

Canada COVID-19 epidemic models situation report No 42 - 2022-04-08

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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>
DELP 20220408, IHME 20220408, IMPE 20220131, SRIV 20220408, No PHAC

Days old: DELP 0, IHME 0, IMPE 68, SRIV 0

The [latest update of the PHAC-McMaster model](#) is 50 days old.

Summary 20220408:

Observations:

IHME: If people continue to use masks at the levels observed in late March for the next four months and there is no considerable spread after a potential emergence of more fatal variants, the IHME model predicts decreasing daily infections and deaths until October 1st, 2022 – after an increase in daily infections and deaths in Ontario in early-April 2022 that is reflected at the national level. The main (reference or status quo) scenario of IHME includes the assumption that the level of mask use will continue unchanged for the four months of April to July 2022. There is no alternative scenario that includes declining levels of mask use – that is actually happening on the ground. As such, none of the IHME model scenarios incorporate the currently declining use of masks and therefore tend to underestimate the future trajectories of infections and deaths. By default, no considerable spread after a potential emergence of a more fatal variant is assumed in the models. Verbatim: "BA.2 is declining in Europe and is not expected to cause a major surge in the US. Other countries around the world may also avoid a surge due to previous high levels of infection from Omicron." Source: [IHME COVID-19 Model Insights Blog](#)

Other models: The DELP model predicts decreasing levels of daily deaths and daily cases at the national level through May 2022. The predicted trajectory of the DELP model varies at the province level. The SRIV model predicts decreasing daily deaths and cases in early April 2022, but their levels of daily outcomes are significantly overestimated. The latest available IMPE model update (20220131) is more than three months old and shows their predictions as of early winter 2022.

The **strengths and weaknesses** of the international and periodically updated COVID-19 pandemic models are discussed [here](#).

Canada's government: The [latest update of the PHAC-McMaster model](#) dates back to 2022-02-18 (as of 2022-04-08). The latest available [Canada's government "Update on COVID-19 in Canada: Epidemiology and Preparedness, April 1, 2022"](#) does not contain any *quantitative* predictions for the future of the epidemic in Canada. They have two *narrative* scenarios for future, named “Realistic Scenario: Ongoing transmission with intermittent waves” and “Worst-case Scenario: Emergence of an immune evasive and severe VOC”.

Interpretations:

Science: Premature release of mandates for using masks and physical distancing serves more the political and economic purposes of the governments than the public health and survival needs of the populations and individuals. The governments have chosen to pay the price of the current levels of daily deaths, cases, and the burden of long-COVID out of people’s pockets to gain more political and economic calm.

Politics: Let people die at the current rates, prevent further riots and secure party seats. Set the level of deaths where it maximizes the party’s power. The gravity of one more death or one less death seems to not be equally weighted in public health and in politics. The objectives of politics and public health are not the same. Not fair enough. Public Health Officers are on: which side.

DELP: [model by Massachusetts Institute of Technology, Cambridge](#)

IHME: [model by Institute for Health Metrics and Evaluation, Seattle](#)

IMPE: [model by Imperial College, London](#)

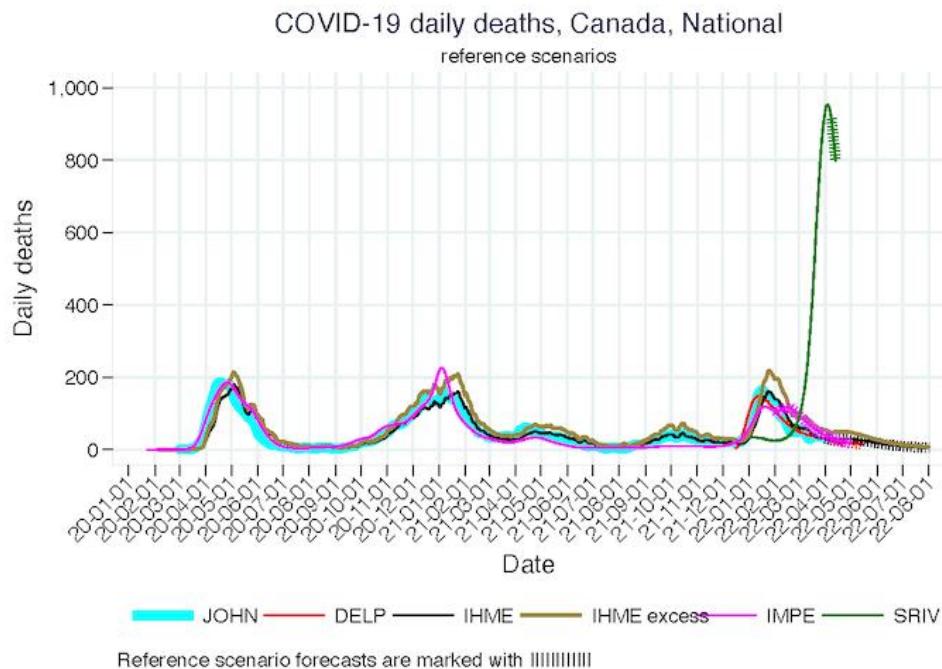
SRIV: [model by Srivastava, Ajitesh, University of Southern California, Los Angeles](#)

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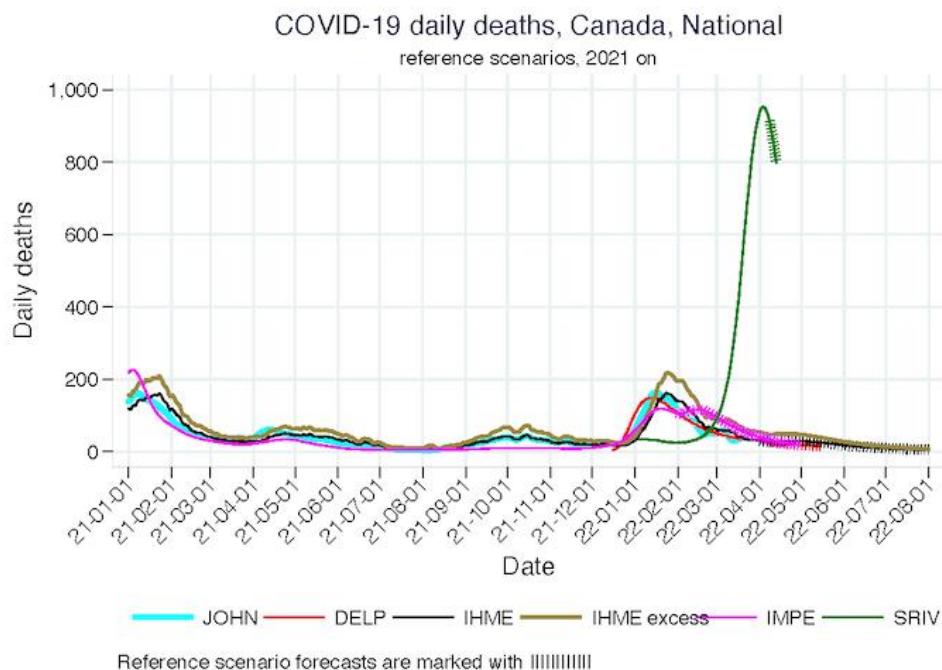
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Selected graphs - Canada, National

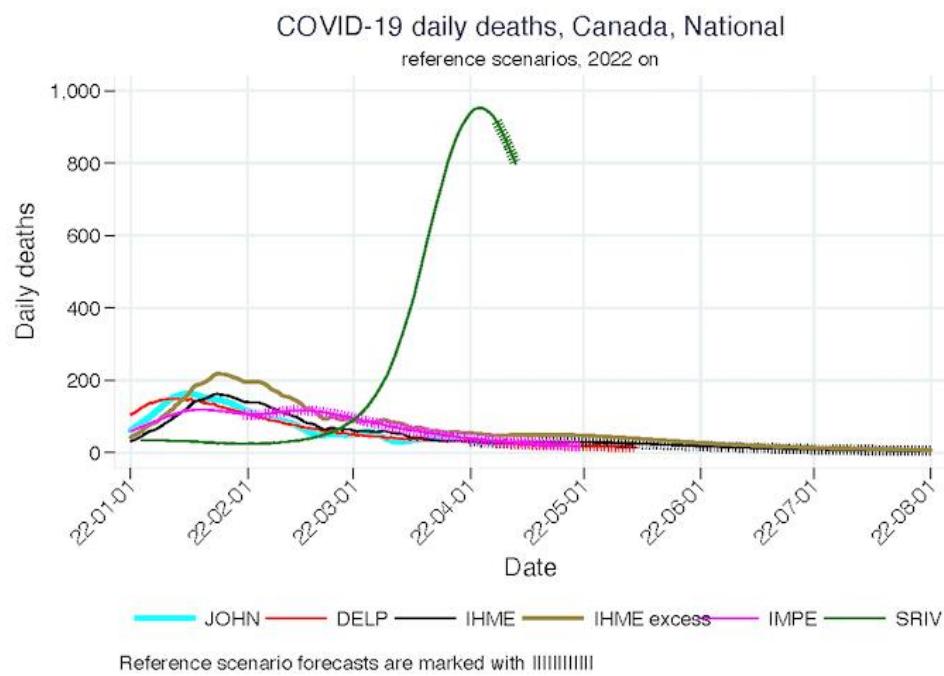
(1) Canada [Daily deaths, Reference scenarios, 2020 on](#)



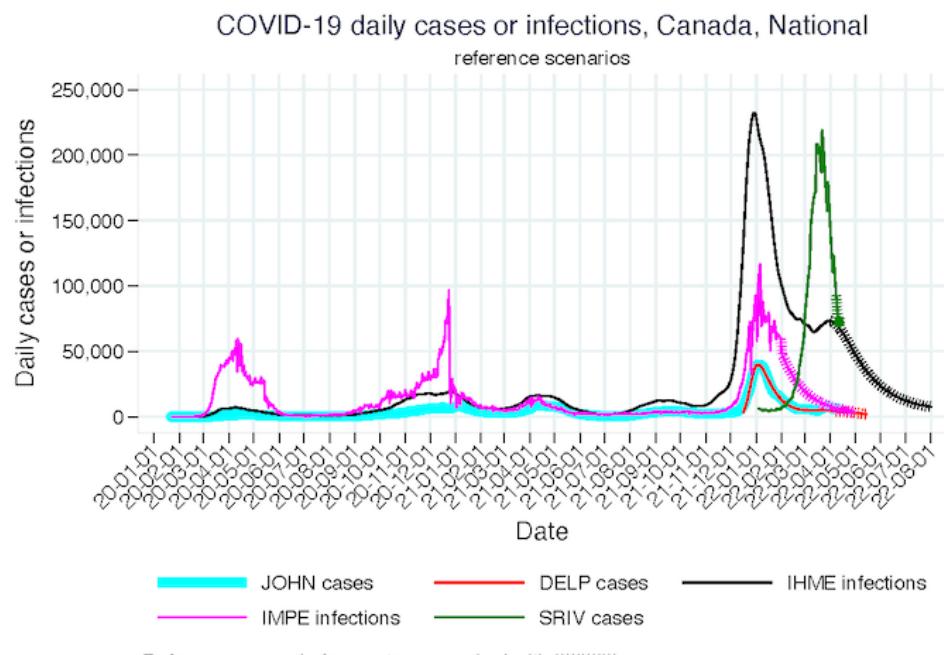
(2) Canada National [Daily deaths, All scenarios, 2021 on](#)



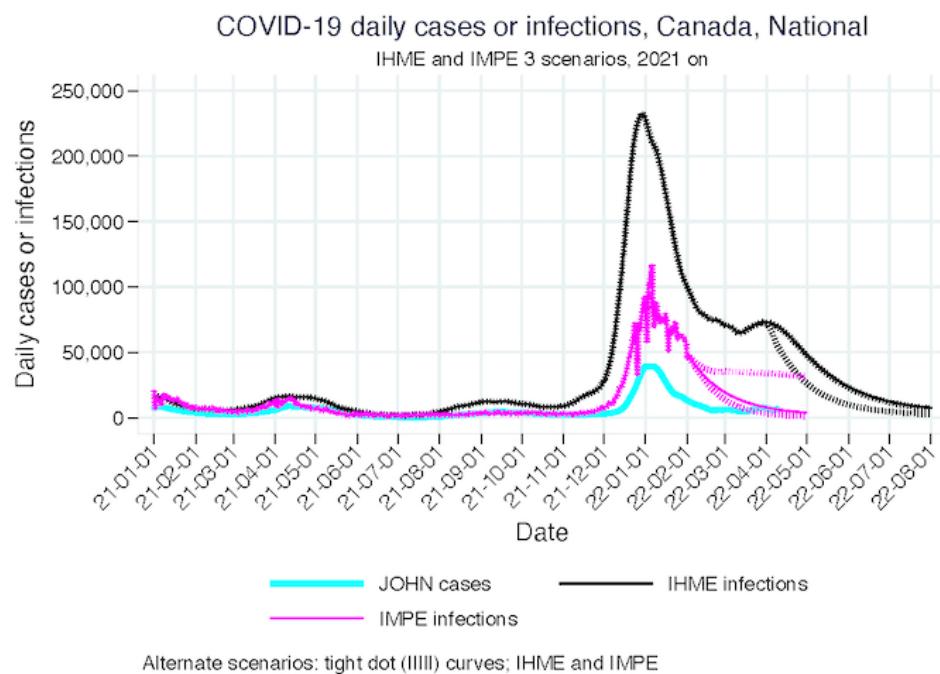
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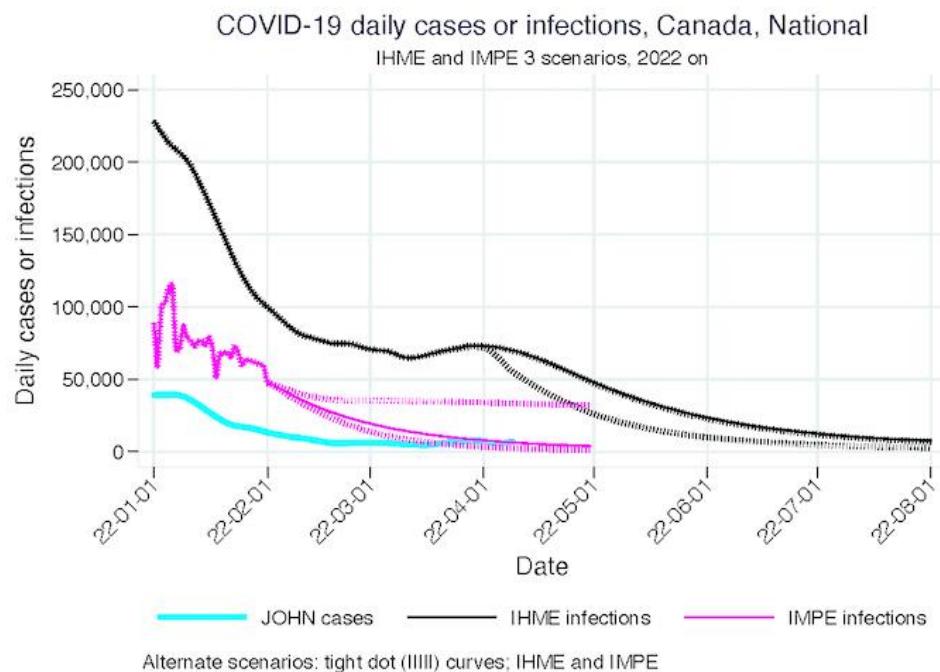
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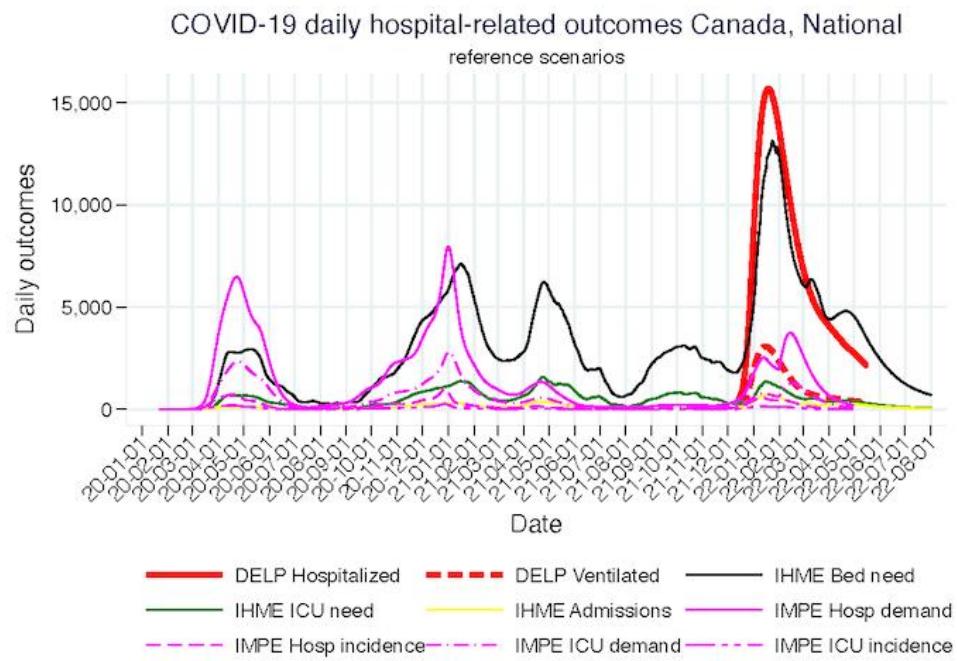
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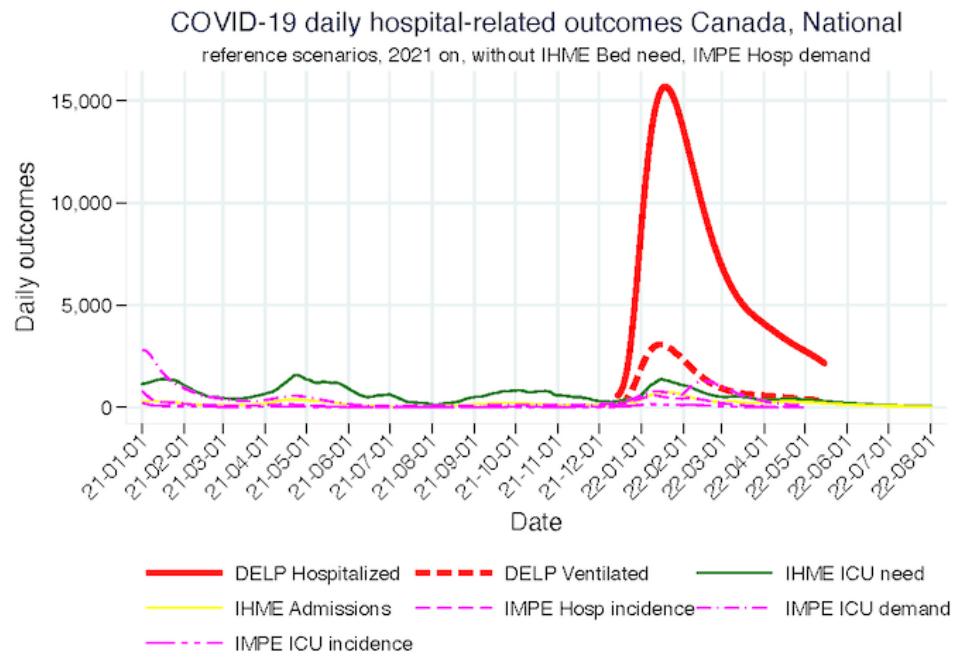
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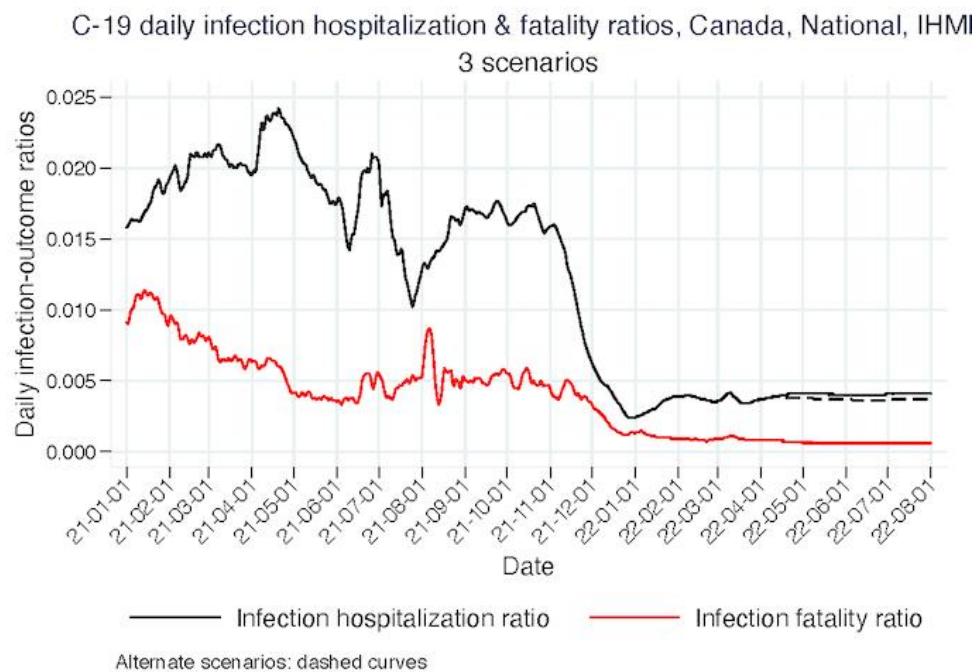
(5) Canada National [Daily hospital-related outcomes, Reference scenarios, 2020 on](#)



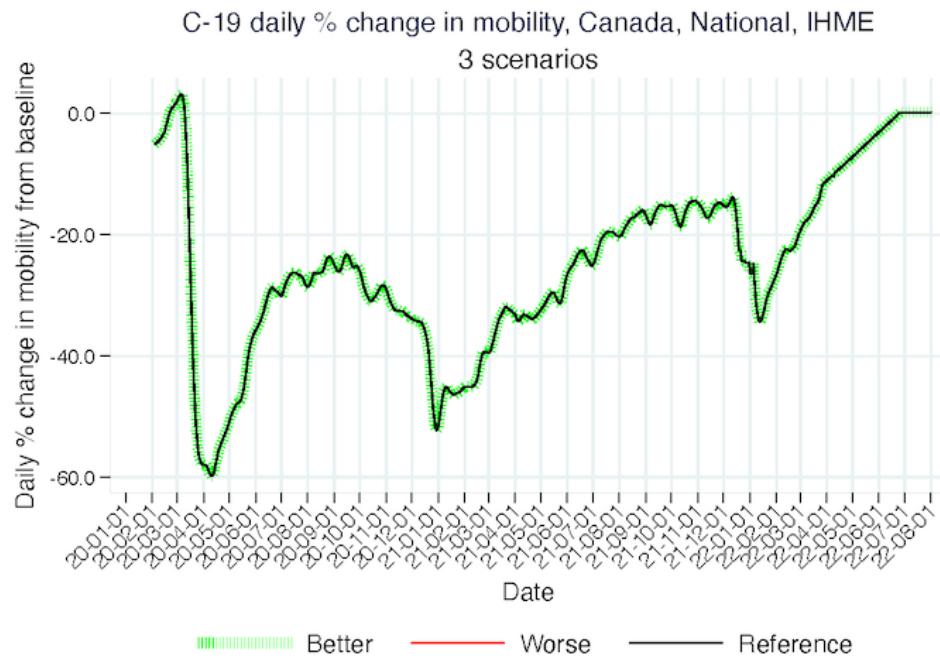
(6) Canada National [Daily hospital-related outcomes, without IHME Bed need, IMPE Hospital demand, Reference scenarios, 2021 on](#)



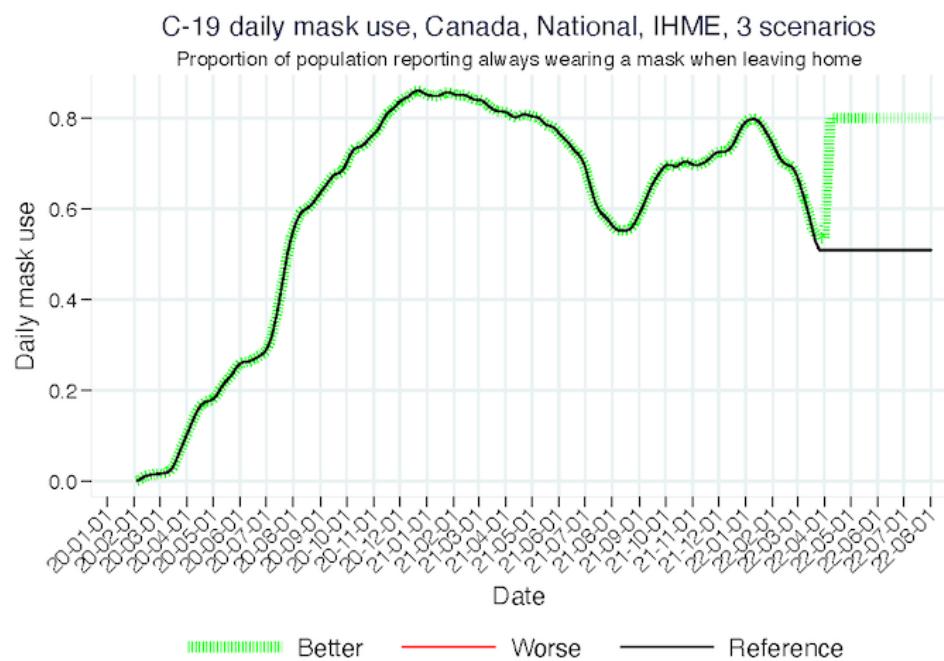
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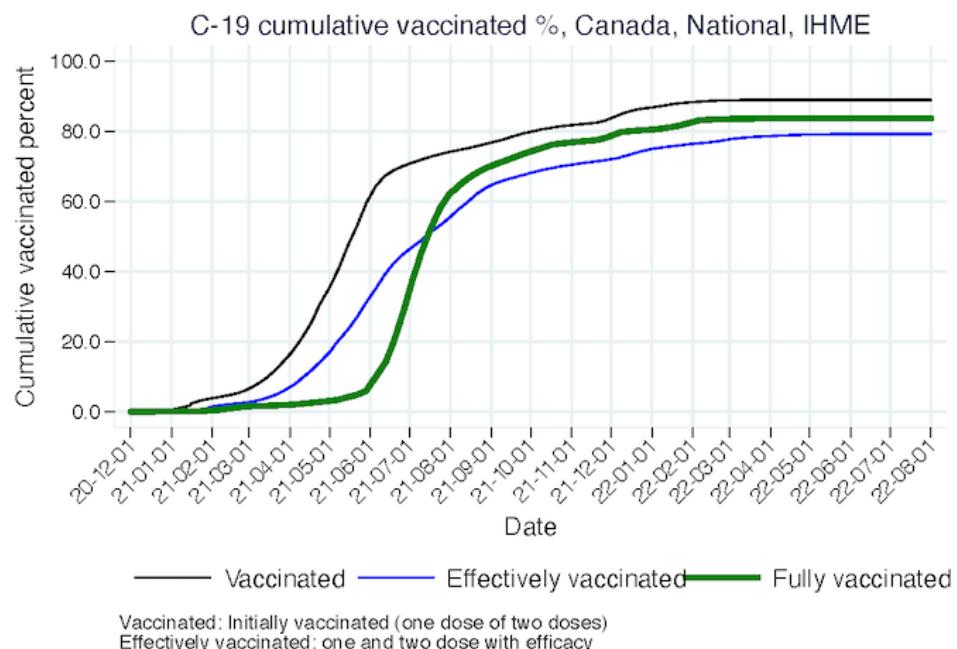
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(9) Canada National [Daily mask use, IHME, 2020 on](#)



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

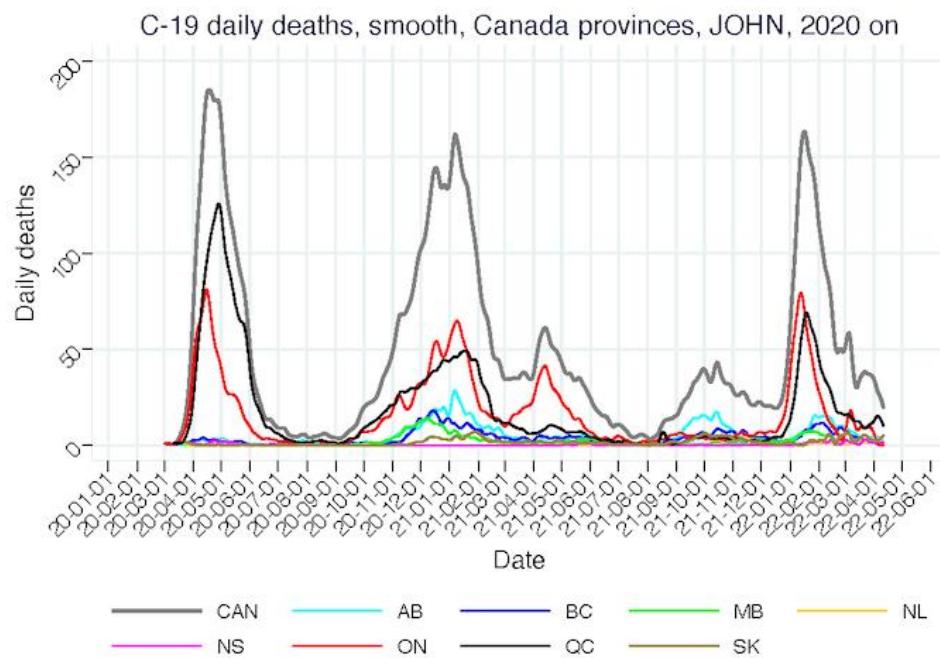


Selected graphs - Canada, Provinces together

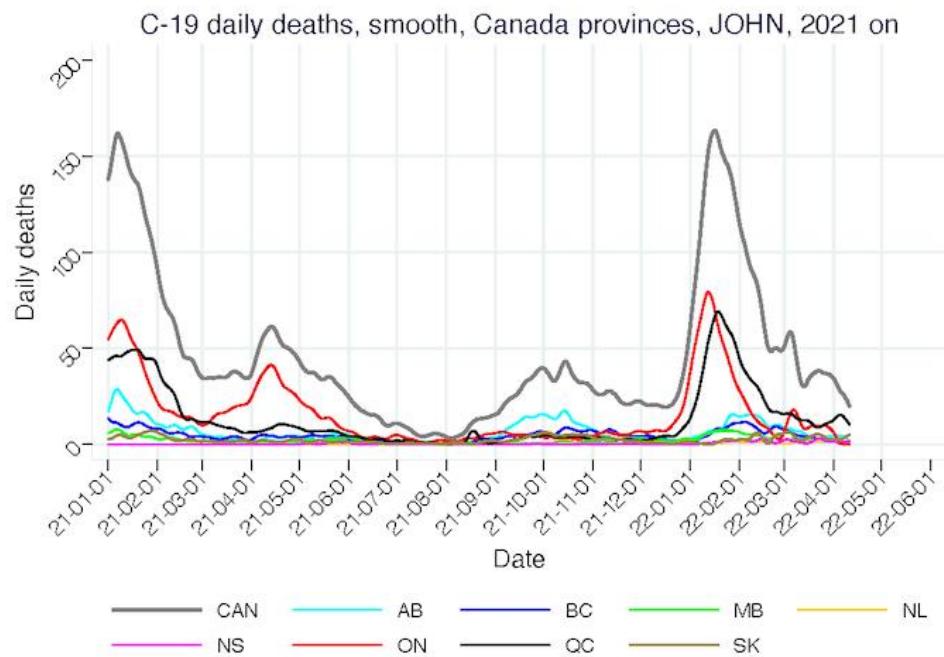
(a) Official reports to WHO, via JOHN || (b) Models: IHME

(a) Official reports to WHO, via JOHN

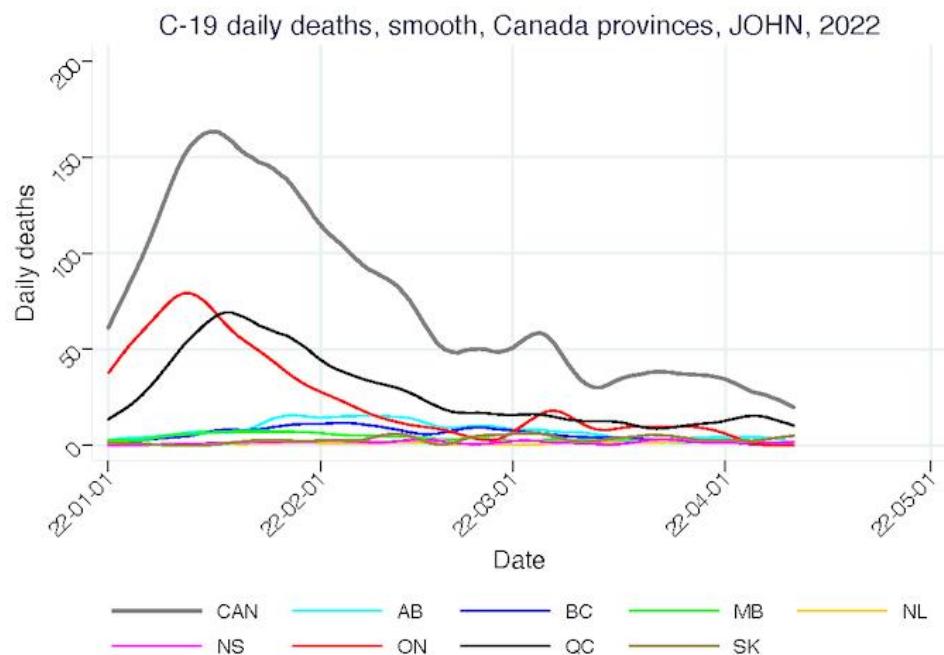
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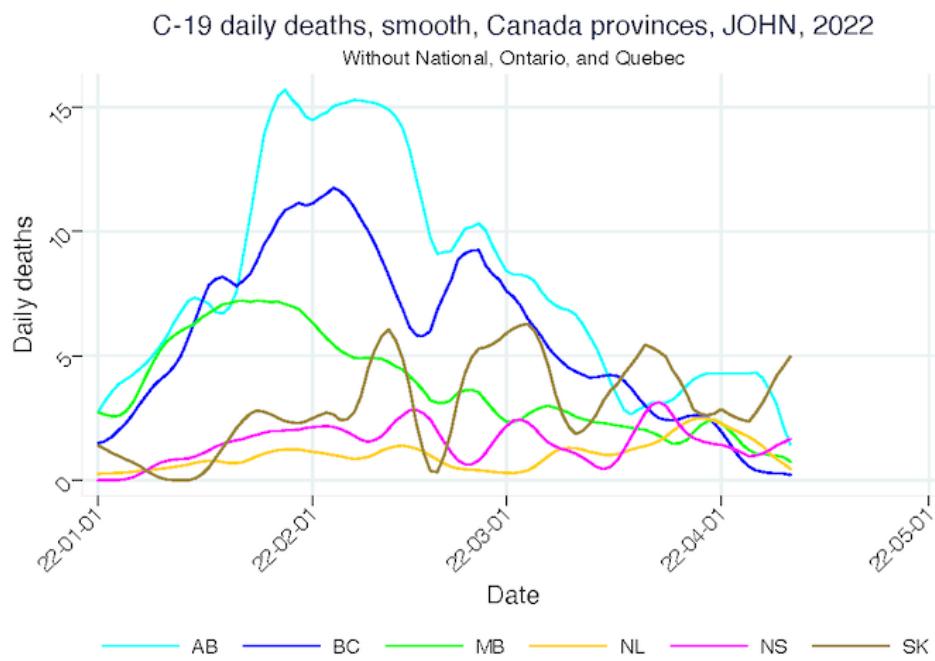
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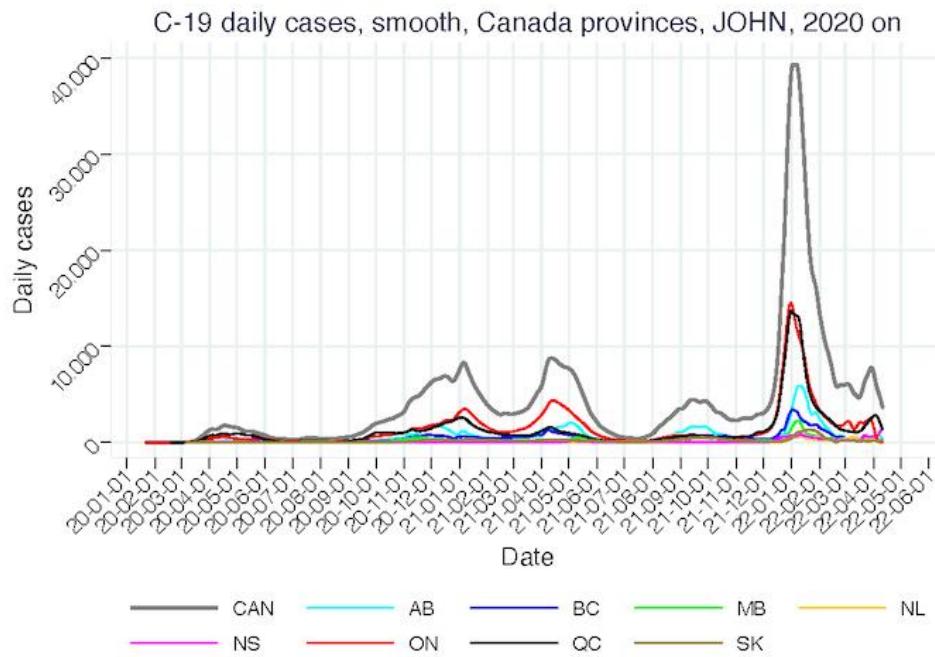
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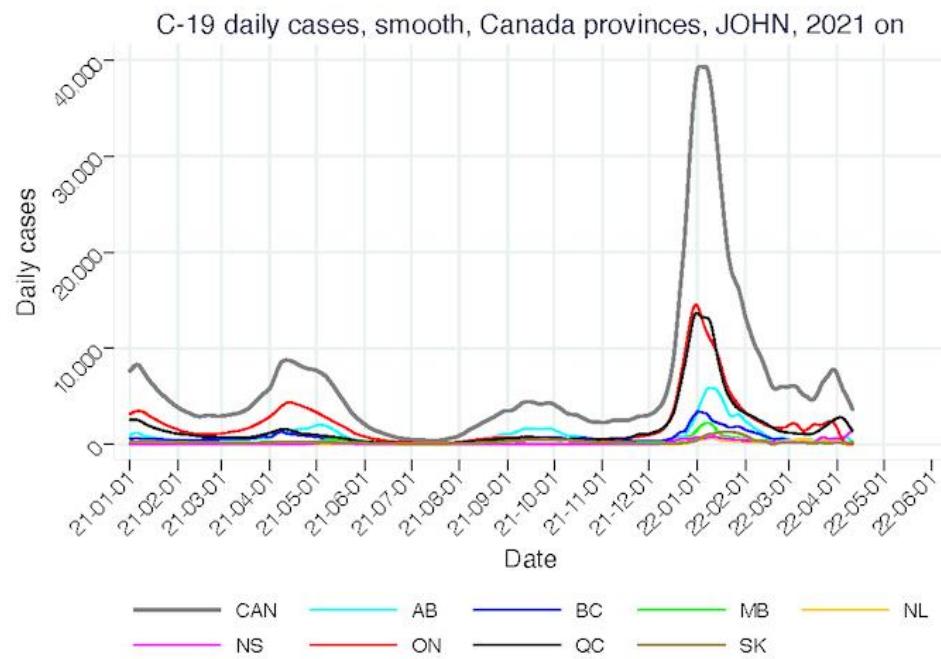
(4) Canada Provinces [Daily reported deaths, without National, Ontario, and Quebec, JOHN, 2022](#)



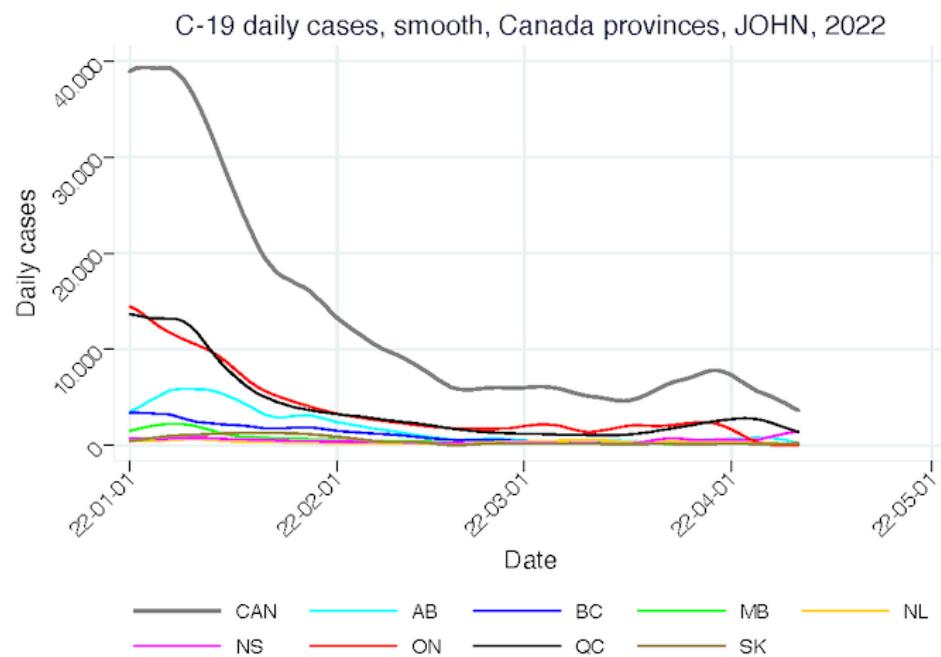
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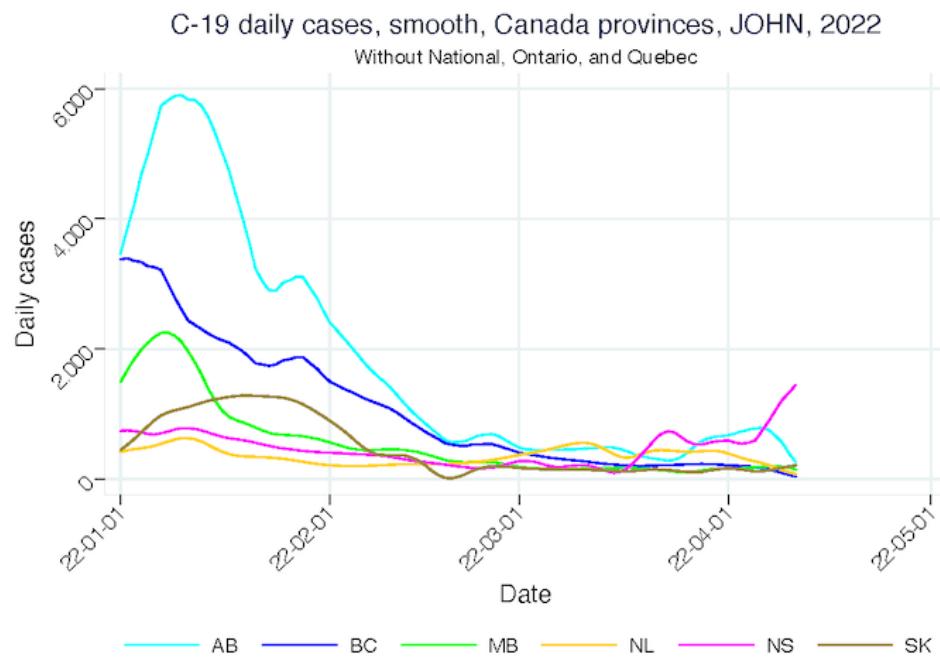
(6) Canada Provinces [Daily reported cases, JOHN, 2021 on](#)



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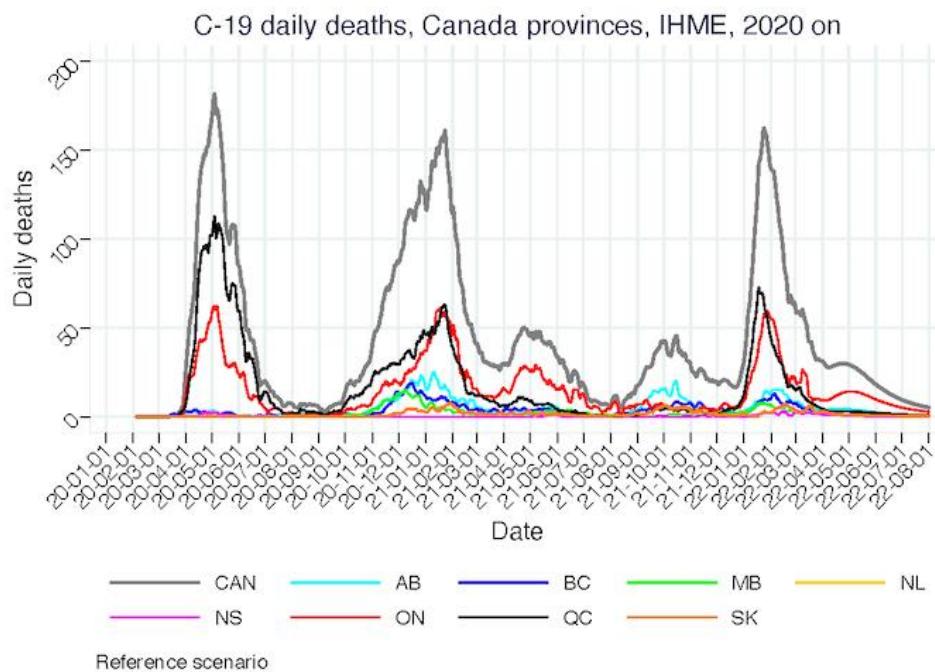


(8) Canada Provinces [Daily reported cases, without National, Ontario, and Quebec, JOHN, 2022](#)

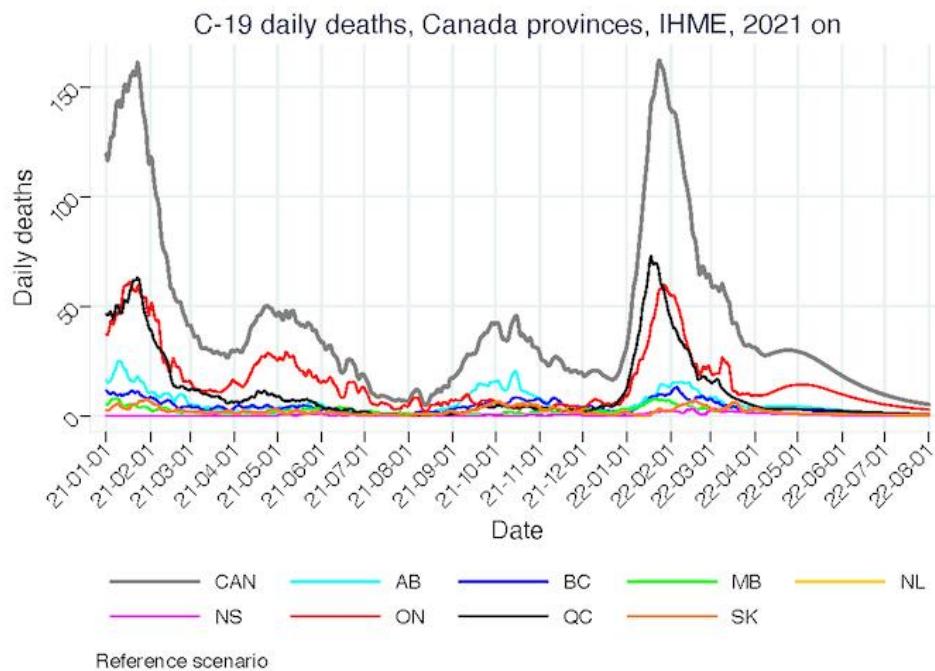


(b) Models: IHME

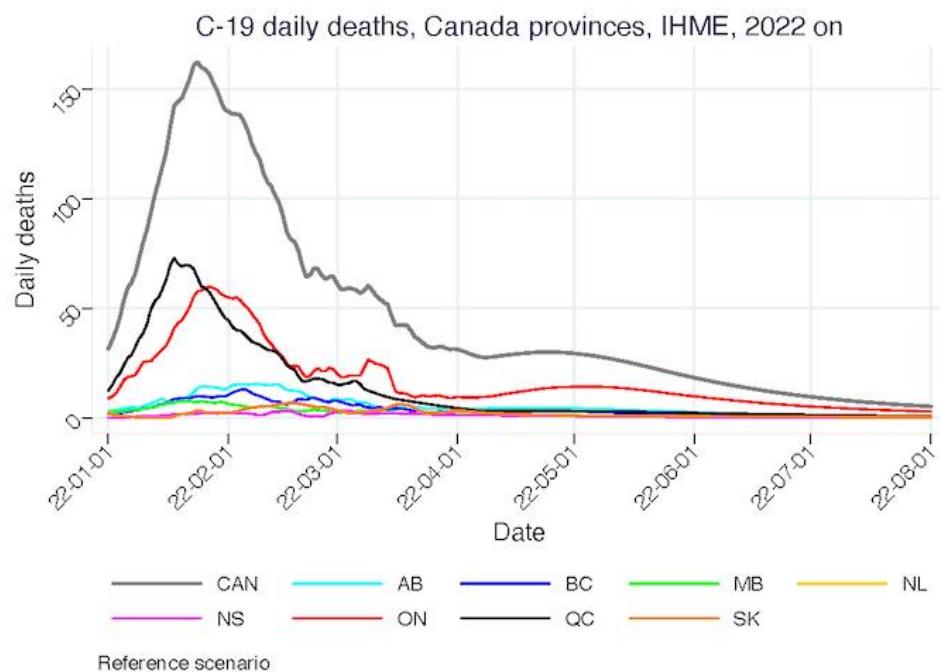
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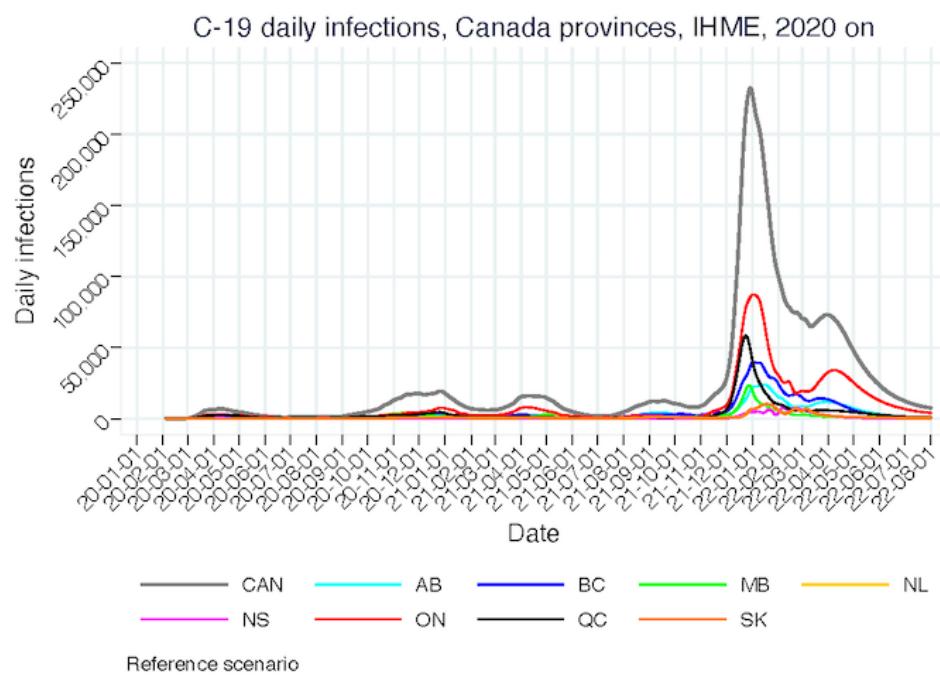
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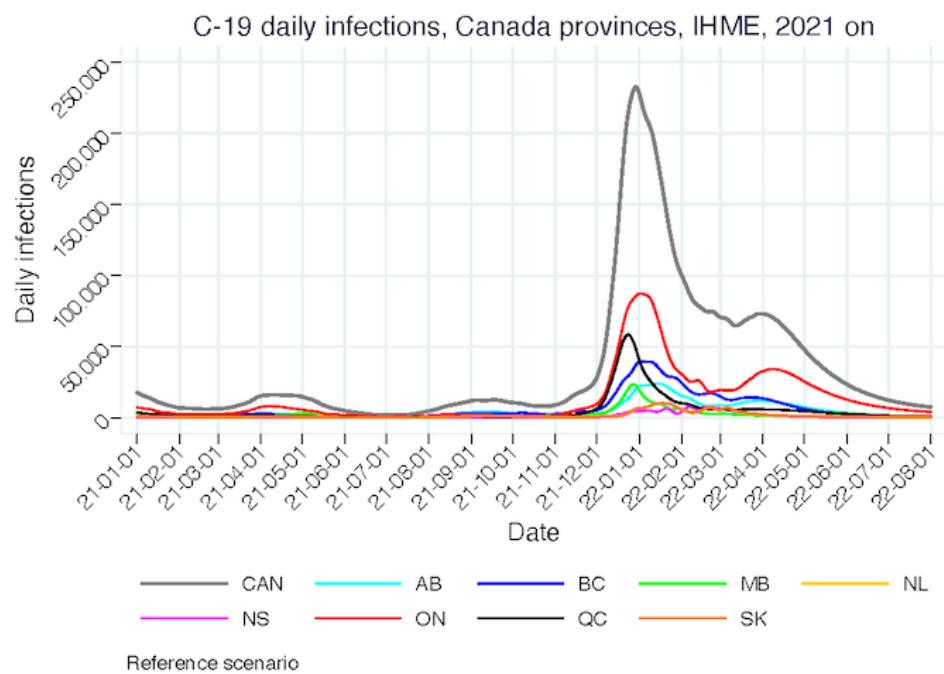
(11) Canada Provinces [Daily deaths, Reference scenario, IHME, 2022](#)



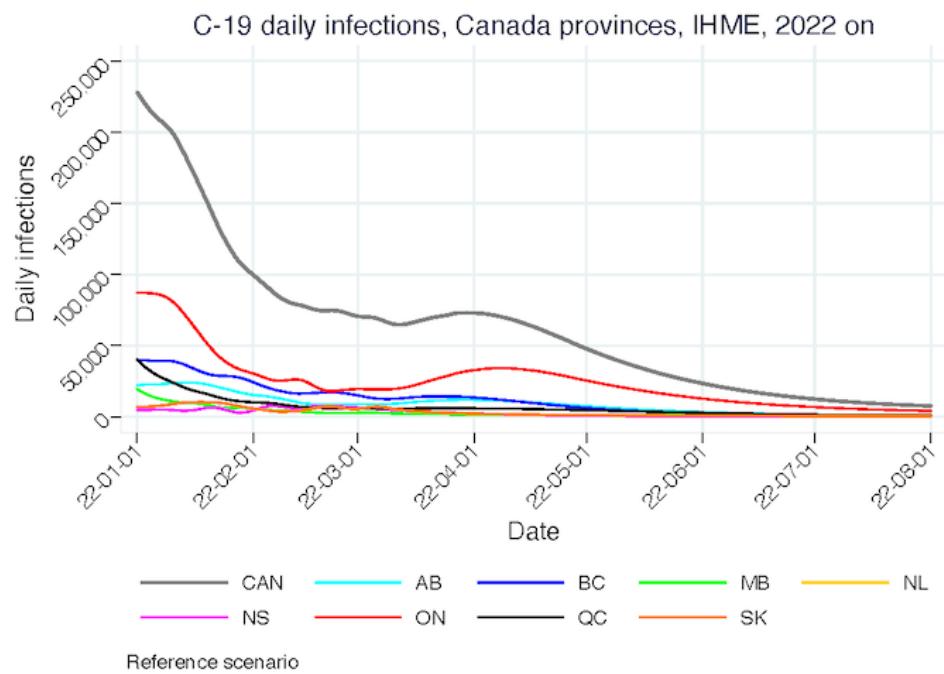
(12) Canada Provinces [Daily infections, Reference scenario, IHME, 2020 on](#)



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

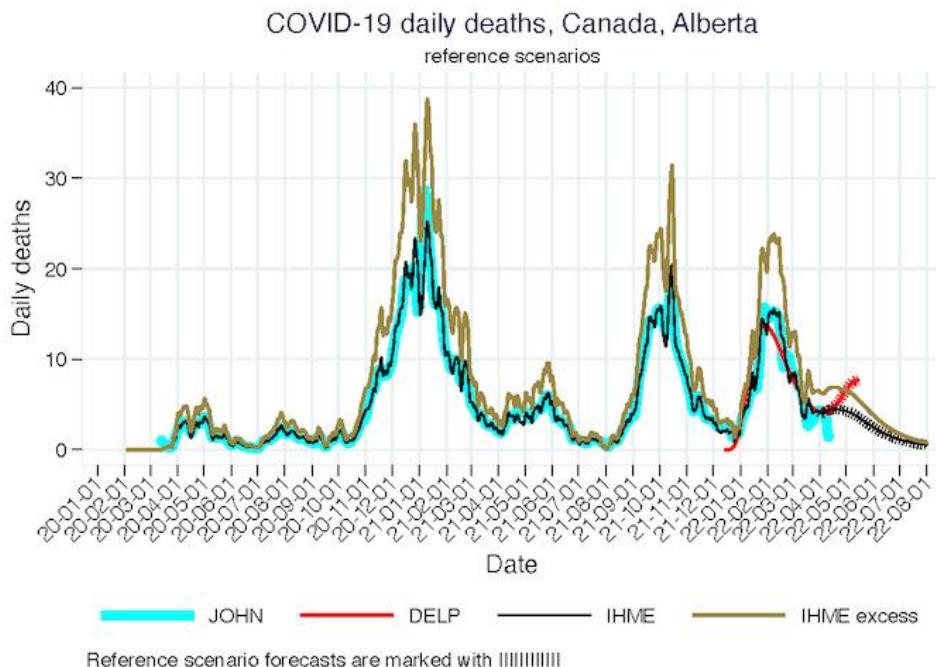


(14) Canada Provinces [Daily infections, Reference scenario, IHME, 2022](#)

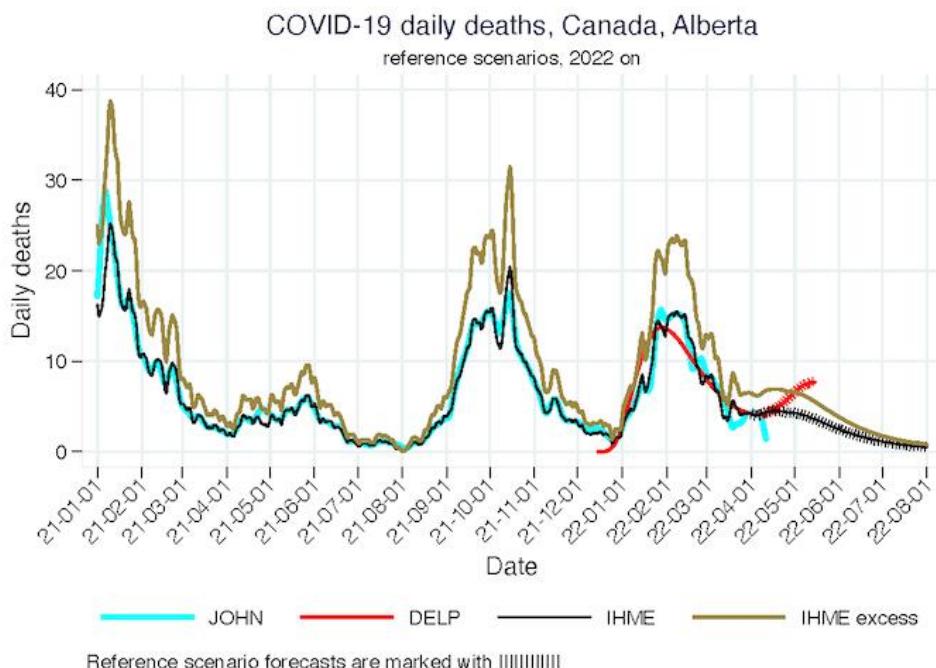


Selected graphs - Alberta

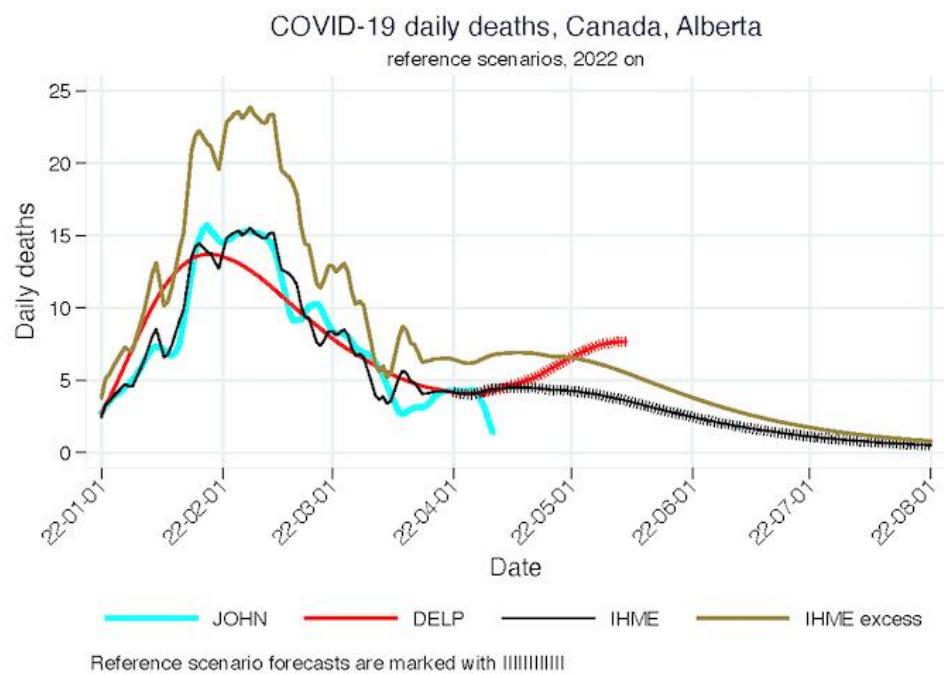
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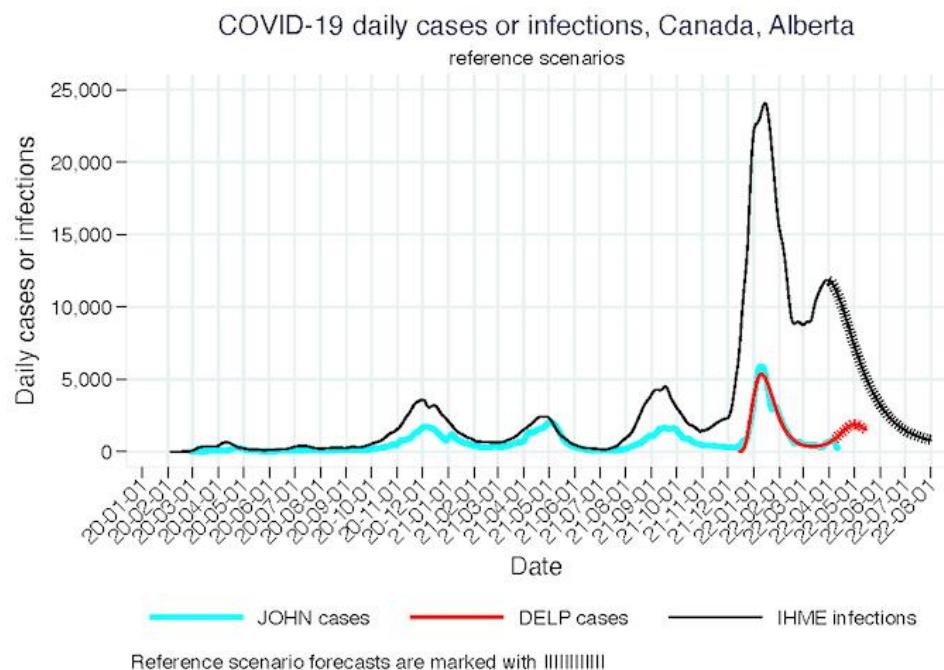
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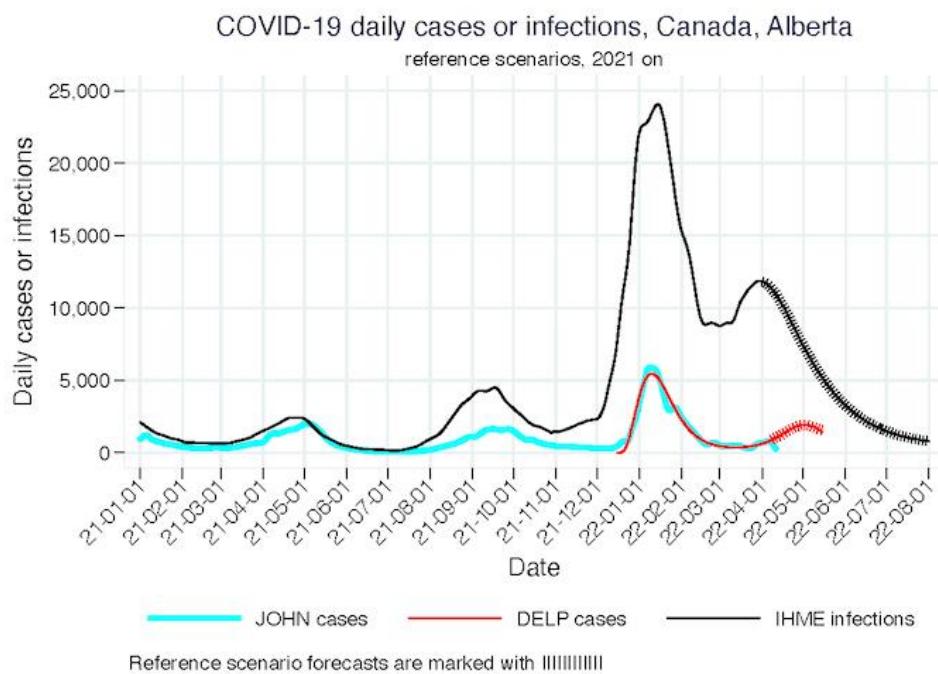
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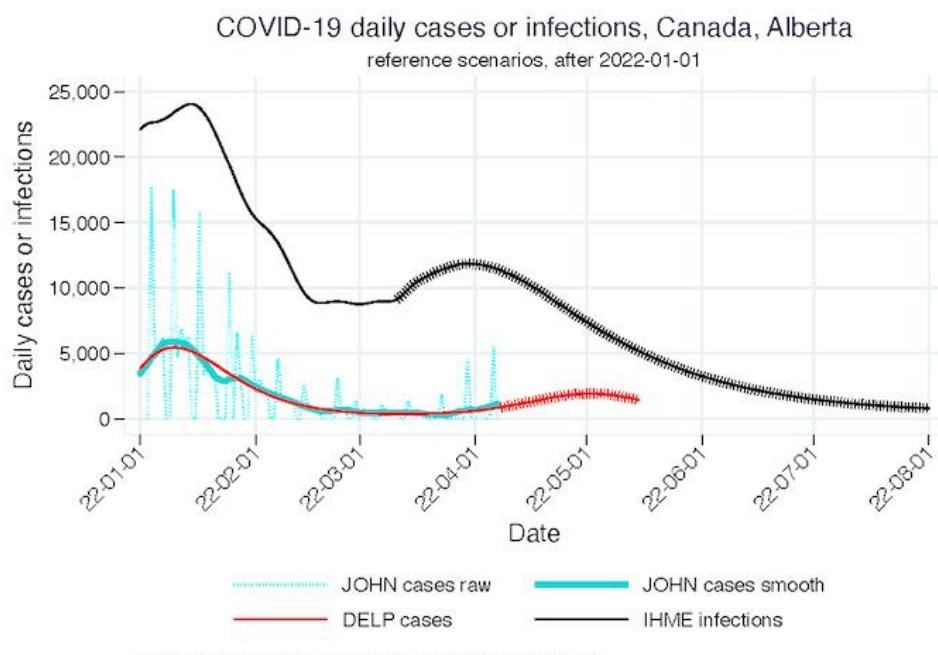
(3) Alberta [Daily cases or infections, Reference scenario, 2020 on](#)



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

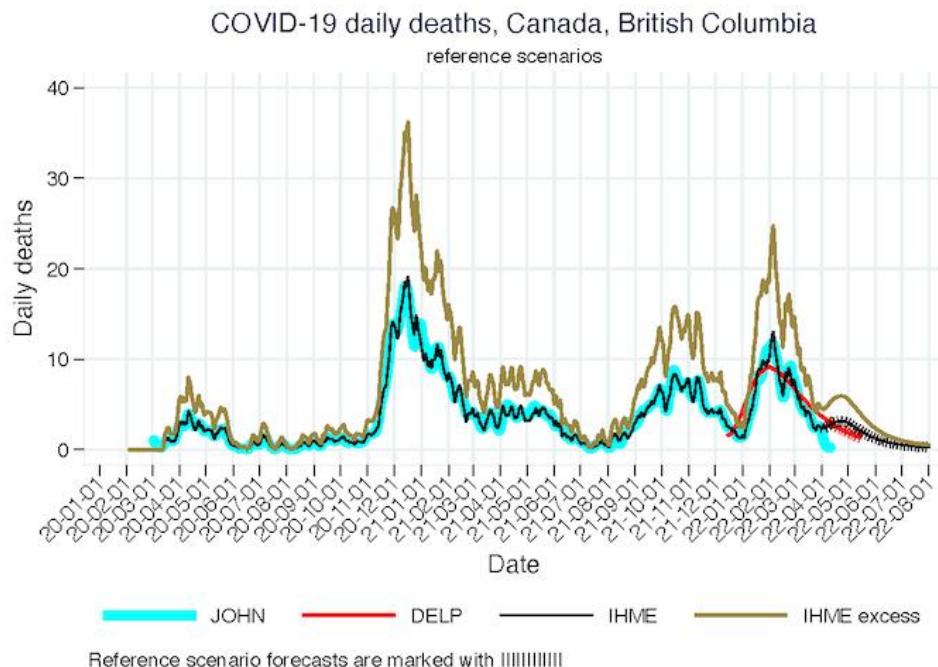


(4b) Alberta [Daily cases or infections, Reference scenario, 2022 on](#)

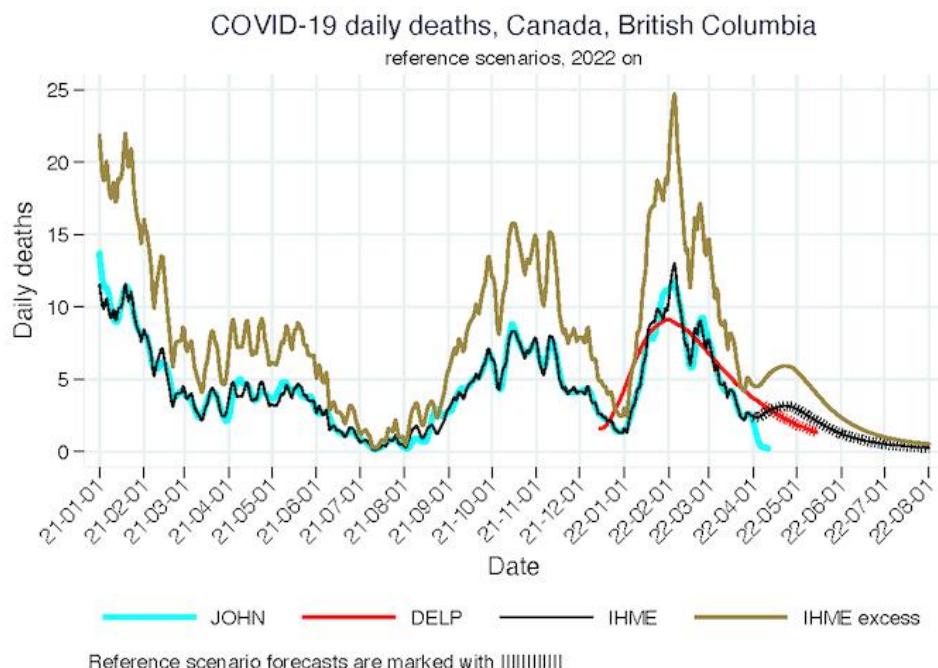


Selected graphs - British Columbia

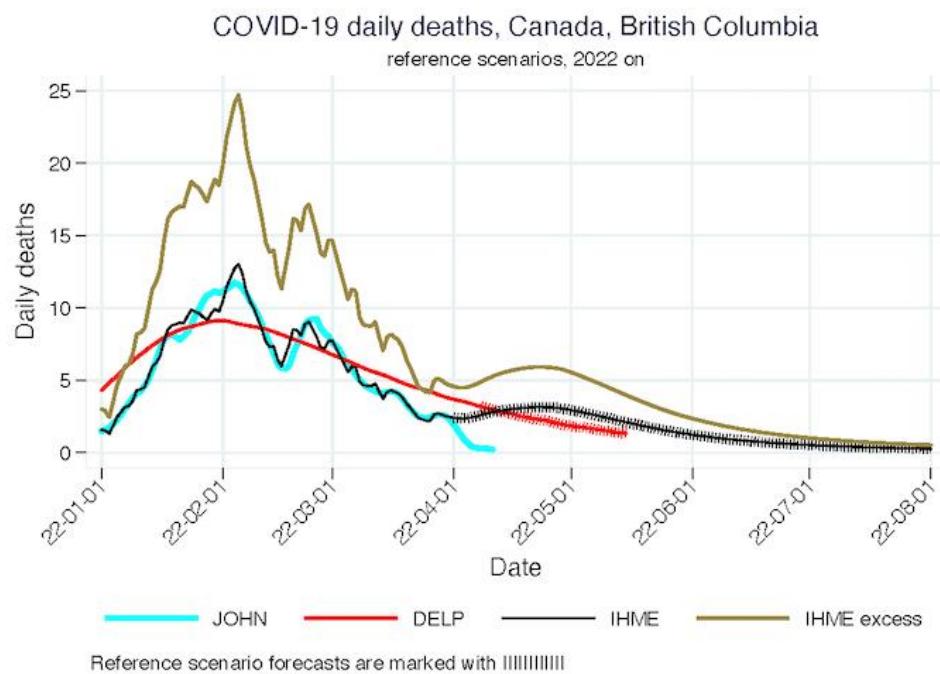
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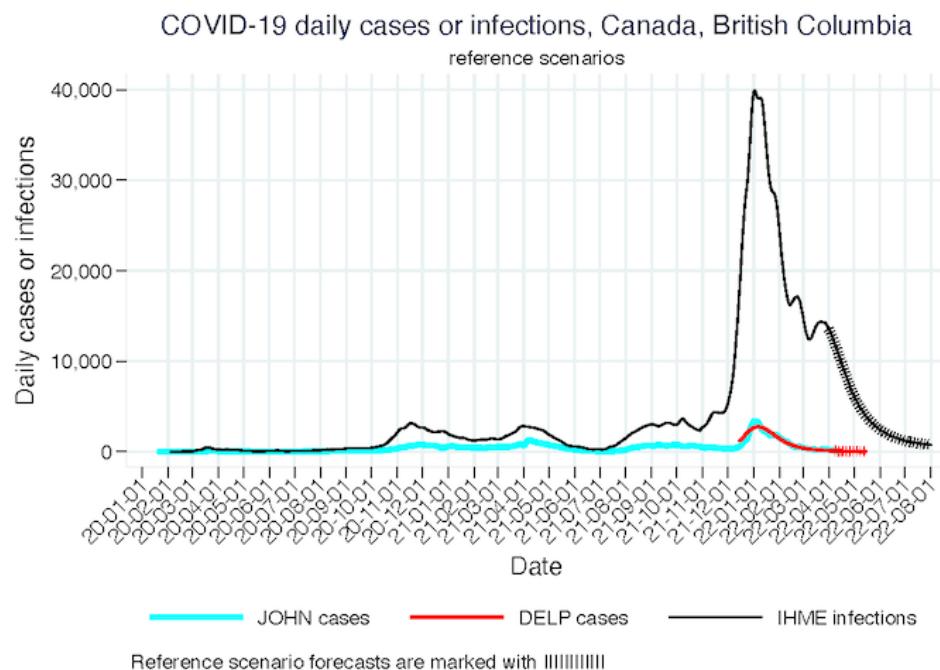
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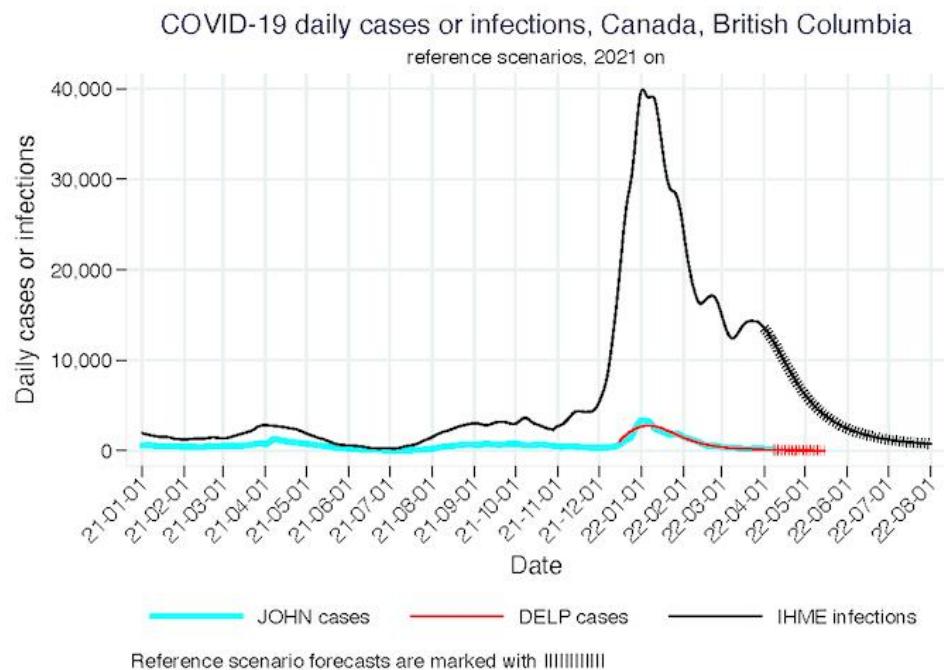
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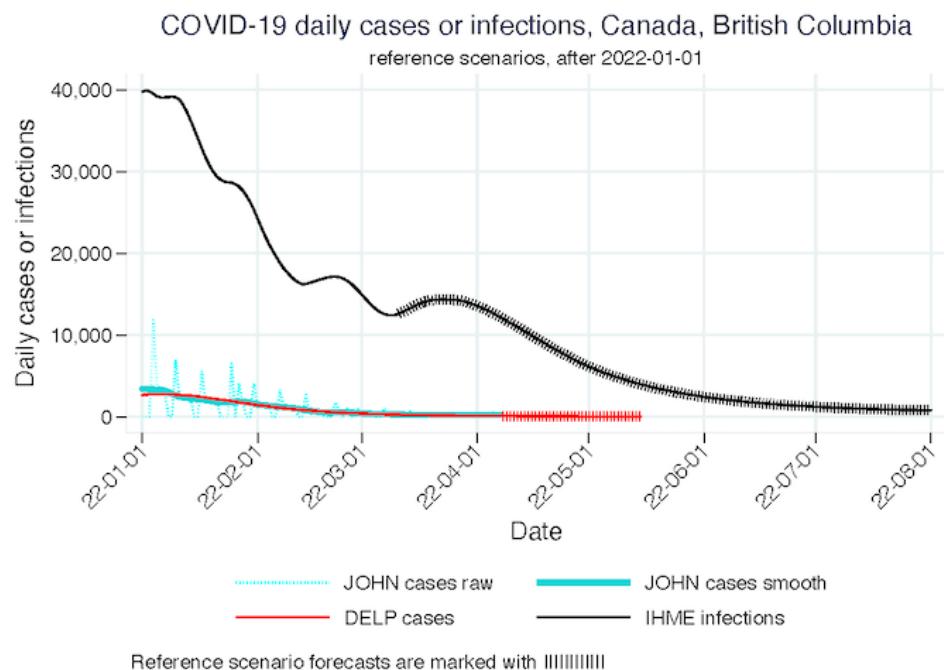
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(4) British Columbia [Daily cases or infections, Reference scenario, 2021 on](#)

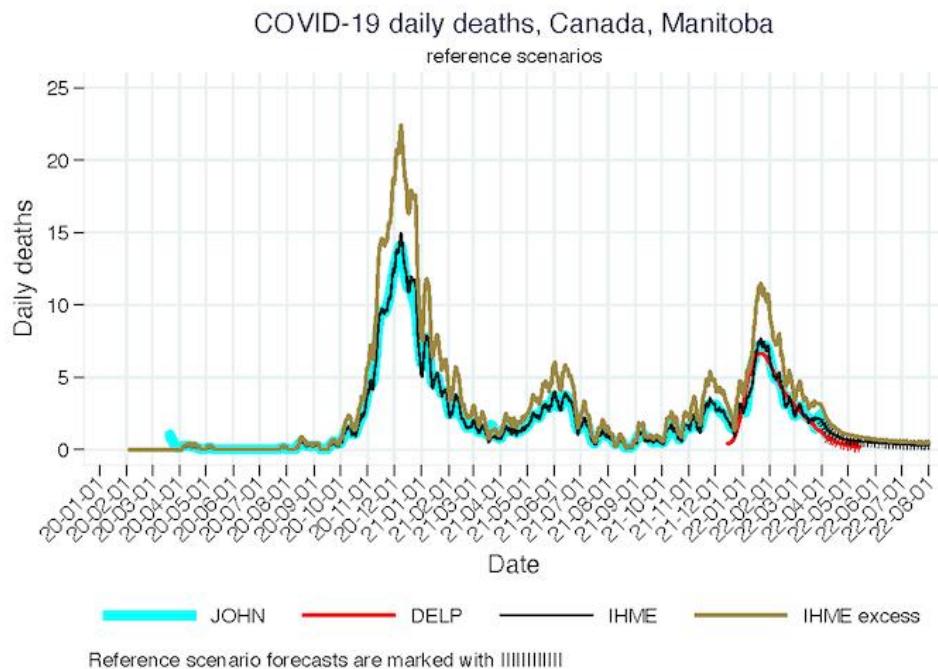


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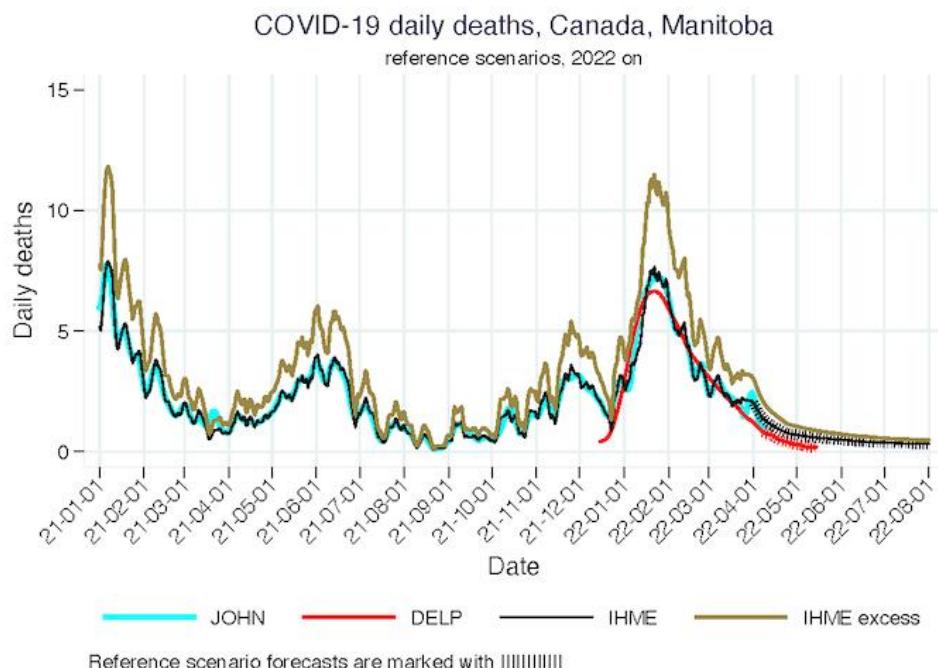


Selected graphs - Manitoba

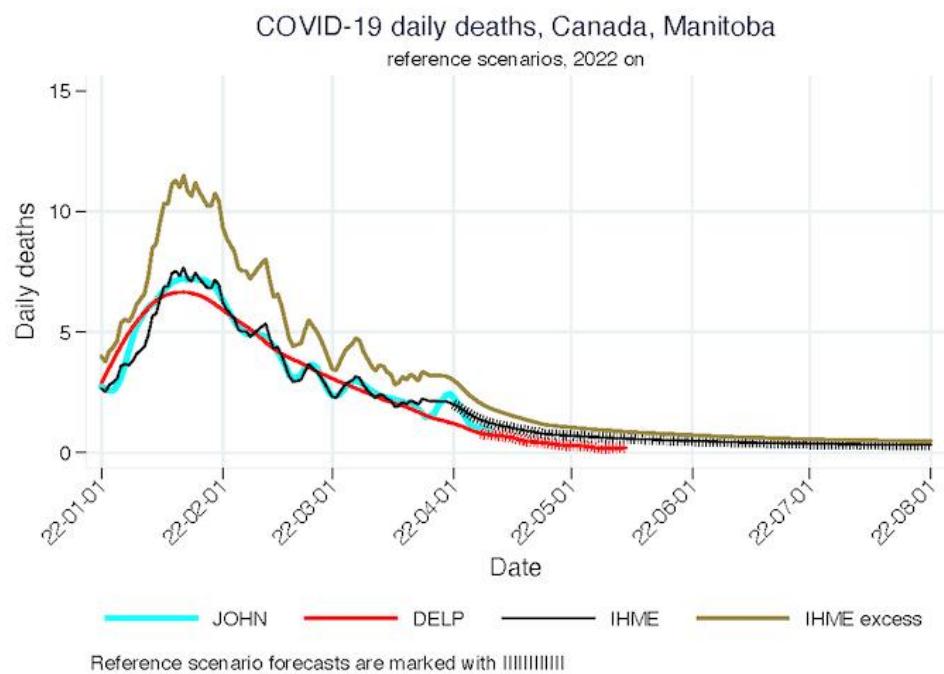
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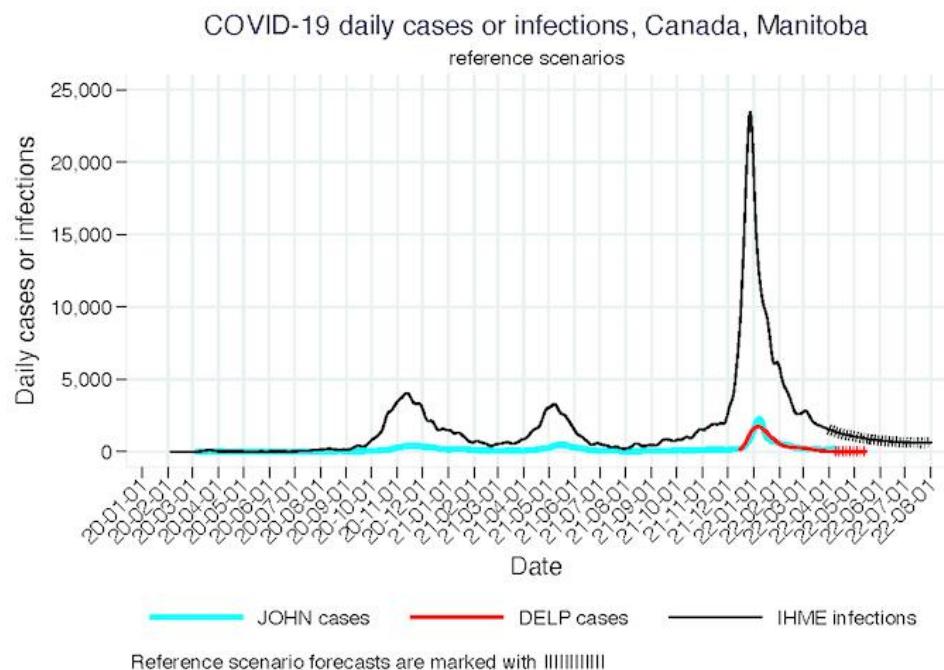
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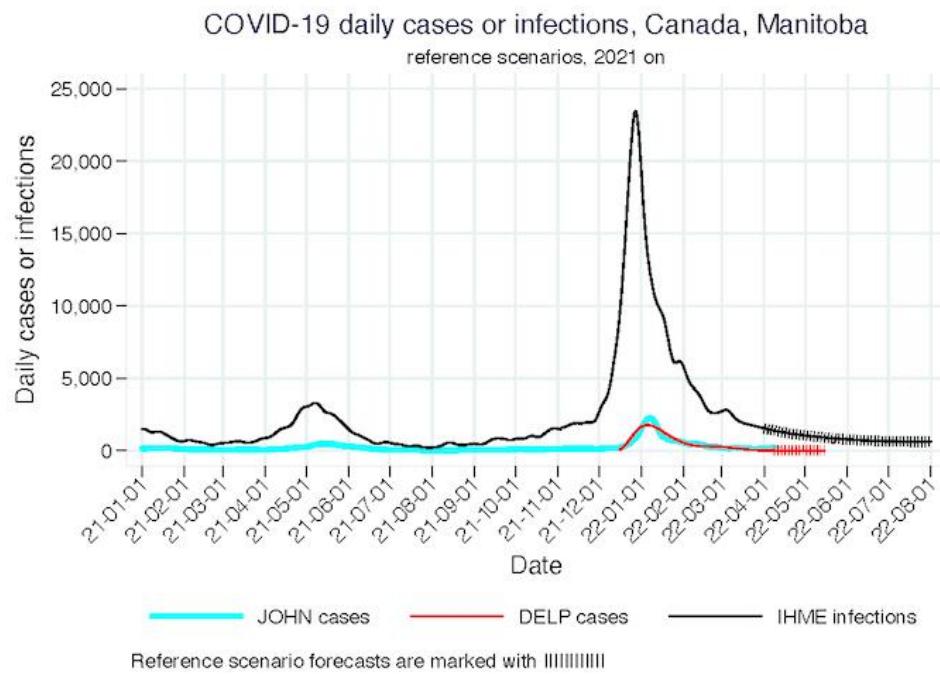
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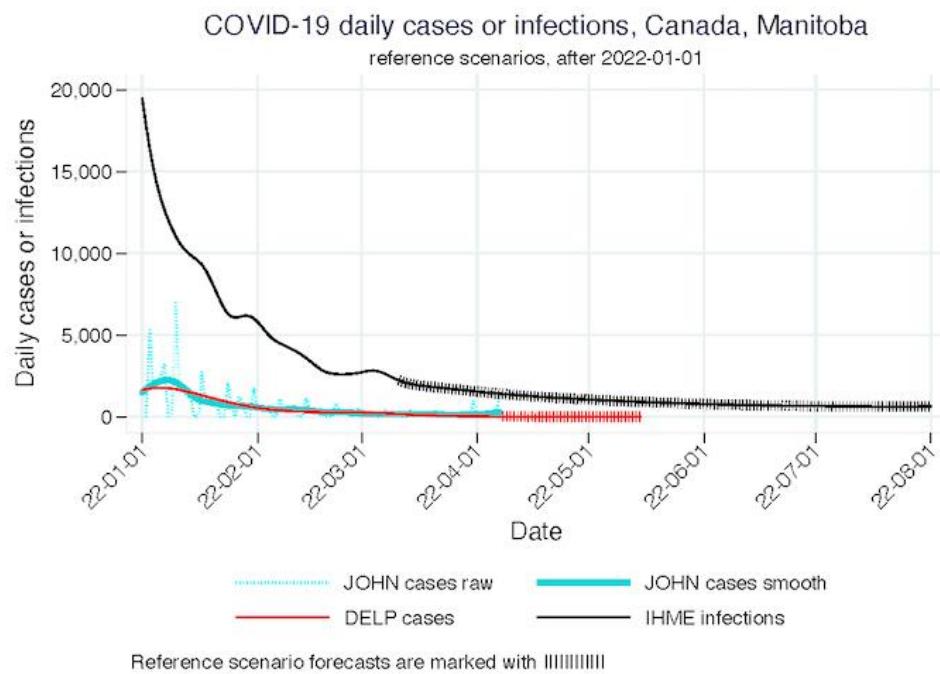
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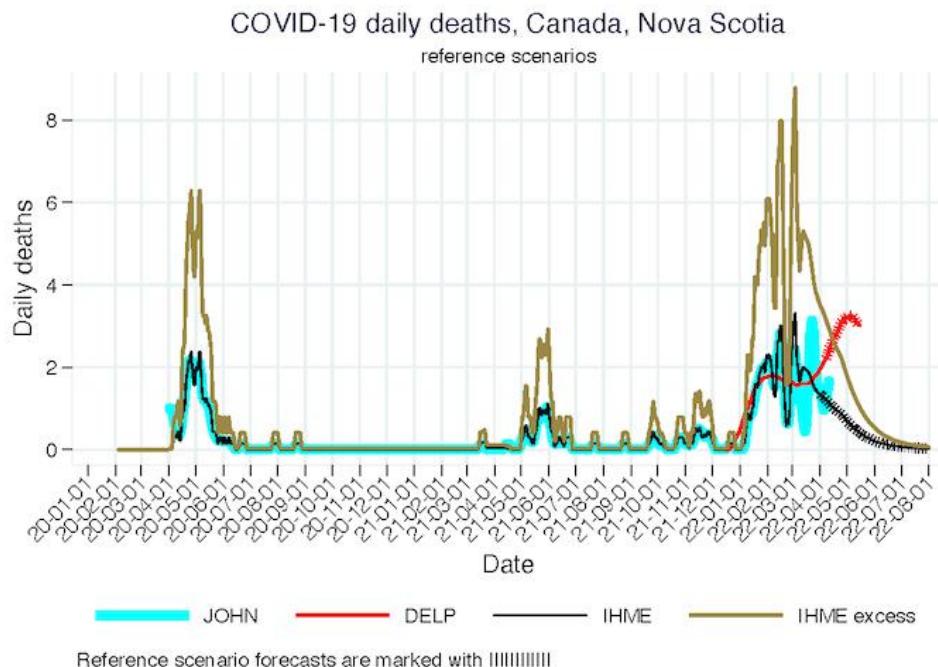


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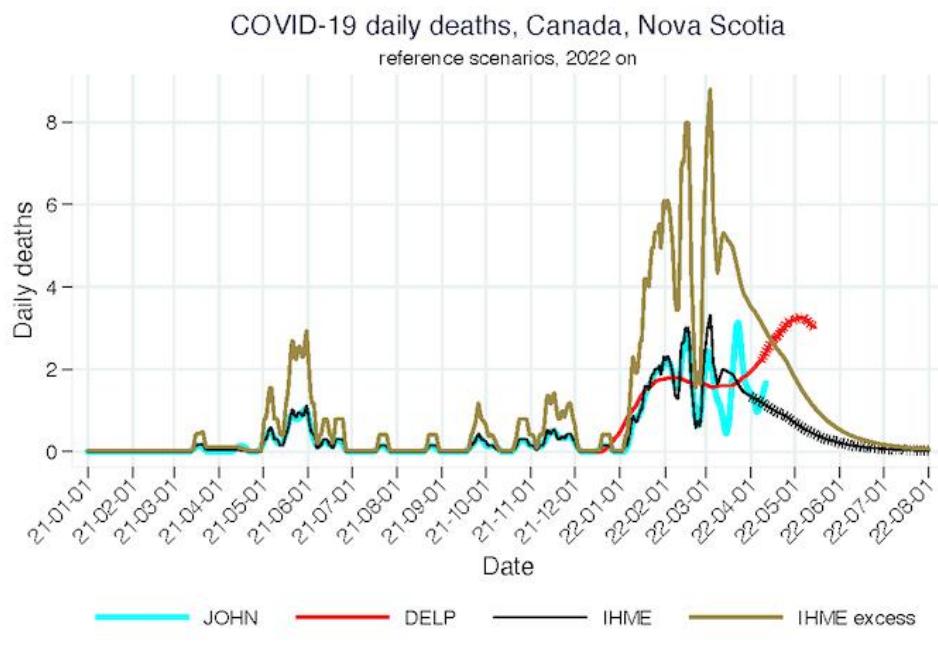


Selected graphs - Nova Scotia

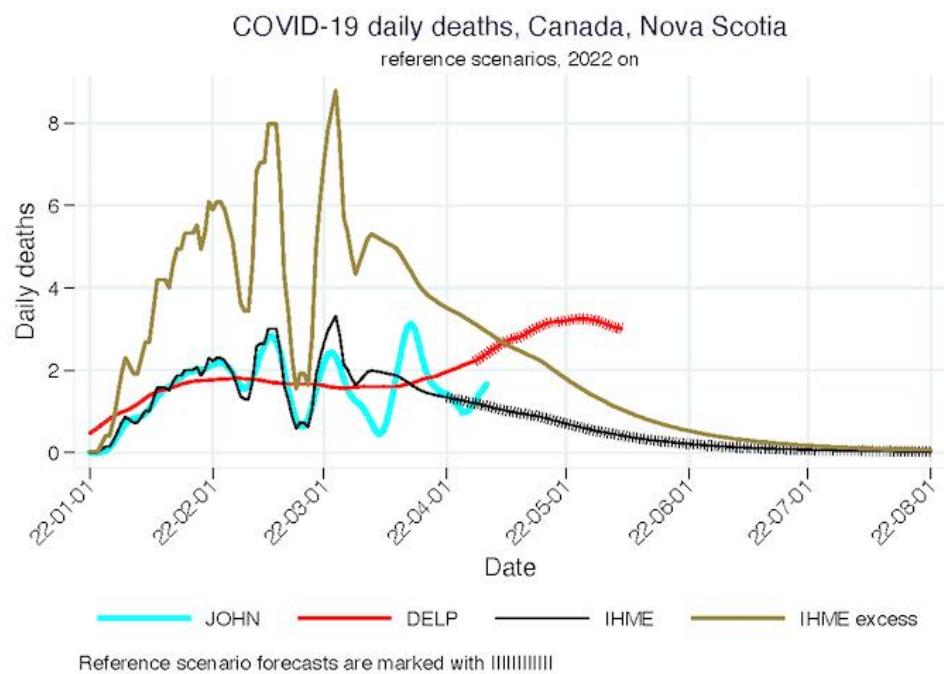
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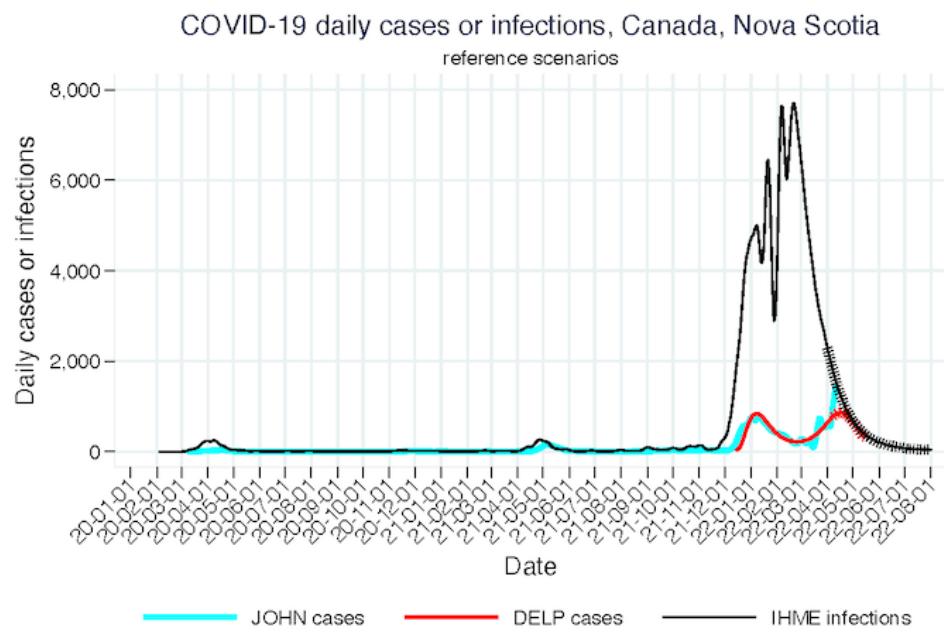
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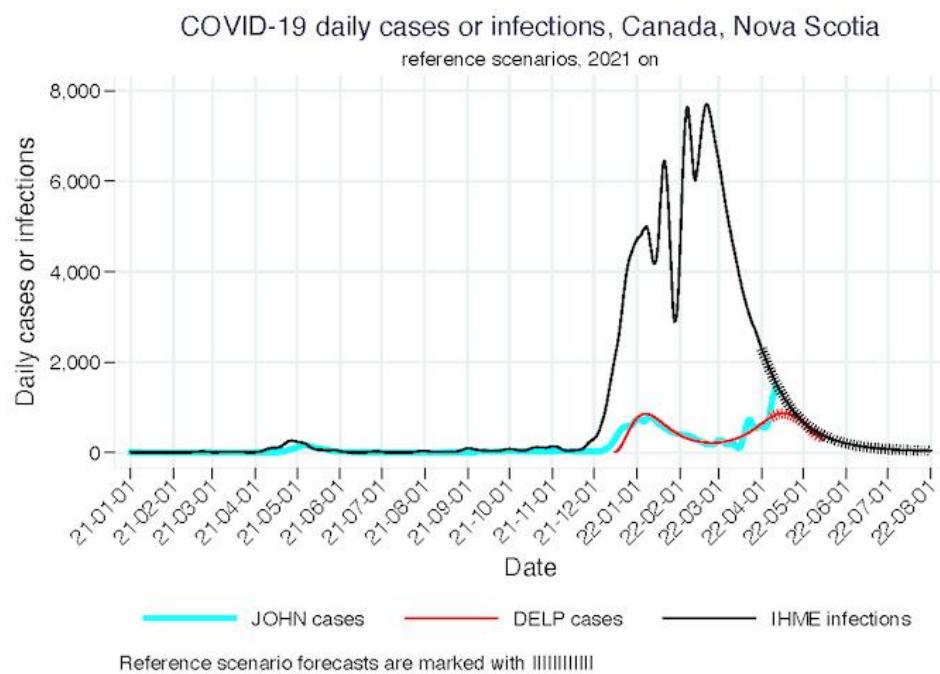
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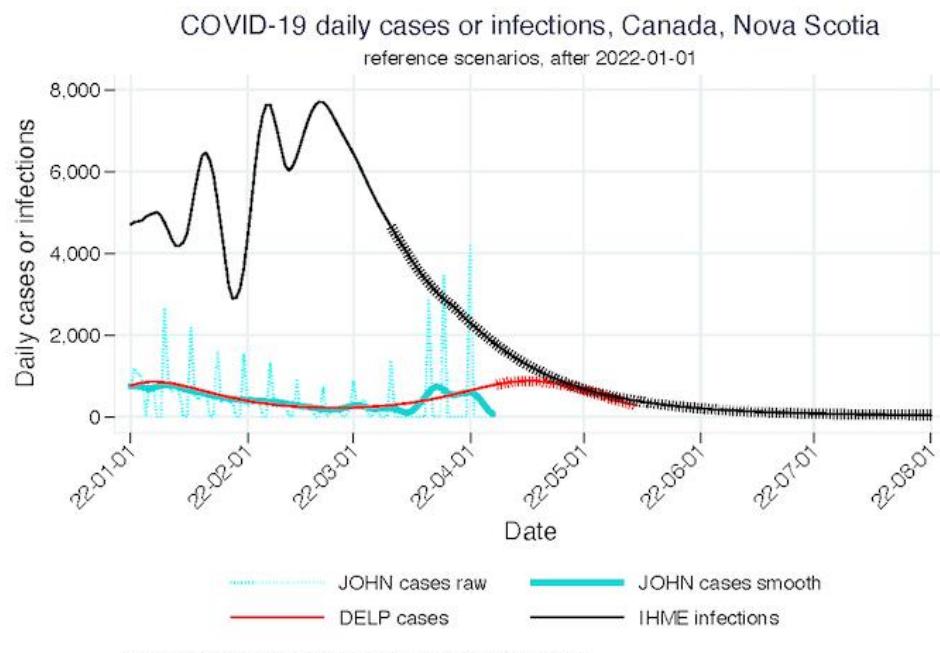
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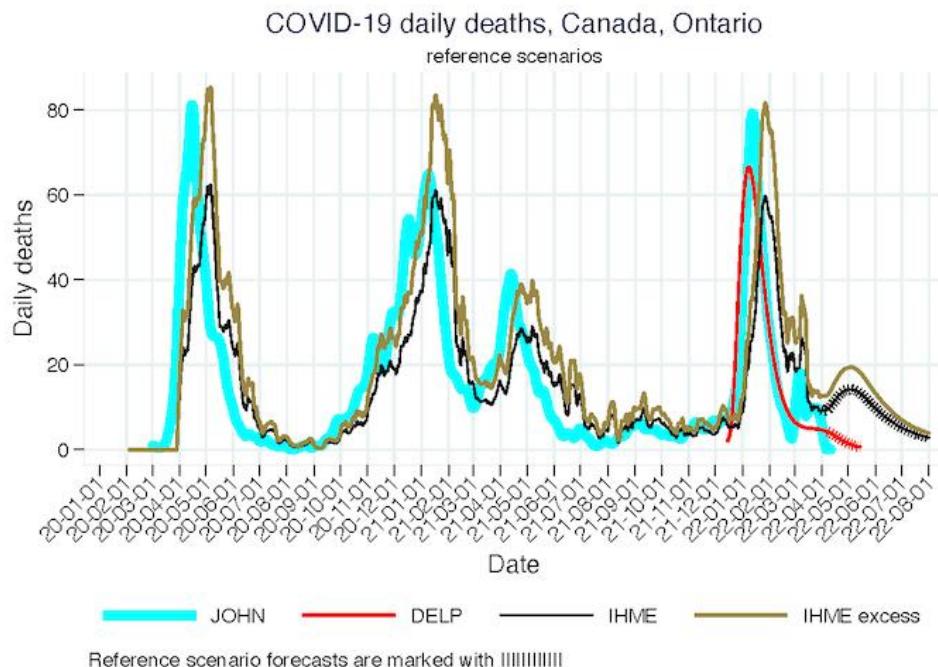


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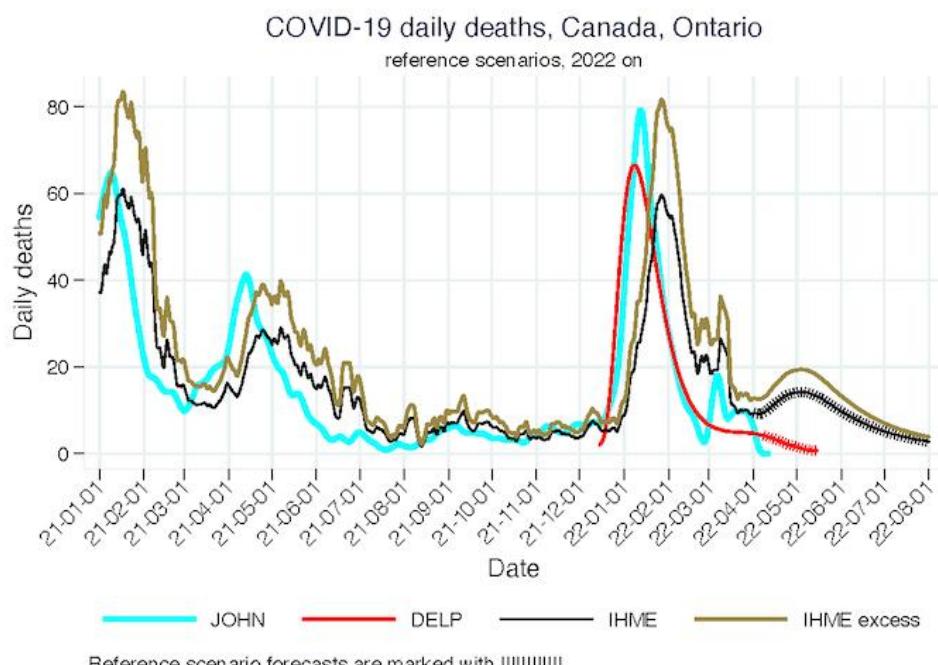


Selected graphs - Ontario

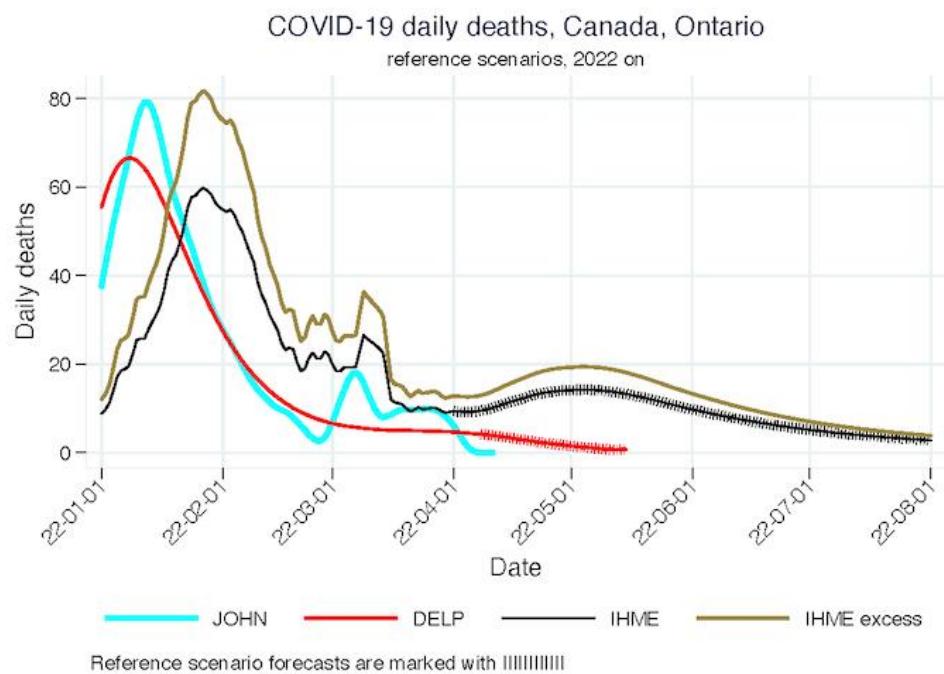
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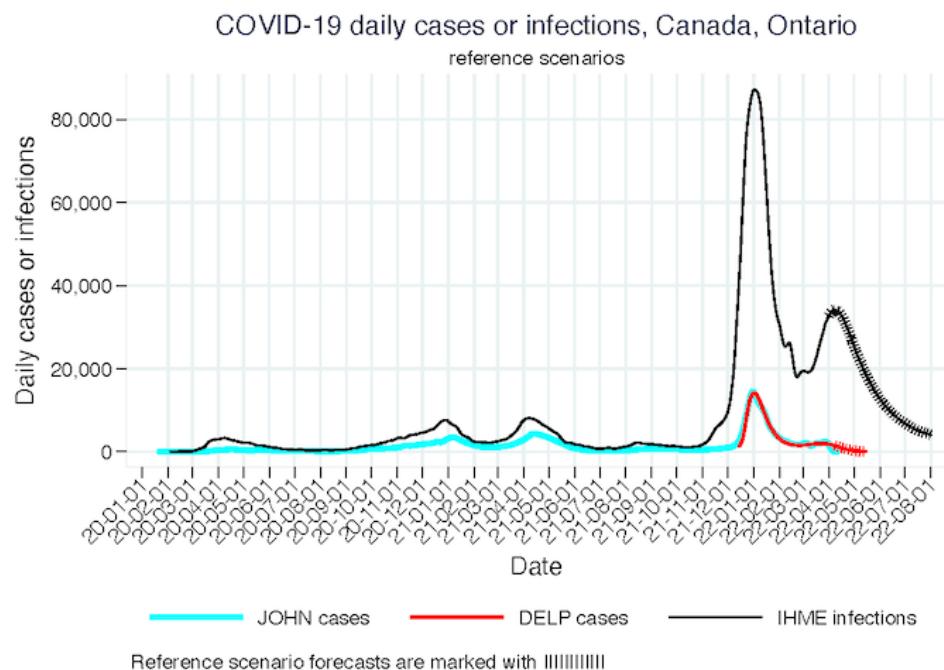
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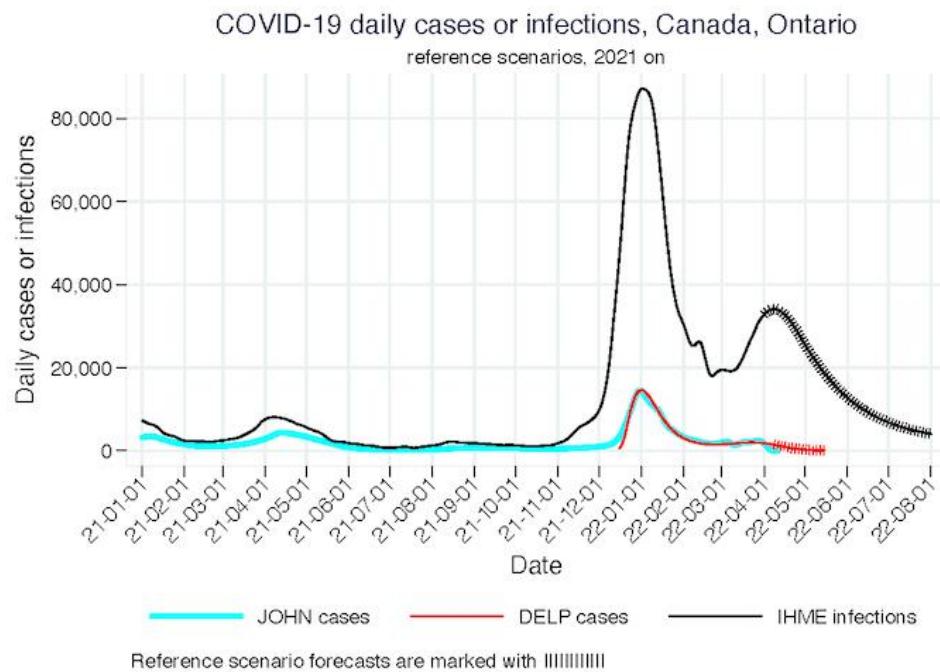
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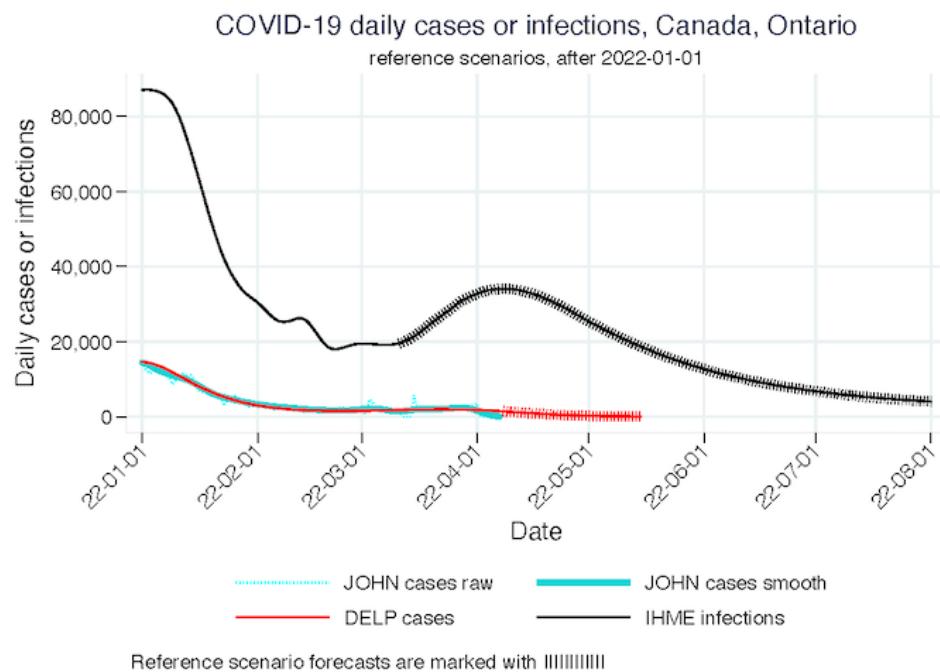
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(4) Ontario [Daily cases or infections, Reference scenario, 2021 on](#)

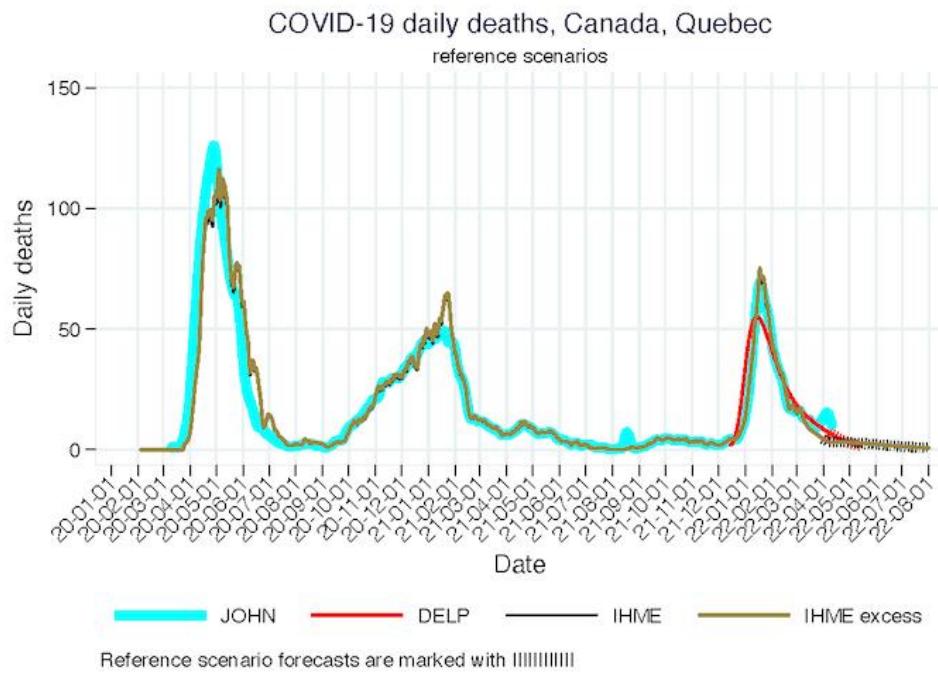


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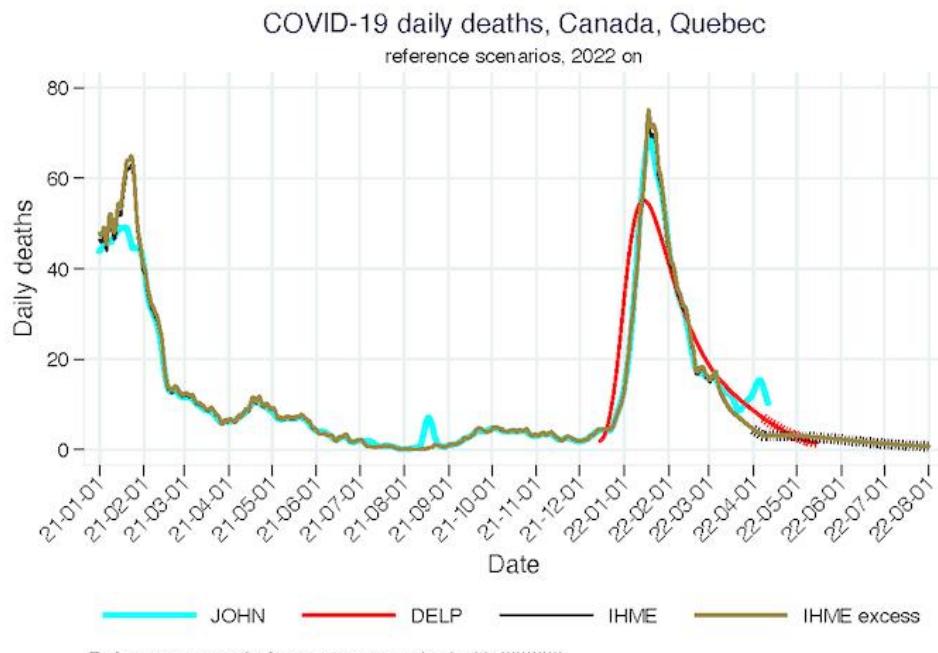


Selected graphs - Quebec

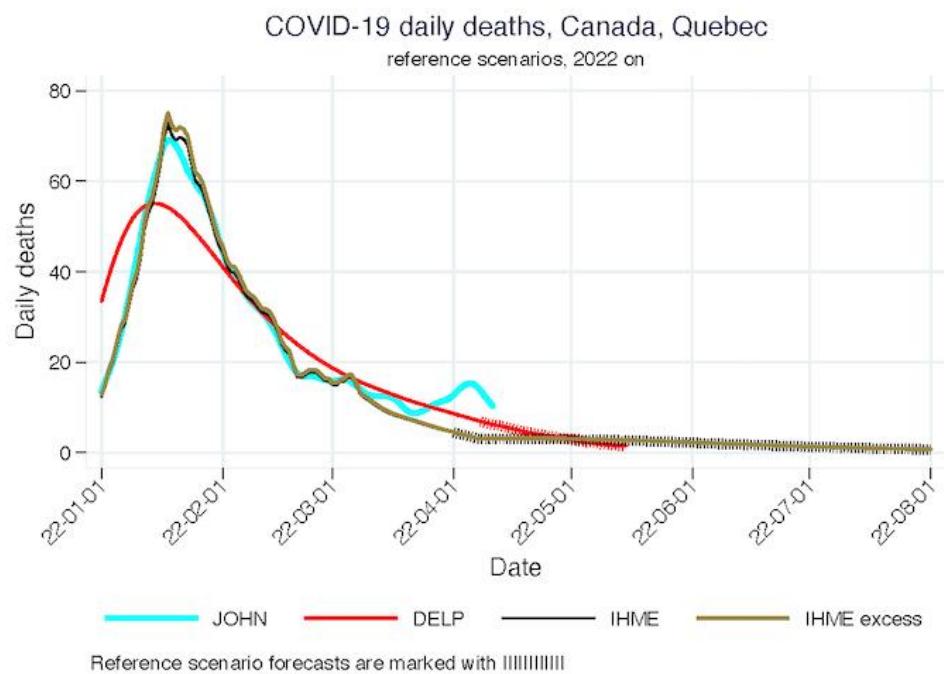
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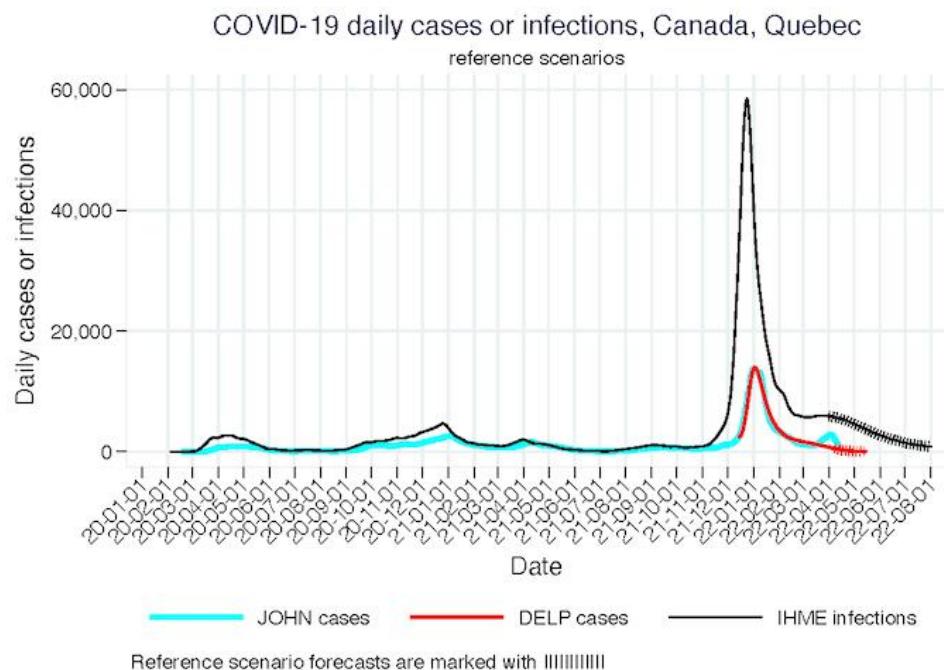
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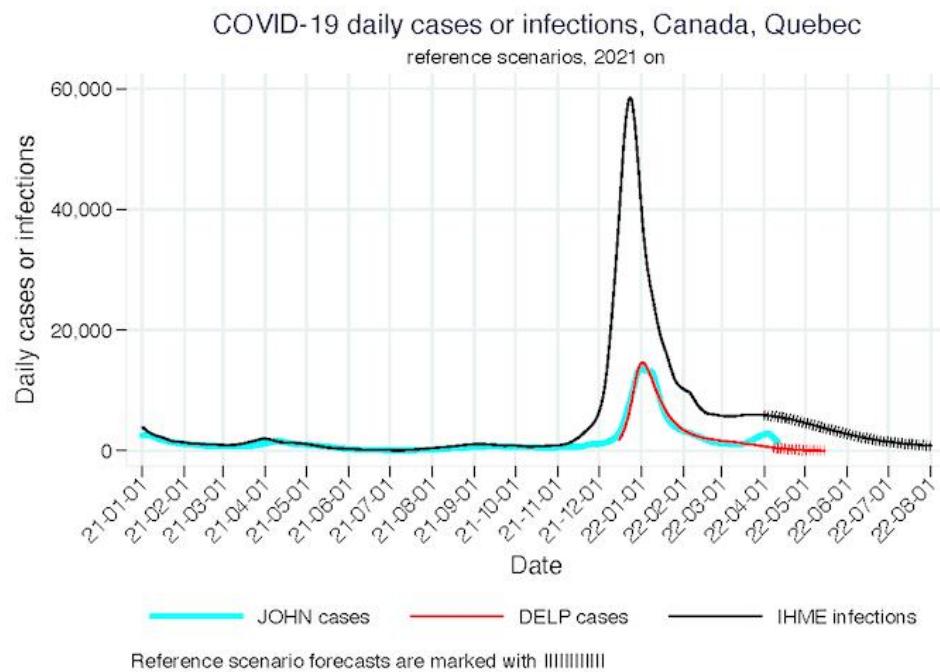
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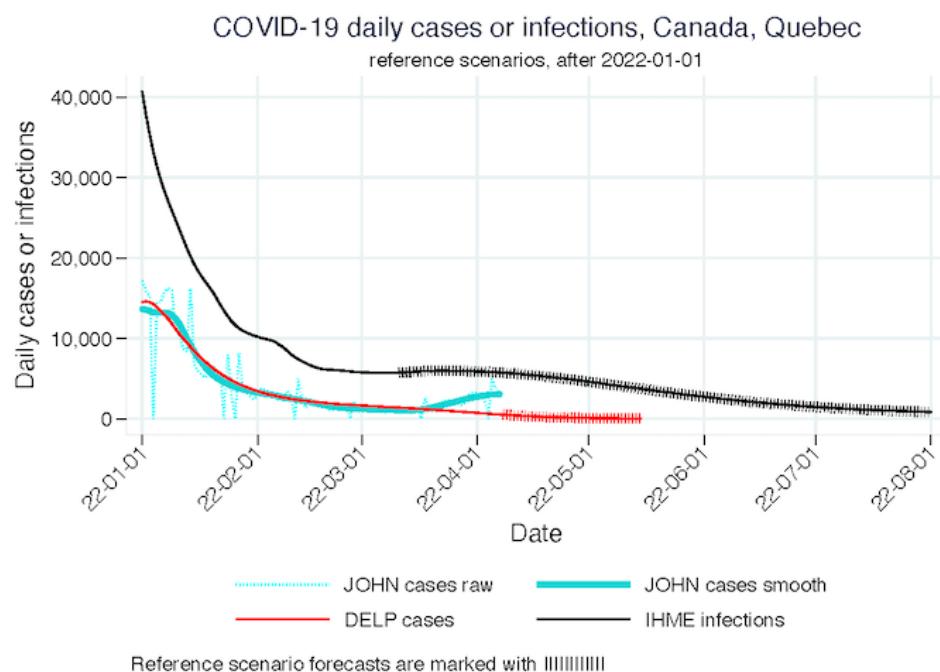
(3) Quebec [Daily cases or infections, Reference scenario, 2020 on](#)



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

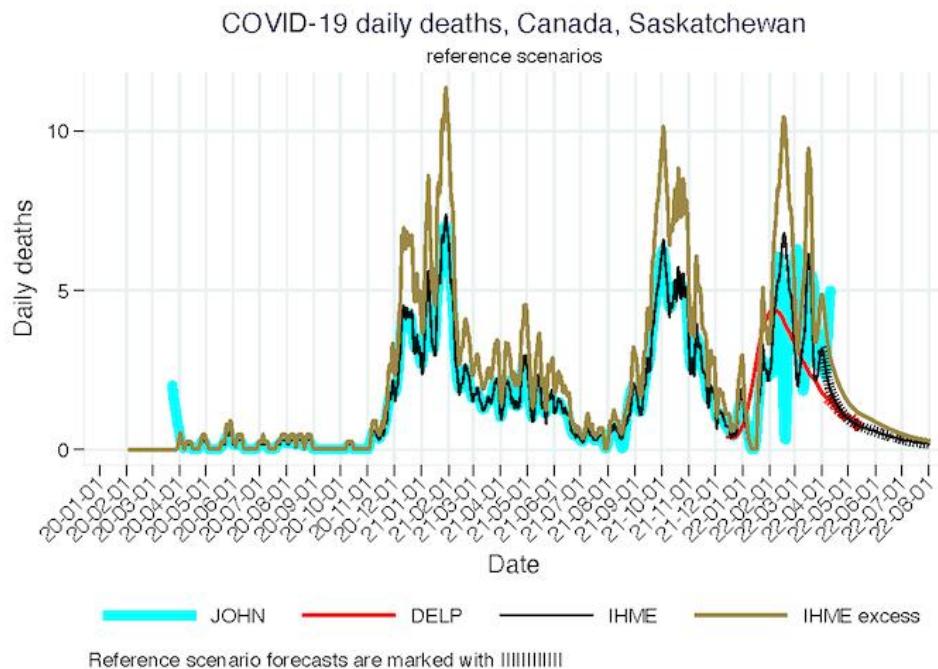


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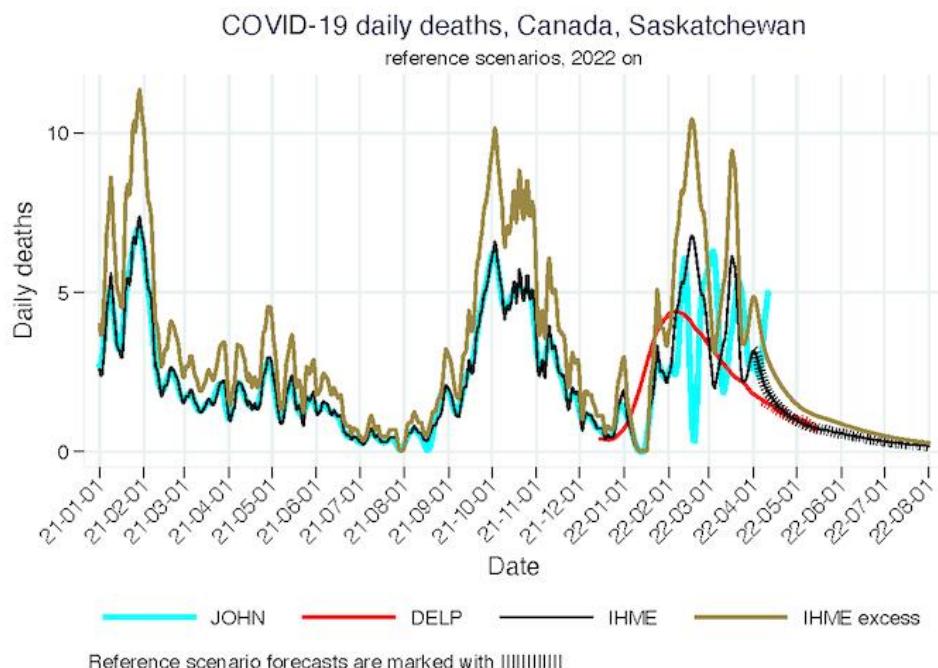


Selected graphs - Saskatchewan

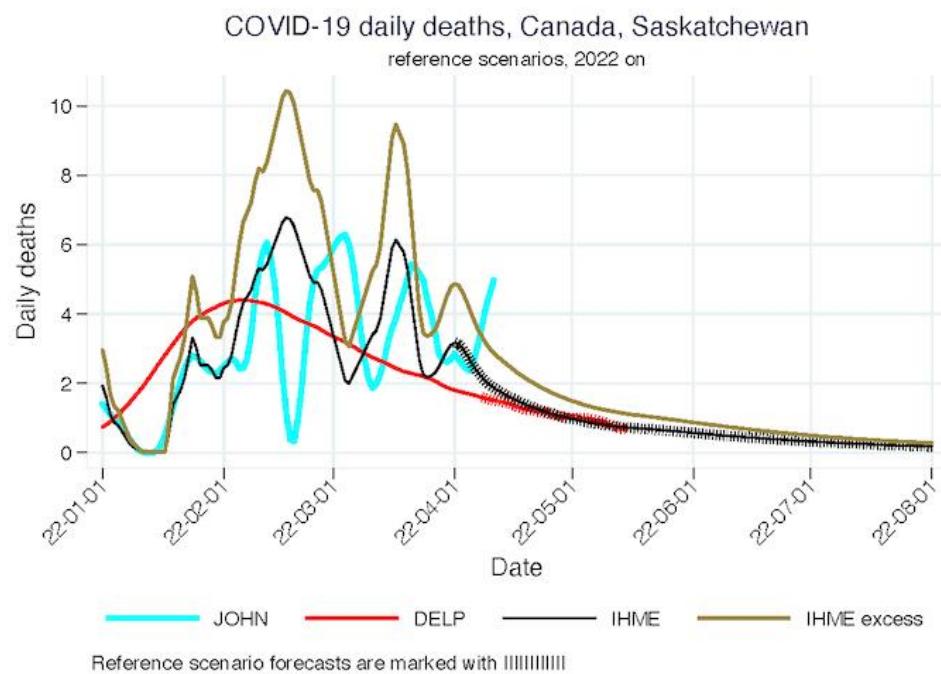
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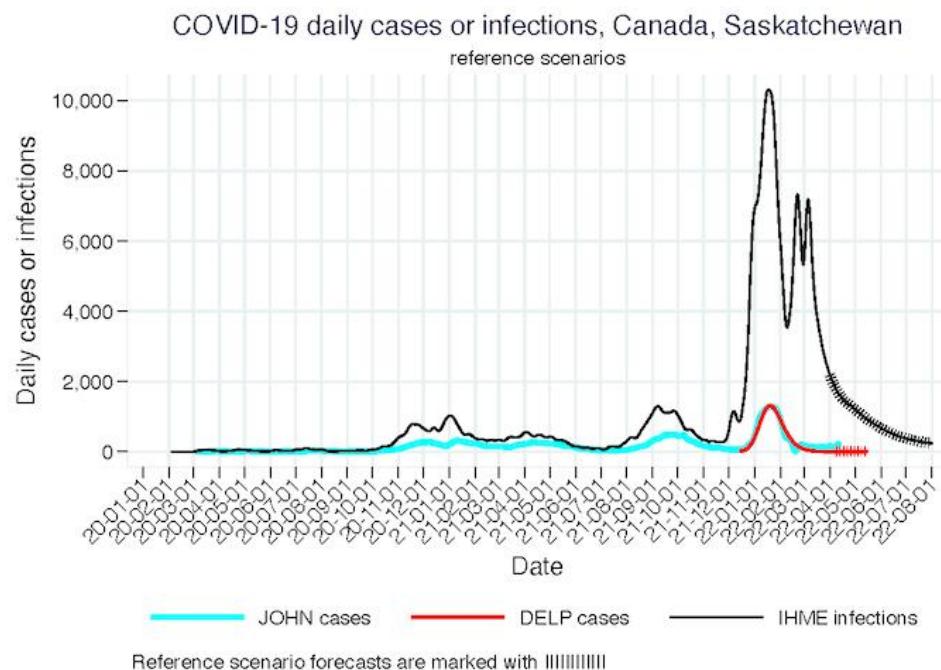
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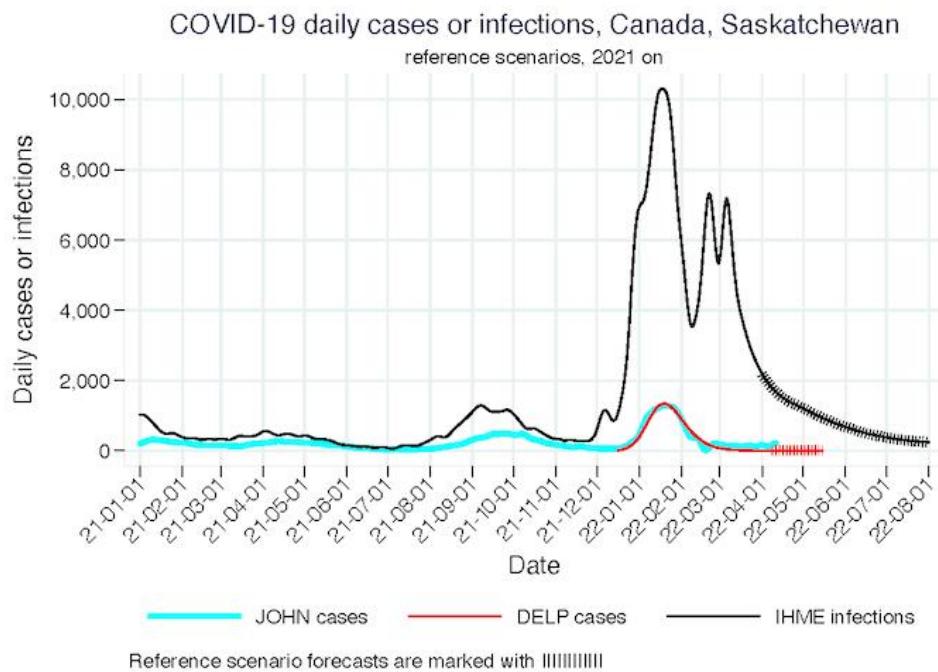
(2b) Saskatchewan [Daily deaths, Reference scenario, 2022 on](#)



(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](#)

