Canada COVID-19 epidemic models situation report No 40 - 2022-03-25

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

Canada

Based on uptake 20220325 in https://github.com/pourmalek/CovidVisualizedCountry
Study update dates in uptake 20220325

DELP 20220325, IHME 20220222, IMPE 20220120, SRIV 20220325

Note that the latest available IMPE model update reflects their predictions as of 2022-01-20, more than two months old now.

Summary 20220325:

Models' predictions are divergent about the current and the next surge. IMPE model is functionally next to retirement: their latest predictions as of 2022-03-25 dates back to 2022-01-20.

Reported daily deaths have been fluctuating around 50 at the national level since late February 2022. Reported daily deaths are rising in Saskatchewan, Alberta, Nova Scotia, Manitoba, and Newfoundland & Labrador.

Reported daily cases - with the current relatively reduced level of testing - have been more or less fluctuating horizontally since late February 2022 at the national level and in most provinces. Reported daily cases are rising since mid-March at the national level and in most provinces, especially in Nova Scotia and Newfoundland & Labrador.

In recent few weeks, the official reports of daily deaths from Canada to the World Health Organization indicate that the Ministry of Health of Canada thought twice, and they say they did not have that many deaths they had reported before, i.e., reports of negative number of daily deaths.

Premature release of mandates for using masks and physical distancing serves the political and economic purposes of the governments, not the public health and survival needs of the populations.

Strengths and weakness of the international and periodically update COVID-19 pandemic models are discussed here.

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

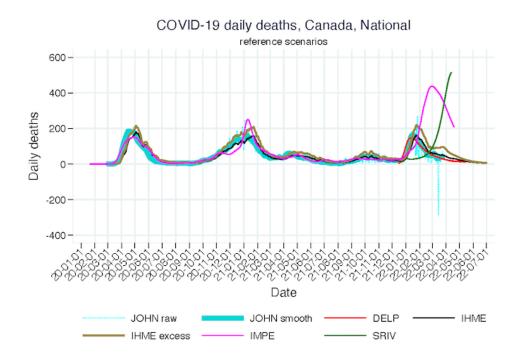
SRIV: model by Srivastava, Ajitesh, University of Southern California, Los Angeles

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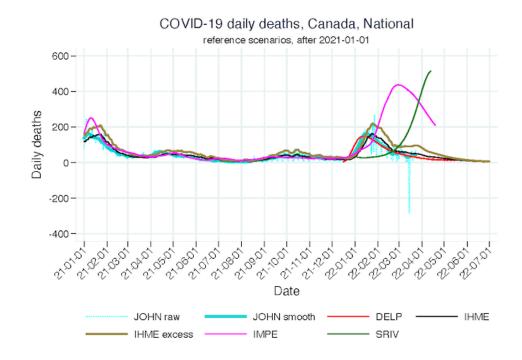
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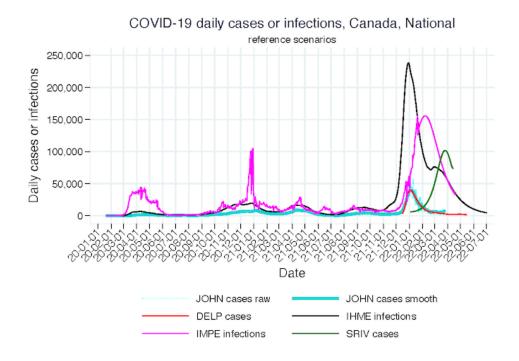
(1) Canada Daily deaths, Reference scenarios, 2020 on



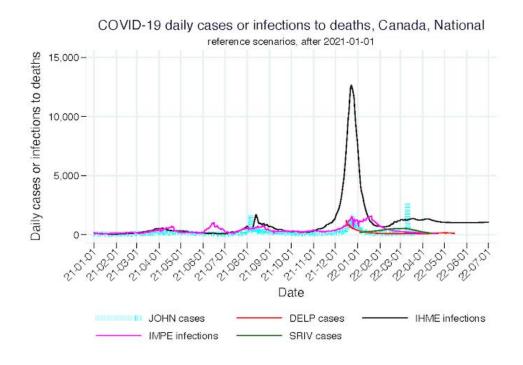
(2) Canada National Daily deaths, All scenarios, 2021 on



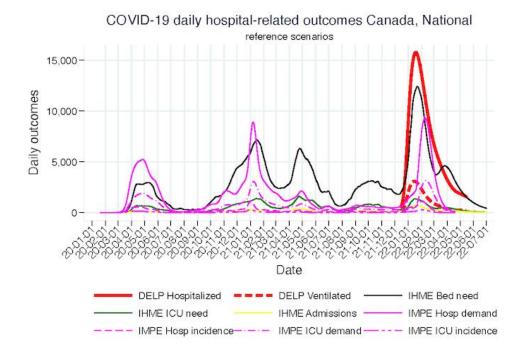
(3) Canada National Daily cases or infections, Reference scenarios, 2020 on



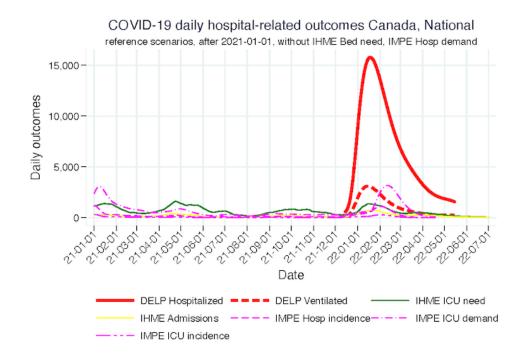
(4) Canada National Daily cases or infections, All scenarios, 2021 on



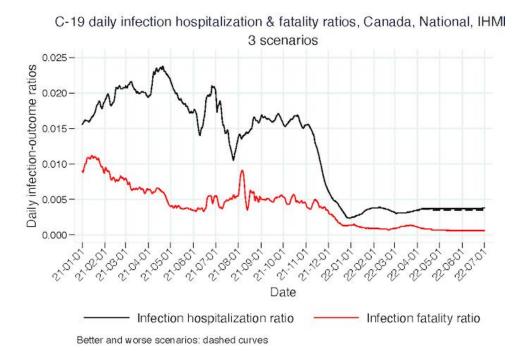
(5) Canada National Daily hospital-related outcomes, Reference scenarios, 2020 on



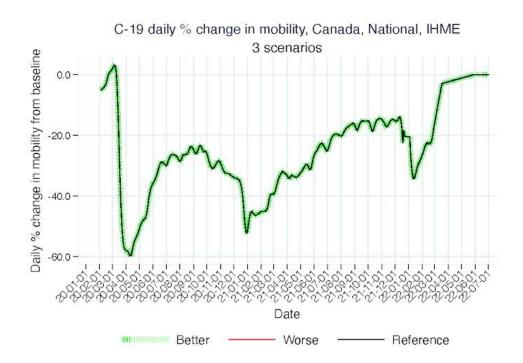
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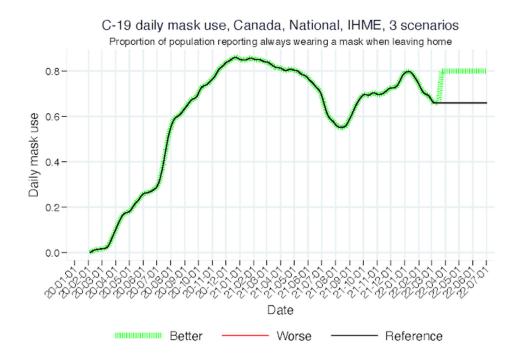
(7) Canada National <u>Daily Infection hospitalization and fatality ratios</u>, <u>Reference scenario</u>, <u>IHME</u>, 2021 on



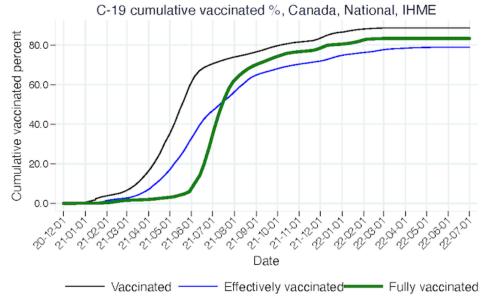
(8) Canada National Daily percent change in mobility, IHME, 2020 on



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



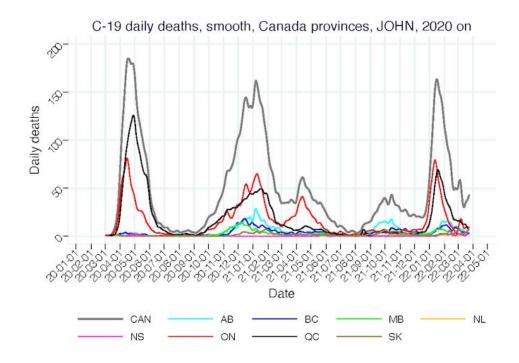
(10) Canada National Percent cumulative vaccinated, IHME, 2020 on



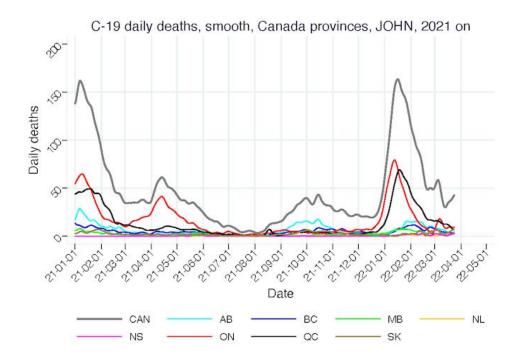
Vaccinated: Initially vaccinated (one dose of two doses) Effectively vaccinated: one and two dose with efficacy Fully vaccinated: one of one and two of two doses

Selected graphs - Canada, Provinces together

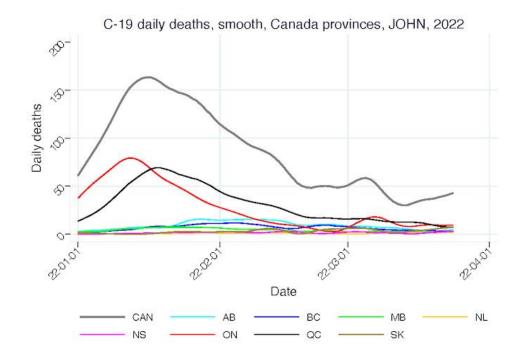
- (a) Official reports to WHO, via JOHN || (b) Models: IHME
- (a) Official reports to WHO, via JOHN
- (1) Canada Provinces Daily reported deaths, JOHN, 2020 on



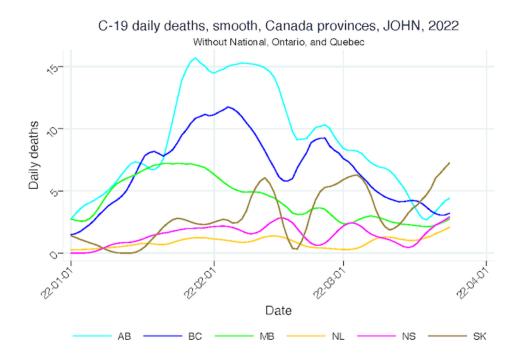
(2) Canada Provinces Daily reported deaths, JOHN, 2021 on



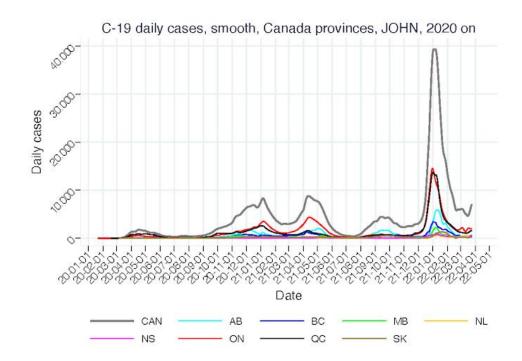
(3) Canada Provinces Daily reported deaths, JOHN, 2022



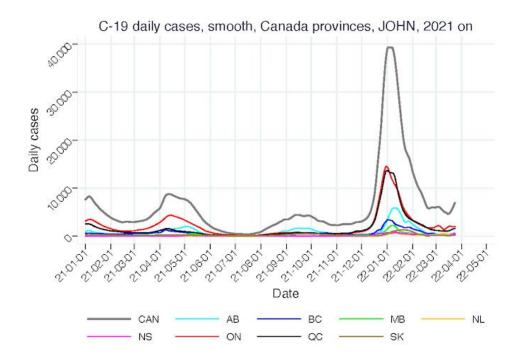
(4) Canada Provinces <u>Daily reported deaths</u>, <u>without National</u>, <u>Ontario</u>, <u>and Quebec</u>, <u>JOHN</u>, <u>2022</u>



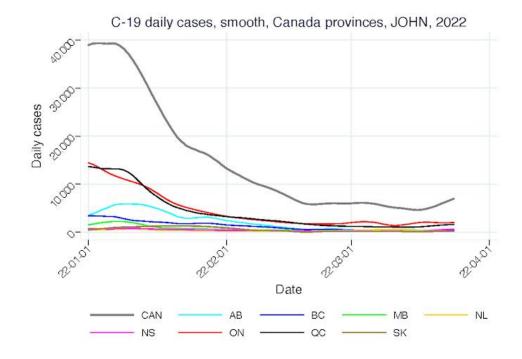
(5) Canada Provinces Daily reported cases, JOHN, 2020 on



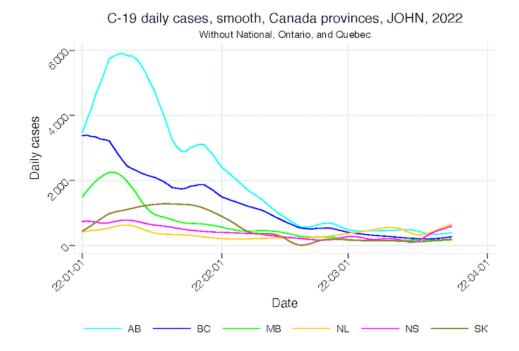
(6) Canada Provinces Daily reported cases, JOHN, 2021 on



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

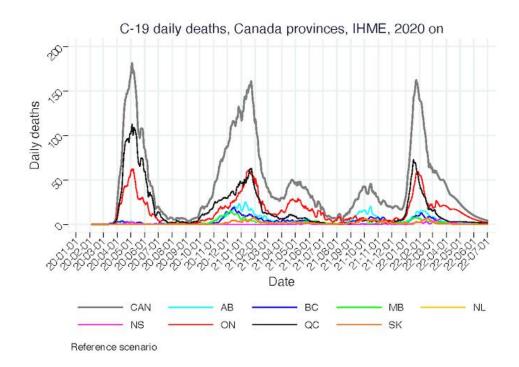


(8) Canada Provinces <u>Daily reported cases</u>, <u>without National</u>, <u>Ontario</u>, <u>and Quebec</u>, <u>JOHN</u>, <u>2022</u>

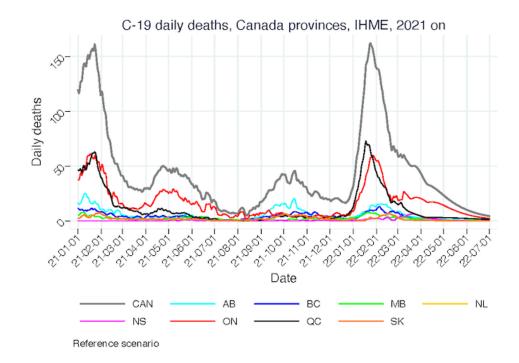


(b) Models: IHME

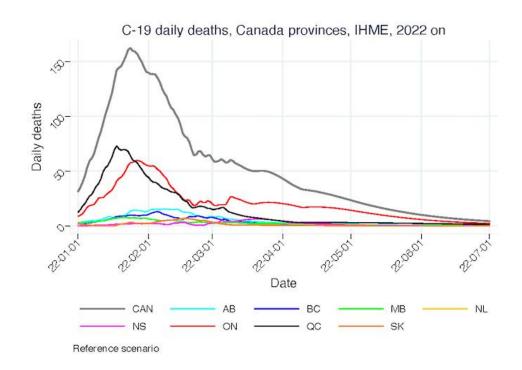
(9) Canada Provinces Daily deaths, Reference scenario, IHME, 2020 on



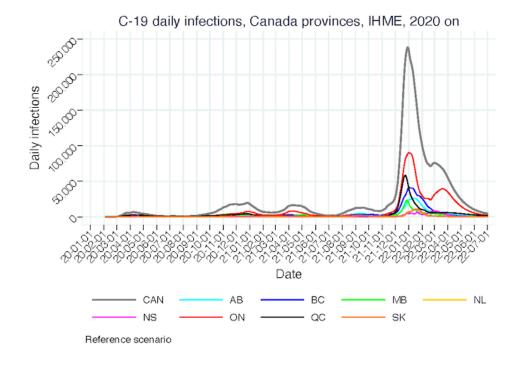
(10) Canada Provinces Daily deaths, Reference scenario, IHME, 2021 on



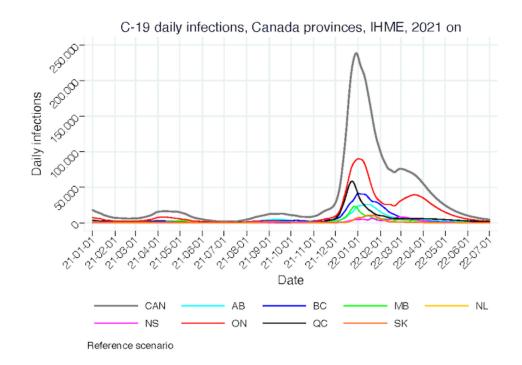
(11) Canada Provinces Daily deaths, Reference scenario, IHME, 2022



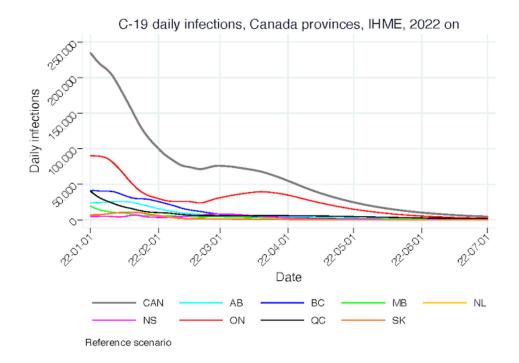
(12) Canada Provinces Daily infections, Reference scenario, IHME, 2020 on



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

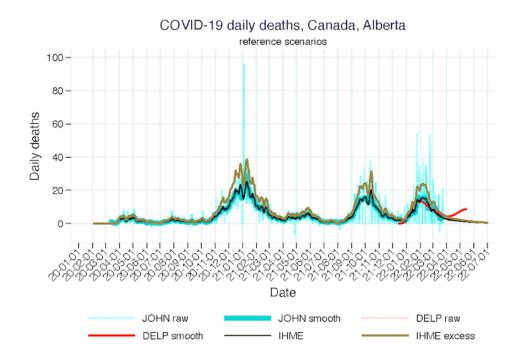


(14) Canada Provinces Daily infections, Reference scenario, IHME, 2022

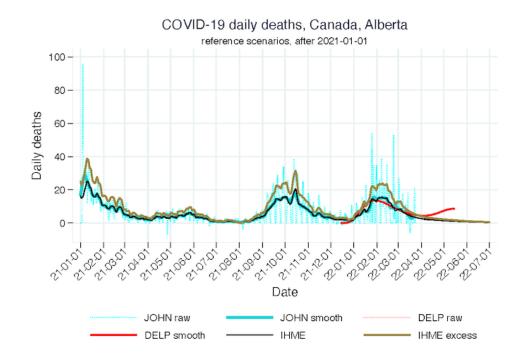


Selected graphs - Alberta

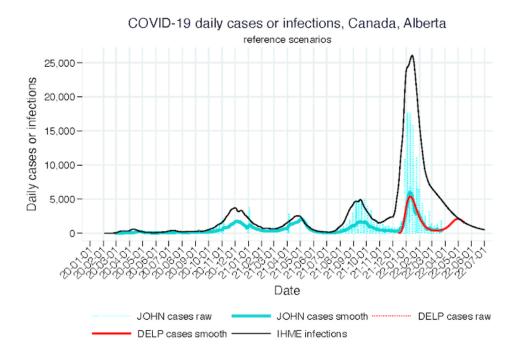
(1) Alberta Daily deaths, Reference scenario, 2020 on



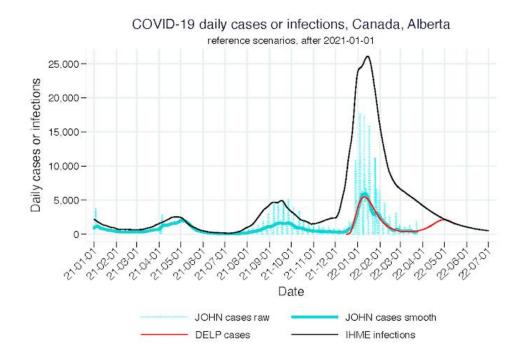
(2) Alberta Daily deaths, Reference scenario, 2021 on



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

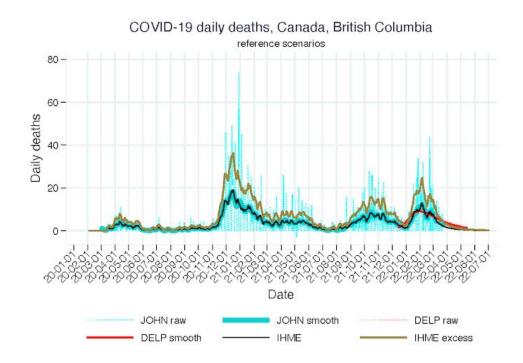


(4) Alberta Daily cases or infections, Reference scenario, 2021 on

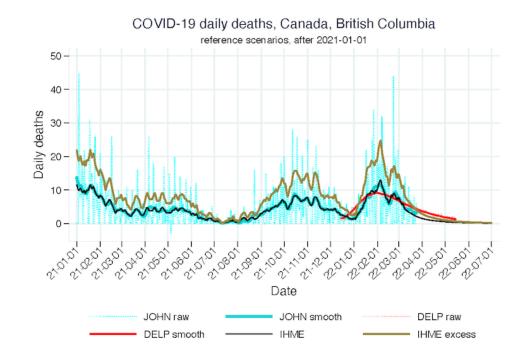


Selected graphs - British Columbia

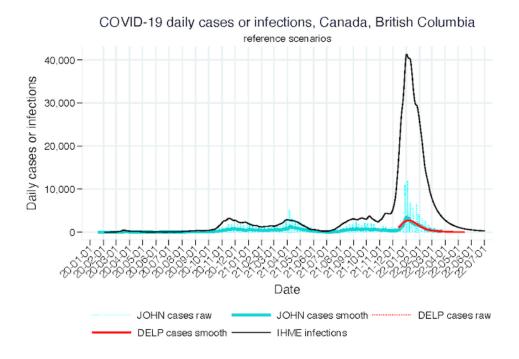
(1) British Columbia Daily deaths, Reference scenario, 2020 on



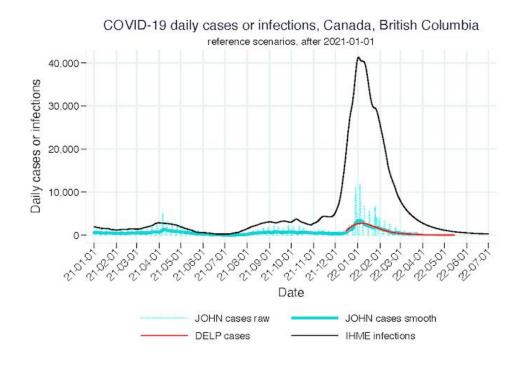
(2) British Columbia Daily deaths, Reference scenario, 2021 on



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

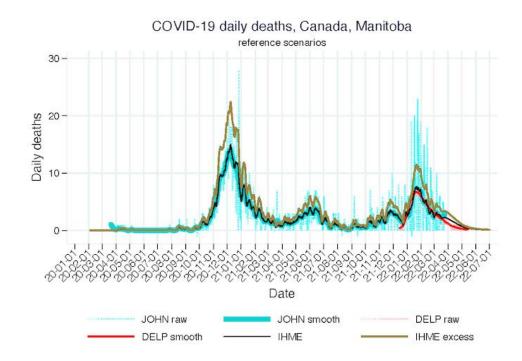


(4) British Columbia Daily cases or infections, Reference scenario, 2021 on

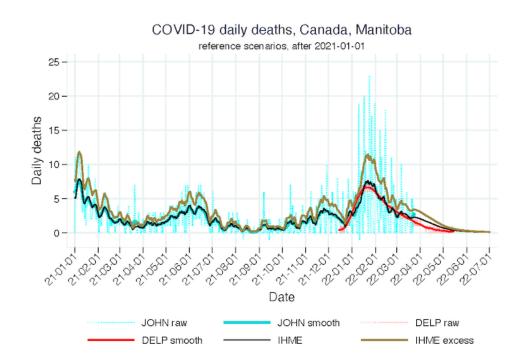


Selected graphs - Manitoba

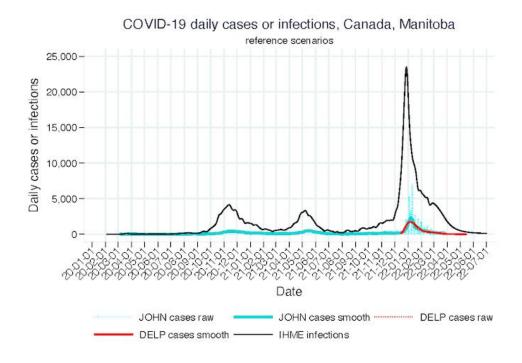
(1) Manitoba Daily deaths, Reference scenario, 2020 on



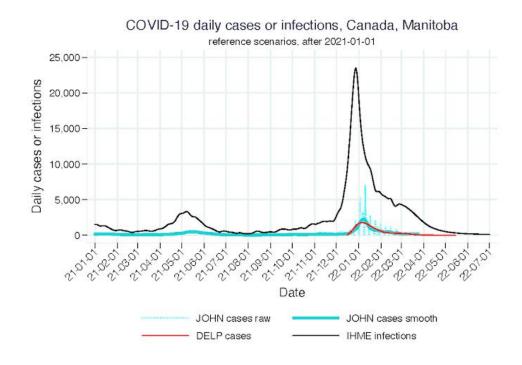
(2) Manitoba Daily deaths, Reference scenario, 2021 on



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

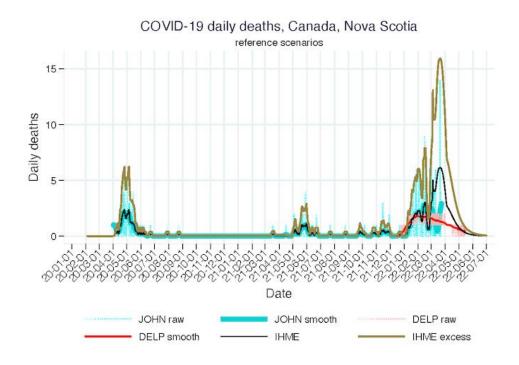


(4) Manitoba Daily cases or infections, Reference scenario, 2021 on

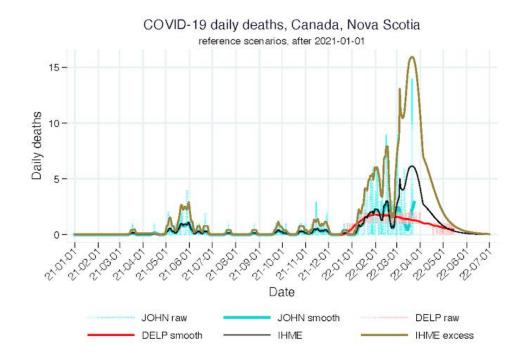


Selected graphs - Nova Scotia

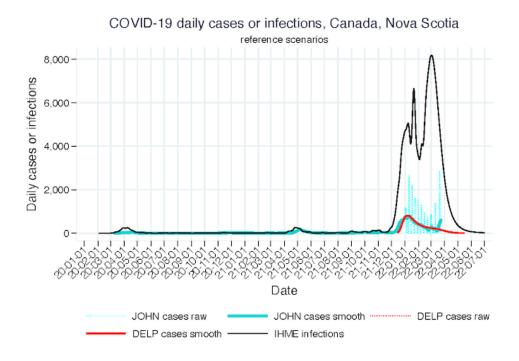
(1) Nova Scotia Daily deaths, Reference scenario, 2020 on



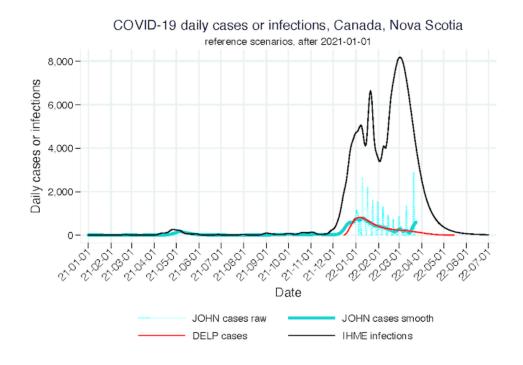
(2) Nova Scotia Daily deaths, Reference scenario, 2021 on



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

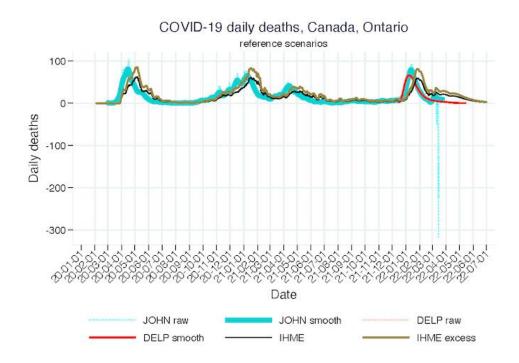


(4) Nova Scotia Daily cases or infections, Reference scenario, 2021 on

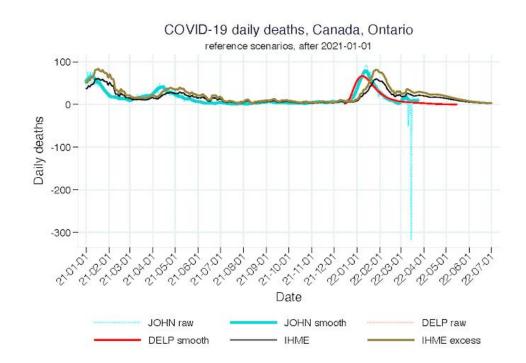


Selected graphs - Ontario

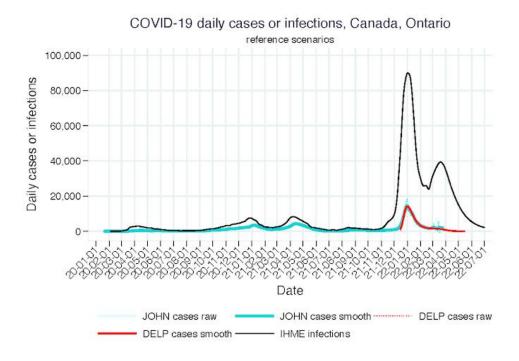
(1) Ontario Daily deaths, Reference scenario, 2020 on



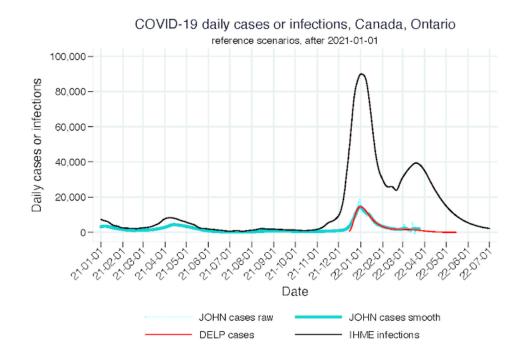
(2) Ontario Daily deaths, Reference scenario, 2021 on



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

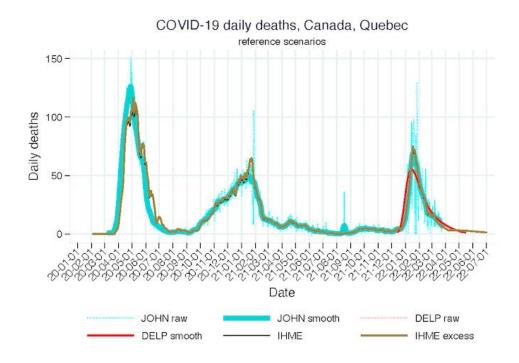


(4) Ontario Daily cases or infections, Reference scenario, 2021 on

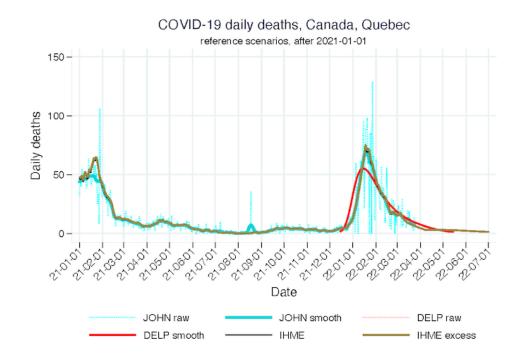


Selected graphs - Quebec

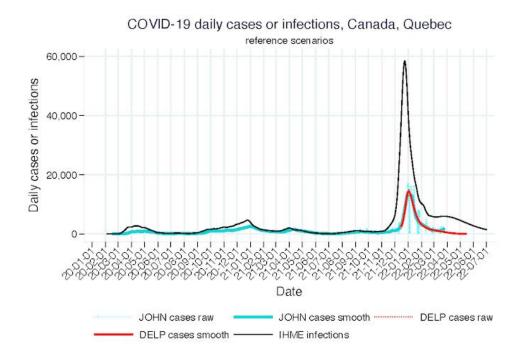
(1) Quebec Daily deaths, Reference scenario, 2020 on



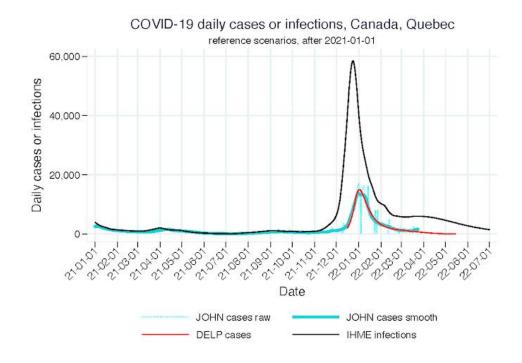
(2) Quebec Daily deaths, Reference scenario, 2021 on



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

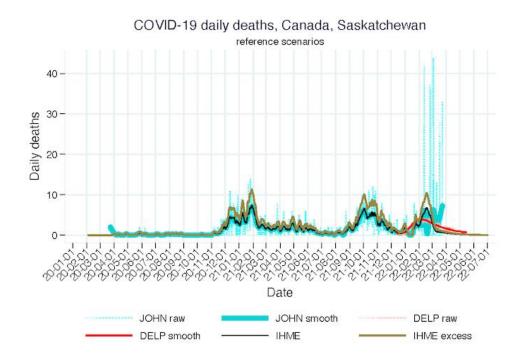


(4) Quebec Daily cases or infections, Reference scenario, 2021 on

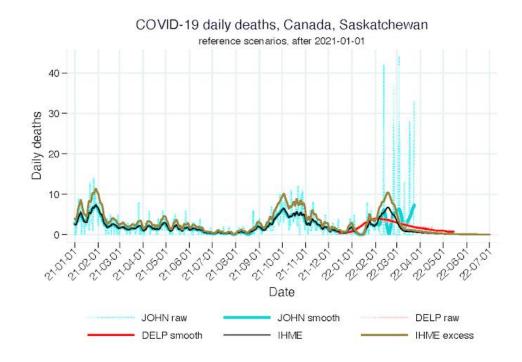


Selected graphs - Saskatchewan

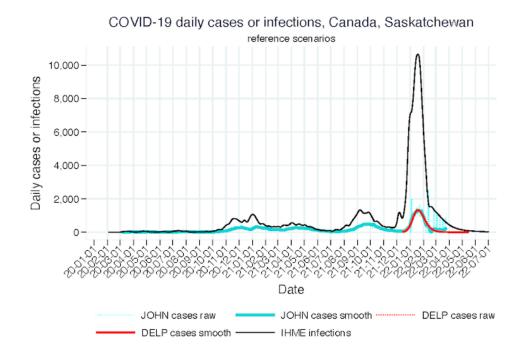
(1) Saskatchewan Daily deaths, Reference scenario, 2020 on



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



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



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

