S4 Table. Summary of variables describing sub-population sizes in infectious (sub-)states in Germany (GER) and the USA.

Name	Description	Initial value	
$P_k^{(\text{Ge})}$	No. infected Ge in kth prodromal state ($1 \le k \le n_P$)	0	
$P_k^{(\text{St},-)}$	No. infected undetected St in kth prodromal state ($1 \le k \le n_P$)	0	
$P_k^{(\text{St},*)}$	No. St in kth prodromal state, whose test results will be pos. ($1 \le k \le n_P$)	0	
$P_k^{(\text{St},+)}$	No. pos. tested St in kth prodromal state ($1 \le k \le n_P$)	0	
$P_k^{(\text{Ri})}$	No. Ri in kth prodromal state ($1 \le k \le n_P$)	0	
$P_{\text{Sum}}^{(\text{Ge})}$	Total No. of Ge in prodromal states	0	
$P_{\text{Sum}}^{(\text{St},-)}$	Total No. undetected infected St in prodromal states	0	
$P_{\text{Sum}}^{(\text{St},*)}$	Total No. of St in prodromal states, whose test results will be pos.	0	
$P_{\text{Sum}}^{(\text{St},+)}$	Total No. of pos. tested St in prodromal states	0	
$P_{\text{Sum}}^{(\text{Ri})}$	Total No. of Ri in prodromal states	0	
		GER	**USA**
$I_1^{(\text{Ge})}$	No. infected Ge in 1st fully infectious state	200	75
$I_k^{(\text{Ge})}$	No. infected Ge in kth fully infectious state ($2 \le k \le n_I$)	0	0
$I_{\text{Sum}}^{(\text{Ge})}$	Total No. of Ge in fully infectious states	200	75
$I_k^{(\text{St},-)}$	No. infected undetected St in kth fully infectious state ($1 \le k \le n_I$)	0	
$I_k^{(\text{St},*)}$	No. St in kth fully infectious state, whose test results will be pos. ($1 \le k \le n_I$)	0	
$I_k^{(\text{St},+)}$	No. pos. tested St in kth fully infectious state ($1 \le k \le n_I$)	0	
$I_k^{(\text{Ri})}$	No. Ri in kth fully infectious state ($1 \le k \le n_I$)	0	
$I_{\text{Sum}}^{(\text{St},-)}$	Total No. undetected infected St in fully infectious states	0	
$I_{\text{Sum}}^{(\text{St},*)}$	Total No. of St in fully infectious states, whose test results will be pos.	0	
$I_{\text{Sum}}^{(\text{St},+)}$	Total No.of pos. tested St in fully infectious states	0	
$I_{\text{Sum}}^{(\text{Ri})}$	Total No. of Ri in fully infectious states	0	
$L_k^{(\text{Ge})}$	No. infected Ge in kth late infectious state ($1 \le k \le n_L$)	0	
$L_k^{(\text{St},-)}$	No. infected undetected St in kth late infectious state ($1 \le k \le n_L$)	0	
$L_k^{(\text{St},*)}$	No. St in kth late infected state, whose test results will be pos. ($1 \le k \le n_L$)	0	
$L_k^{(\text{St},+)}$	No. pos. tested St in kth late infectious state ($1 \le k \le n_L$)	0	
$L_k^{(\text{Ri})}$	No. Ri in kth late infectious state ($1 \le k \le n_L$)	0	
$L_{\text{Sum}}^{(\text{Ge})}$	Total No. of Ge in late infectious states	0	
$L_{\text{Sum}}^{(\text{St},-)}$	Total No. infected undetected individuals in late infectious state in St	0	
$L_{\text{Sum}}^{(\text{St},*)}$	Total No. of St in late infected states, whose test results will be pos.	0	
$L_{\text{Sum}}^{(\text{St},+)}$	Total No.of pos. tested St in late infectious states	0	
$L_{\text{Sum}}^{(\text{Ri})}$	Total No. of Ri in late infectious states	0	

Description of variables and their initial values chosen for the simulations.