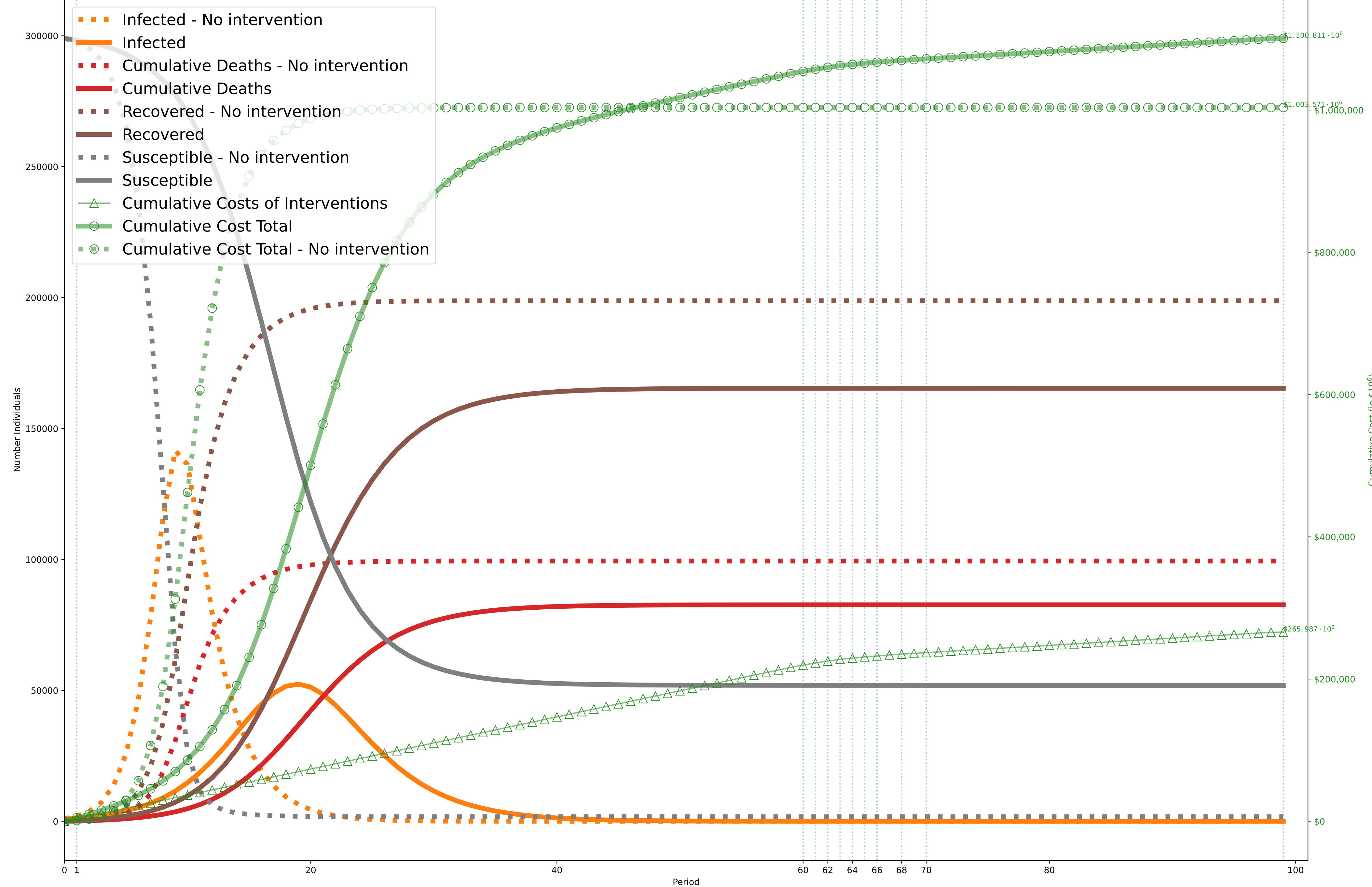


Objective: \$1,100,811,478,254; without intervention: \$1,003,571,304,682 (Desired optimality gap: 1%; actual: 0%. Lower Bound: \$1,099,711,000,000. Time to solve: 227s)

$C^I = \$10,000$ ,  $C^D = \$10,000,000$ . Zero switching costs.

One Period=7 days (costs scaled by 1,000,000 during optimization)

Solved using solve\_and\_process\_quadratic. Quadratic approximation objective: \$835,133,745,636



	1 -59	60 -60	61 -61	62 -62	63 -63	64 -64	65 -65	66 -66	68 -69	70 -98	99 -99
0. Movement A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2	2	2	1		1					
1. Education (University level) A: \$[0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ]	2	2	2	2		2					
2. Social Gatherings (in a house) A: \$[0 ,0 ,0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,12 ,14 ]·10 <sup>2</sup> P: [.99 ,.99 ,.97 ,.93 ]	4	4	4	4	4	4	4	4		4	1
3. Non-Food Service (bank,retail, etc) A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]	3	3	2	2	1	1		1			
4. Restaurants A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2	2	1	1	1						
5. Masking A: \$[0 ,0 ,0 ]·10 <sup>2</sup> B: \$[0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]	3	3	3	3	3	2	3	3		2	
6. Mega Events A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[0 ,0 ,0 ]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]	3	3	3		2						
7. Border Control A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[0 ,0 ]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2										
8. Physical Distancing A: \$[0 ]·10 <sup>2</sup> B: \$[0 ]·10 <sup>2</sup> C: \$[10 ]·10 <sup>2</sup> P: [.93 ]	1	1	1	1	1	1	1	1	1	1	
Cost Per Period: TOTAL Cost Per Period: POLICY Cost Per Period: DISEASE Probability Factor	\$1.8e+10 \$3.7e+09 \$1.4e+10 0.509	\$3.3e+09 \$3.2e+09 \$1.8e+09 0.550	\$3e+09 \$3e+09 \$1.4e+09 0.581	\$2.6e+09 \$2.6e+09 \$1.2e+09 0.628	\$2.4e+09 \$2.4e+09 \$9.7e+08 0.675	\$1.7e+09 \$1.7e+09 \$8e+08 0.748	\$1.7e+09 \$1.7e+09 \$6.8e+08 0.734	\$1.4e+09 \$1.4e+09 \$5.4e+08 0.787	\$1.1e+09 \$1.1e+09 \$3.9e+08 0.791	\$1e+09 \$1e+09 \$7.7e+05 0.813	\$2.4e+08 \$2.4e+08 \$4.2e+04 0.995