Global and regional COVID-19 epidemic models situation report No 45 – 2022-05-20

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Combine and visualize international periodically updated estimates of COVID-19 pandemic at the global level and for six WHO regions

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

Based on uptake 20220520 in https://github.com/pourmalek/CovidVisualizedGlobal

Study update dates in uptake 20220520

DELP 20220520, IHME 20220506, No IMPE, **SRIV 20220520**

Days old: DELP 0, IHME 14, IMPE 67, SRIV 0

IMPE update 20220315 was released on 20220505 and is > 60 days old on 20220520. Not included.

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

Summary 20220520:

Reported deaths show a small bounce up trend in Europe, United States, and Canada.

Reported cases show a small bounce up trend in United States and Canada.

The SRIV model predicts increase in global daily deaths starting from mid-May 2022 reaching 8000 per day in late August and above 2.5 million global cases about mid-August – primarily in United States, Canada, and Europe.

The DELP model predicts a huge spike in daily deaths in Africa June 2000, up to 900 per day, down to current levels in July.

NEXT-DEMICS:

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- (1) MONKEY POX: Status uncertain.
- (2) FOOD SCARCITY and malnutrition plus WATER SCARCITY and WEATHER

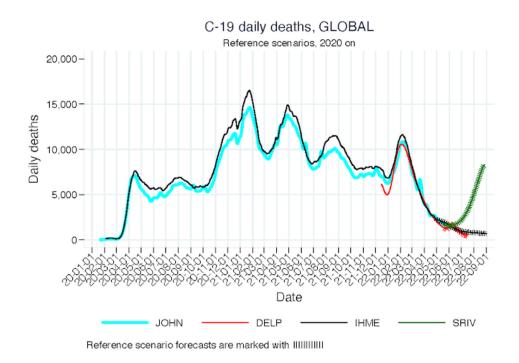
CALAMITIES (environmental degradation, global warming) culminate in epidemics of nutritional, infectious, and non-communicable diseases in many countries, probably resulting in a new pandemic.

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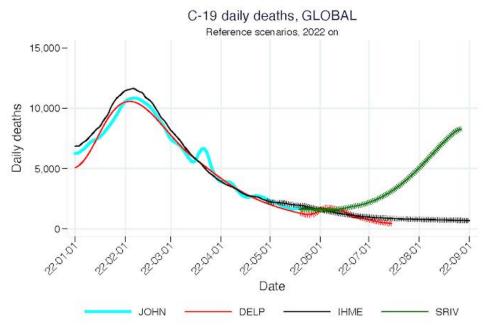
Selected graphs - Global

(1) Global Daily deaths, reference scenarios, 2020 on

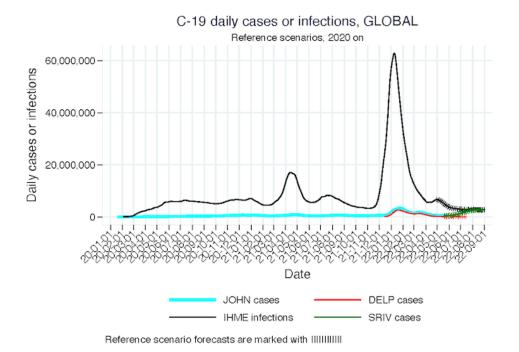


- (1b) Global Daily deaths, reference scenarios, with excess mortality, 2020 on
- (2) Global Daily deaths, reference scenarios, 2021 on
- (3) Global Daily deaths, 3 scenarios, 2021 on
- (3b) Global Daily deaths, 3 scenarios, 2021 on, IHME

(3d) Global Daily deaths, reference scenarios, 2022 on

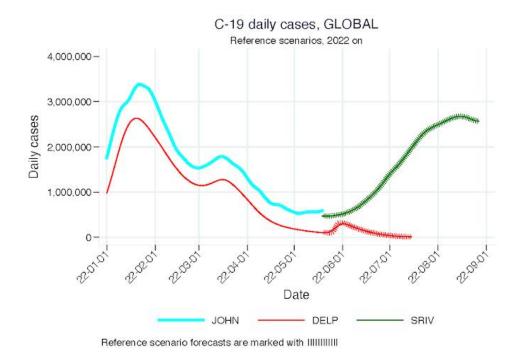


(4) Global Daily cases or infections, reference scenarios, 2020 on



(6) Global Daily cases or infections, 3 scenarios, 2021 on

(6b) Global Daily cases, 2022 on



- (6c) Global Daily estimated infections IHME to reported cases JOHN, main scenarios, 2021 on
- (7) Global Hospital-related outcomes, 2020 on
- (8) Global Hospital-related outcomes, 2021 on, without IHME Bed need
- (9) Global Daily deaths estimated to reported, reference scenarios, 2020 on
- (11) Global Daily Infection outcomes ratios, 2 scenarios, 2020 on, IHME

(11b) Global Daily Infection -detection and -hospitalizations ratios, 2 scenarios, 2020 on, IHME

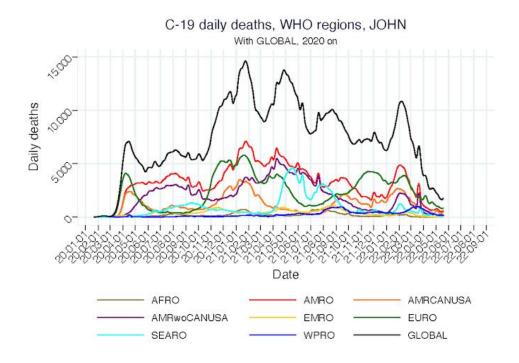
(12) Global Daily mobility, 2 scenarios, 2020 on, IHME

(13) Global Daily mask use, 2 scenarios, 2020 on, IHME

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Selected graphs - Regions together

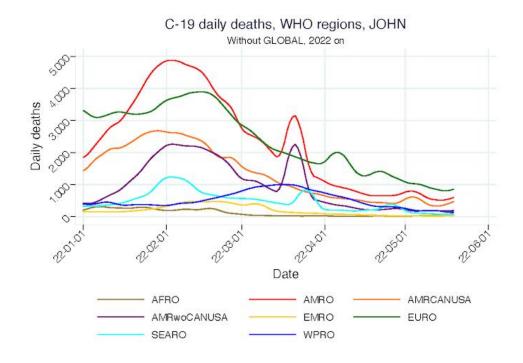
(0a) Regions together Daily deaths, with GLOBAL, 2020 on, JOHN



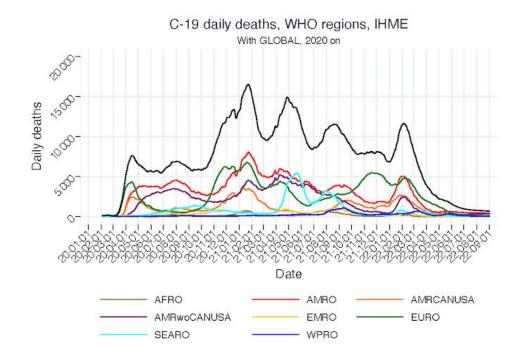
(0b) Regions together Daily deaths, without GLOBAL, 2020 on, JOHN

(Oc) Regions together Daily deaths, with GLOBAL, 2022 on, JOHN

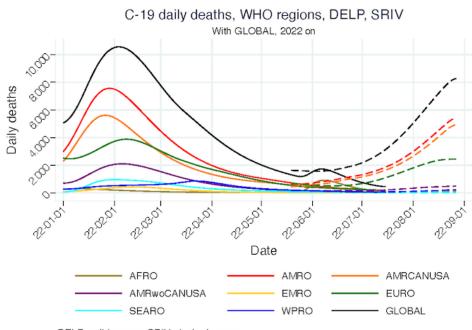
(0d) Regions together Daily deaths, without GLOBAL, 2022 on, JOHN



(1) Regions together Daily deaths, with GLOBAL, 2020 on, IHME

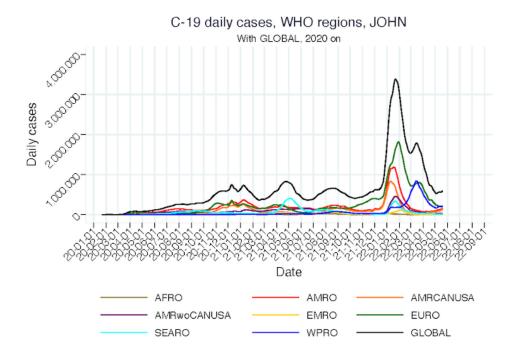


- (2) Regions together Daily deaths, without GLOBAL, 2020 on, IHME
- (3) Regions together Daily deaths, with GLOBAL, 2022 on, DELP, SRIV



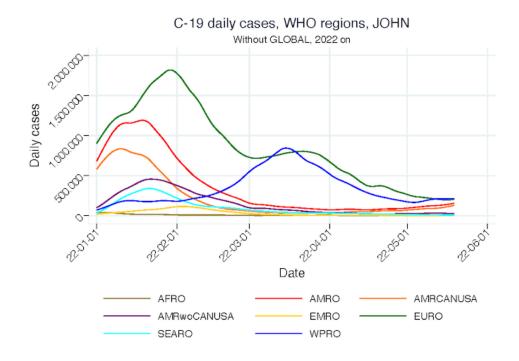
- DELP: solid curves; SRIV: dashed curves
- (4) Regions together Daily deaths, without GLOBAL, 2022 on, DELP, SRIV
- (5) Regions together Daily excess deaths, with GLOBAL, 2020 on, IHME
- (6) Regions together Daily excess deaths, without GLOBAL, 2020 on, IHME

(00a) Regions together <u>Daily cases</u>, with GLOBAL, 2020 on, JOHN



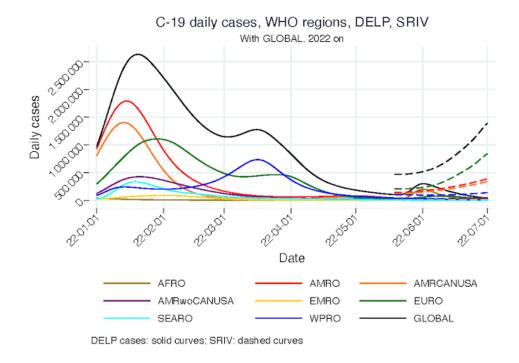
(00b) Regions together Daily cases, without GLOBAL, 2020 on, JOHN

(00c) Regions together Daily cases, without GLOBAL, 2022 on, JOHN



- (7) Regions together Daily infections, with GLOBAL, 2020 on, IHME
- (8) Regions together Daily infections, without GLOBAL, 2020 on, IHME

(9) Regions together Daily cases, with GLOBAL, 2022 on, DELP, SRIV

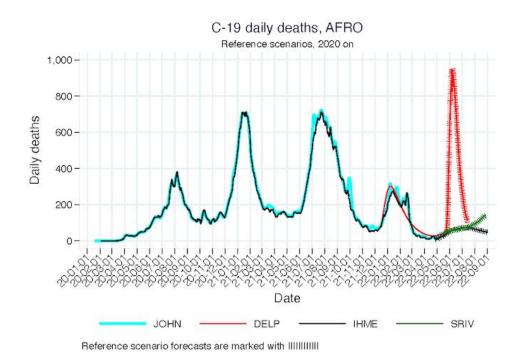


- (10) Regions together Daily cases, without GLOBAL, 2022 on, DELP, SRIV
- (11) Regions together Total deaths, with GLOBAL, 2020 on, IHME
- (12) Regions together Total deaths, without GLOBAL, 2020 on, IHME
- (13) Regions together Total deaths, with GLOBAL, 2022 on, DELP, SRIV
- (14) Regions together Total deaths, without GLOBAL, DELP, SRIV

(15) Regions together Total excess deaths, with GLOBAL, 2020 on, IHME
(16) Regions together Total excess deaths, without GLOBAL, 2020 on, IHME
(17) Regions together Total infections, with GLOBAL, 2020 on, IHME
(18) Regions together Total infections, without GLOBAL, 2020 on, IHME
(19) Regions together Total cases, with GLOBAL, 2022 on, DELP, SRIV
(20) Regions together Total cases, without GLOBAL, 2022 on, DELP, SRIV

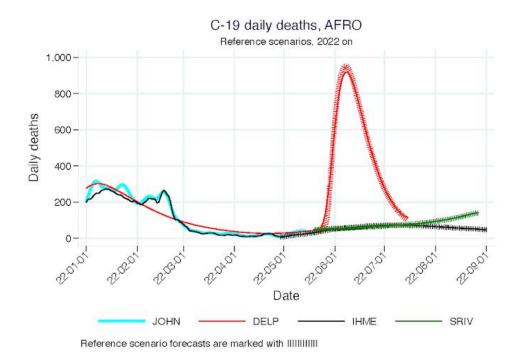
Selected graphs - African region (AFRO)

(1) African region Daily deaths, reference scenarios, 2020 on



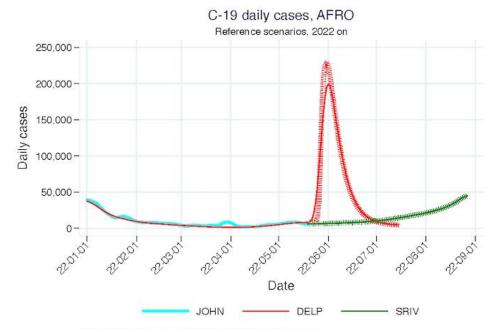
(3) African region Daily deaths, 3 scenarios, 2021 on

(3b) African region Daily deaths, reference scenarios, 2022 on



- (4) African region Daily cases or infections, reference scenarios, 2020 on
- (6) African region <u>Daily cases or infections</u>, 3 scenarios, 2021 on

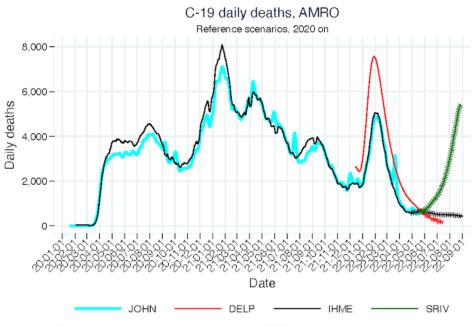
(6b) African region Daily cases or infections, reference scenarios, 2022 on



Reference scenario forecasts are marked with IIIIIIIIIII

Selected graphs – Americas region (AMRO)

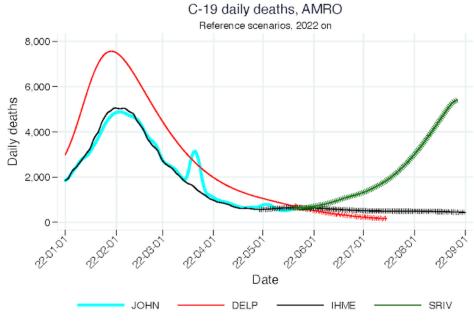
(1) Americas region Daily deaths, reference scenarios, 2020 on



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(3) Americas region Daily deaths, 3 scenarios, 2021 on

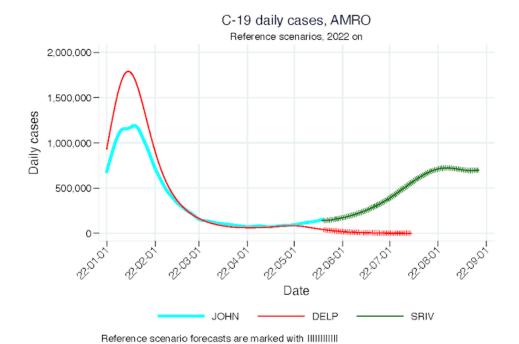
(3b) Americas region Daily deaths, reference scenarios, 2022 on



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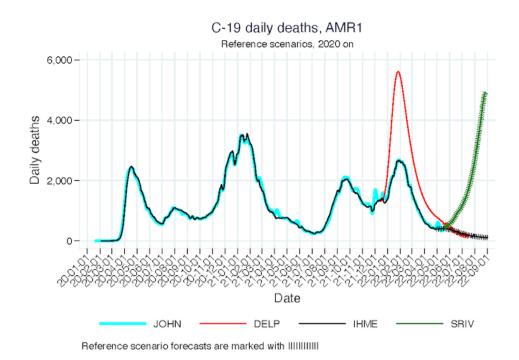
- (4) Americas region Daily cases or infections, reference scenarios, 2020 on
- (6) Americas region Daily cases or infections, 3 scenarios, 2021 on

(6b) Americas region Daily reference, 3 scenarios, 2022 on



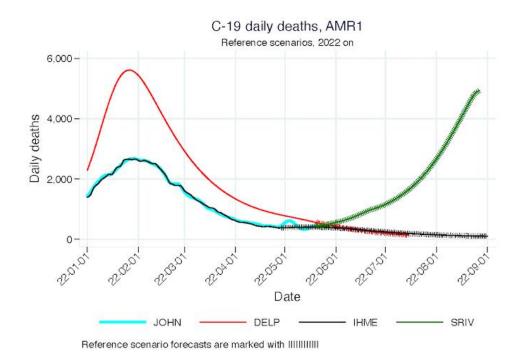
Selected graphs – Americas region, Canada and United States (AMR1)

(1) Americas region, Canada and United States Daily deaths, reference scenarios, 2020 on



(3) Americas region, Canada and United States Daily deaths, 3 scenarios, 2021 on

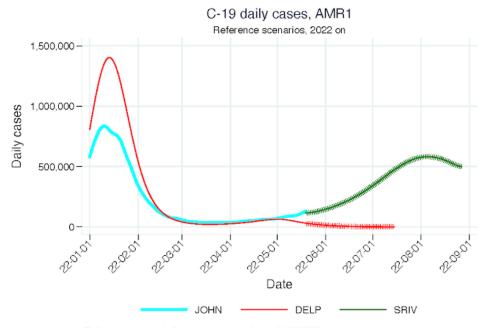
(3b) Americas region, Canada and United States Daily deaths, reference scenarios, 2022 on



(4) Americas region, Canada and United States <u>Daily cases or infections, reference scenarios,</u> 2020 on

(6) Americas region, Canada and United States <u>Daily cases or infections</u>, 3 scenarios, 2021 on

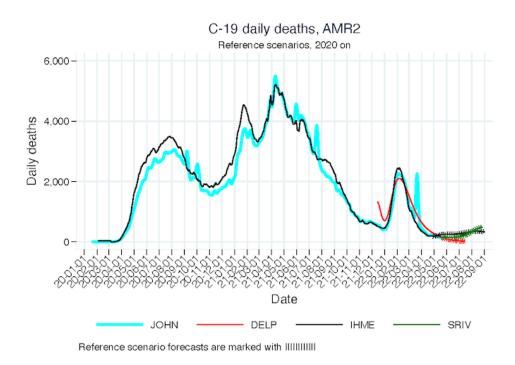
(6b) Americas region, Canada and United States <u>Daily cases or infections, reference scenarios, 2022 on</u>



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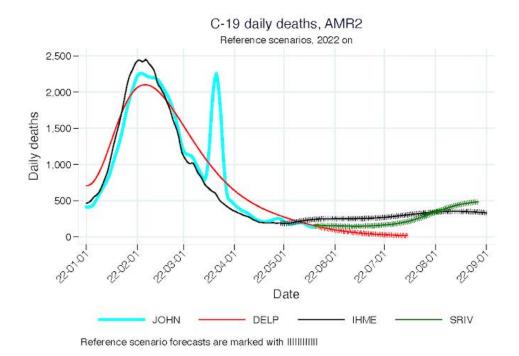
Selected graphs – Americas region, without Canada and United States (AMR2)

(1) Americas region, without Canada and United States <u>Daily deaths, reference scenarios, 2020</u> on



(3) Americas region, without Canada and United States Daily deaths, 3 scenarios, 2021 on

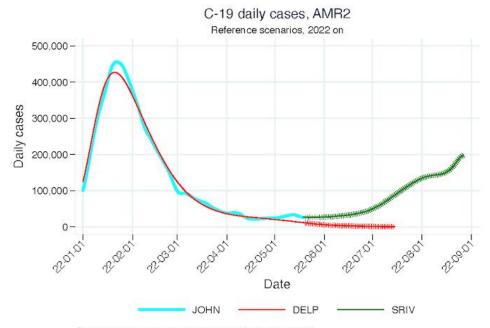
(3b) Americas region, without Canada and United States <u>Daily deaths, reference scenarios, 2022</u> on



(4) Americas region, without Canada and United States <u>Daily cases or infections, reference scenarios, 2020 on</u>

(6) Americas region, without Canada and United States <u>Daily cases or infections, 3 scenarios, 2021 on</u>

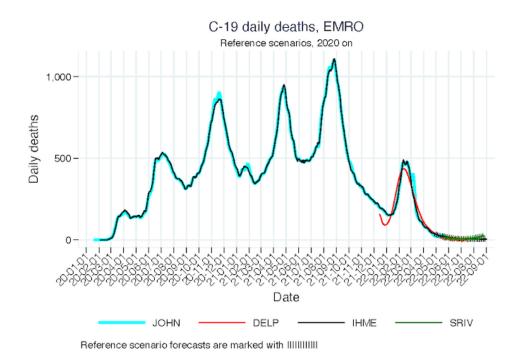
(6b) Americas region, without Canada and United States <u>Daily cases or infections, reference scenarios, 2022 on</u>



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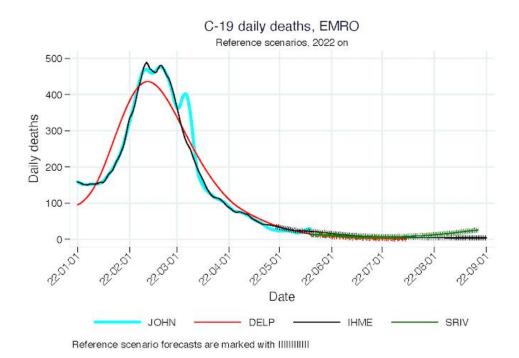
Selected graphs – Eastern Mediterranean region (EMRO)

(1) Eastern Mediterranean region <u>Daily deaths, reference scenarios, 2020 on</u>



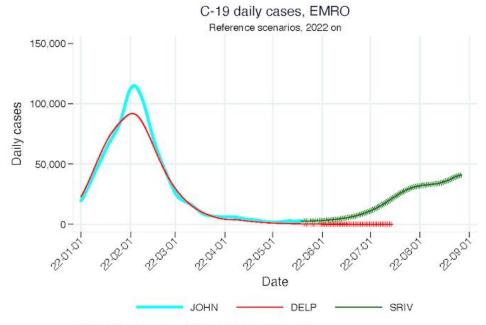
(3) Eastern Mediterranean region Daily deaths, 3 scenarios, 2021 on

(3b) Eastern Mediterranean region Daily deaths, reference scenarios, 2022 on



- (4) Eastern Mediterranean region <u>Daily cases or infections, reference scenarios, 2020 on</u>
- (6) Eastern Mediterranean region Daily cases or infections, 3 scenarios, 2021 on

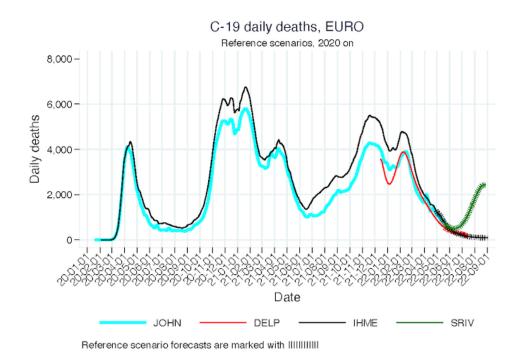
(6b) Eastern Mediterranean region Daily cases or infections, reference scenarios, 2022 on



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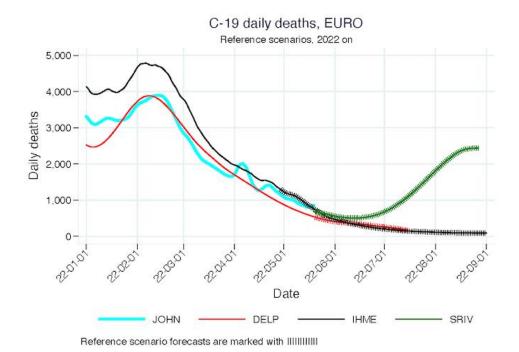
Selected graphs – European region (EURO)

(1) European region Daily deaths, reference scenarios, 2020 on



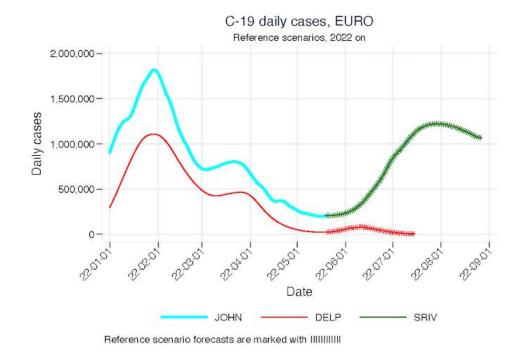
(3) European region Daily deaths, 3 scenarios, 2021 on

(3b) European region Daily deaths, reference scenarios, 2022 on



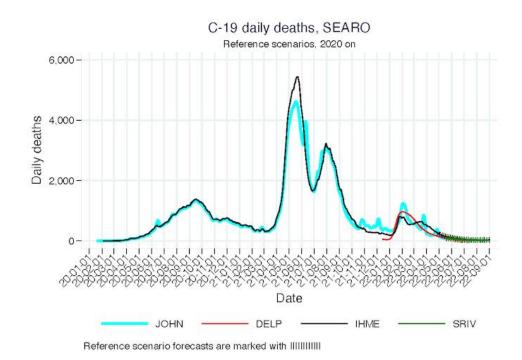
- (4) European region Daily cases or infections, reference scenarios, 2020 on
- (6) European region <u>Daily cases or infections</u>, 3 scenarios, 2021 on

(6b) European region <u>Daily cases or infections, reference scenarios, 2022 on</u>



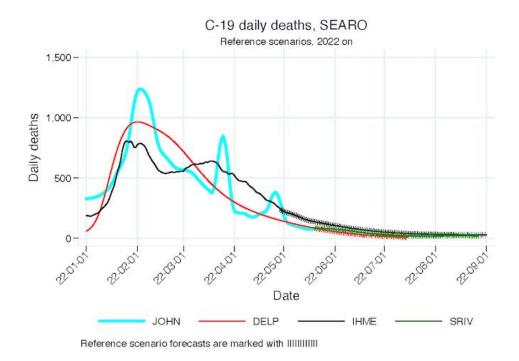
Selected graphs – South-East Asian region (SEARO)

(1) South-East Asian region <u>Daily deaths, reference scenarios, 2020 on</u>



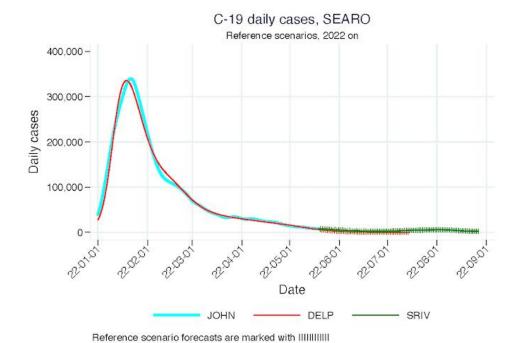
(3) South-East Asian region Daily deaths, 3 scenarios, 2021 on

(3b) South-East Asian region Daily deaths, reference scenarios, 2022 on



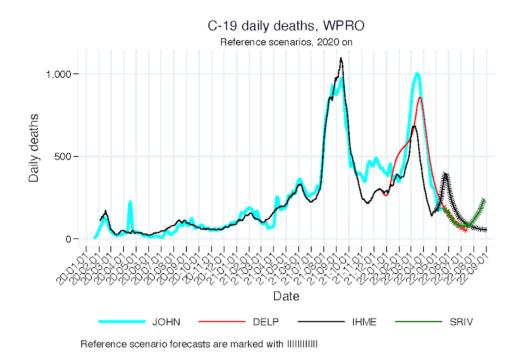
- (4) South-East Asian region Daily cases or infections, reference scenarios, 2020 on
- (6) South-East Asian region Daily cases or infections, 3 scenarios, 2021 on

(6b) South-East Asian region Daily cases or infections, reference scenarios, 2022 on



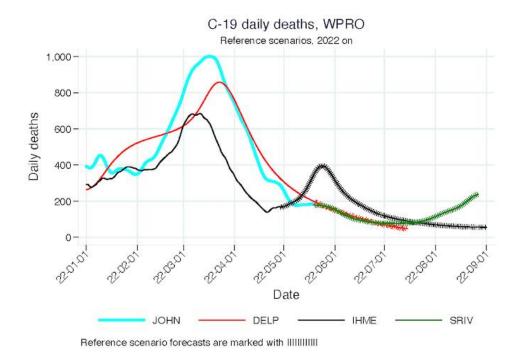
Selected graphs – Western Pacific region (WPRO)

(1) Western Pacific region Daily deaths, reference scenarios, 2020 on



(3) Western Pacific region Daily deaths, 3 scenarios, 2021 on

(3b) Western Pacific region Daily deaths, reference scenarios, 2022 on



- (4) Western Pacific region <u>Daily cases or infections, reference scenarios, 2020 on</u>
- (6) Western Pacific region <u>Daily cases or infections</u>, 3 scenarios, 2021 on

(6b) Western Pacific region <u>Daily cases or infections, reference scenarios, 2022 on</u>

