

Contact tracing with time to action distribution

Laura Boyle, Dennis Liu, Joshua Ross

22/09/20

Contents

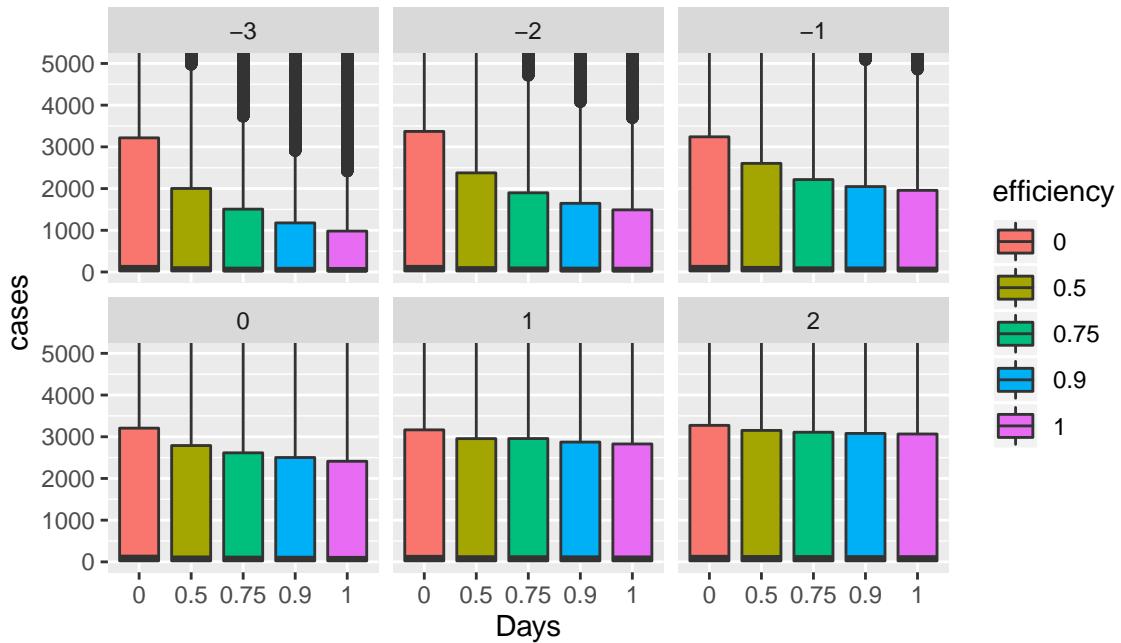
1 n = 20000, offset = 0, gamma mean = 3 variance = 6	2
1.1 Case numbers	2
1.2 Cases prevented	5
1.3 Cases prevented (proportion)	6
1.4 Actual generation interval	6
2 n = 20000, offset = 1, gamma mean = 2 variance = 1	7
2.1 Case numbers	7
2.2 Cases prevented (summary statistics)	10
2.3 Cases prevented (proportion)	11
2.4 Actual generation interval	11

1 n = 20000, offset = 0, gamma mean = 3 variance = 6

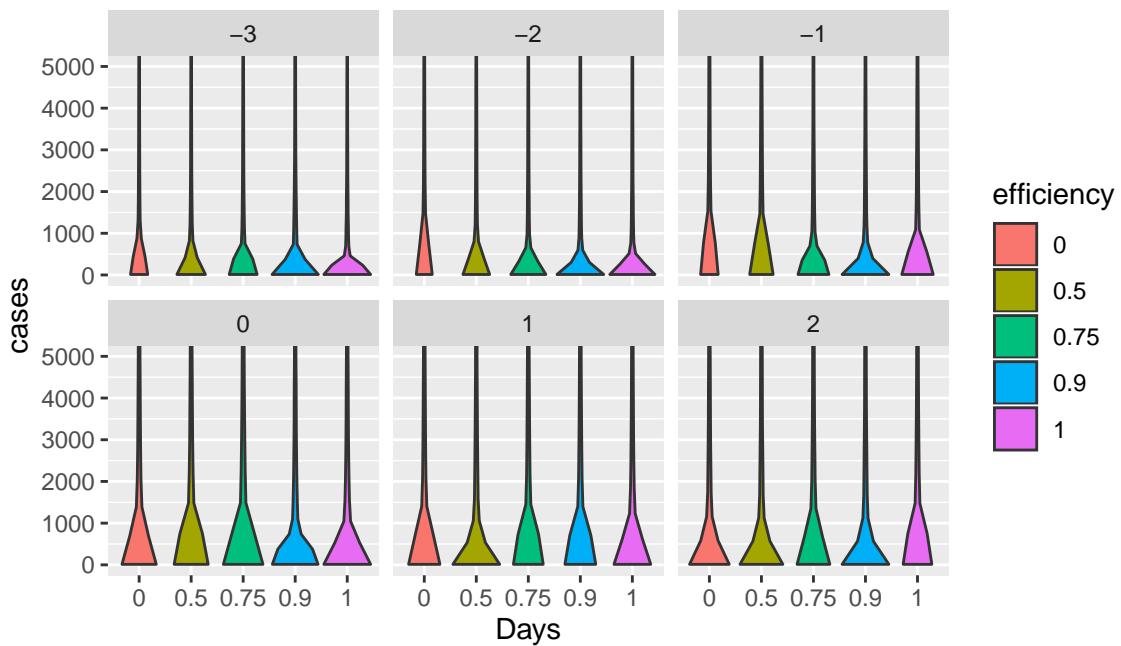
1.1 Case numbers

DAYs	pc	mean	median	min	max	n_sims
-3	0.00	3655.262	101.0	12	220059	20000
-3	0.50	2614.634	70.0	12	206468	20000
-3	0.75	2147.575	60.0	12	189038	20000
-3	0.90	1830.118	55.0	12	184453	20000
-3	1.00	1639.240	52.0	12	114263	20000
-2	0.00	3702.625	102.0	12	373478	20000
-2	0.50	2861.281	72.0	12	202119	20000
-2	0.75	2529.603	64.0	12	163829	20000
-2	0.90	2327.088	60.0	12	148868	20000
-2	1.00	2159.833	57.0	12	128307	20000
-1	0.00	3752.109	102.0	12	388464	20000
-1	0.50	3184.208	77.0	12	370504	20000
-1	0.75	2874.983	67.5	12	174775	20000
-1	0.90	2743.648	64.0	12	196935	20000
-1	1.00	2652.032	61.0	12	274297	20000
0	0.00	3786.431	105.0	12	351389	20000
0	0.50	3489.815	85.0	12	374840	20000
0	0.75	3277.899	81.0	12	377070	20000
0	0.90	3191.730	78.0	12	185105	20000
0	1.00	3140.909	75.0	12	264806	20000
1	0.00	3664.972	100.0	12	355374	20000
1	0.50	3553.992	91.0	12	267437	20000
1	0.75	3510.541	90.0	12	367484	20000
1	0.90	3466.470	87.5	12	353571	20000
1	1.00	3480.720	86.0	12	311557	20000
2	0.00	3731.713	100.5	12	292046	20000
2	0.50	3660.747	96.0	12	284570	20000
2	0.75	3610.647	94.0	12	342885	20000
2	0.90	3609.918	93.0	12	283437	20000
2	1.00	3598.550	92.0	12	374002	20000

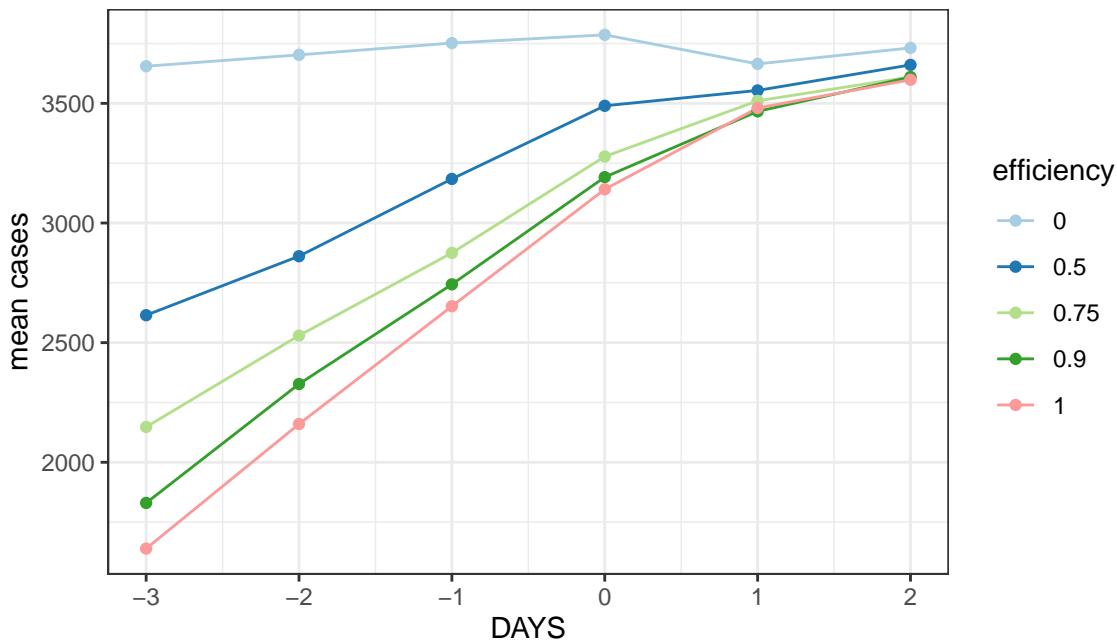
Box plot of cases (axis limited at 5000)



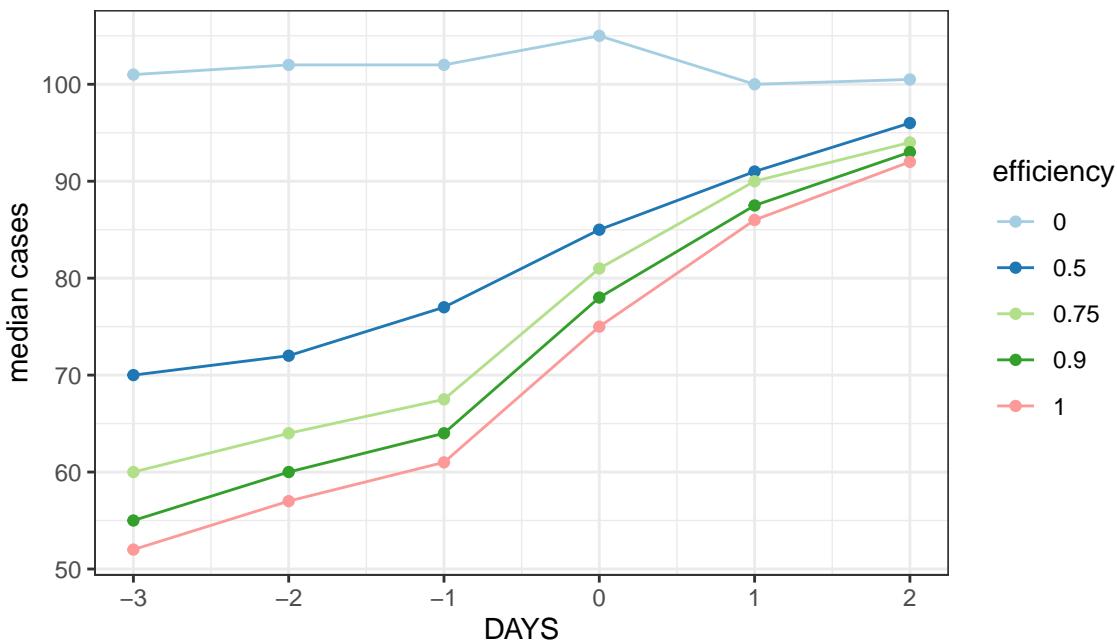
Violin plot of cases (axis limited at 5000)



Mean cases

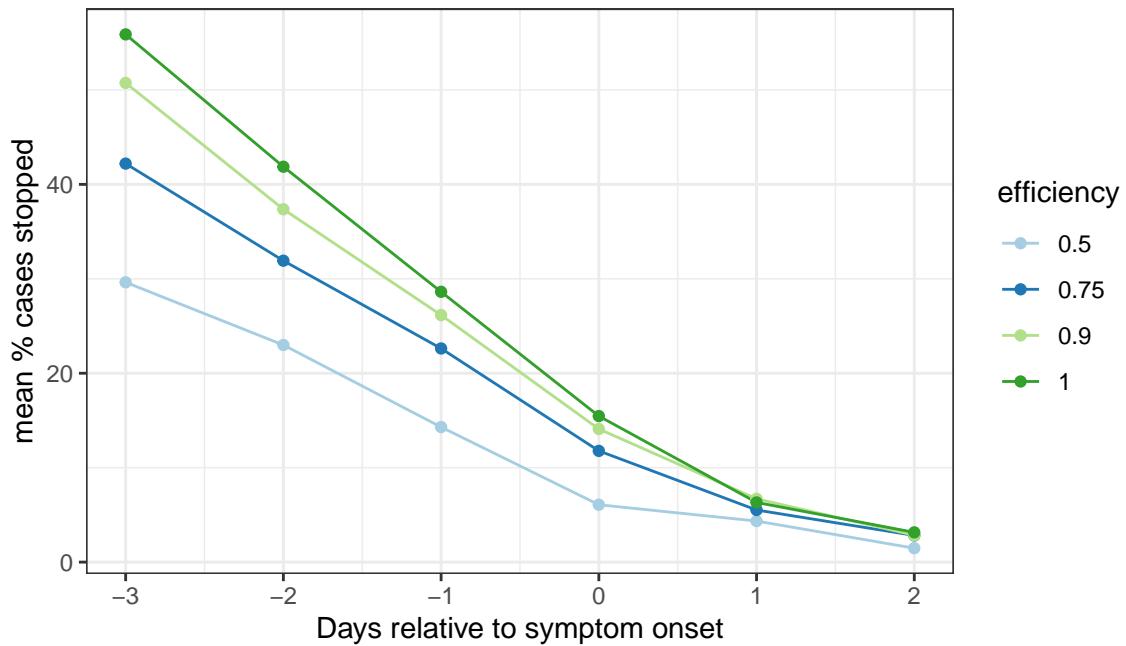


Median cases

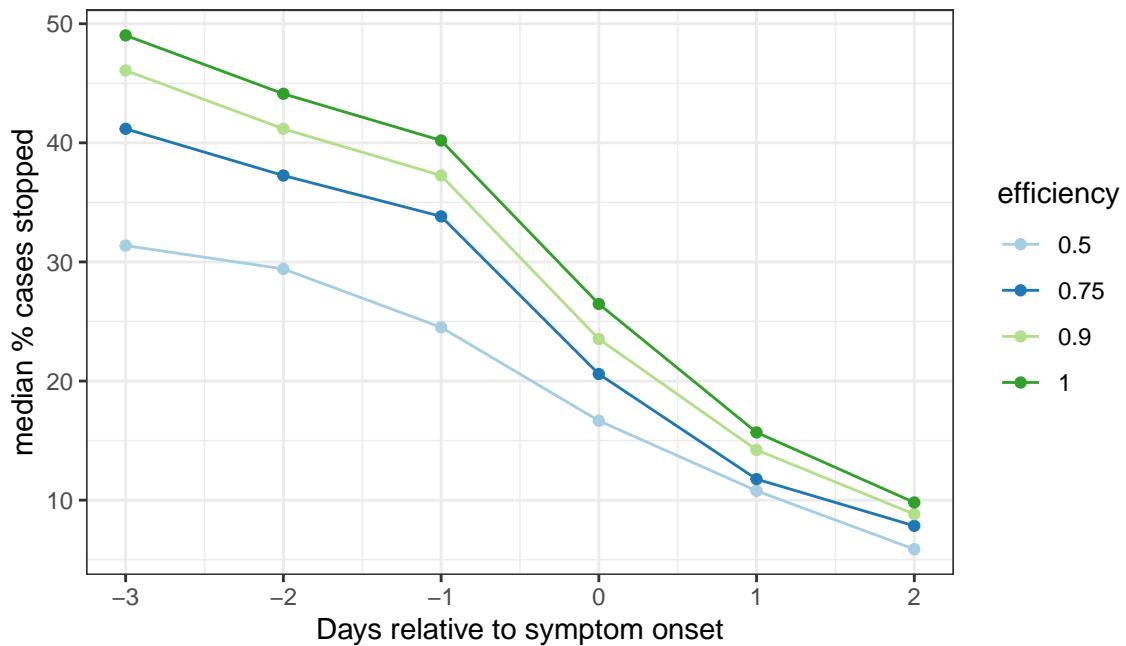


1.2 Cases prevented

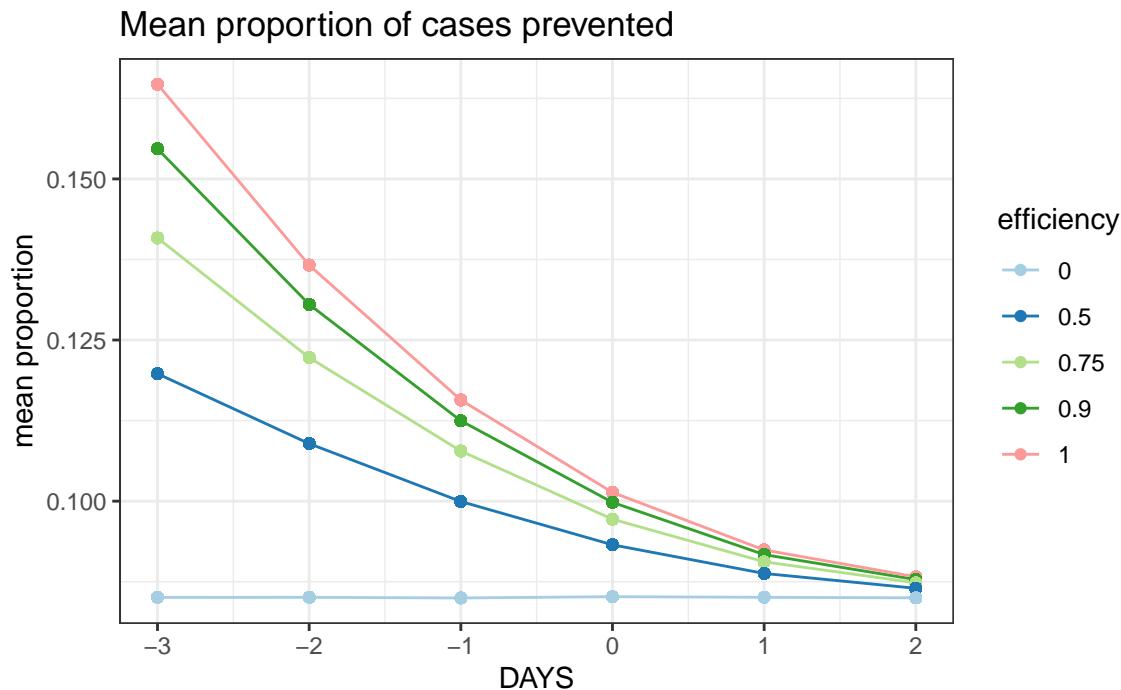
Mean percentage of cases prevented



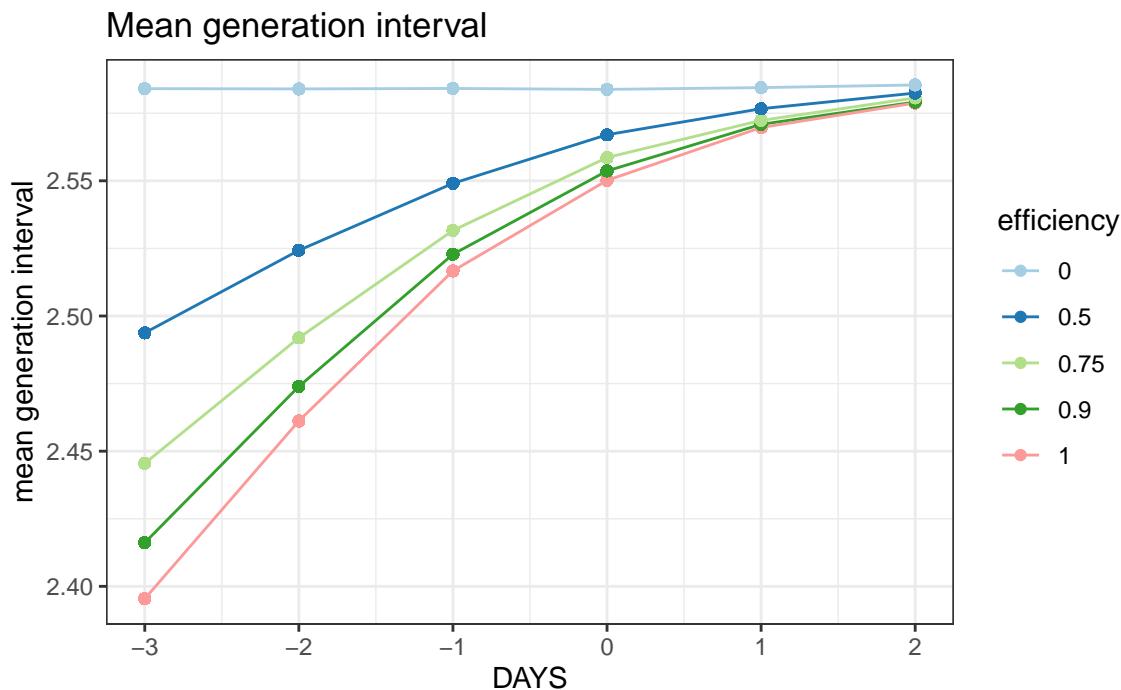
Median percentage of cases prevented



1.3 Cases prevented (proportion)



1.4 Actual generation interval

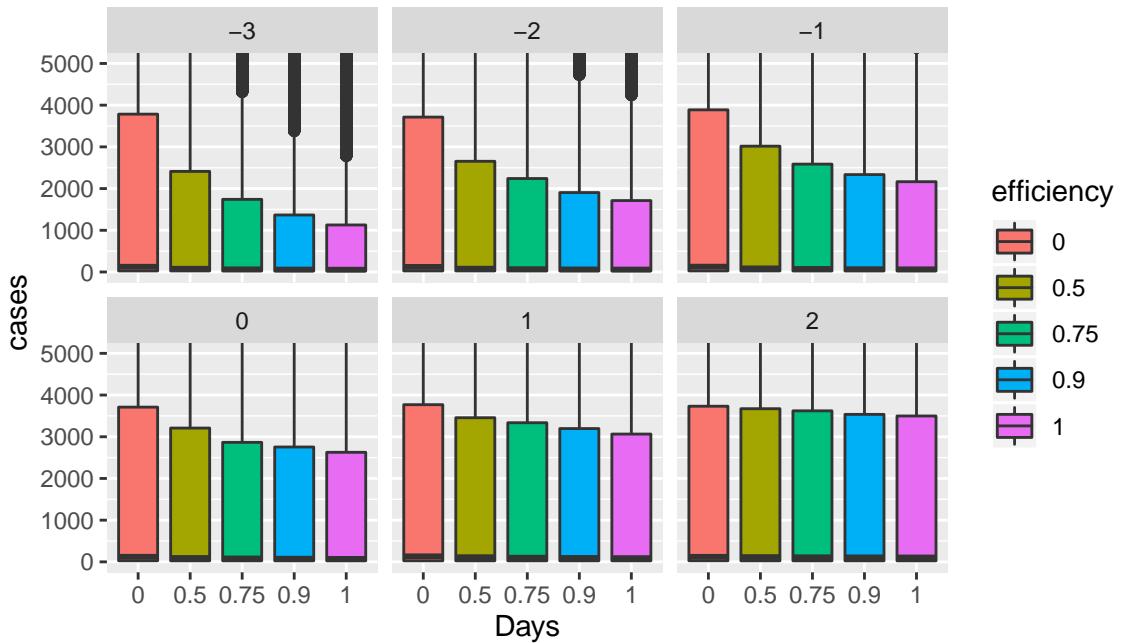


2 n = 20000, offset = 1, gamma mean = 2 variance = 1

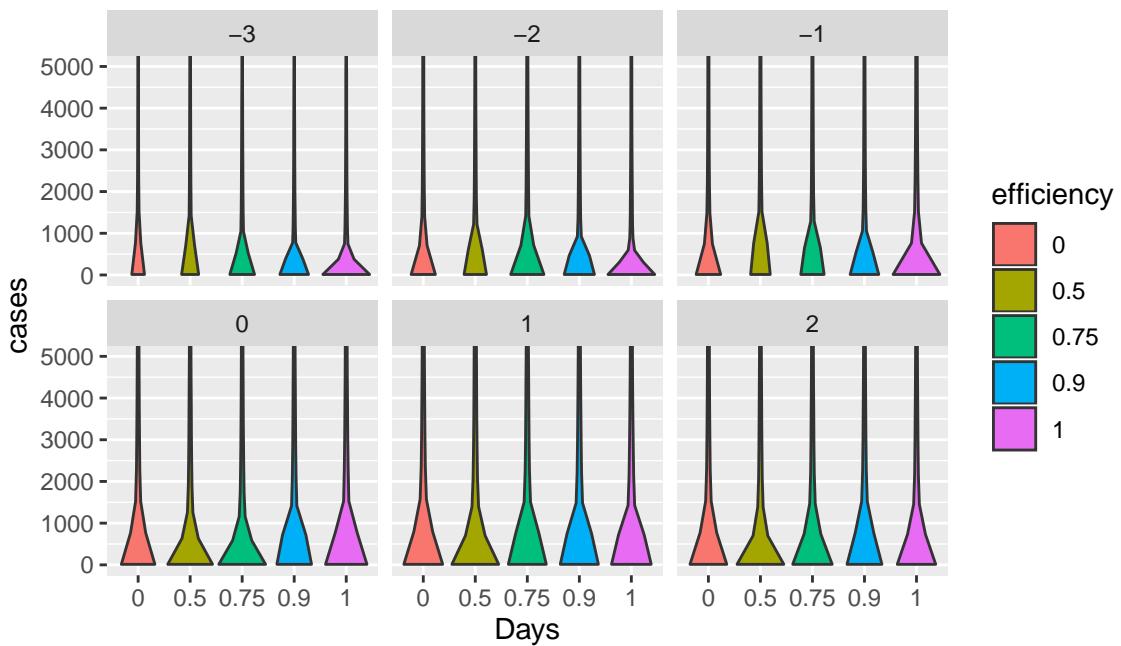
2.1 Case numbers

DAY	pc	mean	median	min	max	n_sims
-3	0.00	4259.892	126.0	12	386581	20000
-3	0.50	2972.862	78.0	12	360637	20000
-3	0.75	2336.961	65.0	12	264392	20000
-3	0.90	2058.161	59.0	12	194541	20000
-3	1.00	1846.665	56.0	12	187233	20000
-2	0.00	4219.042	123.0	12	353790	20000
-2	0.50	3244.168	80.0	12	307468	20000
-2	0.75	2882.506	69.0	12	358158	20000
-2	0.90	2618.194	63.0	12	232329	20000
-2	1.00	2432.668	60.0	12	148414	20000
-1	0.00	4355.903	128.5	12	374402	20000
-1	0.50	3694.359	87.0	12	384063	20000
-1	0.75	3272.004	74.0	12	325735	20000
-1	0.90	3118.882	68.0	12	267097	20000
-1	1.00	2983.243	65.0	12	384958	20000
0	0.00	4161.075	123.0	12	385708	20000
0	0.50	3811.334	94.0	12	318503	20000
0	0.75	3584.226	83.0	12	293398	20000
0	0.90	3456.098	77.0	12	358672	20000
0	1.00	3354.828	73.0	12	386799	20000
1	0.00	4212.313	134.5	12	399196	20000
1	0.50	3889.826	113.0	12	353456	20000
1	0.75	3786.194	101.0	12	381434	20000
1	0.90	3770.673	95.0	12	376002	20000
1	1.00	3679.158	91.0	12	361213	20000
2	0.00	4215.484	122.0	12	387668	20000
2	0.50	4129.043	116.0	12	350516	20000
2	0.75	4052.070	111.0	12	371923	20000
2	0.90	4049.347	109.0	12	385315	20000
2	1.00	4038.700	106.5	12	367958	20000

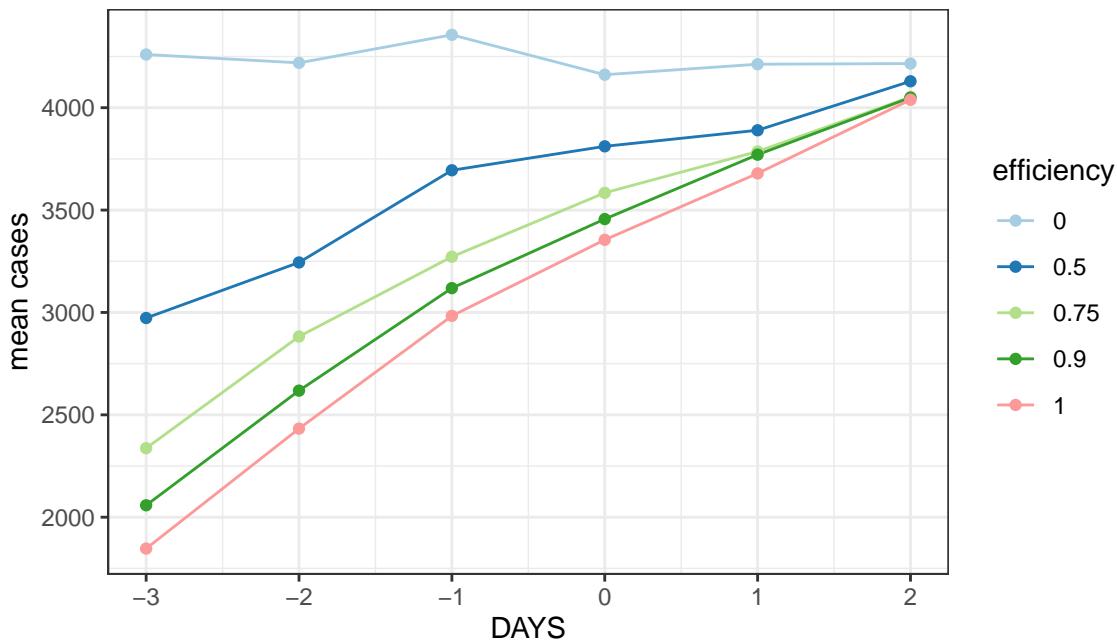
Box plot of cases (axis limited at 5000)



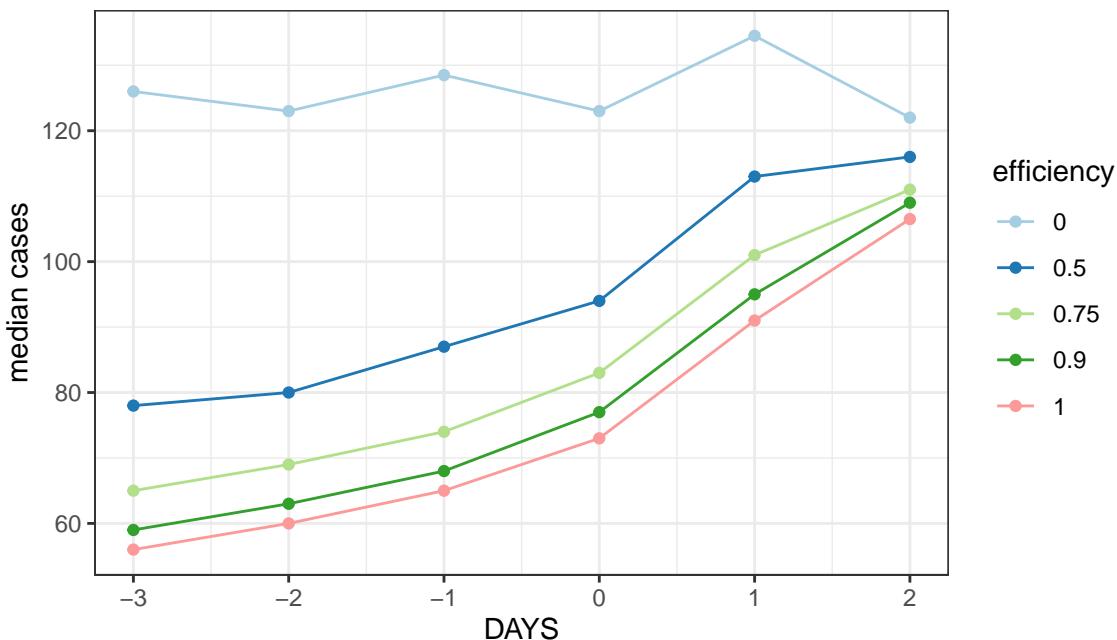
Violin plot of cases (axis limited at 5000)



Mean cases

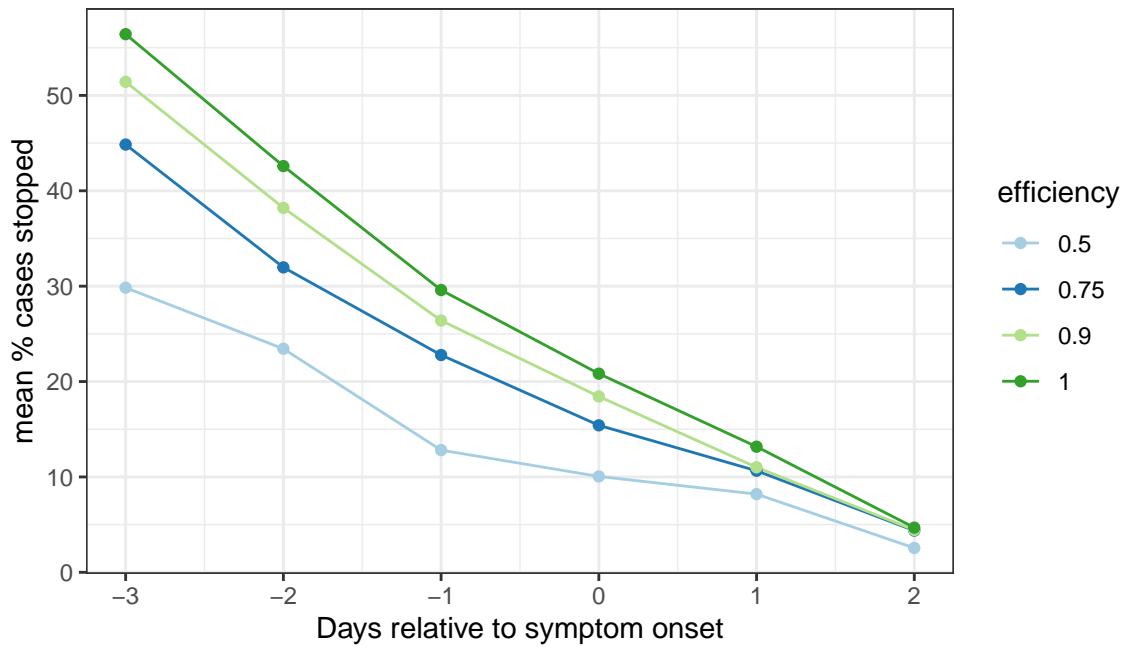


Median cases

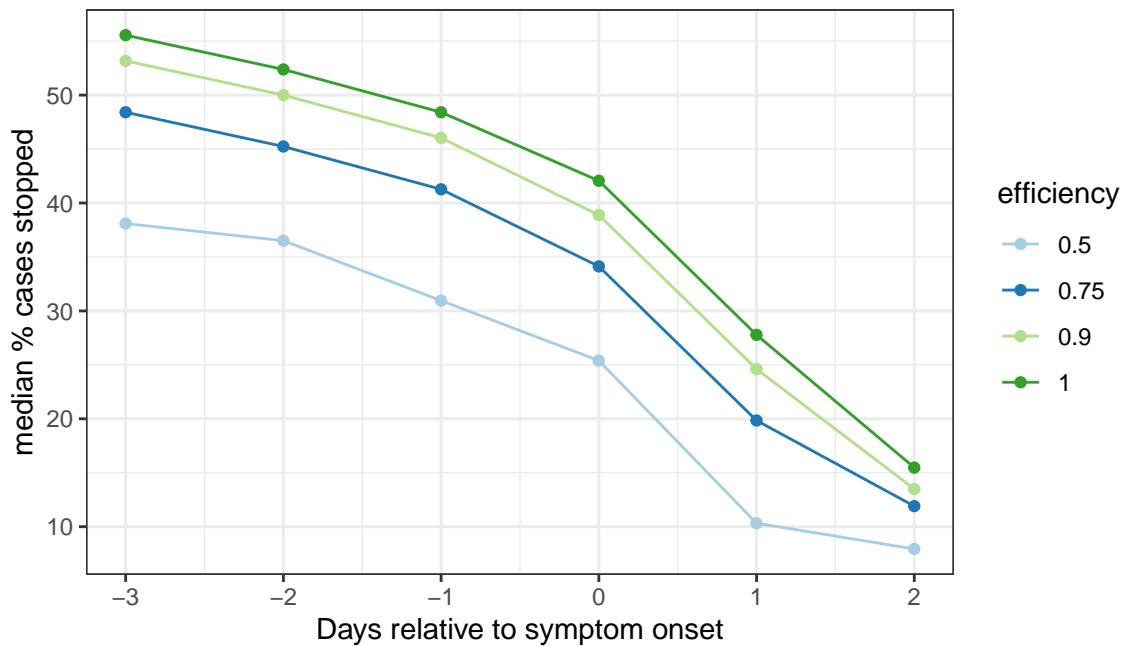


2.2 Cases prevented (summary statistics)

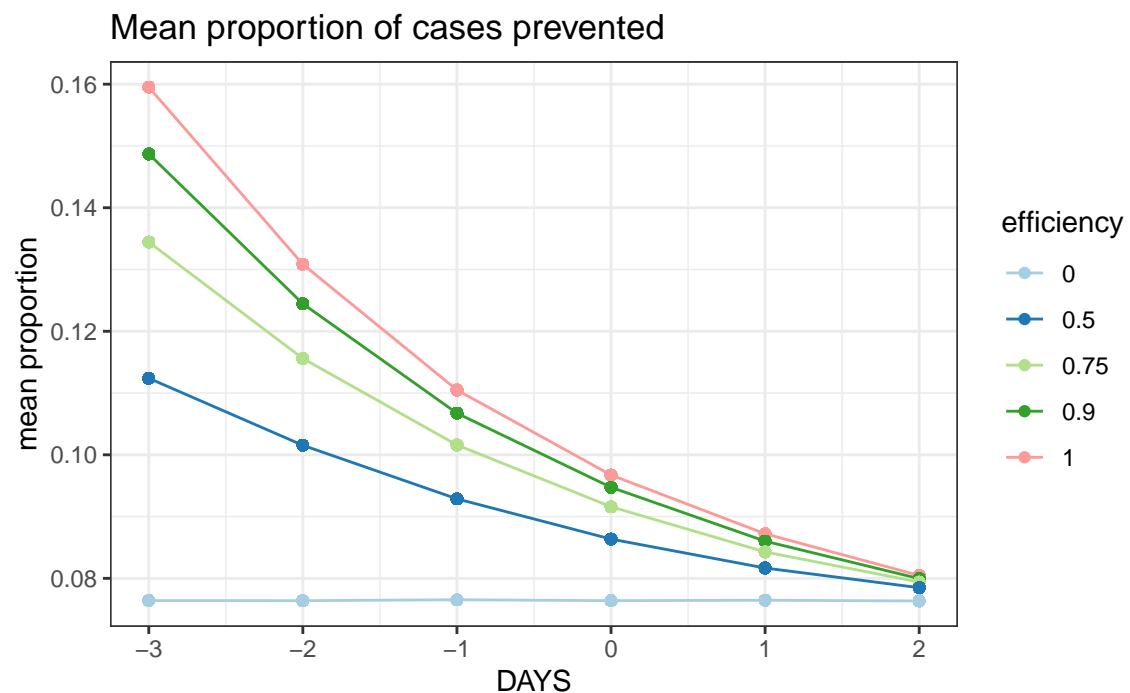
Mean percentage of cases prevented



Median percentage of cases prevented



2.3 Cases prevented (proportion)



2.4 Actual generation interval

