**Table S3**

**List of Scenarios and number of simulations that are made by using agent-based model.**

|  |  |  |
| --- | --- | --- |
| **Figure** | **Scenario** | **Number of simulations** |
| 2a | Estimating effective reproduction number (*Re*) number for transmission reduction that conducted by fixing household transmission rate (*βh*) and varying non-household Transmission rate (*βo*) using real network. | 500 |
| Estimating *Re* for transmission reduction that conducted by varying both *βh* and *βo* using real network. | 500 |
| Estimating *Re* for transmission reduction that conducted by varying both *βh* and *βo* using random network. | 500 |
| Estimating *Re* for transmission reduction that conducted by fixing household transmission rate (*βh*) and varying non-household Transmission rate (*βo*) using random network. | 500 |
| 2b | Finding infection occurrence ratio for *Re* in the household, workplaces, and social environment when *βh* fix and *βo*varies. | 500 |
| 2c | Finding infection occurrence ratio for Re in the household, workplaces, and social environment when *βh* and *βo*varies. | 500 |
| 3 | Estimating third order transmission chain occurrence ratio for R0 = 2.87 using real network | 500 |
| Estimating third order transmission chain occurrence ratio for R0 = 2.87 using random network | 500 |
| Estimating third order transmission chain occurrence ratio for R0 = 1 using random network | 500 |
| Estimating third order transmission chain occurrence ratio for R0 = 1 using real network by varying both *βh* and *βo* | 500 |
| Estimating third order transmission chain occurrence ratio for R0 = 1 using real network by fixing *βh* and conducting 88% reduction in *βo* | 500 |
| 5a | Estimating basic reproduction number R0 for free weekend without stay-at-home restriction | 500 |
| Estimating basic reproduction number R0 for stay-at-home restriction on Sunday  | 500 |

**Table S3**

**List of Scenarios and number of simulations that are made by using agent-based model (Continue).**

|  |  |  |
| --- | --- | --- |
|  | Estimating basic reproduction number R0 for stay-at-home restriction on Sunday and Saturday | 500 |
| 5b | Finding infection occurrence ratio for *R0*in the household, workplaces, and social environment when there is no stay-at-home | 500 |
| 5c | Finding infection occurrence ratio for *R0*in the household, workplaces, and social environment when there is stay-at-home restriction on Sunday | 500 |
| 5d | Finding infection occurrence ratio for *R0*in the household, workplaces, and social environment when there is stay-at-home restriction on Sunday and Saturday | 500 |
| 7a | Estimating basic reproduction number for wild-type COVID-19 (R0WT) for:1) 0%,50%,60%,70%,80%,90% vaccination of population (Vac= [0,50,60,70,80,90])2) 0,1,2,3,4 hour(s) decrease in working hour (DW= [0,1,2,3,4])3) 0.1,2,3,4 day(s) stay-at-home restriction (SH= [0,1,2,3,4])4) 0%,40%,70%,76%,82%,88%,94%,97%,99% social distancing measures (SDM= [0,40,70,76,82,88,94,97,99]) | 500\* |
| 7b | Estimating basic reproduction number for delta variant COVID-19 (R0delta) for:1) 0%,50%,60%,70%,80%,90% vaccination of population (Vac= [0,50,60,70,80,90])2) 0,1,2,3,4 hour(s) decrease in working hour (DW= [0,1,2,3,4])3) 0.1,2,3,4 day(s) stay-at-home restriction (SH= [0,1,2,3,4])4) 0%,40%,70%,76%,82%,88%,94%,97%,99% social distancing measures (SDM= [0,40,70,76,82,88,94,97,99]) | 500\*\* |

**\*** We run 500 simulations for each Vac, DW, SH, and SDM level, exclusively. For instance, estimating R0WT for Vac=0, DW=0, SH=0, and SDM= 0 accepted as one scenario. Consequently, there are 1350 different scenarios.

**\*\*** We run 500 simulations for each Vac, DW, SH, and SDM level, exclusively. For instance, estimating R0delta for Vac=0, DW=0, SH=0, and SDM= 0 accepted as one scenario. Consequently, there are 1350 different scenarios.