0.19
Weakness	47,942	261	115	2.11 [1.7-2.62]	<0.001	209	134	1.35 [1.09-1.67]	0.03	0.12

**Figure S4-** Hazard ratio of long COVID health outcomes 30-90 days post-infection for the wild-type/Alpha and Delta SARS-CoV-2 variants



**Figure S4. Hazard ratio of long COVID health outcomes 30-90 days post-infection for the wild-type/Alpha and Delta SARS-CoV-2 variants.**

Health outcomes that were significantly related to SARS-CoV-2 infected individuals were assessed for wild-type/Alpha (March 2020-April 2021) and Delta (July-October 2021) variants (Supp Tables 7a-b).

## Analysis of vaccinated vs. unvaccinated individuals, including old vaccination status (more than three months)

Population: SARS-CoV-2 infected individuals, vaccinated vs. Unvaccinated, from all age groups, during Alpha and Delta variants, with additional match between vaccinated and unvaccinated patients by age and gender.

**\*Patients were considered vaccinated if infection occurred one week after the second dose or after the booster dose.**

**Table S8a** - Characteristics of the sub cohort of SARS-CoV-2 positive individuals, vaccinated (including old status) vs. unvaccinated, during Alpha and Delta variants, with additional match between vaccinated and unvaccinated patients by age and sex

Characteristics	Vaccinated individuals (%) (n=13,348)	Unvaccinated individuals (%) (n=13,348)
Age, Median (IQR) yr	34 (24-47)	34 (24-47)
Age group		
0-4 yr	0 (0%)	0 (0%)
5-11 yr	0 (0%)	0 (0%)
12-18 yr	2,005 (15.0%)	2,005 (15.0%)
19-40 yr	6,327 (47.4%)	6,327 (47.4%)
41_60 yr	3,869 (29.0%)	3,869 (29.0%)
>60 yr	1,147 (8.6%)	1,147 (8.6%)
Sex		
Female	7,458 (55.9%)	7,458 (55.9%)
Male	5,890 (44.1%)	5,890 (44.1%)
Dominant strain during positive /negative test		
Wild-Type	0 (0%)	0 (0%)
Alpha	995 (7.5%)	995 (7.5%)
Delta	12,353 (92.5%)	12,353 (92.5%)
Vaccine status		
Unvaccinated	0 (0%)	13,348 (100%)
One Vaccine dose	0 (0%)	0 (0%)
Two Vaccine doses	12,206 (91.4%)	0 (0%)
Booster dose	1,142 (8.6%)	0 (0%)

**Table S8b** - Association of health outcomes with SARS-CoV-2 infection in infected individuals, 30-90 days post PCR positive test, during Alpha and Delta variants period, by vaccinated (including old status) vs. unvaccinated status

Outcome	Unvaccinated			Vaccinated			HR [95%CI]	Q-value	Risk Diff/10,000 persons
	N	events	Absolute risk/10,000 persons [95%CI]	N	events	Absolute risk/10,000 persons [95%CI]			
Abdominal pain	8,913	151	173.2 [147.9-202.8]	8,913	145	162.9 [138.6-191.4]	1.07 [0.86-1.35]	0.97	10.3 [(-27.8)-48.6]
Anosmia and Dysgeusia	13,065	10	7.7 [4.1-14.4]	13,065	11	7.9 [4.3-14.6]	0.97 [0.41-2.32]	0.97	-0.2 [(-7.8)-7.4]
Anxiety	6,645	4	7.2 [2.9-17.7]	6,645	8	10.9 [5.2-22.6]	0.66 [0.21-2.11]	0.97	-3.7 [(-16.1)-8.3]
Arthralgia	11,985	43	37.3 [27.7-50.1]	11,985	45	36.5 [27.2-49.1]	1.02 [0.67-1.55]	0.97	0.7 [(-15.0)-16.6]
Bloody stool	12,990	10	10.9 [6.4-18.4]	12,990	9	6.6 [3.4-12.9]	1.66 [0.71-3.88]	0.89	4.3 [(-3.4)-12.5]
Cardiac arrhythmias	11,458	6	4.7 [2.0-11.0]	11,458	6	4.1 [1.7-10.2]	1.31 [0.39-4.37]	0.97	0.6 [(-6.0)-7.3]
Celiac disease	13,051	5	3.4 [1.3-8.6]	13,051	5	3.4 [1.3-8.6]	0.99 [0.26-3.75]	0.99	-0.0 [(-5.6)-5.6]
Chest pain	11,131	104	97.4 [80.6-117.6]	11,131	120	100.5 [83.6-120.9]	0.96 [0.74-1.25]	0.97	-3.1 [(-29.5)-23.2]
Concentration and memory impairment	12,896	14	9.8 [5.6-17.1]	12,896	27	21.1 [14.5-30.8]	0.49 [0.26-0.95]	0.24	-11.3 [(-21.8)-(-1.5)]
Conjunctivitis	11,719	45	41.8 [31.5-55.4]	11,719	59	47.8 [36.8-62.1]	0.86 [0.58-1.26]	0.97	-6.0 [(-23.6)-11.5]
Cough	11,204	118	106.0 [88.5-126.9]	11,204	157	133.2 [113.6-156.2]	0.81 [0.64-1.03]	0.43	-27.2 [(-56.1)-1.5]
Depression	8,915	10	16.2 [9.7-27.3]	8,915	7	7.5 [3.5-16.0]	2.18 [0.87-5.48]	0.43	8.8 [(-2.0)-20.5]
Diabetes Mellitus	11,431	5	4.1 [1.6-10.2]	11,431	7	5.1 [2.3-11.5]	0.71 [0.22-2.34]	0.97	-1.0 [(-7.9)-5.7]
Diseases of the nervous system	8,701	6	7.3 [3.4-16.0]	8,701	6	6.1 [2.6-14.3]	1.2 [0.38-3.83]	0.97	1.2 [(-7.9)-10.6]
Dizziness	11,782	59	51.0 [39.5-65.8]	11,782	70	58.8 [46.5-74.4]	0.9 [0.64-1.28]	0.97	-7.8 [(-27.2)-11.4]
Dyspnea	12,303	110	94.2 [78.4-113.0]	12,303	75	58.5 [46.5-73.7]	1.58 [1.18-2.12]	0.04	35.6 [13.8-58.0]
Fatty Liver	10,474	10	12.8 [7.5-22.0]	10,474	8	8.7 [4.6-16.7]	1.47 [0.63-3.42]	0.97	4.1 [(-5.5)-14.2]
Hair loss	12,395	75	56.0 [44.1-70.9]	12,395	48	38.5 [29.0-51.1]	1.56 [1.09-2.25]	0.16	17.5 [0.2-35.2]
Headache	10,095	99	99.4 [81.6-121.0]	10,095	111	109.5 [90.9-131.8]	0.93 [0.71-1.22]	0.97	-10.1 [(-38.6)-18.4]
Herpes Simplex	7,477	4	4.1 [1.3-12.7]	7,477	6	6.8 [2.8-16.2]	0.61 [0.15-2.54]	0.97	-2.7 [(-12.5)-6.8]
Herpes Zoster	12,896	8	6.2 [3.1-12.5]	12,896	8	6.5 [3.3-12.8]	0.89 [0.34-2.32]	0.97	-0.3 [(-7.3)-6.8]
Hypertension	9,503	4	4.2 [1.6-11.3]	9,503	7	6.7 [3.1-14.5]	0.63 [0.18-2.22]	0.97	-2.4 [(-10.7)-5.5]
Ischemic heart disease	11,994	5	4.3 [1.8-10.3]	11,994	7	4.7 [2.1-10.8]	0.91 [0.27-3.01]	0.97	-0.4 [(-7.0)-6.1]
Loss of appetite	12,566	30	22.2 [15.3-32.2]	12,566	14	10.0 [5.8-17.4]	2.34 [1.21-4.54]	0.16	12.2 [2.0-23.1]
Lymphadenopathy	12,752	15	11.7 [7.0-19.5]	12,752	20	14.4 [9.1-22.8]	0.76 [0.39-1.5]	0.97	-2.7 [(-12.3)-6.7]
Menstruation abnormalities	7,073	6	7.2 [3.0-17.3]	7,073	7	10.9 [5.4-22.0]	0.89 [0.32-2.51]	0.97	-3.7 [(-15.6)-7.8]

Myalgia	11,912	47	38.1 [28.5-51.1]	11,912	46	36.6 [27.2-49.2]	1.13 [0.75-1.7]	0.97	1.6 [(-14.4)-17.6]
Nausea or vomiting	12,336	35	33.4 [24.5-45.4]	12,336	41	32.2 [23.6-43.9]	1.04 [0.67-1.61]	0.97	1.2 [(-13.5)-16.0]
Palpitations	12,403	52	42.4 [32.3-55.6]	12,403	41	32.1 [23.5-43.7]	1.35 [0.9-2.04]	0.6	10.3 [(-5.1)-26.1]
Paresthesia	12,382	30	24.8 [17.3-35.4]	12,382	34	25.7 [18.1-36.3]	0.97 [0.59-1.59]	0.97	-0.9 [(-13.9)-12.1]
Skin rash	12,543	29	26.1 [18.4-36.8]	12,543	32	25.1 [17.7-35.6]	1.04 [0.64-1.7]	0.97	0.9 [(-12.0)-14.0]
Sore throat	12,631	23	17.1 [11.2-26.2]	12,631	23	20.8 [14.2-30.4]	0.82 [0.46-1.46]	0.97	-3.7 [(-15.0)-7.6]
Streptococcal tonsillitis	12,804	26	20.9 [14.3-30.6]	12,804	34	30.2 [22.0-41.4]	0.66 [0.4-1.08]	0.43	-9.3 [(-22.3)-3.4]
Tinnitus	12,513	26	20.1 [13.6-29.9]	12,513	23	19.0 [12.7-28.4]	1.03 [0.59-1.81]	0.97	1.1 [(-10.3)-12.7]
Tremor	13,027	4	2.6 [0.9-7.6]	13,027	7	5.4 [2.6-11.3]	0.48 [0.13-1.78]	0.91	-2.8 [(-8.9)-3.0]
Venous thromboembolism	12,975	11	8.0 [4.4-14.8]	12,975	13	9.6 [5.5-16.8]	0.83 [0.37-1.91]	0.97	-1.6 [(-9.6)-6.3]
Visual disturbances	12,737	16	14.3 [9.0-22.8]	12,737	22	15.1 [9.6-23.6]	0.96 [0.5-1.82]	0.97	-0.7 [(-10.7)-9.3]
Voice disorder	12,889	11	10.0 [5.8-17.4]	12,889	26	20.6 [14.1-30.1]	0.49 [0.25-0.95]	0.24	-10.6 [(-21.0)-(-0.8)]
Weakness	11,160	141	128.2 [108.7-151.0]	11,160	149	130.4 [111.0-153.2]	0.99 [0.79-1.25]	0.97	-2.2 [(-32.2)-27.8]
Weight loss	12,769	29	21.5 [14.8-31.4]	12,769	7	5.7 [2.8-11.8]	3.99 [1.77-9.0]	0.05	15.8 [6.7-26.1]

\* Outcomes with 10 events or more.

## Analysis of vaccinated vs. unvaccinated individuals, excluding old vaccination status (more than three months)

Population: SARS-CoV-2 infected individuals, vaccinated vs. unvaccinated, during Alpha and Delta variants, with additional match between vaccinated and unvaccinated patients by age and gender.

\* Patients were considered vaccinated if infection occurred one week till three months after the second dose or one week after booster dose.

**Table S9a** - Characteristics of the sub cohort of SARS-CoV-2 infected individuals, vaccinated vs. unvaccinated, during Alpha and Delta variants, with additional match between vaccinated (excluding old status) and unvaccinated patients by age and sex

Characteristics	SARS-CoV-2 positive vaccinated individuals (%) (n= 5,641)	SARS-CoV-2 positive unvaccinated individuals (%) (n= 5,641)
Age, Median (IQR) yr	43 (27-56)	43 (27-56)
Age group		
0-4 yr	0 (0%)	0 (0%)
5-11 yr	0 (0%)	0 (0%)
12-18 yr	1,043 (18.5%)	1,043 (18.5%)
19-40 yr	1,478 (26.2%)	1,478 (26.2%)
41-60 yr	2,124 (37.7%)	2,124 (37.7%)
>60 yr	996 (17.7%)	996 (17.7%)
Sex		
Female	3,072 (54.5%)	3,072 (54.5%)
Male	2,569 (45.5%)	2,569 (45.5%)
Dominant variant during PCR test		
Wild-Type	0 (0%)	0 (0%)
Alpha	995 (17.6%)	995 (17.6%)
Delta	4,646 (82.4%)	4,646 (82.4%)
Vaccine status		
Unvaccinated	0 (0%)	5,641 (100%)
One Vaccine dose	0 (0%)	0 (0%)
Two Vaccine doses	2,379 (42.2%)	0 (0%)
Booster dose	3,262 (57.8%)	0 (0%)

**Table S9b** - Association of health outcomes with SARS-CoV-2 infection in infected individuals, 30-90 days post PCR positive test, during Alpha and Delta variants period, by vaccinated (excluding old status) vs. unvaccinated status

Outcome	Unvaccinated		Vaccinated		HR [95% CI]	Q-value	Risk Diff/10,000 persons
	N	No. events	N	No. events			
Anosmia and Dysgeusia	6,438	5	6,438	7	0.89 [0.27-2.94]	0.91	-1.1 [(-15.3)-13.2]
Arthralgia	4,982	14	4,982	21	0.71 [0.34-1.48]	0.64	-10.2 [(-33.5) -12.6]
Chest pain	4,597	44	4,597	55	0.85 [0.57-1.26]	0.64	-18.7 [(-61.4)-23.9]
Concentration and memory impairment	5,436	9	5,436	13	0.65 [0.27-1.57]	0.64	-8.3 [(-26.9)-9.7]
Cough	4,657	53	4,657	80	0.78 [0.55-1.12]	0.64	-33.9 [(-81.4)-13.1]
Dizziness	4,897	27	4,897	32	0.80 [0.48-1.35]	0.64	-14.5 [(-46.2)-16.9]
Dyspnea	5,145	52	5,145	36	1.88 [1.19-2.98]	0.08	47.1 [13.1-82.9]
Hair loss	5,302	25	5,302	12	2.05 [1.07-3.93]	0.19	22.4 [(-1.3)-47.7]
Myalgia	5,031	17	5,031	21	0.80 [0.41-1.57]	0.69	-9.7 [(-34.0)-14.2]
Palpitations	5,223	26	5,223	19	1.27 [0.70-2.31]	0.64	7.8 [(-17.8)-34.1]
Respiratory disorders	5,392	2	5,392	1			
Streptococcal tonsillitis	5,419	16	5,419	15	1.04 [0.52-2.05]	0.91	4.8 [(-16.7)-26.9]
Weakness	4,715	63	4,715	58	0.95 [0.66-1.36]	0.91	-4.9 [(-50.6)-40.9]