PHAC-McMaster model 20210903

The Source document used for acquisition of PHAC-McMaster model 20210903 estimates:

Public Health Agency of Canada. Update on COVID-19 in Canada: Epidemiology and Modelling, September 3, 2021. https://www.canada.ca/content/dam/phac-aspc/documents/services/diseases-maladies/coronavirus-disease-covid-19/epidemiological-economic-research-data/update-covid-19-canada-epidemiology-modelling-20210903-en.pdf

Methods: The CSV files containing outputs of the "PHAC-McMaster model" mentioned in the above-mentioned document could not be located on the Internet. Therefore, the graphs from the above-mentioned document were digitized. This document describes acquisition of their estimates. || See graph digitization settings here.

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Upper-level web sites for the above-mentioned document:

Government of Canada. Mathematical modelling and COVID-19, Canada's approach. https://www.canada.ca/en/public-health/services/diseases/coronavirus-disease-covid-19/epidemiological-economic-research-data/mathematical-modelling.html Date modified: 2021-09-03. Accessed on 4 September 2021.

National Collaborating Centre for Infectious Diseases (NCCID), University of Manitoba. PHAC Models on COVID-19. https://nccid.ca/phac-modelling/ No Date. Accessed on 4 September 2021.

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PHAC-McMaster model Scenarios for cases by Non-Pharmaceutical Intervention levels:

Reference scenario: If we maintain the current levels of transmission.

Better scenario: If public health measures reduce transmission by 25%.

Worse scenario: If further reopening increases transmission by 25%.

PHAC-McMaster model Scenarios for cases hospitalized per 100 K population by combinations of Vaccinations and Non-Pharmaceutical Interventions:

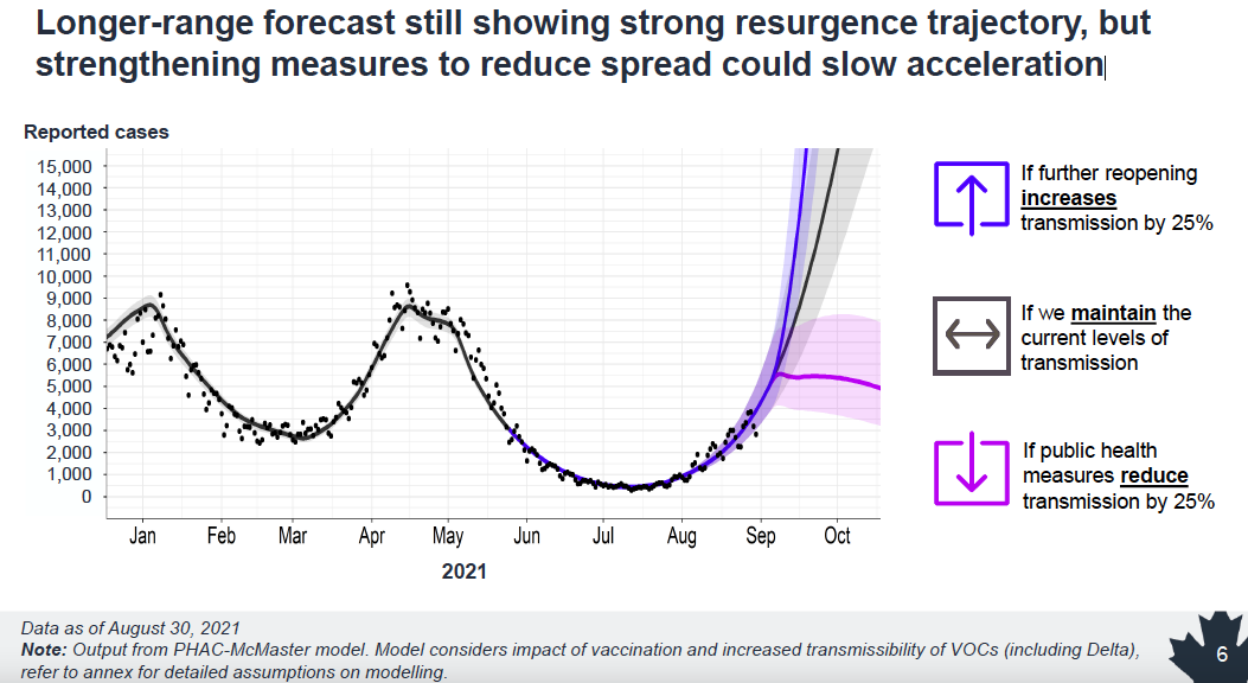
Reference scenario: Updated scenario with current rate of vaccination.

Better scenario: Updated scenario with increased uptake among ages 18-39 and expedited vaccination rate.

Details of graphs used in [CovidVisualizedCountry GitHub repository]():

(a) Daily cases, national level, page 6

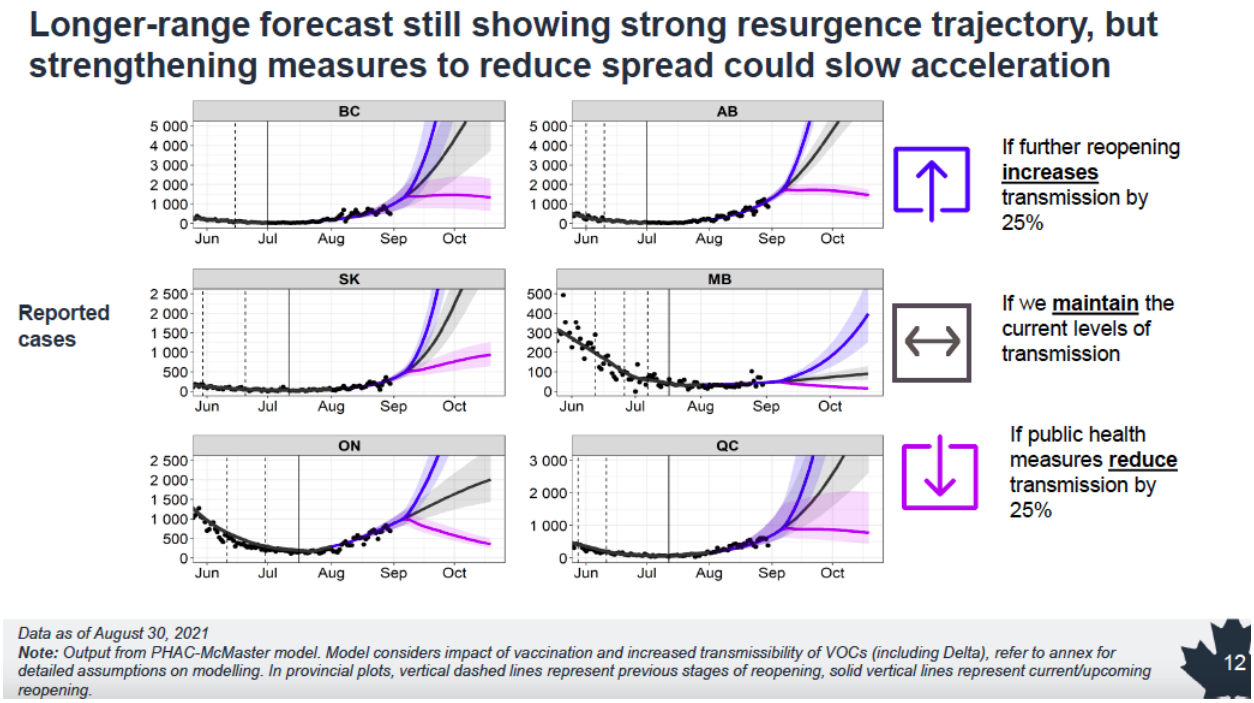
Page 6: Longer range forecast still showing strong resurgence trajectory, but strengthening measures to reduce spread could slow acceleration



Data as of August 30, 2021
Note: Output from PHAC McMaster model. Model considers impact of vaccination and increased transmissibility of VOCs (including Delta), refer to [annex]() for detailed assumptions on modelling.

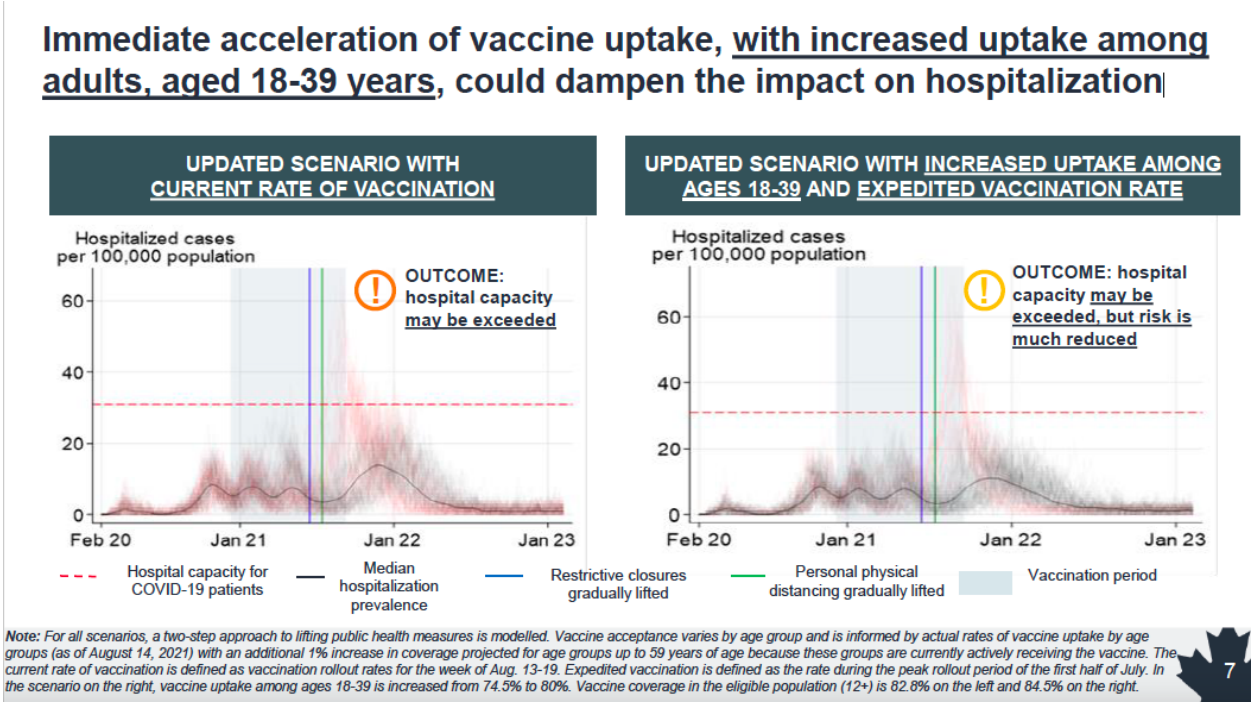
(b) Daily cases, provinces, page 12

Page 12: Longer range forecast still showing strong resurgence trajectory, but strengthening measures to reduce spread could slow acceleration



(c) Daily hospitalized cases per 100 K population, national level, page 7

Page 7: Immediate acceleration of vaccine uptake, with increased uptake among adults, aged 18 39 years, could dampen the impact on hospitalization



Note: For all scenarios, a two-step approach to lifting public health measures is modelled. Vaccine acceptance varies by age group and is informed by actual rates of vaccine uptake by age groups (as of August 14, 2021) with an additional 1% increase in coverage projected for age groups up to 59 years of age because these groups are currently actively receiving the vaccine. The current rate of vaccination is defined as vaccination rollout rates for the week of Aug. 13 19. Expedited vaccination is defined as the rate during the peak rollout period of the first half of July. In the scenario on the right, vaccine uptake among ages 18 39 is increased from 74.5% to 80%. Vaccine coverage in the eligible population (12+) is 82.8% on the left and 84.5% on the right.