Canada COVID-19 epidemic models situation report No 43 - 2022-04-15

Farshad Pourmalek MD PhD

Former lecturer, University of British Columbia, Vancouver | <u>UBC SPPH</u> | <u>ORCID</u> | <u>PubMed</u> <u>pourmalek farshad@yahoo.com</u>

Combine and visualize international periodically updated estimates of COVID-19 pandemic at the country level, countries with subnational level estimates

Canada

Based on uptake 20220415 in https://github.com/pourmalek/CovidVisualizedCountry
<a href="htt

Days old: DELP 0, IHME 7, no IMPE, SRIV 2

The latest available IMPE update (i.e., 2022-01-31) is 75 days old on 2022-04-15. Not included.

The <u>latest update of the PHAC-McMaster model</u> is 57 days old. Not included.

Summary 20220415:

Though the models' results are divergent regarding the future trajectory of cases (or infections) and deaths, the official reported cases and deaths are on the rise at the national and provincial levels, sooner and at a rate faster (worse) than what the models predict.

DELP: <u>model by Massachusetts Institute of Technology, Cambridge</u>
IHME: <u>model by Institute for Health Metrics and Evaluation, Seattle</u>

IMPE: model by Imperial College, London

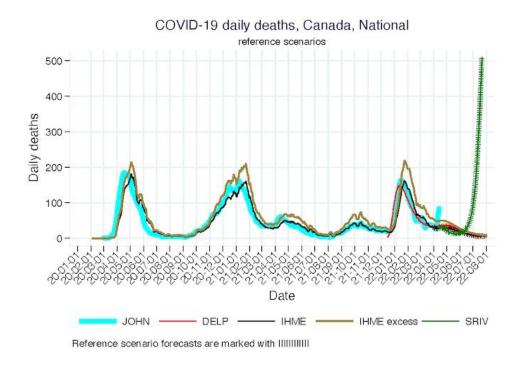
SRIV: model by Srivastava, Ajitesh, University of Southern California, Los Angeles

Table of Graphs

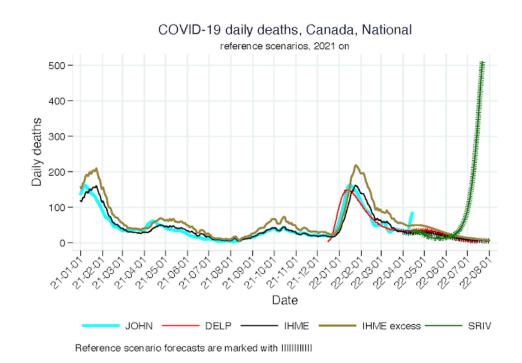
Selected graphs - Canada, National	3
Selected graphs - Canada, Provinces together	
Selected graphs - Alberta	
Selected graphs - British Columbia	
Selected graphs - Manitoba	
Selected graphs - Nova Scotia	26
Selected graphs - Ontario	
Selected graphs - Quebec	32
Selected graphs - Saskatchewan	35

Selected graphs - Canada, National

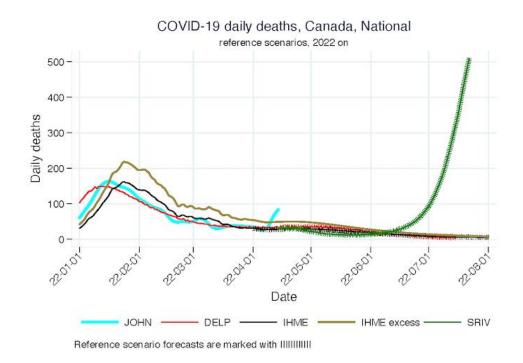
(1) Canada Daily deaths, Reference scenarios, 2020 on



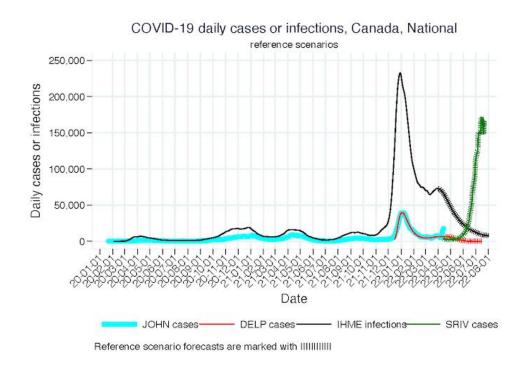
(2) Canada National Daily deaths, All scenarios, 2021 on



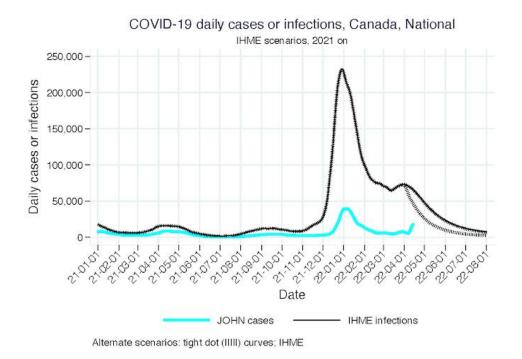
(2b) Canada National Daily deaths, All scenarios, 2022 on



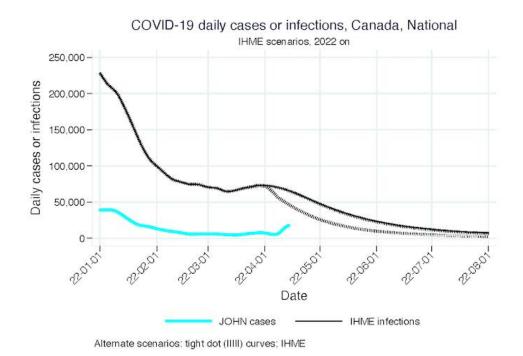
(3) Canada National Daily cases or infections, Reference scenarios, 2020 on



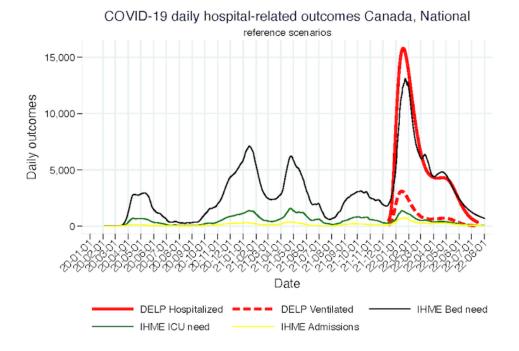
(4) Canada National Daily cases or infections, All scenarios, 2021 on



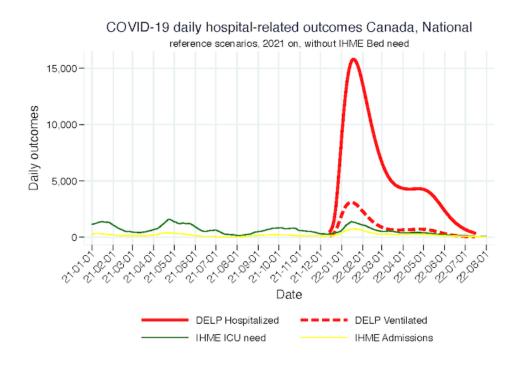
(4b) Canada National Daily cases or infections, All scenarios, 2022 on



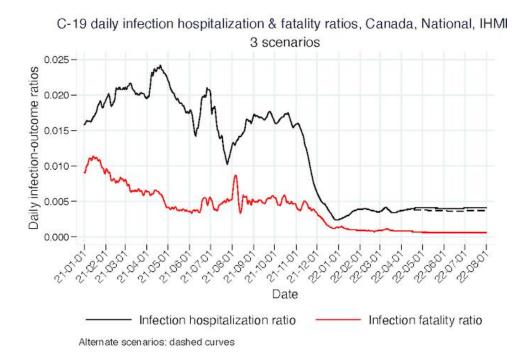
(5) Canada National Daily hospital-related outcomes, Reference scenarios, 2020 on



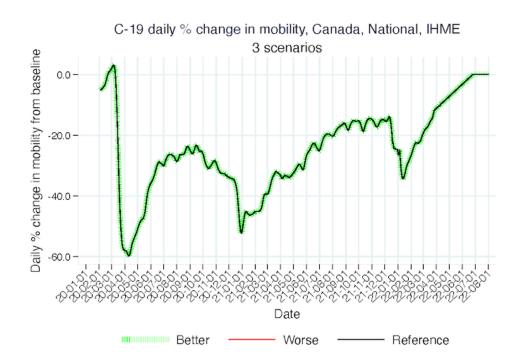
(6) Canada National <u>Daily hospital-related outcomes</u>, <u>without IHME Bed need</u>, <u>IMPE Hospital demand</u>, <u>Reference scenarios</u>, <u>2021 on</u>



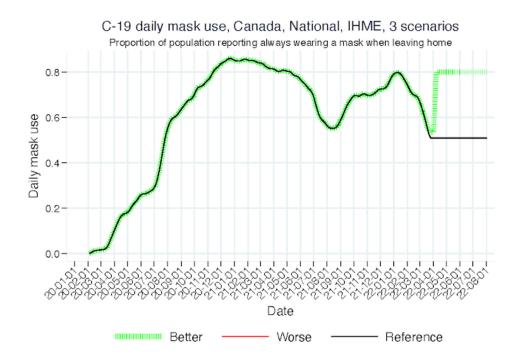
(7) Canada National <u>Daily Infection hospitalization and fatality ratios</u>, <u>Reference scenario</u>, <u>IHME</u>, 2021 on



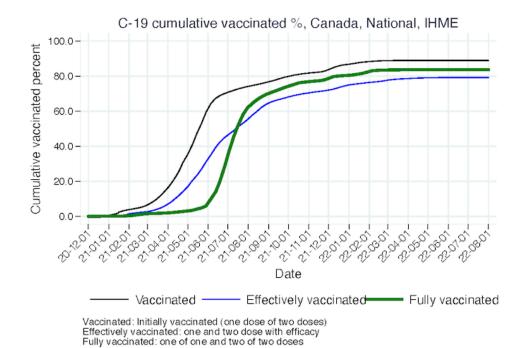
(8) Canada National Daily percent change in mobility, IHME, 2020 on



(9) Canada National Daily mask use, IHME, 2020 on

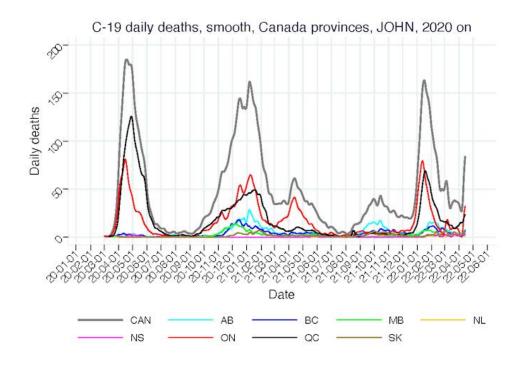


(10) Canada National Percent cumulative vaccinated, IHME, 2020 on

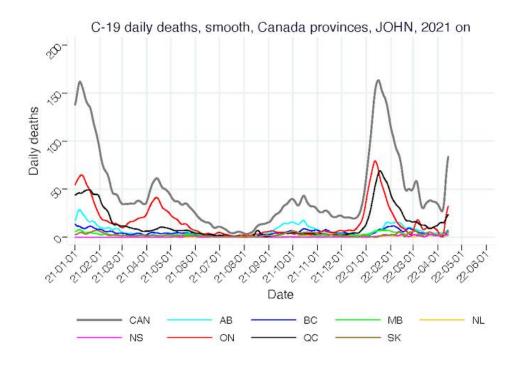


Selected graphs - Canada, Provinces together

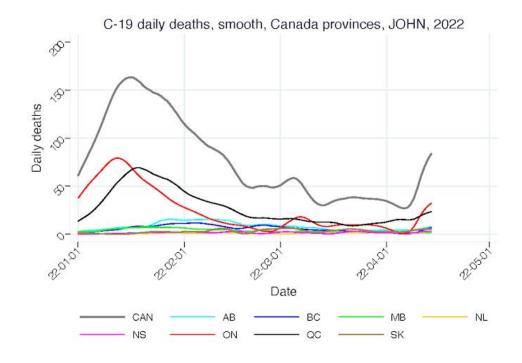
- (a) Official reports to WHO, via JOHN || (b) Models: IHME
- (a) Official reports to WHO, via JOHN
- (1) Canada Provinces Daily reported deaths, JOHN, 2020 on



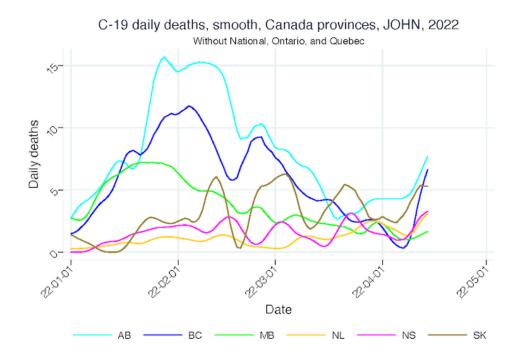
(2) Canada Provinces Daily reported deaths, JOHN, 2021 on



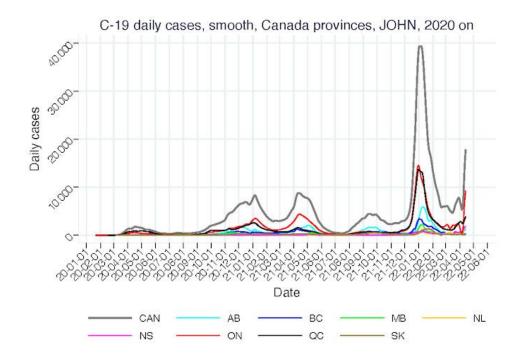
(3) Canada Provinces Daily reported deaths, JOHN, 2022



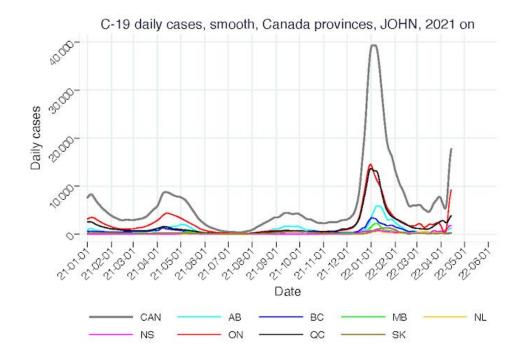
(4) Canada Provinces <u>Daily reported deaths</u>, <u>without National</u>, <u>Ontario</u>, <u>and Quebec</u>, <u>JOHN</u>, <u>2022</u>



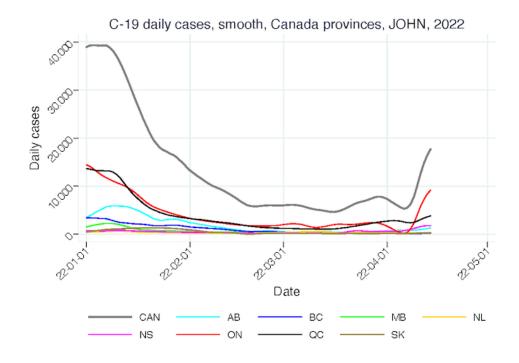
(5) Canada Provinces Daily reported cases, JOHN, 2020 on



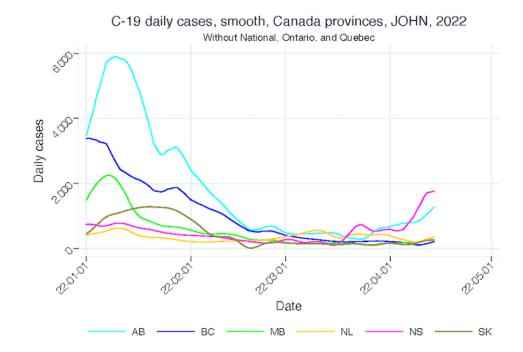
(6) Canada Provinces Daily reported cases, JOHN, 2021 on



(7) Canada Provinces Daily reported cases, JOHN, 2022

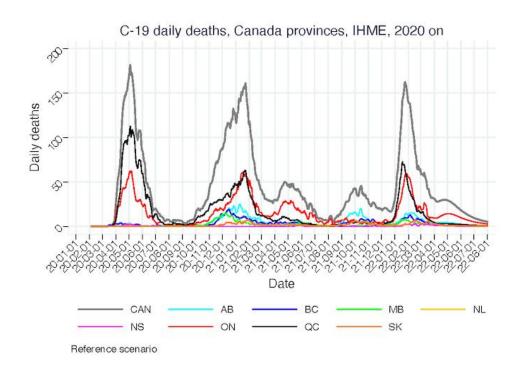


(8) Canada Provinces Daily reported cases, without National, Ontario, and Quebec, JOHN, 2022

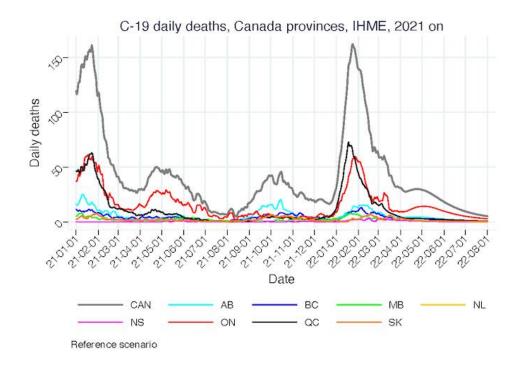


(b) Models: IHME

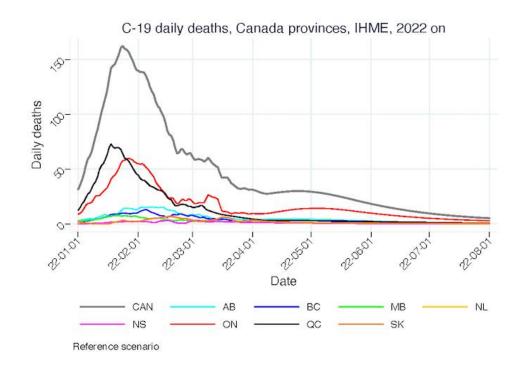
(9) Canada Provinces Daily deaths, Reference scenario, IHME, 2020 on



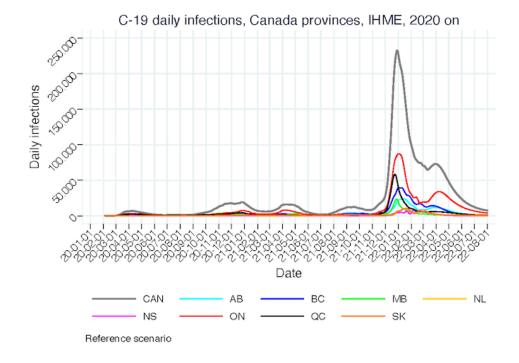
(10) Canada Provinces Daily deaths, Reference scenario, IHME, 2021 on



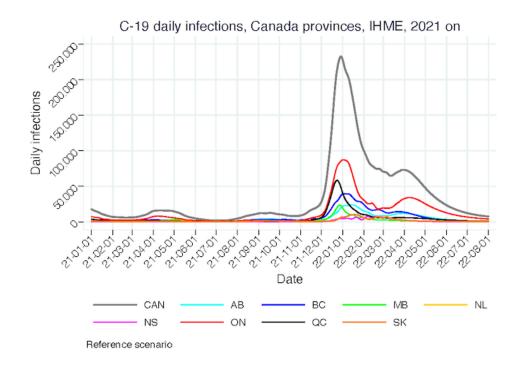
(11) Canada Provinces Daily deaths, Reference scenario, IHME, 2022



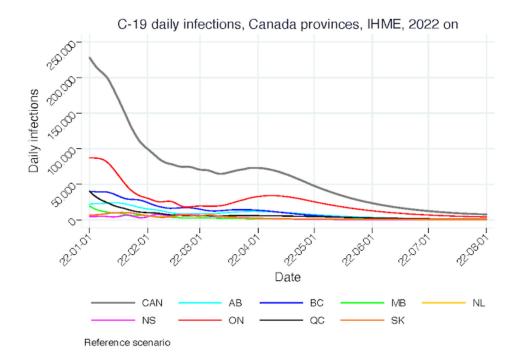
(12) Canada Provinces Daily infections, Reference scenario, IHME, 2020 on



(13) Canada Provinces Daily infections, Reference scenario, IHME, 2021 on

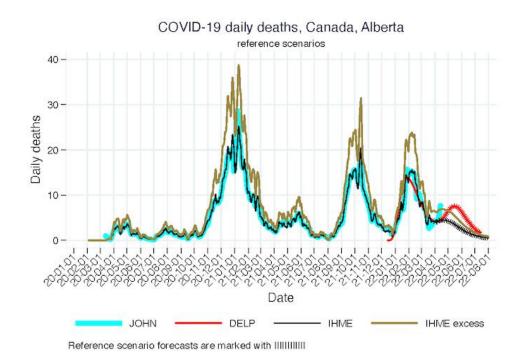


(14) Canada Provinces Daily infections, Reference scenario, IHME, 2022

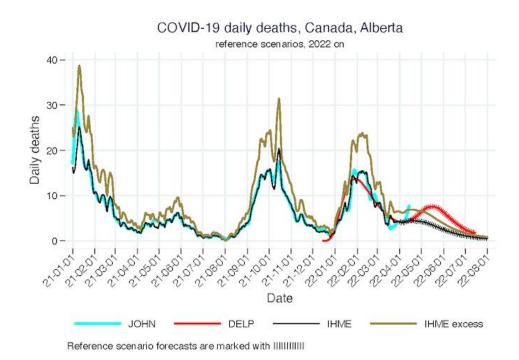


Selected graphs - Alberta

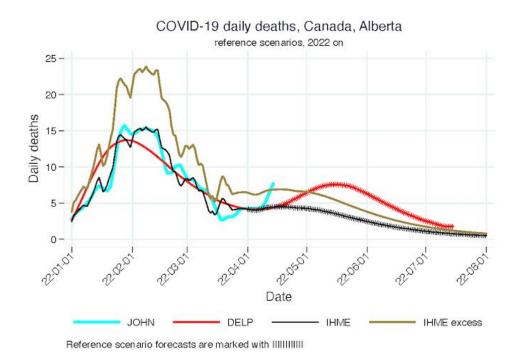
(1) Alberta Daily deaths, Reference scenario, 2020 on



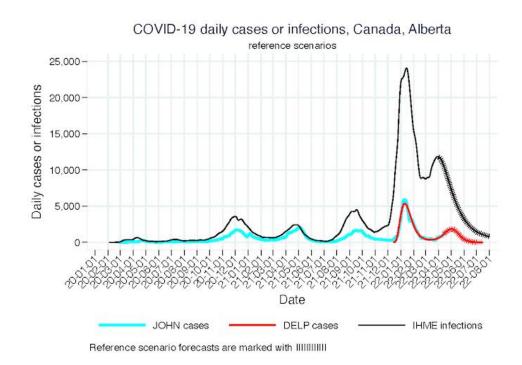
(2) Alberta Daily deaths, Reference scenario, 2021 on



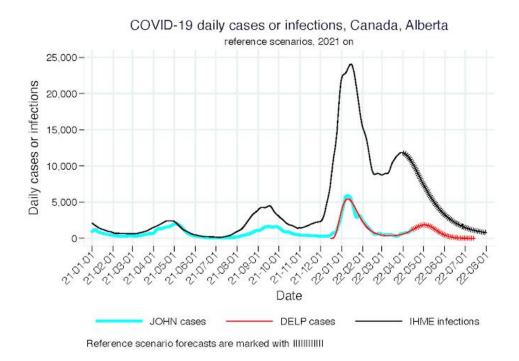
(2b) Alberta Daily deaths, Reference scenario, 2022 on



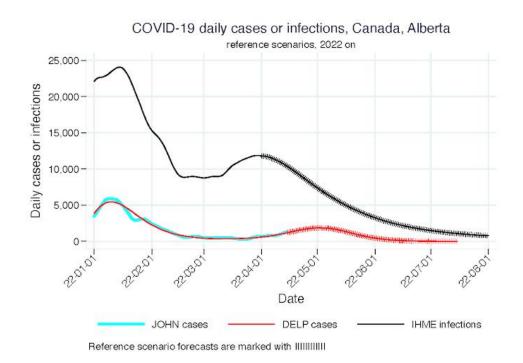
(3) Alberta Daily cases or infections, Reference scenario, 2020 on



(4) Alberta Daily cases or infections, Reference scenario, 2021 on

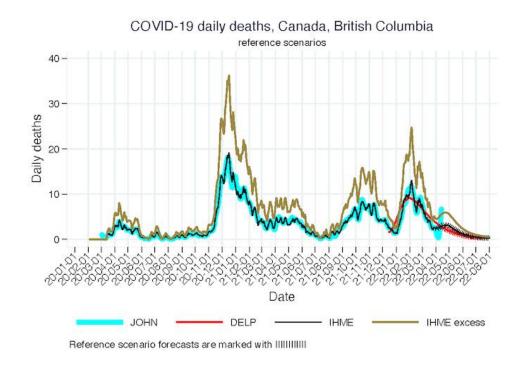


(4b) Alberta Daily cases or infections, Reference scenario, 2022 on

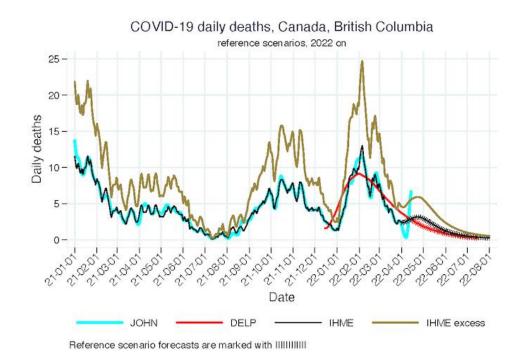


Selected graphs - British Columbia

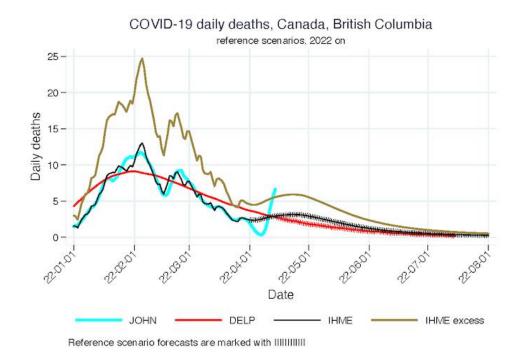
(1) British Columbia Daily deaths, Reference scenario, 2020 on



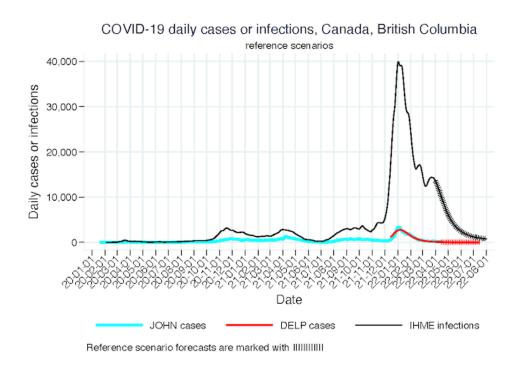
(2) British Columbia Daily deaths, Reference scenario, 2021 on



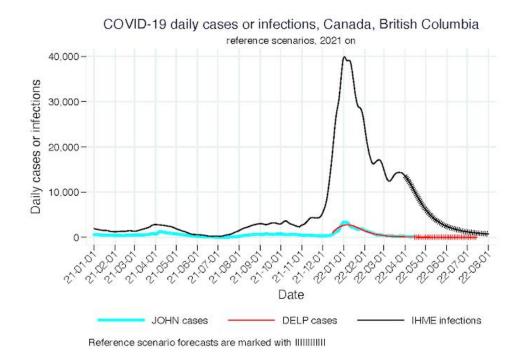
(2b) British Columbia Daily deaths, Reference scenario, 2022 on



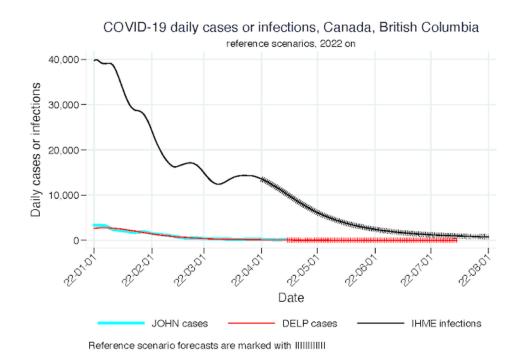
(3) British Columbia Daily cases or infections, Reference scenario, 2020 on



(4) British Columbia Daily cases or infections, Reference scenario, 2021 on

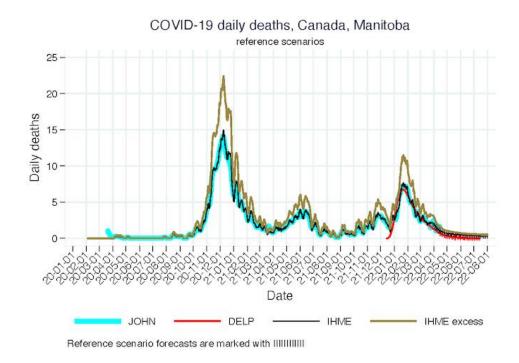


(4b) British Columbia Daily cases or infections, Reference scenario, 2022 on

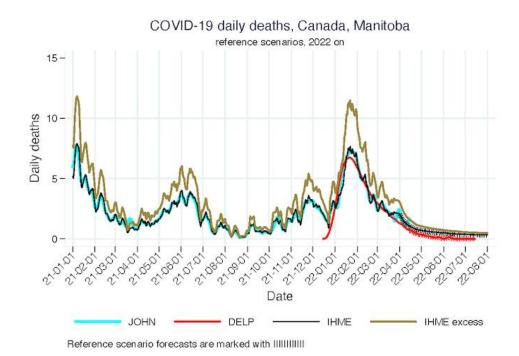


Selected graphs - Manitoba

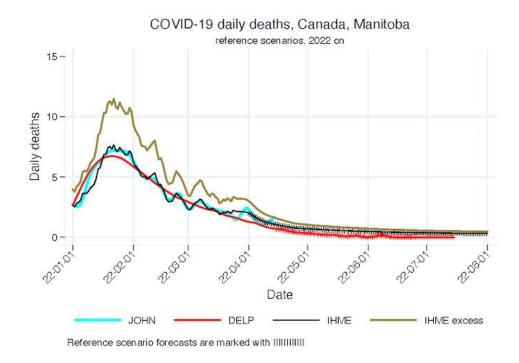
(1) Manitoba Daily deaths, Reference scenario, 2020 on



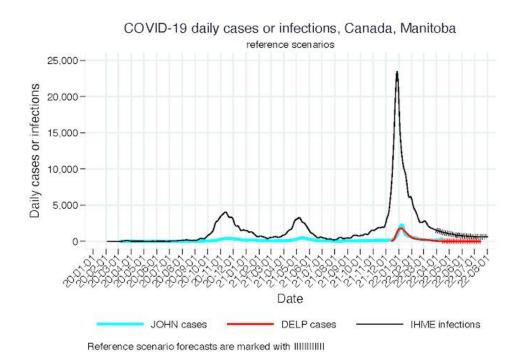
(2) Manitoba Daily deaths, Reference scenario, 2021 on



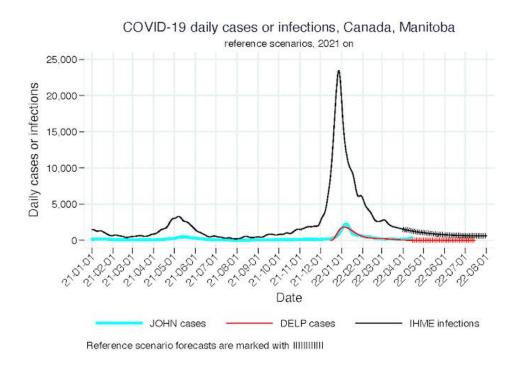
(2b) Manitoba Daily deaths, Reference scenario, 2022 on



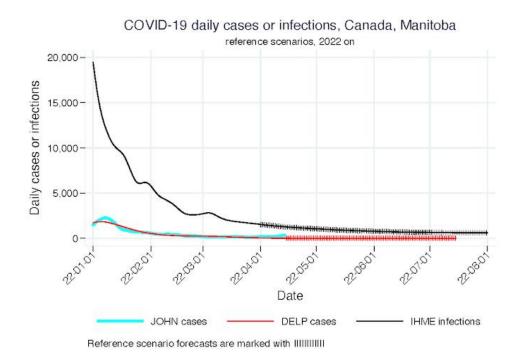
(3) Manitoba Daily cases or infections, Reference scenario, 2020 on



(4) Manitoba Daily cases or infections, Reference scenario, 2021 on

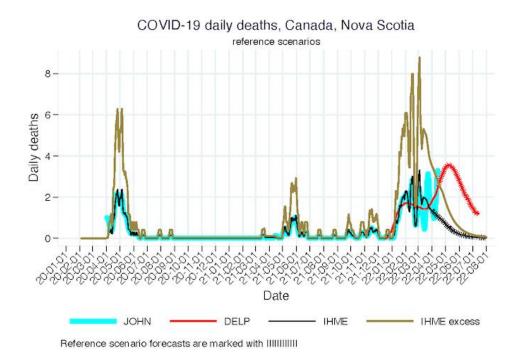


(4b) Manitoba Daily cases or infections, Reference scenario, 2022 on

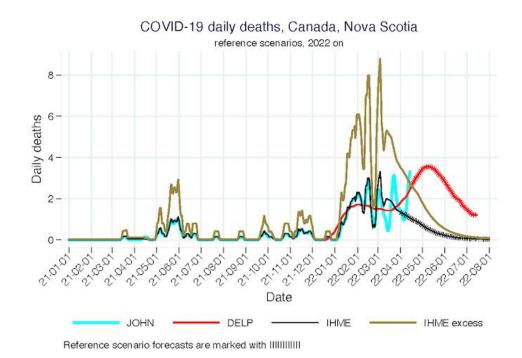


Selected graphs - Nova Scotia

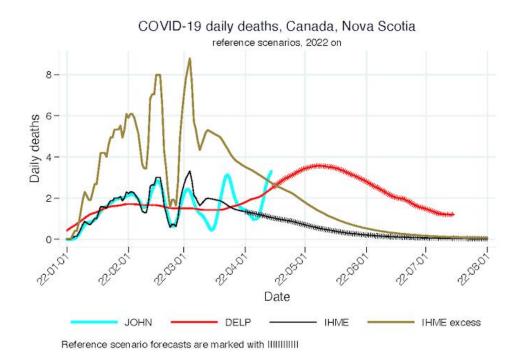
(1) Nova Scotia Daily deaths, Reference scenario, 2020 on



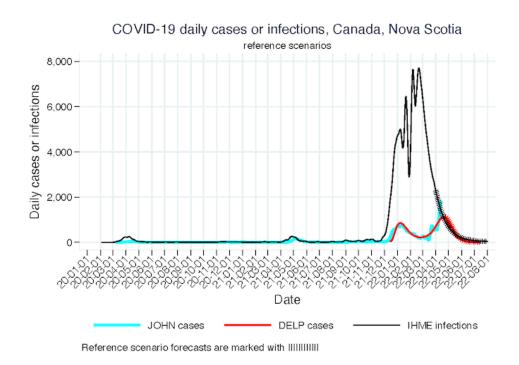
(2) Nova Scotia Daily deaths, Reference scenario, 2021 on



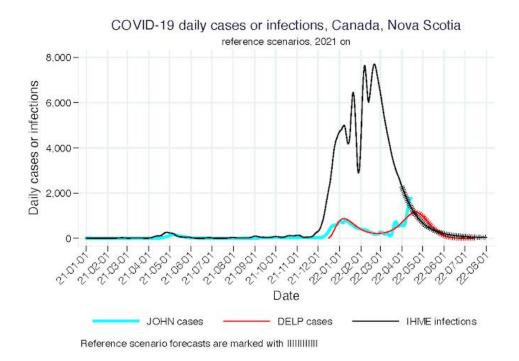
(2b) Nova Scotia Daily deaths, Reference scenario, 2022 on



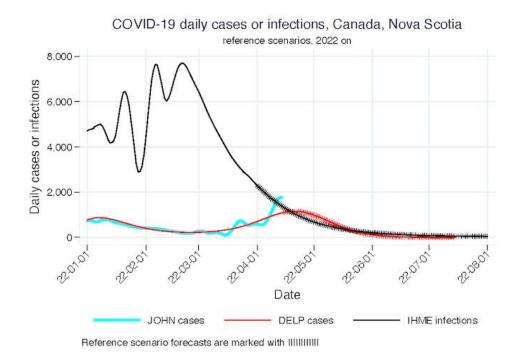
(3) Nova Scotia Daily cases or infections, Reference scenario, 2020 on



(4) Nova Scotia Daily cases or infections, Reference scenario, 2021 on

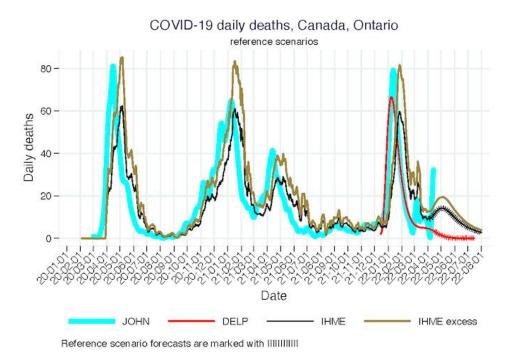


(4b) Nova Scotia Daily cases or infections, Reference scenario, 2022 on

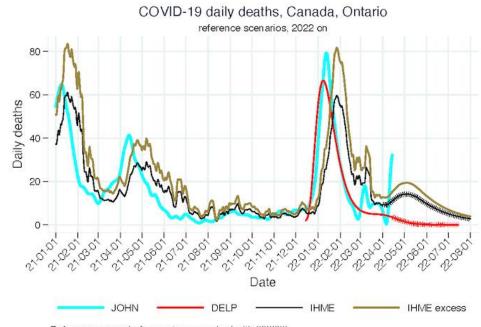


Selected graphs - Ontario

(1) Ontario Daily deaths, Reference scenario, 2020 on

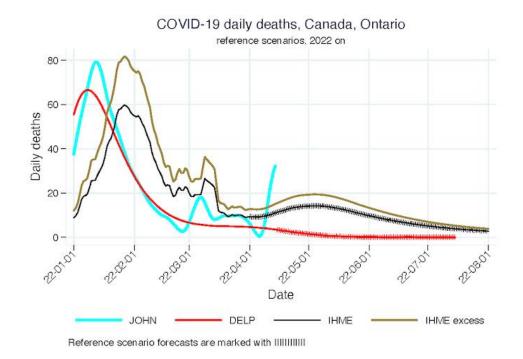


(2) Ontario Daily deaths, Reference scenario, 2021 on

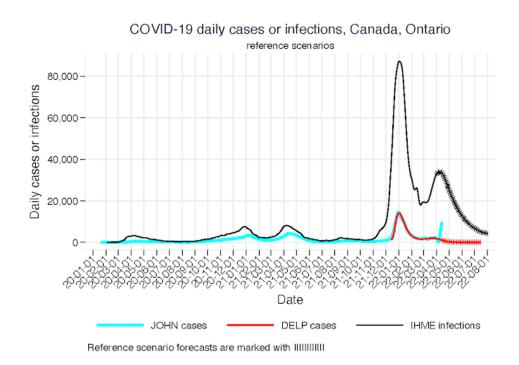


Reference scenario forecasts are marked with ||||||||||

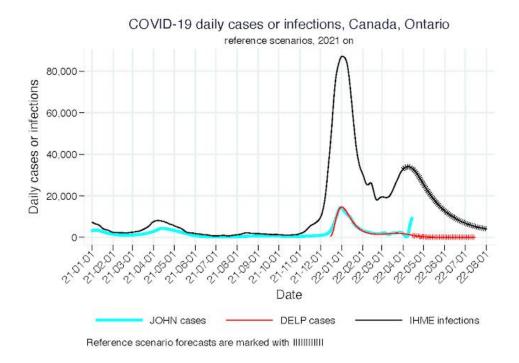
(2b) Ontario Daily deaths, Reference scenario, 2022 on



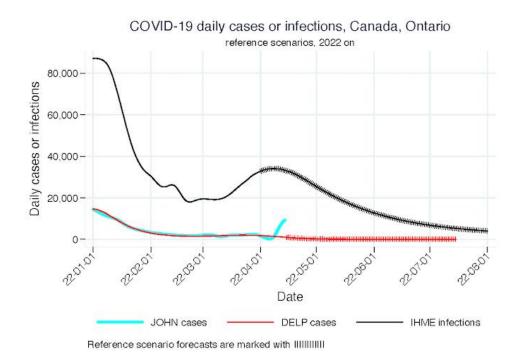
(3) Ontario Daily cases or infections, Reference scenario, 2020 on



(4) Ontario Daily cases or infections, Reference scenario, 2021 on

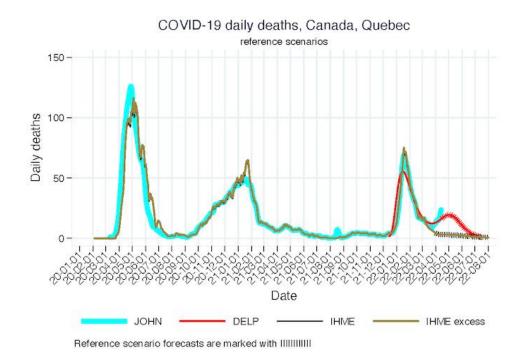


(4b) Ontario Daily cases or infections, Reference scenario, 2022 on

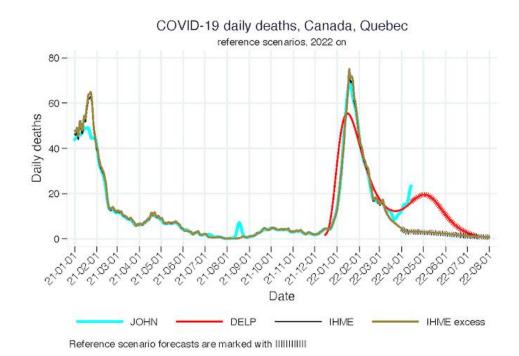


Selected graphs - Quebec

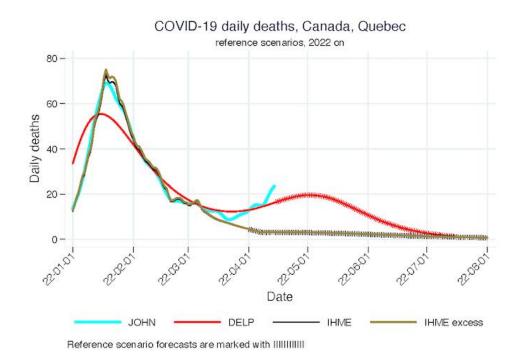
(1) Quebec Daily deaths, Reference scenario, 2020 on



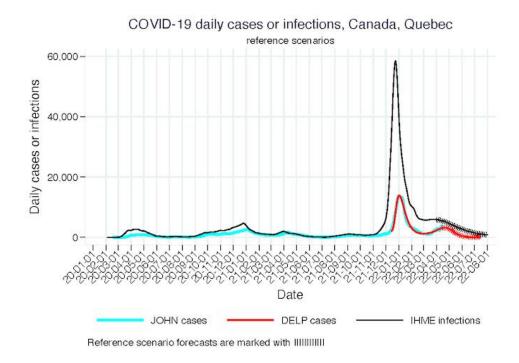
(2) Quebec Daily deaths, Reference scenario, 2021 on



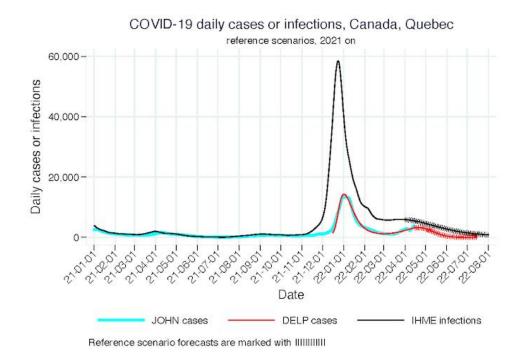
(2b) Quebec Daily deaths, Reference scenario, 2022 on



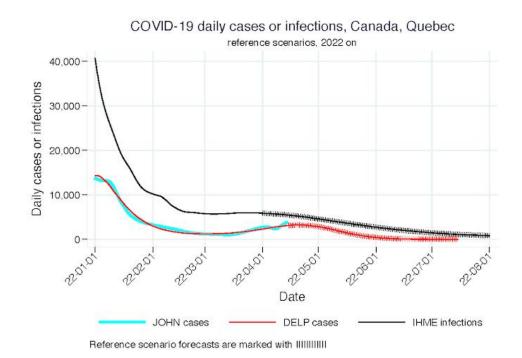
(3) Quebec Daily cases or infections, Reference scenario, 2020 on



(4) Quebec Daily cases or infections, Reference scenario, 2021 on

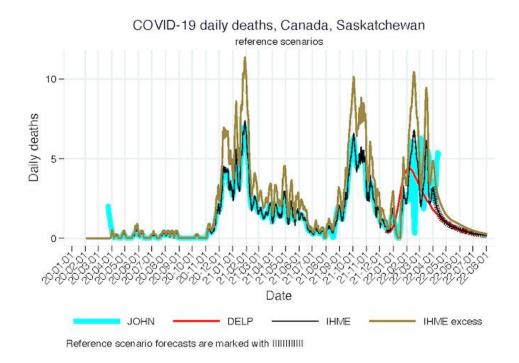


(4b) Quebec Daily cases or infections, Reference scenario, 2022 on

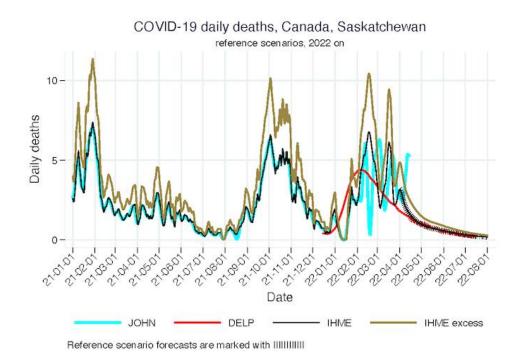


Selected graphs - Saskatchewan

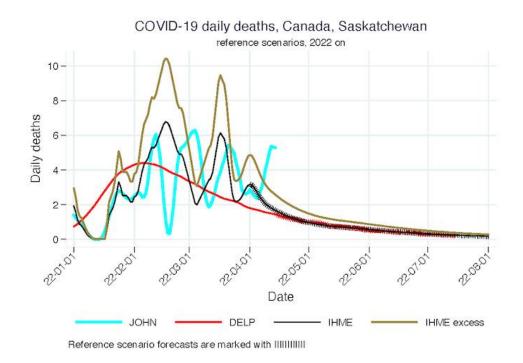
(1) Saskatchewan Daily deaths, Reference scenario, 2020 on



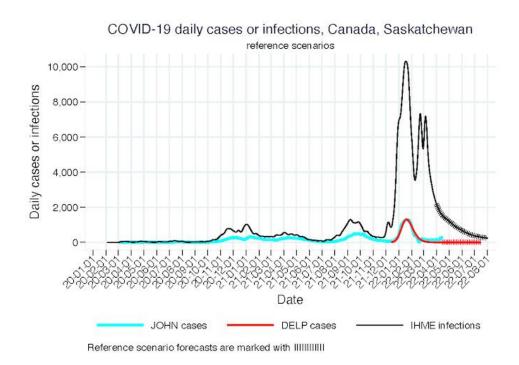
(2) Saskatchewan Daily deaths, Reference scenario, 2021 on



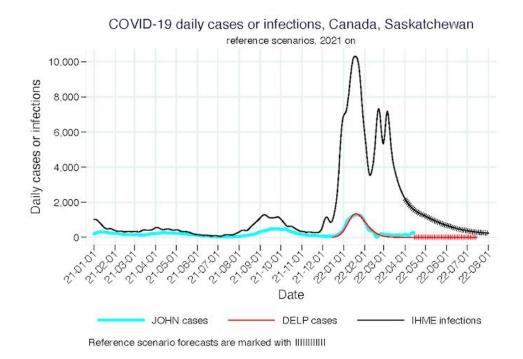
(2b) Saskatchewan Daily deaths, Reference scenario, 2022 on



(3) Saskatchewan Daily cases or infections, Reference scenario, 2020 on



(4) Saskatchewan Daily cases or infections, Reference scenario, 2021 on



(4b) Saskatchewan Daily cases or infections, Reference scenario, 2022 on

