

Contact network parameters estimated separately for the holiday period versus the non-holiday period, and for 2–3 member households versus 4+ member households

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# 1 MLEs computed separately for the holiday period versus the non-holiday period

Table 1: The top matrix shows conditional contact probability estimates during the Easter holiday period (n=328) with 95% bootstrap confidence intervals. The bottom matrix shows conditional contact probability estimates during the non-holiday period (n=347).

Age Category	0-5	6-11	12-18	19-35	36+
0-5	1.00 [ - , 1.00]	0.87 [0.73, 1.00]	0.00 [0, 0.90]	0.97 [0.90, 1.00]	1.00 [0.91, 1.00]
6-11		0.96 [0.72, 1.00]	1.00 [0.84, 1.00]	1.00 [0.96, 1.00]	0.93 [0.82, 1.00]
12-18			0.94 [0.79, 1.00]	0.87 [0.71, 1.00]	0.95 [0.88, 1.00]
19-35				0.74 [0.53, 0.92]	0.88 [0.75, 0.98]
36+					0.83 [0.68, 0.98]

Age Category	0-5	6-11	12-18	19-35	36+
0-5	0.95 [0.73, 1.00]	0.92 [0.67, 1.00]	0.94 [0.46, 1.00]	0.97 [0.84, 1.00]	0.87 [0.69, 1.00]
6-11		1.00 [ - , 1.00]	1.00 [0.87, 1.00]	0.73 [0.47, 1.00]	0.83 [0.73, 0.95]
12-18			0.80 [0.56, 1.00]	0.28 [0.04, 0.57]	0.87 [0.77, 0.95]
19-35				0.85 [0.66, 1.00]	0.81 [0.72, 0.90]
36+					0.93 [0.82, 1.00]

Table 2: Estimated probabilities of being at home during the Easter holiday period (n=328) and during the non-holiday period (n=347) with 95% bootstrap confidence intervals.

Holiday status	0-5	6-11	12- 18	19-35	36+
Holiday	0.91 [0.86, 0.96]	0.92 [0.87, 0.98]	0.89 [0.83, 0.96]	0.94 [0.90, 0.99]	0.93 [0.89, 0.98]
Non-holiday	0.91 [0.86, 1.00]	1.00 [0.96, 1.00]	0.89 [0.83, 0.99]	0.85 [0.79, 0.92]	0.91 [0.87, 0.96]

## 2 MLEs computed separately for small (2–3) versus large (4+) households

Table 3: The top matrix shows conditional contact probability estimates in households with 2–3 members (n=352) with 95% bootstrap confidence intervals. The bottom matrix shows conditional contact probability estimates in households with 4+ members (n=323). The cell count for  $p_{0-5,6-11}$  in small households is 1, and that for  $p_{0-5,12-18}$  in small households is zero. A more refined model could restrict these two parameters to be equal for small and large households, but fit all other parameters separately.

Age Category	0-5	6-11	12-18	19-35	36+
0-5	1.00 [0.90, 1.00]	0 [0, 0.90]	NA	1.00 [0.95, 1.00]	1.00 [0.94, 1.00]
6-11		1.00 [0.90, 1.00]	1.00 [0.90, 1.00]	1.00 [0.81, 1.00]	1.00 [0.88, 1.00]
12-18			1.00 [0.74, 1.00]	1.00 [0.35, 1.00]	1.00 [0.87, 1.00]
19-35				1.00 [0.81, 1.00]	0.87 [0.71, 0.99]
36+					0.88 [0.73, 1.00]

  

Age Category	0-5	6-11	12-18	19-35	36+
0-5	1.00 [0.97, 1.00]	0.91 [0.78, 1.00]	0.66 [0.25, 0.99]	0.96 [0.87, 1.00]	0.91 [0.81, 1.00]
6-11		1.00 [0.85, 1.00]	1.00 [0.89, 1.00]	0.96 [0.86, 1.00]	0.88 [0.78, 0.96]
12-18			0.87 [0.73, 0.99]	0.63 [0.46, 0.81]	0.90 [0.84, 0.95]
19-35				0.60 [0.39, 0.81]	0.81 [0.70, 0.90]
36+					0.94 [0.84, 1.00]

Table 4: Estimated probabilities of being at home in households with 2–3 members (n=352) and in households with 4+ members (n=323), 95% bootstrap confidence intervals

Household Size	0-5	6-11	12-18	19-35	36+
2-3 household members	0.86 [0.77, 0.95]	0.92 [0.81, 1.00]	0.90 [0.80, 1.00]	0.93 [0.89, 1.00]	0.91 [0.85, 0.99]
4+ household members	0.93 [0.88, 0.98]	0.92 [0.88, 0.98]	0.88 [0.83, 0.94]	0.87 [0.81, 0.93]	0.93 [0.90, 0.97]