Modelling the impact of age-stratified public health measures on SARS-CoV-2 transmission in Canada

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Figure S1: Projected epidemic curves showing A) daily incident cases (asymptomatic and symptomatic), B) daily hospital bed prevalence and C) daily ICU bed prevalence per 100,000 people for the benchmark scenario. Each grey line represents 1 model realization and the solid curve represents the smoothed median out of the 100 model realizations. The red solid line in B) and C) represents the estimated Canadian hospital bed capacity (30 per 100,000) and ICU bed capacity (9 per 100,000), respectively.
Figure S2: Projected total number of A) cases, B) hospitalizations and C) ICU admissions in the benchmark scenario and all age-stratified intervention scenarios (infection-preventing vaccine, illness-preventing vaccine and shielding) stratified by age group (above the age threshold and below the age threshold). In the age-stratified intervention scenarios, the x axis corresponds to the age threshold for which interventions were applied and the corresponding age stratification for output presentations whereas, in the benchmark scenario, the x axis is only used to indicate the age stratification for output presentations.
| Scenario                | Age threshold | Location       | Home       | Mixed age venues | Work       | School     |
|-------------------------|---------------|----------------|------------|------------------|------------|------------|
| **Benchmark**           |               |                |            |                  |            |            |
| 45                      | 67.1 (65.0–68.7) | 21.3 (19.2–22.8) | 10.9 (9.5–12.5) | 0.8 (0.5–1.3)  |
| 55                      | 74.7 (72.3–77.3) | 20.9 (18.3–22.8) | 4.2 (3.0–5.4)   | 0.4 (0.0–0.8)  |
| 65                      | 77.9 (74.1–80.9) | 22.0 (18.9–25.6) | 0.0 (0.0–1.0)   | 0.0 (0.0–0.0)  |
| **Infection-preventing vaccine** |               |                |            |                  |            |            |
| 45                      | 64.2 (61.0–68.8) | 23.0 (20.3–26.5) | 11.5 (9.0–13.4) | 1.2 (0.4–2.1)  |
| 55                      | 70.8 (66.7–78.5) | 23.3 (17.9–27.2) | 5.3 (2.5–7.4)   | 0.5 (0.0–1.2)  |
| 65                      | 75.0 (68.2–83.9) | 24.7 (16.1–31.4) | 0.0 (0.0–1.0)   | 0.0 (0.0–0.0)  |
| **Illness-preventing vaccine** |               |                |            |                  |            |            |
| 45                      | 56.5 (55.7–68.6) | 27.7 (20.5–28.6) | 14.5 (10.0–15.1) | 1.1 (0.2–1.2)  |
| 55                      | 65.0 (63.8–77.7) | 28.1 (18.8–29.4) | 6.2 (3.0–6.7)   | 0.5 (0.0–0.7)  |
| 65                      | 69.7 (67.6–81.5) | 30.0 (18.3–32.1) | 0.3 (0.0–0.6)   | 0.0 (0.0–0.0)  |
| **Shielding**           |               |                |            |                  |            |            |
| 45                      | 55.0 (53.7–69.1) | 44.2 (20.7–45.6) | 0.8 (0.5–10.6)  | 0.1 (0.0–1.4)  |
| 55                      | 55.8 (54.4–73.3) | 43.9 (23.3–45.4) | 0.3 (0.1–4.2)   | 0.0 (0.0–0.6)  |
| 65                      | 57.2 (54.5–76.6) | 42.8 (22.8–45.4) | 0.0 (0.0–0.8)   | 0.0 (0.0–0.0)  |

**Table S1.** Median value and 95% Credible Interval (2.5\(^{\text{th}}\) percentile – 97.5\(^{\text{th}}\) percentile) of the percentage (%) of infections which occurred in different locations for individuals above the age threshold (≥45, ≥55 and ≥65 years old) in each scenario (benchmark, infection-preventing vaccine, illness-preventing vaccine and shielding).