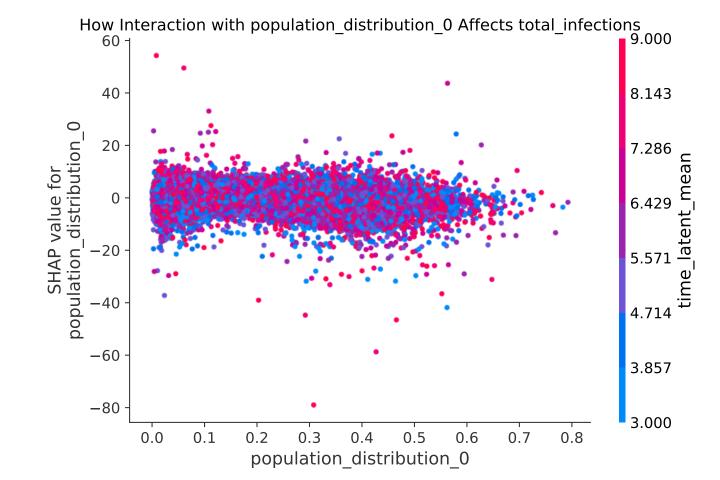
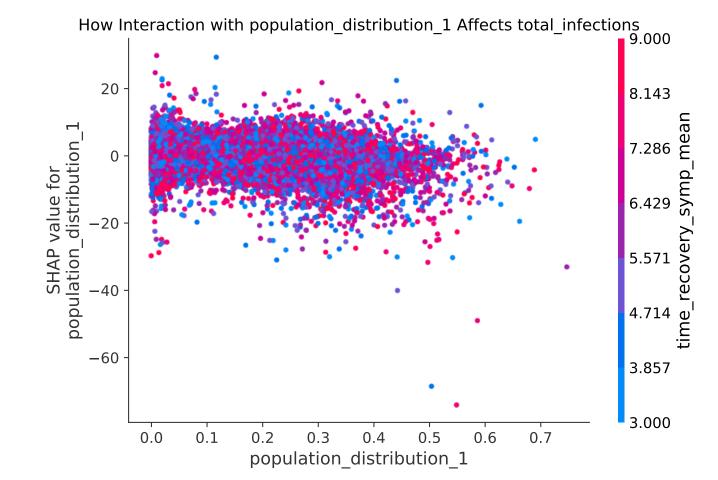
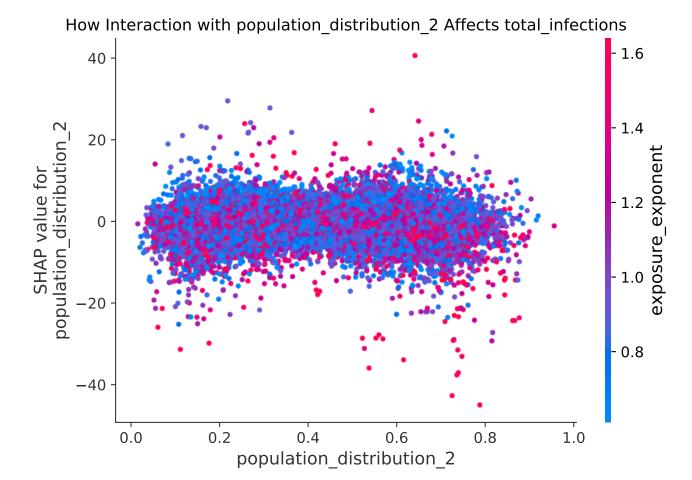
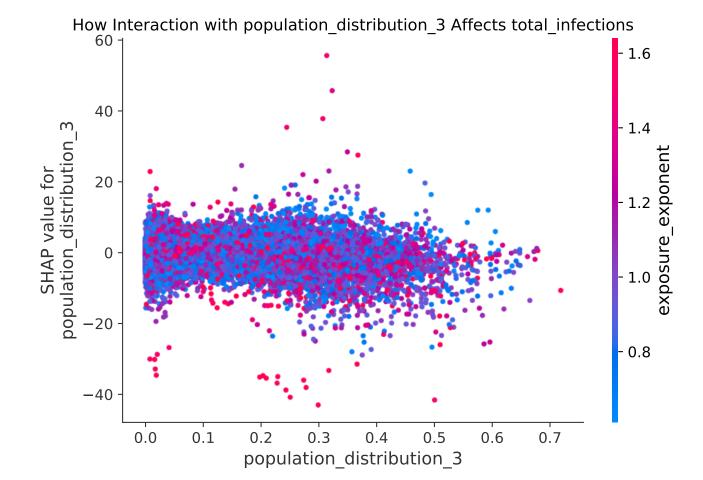
total\_infections Forecast by Meta-Model vs Actual Outcome by Simulator 5000 4000 3000 -2000 1000 -1000 2000 3000 4000 Forecast

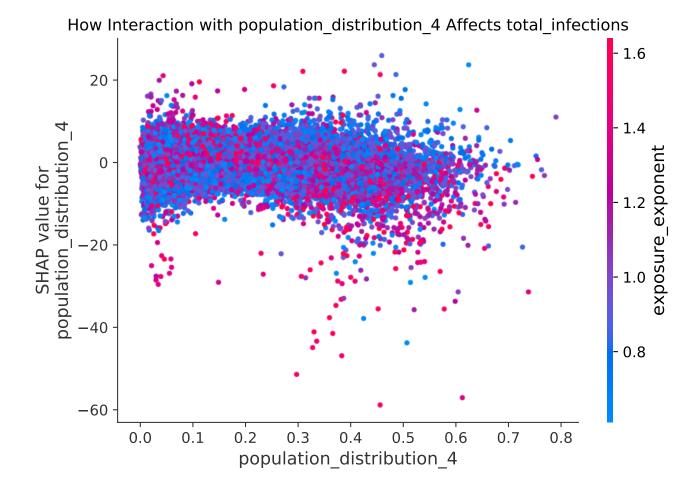
Datapoint-specific Sensitivities to total infections High exposure probability4unit contact exposure exponent time latent mean time recovery asymp mean exposure threshold time latent max time recovery asymp max time symptoms onset mean Feature value time symptoms onset max time decline mean time\_recovery\_symp\_mean time death mean time decline max time recovery symp max time death max alert by tested positive random infection rate atic\_start\_of\_isolation is absolute alert policy prioritised no isolation tested negative Low -3000-2000-10001000 2000 SHAP value (impact on model output)

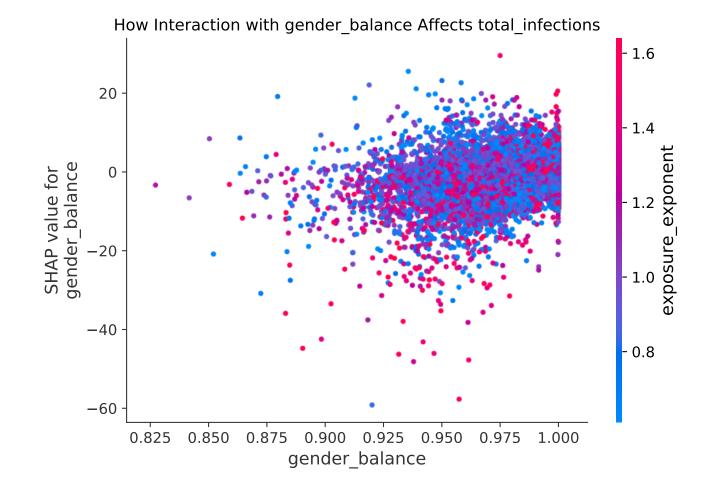


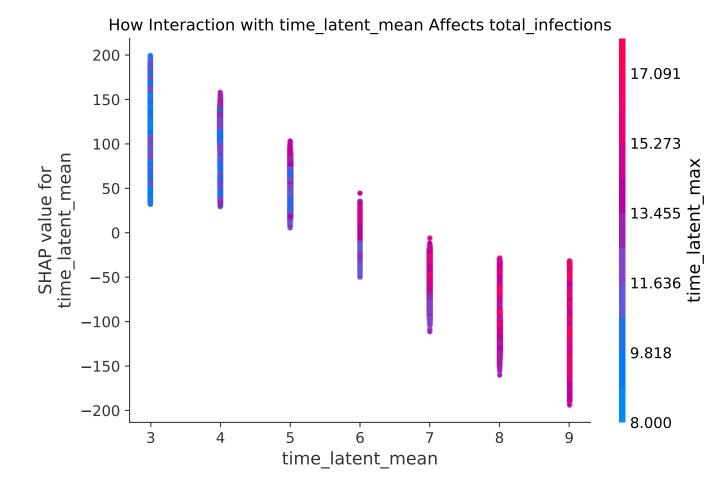


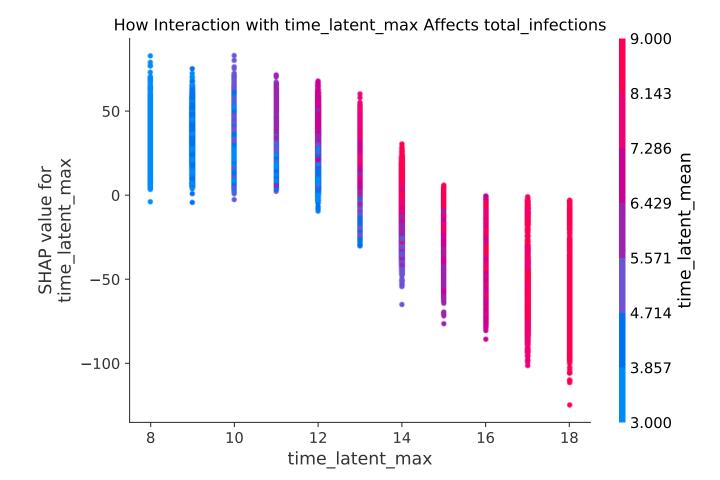


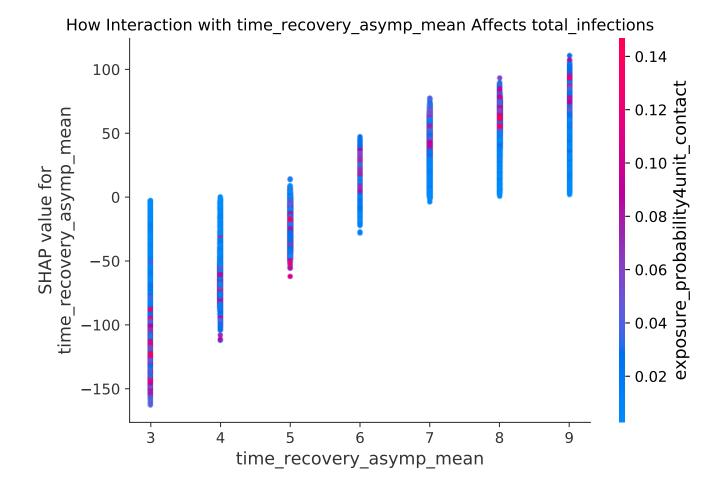


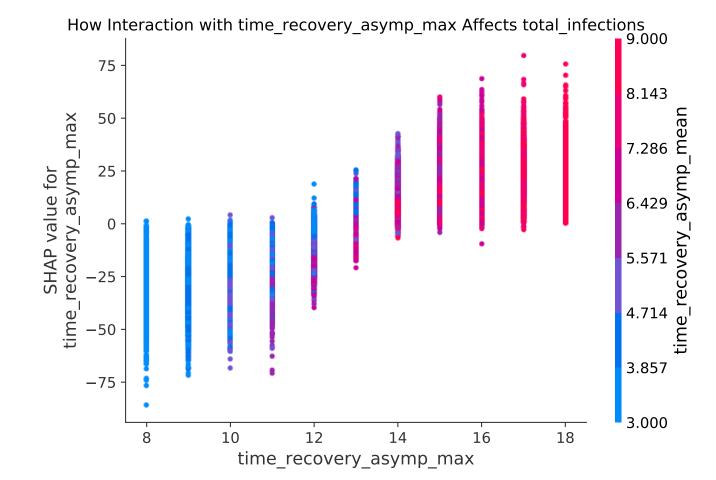


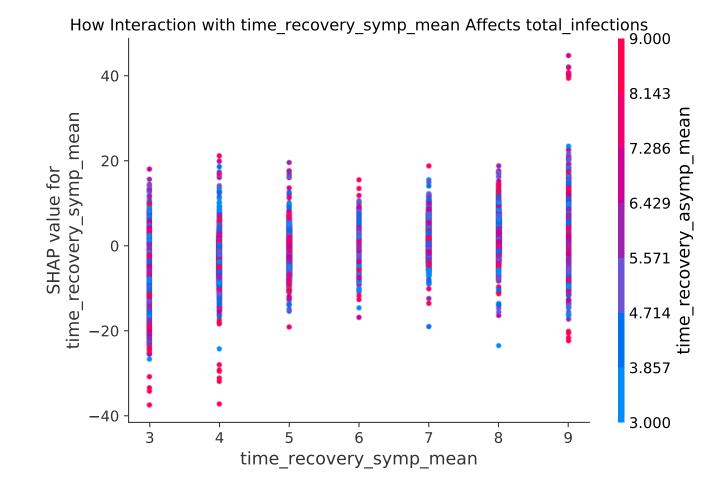


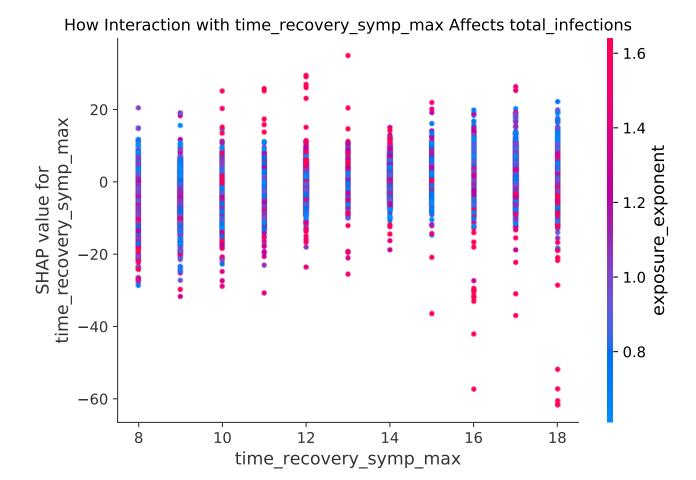


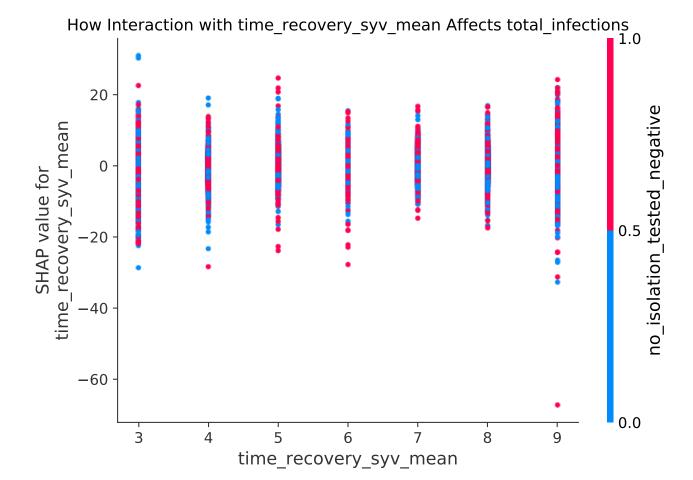


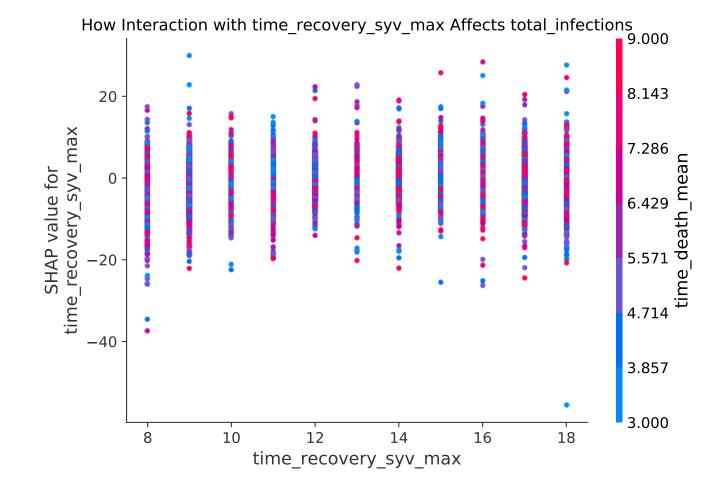




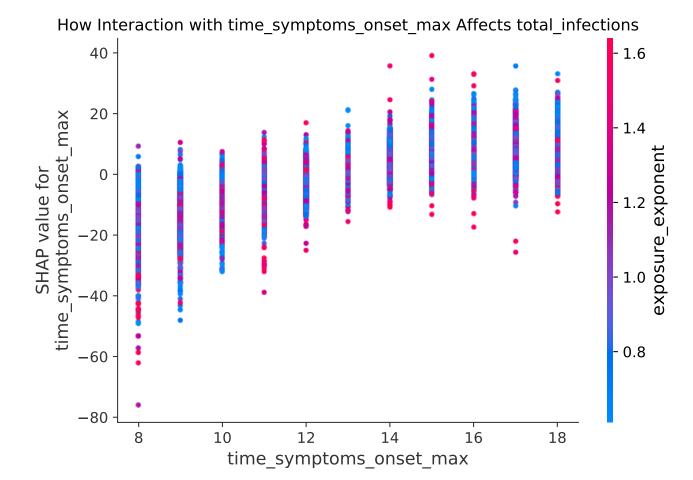


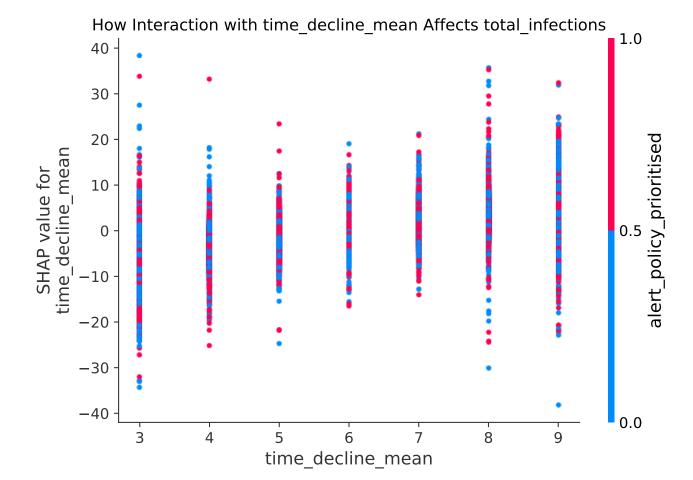


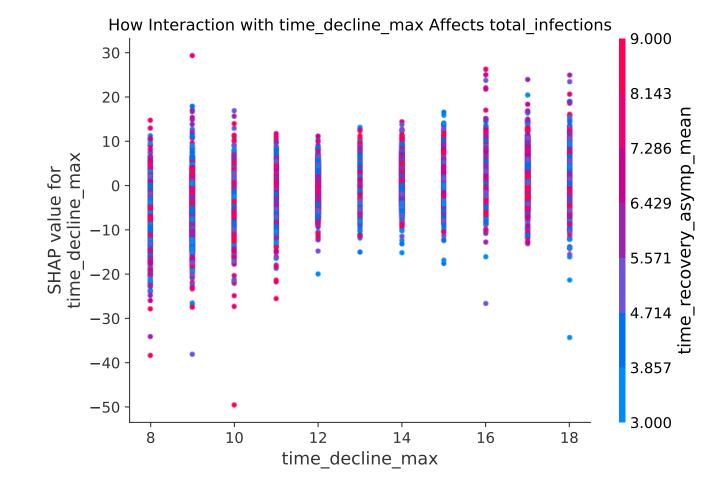


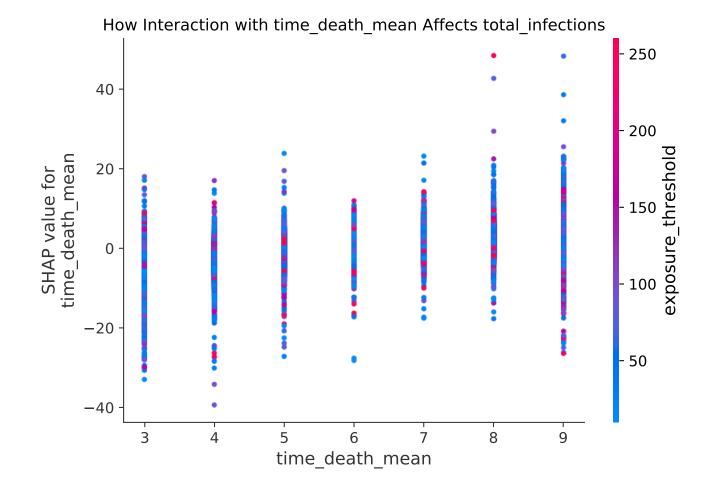


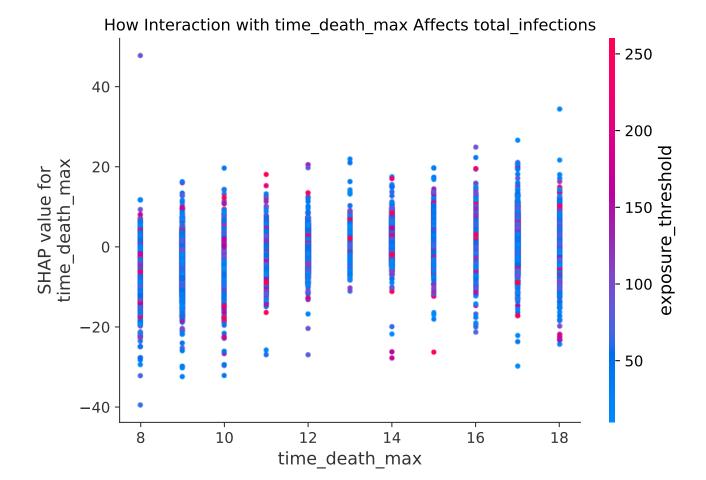
How Interaction with time symptoms onset mean Affects total infections - 0.14 60 - 0.12 mean 40 - 0.10 onset SHAP value for 20 0.08 symptoms 0 - 0.06 -20 time - 0.04 -400.02 -608 6 9 time symptoms onset mean

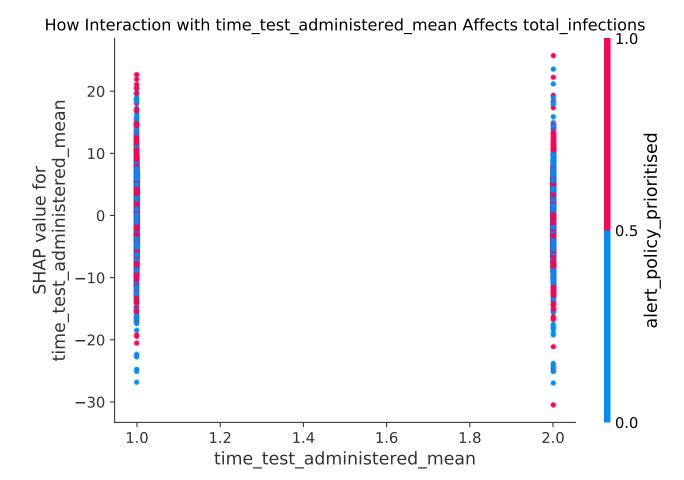


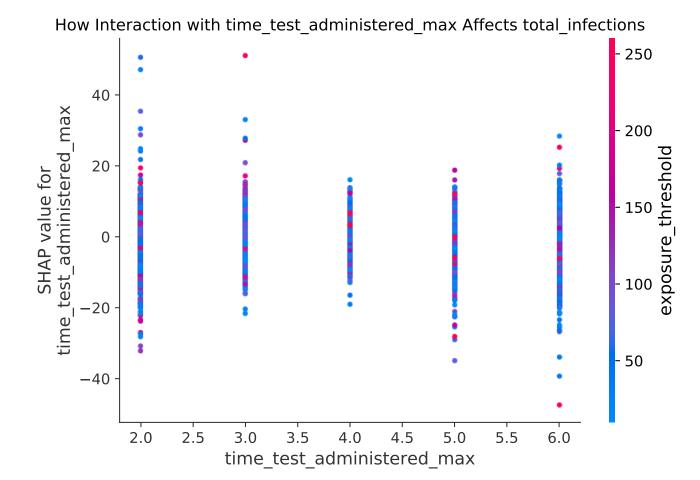


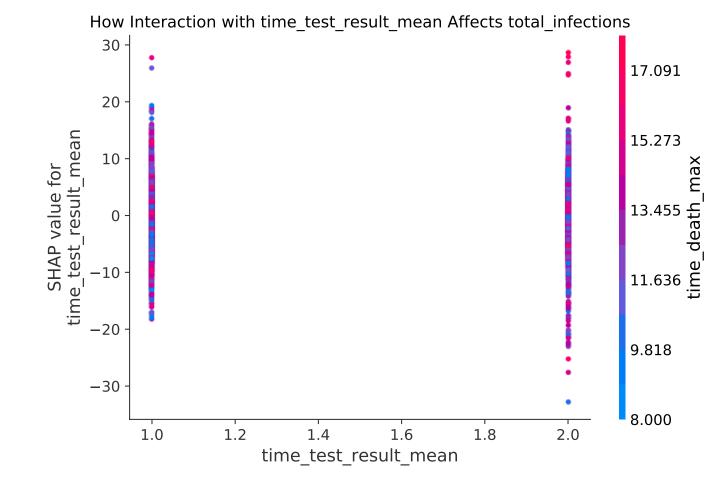


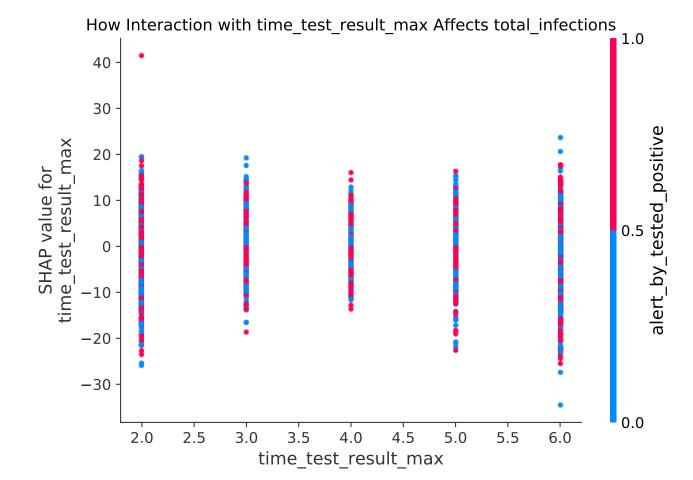


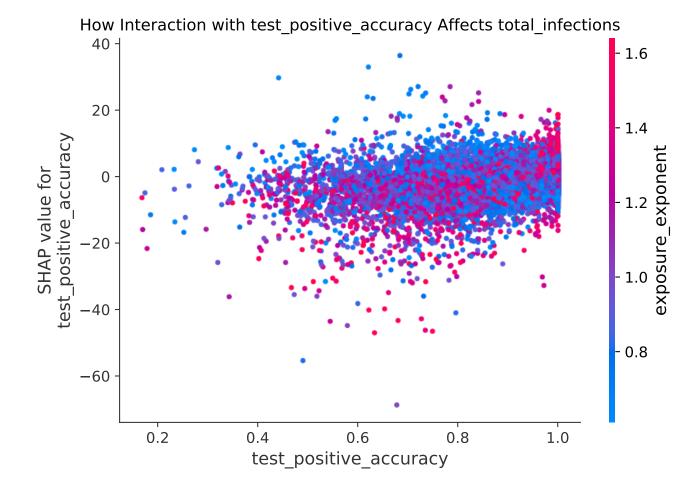


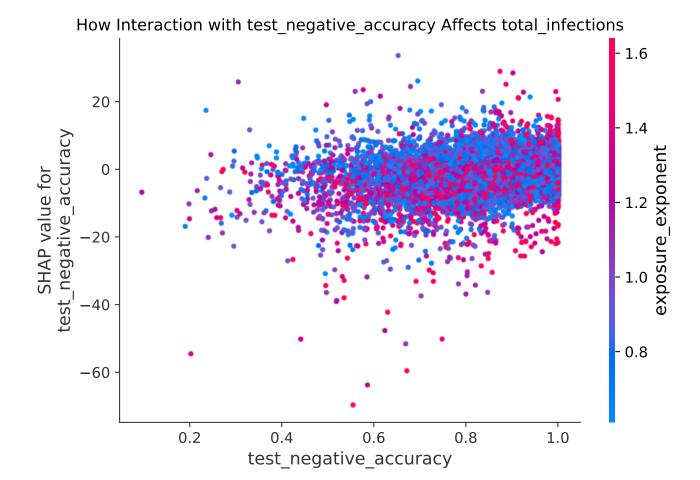


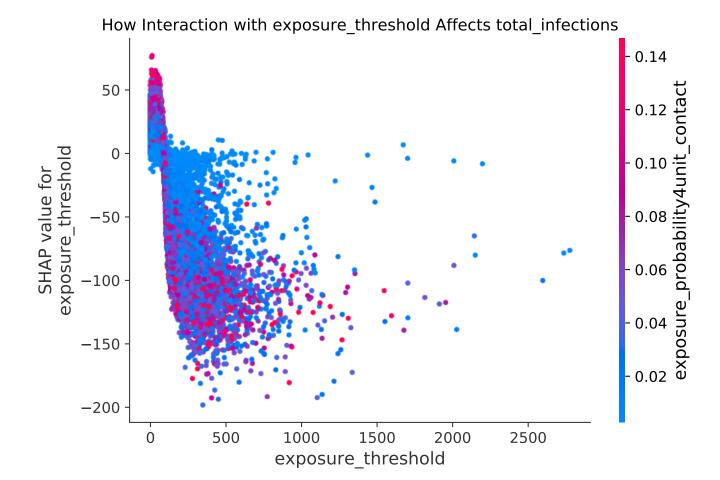




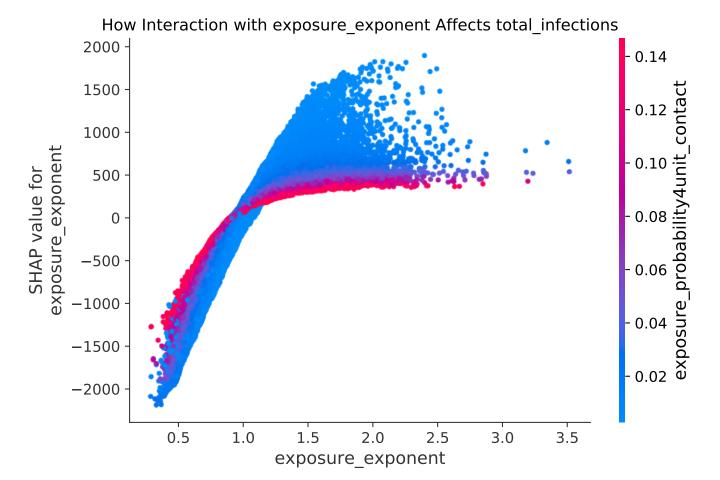


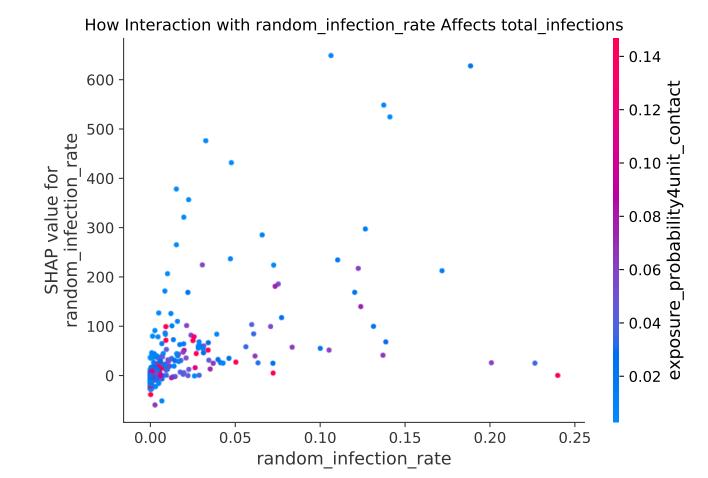


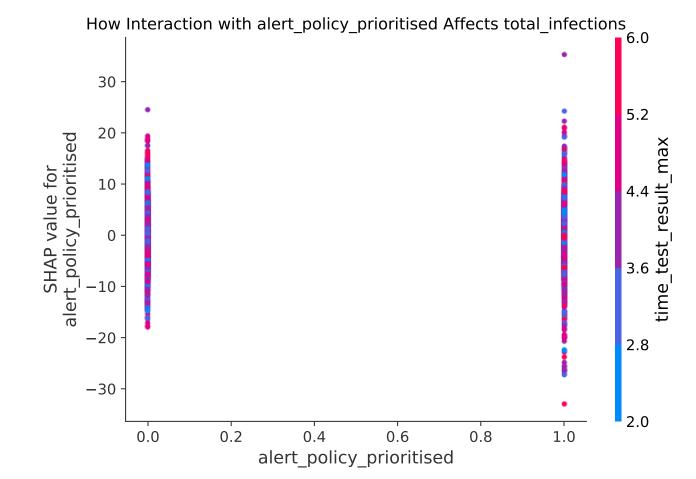


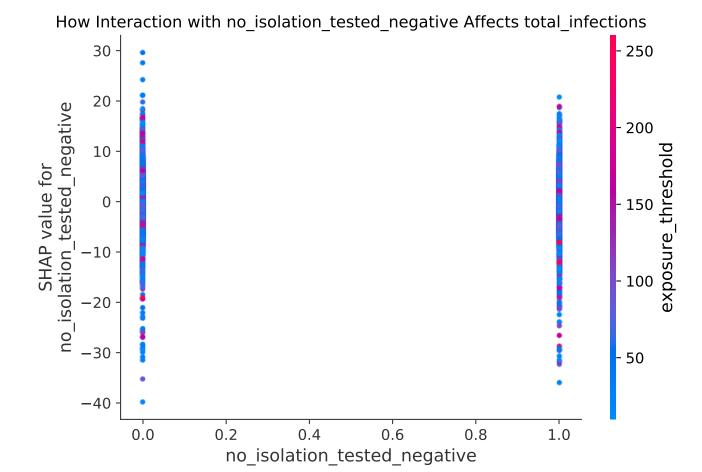


How Interaction with exposure probability4unit contact Affects total infections - 1.6 1000 contact 1.4 0 SHAP value for probability4unit 1.2 -10001.0 -2000 exposure - 0.8 -30000.0 0.1 0.2 0.3 0.4 0.5 exposure probability4unit contact

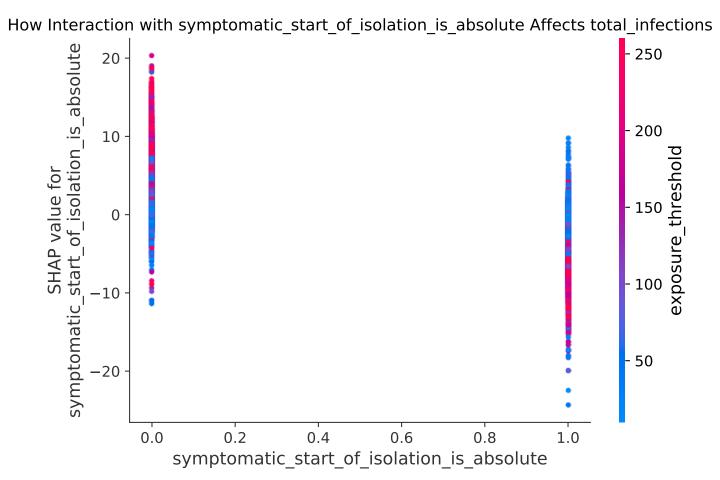








How Interaction with symptomatic isolation time mean Affects total infections - 250 20 time\_mean 200 10 SHAP value for atic\_isolation\_ti 150 0 symptomatic 100 -10 50 -208 10 12 symptomatic\_isolation\_time\_mean



How Interaction with severely symptomatic isolation time mean Affects total infections isolation\_time\_mean 30 -- 250 20 200 10 SHAP value for 150 0 severely\_symptomation -10100 -20 50 -308 10 12 severely\_symptomatic\_isolation\_time\_mean

