

Canada COVID-19 epidemic models situation report No 53 - 2022-07-01

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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**

See <https://github.com/pourmalek/CovidVisualizedCountry>

Study update dates in uptake 20220701

DELP 20220618, IHME 20220610, No IMPE 20220530, **SRIV 20220701**

Days old: DELP 14, IHME 22, IMPE 33, SRIV 0

The latest IMPE update 20220530 was released on 20220624. Not included.

The PHAC model released its latest update on 2022-02-18.

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](#)

Journal article for this work:

Pourmalek F. CovidVisualized: Visualized compilation of international updated models' estimates of COVID-19 pandemic at global and country levels. *BMC Res Notes*. 2022 Apr 9;15(1):136. doi: 10.1186/s13104-022-06020-4. PMID: 35397567.

[Publisher](#) || [PubMed](#) || [PDF](#)

Summary 20220701:

Official reports:

Officially reported daily deaths are rising in Canada at the national and province levels since 2022-06-25, except in Newfoundland and Labrador, Nova Scotia, and Saskatchewan that reported zero deaths since 2022-06-17.

Officially reported daily cases are rising in Canada at the national and province levels since 2022-06-28, except in Newfoundland and Labrador, Nova Scotia, and Saskatchewan that reported zero cases since 2022-06-17.

Zero reported cases since 2022-06-17 in Newfoundland and Labrador, Nova Scotia, and Saskatchewan means that reporting has shut down in these provinces.

Models' predictions:

The IHME model (update 2022-06-10) predicted rise in national and provincial infections starting from August 2022, reaching up to 30,000 national daily infections by the end of October 2022. Such levels of predicted daily infections have not been seen before December 2021, meaning that the Omicron is still causing multitudes of infections and cases.

Reported daily deaths surpass the IHME predictions (since release of IHME's latest update on update 2022-06-10 till the date of this uptake, i.e., update 2022-07-01), at the national and province levels (except for Newfoundland and Labrador, Nova Scotia, and Saskatchewan, in which the reporting is on vacation).

The SRIV model (update 2022-07-01) predicts a rise in daily deaths at the national level, reaching 50 about early September and more than 200 daily deaths in about early October 2022. Their prediction of daily cases at these dates is about 20,000 about early September and about 80,000 in about early October 2022.

Variants:

According to CoVariants by Emma B. Hodcroft, on April 4, 2022, 87% of variants sequenced in Canada were Omicron 21 L (BA.2). On June 27, 2022, composition of subvariants, all Omicron, were BA.2.12.1 (22 C) 43%, BA.2 (21 L) 34%, BA.5 (22 B) 21%, and BA.4 (22 A) 2% (out of 47 sequences).

SOURCE CITATION: Emma B. Hodcroft. 2021. "CoVariants: SARS-CoV-2 Mutations and Variants of Interest." <https://covariants.org/>

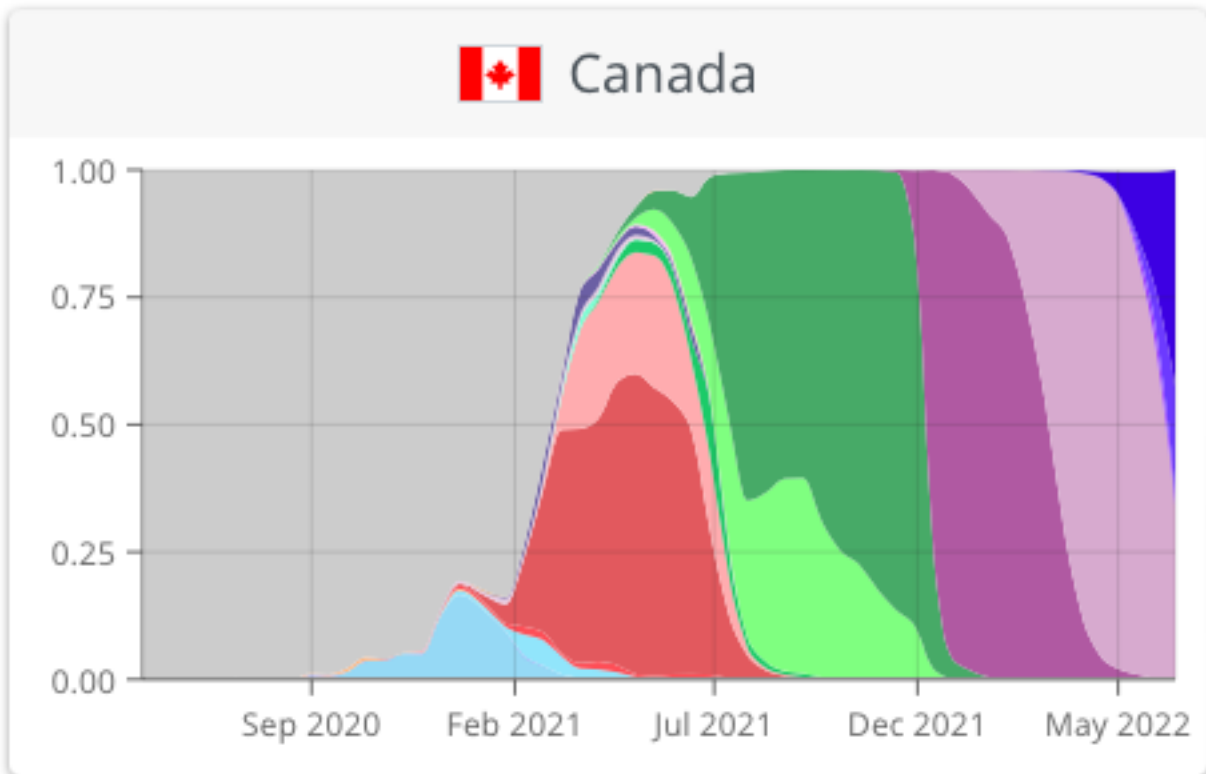
SOURCE WEB PAGE: <https://covariants.org/per-country>

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Selected graphs - Canada, National

(000) Canada [Variants composition, Ending 27 June 2022, CoVariants by Emma B. Hodcroft](#)



Legend (Number sequenced and Frequency as of 1 July 2022) :

13 Jun 2022 - 27 Jun 2022		
Variant	Num seq	Freq
22C (Omicron)	20	0.43
21L (Omicron)	16	0.34
22B (Omicron)	10	0.21
22A (Omicron)	1	0.02
others	-	-
S:677P.Pelican	-	-
S:677H.Robin1	-	-
21K (Omicron)	-	-
21J (Delta)	-	-
21I (Delta)	-	-
21H (Mu)	-	-
21G (Lambda)	-	-
21F (Iota)	-	-
21D (Eta)	-	-
21C (Epsilon)	-	-
21B (Kappa)	-	-
21A (Delta)	-	-
20J (Gamma, V3)	-	-
20I (Alpha, V1)	-	-
20H (Beta, V2)	-	-
20E (EU1)	-	-
20C/S:80Y	-	-
20B/S:732A	-	-
20A/S:98F	-	-
20A/S:439K	-	-
20A/S:126A	-	-
20A.EU2	-	-
Total	47	1.00

Mapping of variants nomenclature schemes

Nextstrain Clade	Pango Lineage	WHO Label ↗	Other
20I (Alpha, V1)	B.1.1.7 ↗	α Alpha	VOC 202012/01
20H (Beta, V2)	B.1.351 ↗	β Beta	501Y.V2
20J (Gamma, V3)	P.1 ↗	γ Gamma	
21A (Delta)	B.1.617.2 ↗	δ Delta	
21I (Delta)		δ Delta	
21J (Delta)		δ Delta	
21B (Kappa)	B.1.617.1 ↗	κ Kappa	
21C (Epsilon)	B.1.427, B.1.429	ε Epsilon	CAL.20C
21D (Eta)	B.1.525 ↗	η Eta	
21F (Iota)	B.1.526	ι Iota	(Part of Pango lineage)
21G (Lambda)	C.37	λ Lambda	
21H (Mu)	B.1.621	μ Mu	
21K (Omicron)	BA.1 ↗	ο Omicron	
21L (Omicron)	BA.2 ↗	ο Omicron	
22A (Omicron)	BA.4 ↗	ο Omicron	
22B (Omicron)	BA.5 ↗	ο Omicron	
22C (Omicron)	BA.2.12.1 ↗	ο Omicron	
20E (EU1)	B.1.177		EU1
20B/ S: 732 A	B.1.1.519		
20A/ S: 126 A	B.1.620		
20A .EU2	B.1.160		
20A/ S: 439 K	B.1.258		
20A/ S: 98 F	B.1.221		
20C/ S: 80 Y	B.1.367		
20B/ S: 626 S	B.1.1.277		
20B/ S: 1122 L	B.1.1.302		

<https://covariants.org>

CoVariants uses the Nextstrain naming system for variants ([here](#)).

WHO variants nomenclature scheme ([here](#)).

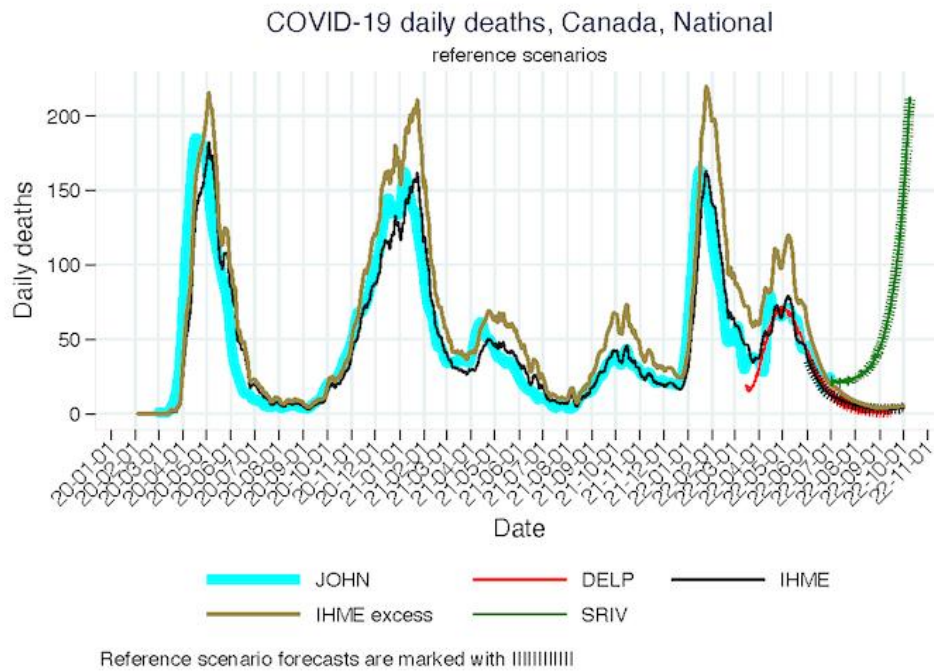
SOURCE CITATION: Emma B. Hodcroft. 2021. "CoVariants: SARS-CoV-2 Mutations and Variants of Interest." <https://covariants.org/>

SOURCE WEB PAGE: <https://covariants.org/per-country>

DATE ACCESED: July 1, 2022

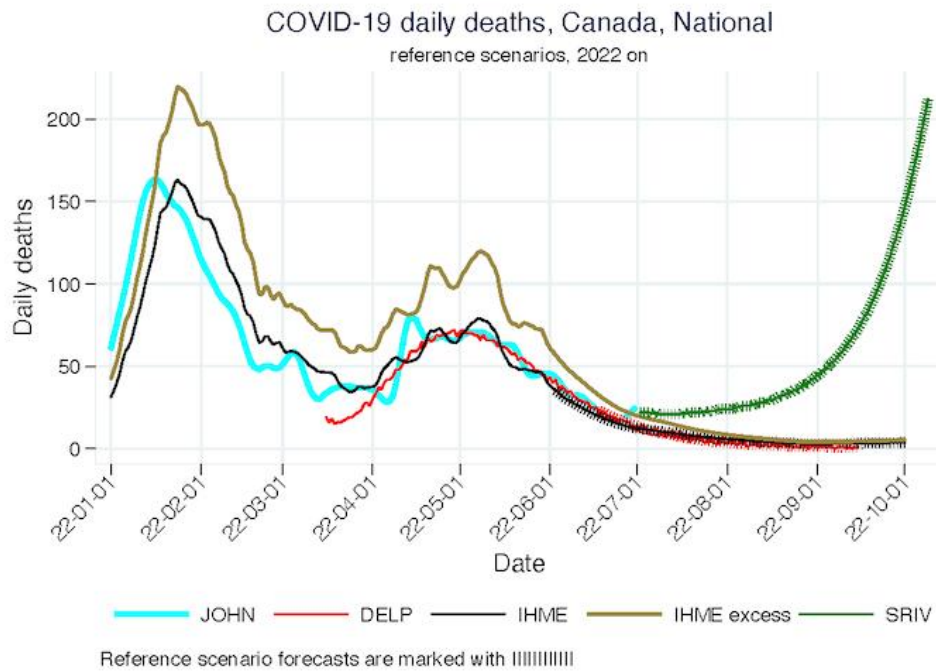
SOURCE LICENSE: This CoVariants code and work is licensed under a [GNU Affero General Public License \(AGPL\)](#). You can view this license [here](#)

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

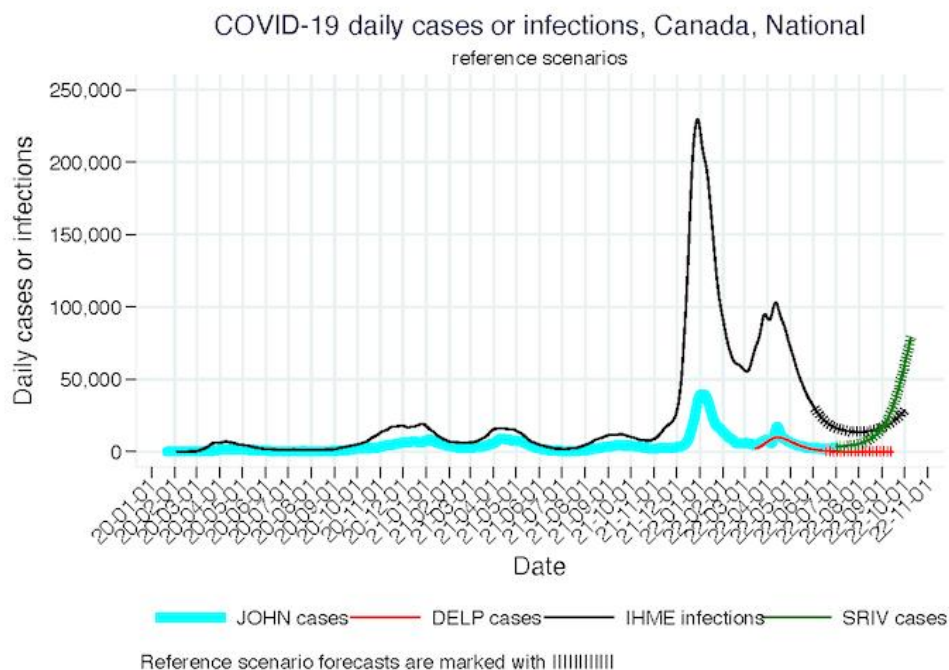


(2) Canada National [Daily deaths, All scenarios, 2021 on](#)

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

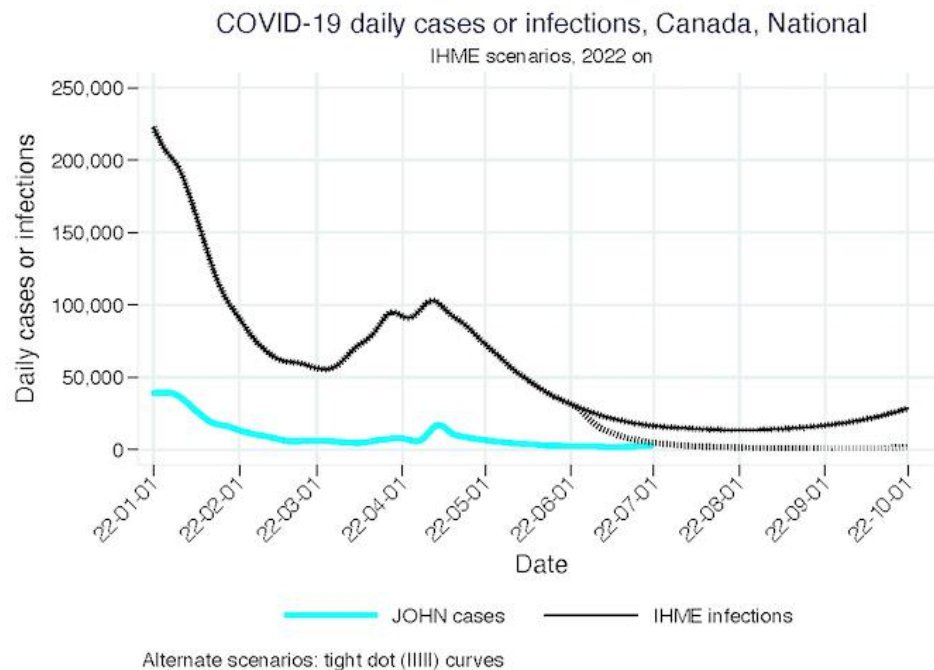


(3) Canada National [Daily cases or infections, Reference scenarios, 2020 on](#)



(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 [Daily hospital-related outcomes, without IHME Bed need, Reference scenarios, 2021 on](#)

(7) Canada National [Daily Infection hospitalization and fatality ratios, Reference scenario, IHME, 2021 on](#)

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

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

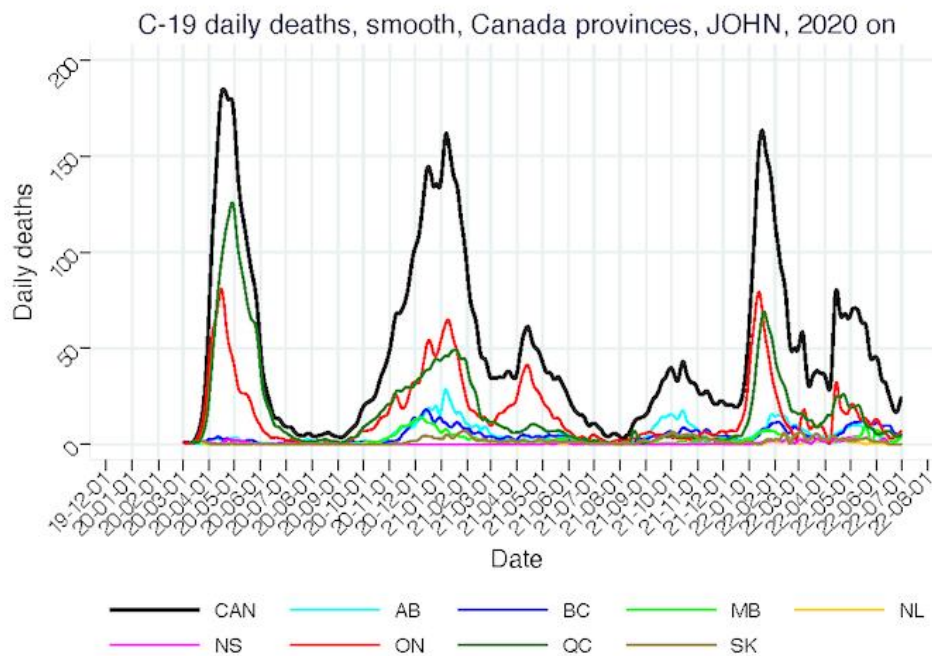
(10) Canada National [Percent cumulative vaccinated, IHME, 2020 on](#)

Selected graphs - Canada, Provinces together

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

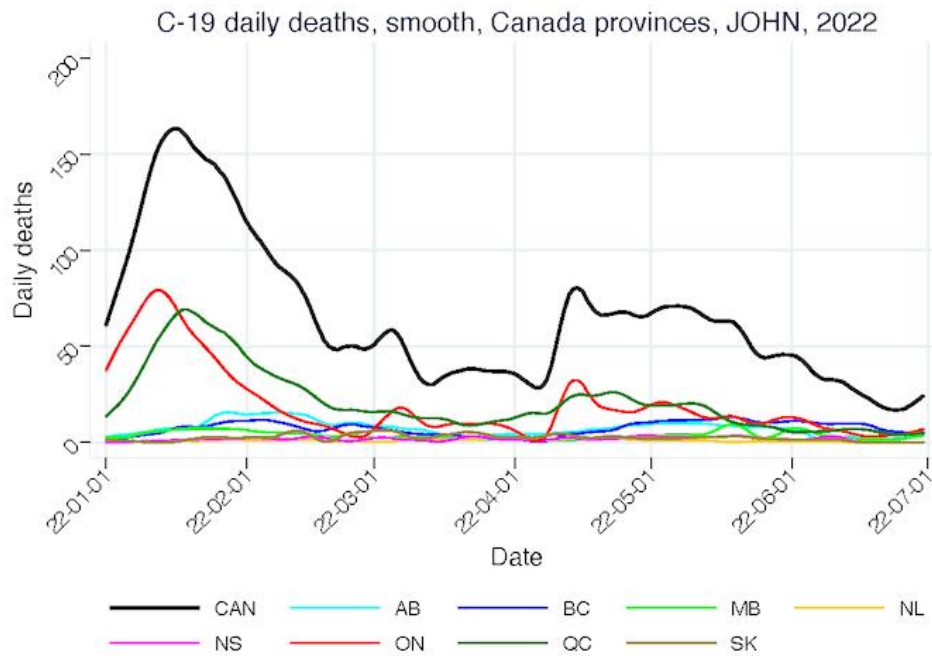
(a) Official reports to WHO, via JOHN

(1) Canada Provinces [Daily reported deaths, JOHN, 2020 on](#)

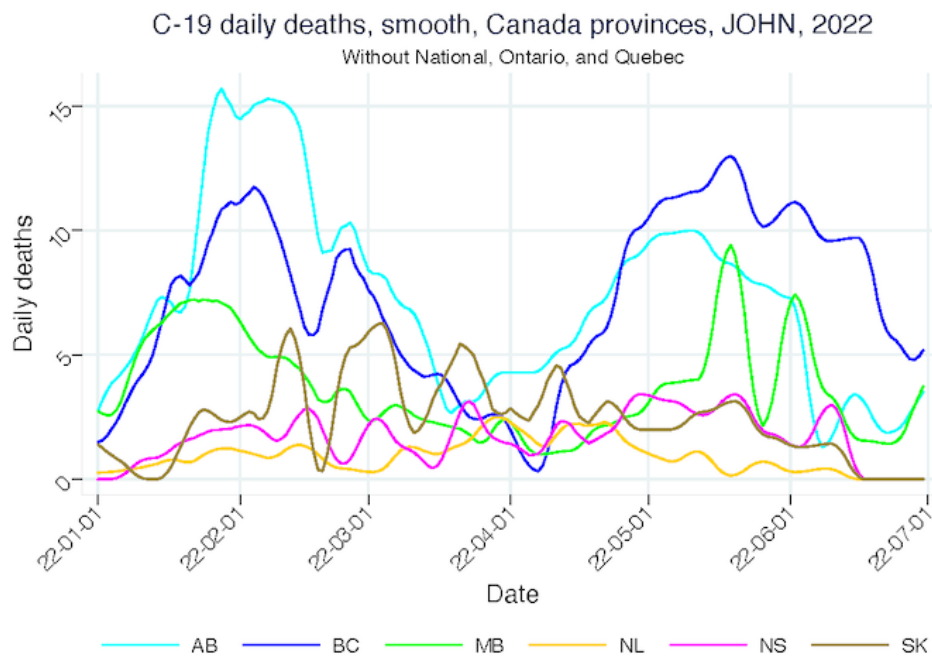


(2) Canada Provinces [Daily reported deaths, JOHN, 2021 on](#)

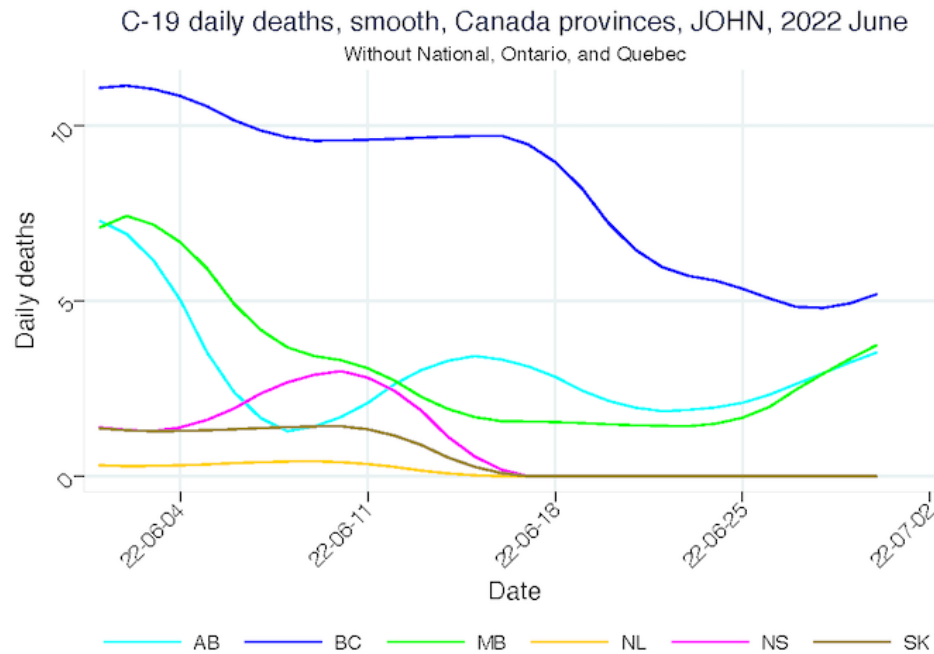
(3) Canada Provinces [Daily reported deaths, JOHN, 2022](#)



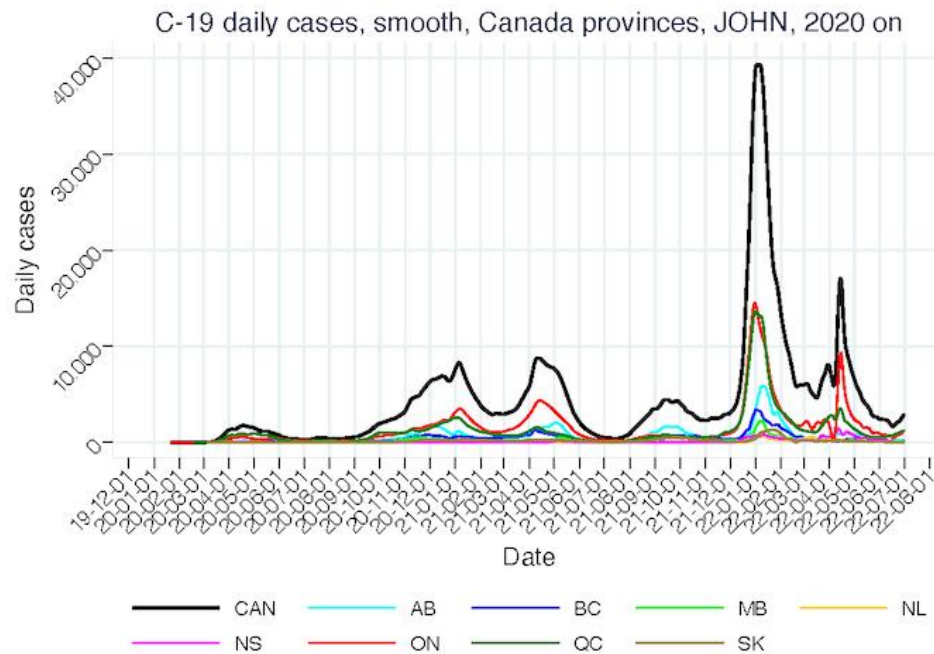
(4) Canada Provinces [Daily reported deaths, without National, Ontario, and Quebec, JOHN, 2022](#)



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

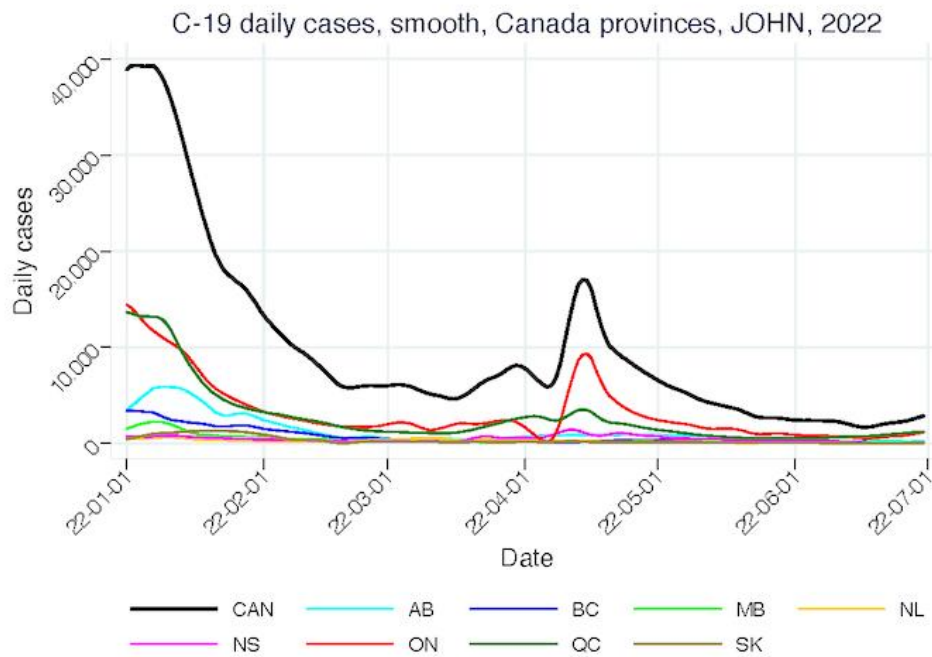


(5) Canada Provinces [Daily reported cases, JOHN, 2020 on](#)

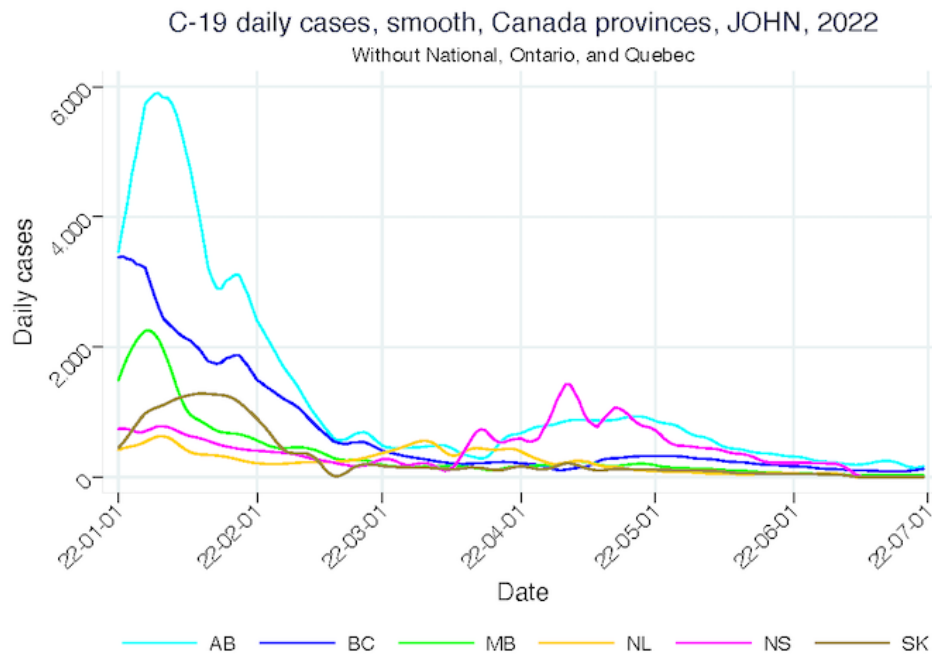


(6) Canada Provinces [Daily reported cases, JOHN, 2021 on](#)

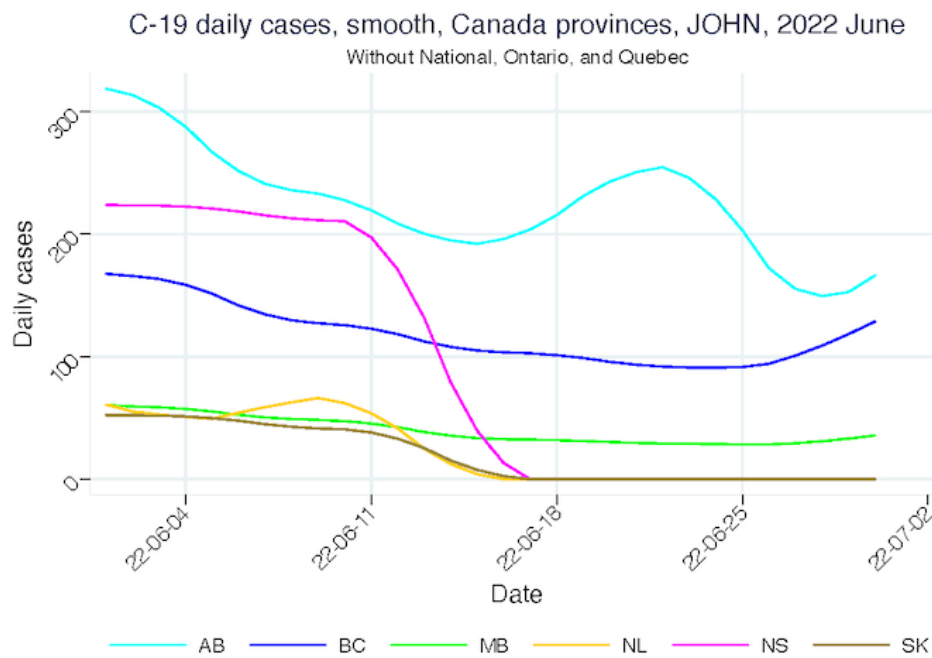
(7) Canada Provinces [Daily reported cases, JOHN, 2022](#)



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

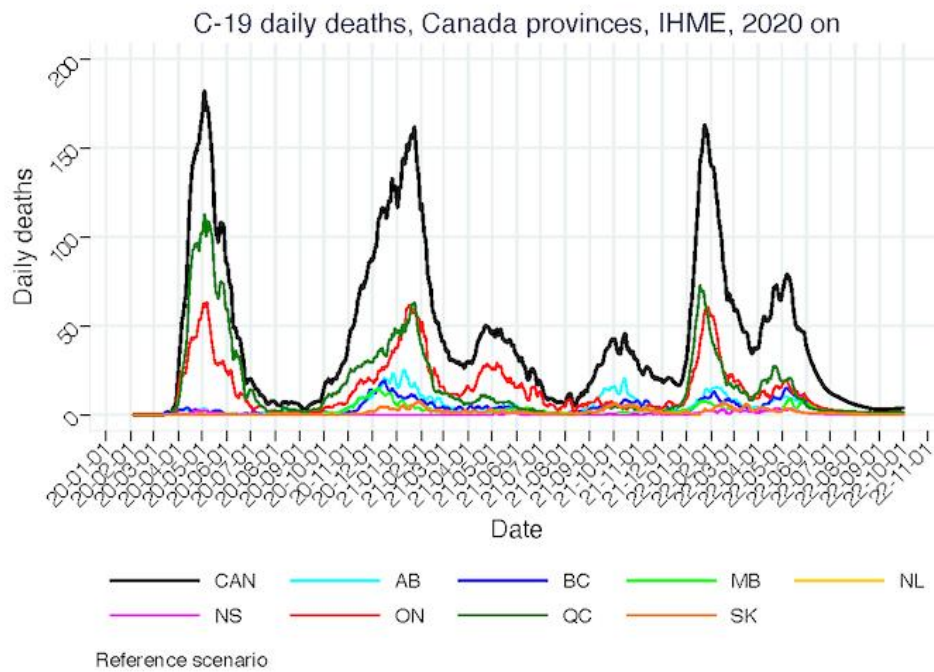


(8b) Canada Provinces [Daily reported cases, without National, Ontario, and Quebec, JOHN, 2022 June](#)



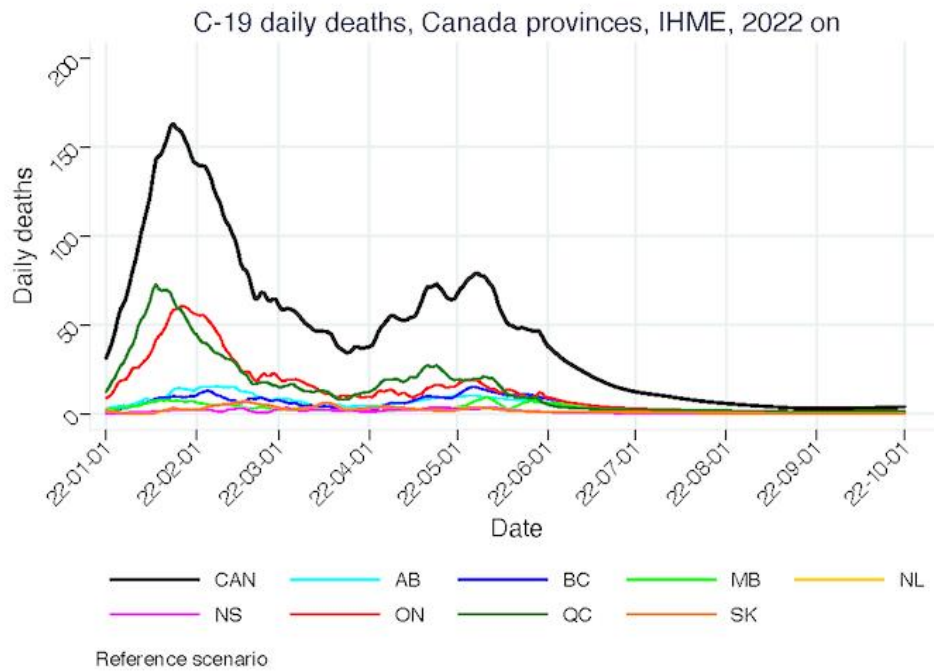
(b) Models: IHME

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

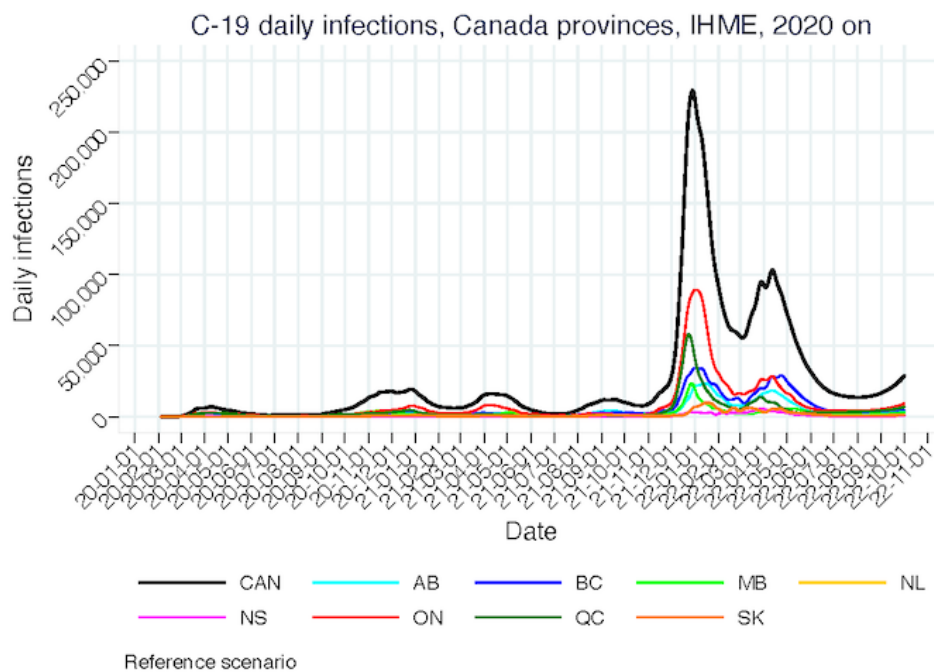


(10) Canada Provinces [Daily deaths, Reference scenario, IHME, 2021 on](#)

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

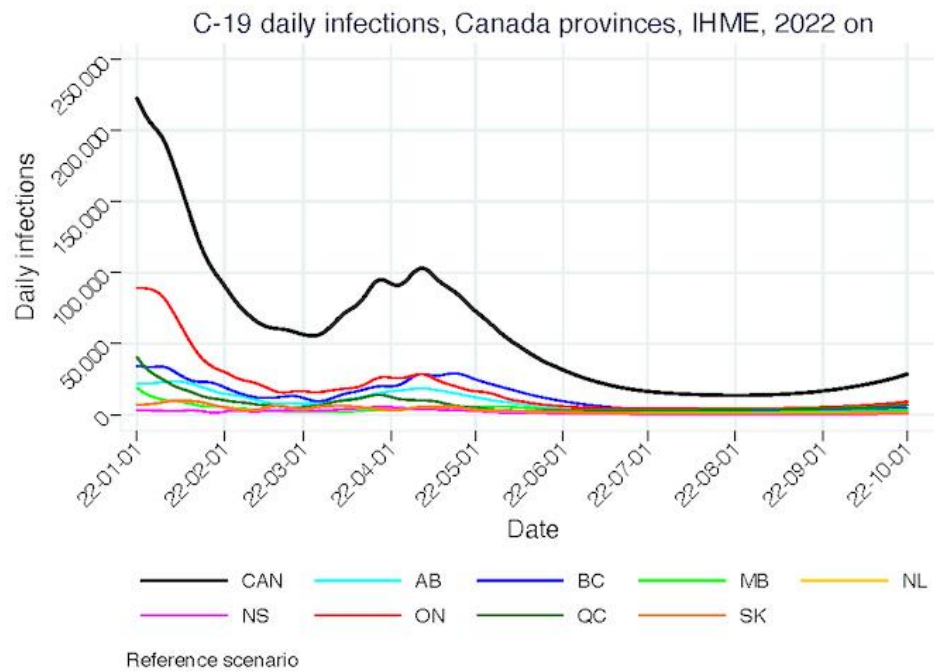


(12) Canada Provinces [Daily infections, Reference scenario, IHME, 2020 on](#)



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

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



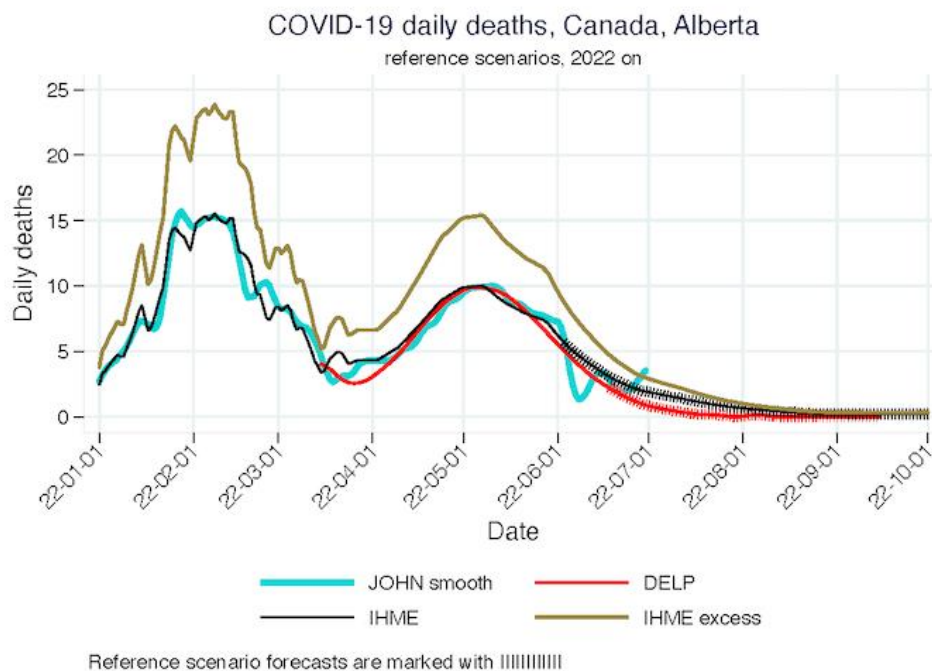
Selected graphs - Alberta

(1) Alberta [Daily deaths, Reference scenario, 2020 on](#)

(2) Alberta [Daily deaths, Reference scenario, 2021 on](#)

(2b) Alberta [Daily deaths, Reference scenario, 2022 on, with JOHN raw](#)

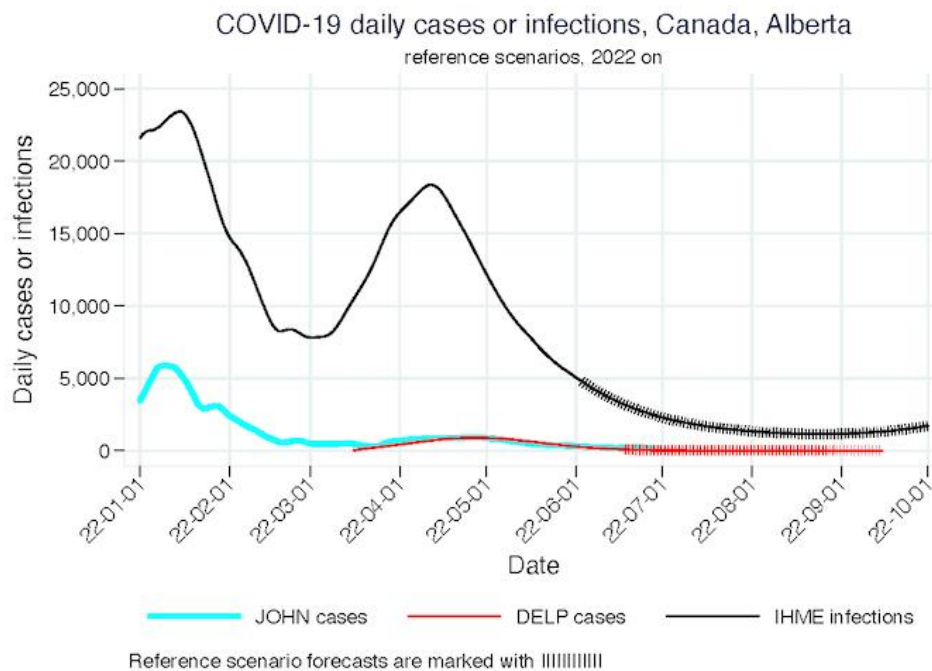
(2c) Alberta [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

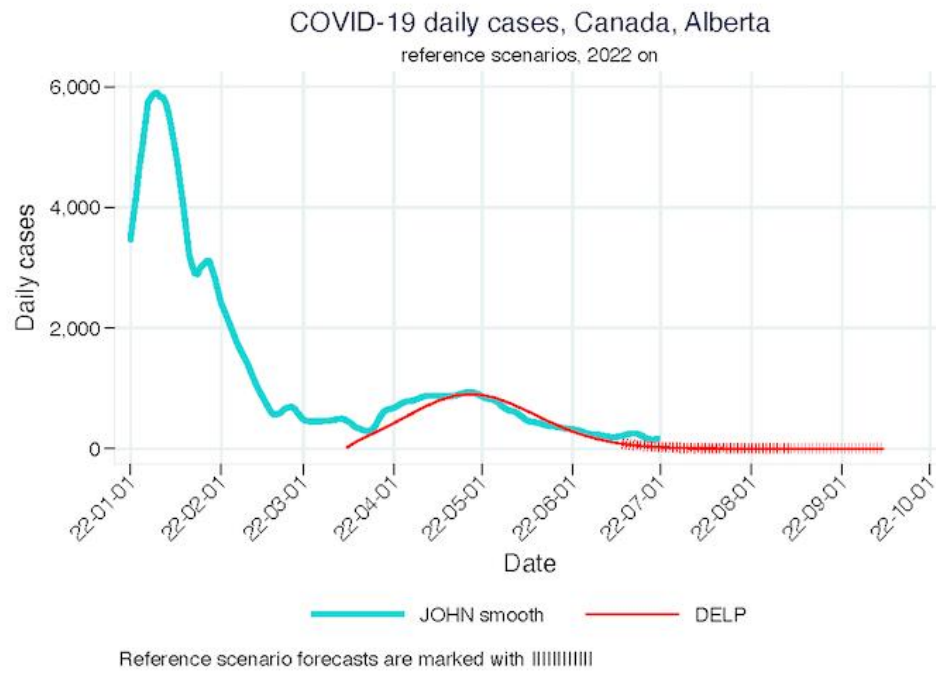
(4) Alberta [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) Alberta [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Alberta [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



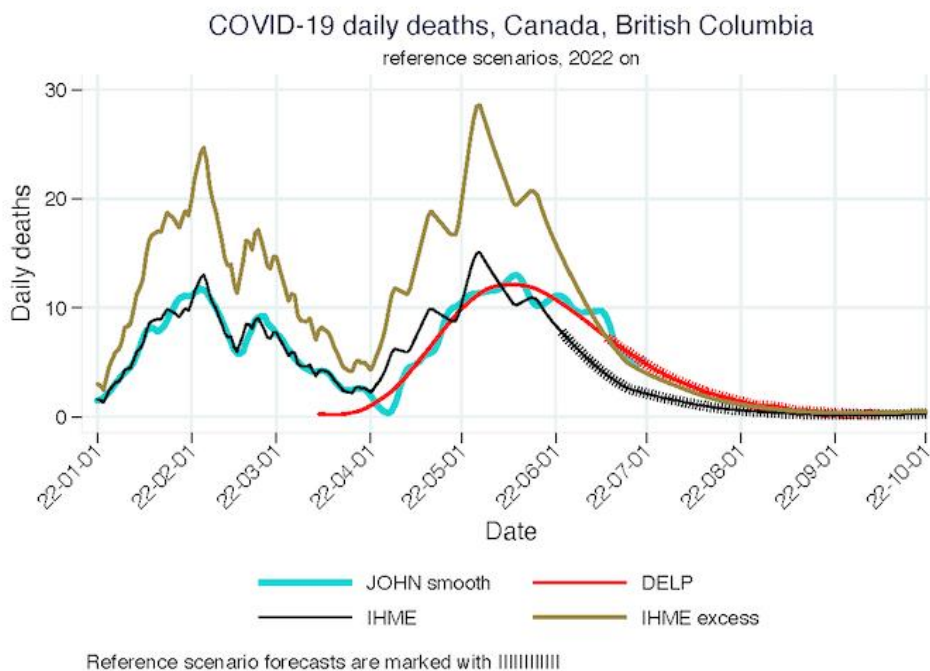
Selected graphs - British Columbia

(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, with JOHN raw](#)

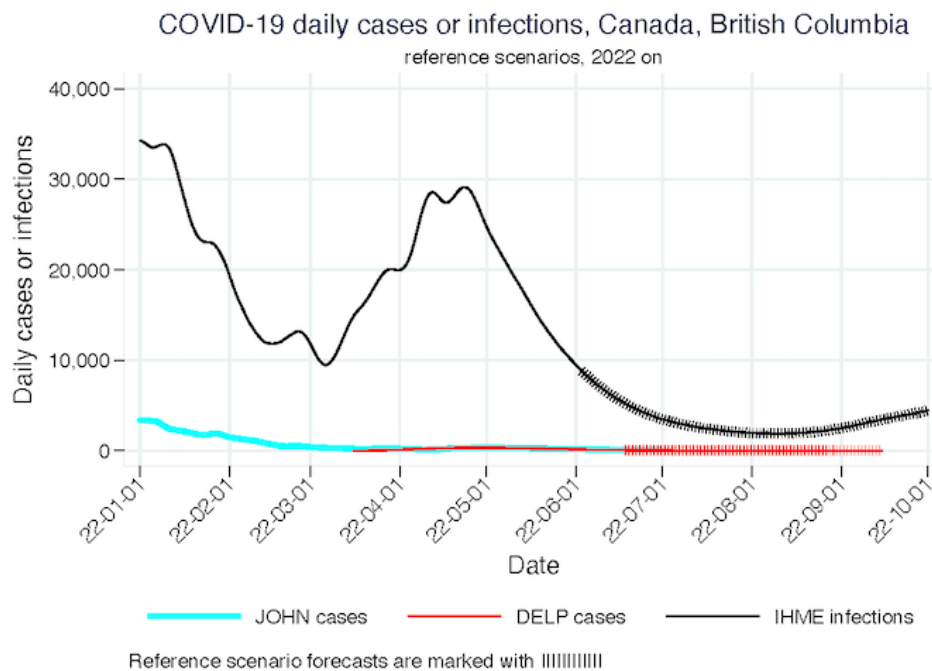
(2c) British Columbia [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

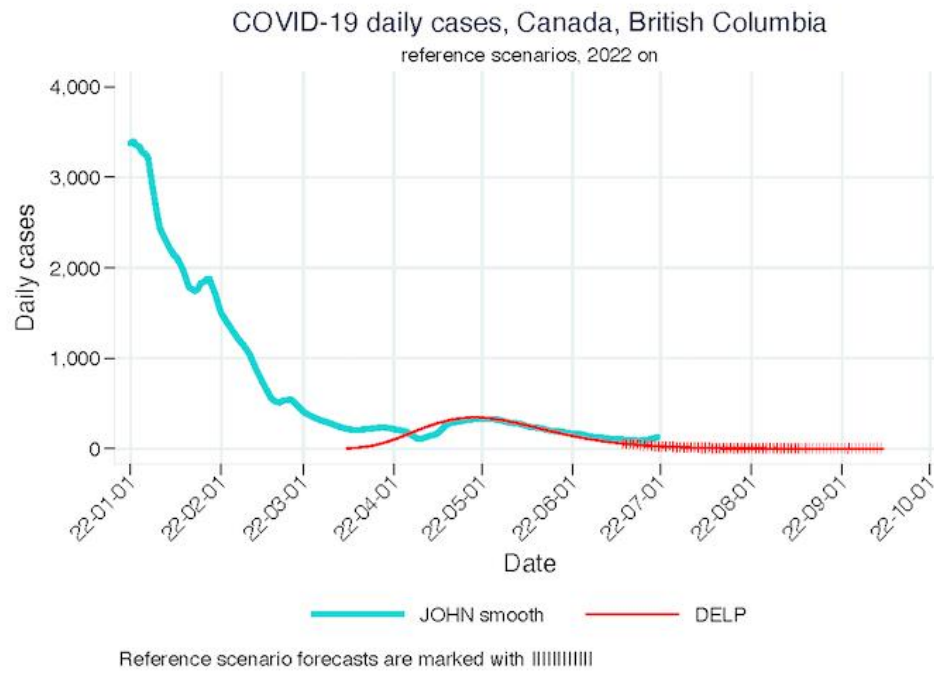
(4) British Columbia [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) British Columbia [Daily cases, Reference scenario, 2022 on with JOHN raw](#)

(4d) British Columbia [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



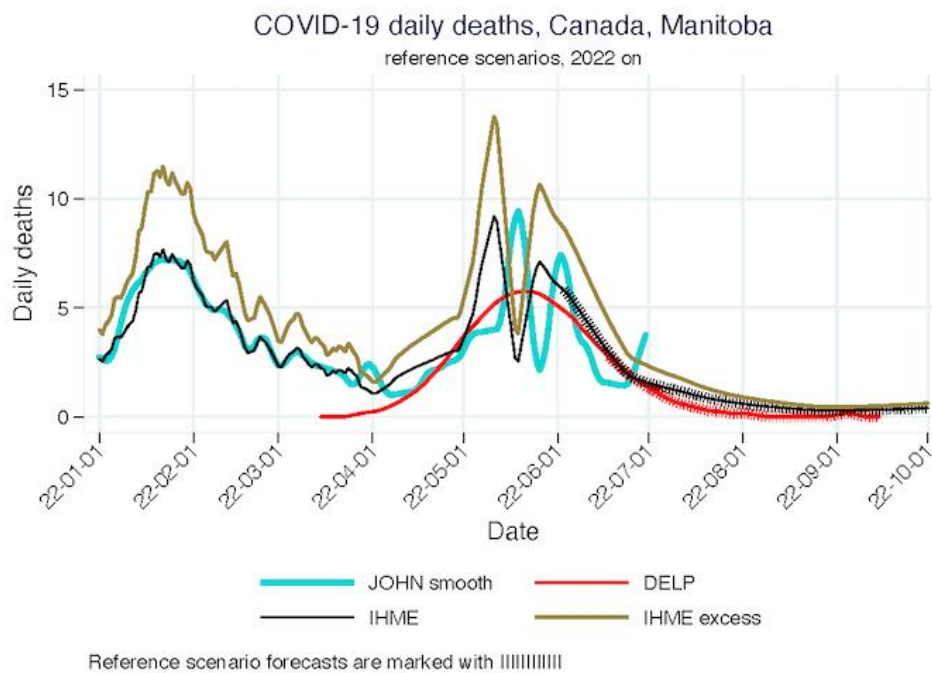
Selected graphs - Manitoba

(1) Manitoba [Daily deaths, Reference scenario, 2020 on](#)

(2) Manitoba [Daily deaths, Reference scenario, 2021 on](#)

(2b) Manitoba [Daily deaths, Reference scenario, 2022 on, with JOHN raw](#)

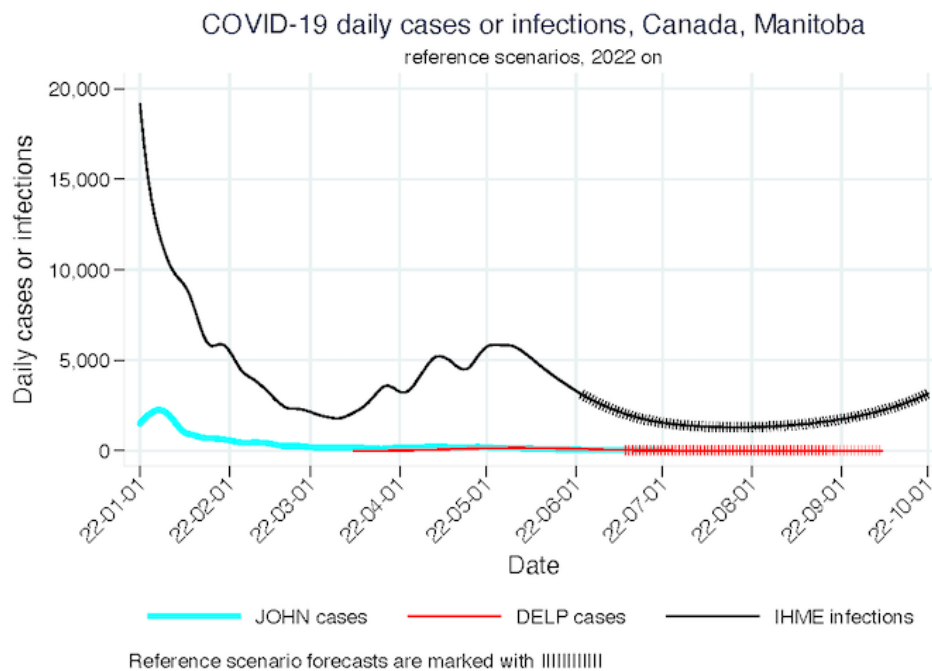
(2c) Manitoba [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

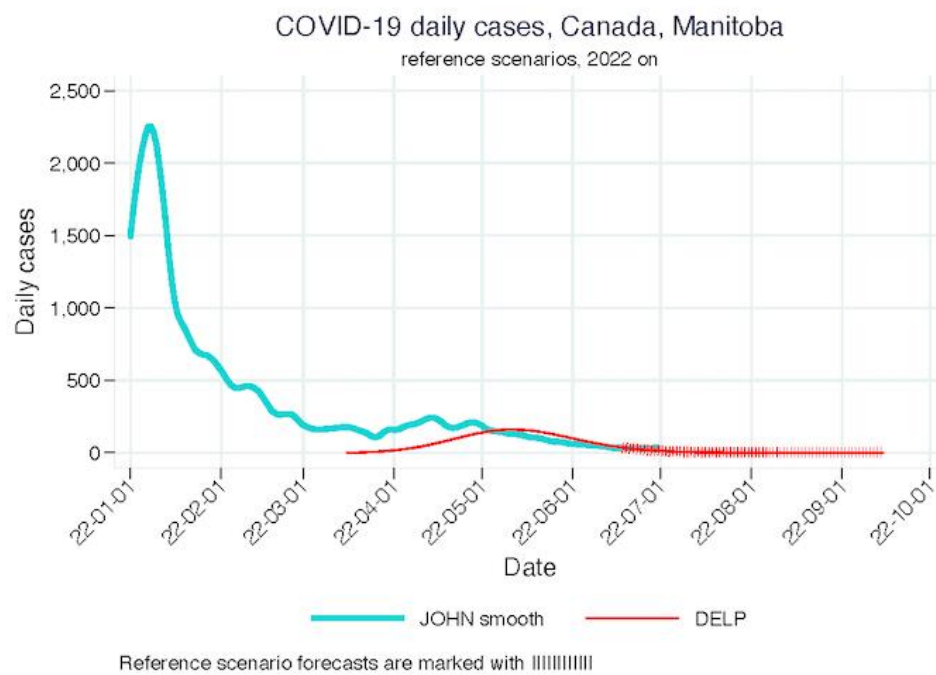
(4) Manitoba [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) Manitoba [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Manitoba [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



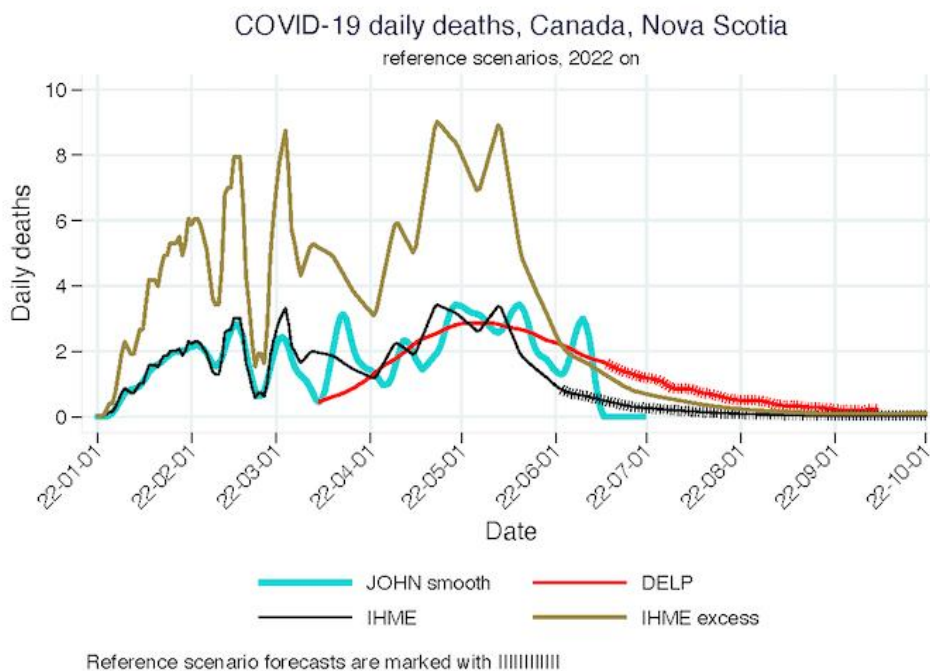
Selected graphs - Nova Scotia

(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, with JOHN raw](#)

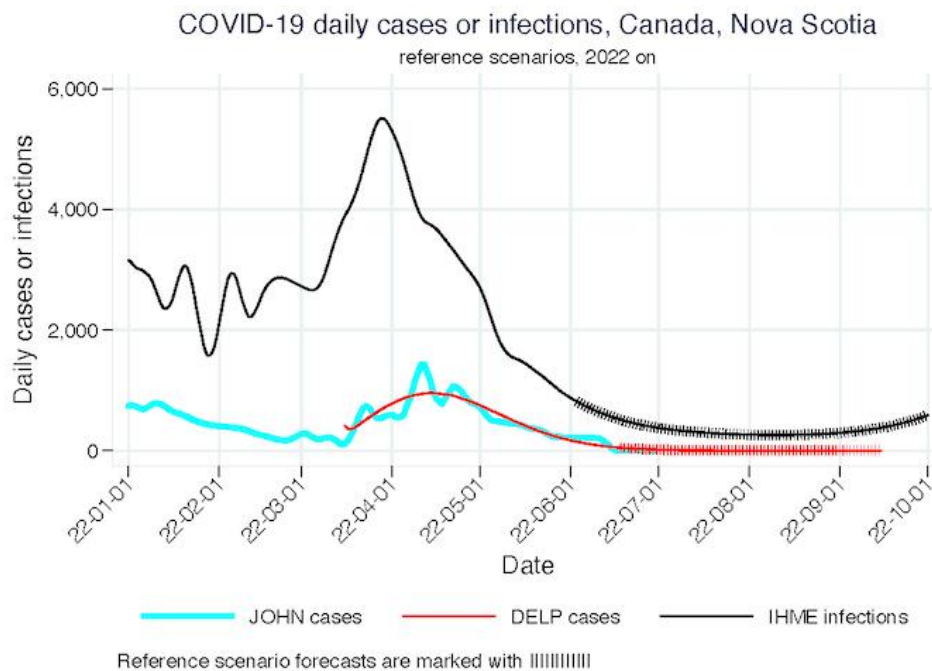
(2c) Nova Scotia [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

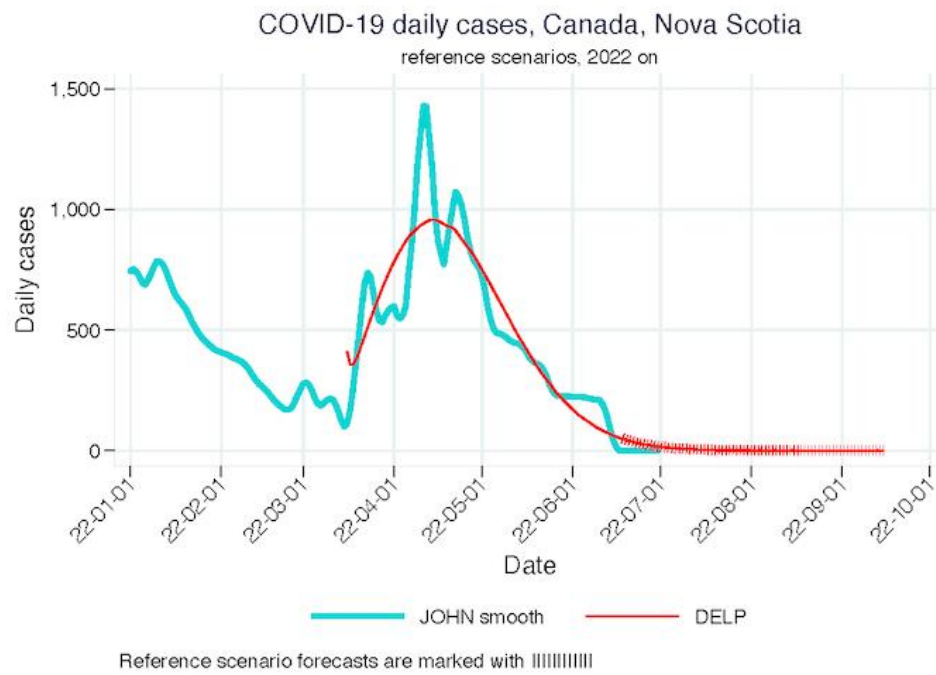
(4) Nova Scotia [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) Nova Scotia [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Nova Scotia [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



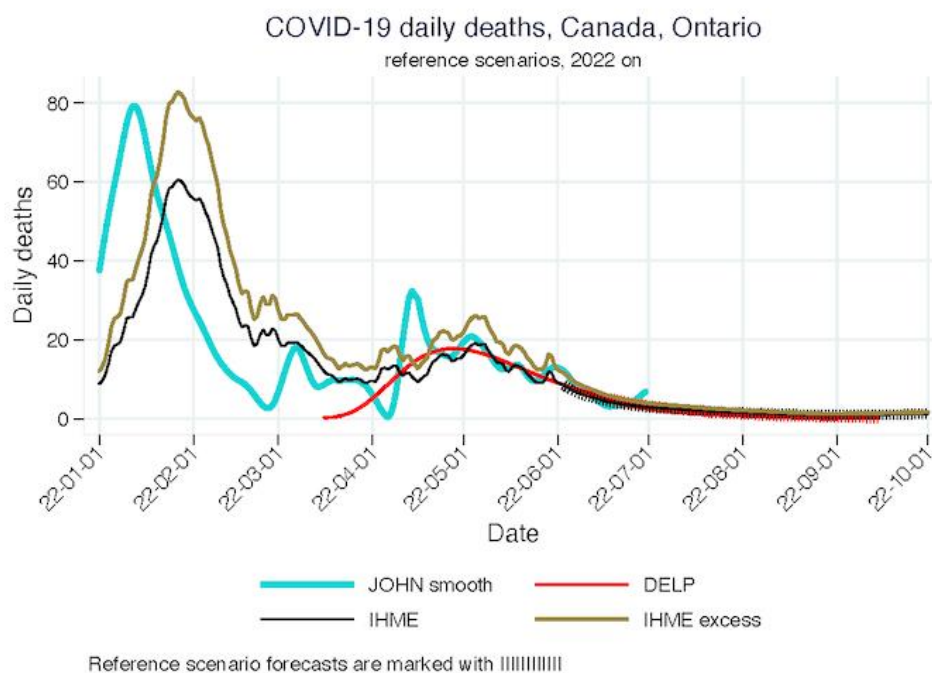
Selected graphs - Ontario

(1) Ontario [Daily deaths, Reference scenario, 2020 on](#)

(2) Ontario [Daily deaths, Reference scenario, 2021 on](#)

(2b) Ontario [Daily deaths, Reference scenario, 2022 on, with JOHN raw](#)

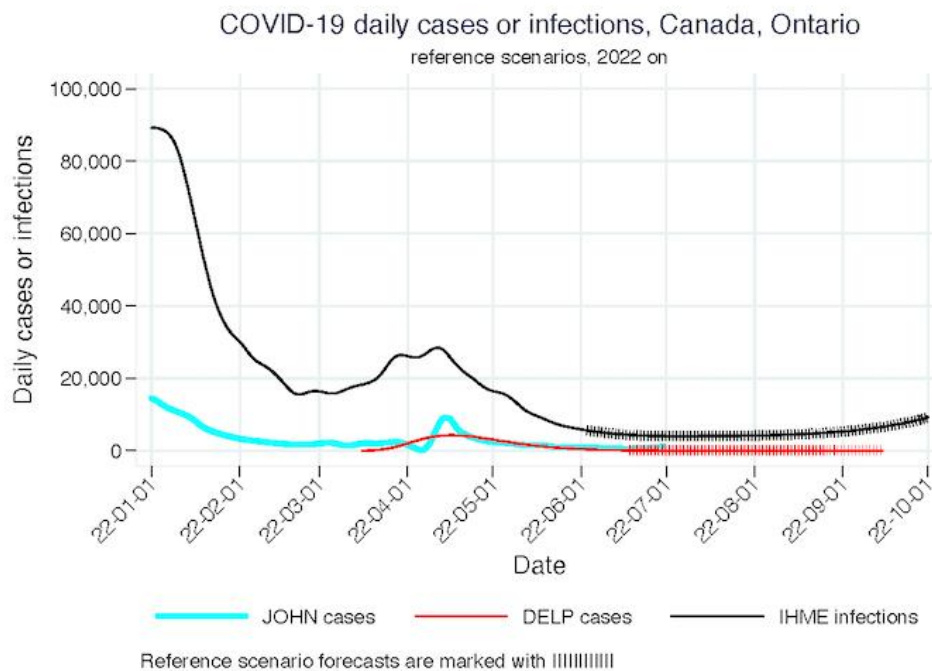
(2c) Ontario [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

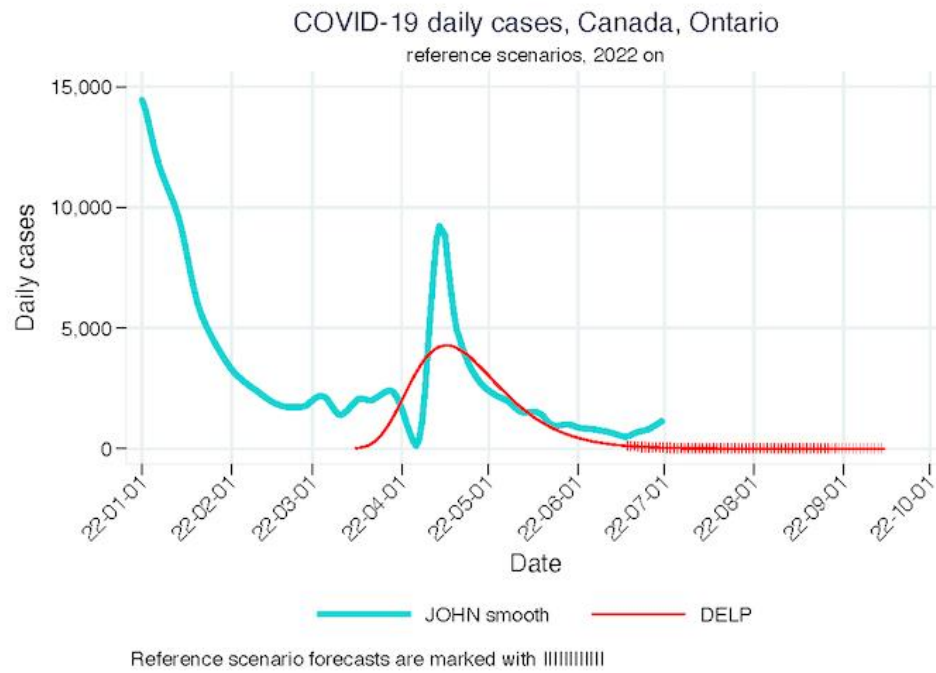
(4) Ontario [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) Ontario [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Ontario [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



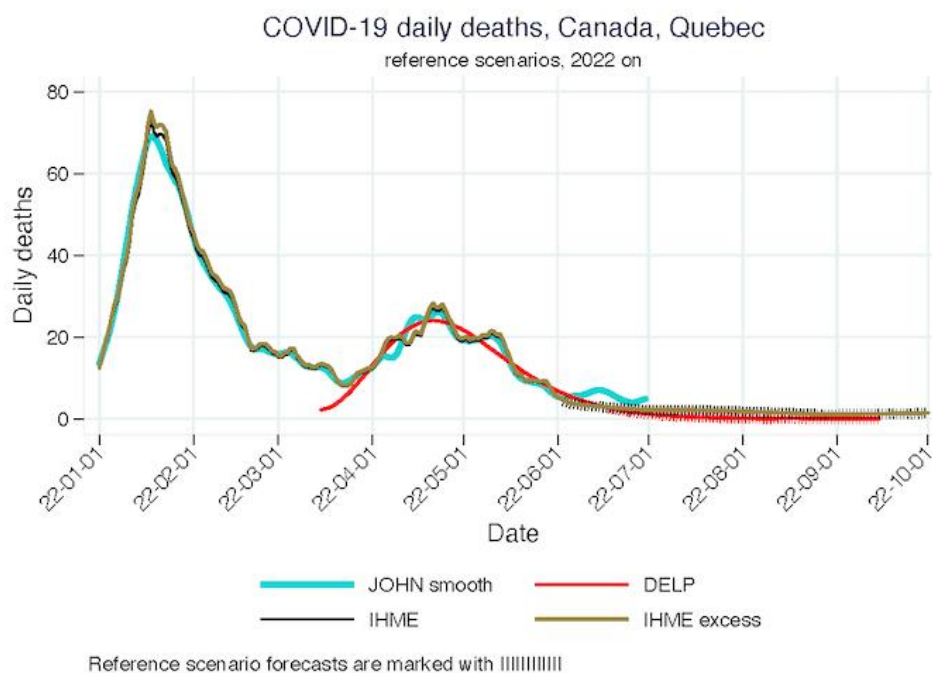
Selected graphs - Quebec

(1) Quebec [Daily deaths, Reference scenario, 2020 on](#)

(2) Quebec [Daily deaths, Reference scenario, 2021 on](#)

(2b) Quebec [Daily deaths, Reference scenario, 2022 on, with JOHN raw](#)

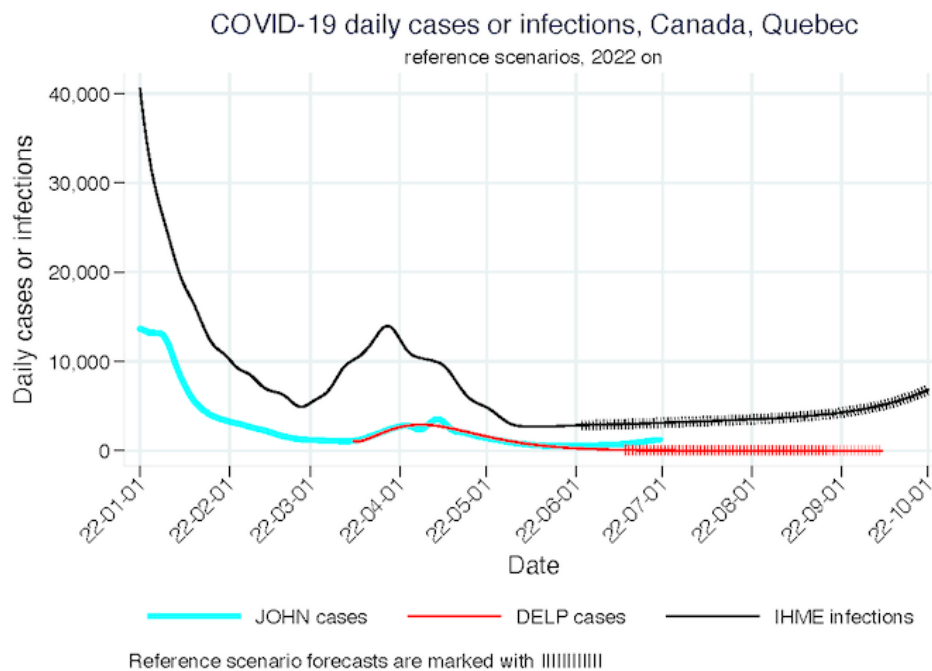
(2c) Quebec [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



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

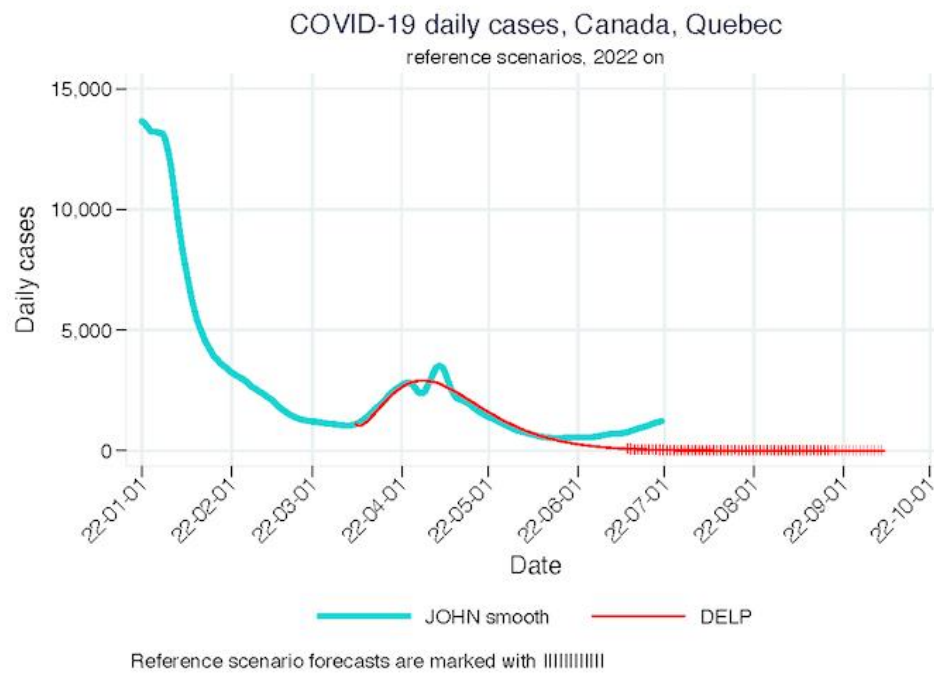
(4) Quebec [Daily cases or infections, Reference scenario, 2021 on](#)

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



(4c) Quebec [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Quebec [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)



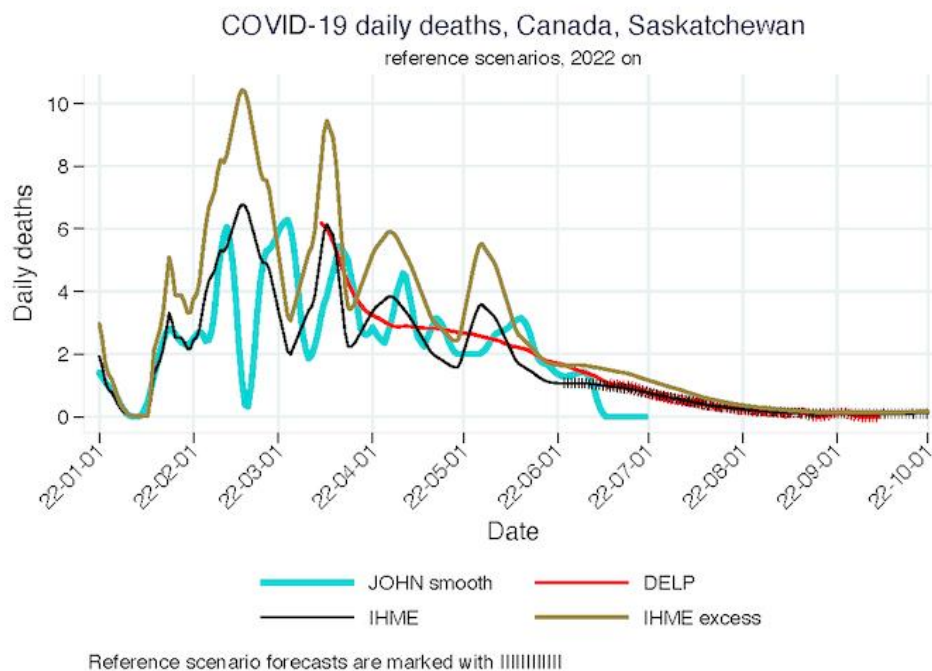
Selected graphs - Saskatchewan

(1) Saskatchewan [Daily deaths, Reference scenario, 2020 on](#)

(2) Saskatchewan [Daily deaths, Reference scenario, 2021 on](#)

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

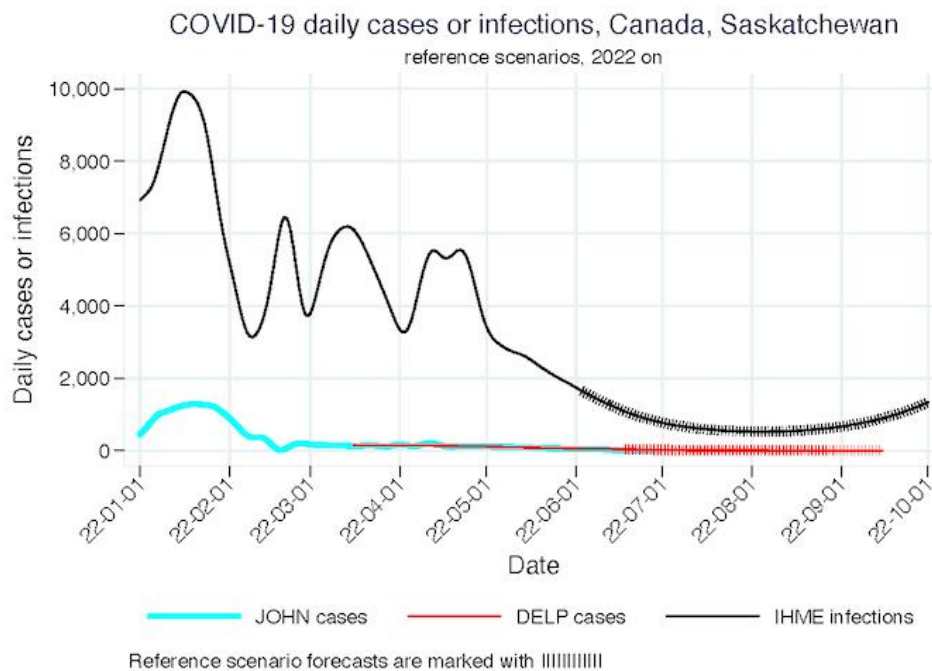
(2c) Saskatchewan [Daily deaths, Reference scenario, 2022 on, without JOHN raw](#)



(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](#)



(4c) Saskatchewan [Daily cases, Reference scenario, 2022 on, with JOHN raw](#)

(4d) Saskatchewan [Daily cases, Reference scenario, 2022 on, without JOHN raw](#)

