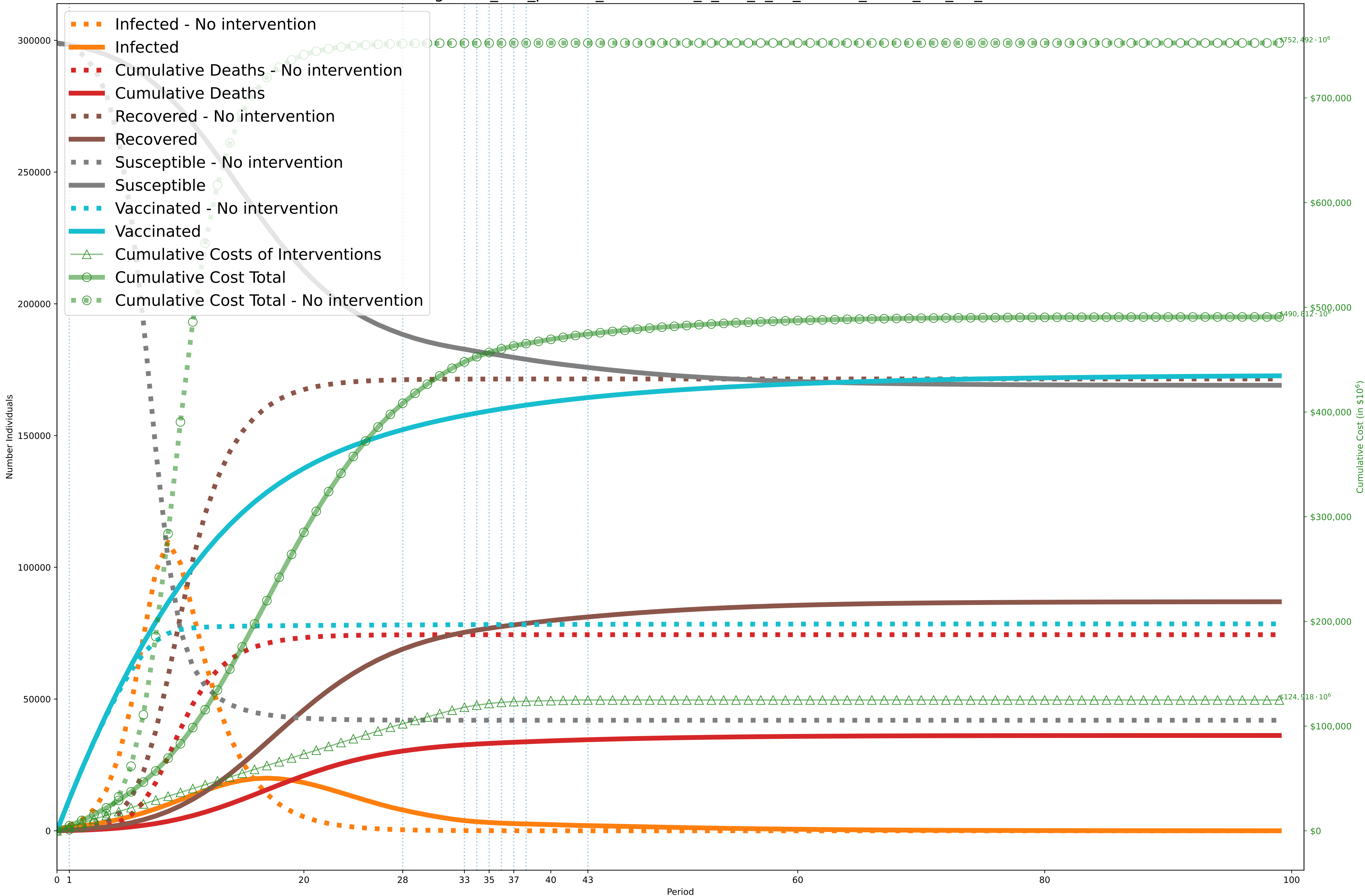


Objective: \$490,812,536,401; without intervention: \$752,492,232,143 (Desired optimality gap: 80%; actual: 75%. Lower Bound: \$121,616,000,000. Time to solve: 36s)

$C^I = \$10,000, C^D = \$10,000,000$

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

Solved using solve\_and\_process\_vaccination\_T\_vax\_1\_S0\_antivax\_factor\_0.2\_KV\_0.05



	1 -27	28 -32	33 -33	34 -34	35 -35	36 -36	37 -37	38 -42	43 -99
0. Movement A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[10000,20000]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2	2							
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. 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			
3. Non-Food Service (bank,retail, etc) A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[5000 ,10000,20000]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]	3	3	3	3					
4. Restaurants A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[10000,20000]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2	2	2						
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				
6. Mega Events A: \$[2500 ,5000 ,10000]·10 <sup>2</sup> B: \$[5000 ,10000,20000]·10 <sup>2</sup> C: \$[8 ,10 ,14 ]·10 <sup>2</sup> P: [.99 ,.95 ,.93 ]	3	3	3						
7. Border Control A: \$[5000 ,10000]·10 <sup>2</sup> B: \$[10000,20000]·10 <sup>2</sup> C: \$[10 ,14 ]·10 <sup>2</sup> P: [.95 ,.93 ]	2	2	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		
Cost Per Period: TOTAL Cost Per Period: POLICY Cost Per Period: DISEASE Probability Factor	\$1.5e+10 \$3.7e+09 \$1.1e+10 0.509	\$8.8e+09 \$3.2e+09 \$5.5e+09 0.536	\$6.2e+ \$4.9e+ \$4.1e+ \$3.4e+ \$2.8e+ \$2e+09 \$2.8e+ \$2e+09 \$1.6e+ \$1.1e+ \$7.2e+ \$3e+08 \$3.4e+ \$2.9e+ \$2.6e+ \$2.3e+ \$2.1e+ \$1.7e+09 0.579 0.677 0.732 0.791 0.856 0.925						\$3.1e+08 \$0.0 \$3.1e+08 1.000