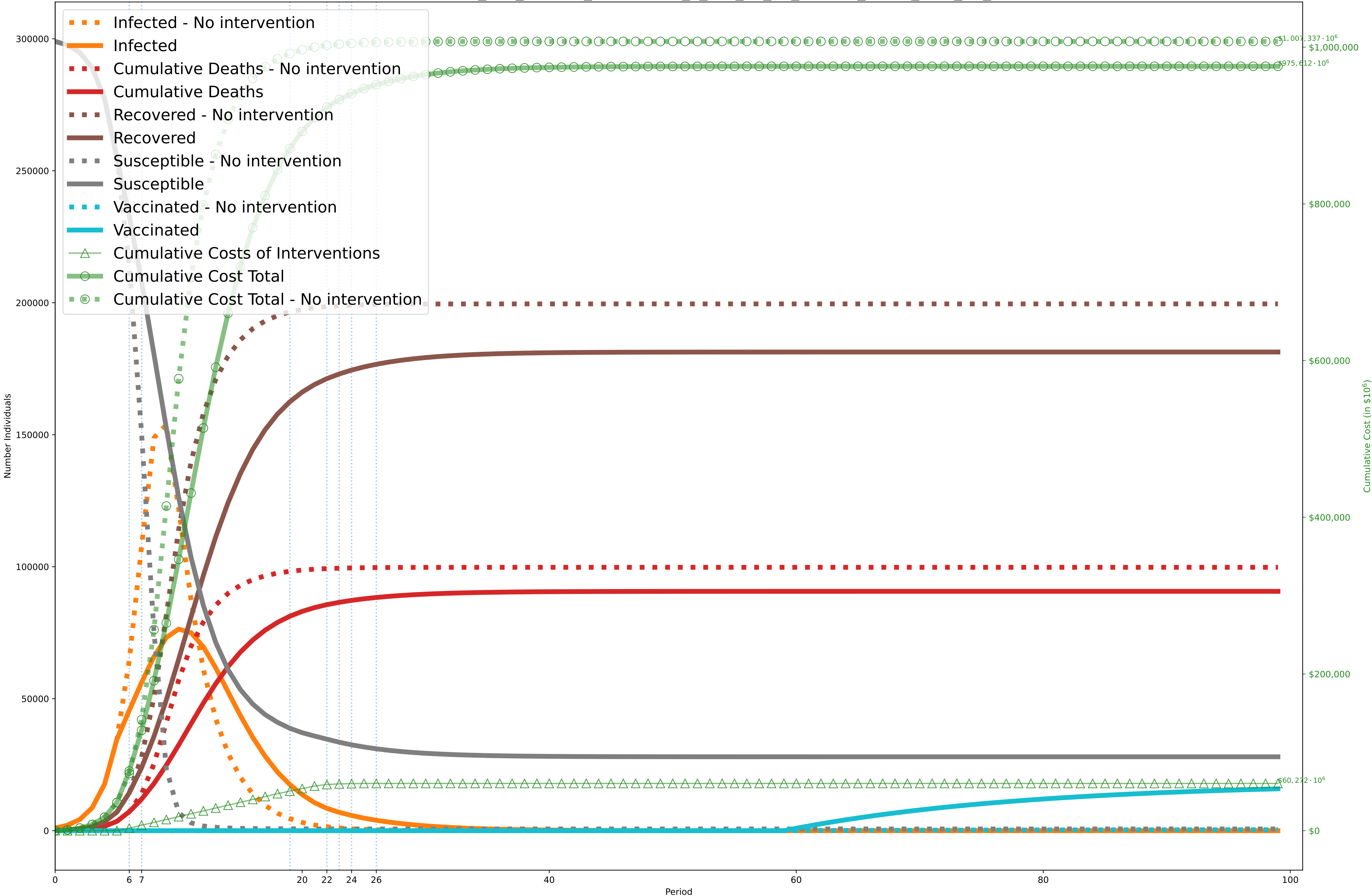


Objective: \$975, 612, 820, 716; without intervention: \$1, 007, 337, 001, 720 (Desired optimality gap: 80%; actual: 77%. Lower Bound: \$222,486,000,000. Time to solve: 50s)

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

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

Solved using solve\_and\_process\_vaccination\_T\_vax\_60\_S0\_antivax\_factor\_0.35\_KV\_0.05



	0 -5	6 -6	7 -18	19 -21	22 -22	23 -23	24 -25	26 -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	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			
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	
Cost Per Period: TOTAL Cost Per Period: POLICY Cost Per Period: DISEASE Probability Factor	\$6e+09 \$0.0 \$6e+09 1.000	\$4e+10 \$3.3e+09 \$3.7e+09 0.536	\$6.4e+10 \$3.7e+09 \$6e+10 0.509	\$2.2e+10 \$3.2e+09 \$3.2e+09 0.536	\$1.3e+09 \$2e+09 \$1.1e+09 0.677	\$9.7e+09 \$7.2e+09 \$8.9e+09 0.856	\$7e+09 \$3e+09 \$6.7e+09 0.925	\$3.8e+08 \$0.0 \$3.8e+08 1.000