

Supporting Table 2: Fitting results for behavioral model with social learning and feedback under 5 risk evolution curves.

Model-1		
	Pertussis	Measles
κ	7.00E-06	9.18E-05
ω_{pre}	2000	20
σ	50.3262	125.3202
$D_{decrease}$	6.9434	8
MLE	5.82E+33	8.80E+40
GOF	0.9529	0.8673
AICc	-	-176.5557
	144.4167	

Model-2		
	Pertussis	Measles
K	7.84E-06	1.15E-04
ω_{pre}	996.6676	13.9864
σ	66.9777	100.3957
D_{max}	5.2	6.5
MLE	1.77E+30	2.09E+42
GOF	0.9261	0.8926
AICc	-128.2147	-182.8945

Model-3		
	Pertussis	Measles
κ	6.15E-06	1.05E-04
ω_{pre}	2000	16
σ	49.5471	100.608
D_{max}	2.6391	4.9597
$D_{decrease}$	2.1302	2.0389
MLE	9.61E+33	8.87E+42
GOF	0.9542	0.9024
AICc	-141.4952	-181.115

Model-4		
	Pertussis	Measles
K	7.96E-06	1.94E-04
ω_{pre}	2364.4	11
σ	27.6089	100.0988
$D_{increase}$	1	3
D_{max}	4.0235	4
MLE	3.11E+30	1.29E+37
GOF	0.9284	0.761
AICc	-125.4280	-154.238

Model-5		
	Pertussis	Measles
κ	6.28E-06	1.11E-04
ω_{pre}	2000	19.7
σ	48.8694	99.9456
$D_{increase}$	2	3.4374
D_{max}	1.1528	1.3556
$D_{decrease}$	1.1094	1.6089
MLE	3.47E+34	7.98E+40
GOF	0.9573	0.8665
AICc	-139.4262	-165.8595