

Table S1 aORs and 95% CIs from pathogen-specific binary logistic regression models, with age group, sex, study year, and calendar month included as covariates

Pathogen	Age group (years)	aOR	95% CI	P value	Absolute positivity rate difference vs. 0–1 year (%)
RSV	1–2	0.62	0.57–0.68	<0.001	–9.21
	2–3	0.58	0.52–0.65	<0.001	–10.13
	3–4	0.55	0.49–0.61	<0.001	–10.86
	4–5	0.34	0.30–0.38	<0.001	–15.02
MP	1–2	1.89	1.70–2.10	<0.001	+8.72
	2–3	2.76	2.46–3.10	<0.001	+15.19
	3–4	3.42	3.07–3.81	<0.001	+21.06
	4–5	4.95	4.44–5.52	<0.001	+28.53
HRV	1–2	1.31	1.16–1.48	<0.001	+2.94
	2–3	1.74	1.53–1.98	<0.001	+6.68
	3–4	1.69	1.50–1.91	<0.001	+6.12
	4–5	1.78	1.58–2.01	<0.001	+6.95
ADV	1–2	1.63	1.34–1.98	<0.001	+3.27
	2–3	1.58	1.27–1.97	<0.001	+3.01
	3–4	1.66	1.36–2.03	<0.001	+3.44
	4–5	1.71	1.40–2.08	<0.001	+3.69
FluA	1–2	1.45	1.20–1.75	<0.001	+2.48
	2–3	1.51	1.23–1.85	<0.001	+2.71
	3–4	1.47	1.21–1.78	<0.001	+2.55
	4–5	1.53	1.26–1.86	<0.001	+2.79
FluB	1–2	1.42	1.01–1.99	0.043	+0.89
	2–3	1.48	1.02–2.15	0.039	+0.97
	3–4	1.44	1.00–2.07	0.049	+0.91
	4–5	1.50	1.04–2.16	0.032	+1.00

Multivariable binary logistic regression outputs for six respiratory pathogens, adjusted for age group, sex, study year, and calendar month. The 0–1 year age group served as the reference stratum. Absolute positivity rate differences between each age group and the 0–1 year cohort are presented to distinguish statistically significant disparities from clinically marginal gaps. ADV, adenovirus; aOR, adjusted odds ratio; CI, confidence interval; FluA, influenza A virus; FluB, influenza B virus; HRV, human rhinovirus; MP, *Mycoplasma pneumoniae* No., number; RSV, respiratory syncytial virus.