Cluster	A1	A2	A3	A4	A5	p value
(n = 165)	(n = 56)	(n = 51)	(n = 31)	(n = 14)	(n = 13)	
Age, months	7.2 [3.8-	7.4 [5.3-	7.3 [3.7-	7.2 [4.8-	5.7 [4.3-	0.920
	8.8]	8.8]	9.0]	9.4]	8.2]	
Seasons						
Spring	13 (23.2)	12 (23.5)	7 (22.6)	3 (21.4)	5 (38.5)	0.807 <sup>+</sup>
Summer	4 (7.1)	2 (3.9)↓	5 (16.1) 个	1 (7.1)	1 (7.7)	0.364 <sup>+</sup>
Autumn	12 (21.4)	11 (21.6)	8 (25.8)	2 (14.3)	5 (38.5) 个	0.650 <sup>+</sup>
Winter	27 (48.2)	26 (51.0)	11 (35.5)	8 (57.1)	2 (15.4) ↓	$0.105^{\dagger}$
Sex, male	33 (58.9)	26 (51.0)	18 (58.1)	11 (78.6) ↑	7 (53.9)	0.609 <sup>‡</sup>
Siblings	35 (62.5)	31 (60.8)	20 (64.5)	8 (57.1)	10 (76.9)	0.761 <sup>‡</sup>
Caesarean section	6 (10.7)	8 (15.7)	6 (19.4)	3 (21.4)	2 (15.4)	0.835 <sup>+</sup>
Atopy	36 (64.3)	39 (76.5) ↑	12 (38.7) ↓	9 (64.3)	11 (84.6) ↑	0.008 <sup>‡</sup>
Childcare	13 (23.2)	9 (17.7)	7 (22.6)	3 (21.4)	o (o.o) ↓	0.479 <sup>+</sup>
Breastfeeding	31 (55.4)	33 (64.7)	17 (54.8)	8 (57.1)	10 (76.9)	0.768 <sup>‡</sup>
ETS§	6 (10.7)	5 (9.8)	6 (19.4)	4 (28.6) ↑	3 (23.1)	$0.355^{\dagger}$

**Supplementary table S2.** Host and environmental characteristics in infant clusters present at the onset of ARI\* (swab A)

\*ARI, acute respiratory tract infection. Data are presented as median [interquartile range] or n (%). Statistical analyses were performed using a Kruskal Wallis test for age and Fisher's exact test<sup>+</sup> or Chi-square test<sup>+</sup> for categorical variables. Significant overrepresentation (bold letters,  $\uparrow$ ) and significant underrepresentation (bold/italic letters,  $\downarrow$ ) of presence of symptoms in the clusters was assessed by enrichment analysis. <sup>§</sup>ETS, environmental tobacco smoke exposure.