

**Time-dependent behavior of the model variables for the default parameter values with ART.** The results are for the total number of susceptible individuals,  $S(t)$ , total number of untreated infected individuals,  $I(t)$ , total number of treated individuals,  $A(t)$ , total population size,  $N(t)$ , and population sizes of the lowest,  $N_1(t)$ , and highest,  $N_6(t)$ , risk groups. The annual treatment uptake percentage,  $\tau^*$ , is 80% and the rest of parameter values are as in S1 Table.







