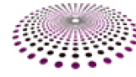


FluCov Epi-Bulletin – November 2021

*'Combining data from around the world to understand
the impact of COVID-19 on influenza activity'*



Global **Influenza** Initiative

Commentary

Background

The World Health Organization (WHO) requested information on a reported cluster of atypical pneumonia cases in Wuhan from Chinese authorities on January 1, 2020. After assessment of alarming levels of spread and severity of SARS-CoV-2 virus, on March 11, 2020 WHO declared COVID-19 a pandemic [1]. The emergence of this new virus has had a major impact on the global circulation of respiratory viruses, including influenza and RSV [2]. The FluCov project aims to understand and communicate the impact of Covid-19 on: i) influenza activity and ii) prevention and control measures (e.g. vaccination) in the coming years.

Scope

This is the fourth FluCov Epi-Bulletin and it provides an overview of the number of positive cases of influenza and SARS-CoV-2 and the percentage of specimens tested positive from January 2019 onwards. This Epi-Bulletin includes 22 countries (listed on [page 2](#)) distributed over the Americas (North, Central and Tropical South), Europe (Northern, South West and Eastern), Africa (Northern and Southern), Asia (Eastern, Southern, South East and Western) and Oceania. These data are compared to the prevention and control measures applied in each country using the Stringency Index from the Oxford COVID-19 Government Response Tracker (OxCGRT) [3].

Results

In the majority of countries, little influenza activity has been reported for 2021, with Australia, Brazil, Germany, Israel, Italy, Japan, Poland and South Korea reporting less than 10 influenza cases in 2021. Australia, Brazil, Egypt, Italy, Japan, Poland, South Korea, Thailand and Vietnam have not reported any **new** influenza cases since the last Epi-Bulletin published in October. However, since October 2021, new influenza cases were reported in Canada, China, France, Germany, India, Israel, Mexico, the Netherlands, the Philippines, South Africa, Spain, the United Kingdom and the United States. Increases in influenza activity compared to the previous month were especially apparent for China (n= 2,598), the United States (n=1,201) and the Netherlands (n=161). Although India continues to report a large number of new influenza cases (n=322), influenza activity appears to be tapering off as over 1000 cases were reported between September and October. It should also be noted that although influenza activity remains below national baseline levels in the United States, a number of important outbreaks have been recorded among young adults [4]. For example, a large outbreak is ongoing at the University of Michigan [5] with over 500 cases identified.

Although some countries and/or regions are seeing relatively low levels of SARS-CoV-2 activity and even a decline in pandemic virus notifications, a large subset of the countries included in the Epi-Bulletin have reported an increase in SARS-CoV-2 activity in November 2021. Increased activity has been observed in all European countries included in the bulletin (the United Kingdom, France, Germany, Italy, the Netherlands, Spain and Poland), as well as in the United States, Egypt and South Korea. The largest absolute (monthly) increase in cases was observed in the United States (n=2 422 415) followed by the United Kingdom (n=1 128 124) and Germany (n=986 087).

Implications

A relaxation of NPIs in recent months has likely contributed to increased circulation of SARS-CoV-2 and influenza in November 2021. Just over half of the countries included in this Epi-Bulletin show a rise in influenza cases since the previous Epi-Bulletin published in October, although numbers are still relatively low. For some countries, e.g. the Netherlands and Germany, the number of reported SARS-CoV-2 cases is higher than ever. The recent emergence of the Omicron variant [6] further complicates the picture for both SARS-CoV-2 and influenza activity. It is probable that the implementation of enhanced NPIs in response to this new variant will reduce influenza activity in the month of December 2021.

Monthly plots by country

The plots per country show weekly data for influenza and SARS-Cov-2 infections from January 1, 2019 up to November 21, 2021. This Epi-Bulletin includes the countries Canada, United States, Mexico, Brazil, United Kingdom, France, Germany, Italy, Netherlands, Spain, Poland, South Africa, Egypt, China, Japan, South Korea, India, Philippines, Thailand, Vietnam, Israel and Australia. These plots will be updated monthly and distributed through future Epi-Bulletins.

Per country, the top plot displays the number of positive influenza (in red) and SARS-CoV-2 (in blue) cases. An overview of the absolute number of influenza and SARS-CoV-2 cases per country can be found on [pages 14-15](#) of this Epi-Bulletin. The bar in the middle displays the Stringency Index (SI; a country-specific composite metric of the mitigation measures that are in place) over time, where light red indicates loose measures and dark red indicates strict measures. The bottom plot displays the percentage of influenza (in red) and SARS-CoV-2 (in blue) specimen testing positive.

Countries (click to view plot)

North America

Canada
United States

Central America Caribbean

Mexico

Tropical South America

Brazil

Northern Europe

United Kingdom

South West Europe

France
Germany
Italy
Netherlands
Spain

Eastern Europe

Poland

Northern Africa

Egypt

Southern Africa

South Africa

Eastern Asia

China
Japan
South Korea

Southern Asia

India

South East Asia

Philippines
Thailand
Vietnam

Western Asia

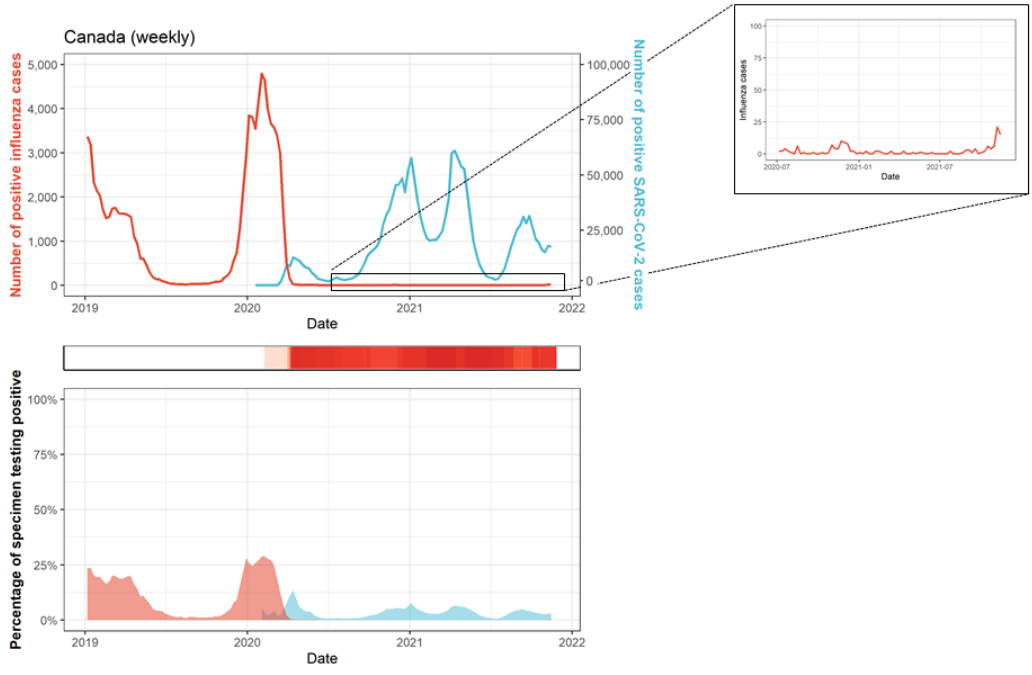
Israel

Oceania

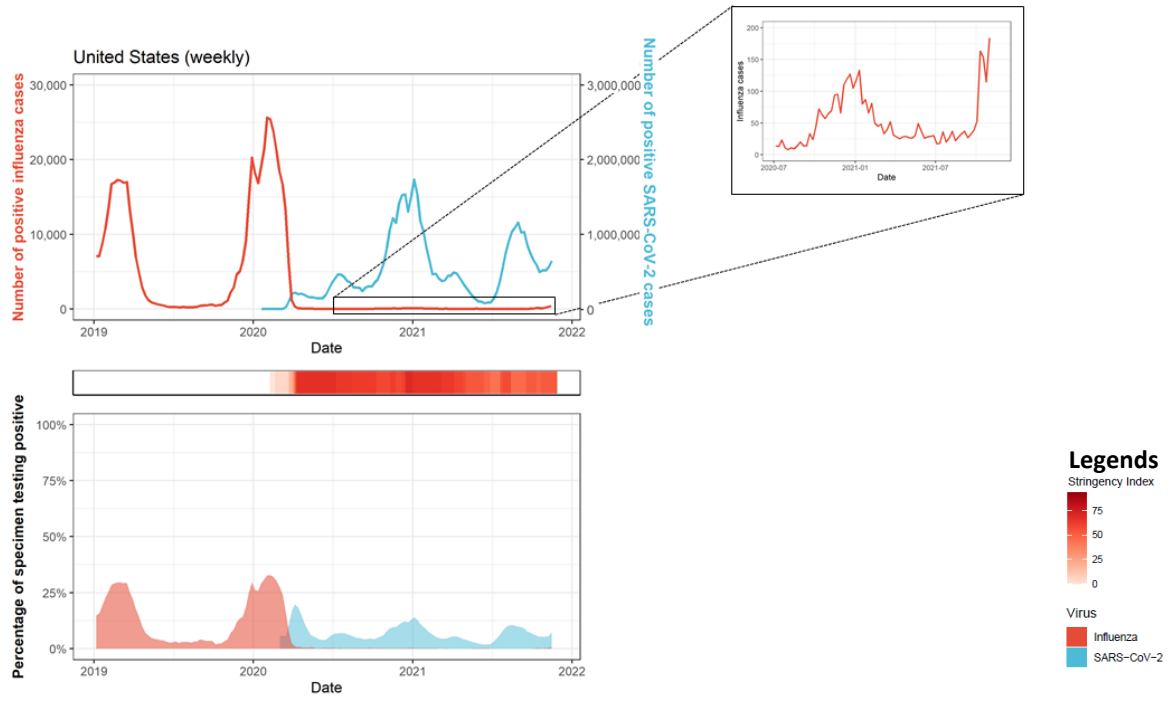
Australia

North America

Canada

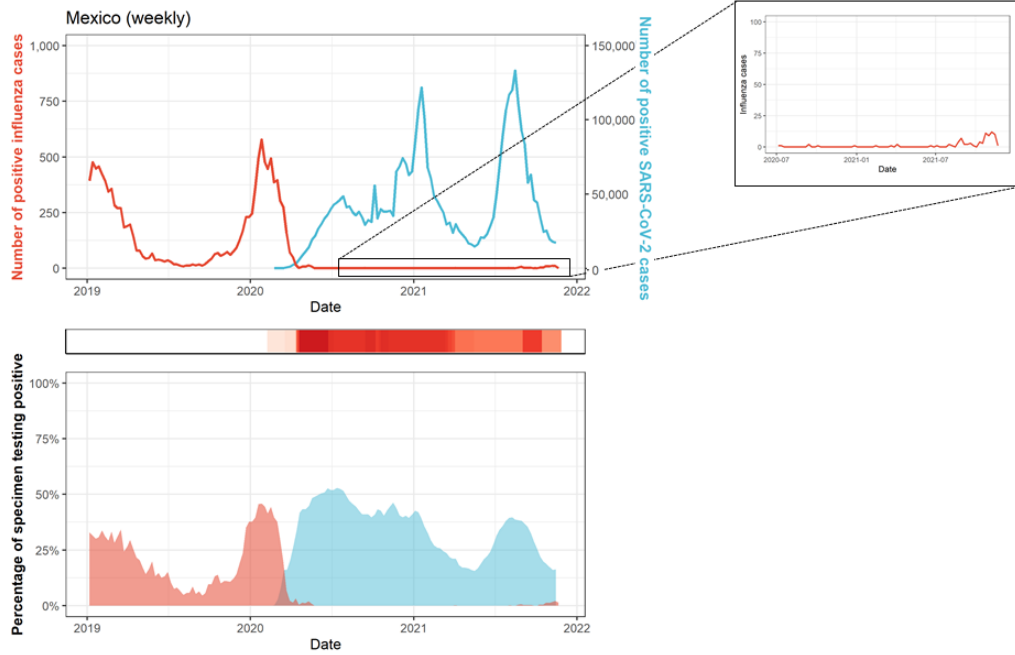


United States



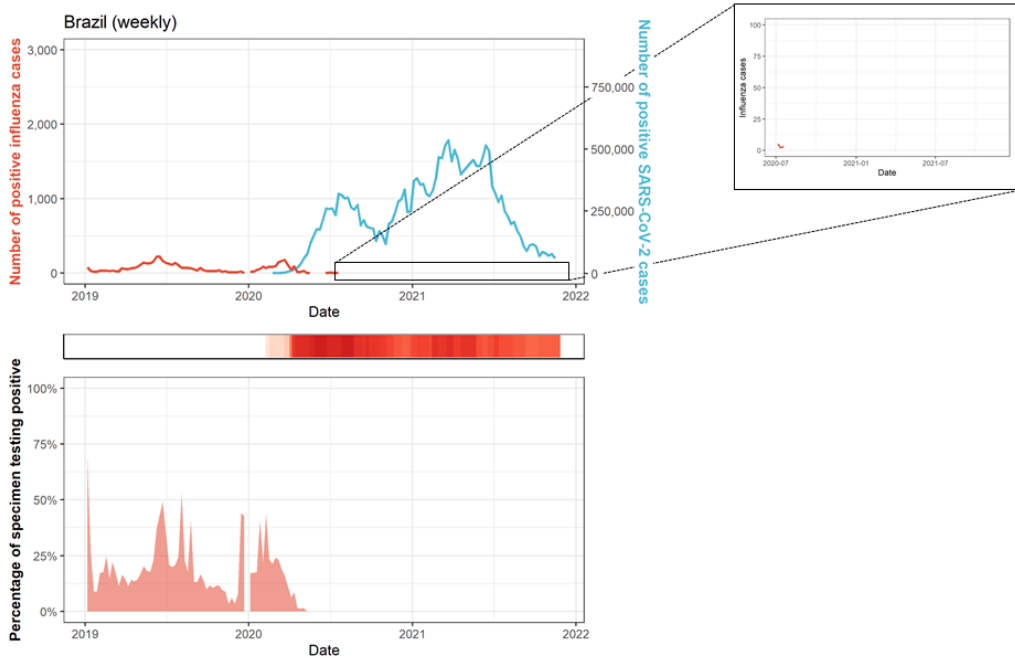
Central America Caribbean

Mexico



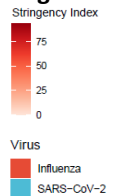
Tropical South America

Brazil



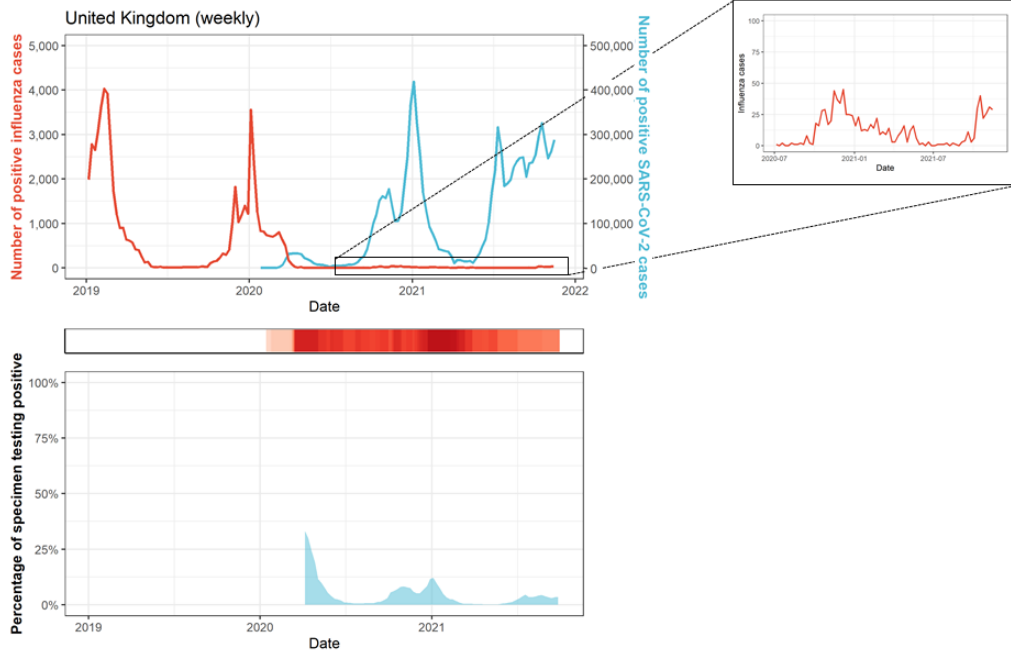
Note. Brazil has no positivity rate for SARS-CoV-2 because no denominator was available.

Legends



Northern Europe

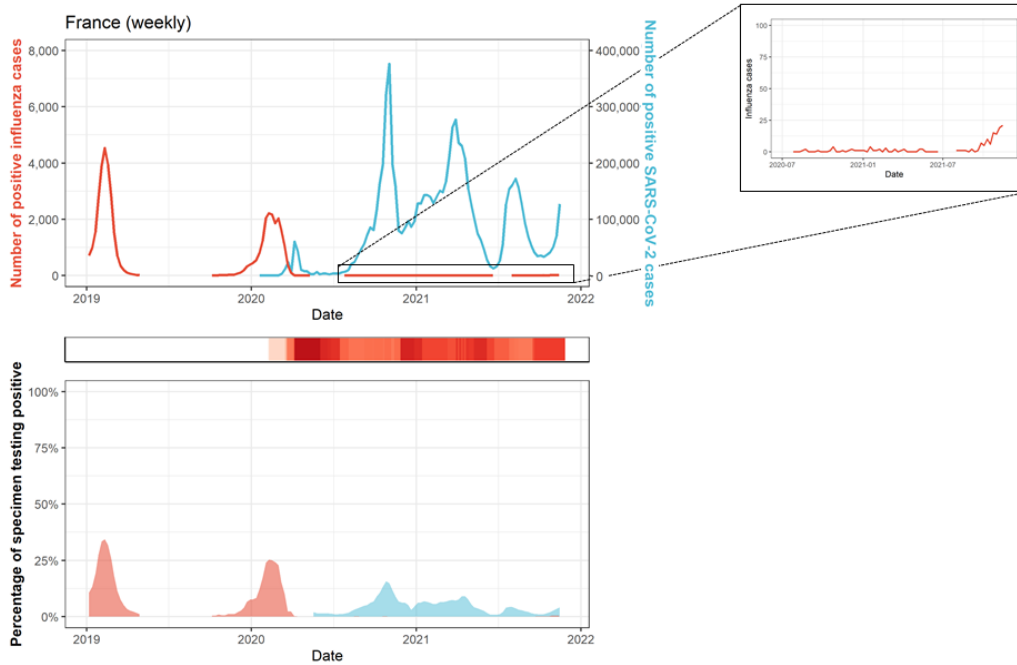
United Kingdom



Note. The United Kingdom does not have a positivity rate for influenza because the denominator was deemed unreliable.

South West Europe

France



Legends

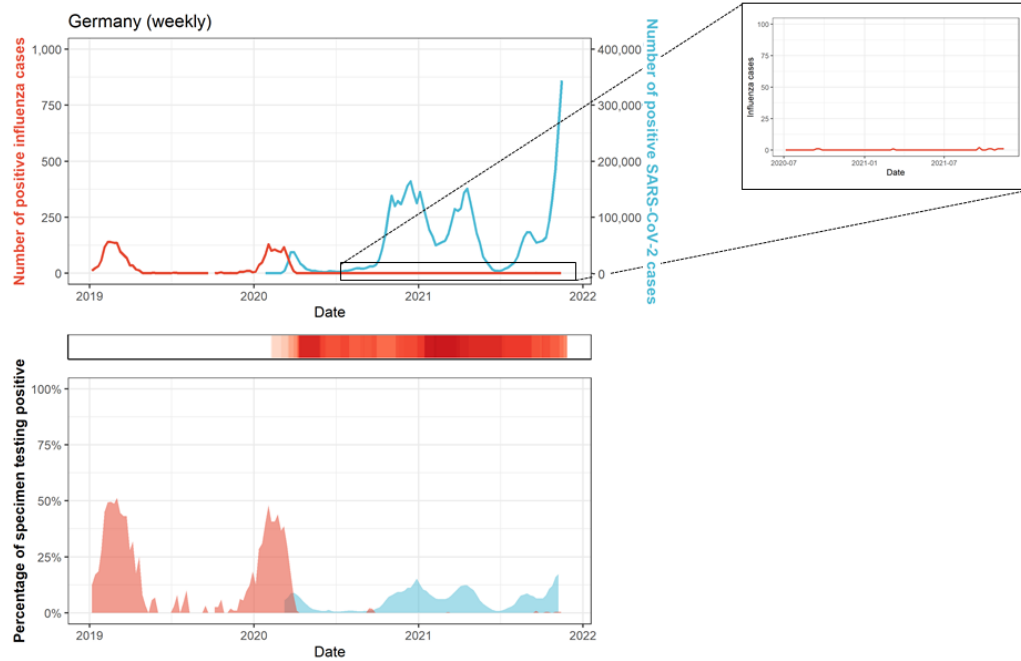
Stringency Index

- 75
- 50
- 25
- 0

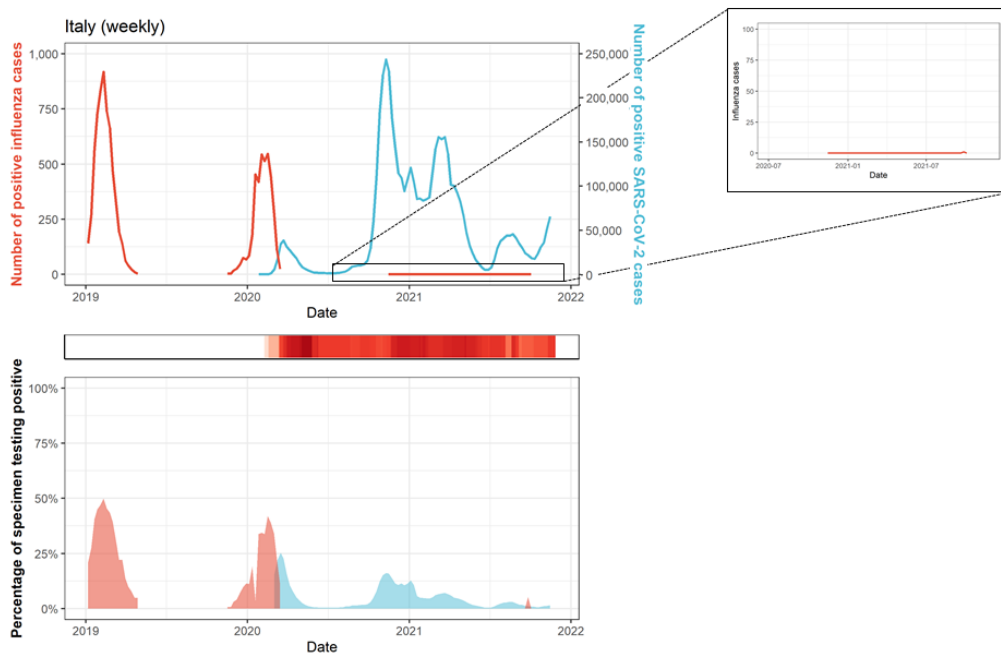
Virus

- Influenza
- SARS-CoV-2

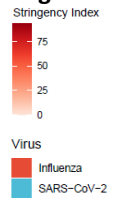
Germany



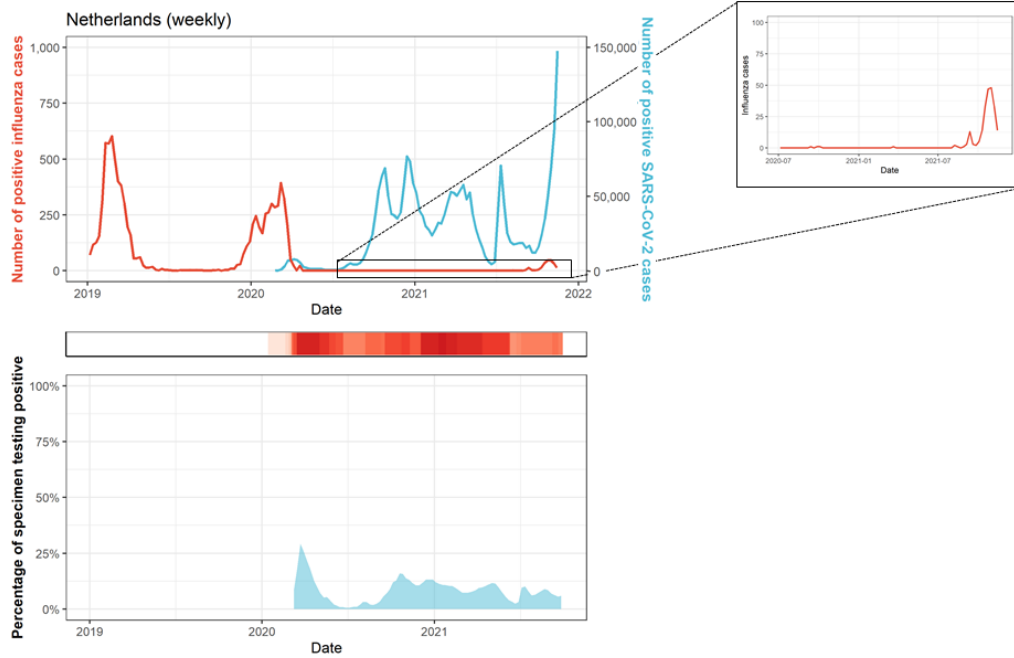
Italy



Legends

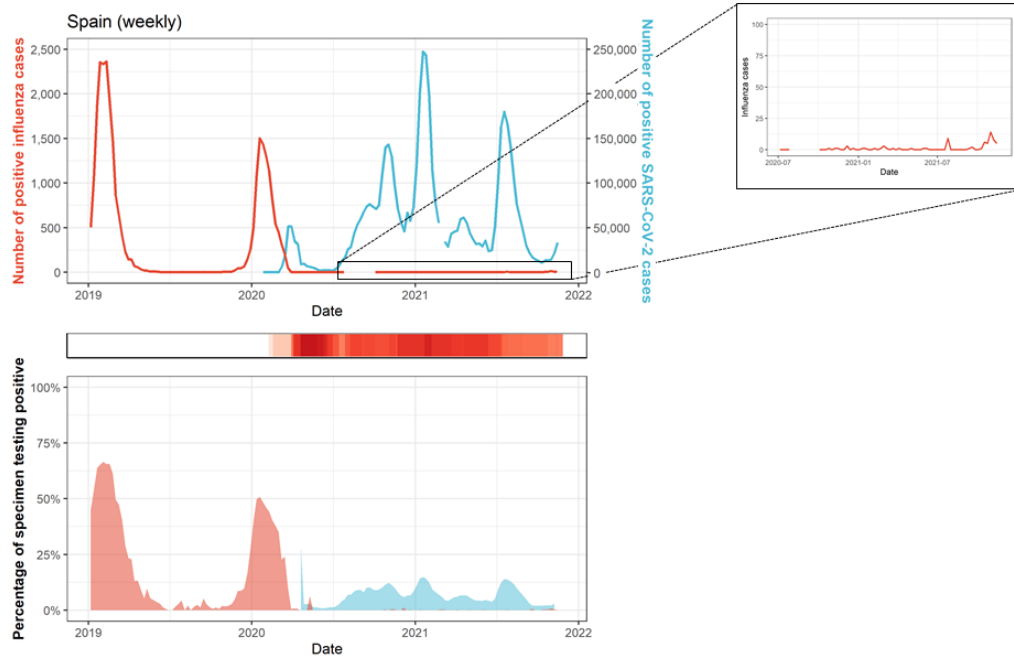


Netherlands

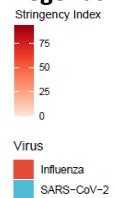


Note. The Netherlands does not have a positivity rate for influenza because the denominator was deemed unreliable.

Spain

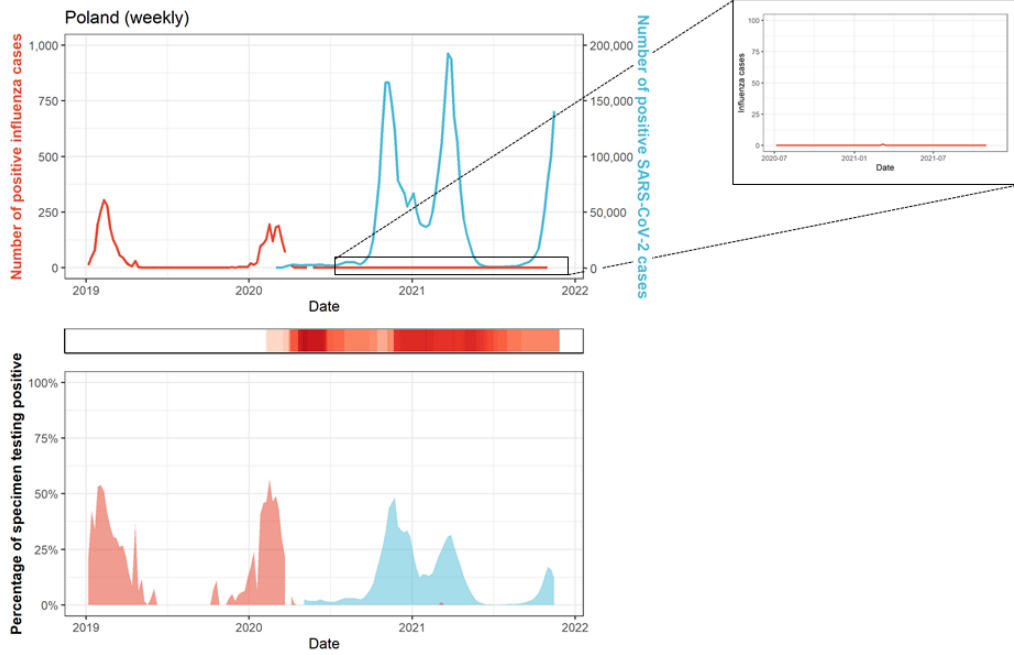


Legends



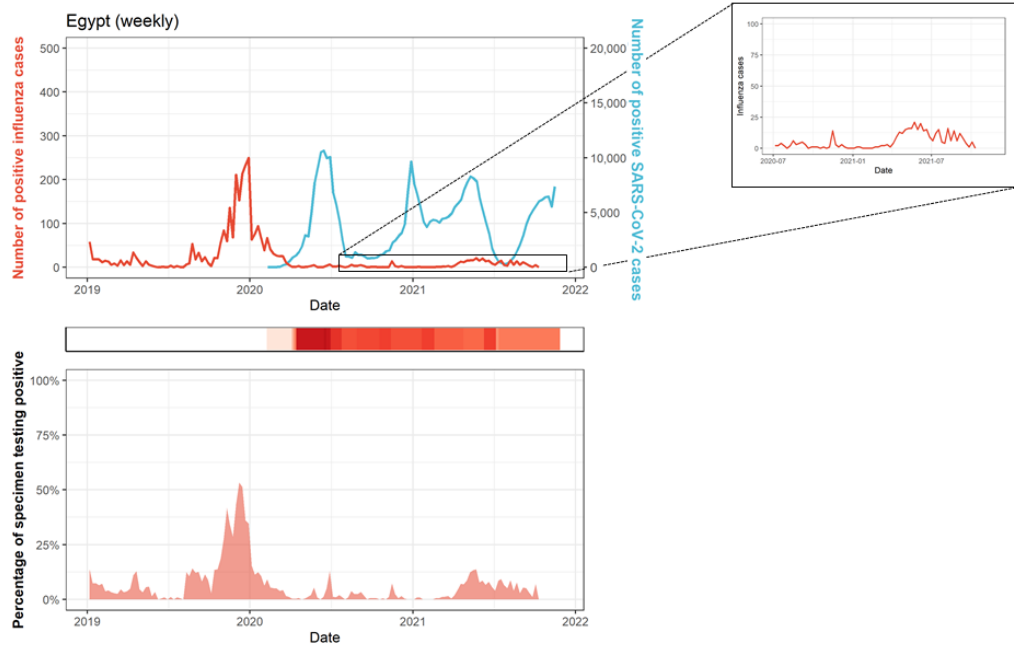
Eastern Europe

Poland



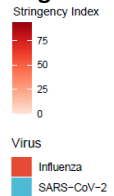
Northern Africa

Egypt



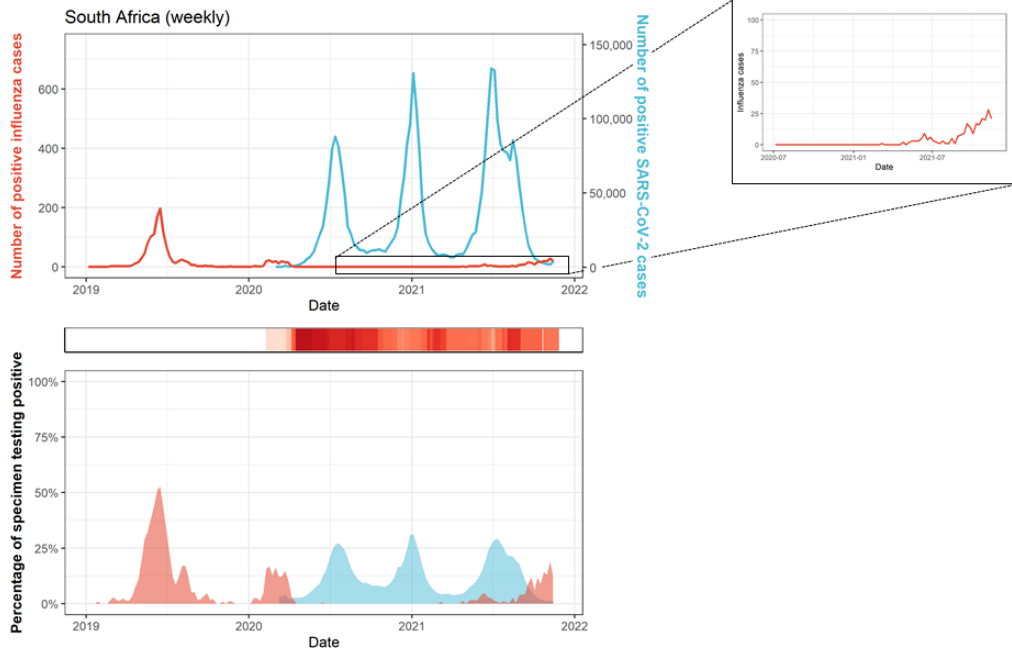
Note. Egypt does not have a positivity rate for SARS-CoV-2 because no denominator was available.

Legends



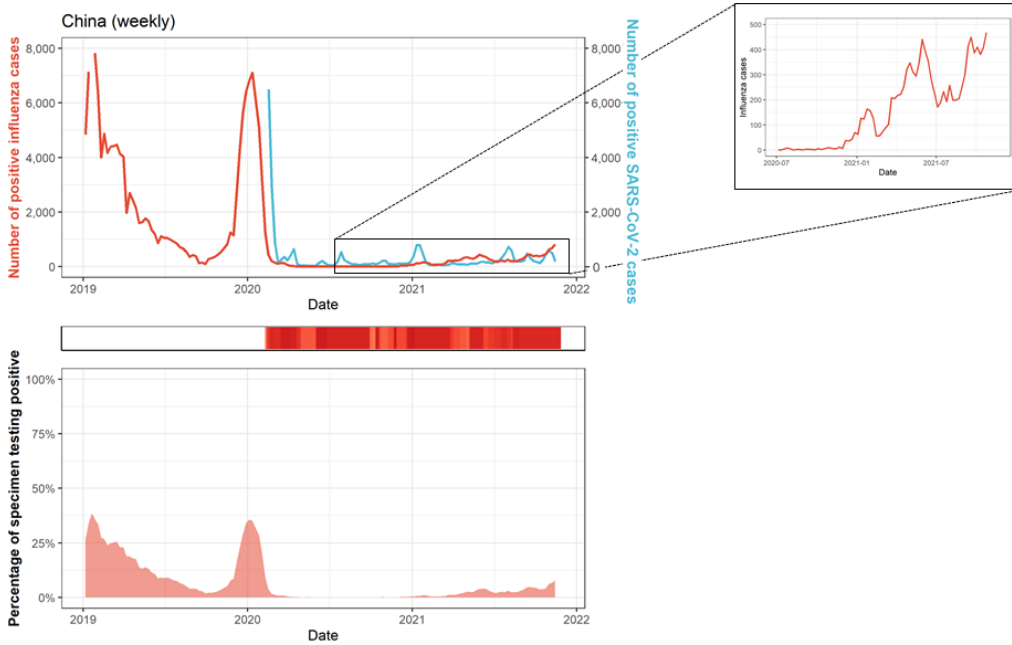
Southern Africa

South Africa

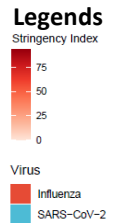


Eastern Asia

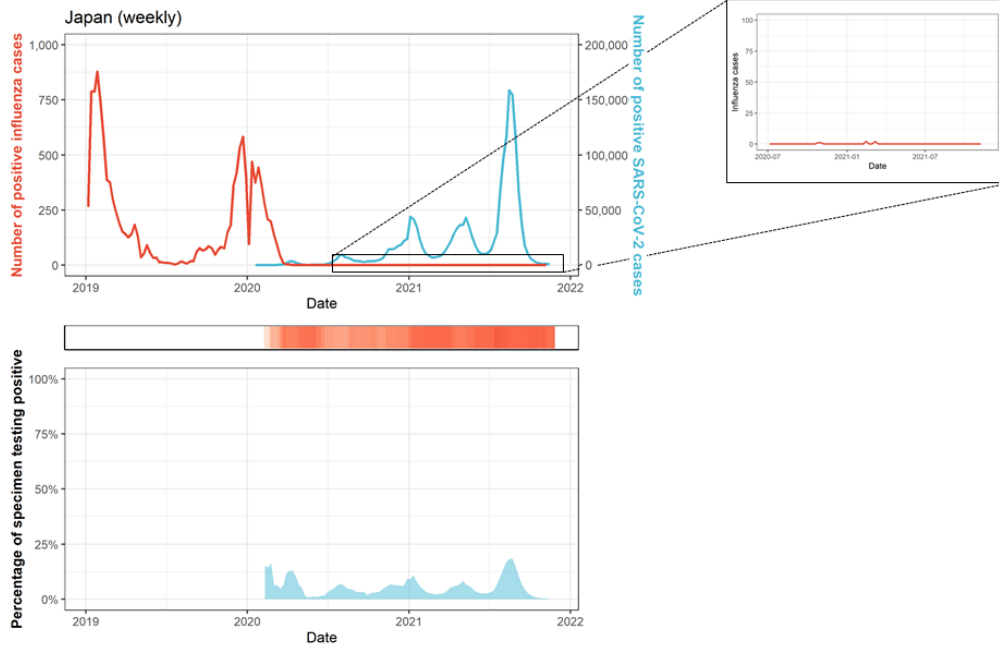
China



Note. China has no positivity rate for SARS-CoV-2 because no denominator was available.

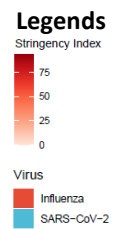
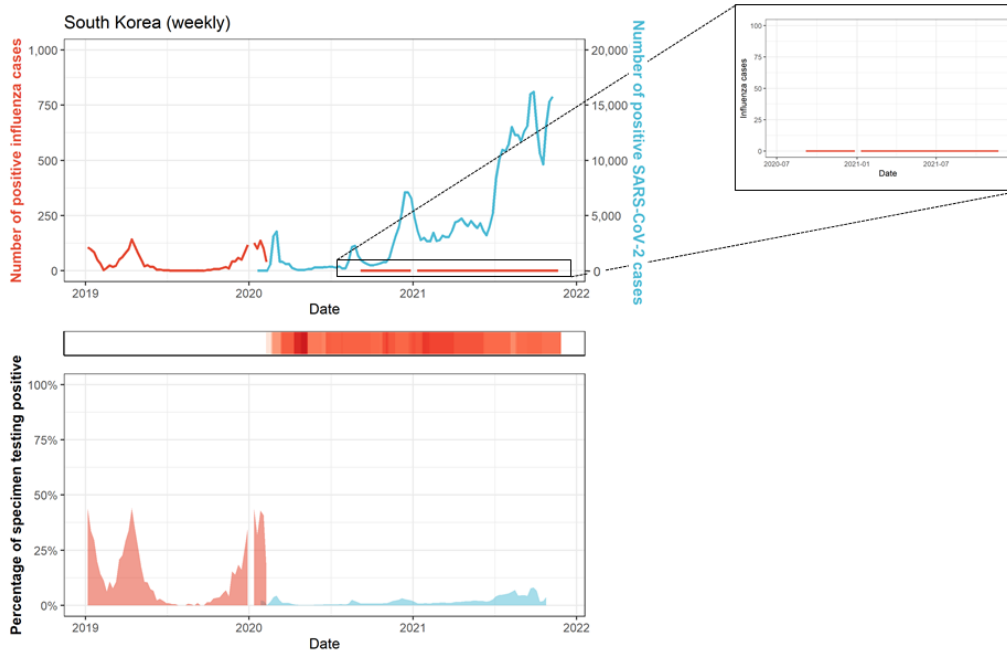


Japan



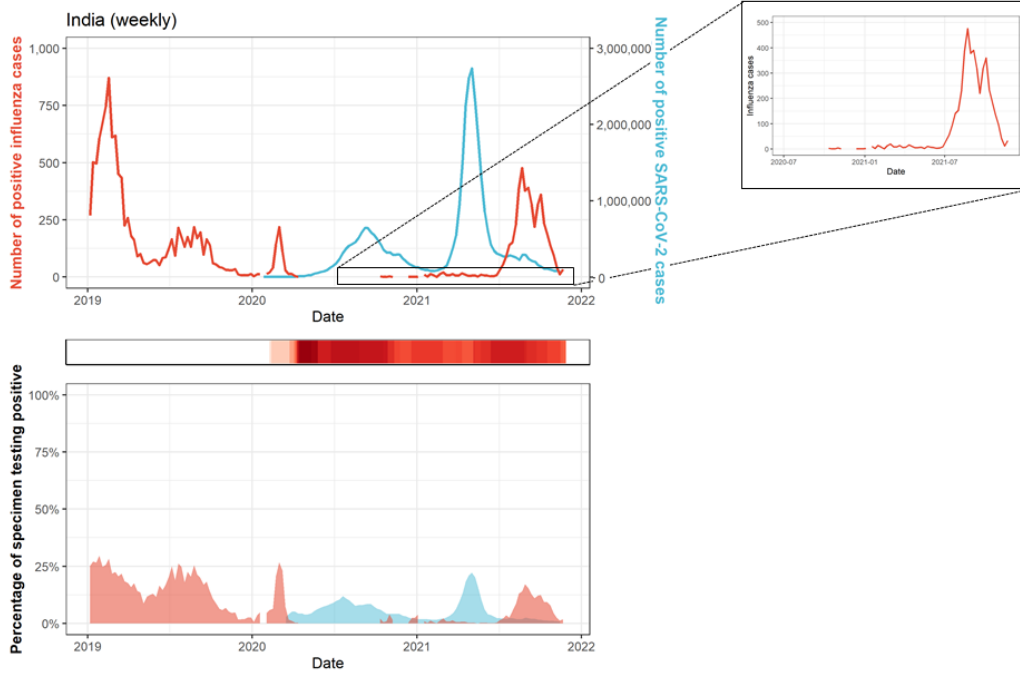
Note. Japan does not have a positivity rate for influenza because the denominator was deemed unreliable.

South Korea



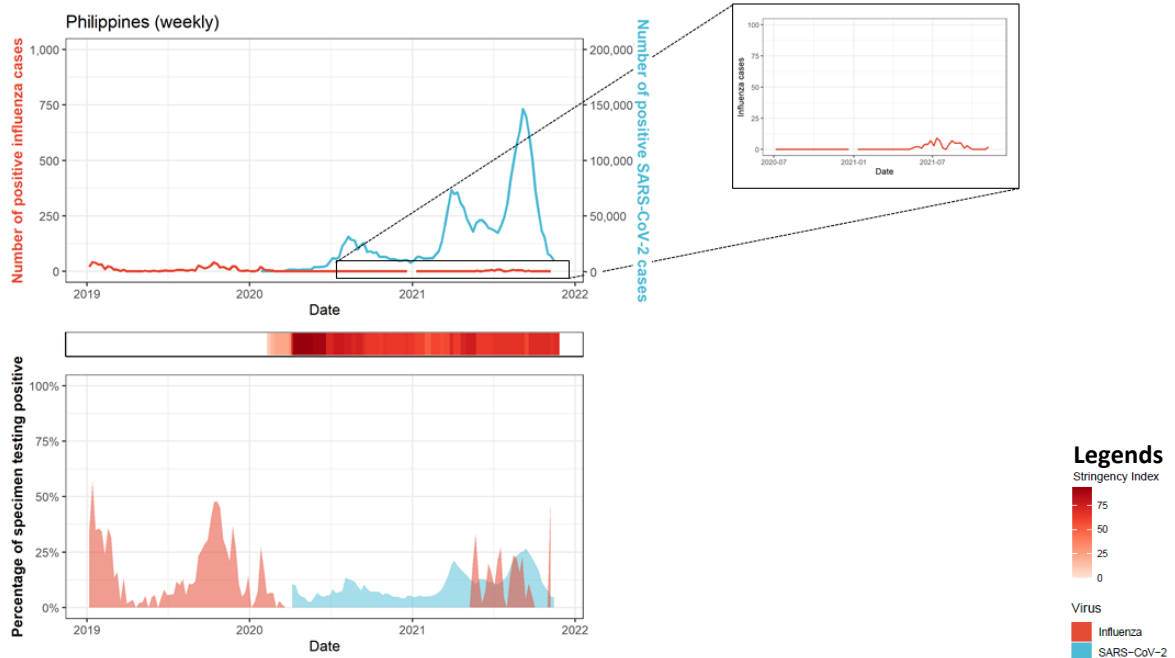
Southern Asia

India

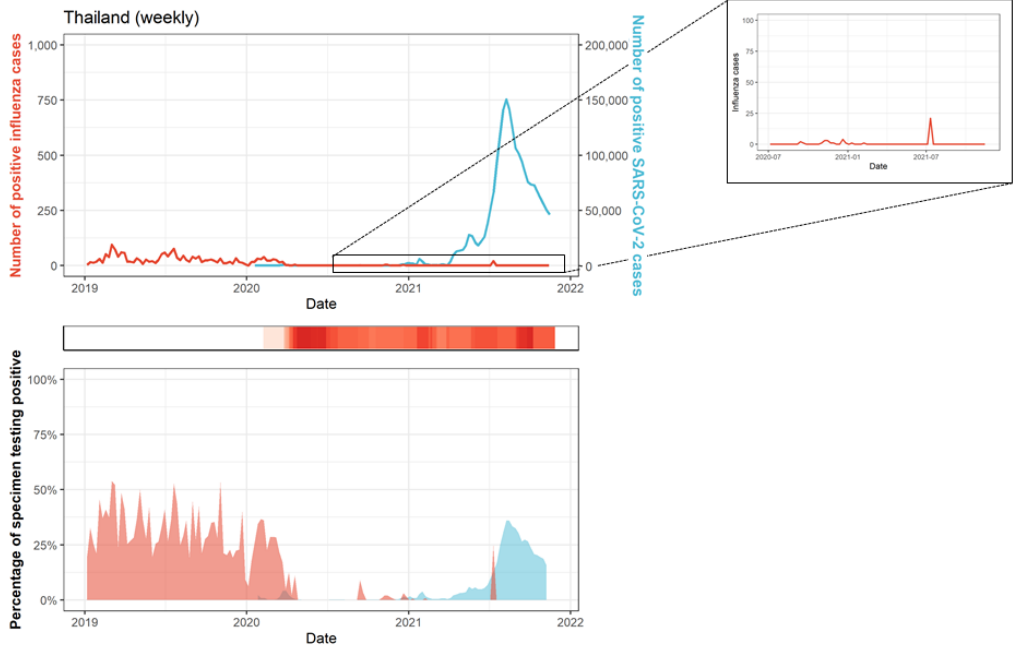


South East Asia

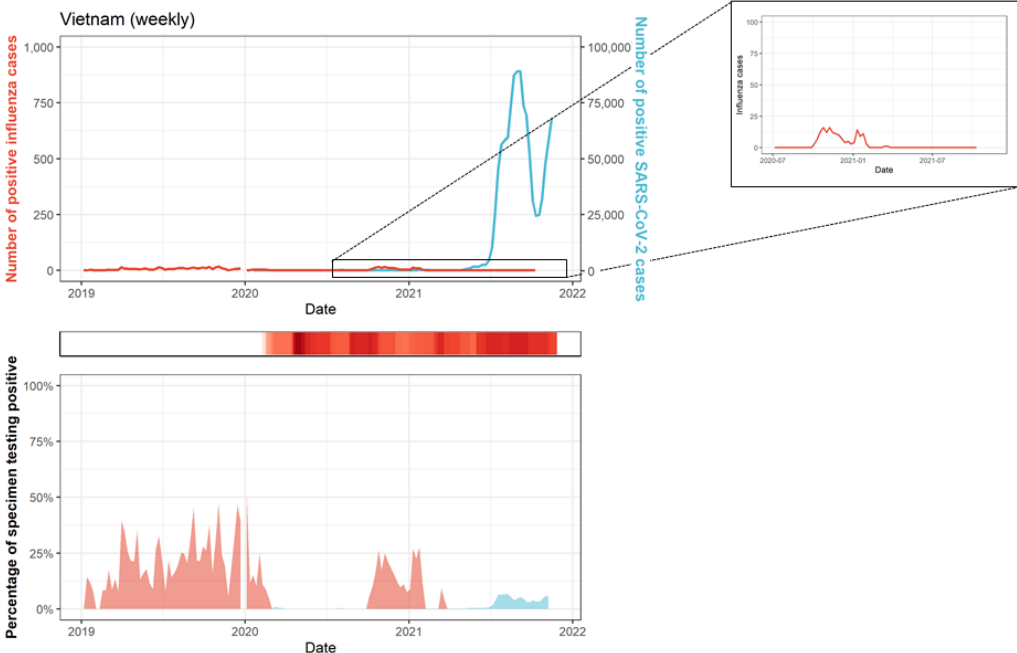
Philippines



Thailand



Vietnam



Note. Vietnam reported 0 influenza cases and 0 specimen taken since week 30.

Legends

Stringency Index

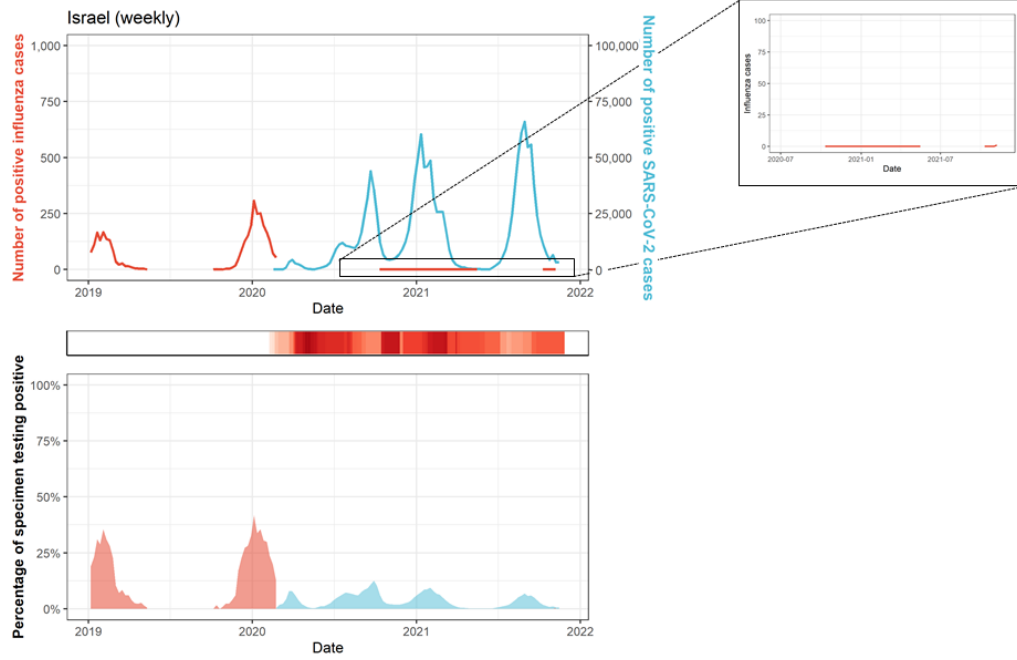
- 75
- 50
- 25
- 0

Virus

- Influenza
- SARS-CoV-2

Western Asia

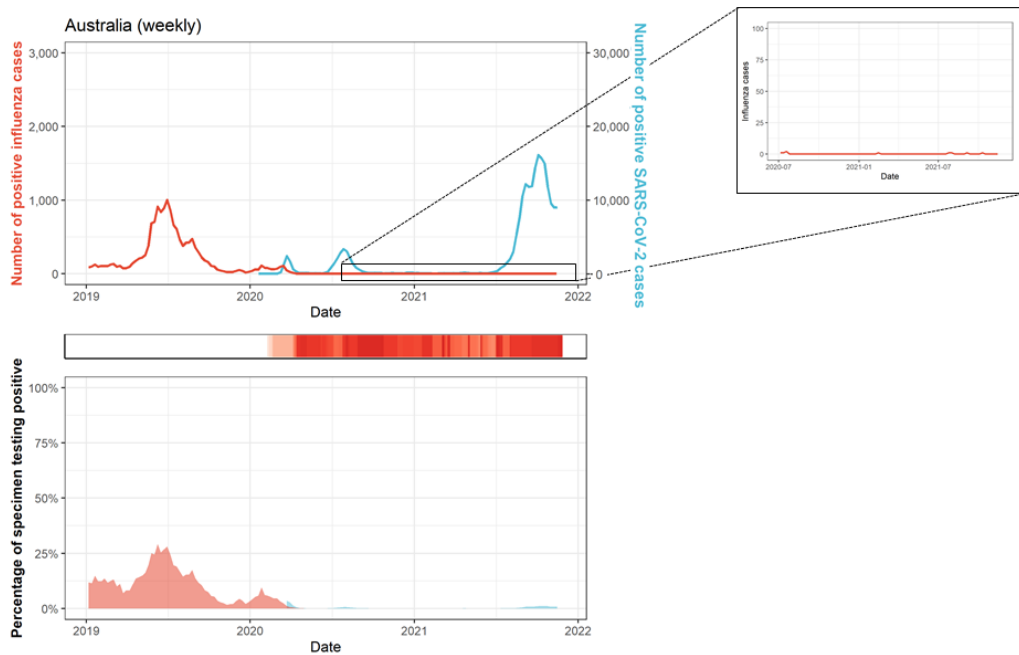
Israel



Note. Last FluNet update for Israel was week 44, but no data was uploaded between week 20 and 39.

Oceania

Australia



Legends

Stringency Index

- 75
- 50
- 25
- 0

Virus

- Influenza
- SARS-CoV-2

Absolute numbers per country

Country	Year	Cases* of SARS-CoV-2	+/- since Oct. Epi-Bulletin	Cases* of influenza	+/- since Oct. Epi-Bulletin
Australia	2019	-	-	14.002	-
Australia	2020	28.425	-	949	-
Australia	2021	172.226	40.349	5	-
Brazil	2019	-	-	3.459	-
Brazil	2020	7.675.973	-	1.391	-
Brazil	2021	14.344.439	440.755	0	-
Canada	2019	-	-	43.196	-
Canada	2020	587.429	-	44.956	-
Canada	2021	1.190.991	72.284	84	46
China	2019	-	-	122.757	-
China	2020	87.117	548	31.295	-
China	2021	11.484	1.727	12.741	2.598
Egypt	2019	-	-	1.999	-
Egypt	2020	138.062	-	659	-
Egypt	2021	213.205	26.648	305	-
France	2019	-	-	25.405	-
France	2020	2.677.660	-	16.589	-
France	2021	4.933.706	35.552	124	74
Germany	2019	-	-	1.215	-
Germany	2020	1.746.929	-13.591	958	-
Germany	2021	3.701.645	986.087	8	3
India	2019	-	-	10.428	-
India	2020	10.286.709	-	655	-
India	2021	24.232.192	343.433	4.486	322
Israel	2019	-	-	1.796	-
Israel	2020	423.262	-	1.424	-
Israel	2021	917.874	18.057	1	1
Italy	2019	-	-	6.361	-
Italy	2020	2.107.166	-	3.599	-
Italy	2021	2.824.925	190.906	1	-
Japan	2019	-	-	10.200	-
Japan	2020	235.749	-60	2.743	-
Japan	2021	1.490.145	8.258	4	-
Mexico	2019	-	-	6.963	-
Mexico	2020	142.6094	-	4.799	-
Mexico	2021	2.438.184	82.617	78	43
Netherlands	2019	-	-	5.166	-
Netherlands	2020	808382	-	3.235	-
Netherlands	2021	1697726	383.861	220	161
Philippines	2019	-	-	612	-
Philippines	2020	474064	-	52	-
Philippines	2021	2352789	69.930	74	7

Country	Year	Cases* of SARS-CoV-2	+/- since Oct. Epi-Bulletin	Cases* of influenza	+/- since Oct. Epi-Bulletin
Poland	2019	-	-	1.786	-
Poland	2020	1.294.878	-	1.282	-
Poland	2021	2.062.885	384.836	1	-
South Africa	2019	-	-	1.164	-
South Africa	2020	1.057.161	-	157	-
South Africa	2021	1.873.013	10.542	242	99
South Korea	2019	-	-	1.702	-
South Korea	2020	61.769	1	505	-
South Korea	2021	359.181	67.861	0	-
Spain	2019	-	-	17.228	-
Spain	2020	1.928.265	-	9.373	-
Spain	2021	3.168.273	98.806	64	35
Thailand	2019	-	-	1.568	-
Thailand	2020	7.163	4	297	-
Thailand	2021	2.063.846	220.527	23	-
United Kingdom	2019	-	-	42.447	-
United Kingdom	2020	2.496.235	-	14.366	-
United Kingdom	2021	7.446.624	1.128.124	453	107
United States	2019	-	-	268.524	-
United States	2020	20.163.903	10.497	229.766	-
United States	2021	27.724.268	2.433.415	2.885	1.201
Vietnam	2019	-	-	355	-
Vietnam	2020	1.465	-	146	-
Vietnam	2021	1.103.370	215.895	39	-

Note. *Laboratory-confirmed cases.

Data sources

Influenza

FluNet [7] is a global web-based tool for influenza virological surveillance first launched in 1997. The virological data entered into FluNet, e.g. number of influenza viruses detected by subtype, are critical for tracking the movement of viruses globally and interpreting the epidemiological data. The data are provided remotely by National Influenza Centres (NICs) of the Global Influenza Surveillance and Response System (GISRS) and other national influenza reference laboratories collaborating actively with GISRS, or are uploaded from WHO regional databases.

SARS-Cov-2

Our World in Data systematically collects COVID-19 data which is presented in their online tool [8]. We used this platform to extract data on the number of cases, as well as tests performed per country. This data is extracted both from the John Hopkins repository on daily confirmed COVID-19 [9] cases as well as various national public health institutions.

Government response tracker

The Oxford COVID-19 Government Response Tracker (OxCGRT) [3] systematically collects information on several different common policy responses that governments have taken to respond

to the pandemic on 20 indicators such as school closures and travel restrictions. It now has data from more than 180 countries.

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- [2] Paget J. RESCEU Newsletter #14 (December 2020). Impact of COVID-19 on RSV seasonality and non-pharmaceutical interventions. <https://mailchi.mp/48b04fd9fba3/newsletter11-1591564> [accessed 8 February 2021]
- [3] Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford. <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker> [accessed 16 June 2021]
- [4] CDC. Increasing flu activity in some States, especially among young adults. [Increasing Flu Activity in Some States, Especially Among Young Adults | CDC](#) [accessed 30 November 2021]
- [5] New York Times. C.D.C. investigates flu outbreak at University of Michigan. <https://www.nytimes.com/2021/11/17/us/michigan-flu-outbreak.html> [accessed 30 November 2021]
- [6] WHO. Classification of Omicron (B.1.1.529): SARS-CoV-2 variant of concern. [https://www.who.int/news/item/26-11-2021-classification-of-omicron-\(b.1.1.529\)-sars-cov-2-variant-of-concern](https://www.who.int/news/item/26-11-2021-classification-of-omicron-(b.1.1.529)-sars-cov-2-variant-of-concern) [accessed 30 November 2021]
- [7] WHO. FluNet. <https://www.who.int/tools/flunet> [accessed 15 June 2021]
- [8] Ritchie H, Ortiz-Ospina, E, Beltekian, D, Mathieu, E, Hasell J, Macdonald B. et al. Coronavirus Pandemic (COVID-19). <https://ourworldindata.org/coronavirus> [accessed 15 June 2021]
- [9] COVID-19 Dashboard, Center for Systems Science and Engineering, Johns Hopkins University. <https://coronavirus.jhu.edu/map.html> [accessed 15 June 2021]

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Project website

<https://www.nivel.nl/en/fluconv>

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