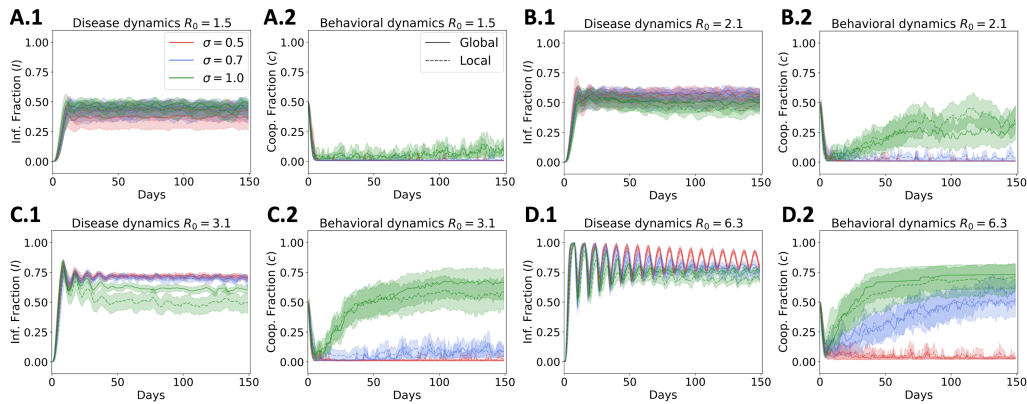
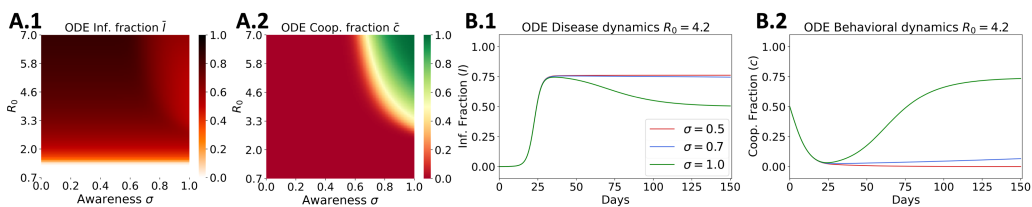


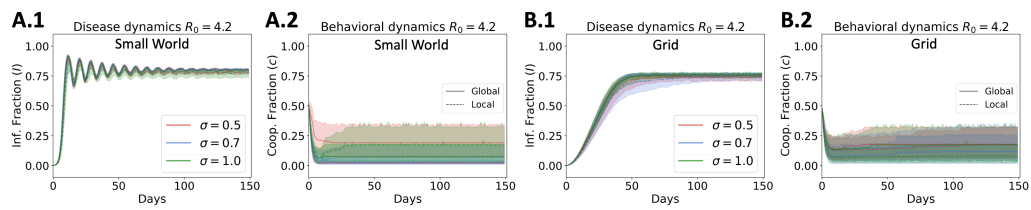
S1 Fig. Dynamics on Scale-free network .

Supplementary Figure 1. Temporal evolution of scale-free social networks in different contagion scenarios on a scale-free network with 1000 nodes. **A** $R_0 = 1.5$. **B** $R_0 = 2.1$. **C** $R_0 = 3.1$. **D** $R_0 = 6.3$. Awareness σ is varied for 0.5, 0.7 and 1.0 accounting for a scenario of half, partial and full disease awareness (color-coded), respectively. For all lines represent the median of the 100 simulations and ribbons represent the 90% quantiles. **.1** shows the infected fraction in time $I(t)/N$ and the **.2** shows the cooperators fraction (c). The solid line corresponds to running the network model in the global setting while dashed line corresponds to the local setting.

S2 Fig. Dynamics on mechanistic - ODEs model.

Supplementary Figure 2. Effect of the basic reproductive number R_0 and awareness σ on the infection and cooperation in a mechanistic model. **A.1** Stable state of infected fraction \bar{I} (color coded). **A.2** Stable state of cooperating fraction \bar{c} (color coded). **B.1** Temporal dynamics of disease and **B.2** behavior in a ODE implementation. The basic reproductive number R_0 is fixed to 4.2 and awareness σ is varied for 0.5, 0.7 and 1.0 accounting for a scenario of half, partial and full disease awareness (color-coded), respectively.

S3 Fig. Dynamics on Small World and Grid network.



Supplementary Figure 3. (Supplementary material) Temporal behavior of homogeneous social network of 1000 individuals. The value for R_0 is fixed to 4.2 and σ is varied for 0.5, 0.7 and 1.0 accounting for a scenario of half, partial and full disease awareness, respectively. **A.1** Small World graph disease and **A.2** behavioral dynamics. **B.1** Grid graph disease and **B.2** behavioral dynamics.