

Table 2. Prevalent number of baseline* inpatients and inpatients with COVID-19 in non-ICU and ICU beds in two acute care hospitals in the GTA, 90 days after outbreak started.

| | Among selected scenarios** | | | Across 153 constrained epidemics*** | | |
|--|----------------------------|---------|------------|-------------------------------------|----------------|----------------|
| | Fast/Large | Default | Slow/Small | Median | Lower Quartile | Upper Quartile |
| SMH non-ICU inpatient beds (capacity=405; non-COVID-19 patients=399*) | | | | | | |
| Daily prevalent number of non-ICU COVID-19 related inpatients | 1757 | 285 | 7 | 73 | 12 | 402 |
| Extra absolute number of non-ICU beds needed | 1751 | 279 | 1 | 67 | 6 | 396 |
| % of non-COVID-19 related non-ICU inpatients to be reduced | NA | 70 | 0.3 | 17 | 2 | 99 |
| SMH ICU inpatient beds (capacity=71; non-COVID-19 patients=56*) | | | | | | |
| Daily prevalent number of ICU COVID-19 related inpatients | 911 | 101 | 9 | 42 | 7 | 263 |
| Extra absolute number of ICU beds needed | 896 | 86 | 0 | 27 | 0 | 248 |
| % of non-COVID-19 related ICU inpatients to be reduced | NA | NA | 0 | 48 | 0 | NA |
| SJH non-ICU inpatient beds (capacity=407; non-COVID-19 patients=374*) | | | | | | |
| Daily prevalent number of non-ICU COVID-19 related inpatients | 1537 | 250 | 6 | 64 | 10 | 352 |
| Extra absolute number of non-ICU beds needed | 1504 | 217 | 0 | 31 | 0 | 319 |
| % of non-COVID-19 related non-ICU inpatients to be reduced | NA | 58 | 0 | 8 | 0 | 85 |
| SJH ICU inpatient beds (capacity=32; non-COVID-19 patients=18*) | | | | | | |
| Daily prevalent number of ICU COVID-19 related inpatients | 241 | 27 | 2 | 11 | 2 | 70 |
| Extra absolute number of ICU beds needed | 227 | 13 | 0 | 0 | 0 | 56 |
| % of non-COVID-19 related ICU inpatients to be reduced | NA | 72 | 0 | 0 | 0 | NA |

*The baseline number of non-COVID-19 patients was estimated based on the median daily number of inpatients on May 30th between 2014-2019 in each hospital.

**The fast/large epidemic and slow/small epidemic were selected as the upper and lower quartiles of peak incidence, respectively, within the first 300 days. The default scenario used the default parameter set as shown in Table 1.

***Among 200 simulated epidemics, 153 met the constraints using the observed data for Lombardy, Italy and Hong Kong, China (corresponding data points at day 30 since outbreak started were used as upper and lower bounds, respectively to constrain the epidemics).

Abbreviations: ICU: intensive care unit; NA: not applicable when number of COVID-19 related patients exceeded the hospital capacity; SJH: St Joseph Hospital; SMH: St Michael's Hospital.