**Table S1.** Model parameters and values

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| **Parameter** | **Description** | **Value** | **Justification/ Notes** |
| к | Rate of daily contacts possibly resulting in transmission | 7 | Assumption for the model, based on R0 (к=R0γ/q) |
| q | Proportion of contacts resulting in transmission | 0.09 | Assumption based on [1] |
| σ | Rate at which individuals leave exposed group | 1 | 1-2 days [1], 2.62 days [2], and 1-5 days [3] between infection and symptom onset  |
| δ | Rate at which individuals leave asymptomatic group | 1/0.4 | 1 day [2-3], and 0-2 days [3] infectious before symptom onset |
| τ | Rate cases get detected | 2 | Assumption for the model |
| pκ | Proportion of contacts reduced during contact reduction period (when prevalence of symptomatic cases > 0.5%) | 0.1 | Assumption for the model |
| pqh | Proportion of hospital transmissions reduced (e.g. due to isolation) | 0.7 | Assumption for the model |
| pa | Proportion of cases that are asymptomatic | 0.3 | values range from 30 to 50% [1,4-6] |
| pm | Proportion of cases that are mild  | 0.698 | pm=1-pa-pc |
| pc | proportion of cases that are critical (require hospitalisation)  | 0.002 | 0.16% [7] and 0.45% [8] of symptomatic cases hospitalised |
| pv | Proportion of hospitalised cases needing ventilation | 0.2 | 21% of hospitalised cases needing intensive care treatment [9], 18% of hospitalised cases needing ventilation [10-11], 0.002 to 0.035% of symptomatic cases need ICU treatment |
| γa | Rate at which asymptomatic cases leave infectious group | 2 | 1.9 days [12], 3.38 days [2], 4-10 days [3] mean duration of infectivity |
| γm | Rate at which mild cases leave infectious group | 1/1.5 | See above [2-3,12]  |
| γc | Rate at which severe cases leave infected group | 1/3.5 | See above [2-3,12] |
| γmaγca | Rate at which mild and critical cases under AV treatment leave infectious groups | 21/2.5 | Infectious period under AV treatment reduced by 1 day [4]  |
| γh | Rate at which cases leave hospital group | 1/12 | Length of ICU stay 13.5 days [13] |
| γv | Rate at which cases leave ventilated group | 1/13 | 12 days [14], 15 days [13] |
| dc | Proportion of critical outpatients without AV treatment that die | 0.25 | Proportions of deaths are extrapolated from the following data: 40% of ICU cases died [13], 14.3% of ICU cases died [14], 11% of hospitalised cases died [11], 7 % of hospitalised cases died [15], 0.007% of symptomatic cases died [7] |
| dca | Proportion of critical outpatients under AV treatment that die | 0.15 | Based on dca = dc(1-πa)  |
| dh | Proportion of hospitalised cases without AV treatment that die | 0.10 | Based on dh = dc(1-πh) |
| dha | Proportion of hospitalised cases under AV treatment that die  | 0.06 | Based on dha = dc(1-πa)(1-πh) |
| dv | Proportion of ventilated cases that die | 0.25 | Based on dv = (1- πv) |
| πa | Effectiveness of antiviral treatment at reducing death rate in critical cases | 0.4 | Assumption based on [7,13-14], Odds Ratio for reduction in influenza mortality in hospitalised cases: 0.21 (95% confidence interval 0.06-0.80) [16], patients who died were less likely to have received AV therapy within 48 hours after symptom onset [15]. (Varied between 0.2-0.8 in uncertainty analysis.) |
| πh | Effectiveness of hospitalised care (without AV treatment) at reducing death rate in critical cases  | 0.6 | Assumption based on [7,13-14]. (Varied between 0.2-0.8 in uncertainty analysis.) |
| πv | Effectiveness of ventilators at preventing death in cases needing ventilation | 0.75 | Assumption based on [7,13-14], 45% of ventilated cases died [15]. (Varied between 0.2-0.8 in uncertainty analysis.) |
| pma | Proportion of mild cases treated with oseltamivir | 0 | In this scenario we assumed only critical cases are treated with oseltamivir. (Varied between 0 - 0.05 in uncertainty analysis) |
| **Parameters describing resource availability:** |
| ε | Availability of oseltamivir drugs:  |  |
| φ | Availability of hospital beds: |  |
| ω | Availability of medical ventilators: |  |

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