

**Table S1. Fixed parameter values for five models, for both the original publication and the current analysis.**

<b>Model [ref*]</b>	<b>Model A [18,19]</b>		<b>Model B [20]</b>		<b>Model C [21]</b>		<b>Model D [21]</b>		<b>Model E [23]</b>	
<b>Parameter [ref]</b>	<b>Original</b>	<b>Current</b>	<b>Original</b>	<b>Current</b>	<b>Original</b>	<b>Current</b>	<b>Original</b>	<b>Current</b>	<b>Original</b>	<b>Current</b>
Duration of maternal immunity [5]	NA	13 weeks	3 months	13 weeks	90 days	13 weeks	40 days	13 weeks	90 days	13 weeks
Duration of incubation period [3]	NA	NA	NA	NA	1 day	1 day	NA	NA	NA	NA
<b>Duration of infectiousness</b>										
<i>First infection</i> [10,11]	5 days (severe)	7 days (severe)	7 days	7 days	8 days	7 days	10 days	7 days	8 days	7 days
<i>Subsequent infections</i> [8,9]	3 days (mild)	3.5 days (mild)	3.5 days	3.5 days	6 days for second, 4 days for subsequent	3.5 days	10 days	3.5 days	8 days	7 days
<b>Relative risk of infection following: [7]</b>										
<i>First infection</i>	NA	NA	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
<i>Second infection</i>			0.35	0.37	0.375	0.37	0.40	0.37	0.40	0.37
<i>Third infection</i>			0.35	0.37	0.375	0.37	0.34	0.37	0.37	0.37
<b>Proportion of infections with any RVGE (severe RVGE) [7]</b>										
<i>First infection</i>	0.76 mild, 0.24 severe for <5 yr olds	0.76 mild, 0.24 severe for <5 yr olds	NA (0.11)	0.47 (0.13)	0.47 (0.13)	0.47 (0.13)	0.39 (0.11)	0.47 (0.13)	0.47	0.47 (0.13)
<i>Second infection</i>			NA (0.029)	0.25 (0.03)	0.25 (0.03)	0.25 (0.03)	0.14 (0.03)	0.25 (0.03)	0.25	0.25 (0.03)
<i>Third infection</i>	1 mild, 0 severe for ≥5 yr olds	Estimated for ≥5 yr olds	NA (0)	0.20 (0)	0.20 (0)	0.20 (0)	0.17 (0)	0.32 (0)	0.32	0.32 (0)
<i>Fourth infection</i>			NA	NA	NA	NA	0.09 (0)	0.20 (0)	0.20	0.20 (0)
<b>Relative infectiousness (compared to first infection) [2,4]</b>										
<i>Second infection</i>	0.5 (mild vs severe)		0.5	0.5	0.5	0.5	Values between 1 and 0.25	0.5	Only individuals with symptomatic RVGE transmit (see above)	
<i>Subsequent infections</i>	Asymptomatic infections do not transmit		0.1	0.2	0.2	0.2		0.2		
Duration of complete immunity [1,6]	5 years	1 year	9 months to 1 year	1 year	2 months	1 year	NA	NA	NA	NA
Type of cases reported	Severe RVGE		Severe RVGE		Severe RVGE		Any RVGE		Any RVGE	

\*ref=reference; numbers correspond to references in the Supporting Text.