Global and regional COVID-19 epidemic models situation report No 50 - 2022-06-24

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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

See https://github.com/pourmalek/CovidVisualizedGlobal

Study update dates in uptake 20220624

DELP 20220618, IHME 20220610, No 20220530, **SRIV 20220623**

Days old: DELP 7, IHME 15, IMPE 26, SRIV 1

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

WE KNOW THAT AMONG THE COMING PANDEMICS IS THE SPREAD OF SEVERAL EPIDEMICS OF MORTALITY AND MORBIDITY DUE TO LOW OR ABSENT FOOD INTAKE, CONCENTRATED IN MIDDLE EAST, NORTH AFRICA, AND SUBSAHARAN AFRICA.

DON'T WE KNOW?

Summary 20220624:

Predicted daily deaths:

The IHME model predicts declining global daily deaths through October first. The SRIV model predicts unprecedented rise in global daily deaths from July to October 1, reaching about 18,000 per day on October 1, 2022.

Predicted daily infections and cases:

The IHME model predicts declining global daily infections from early June (8.7 million) to early September 2022 (5.5 million) and rise from early September to October first, 2022 (6.5 million).

The SRIV model predicts increase in global daily cases from mid-June (650,000) to late August (5 million), and then decline through October 1, 2022 (4.5 million). The SRIV model predicts peak of daily cases in WHO regions at different heights during August and September 2022, except for South-East Asia (SEAR) and Eastern Mediterranean (EMR) regions which do not peek before October 1, 2022.

The DELP model predicts peak of cases deaths in the African region (AFR) at about late August to early September 2022.

Officially reported daily deaths:

Officially reported daily deaths have been stagnating since mid-June 2022 in most WHO regions, except increase in Americas and Europe.

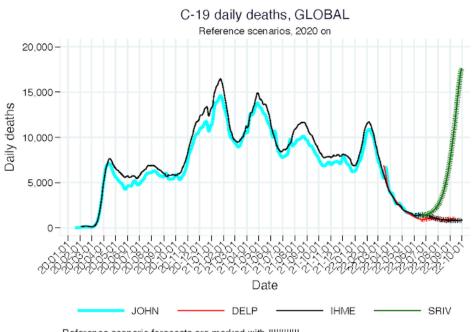
Officially reported daily cases:

Officially reported daily cases have increased since early June 2022 at the global level, Europe, and Latin America, and have decreased in Western Pacific region (WPR) as well as in Canada and United States together (AMR without Canada and United States). The size of the increase has been largest in the Europe. The increases during the same time in South-East Asia (SEAR), Eastern Mediterranean (EMR), and African (AFR) regions have been relatively much smaller.

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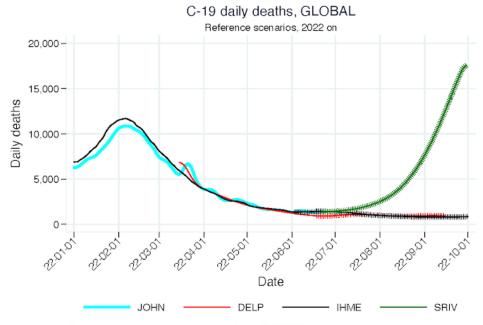
(1) Global Daily deaths, reference scenarios, 2020 on



Reference scenario forecasts are marked with IIIIIIIIIII

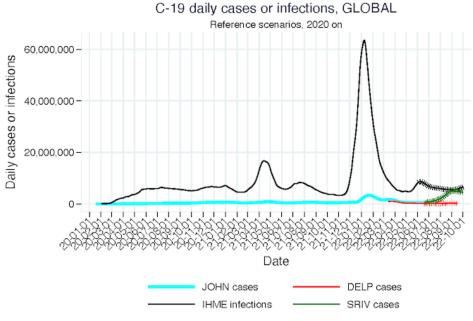
- (1b) Global Daily deaths, reference scenarios, with excess mortality, 2020 on
- (2) Global Daily deaths, reference scenarios, 2021 on
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- (3b) Global Daily deaths, 3 scenarios, 2021 on, IHME

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



Reference scenario forecasts are marked with IIIIIIIIIII

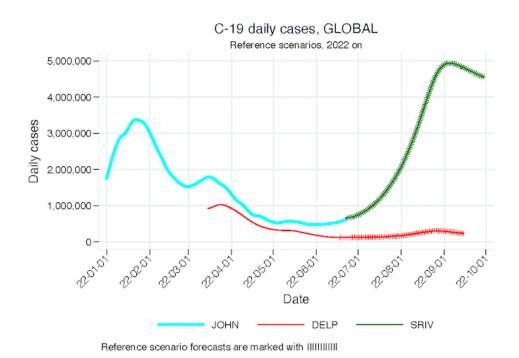
(4) Global Daily cases or infections, reference scenarios, 2020 on



Reference scenario forecasts are marked with IIIIIIIIIII

(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

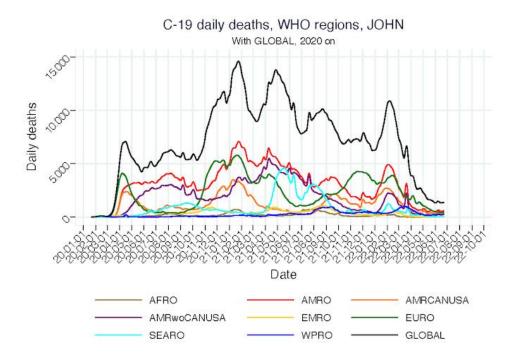
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(8) Global Hospital-related outcomes, 2021 on, without IHME Bed need

(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

Selected graphs - Regions together

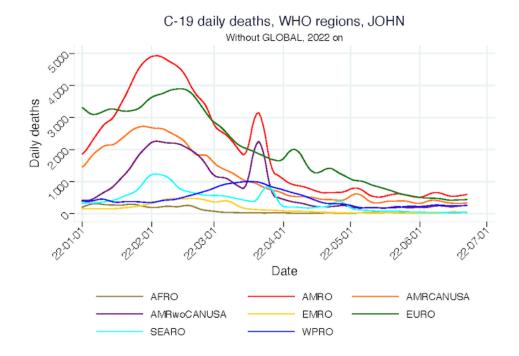
(0a) Regions together Daily deaths, with GLOBAL, 2020 on, JOHN



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

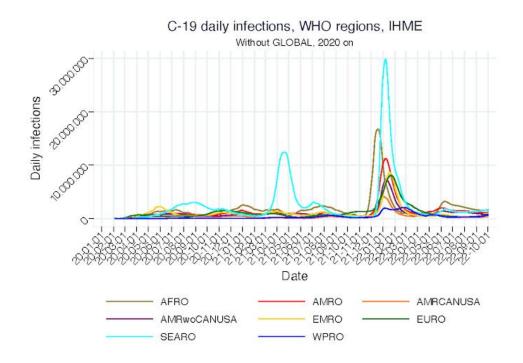
(Oc) Regions together Daily deaths, with GLOBAL, 2022 on, JOHN

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

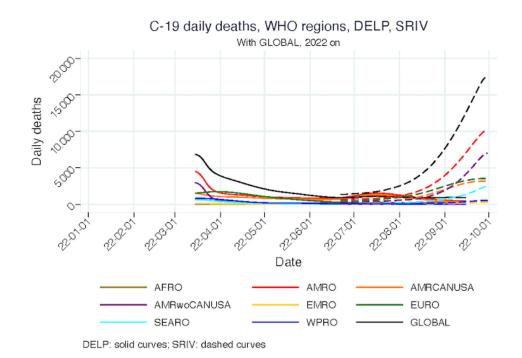


(1) Regions together Daily deaths, with GLOBAL, 2020 on, IHME

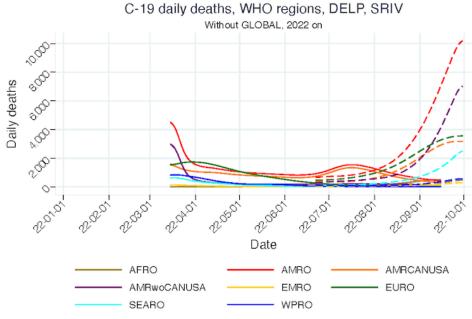
(2) Regions together Daily deaths, without GLOBAL, 2020 on, IHME



(3) Regions together Daily deaths, with GLOBAL, 2022 on, DELP, SRIV



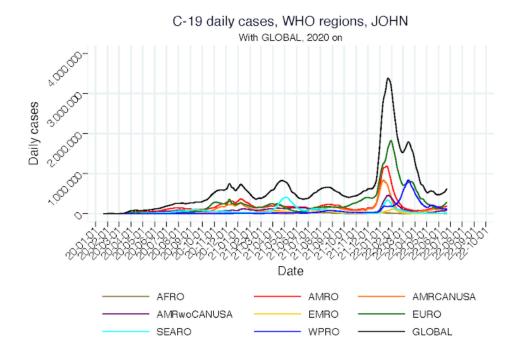
(4) Regions together Daily deaths, without GLOBAL, 2022 on, DELP, SRIV



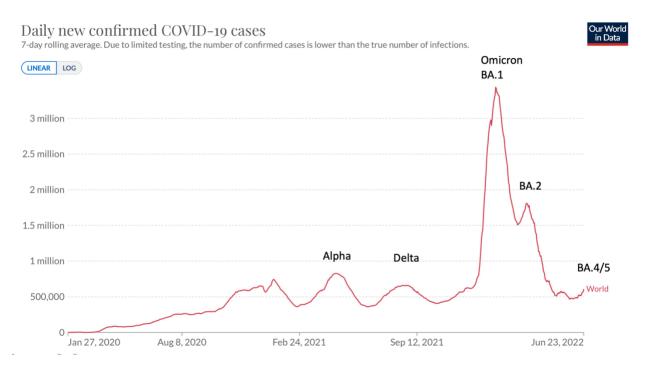
DELP: solid curves; SRIV: dashed curves

- (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 Daily cases, with GLOBAL, 2020 on, JOHN



(00a) <u>GLOBAL waves and variants, Daily cases, 2020 on, Our World in Data, via Eric Topol</u> (@EricTopol)



Note:

While looking at the graph of dominant variants at the global level, it is critical to note that in general, such a global graph,

"[...] would be totally dominated by the USA & UK, and not necessarily representative [of the GLOBE] ".

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

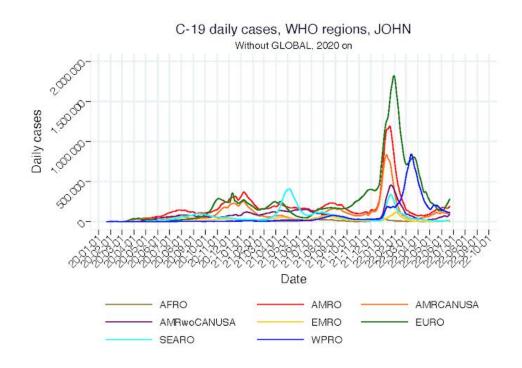
SOURCE WEB PAGE:

hodcroftlab/covariants#241

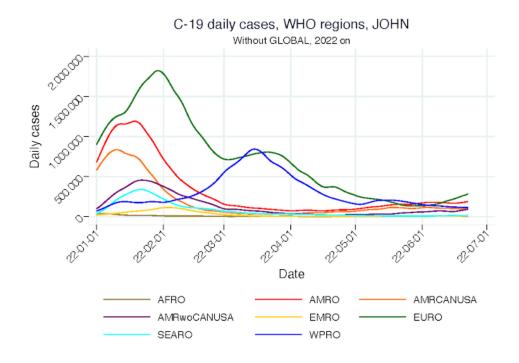
https://covariants.org/per-country

DATE ACCESED: June 24, 2022

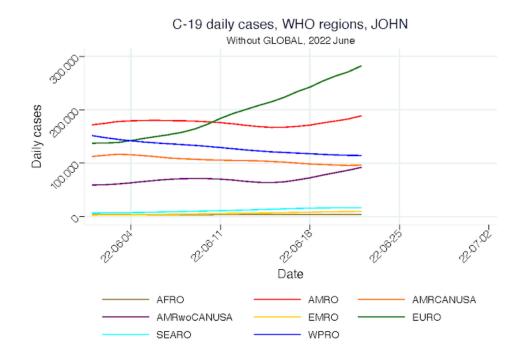
(00b) Regions together Daily cases, without GLOBAL, 2020 on, JOHN



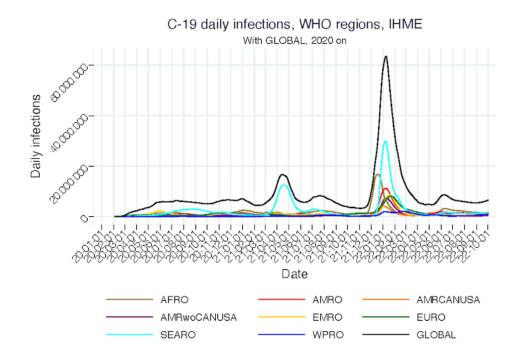
(00c) Regions together Daily cases, without GLOBAL, 2022 on, JOHN



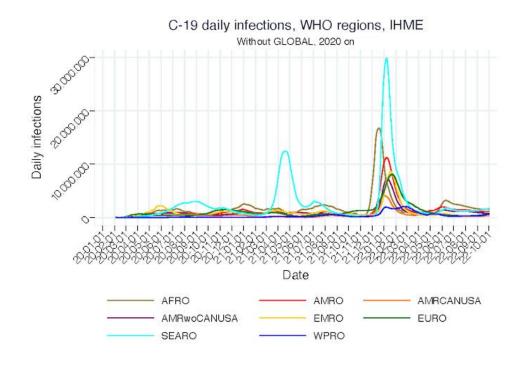
(00d) Regions together Daily cases, without GLOBAL, 2022 June, JOHN



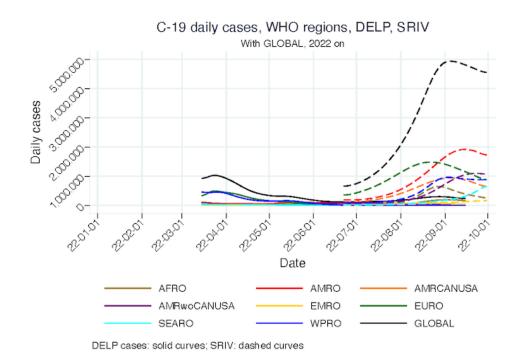
(7) Regions together Daily infections, with GLOBAL, 2020 on, IHME



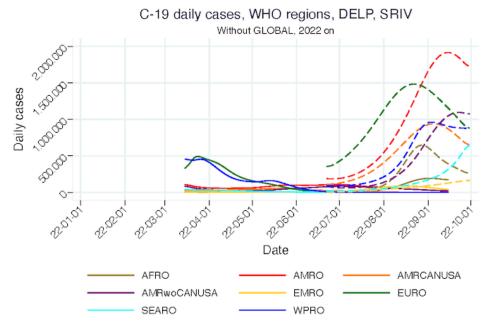
(8) Regions together Daily infections, without GLOBAL, 2020 on, IHME



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



(10) Regions together Daily cases, without GLOBAL, 2022 on, DELP, SRIV

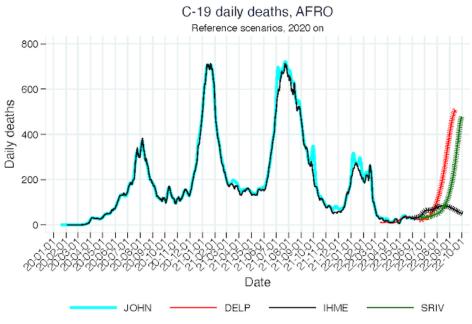


DELP cases: solid curves; SRIV: dashed curves

(11) Regions together Total deaths, with GLOBAL, 2020 on, IHME (12) Regions together Total deaths, without GLOBAL, 2020 on, IHME (13) Regions together <u>Total deaths</u>, with <u>GLOBAL</u>, <u>2022 on</u>, <u>DELP</u>, <u>SRIV</u> (14) Regions together <u>Total deaths</u>, <u>without GLOBAL</u>, <u>DELP</u>, <u>SRIV</u> (15) Regions together Total excess deaths, with GLOBAL, 2020 on, IHME (16) Regions together <u>Total excess deaths</u>, <u>without GLOBAL</u>, <u>2020 on</u>, <u>IHME</u> (17) Regions together <u>Total infections</u>, with <u>GLOBAL</u>, <u>2020 on</u>, <u>IHME</u> (18) Regions together <u>Total infections</u>, without <u>GLOBAL</u>, <u>2020 on</u>, <u>IHME</u> (19) Regions together <u>Total cases</u>, with <u>GLOBAL</u>, <u>2022 on</u>, <u>DELP</u>, <u>SRIV</u> (20) Regions together <u>Total cases, without GLOBAL, 2022 on, DELP, SRIV</u>

Selected graphs - African region (AFRO)

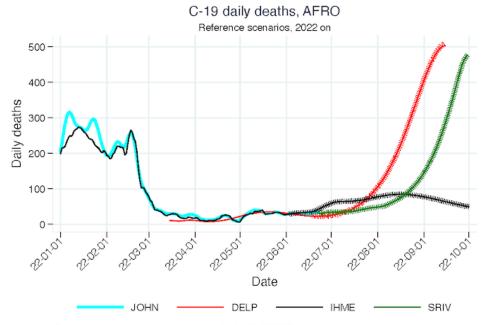
(1) African region Daily deaths, reference scenarios, 2020 on



Reference scenario forecasts are marked with IIIIIIIIIII

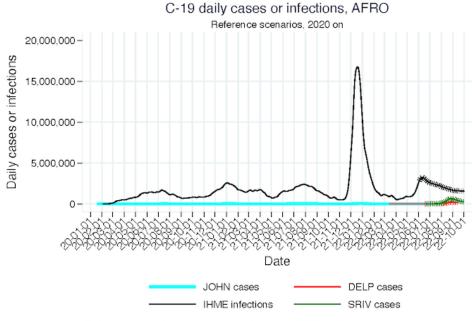
(3) African region Daily deaths, 3 scenarios, 2021 on

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



Reference scenario forecasts are marked with IIIIIIIIIII

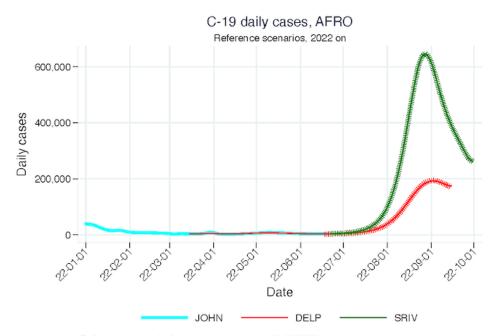
(4) African region Daily cases or infections, reference scenarios, 2020 on



Reference scenario forecasts are marked with IIIIIIIIIII

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

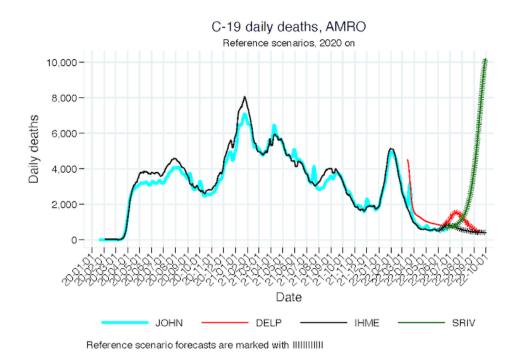
(6b) African region Daily cases or infections, reference scenarios, 2022 on



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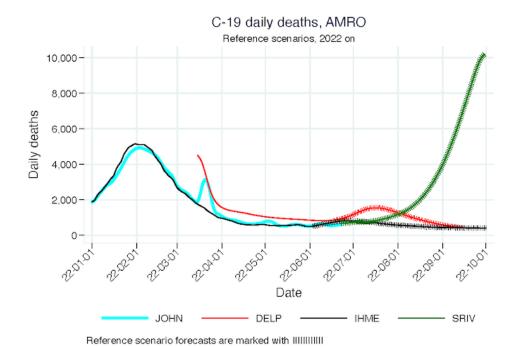
Selected graphs – Americas region (AMRO)

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

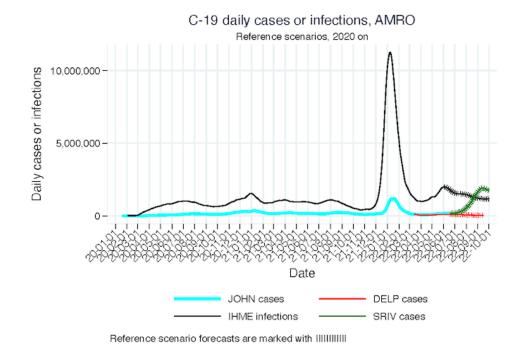


(3) Americas region Daily deaths, 3 scenarios, 2021 on

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



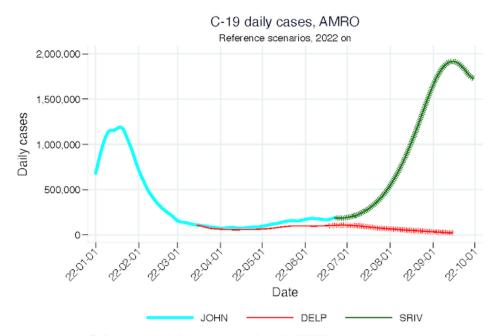
(4) Americas region Daily cases or infections, reference scenarios, 2020 on



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

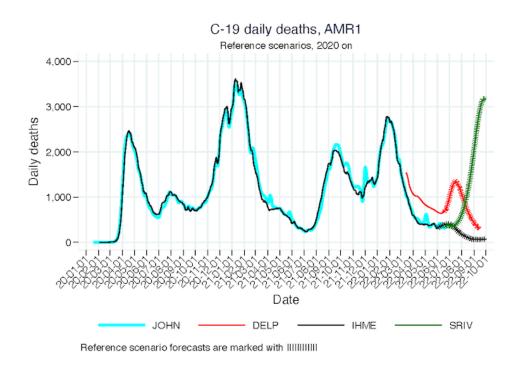
(6b) Americas region Daily reference, 3 scenarios, 2022 on



Reference scenario forecasts are marked with IIIIIIIIIII

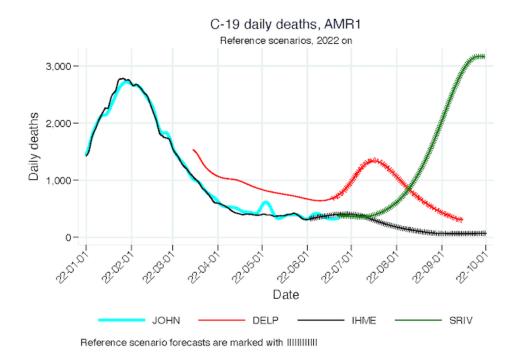
Selected graphs – Americas region, Canada and United States (AMR1)

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

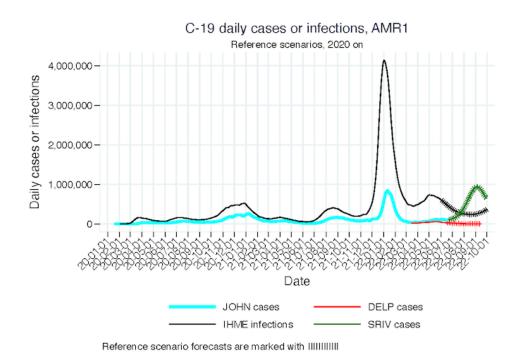


(3) Americas region, Canada and United States Daily deaths, 3 scenarios, 2021 on

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

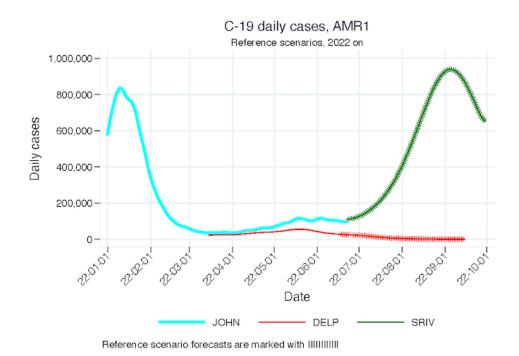


(4) Americas region, Canada and United States <u>Daily cases or infections, reference scenarios,</u> 2020 on



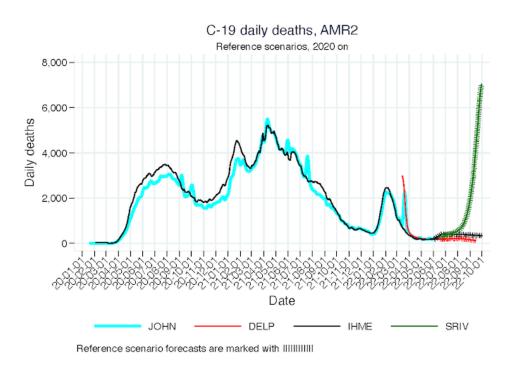
(6) Americas region, Canada and United States Daily cases or infections, 3 scenarios, 2021 on

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



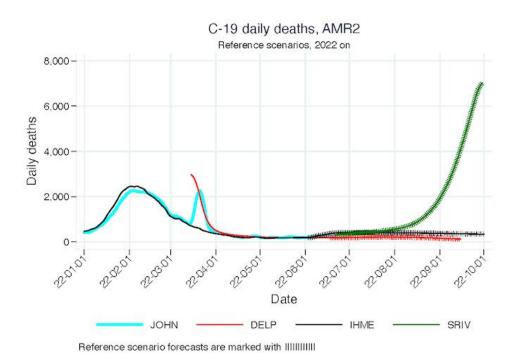
Selected graphs – Americas region, without Canada and United States (AMR2)

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

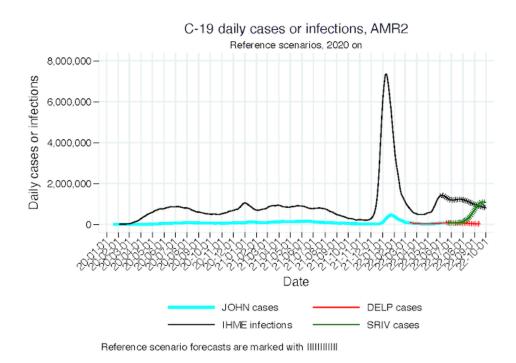


(3) Americas region, without Canada and United States Daily deaths, 3 scenarios, 2021 on

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

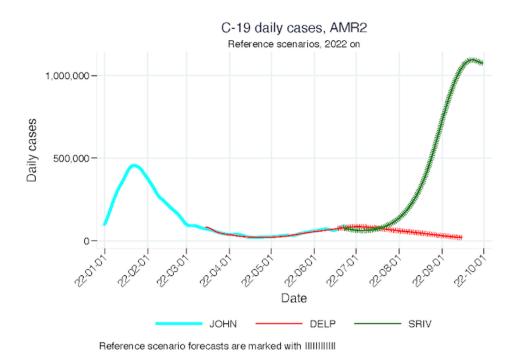


(4) Americas region, without Canada and United States <u>Daily cases or infections, reference scenarios, 2020 on</u>



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

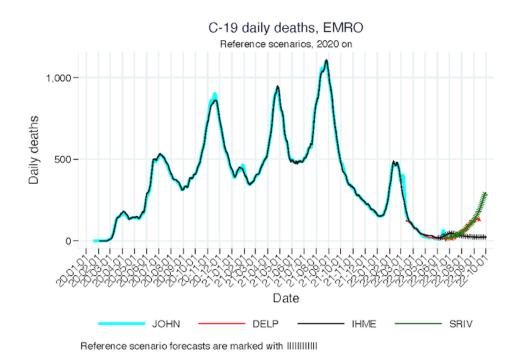
(6b) Americas region, without Canada and United States Daily cases or infections, reference scenarios, 2022 on



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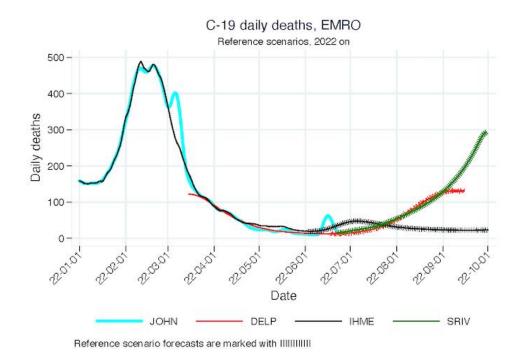
Selected graphs – Eastern Mediterranean region (EMRO)

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

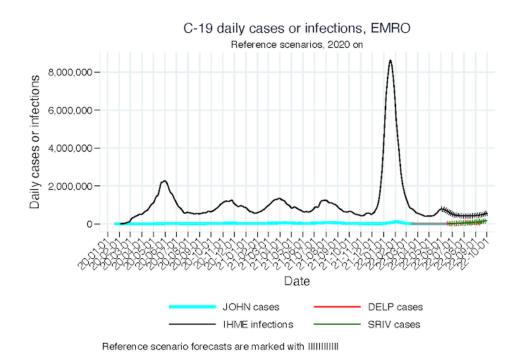


(3) Eastern Mediterranean region Daily deaths, 3 scenarios, 2021 on

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

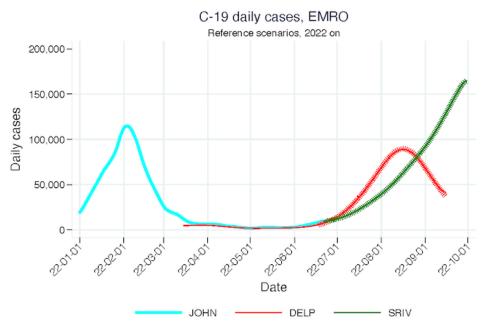


(4) Eastern Mediterranean region Daily cases or infections, reference scenarios, 2020 on



(6) Eastern Mediterranean region Daily cases or infections, 3 scenarios, 2021 on

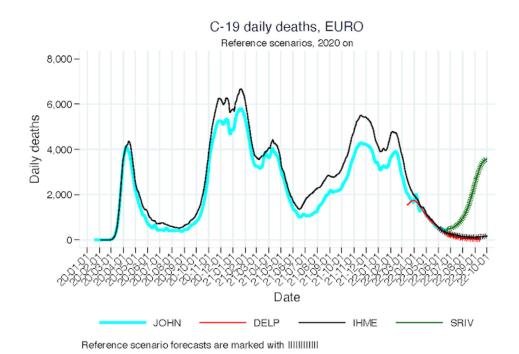
(6b) Eastern Mediterranean region Daily cases or infections, reference scenarios, 2022 on



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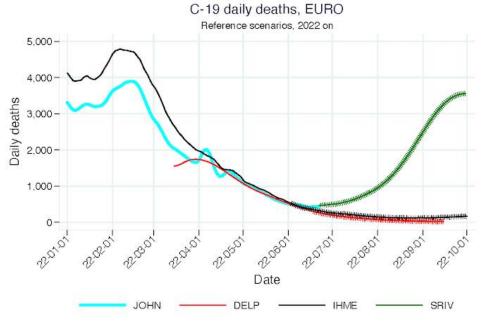
Selected graphs – European region (EURO)

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



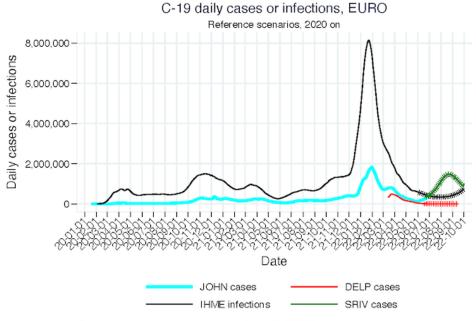
(3) European region Daily deaths, 3 scenarios, 2021 on

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



Reference scenario forecasts are marked with IIIIIIIIIII

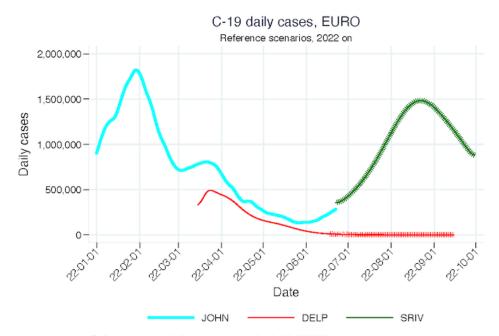
(4) European region Daily cases or infections, reference scenarios, 2020 on



Reference scenario forecasts are marked with IIIIIIIIIII

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

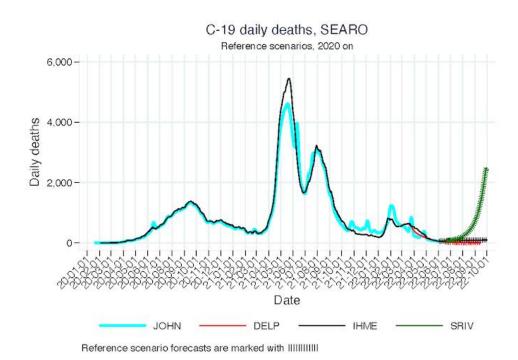
(6b) European region Daily cases or infections, reference scenarios, 2022 on



Reference scenario forecasts are marked with IIIIIIIIIII

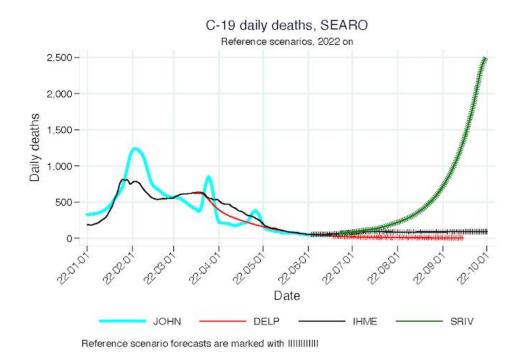
Selected graphs – South-East Asian region (SEARO)

(1) South-East Asian region Daily deaths, reference scenarios, 2020 on

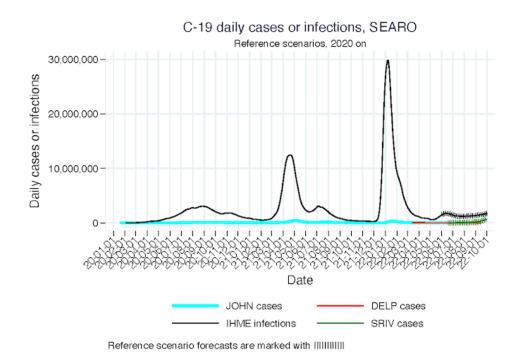


(3) South-East Asian region Daily deaths, 3 scenarios, 2021 on

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

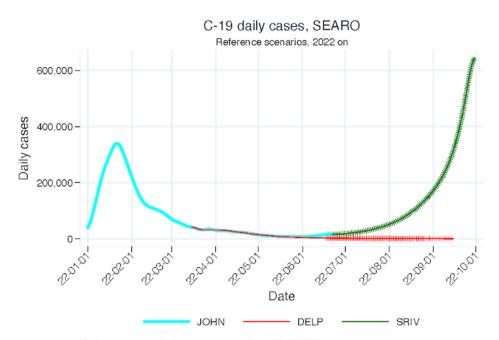


(4) South-East Asian region Daily cases or infections, reference scenarios, 2020 on



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

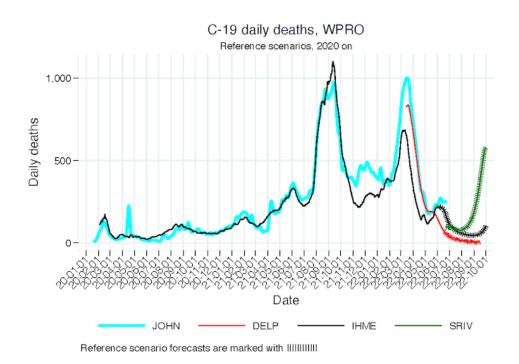
(6b) South-East Asian region Daily cases or infections, reference scenarios, 2022 on



Reference scenario forecasts are marked with IIIIIIIIIIII

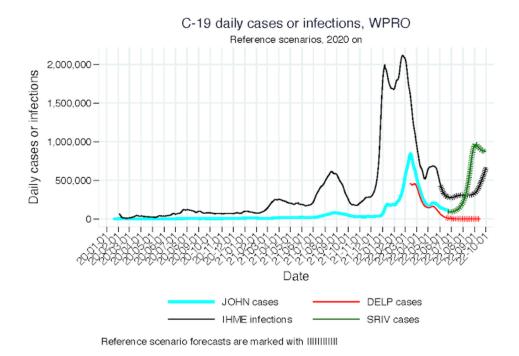
Selected graphs – Western Pacific region (WPRO)

(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 Daily cases or infections, reference scenarios, 2020 on



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

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

