$\textbf{Supplementary Table 1} \ \textbf{Covariates associated with seasonal influenza A viral shedding}$

	Children [<i>n=236</i>]			Adults [<i>n=97</i>]			
	n	Value*	95% CI	n	Value*	95% CI	
Day (per day)	-	0.27	(0.23, 0.30)	-	0.11	(0.08, 0.14)	
Seasonal H1N1	158	1.00	-	46	1.00	-	
Seasonal H3N2	78	2.94	(0.82, 10.56)	51	0.84	(0.13, 5.39)	
Day x sH1N1	-	1.00	-	-	1.00	-	
Day x sH3N2	-	0.73	(0.58, 0.91)	-	0.91	(0.58, 1.23)	

^{*}The values represent the change in \log_{10} viral load associated with each covariate

Supplementary Table 2 Estimates of the variability of \log_{10} viral shedding in cases of influenza A virus infections

	Random Effect Ψ (2.5 th , 97.5 th Percentiles)*			
	Children only	Adult only		
All Seasonal A	1.39 (1.01, 1.78)	0.65 (0.36, 1.12)		
Seasonal A(H1N1)	1.55 (1.11, 2.01)	0.70 (0.27, 1.74)		
Seasonal A(H3N2)	1.09 (0.55, 1.74)	0.61 (0.32, 1.12)		

^{*}The square root of the variance (Ψ), is the standard deviation of the viral shedding intercepts

Supplementary Table 3

Symptoms		Adult				Child†			
	Low	Mid	High	p-value*	Low	Mid	High	p-value	
Seasonal A(H1N1)	[<i>n</i> =15]	[n=15]	[<i>n</i> =16]		[<i>n</i> =52]	[<i>n</i> =53]	[n=53]		
Self-reported fever	86.7%	100%	93.8%	0.53	88.4%	92.5%	98.1%	0.14	
Measured fever	80.0%	93.3%	87.5%	0.67	75.0%	81.1%	83.0%	0.57	
Headache	73.3%	73.3%	62.5%	0.78	-	-	-	-	
Sore throat	80.0%	66.7%	75.0%	0.77	51.9%	60.4%	60.4%	0.61	
Cough	86.7%	80.0%	100%	0.18	90.4%	86.8%	88.7%	0.85	
Muscle pain	60.0%	66.6%	50.0%	0.64	-	-	-	-	
Runny nose	86.7%	93.3%	81.3%	0.86	78.8%	86.8%	92.5%	0.13	
Phlegm	73.3%	73.3%	68.8%	1.00	75.0%	60.4%	66.0%	0.28	
Seasonal A(H3N2)	[<i>n</i> =17]	[n=17]	[n=17]		[<i>n</i> =26]	[<i>n</i> =26]	[n=26]		
Self-reported fever	94.1%	100%	94.1%	1.00	100%	88.5%	88.5%	0.24	
Measured fever	70.6%	76.5%	82.4%	0.92	85.6%	88.5%	96.2%	0.52	
Headache	88.2%	58.8%	64.7%	0.14	-	-	-	-	
Sore throat	82.4%	82.4%	76.5%	0.90	65.4%	65.4%	53.8%	0.73	
Cough	82.4%	82.4%	94.1%	0.67	88.5%	84.6%	84.6%	1.00	
Muscle pain	88.2%	76.5%	82.4%	0.90	-	-	-	-	
Runny nose	100%	76.5%	94.1%	0.11	96.2%	92.3%	92.3%	1.00	
Phlegm	47.1%	52.9%	58.8%	0.79	53.8%	73.1%	57.7%	0.34	

^{*}Chi-squared test or Fisher's test when appropriate

†Headache and muscle pain in children were removed due to possible confounding since it is difficult for children to self-identify these symptoms.