

**S2 Table.** Parameters describing disease progression for Germany (GER) and the USA.

Parameter	Description	Value
$n_E$	No. of latent sub-states (Erlang states)	16
$n_P$	No. of prodromal sub-states (Erlang states)	16
$n_I$	No. of fully infectious sub-states (Erlang states)	16
$n_L$	No. of late infectious sub-states (Erlang states)	16
$D_E$	Average duration of latent period	3.7 days
$D_P$	Average duration of prodromal period	1 day
$D_I$	Average duration of fully infectious period	5 days
$D_L$	Average duration of late infectious period	5 days
$\varepsilon$	Transition rate of latent sub-states	$n_E/D_E$
$\varphi$	Transition rate of prodromal sub-states	$n_P/D_P$
$\gamma$	Transition rate of fully infectious sub-states	$n_I/D_I$
$\delta$	Transition rate of late infectious sub-states	$n_L/D_L$
$\alpha$	Average waiting time for the outcome of the vaccine	1/28, 1/42
$\nu$	Rate at which individuals get vaccinated	0, 1/180, 1/240, 1/300

Parameters describing disease progression and their values used in the simulations. Abbreviations: No. ... Number.