FluCov Epi-Bulletin – August 2022

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

Commentary

Contents

It has been over two years since a cluster of atypical pneumonia cases in Wuhan, China, was reported to the World Health Organization (WHO) (January 1, 2020) that was later linked to the new SARS-CoV-2 virus. The FluCov Epi-Bulletin provides an overview of the number of positive cases of influenza and SARS-CoV-2 and the percentage of specimens that tested positive from January 2019 onwards in 22 countries across most regions of the world (see page 3).

Results

Globally, influenza circulation is decreasing (see Figure 1). The following patterns have been observed for influenza during the month of August:

- The number of reported influenza cases has continued to decrease for most countries included in the Bulletin;
- Despite a decrease in cases, influenza is still circulating in **China**, where influenza A(H3) is dominant after influenza B (Victoria) dominated early in the season;
- There was a surprising increase in influenza cases in South Africa at the end of the month (late timing for the Southern Hemisphere) that is being driven by influenza B (Victoria & lineage not determined) (see Figure 2);
- In Australia and Brazil, the other Southern Hemisphere countries in the Bulletin, influenza cases continued to decrease;
- **Thailand, Mexico,** and the **United Kingdom** reported small increases in influenza cases in August;
- A number of countries reported no or very few influenza cases in August: **Brazil, Canada, France, Germany, India, Italy, Japan, Netherlands, Philippines, Poland, South Korea, and Vietnam;**
- Overall, influenza A (H3) is driving influenza activity worldwide (Figure 1);
- The cases reported in **India** (7) are the first influenza cases reported in 2022.

After an increase in the overall number of reported SARS-CoV-2 cases in the early summer, probably due to the emergence of the Omicron BA.4 and BA.5 variants and the relaxation of nonpharmaceutical interventions (NPIs) [1-2], SARS-CoV-2 cases are now declining. The following patterns have been observed for SARS-CoV-2 in the month of August:

- Most countries reported a lower number of SARS-CoV-2 cases;
- SARS-CoV-2 activity is still strong in East Asia (**South Korea, China, Japan**) and Southeast Asia (**Philippines and Vietnam**), where the increase in cases continued in August; Japan and South Korea reported the highest monthly number of SARS-CoV-2 cases since the onset of the pandemic;
- The **United States** continued to report a high monthly number of SARS-CoV-2 cases (over 3,000,000).

Implications

The unusually long **influenza** season witnessed during the first half of 2022 in many Northern Hemisphere countries has ended after reaching its peak in a second wave in March-April (weeks 12-14). The **influenza** season seems to have also ended in **Australia** and **Brazil** in the Southern Hemisphere but is still on-going in **South Africa** (Figure 2) and it looks like this country will also have an extended influenza season**.**

A decrease in **SARS-CoV-2** cases is now being observed in most western countries, with **SARS-CoV-2** circulation currently mainly concentrated in the Eastern and Southern Asian countries (**Japan, South Korea, Vietnam, China**), where a peak in new cases was reported in week 34 (week 32 in **Vietnam**).

As the Northern Hemisphere winter season is approaching fast, it is important to start planning prevention and control measures (e.g. vaccination of high-risk individuals) for **influenza** and **SARS-CoV-2**.

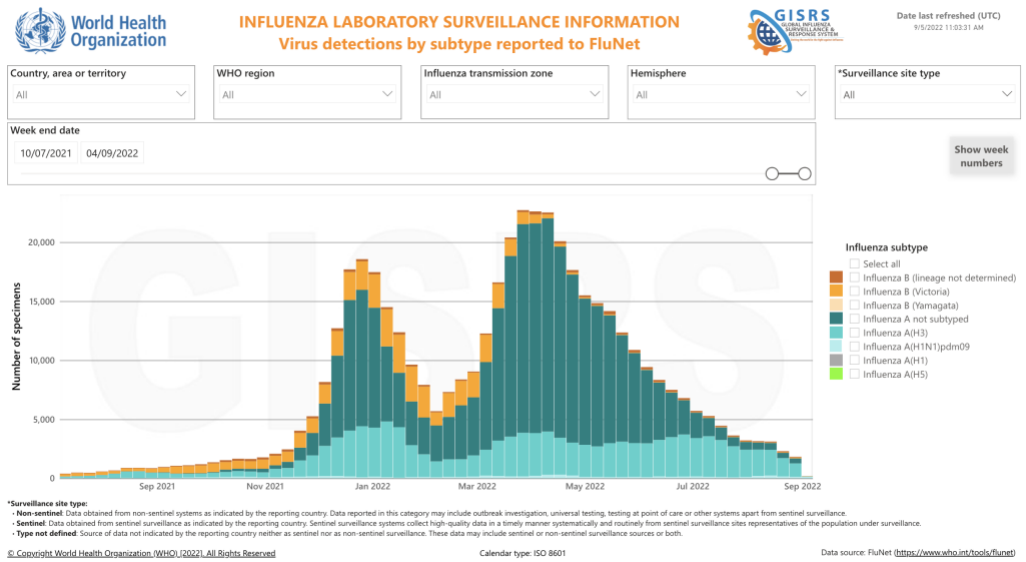


Figure 1: Virus detections by subtype reported to FluNet (all countries and areas)

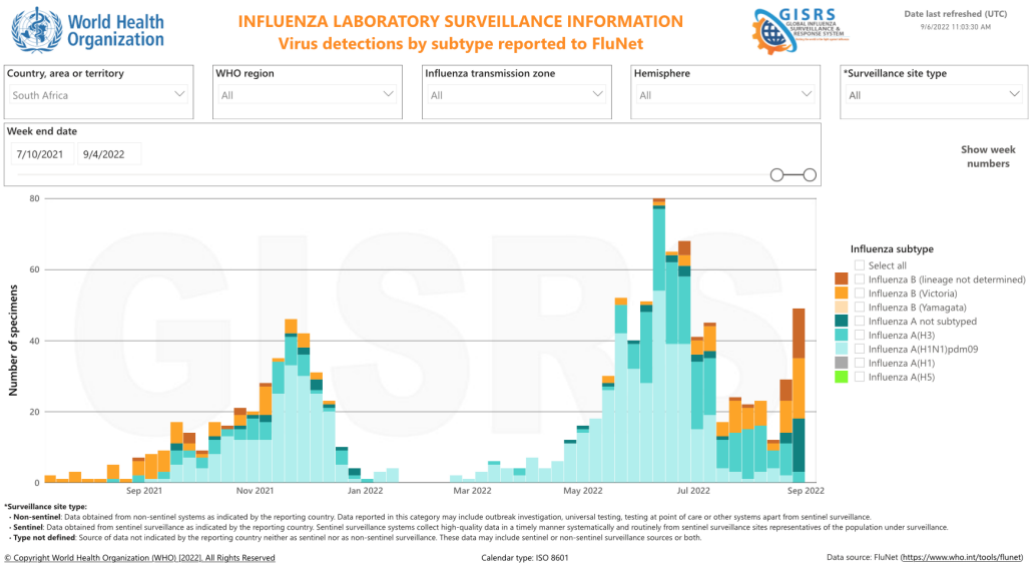


Figure 2: Virus detections by subtype reported to FluNet (South Africa)

Monthly plots by country

The plots per country show weekly data for **influenza** and of **SARS-CoV-2** infections from January 1, 2019 up to September 2, 2022. 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.

Per country, the top plot displays the number of positive **influenza** (in **blue**) and of **SARS-CoV-2** (in **red**) cases. An overview of the absolute number of **influenza** and of **SARS-CoV-2** cases per country can be found on pages 15-16 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 **blue**) and of **SARS-CoV-2** (in **red**) specimen testing positive.

! Please note that the data on COVID-19 tests and therefore the positivity rate is no longer updated since 23 June 2022 (more information at: https://ourworldindata.org/covid-testing-data-archived) **!**

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
FranceGermany
Italy
Netherlands
Spain

Eastern Europe
Poland

Northern Africa
Egypt

Southern Africa
South Africa

Eastern Asia
China
Japan
South Korea

Southern Asia
India

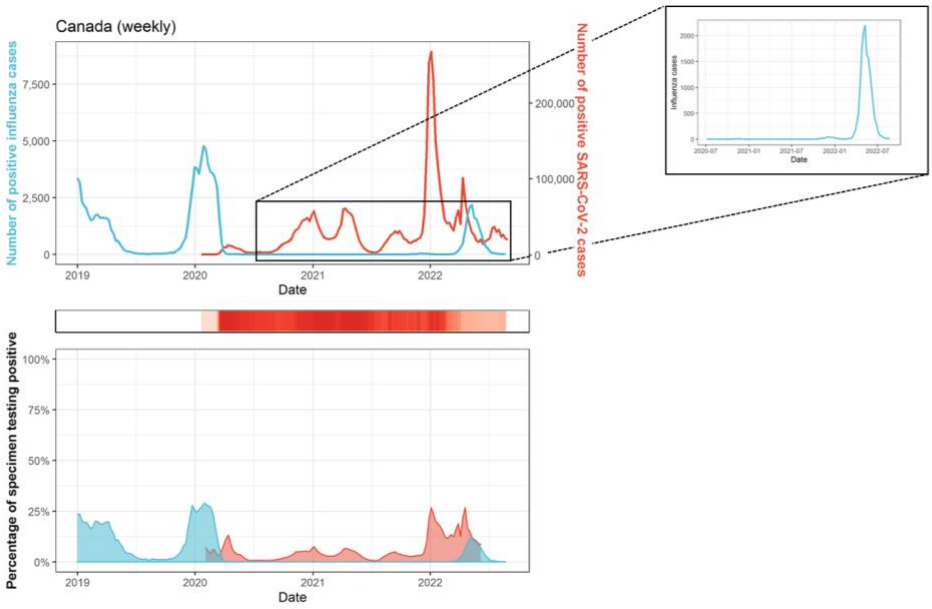
South East Asia
Philippines
Thailand
Vietnam

Western Asia
Israel

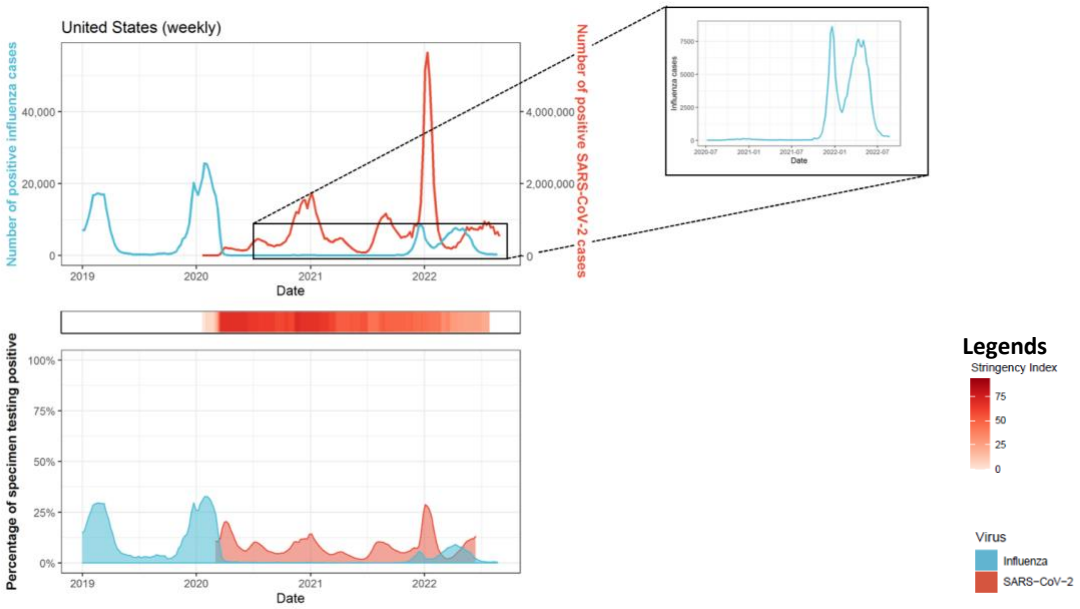
Oceania
Australia

North America

Canada



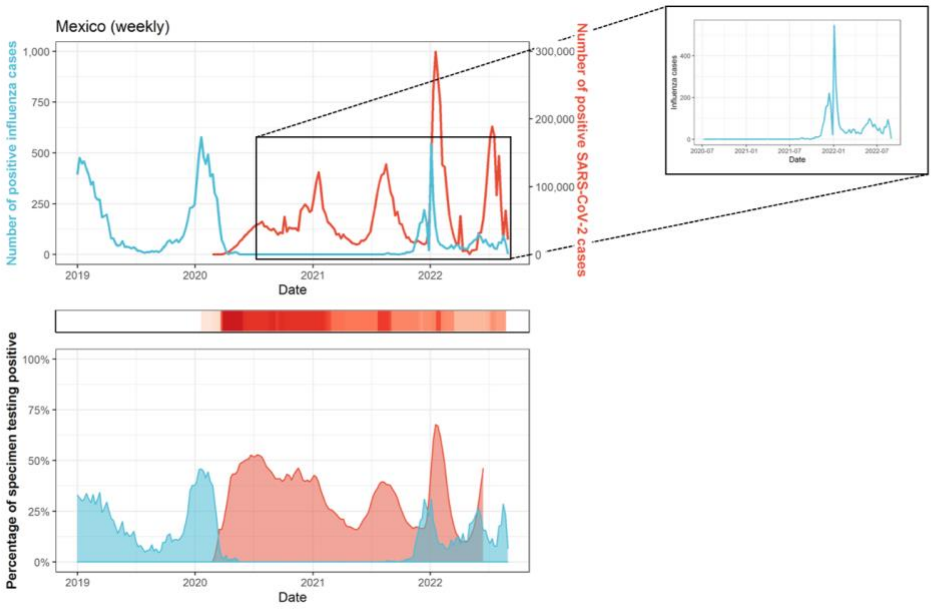
United States



Please note that data on COVID-19 tests and positivity rates is no longer updated in global data sources since 23 June 2022

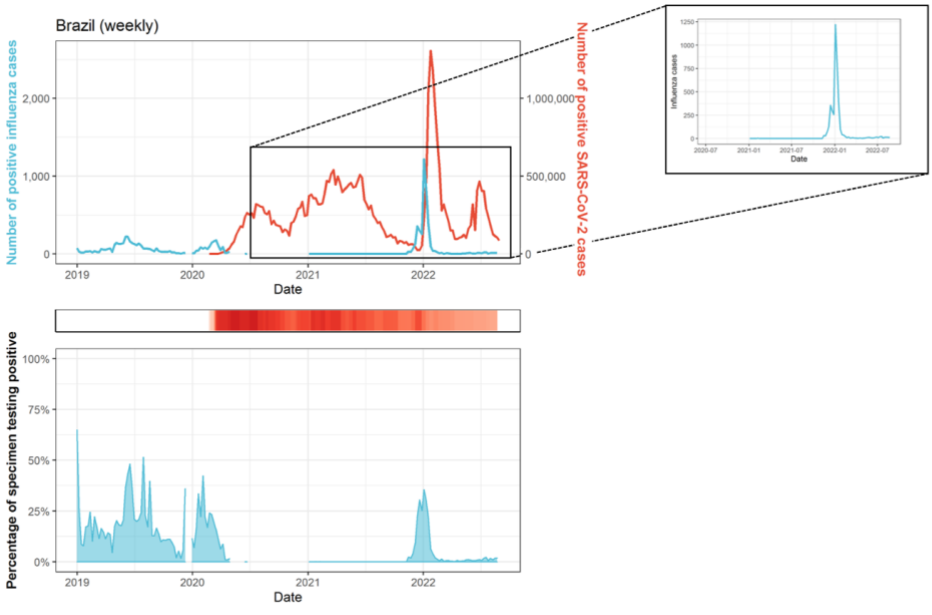
Central America Caribbean

Mexico

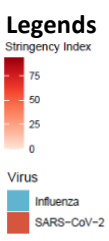


Tropical South America

Brazil



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



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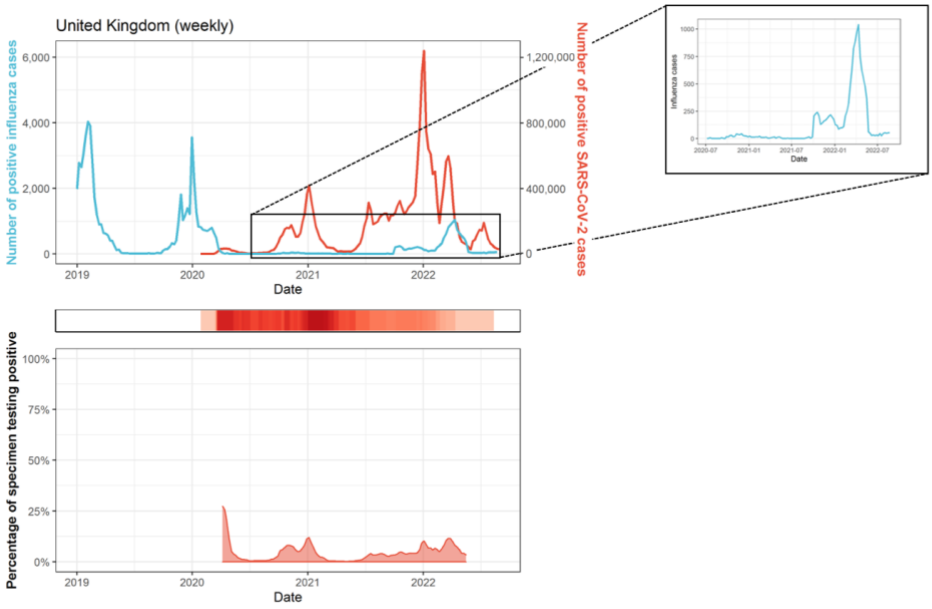
Northern Europe

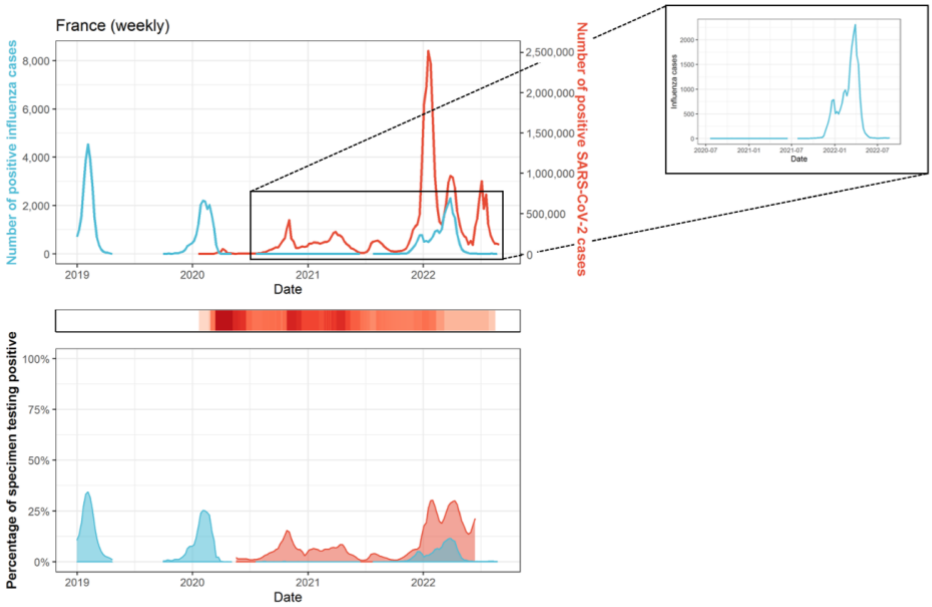
United Kingdom



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

South West Europe

France



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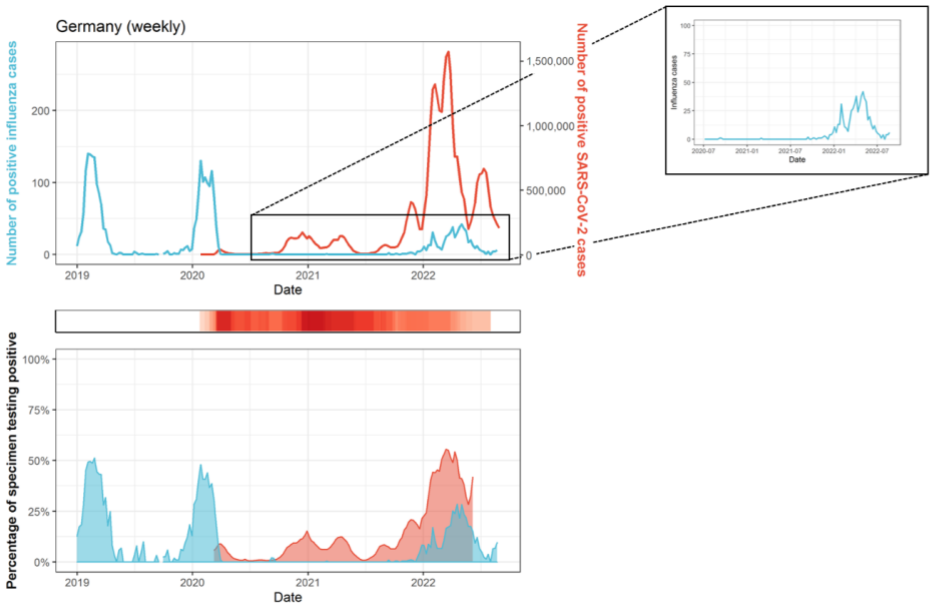
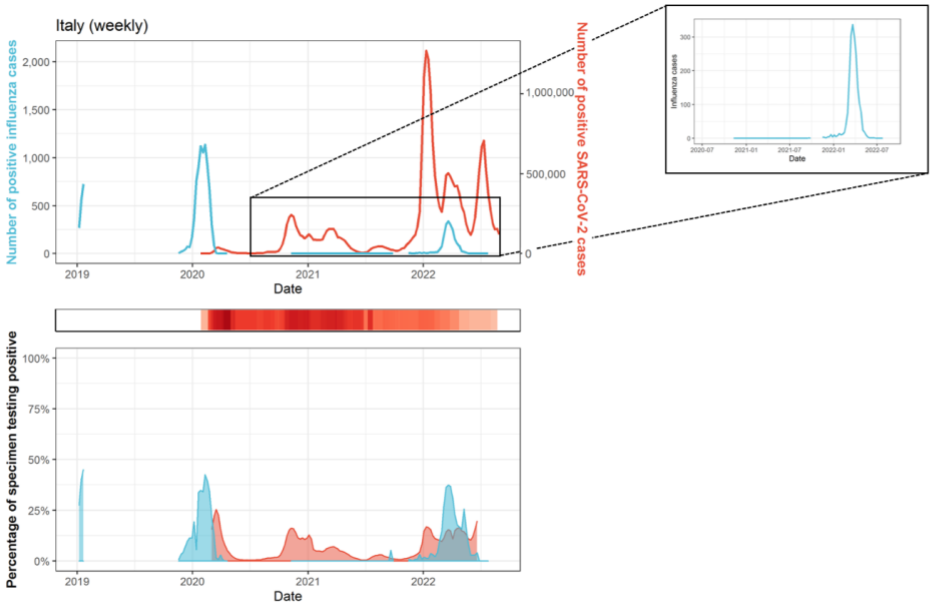
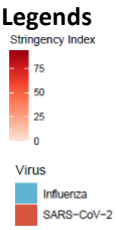
Germany



Italy



Note. No influenza data for Italy has been uploaded onto FluNet since week 17, 2022



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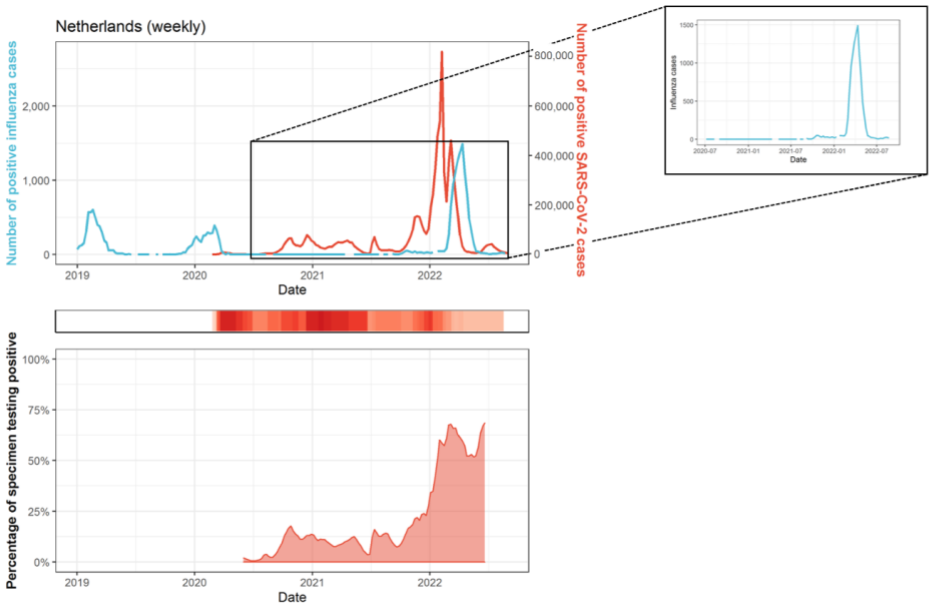
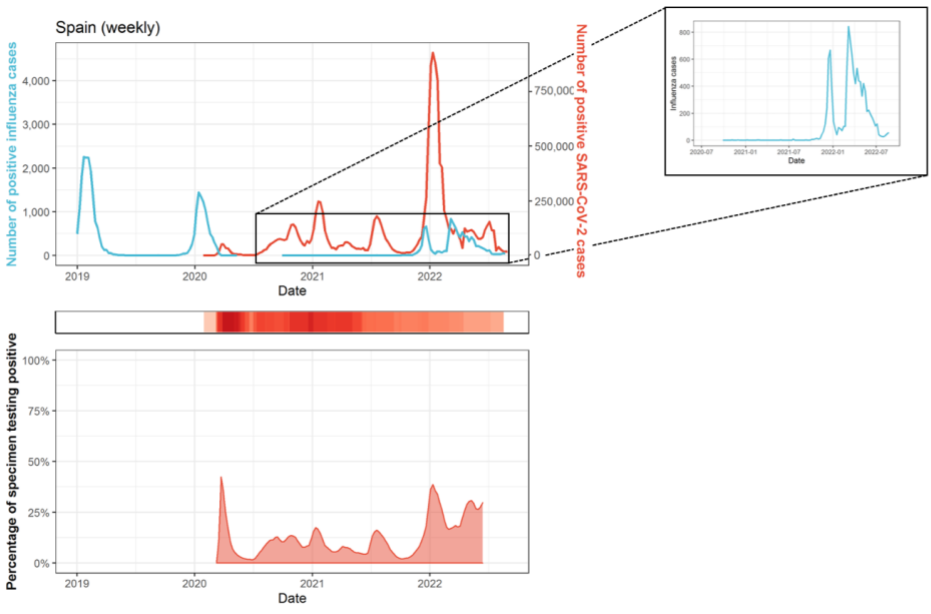
Netherlands

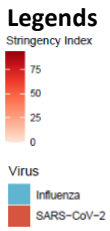


Note. The Netherlands does not have a positivity rate for influenza because the denominator was deemed unreliable.

Spain



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



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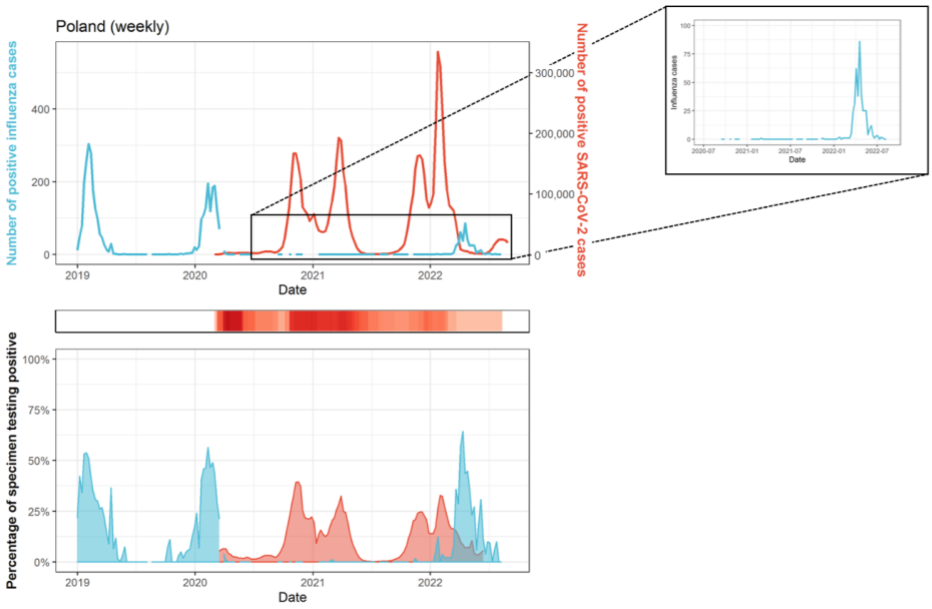
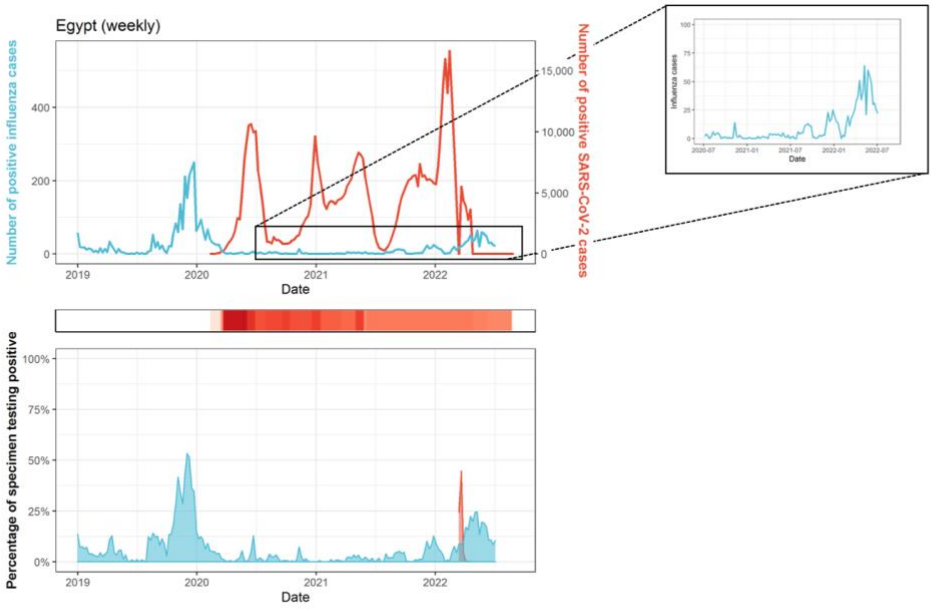
Eastern Europe

Poland

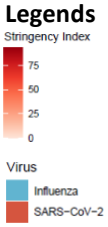


Northern Africa

Egypt



Note. Egypt does not have a positivity rate for SARS-CoV-2 because no denominator was available. No influenza data for Egypt has been uploaded onto FluNet since week 16, 2022



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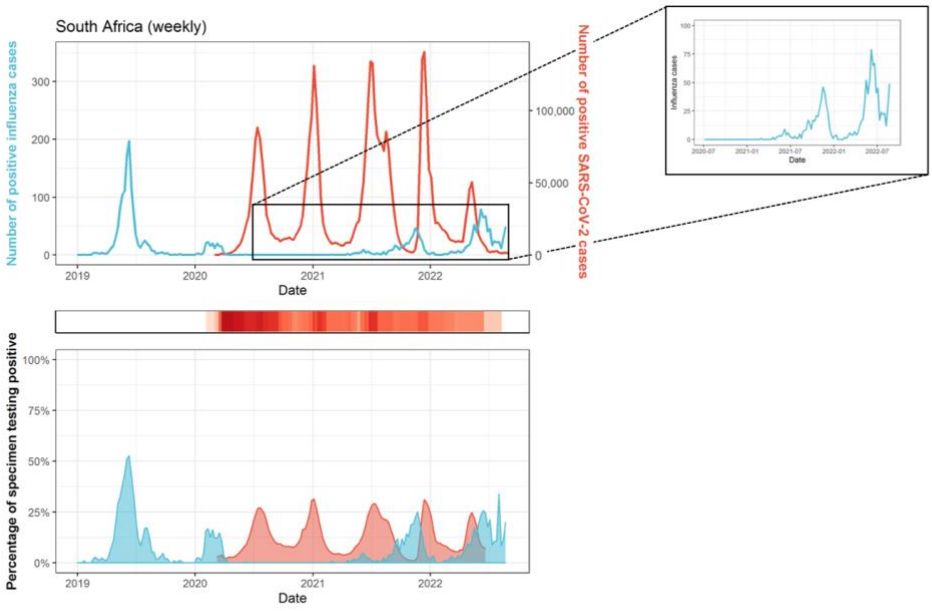
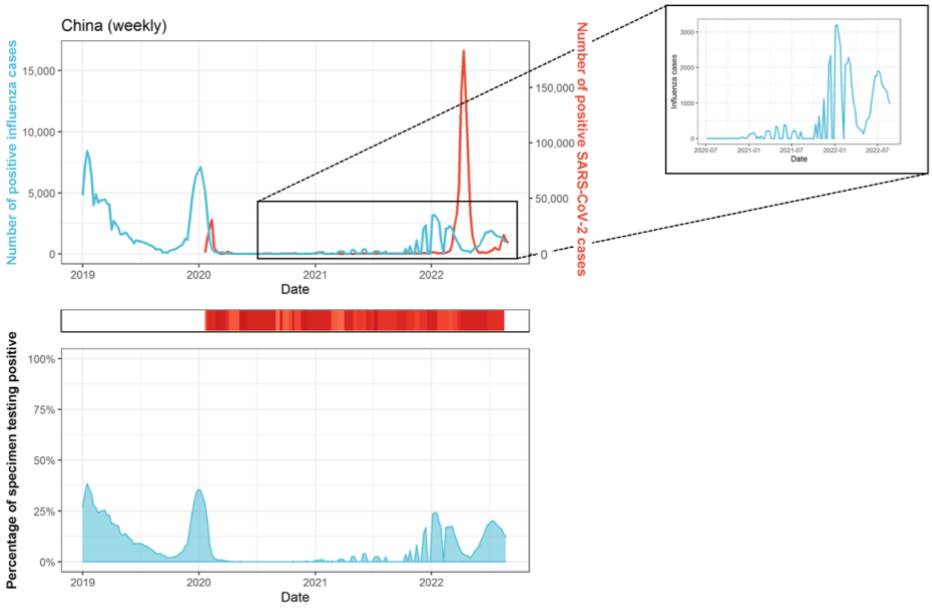
Southern Africa

South Africa

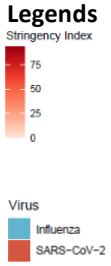


Eastern Asia

China



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



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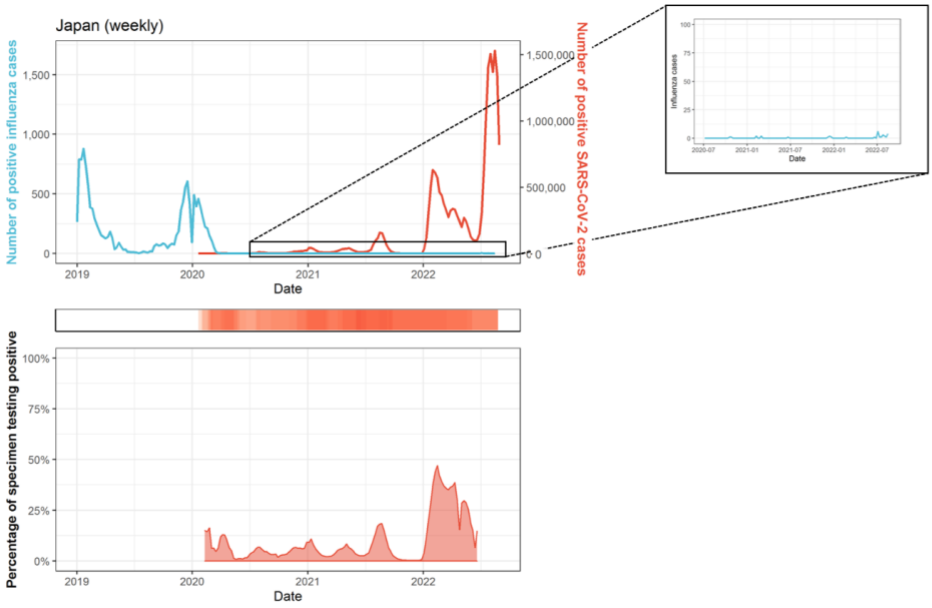
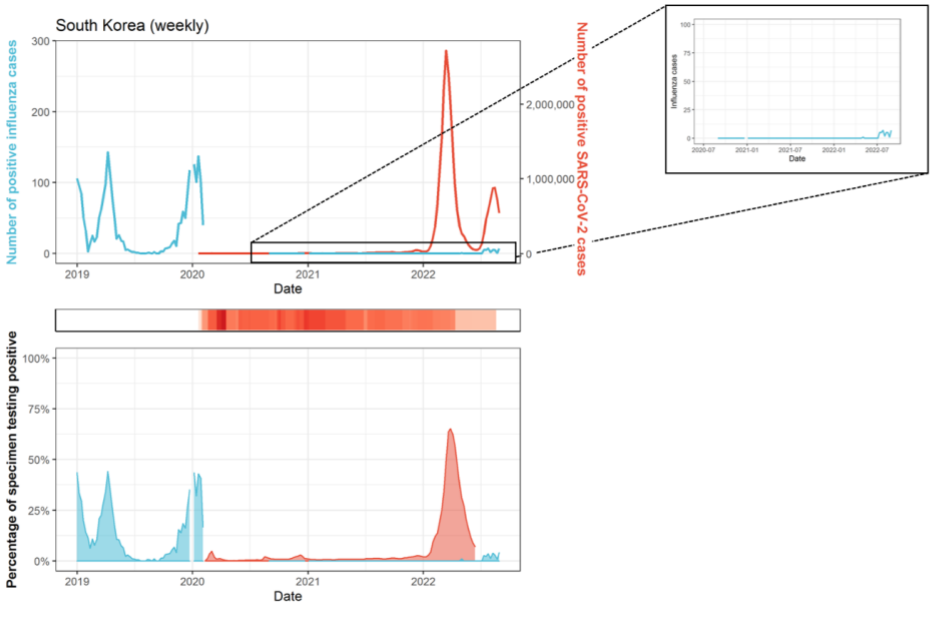
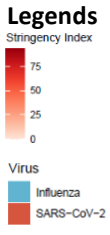
Japan



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

South Korea





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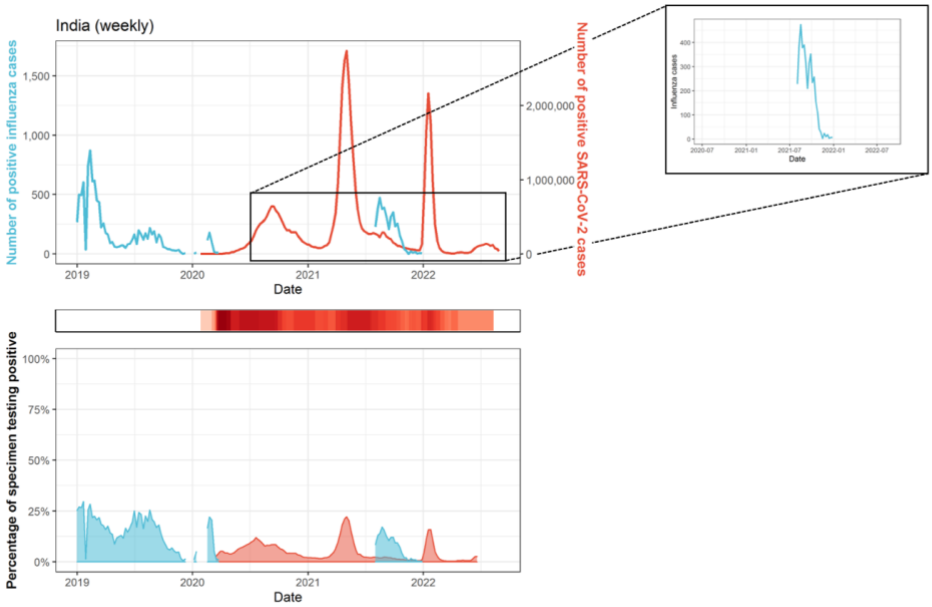
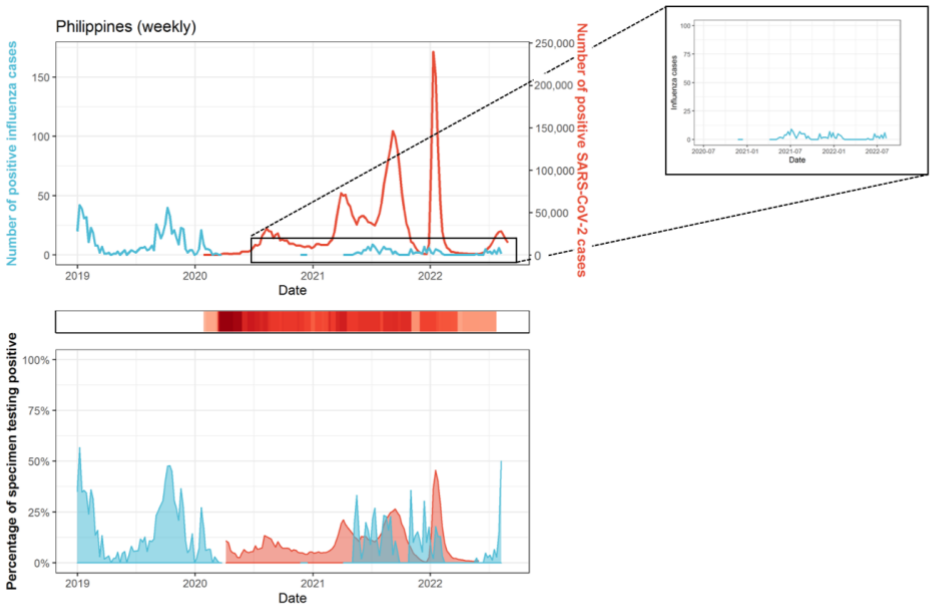
Southern Asia

India

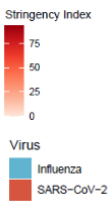


South East Asia

Philippines



Legends



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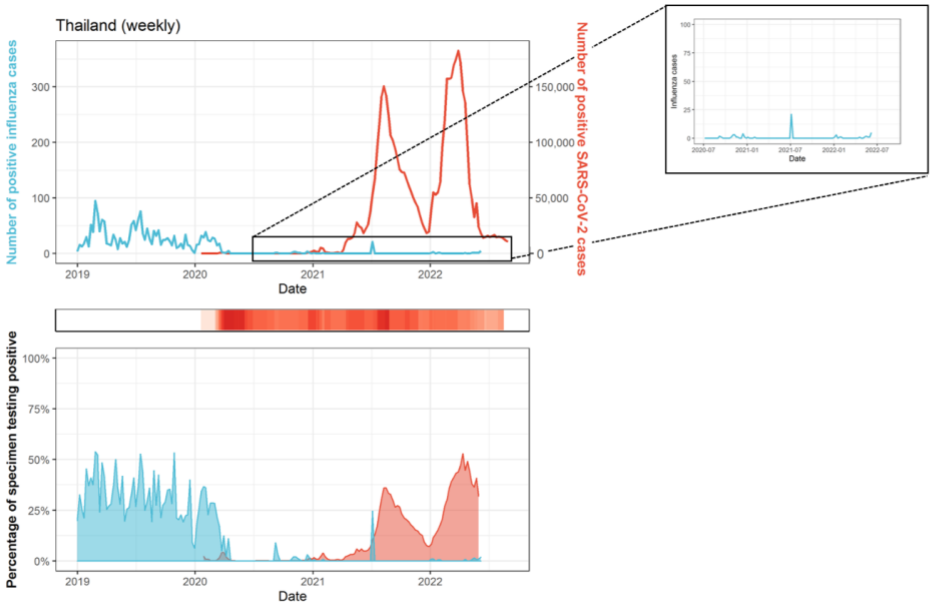
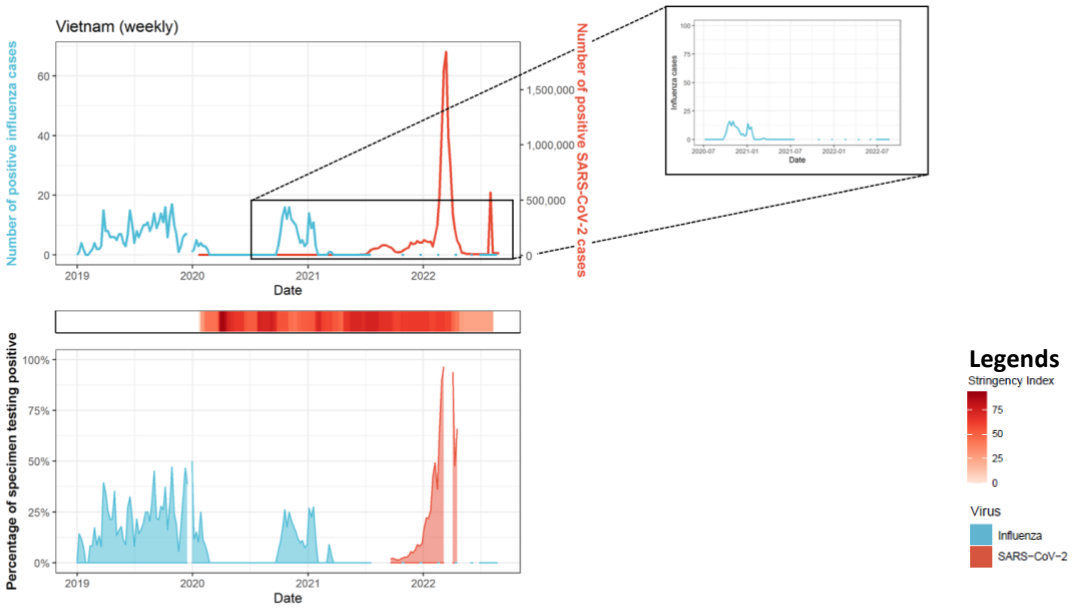
Thailand



Vietnam



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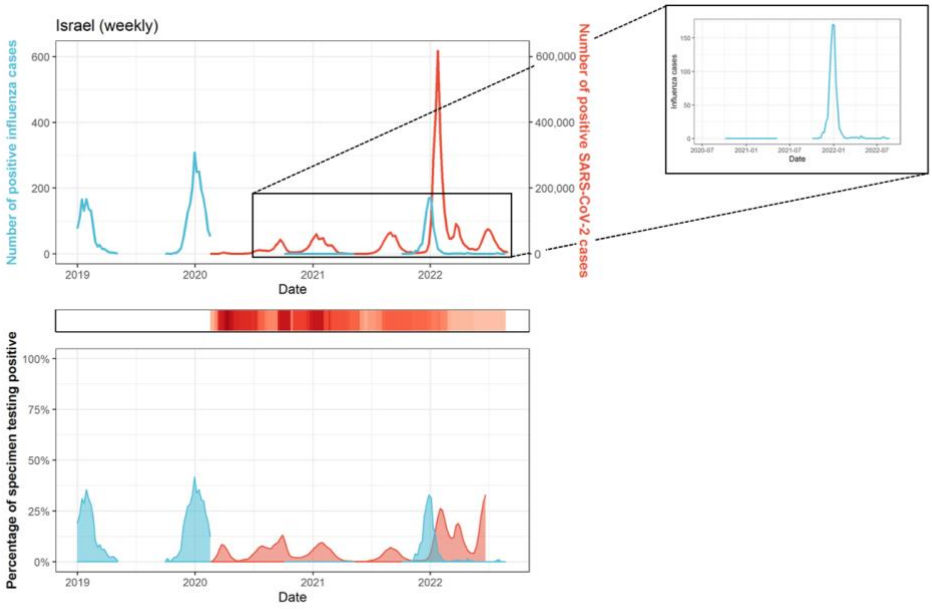
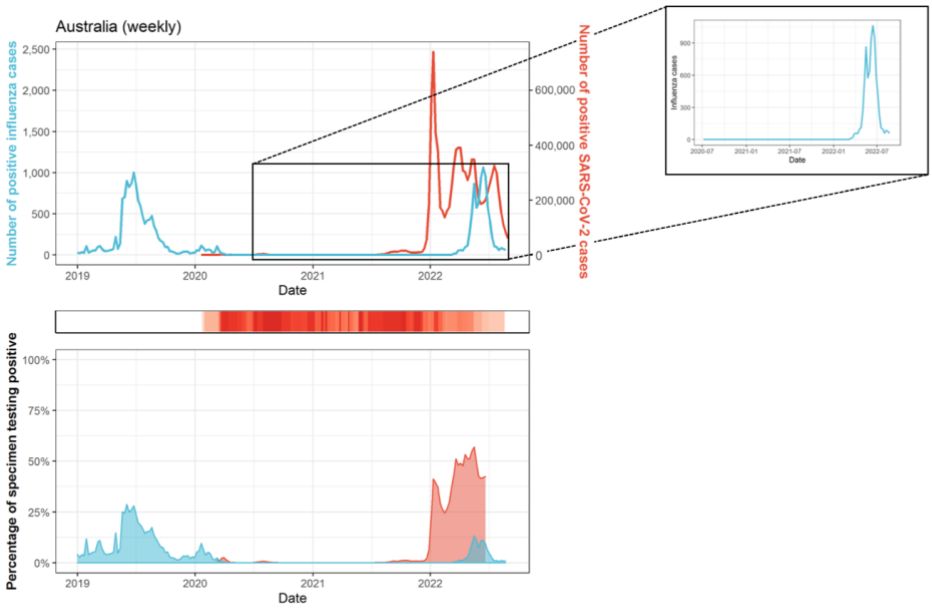
Western Asia

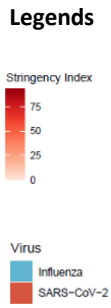
Israel



Oceania

Australia





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Absolute numbers per country

Country	Year	Cases[a] of SARS-CoV-2	+/- since last month[b]	Cases[a] of influenza	+/- since last month[b]	Week of last influenza update
Australia	2019			12,404		
Australia	2020	28,425		784		
Australia	2021	397,071		7		
Australia	2022	9,646,015	606,242	7,937	283	2022-34
Brazil	2019			3,320		
Brazil	2020	7,700,828		1,314		
Brazil	2021	14,485,929		1,183		
Brazil	2022	12,138,014	595,953	2,873	51	2022-35
Canada	2019			43,196		
Canada	2020	590,249		44,956		
Canada	2021	1,633,486		337		
Canada	2022	1,987,118	102,170	15,381	75	2022-35
China	2019			122,757		
China	2020	93,153		31,164		
China	2021	21,489		10,145		
China	2022	841,324	50,500	45,849	4,864	2022-35
Egypt	2019			1,998		
Egypt	2020	138,062		659		
Egypt	2021	247,513		233		
Egypt	2022	130,070	0	721	0	2022-27
France	2019			25,405		
France	2020	2,735,590		16,589		
France	2021	7,706,191		3,071		
France	2022	24,603,106	743,053	19,506	43	2022-34
Germany	2019			1,215		
Germany	2020	1,719,737		958		
Germany	2021	5,430,685		29		
Germany	2022	25,034,190	1,330,378	567	14	2022-34
India	2019			9,698		
India	2020	10,286,709		457		
India	2021	24,574,870		4,085		
India	2022	9,574,760	400,064	7	7	2022-35
Israel	2019			1,796		
Israel	2020	423,290		1,424		
Israel	2021	961,872		456		
Israel	2022	3,249,485	51,361	352	2	2022-34
Italy	2019			2,787		
Italy	2020	2,107,314		7,484		
Italy	2021	4,018,517		31		
Italy	2022	15,742,074	827,732	1,950	0	2022-30
Japan	2019			10,287		
Japan	2020	235,747		2,883		
Japan	2021	1,496,547		9		
Japan	2022	17,217,497	6,170,622	20	7	2022-33

Country	Year	Cases[a] of SARS-CoV-2	+/- since last month[b]	Cases[a] of influenza	+/- since last month[b]	Week of last influenza update
Mexico	2019			6,963		
Mexico	2020	1,426,094		4,799		
Mexico	2021	2,553,629		960		
Mexico	2022	3,035,187	302,663	2,540	268	2022-35
Netherlands	2019			5,166		
Netherlands	2020	806,620		3,235		
Netherlands	2021	2,346,892		454		
Netherlands	2022	5,243,513	55,082	10,666	84	2022-34
Philippines	2019			612		
Philippines	2020	474,064		52		
Philippines	2021	2,369,926		105		
Philippines	2022	1,036,884	103,602	40	7	2022-32
Poland	2019			1,786		
Poland	2020	1,294,878		1,282		
Poland	2021	2,813,337		2		
Poland	2022	2,068,670	107,220	407	0	2022-34
South Africa	2019			1,164		
South Africa	2020	1,057,161		157		
South Africa	2021	2,382,539		413		
South Africa	2022	553,651	6,813	736	113	2022-34
South Korea	2019			1,702		
South Korea	2020	61,768		505		
South Korea	2021	573,484		0		
South Korea	2022	22,692,644	3,507,158	31	13	2022-35
Spain	2019			16,580		
Spain	2020	1,938,671		8,829		
Spain	2021	4,440,910		2,203		
Spain	2022	7,049,420	115,951	8,327	167	2022-34
Thailand	2019			1,568		
Thailand	2020	6,882		297		
Thailand	2021	2,216,551		23		
Thailand	2022	2,438,830	60,639	89	49	2022-33
United Kingdom	2019			42,447		
United Kingdom	2020	2,488,780		14,377		
United Kingdom	2021	10,456,330		2,755		
United Kingdom	2022	9,740,470	217,313	9,607	207	2022-34
United States	2019			268,524		
United States	2020	20,221,637		229,766		
United States	2021	34,690,787		39,491		
United States	2022	39,619,429	3,167,984	122,492	1,213	2022-34
Vietnam	2019			355		
Vietnam	2020	1,465		146		
Vietnam	2021	1,729,792		39		
Vietnam	2022	9,680,422	632,047	0	0	2022-34

Note. [a] Laboratory-confirmed cases. [b] Influenza cases are reported by FluNet on a weekly basis. To convert these data to months, weekly data are assigned to the month most days in that week belong to. SARS-CoV-2 cases are reported per day and assigned to each month by date.

Methodology

Background

After assessment of alarming levels of spread and severity of SARS-CoV-2 virus, on March 11, 2020 WHO declared COVID-19 a pandemic [3]. The emergence of this new virus has had a major impact on the global circulation of respiratory viruses, including influenza and RSV [4]. 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

The countries included in this Epi-Bulletin are 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) [5].

Data sources

- **Influenza:** FluNet [6] 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 [7]. 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 [8] cases as well as various national public health institutions.
- **Government response tracker:** The Oxford COVID-19 Government Response Tracker (OxCGRT) [5] 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. OxCGRT data is downloaded directly from the Our World in Data platform.

Extraction details

Data were extracted on 5 September and cover the period 1 January 2019 to 2 September 2022. Data from both platforms are regularly updated and **sometimes retrospectively corrected**. This might explain any discrepancies between our reported figures and the data published online, even when using data for the exact same period. In case of any unclarities or perceived irregularities, feel free to contact us at flucov@nivel.nl.

References

[1] Nature. What Omicron's BA.4 and BA.5 variants mean for the pandemic https://www.nature.com/articles/d41586-022-01730-y

[2] Andrews N, Stowe J, Kirsebom F, et al. Covid-19 Vaccine Effectiveness against the Omicron (B.1.1.529) Variant. N Engl J Med. 2022;386(16):1532-1546. doi:10.1056/NEJMoa2119451

[3] WHO. Listing of WHO's response to COVID-19. https://www.who.int/news/item/29-06-2020-covidtimeline [accessed 7 Sept 2022]

[4] WHO. Influenza Update N° 416. https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates/current-influenza-update [accessed 7 April 2022]

[5] 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]

[6] WHO. FluNet. https://www.who.int/tools/flunet [accessed 15 June 2021]

[7] 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]

[8] 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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