Appendix 1: Supplemental material

Table S1. Detailed baseline characteristics of index participants (n=180) and household contacts (n=515)

| | No. (%) | | | | | |
| | Index participants | | | Household contacts | | |
	Overall n=180	Children n=74	Adults n=106	Overall n=515	Children n=266	Adults n=249
Working outside the home	52 (28.9)	3 (4.1)	49 (46.2)	88 (17.2)	4 (1.5)	84 (33.9)
Health worker	17 (32.7)	0 (0.0)	17 (34.7)	21 (23.9)	0 (0.0)	21 (25.0)
Daycare/education	1 (1.9)	0 (0.0)	1 (2.0)	13 (14.8)	0 (0.0)	13 (15.5)
Public safety/national security	3 (5.8)	0 (0.0)	3 (6.1)	3 (3.4)	0 (0.0)	3 (3.6)
Food services	3 (5.8)	1 (33.3)	2 (6.1)	7 (8.0)	1 (25.0)	6 (7.1)
Retail services	3 (5.8)	0 (0.0)	3 (4.1)	4 (4.5)	1 (25.0)	3 (3.6)
Government employee	5 (9.6)	0 (0.0)	5 (10.2)	3 (3.4)	0 (0.0)	3 (3.6)
Construction	0 (0.0)	0 (0.0)	0 (0.0)	4 (4.5)	1 (25.0)	3 (3.6)
Transportation	6 (11.5)	0 (0.0)	6 (12.2)	1 (1.1)	0 (0.0)	1 (1.2)
Other[a]	15 (28.8)	2 (66.7)	13 (26.5)	32 (36.4)	1 (25.0)	31 (36.9)
Student	76 (42.2)	69 (93.2)	7 (6.6)	261 (51.0)	245 (92.8)	16 (6.5)
Daycare/Nursery	9 (11.8)	9 (13.0)	0 (0.0)	35 (13.4)	35 (14.3)	0 (0.0)
Elementary	47 (61.8)	47 (68.1)	0 (0.0)	162 (62.1)	162 (66.1)	0 (0.0)
High School	15 (19.7)	13 (18.8)	2 (28.6)	50 (19.2)	48 (19.6)	2 (12.5)
University, college or post-graduate	5 (6.6)	0 (0.0)	5 (71.4)	14 (5.4)	0 (0.0)	14 (87.5)
Underlying co-morbidity	46 (25.6)	7 (9.5)	39 (36.8)	93 (18.2)	42 (15.9)	51 (20.6)
Pregnancy	4 (8.7)	0 (0.0)	4 (10.2)	6 (6.4)	0 (0.0)	6 (11.8)
Obesity	8 (17.4)	0 (0.0)	8 (20.5)	7 (7.5)	0 (0.0)	7 (13.7)
Malignancy	1 (2.2)	0 (0.0)	1 (2.6)	2 (2.1)	1 (2.4)	1 (2.0)
Immune deficiency	4 (8.7)	0 (0.0)	4 (10.2)	6 (6.4)	2 (4.8)	4 (7.8)
Respiratory	16 (34.8)	4 (57.1)	12 (30.8)	32 (34.4)	17 (40.5)	15 (29.4)
Neurologic impairment	2 (4.3)	1 (14.3)	1 (2.6)	10 (10.7)	6 (14.3)	4 (7.8)
Chronic kidney disease	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.1)	0 (0.0)	1 (2.0)
Cardiovascular disease	6 (13.0)	0 (0.0)	6 (15.4)	12 (12.9)	2 (4.8)	8 (15.7)
Gastrointestinal	2 (4.3)	0 (0.0)	2 (5.1)	6 (6.4)	4 (9.5)	2 (3.9)
Endocrine	1 (2.2)	0 (0.0)	1 (2.6)	4 (4.3)	1 (2.4)	3 (5.9)
Other[b]	11 (23.9)	2 (28.6)	10 (25.6)	20 (21.5)	11 (26.2)	9 (17.6)

[a]Other: Office work, recreation, facility maintenance, trade, misc.; [b]Other: osteoporosis, migraines, non-malignant hematologic condition, neurologic condition without impairment, mental health, condition not specified

Table S2: SARS-CoV-2-positive study participants overall and by time from positive viral swab to antibody testing (< 30 days, 30 to 90 days and > 90 days)

| | Overall | | Time from positive swab to antibody testing | | | | | |
| | | | < 30 days | | 30 to 90 days | | > 90 days | |
	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)	n	% (95% CI)
Index participant	137/175	78.3 (71.5, 83.8)	24/35	68.6 (51.4, 81.8)	78/101	77.2 (68.0, 84.4)	35/39	89.7 (75.4, 96.1)
18+ years	90/103	87.4 (79.4, 92.5)	16/21	76.2 (53.3, 90.0)	41/47	87.2 (74.2, 94.2)	33/35	94.3 (79.5, 98.6)
<18 years	47/72	65.3 (53.6, 75.4)	8/14	57.1 (30.8, 80.0)	37/54	68.5 (54.9, 79.5)	2/4	50.0 (9.4, 90.6)
Household contact	239/487	49.1 (42.9, 55.3)	42/99	42.4 (28.4, 57.8)	139/275	50.5 (42.4, 58.7)	58/113	51.3 (39.3, 63.2)
18+ years, asymptomatic	37/115	32.2 (24.2, 41.4)	6/29	20.7 (9.4, 39.6)	23/65	35.4 (24.4, 48.2)	8/21	38.1 (19.3, 61.3)
<18 years, asymptomatic	51/130	39.2 (30.7, 48.5)	7/26	26.9 (12.2, 49.4)	31/70	44.3 (32.8, 56.4)	13/34	38.2 (22.1, 57.4)
18+ years, symptomatic	72/126	57.1 (47.5, 66.3)	14/22	63.6 (42.0, 80.9)	44/80	55.0 (42.5, 66.9)	14/24	58.3 (37.5, 76.5)
<18 years, symptomatic	79/116	68.1 (56.6, 77.7)	15/22	68.2 (40.5, 87.1)	41/60	68.3 (52.2, 81.0)	23/34	67.6 (44.8, 84.3)
All ages asymptomatic	88/245	35.9 (29.3, 43.2)	13/55	23.6 (13.0, 39.1)	54/135	40 (30.7, 50.1)	21/55	38.2 (25.4, 52.9)
All ages symptomatic	151/242	62.4 (53.8, 70.3)	29/44	65.9 (45.8, 81.5)	85/140	60.7 (49.0, 71.3)	37/58	63.8 (47.0, 77.8)

Table S3. Comparison of transmission from child and adult index participants to their household contacts

	Proportion of antibody-positive household contacts		
	All ages % (95% CI)	Child % (95% CI)	Adult % (95% CI)
Child index	37.1 (27.7, 47.6)	35.4 (23.1, 50.0)	38.0 (28.6, 48.4)
Adult index	57.0 (49.5, 64.2)	59.1 (50.3, 67.4)	53.6 (44.8, 62.1)
OR (95%CI)	2.2 (1.3, 3.6)	2.6 (1.3, 5.1)	1.9 (1.1, 3.3)

Table S4. Multivariable regression model of risk factors for transmission within household

Variable	Coef	SE	OR (95%CI)	*P*
Age (years)	0.026	0.015	1.026 (0.996,1.058)	0.090
Sex = Female (vs Male)	-0.054	0.218	0.947 (0.619,1.451)	0.804
# confirmed RT-PCR-positive household members including index	1.098	0.176	2.997 (2.121,4.235)	<.001
Household density	-0.692	0.425	0.501 (0.218,1.151)	0.103
Wore mask = Always (vs Frequently/Sometimes/Rarely/Never)	-0.728	0.821	0.483 (0.097,2.415)	0.376
Completely isolated from index	-0.108	0.416	0.898 (0.397,2.030)	0.796
Underlying co-morbidity	0.043	0.303	1.044 (0.577,1.891)	0.886
Current smoker/vaper	0.053	0.396	1.055 (0.486,2.290)	0.893
Relationship to index				
Child index to adult household contact (vs child index to child household contact)	-0.542	0.648	0.582 (0.163,2.071)	0.403
Adult index to child household contact (vs child index to child household contact)	0.691	0.376	1.995 (0.954,4.170)	0.066
Adult index to adult household contact (vs child index to child household contact)	-0.259	0.703	0.772 (0.195,3.063)	0.713
Index participant hospitalized	0.936	0.585	2.550 (0.811,8.022)	0.109
Index participant symptomatic	0.307	0.428	1.360 (0.587,3.149)	0.473

Model L.R. Chi-square=165.285 (df=13), P<.001, c=0.832; Obs=463, Cluster=175

Excluded=24 (4.9%), Missing covariates only=24 (4.9%)

Figure S1: ROC Curves ELISA test accuracy