

Table S6: Deterministic Coalescent SIR Results for Simulated Sequences: $R_0 = 1.0987$ and $S_0 = 499$, $R_0 = 1.0989$ and $S_0 = 999$, $R_0 = 1.09945$ and $S_0 = 1999$

η	Truth	Mean	Median	Error	Bias	Relative HPD width	95% HPD accuracy
\mathcal{R}_0	≈ 1.10	1.89	1.28	0.62	0.63	0.40	52.00%
γ	0.30	0.57	0.44	0.59	0.52	2.14	95.00%
$S_{(0)}$	499	1830	1222	1.50	1.31	11.49	96.00%
$z_{(0)}$	(varies)	109.55	76.21	0.61	0.54	0.35	37.00%
\mathcal{R}_0	≈ 1.10	1.55	1.35	0.25	0.25	0.45	16.00%
γ	0.30	0.27	0.24	0.20	-0.12	1.23	61.00%
$S_{(0)}$	999	1293	804	0.27	-0.10	3.58	64.00%
$z_{(0)}$	(varies)	117.39	99.75	0.25	0.18	0.23	23.00%
\mathcal{R}_0	≈ 1.10	1.37	1.22	0.16	0.16	0.28	40.00%
γ	0.30	0.26	0.24	0.18	-0.14	1.13	64.00%
$S_{(0)}$	1999	2292	1531	0.23	-0.18	3.45	66.00%
$z_{(0)}$	(varies)	150.39	138.69	0.23	0.20	0.32	18.00%