



FluCov-Bulletin – September 2023

FluCov project: combining data from around the world to better understand the impact of COVID-19 on influenza activity

Commentary

Contents

It is now more than three-and-a-half 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 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

On a global level, **influenza** activity has increased very slightly in September 2023 (see Figure 1). The following country patterns were observed for **influenza**:

- In the Southern Hemisphere, **influenza** detections were low or decreasing in all Southern Hemisphere countries covered by the Bulletin (**Brazil, South Africa and Australia**).
- In the Northern Hemisphere, although **influenza** activity remains low in Europe (**United Kingdom, Poland, France, Germany, Netherlands, Spain**), **Canada** and the **United States**, the number of detections increased slightly in all countries, except **Poland**.
- **Influenza** detections were low in **India, Japan, the Philippines, and Vietnam**.
- A small increase in **influenza** detections was reported in **China**, predominantly **influenza A(H3N2)** but activity remains low.
- In **South Korea**, **influenza** detections increased further, with a mix of **influenza A(H1N1)pdm09** and **A(H3N2)**, as did the percentage of specimens that tested positive.
- **Influenza** activity also continued to increase in **Thailand** (with a mix of A and B) and **Egypt** (mix of **A(H3N2)** and B, lineage not determined).
- No update on **influenza** activity was available for **Italy** and **Israel** in September.

Globally, **SARS-CoV-2** detections have been relatively low after the late 2022 peak in China (see Figure 1). The following country patterns were observed for **SARS-CoV-2** in September 2023:

- In **South Korea**, the number of **SARS-CoV-2** detections decreased compared to August.
- Despite a small increase in detections in most countries, **SARS-CoV-2** activity was low in most countries in the Bulletin: **Australia, Brazil, Canada, China, Egypt, France, Germany, India, Israel, Japan, Italy, Mexico, Netherlands, the Philippines, Poland, South Africa, Spain, Thailand, United Kingdom, and the United States**.

Implications

Globally, **influenza** activity is currently at an inter-seasonal level, although the number of detections increased slightly in September 2023, after reaching the lowest number of **influenza** detections since October 2021 in the month of August. **SARS-CoV-2** activity has also been low worldwide.

Influenza detections in the Southern and Northern Hemispheres:

In the Southern Hemisphere, **influenza** activity was decreasing in **Australia** and **Brazil** and stable at a low level in **South Africa**. All Southern Hemisphere countries covered by the Bulletin reported a mix of **influenza** A and B. Other countries in the Southern Hemisphere also reported low **influenza** activity [1], with only **Chile** reporting detections above the seasonal threshold. In the Northern Hemisphere, **influenza** activity remained generally low throughout the month of September.

Influenza A subtypes and Influenza B lineages:

Up until now, the dominant **influenza** B lineage in the countries reported in the Bulletin has exclusively been **influenza** B/Victoria (when the lineage was determined). This is noteworthy, especially considering the rarity of **influenza** B/Yamagata during the COVID-19 pandemic [2].

SARS-CoV-2:

SARS-CoV-2 detections have been on the decline worldwide since December 2022 when **China** experienced its peak. In September, detections remained relatively low. However, a tentative increase in **SARS-CoV-2** hospital admissions has been reported in August and September in a number of countries covered by the Bulletin (**United States, Italy, England** and **the Netherlands**) [3]. It is important to note that data availability in the Bulletin can vary due to reduced surveillance activities (e.g., **France** conducts routine testing only on high-risk individuals) or non-reporting to WHO, and this impacts the data that is presented in the FluCov Bulletin (e.g. data completeness has changed over time for some countries) [4].

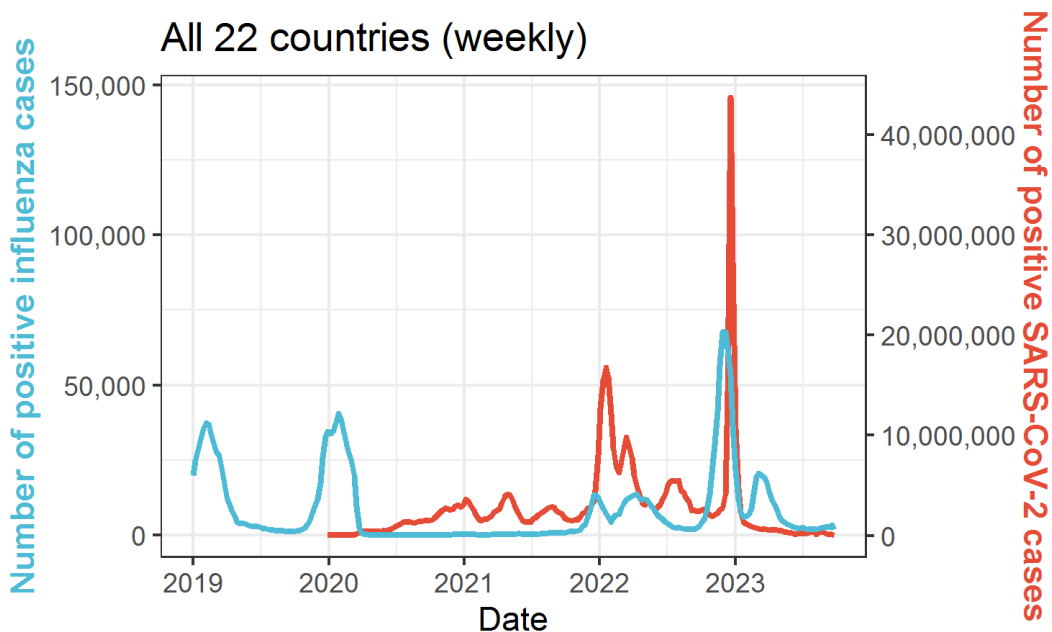


Figure 1: SARS-CoV-2 and influenza detections in the 22 countries covered by the Bulletin (period: from week 1/2019 to week 39/2023)

Disclaimer: Comparisons between countries and seasons of influenza and SARS-CoV-2 detections should be made with care, as national surveillance systems may differ (e.g. surveillance structures and testing intensity) and change over time.

Monthly plots by country

The plots per country show weekly data for **influenza** and of **SARS-CoV-2** infections from 1 January, 2019 up to 1 October, 2023. This FluCov-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 first plot displays the number of positive **influenza** (in blue) and **SARS-CoV-2** (in red) detections. An overview of the absolute number of **influenza** and of **SARS-CoV-2** detections per country can be found on [pages 26-28 of this FluCov-Bulletin \(click here\)](#). The bar displays the Stringency Index (SI; a country-specific composite metric of the mitigation measures that are in place) over time. The second plot shows the **influenza** detections by subtypes/lineages reported to FluNet. The third plot displays the percentage of specimens testing positive for **influenza** during the current season (in red), the last season, and the average of the two pre COVID-19 seasons (2017-18 and 2018-19).

The FluCov Dashboard is live!

All Figures and Tables in the FluCov-Bulletin can now be accessed (real-time) at:

<https://www.nivel.nl/en/dossier-epidemiology-respiratory-viruses/fluconv-dashboard>

Countries (click to view plot)

North America

Canada

United States

Central America Caribbean

Mexico

Tropical South America

Brazil

Northern Europe

United Kingdom

Eastern Europe

Poland

South West Europe

France

Germany

Italy

Netherlands

Spain

Northern Africa

Egypt

Southern Africa

South Africa

Eastern Asia

China

Japan

South Korea

Southern Asia

India

South East Asia

Philippines

Thailand

Vietnam

Western Asia

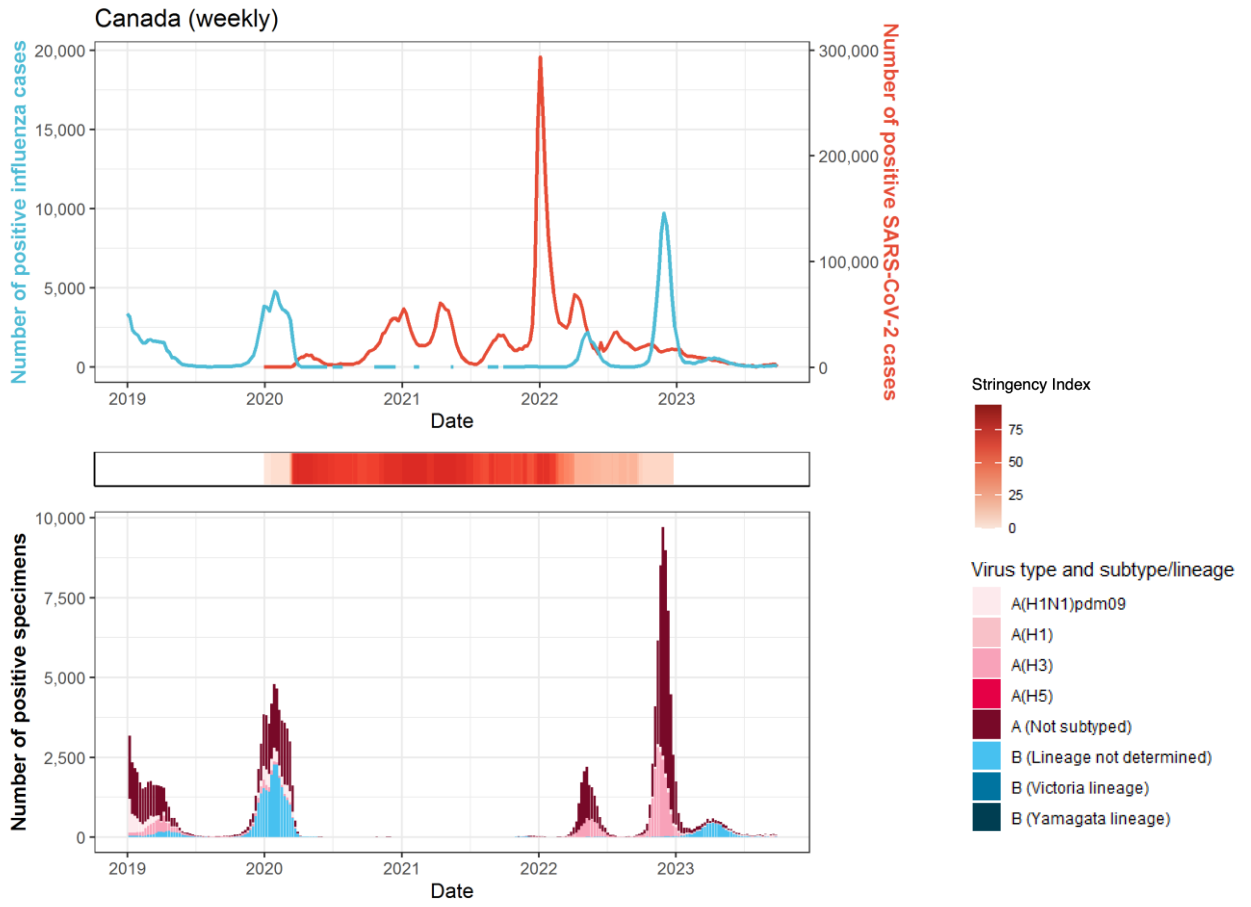
Israel

Oceania

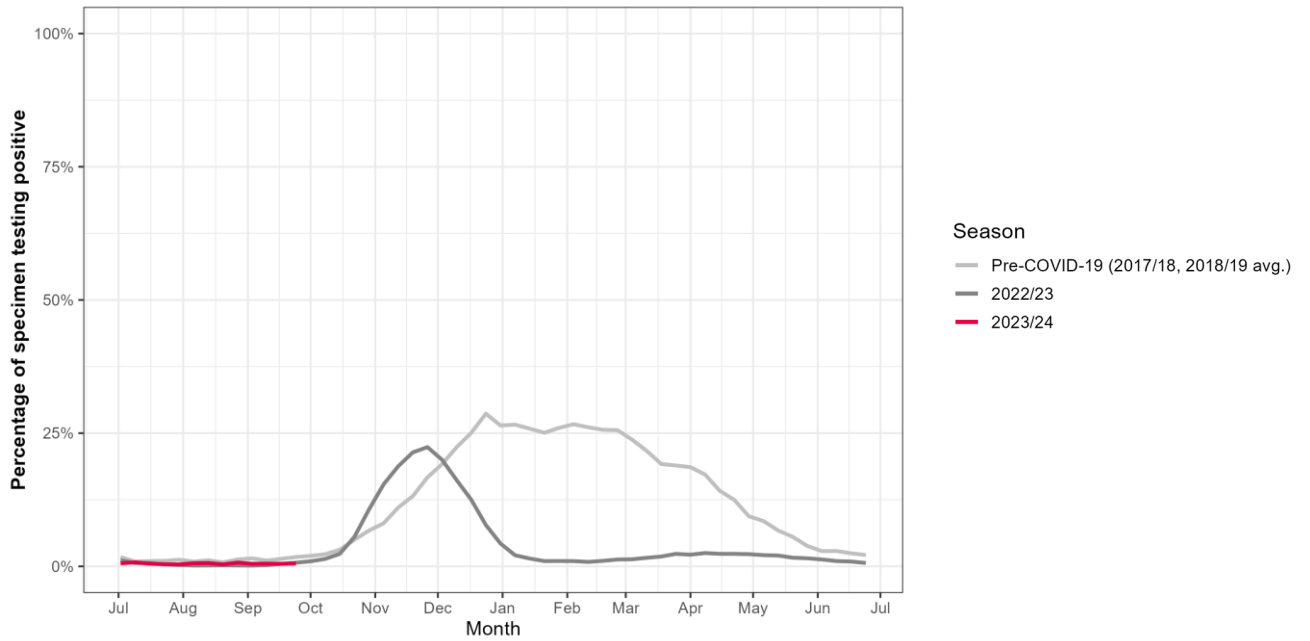
Australia

North America

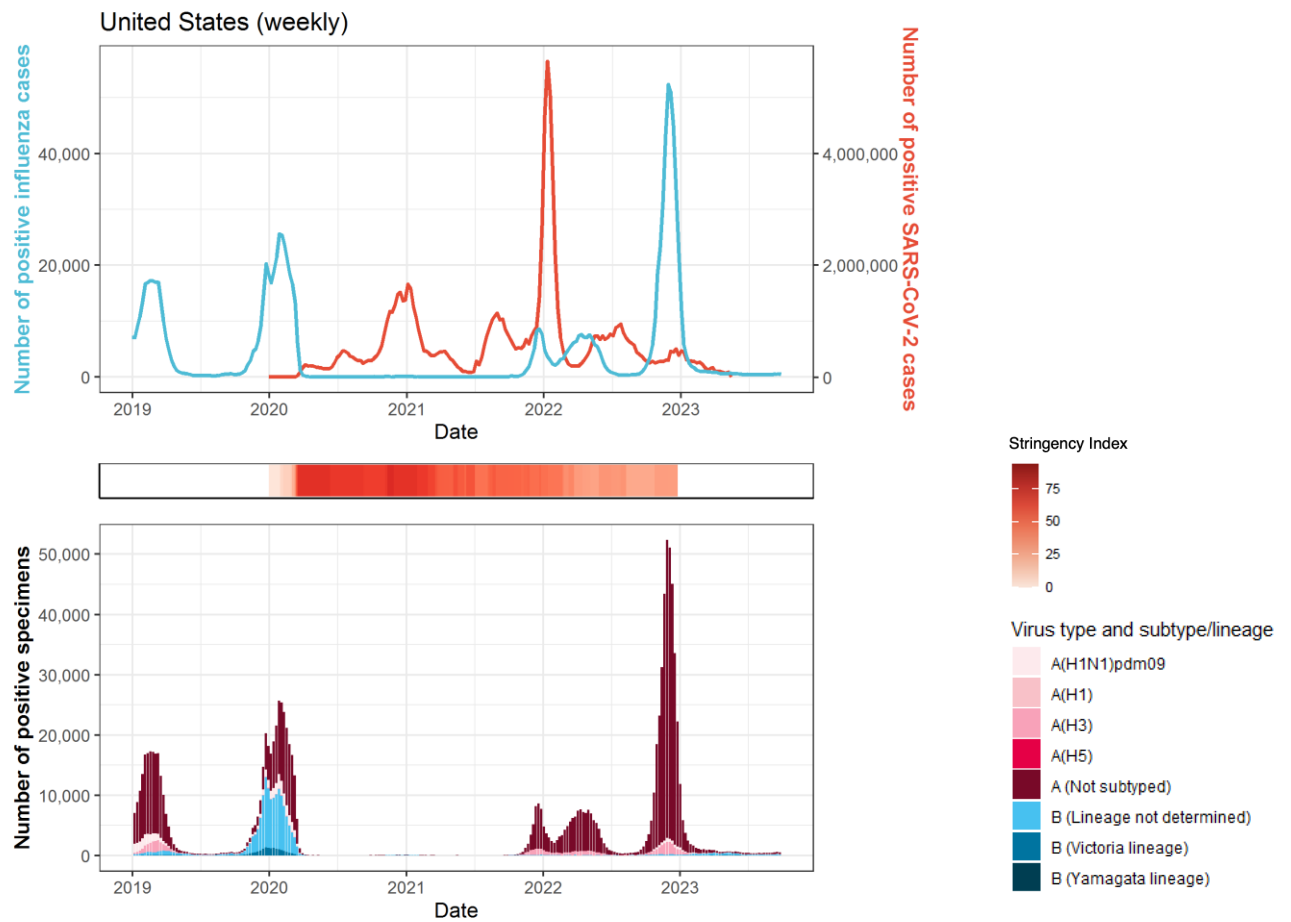
Canada



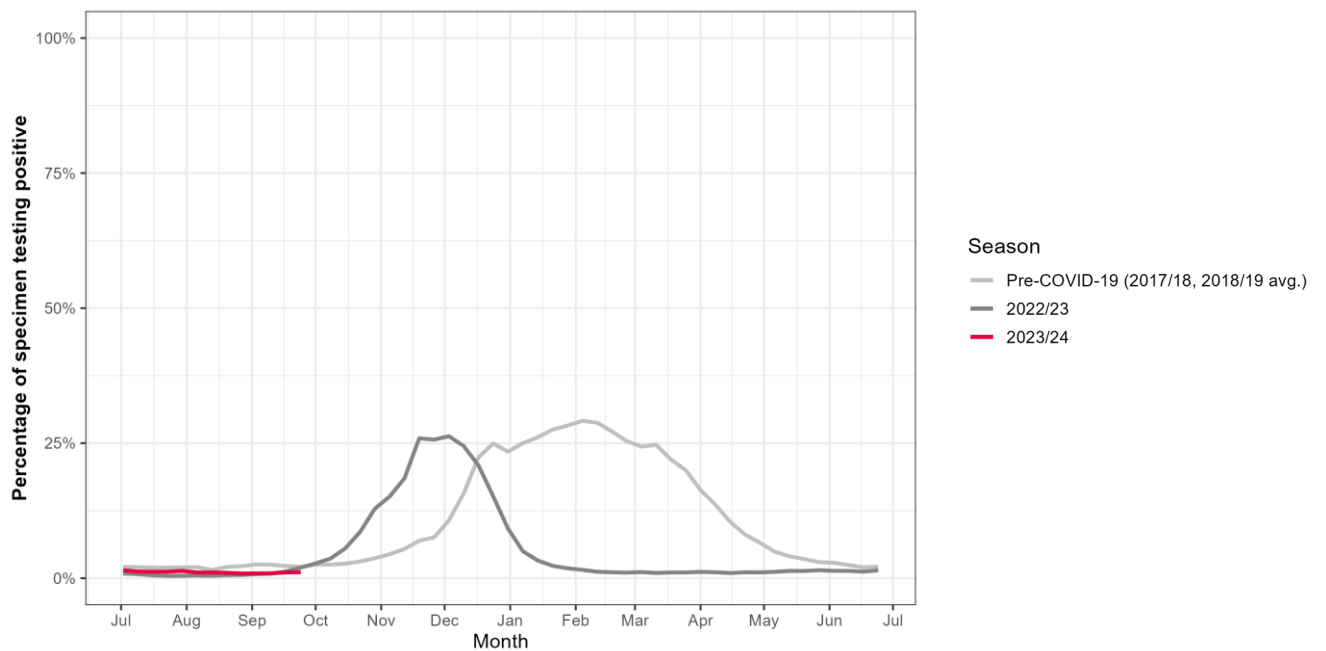
Percentage of specimens testing positive for influenza in different seasons



United States

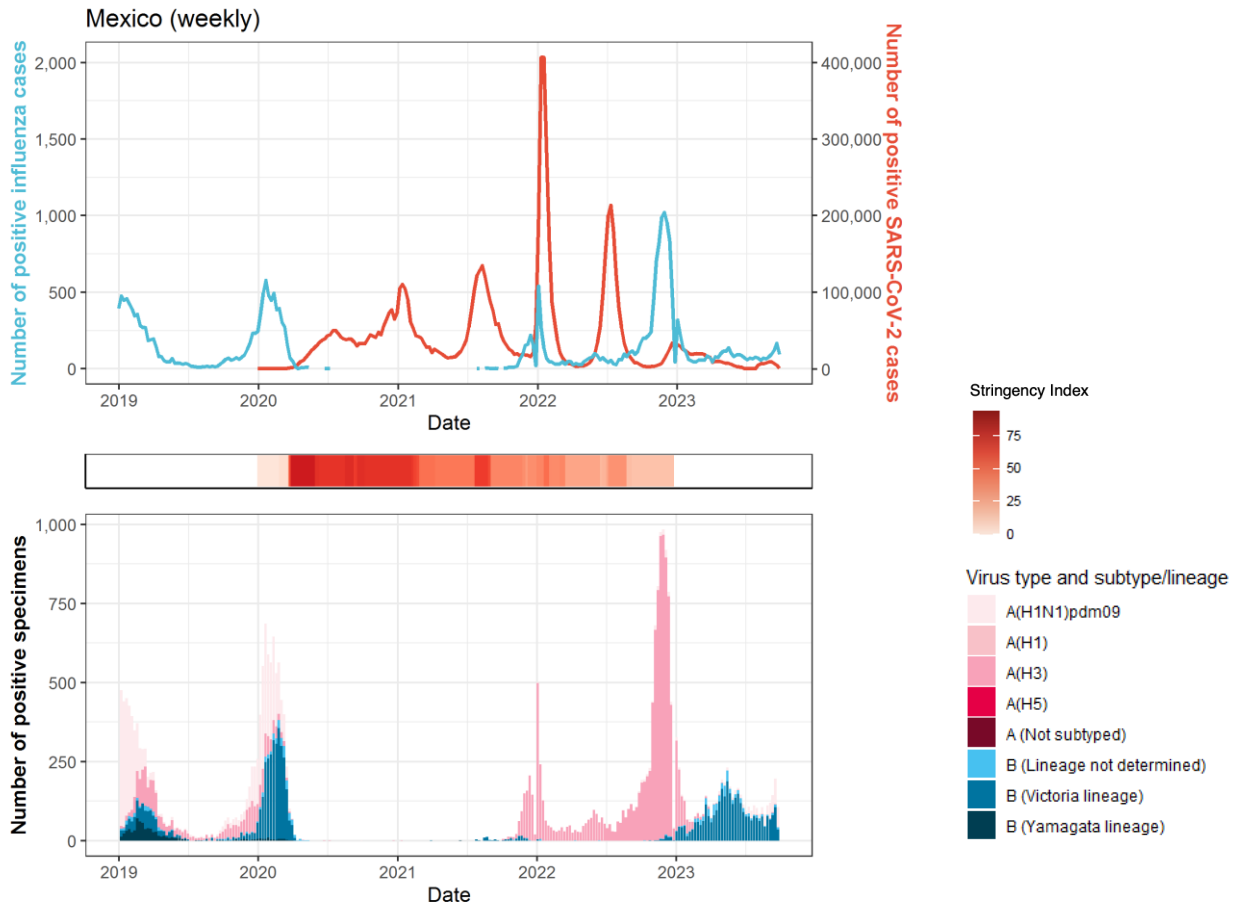


Percentage of specimens testing positive for influenza in different seasons

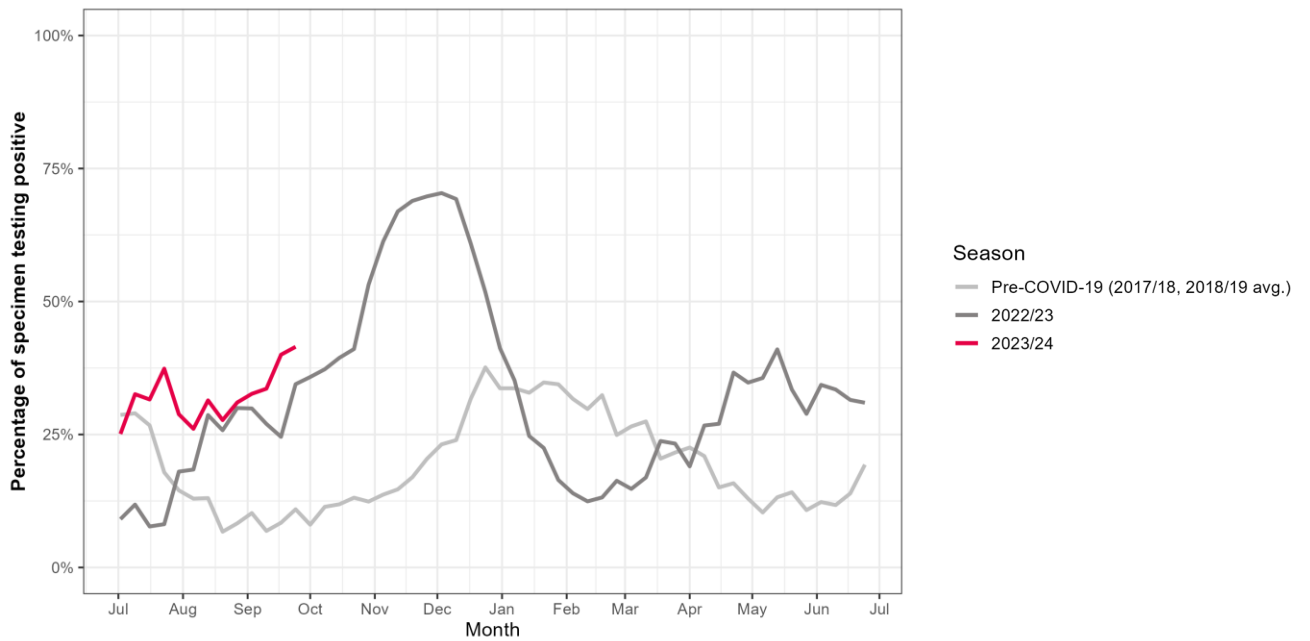


Central America Caribbean

Mexico

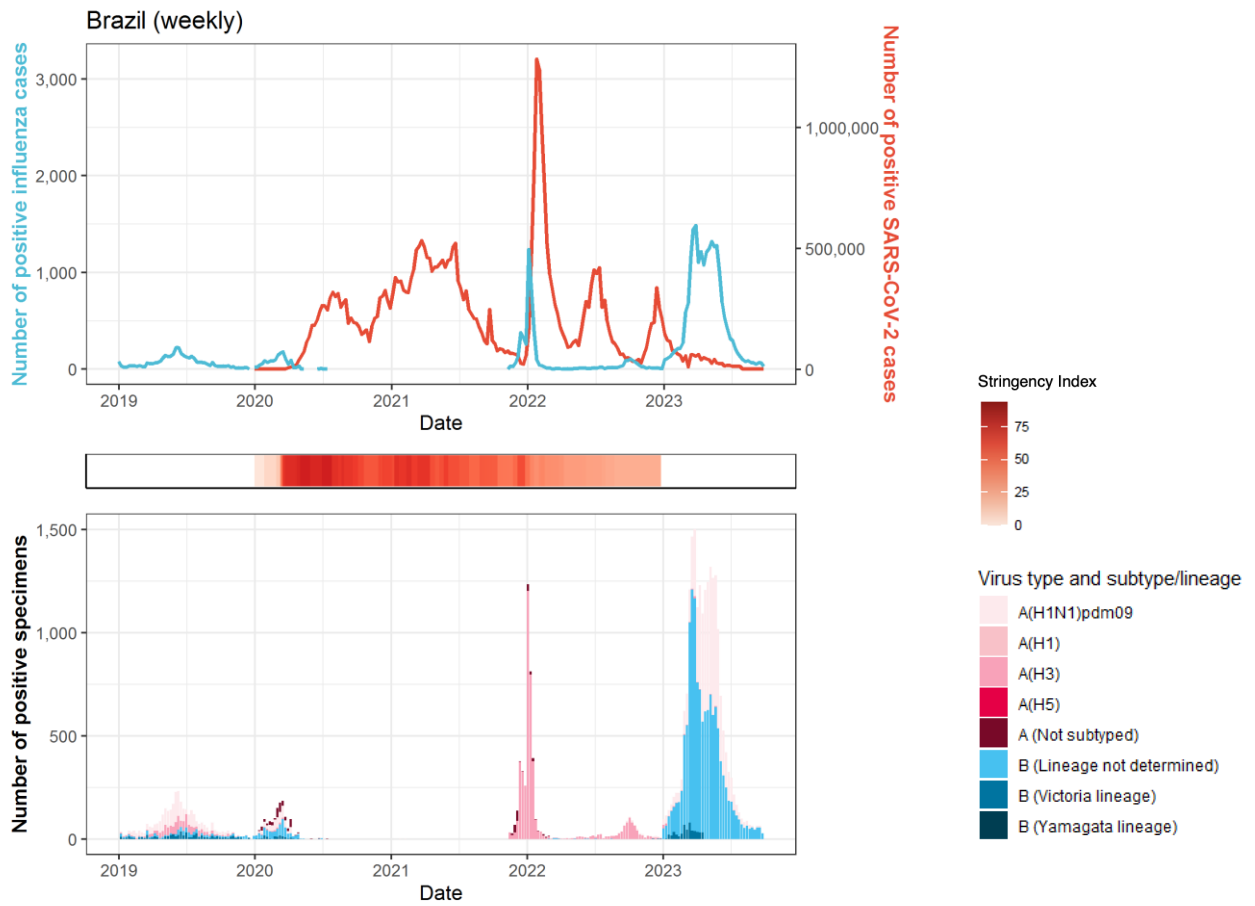


Percentage of specimens testing positive for influenza in different seasons

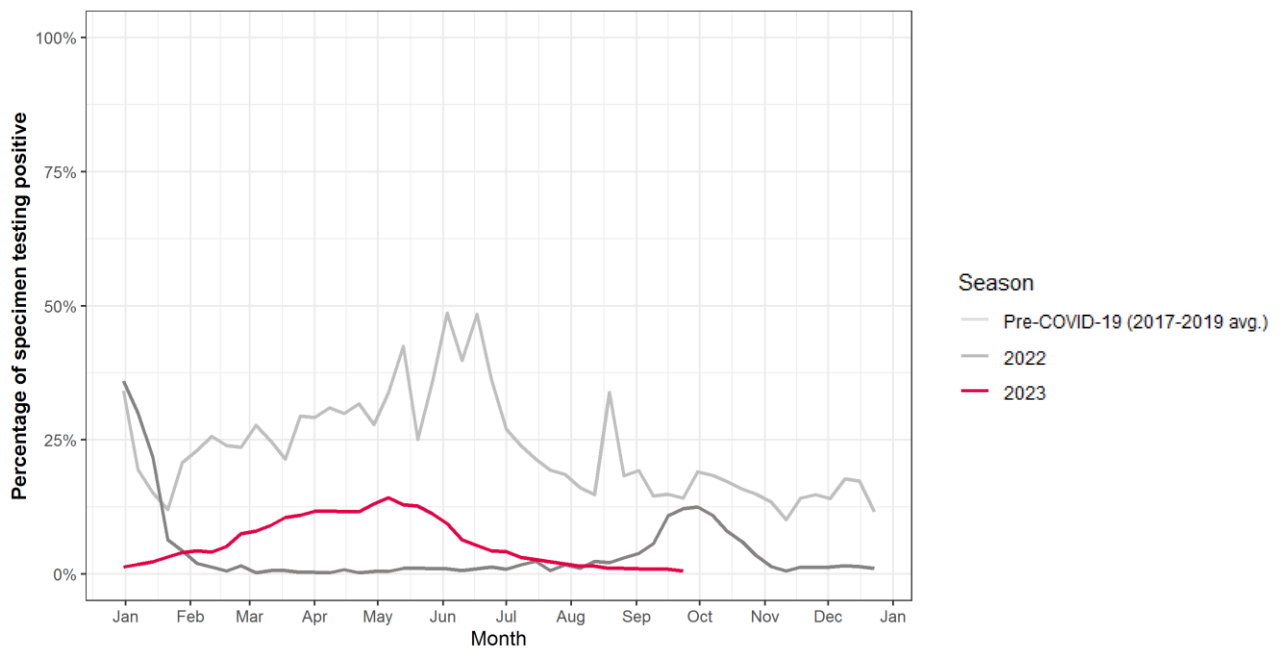


Tropical South America

Brazil

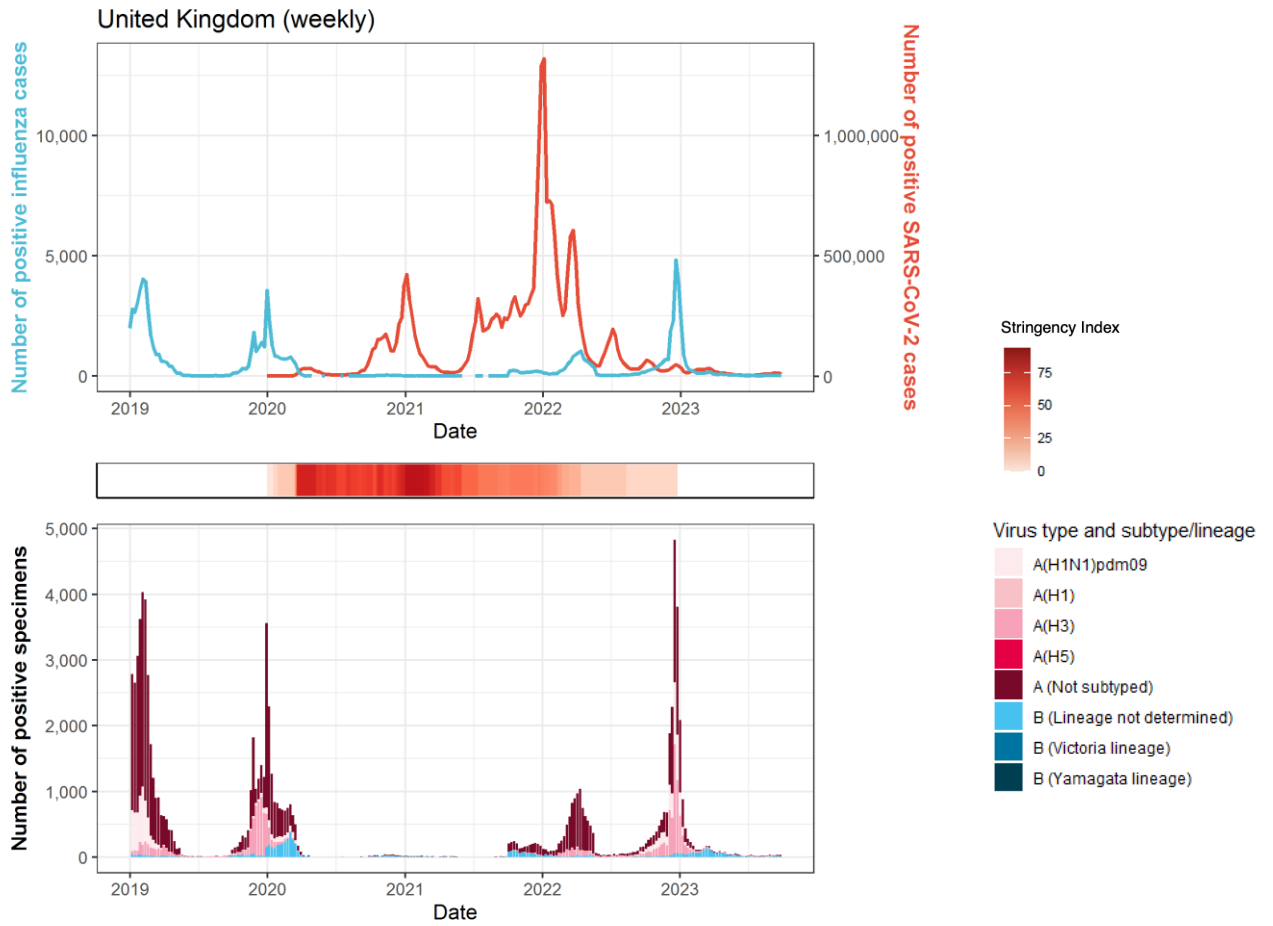


Percentage of specimens testing positive for influenza in different seasons



Northern Europe

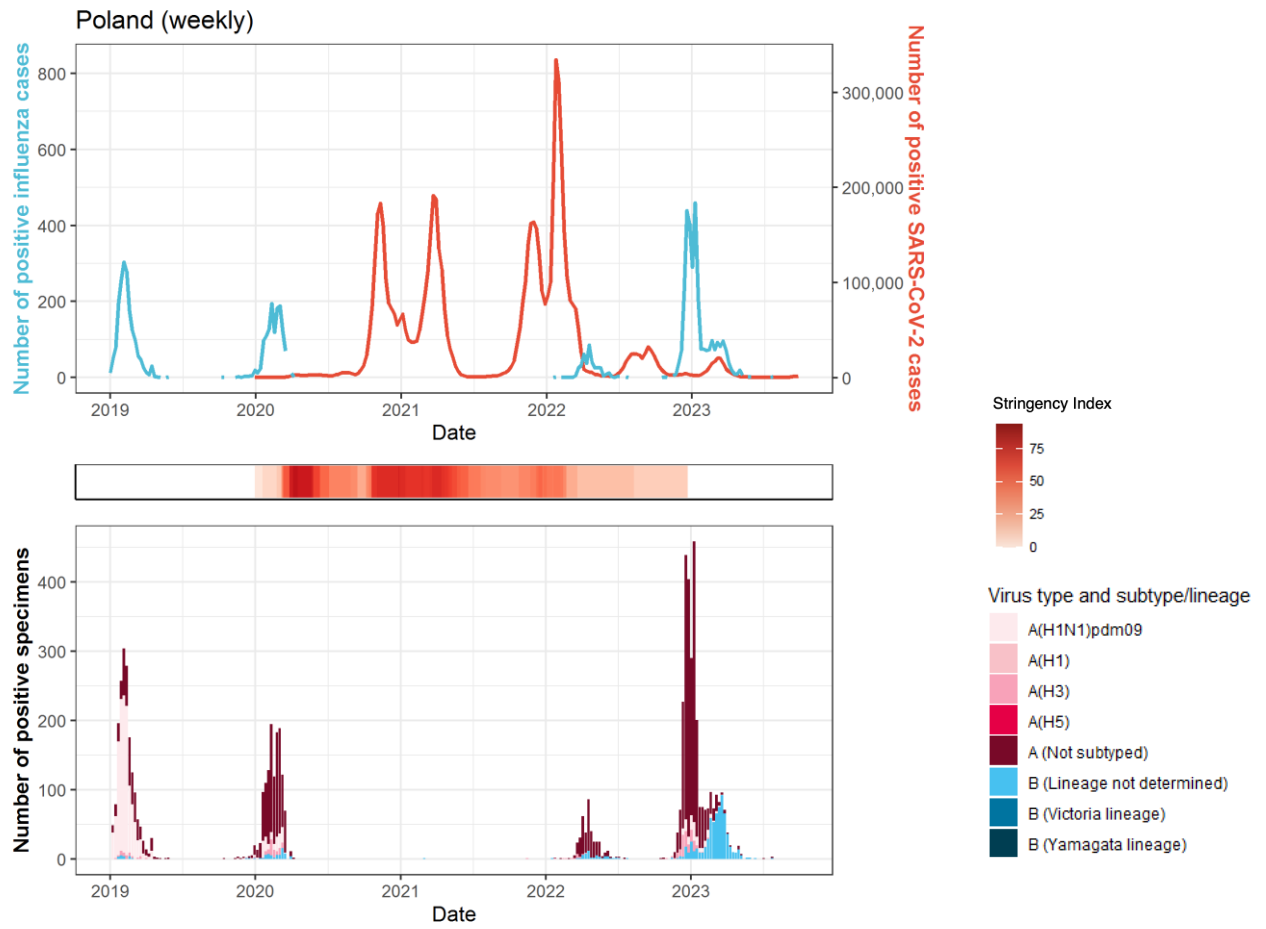
United Kingdom



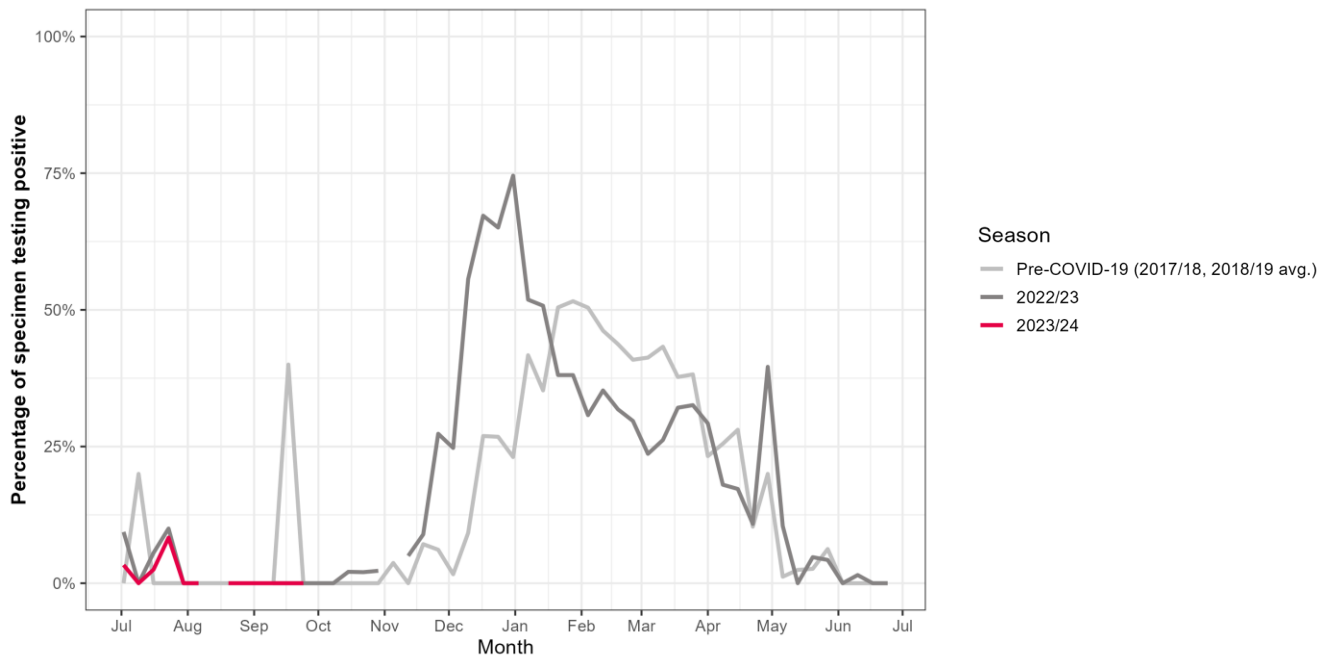
Percentage of specimens testing positive for influenza in different seasons: data not available

Eastern Europe

Poland

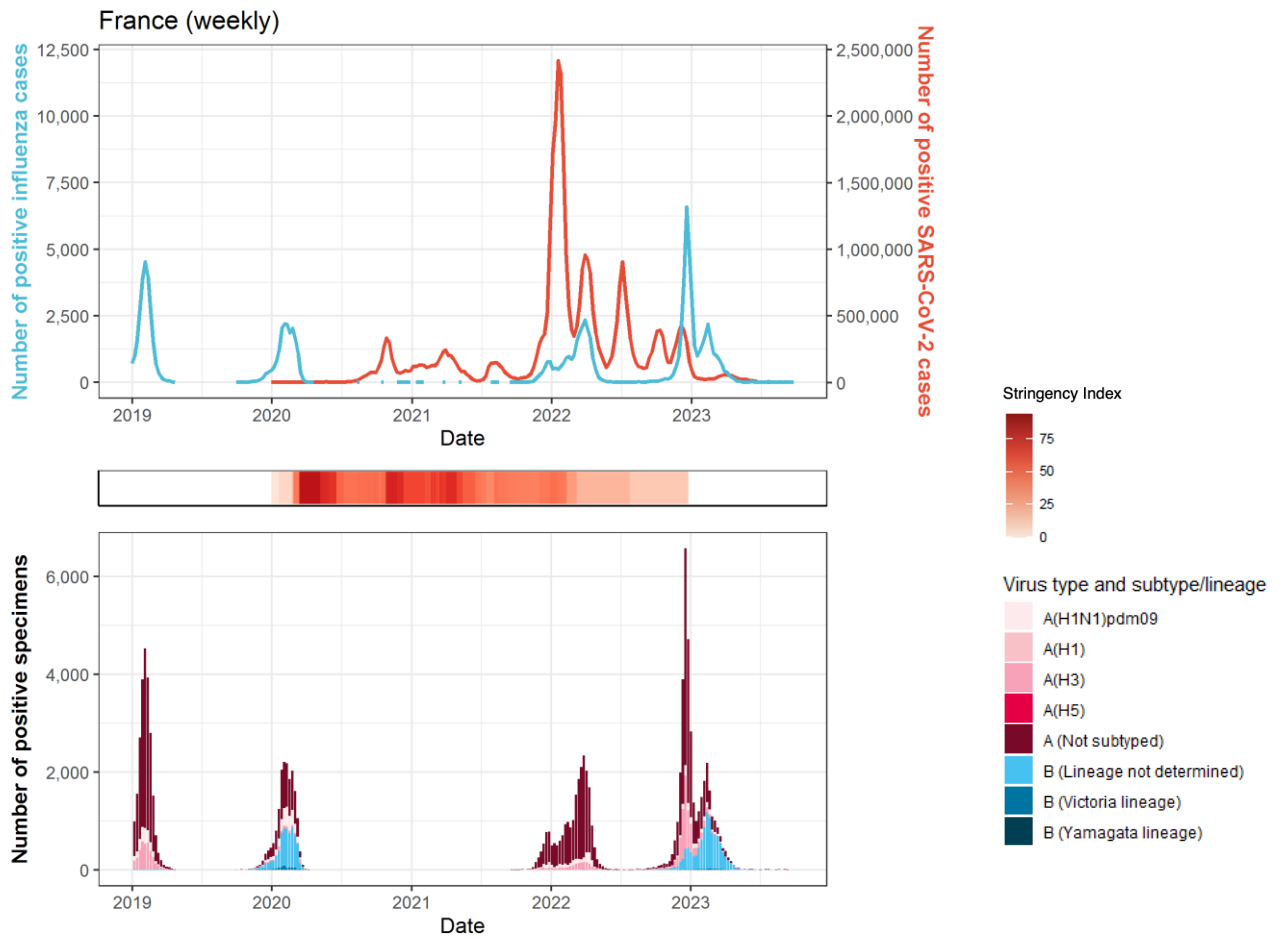


Percentage of specimens testing positive for influenza in different seasons

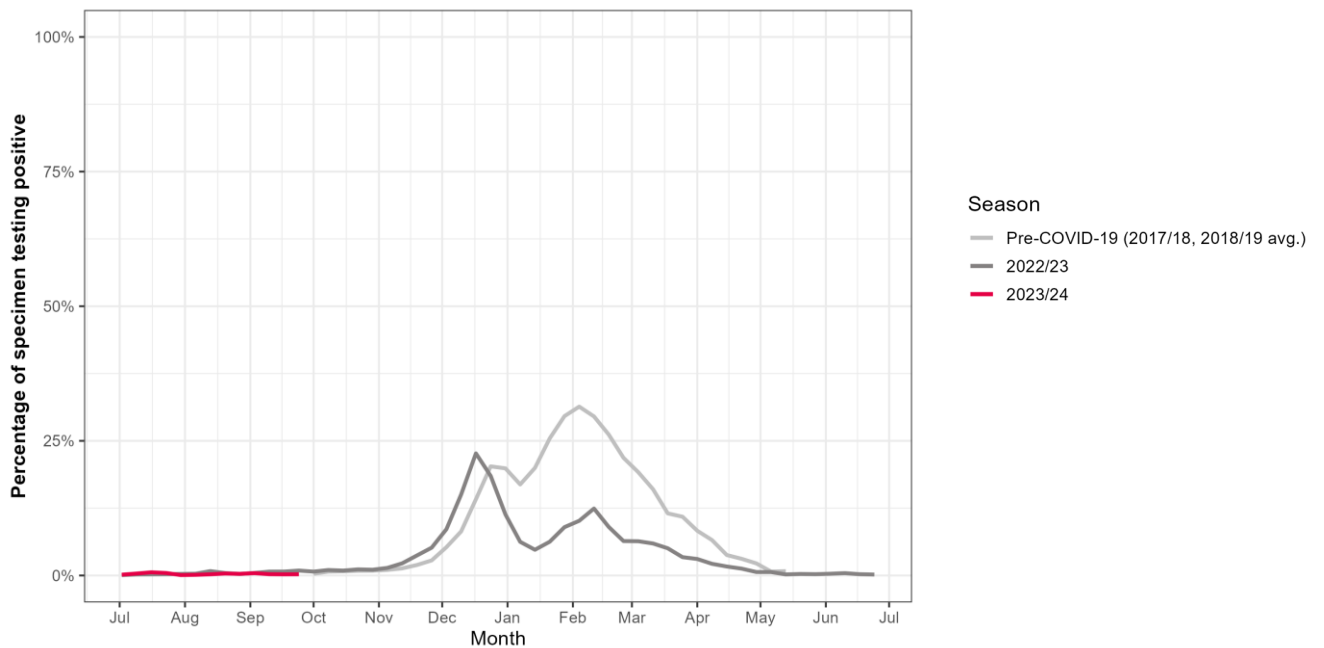


South West Europe

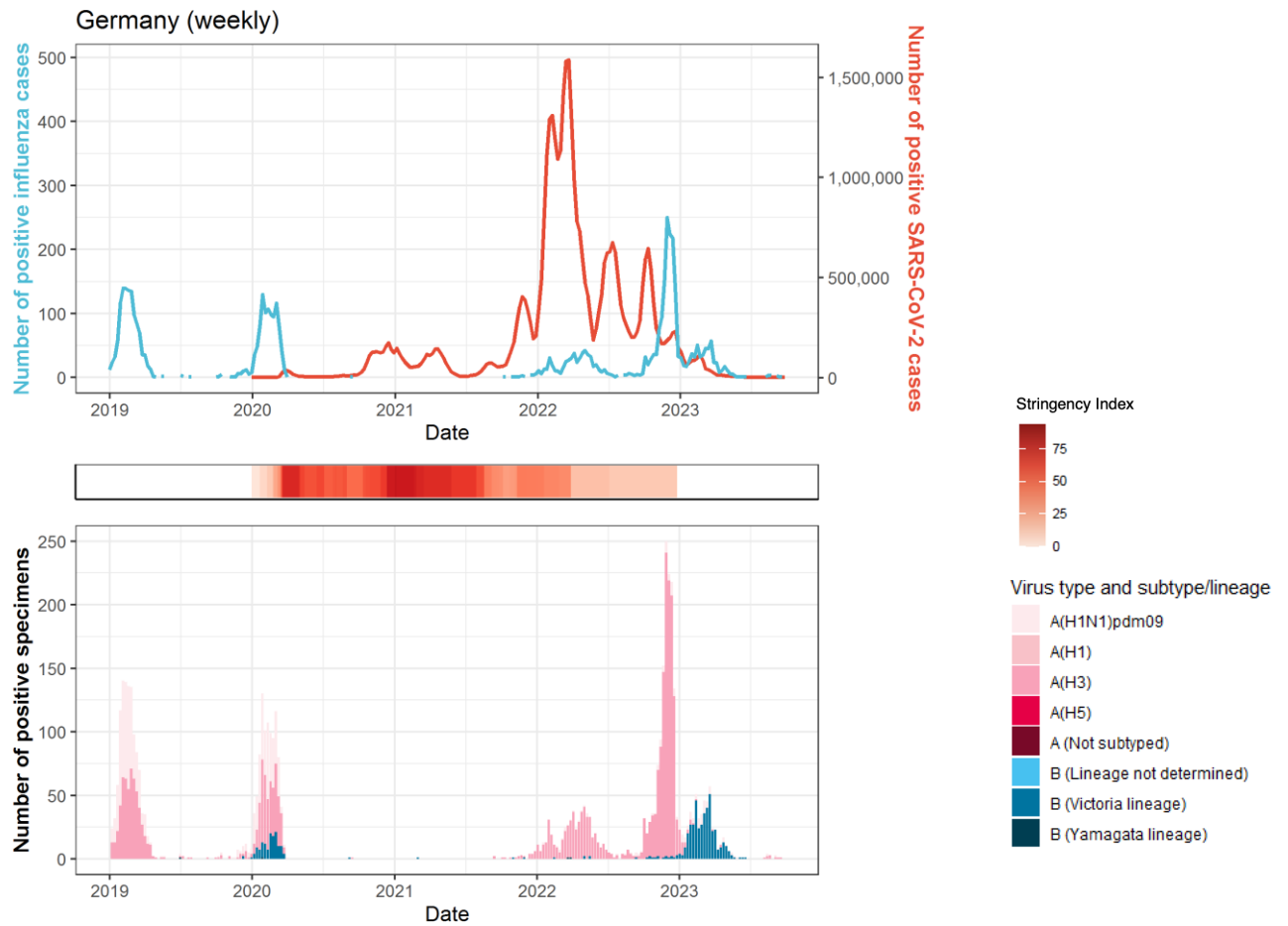
France



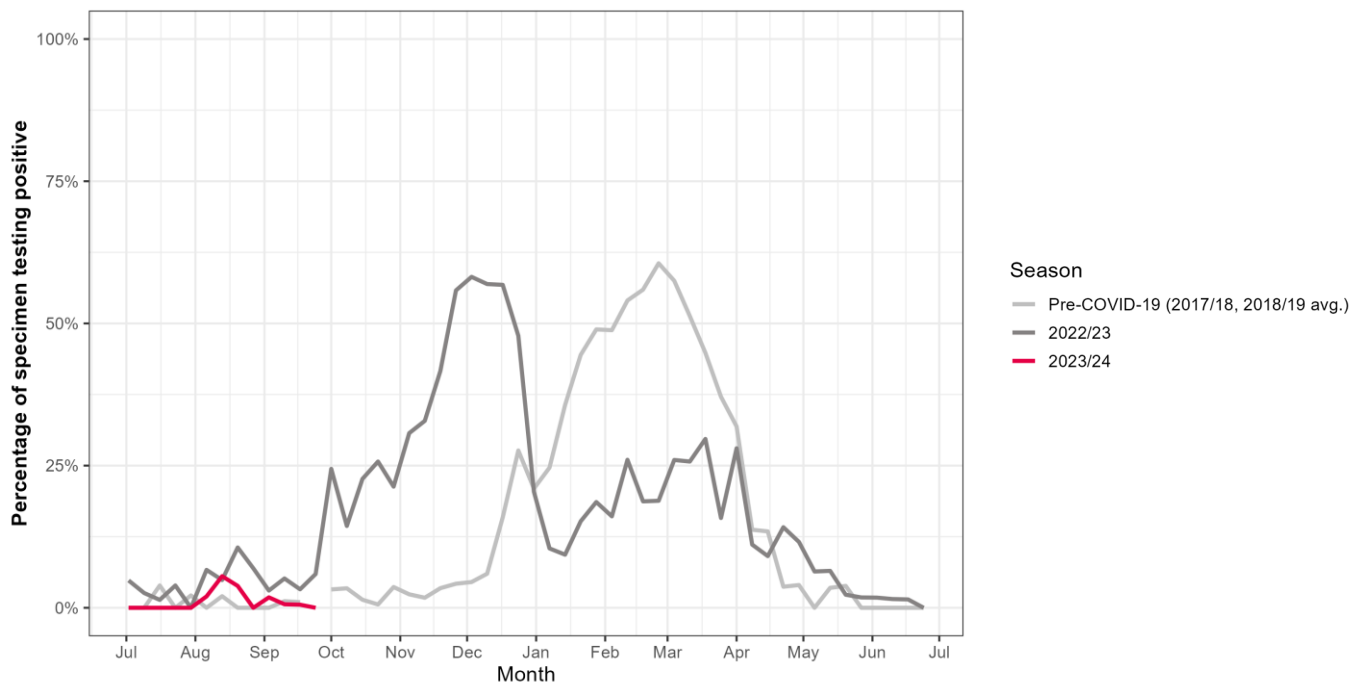
Percentage of specimens testing positive for influenza in different seasons



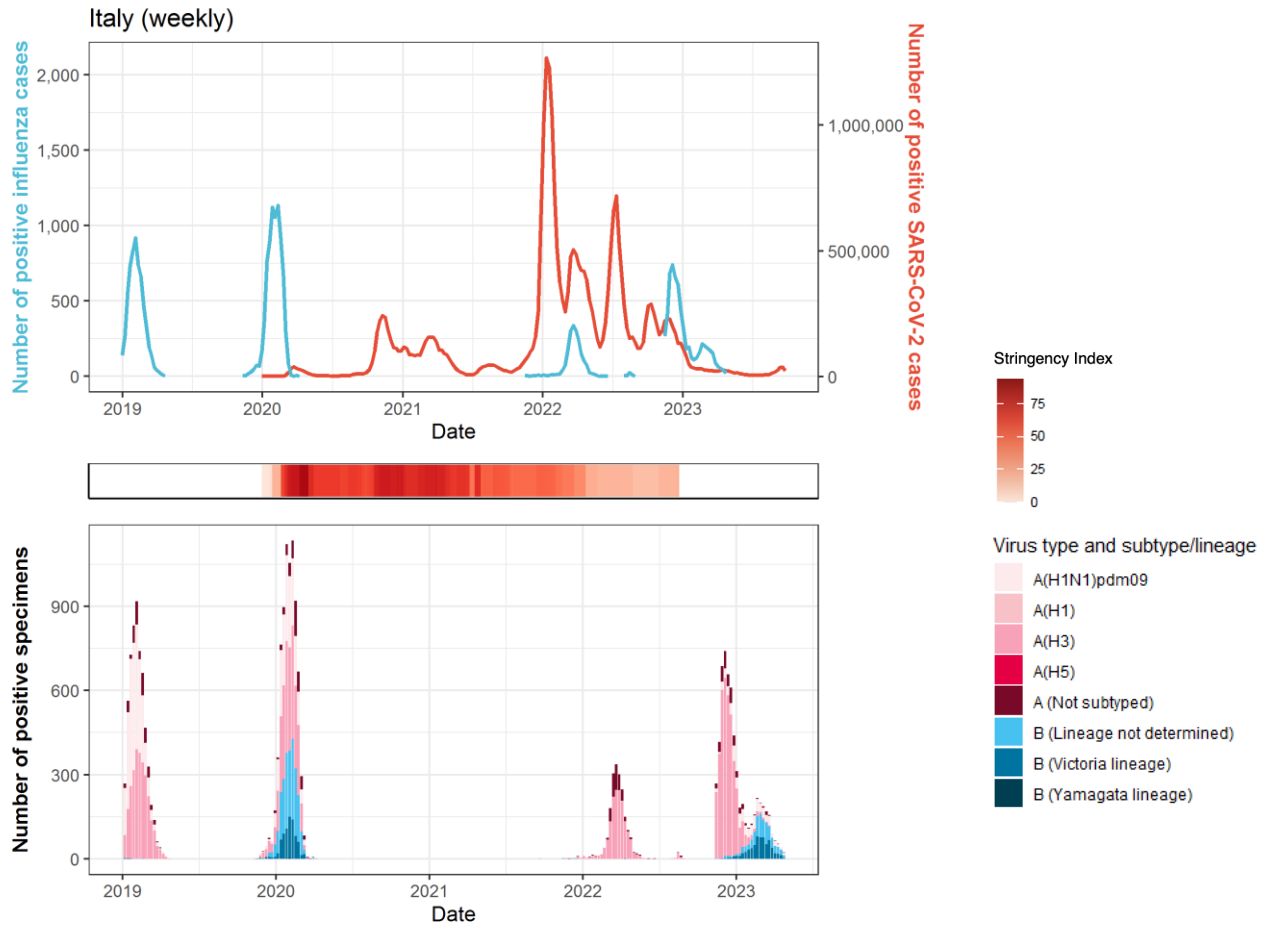
Germany



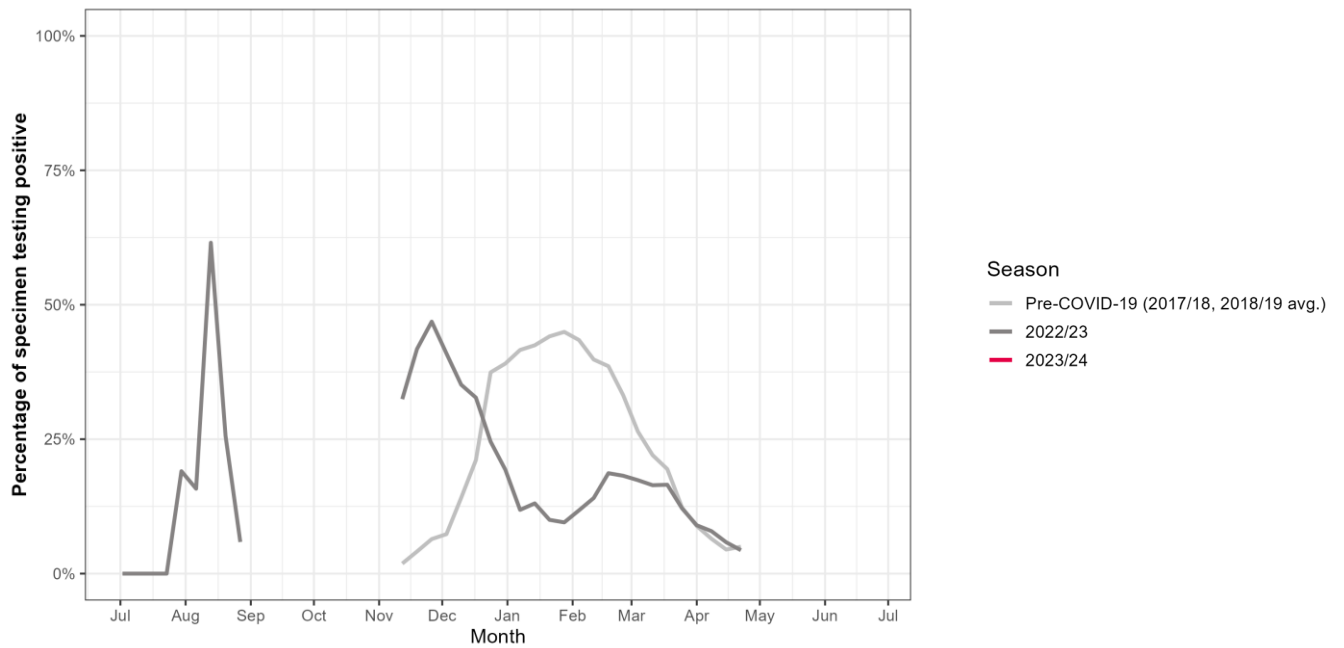
Percentage of specimens testing positive for influenza in different seasons



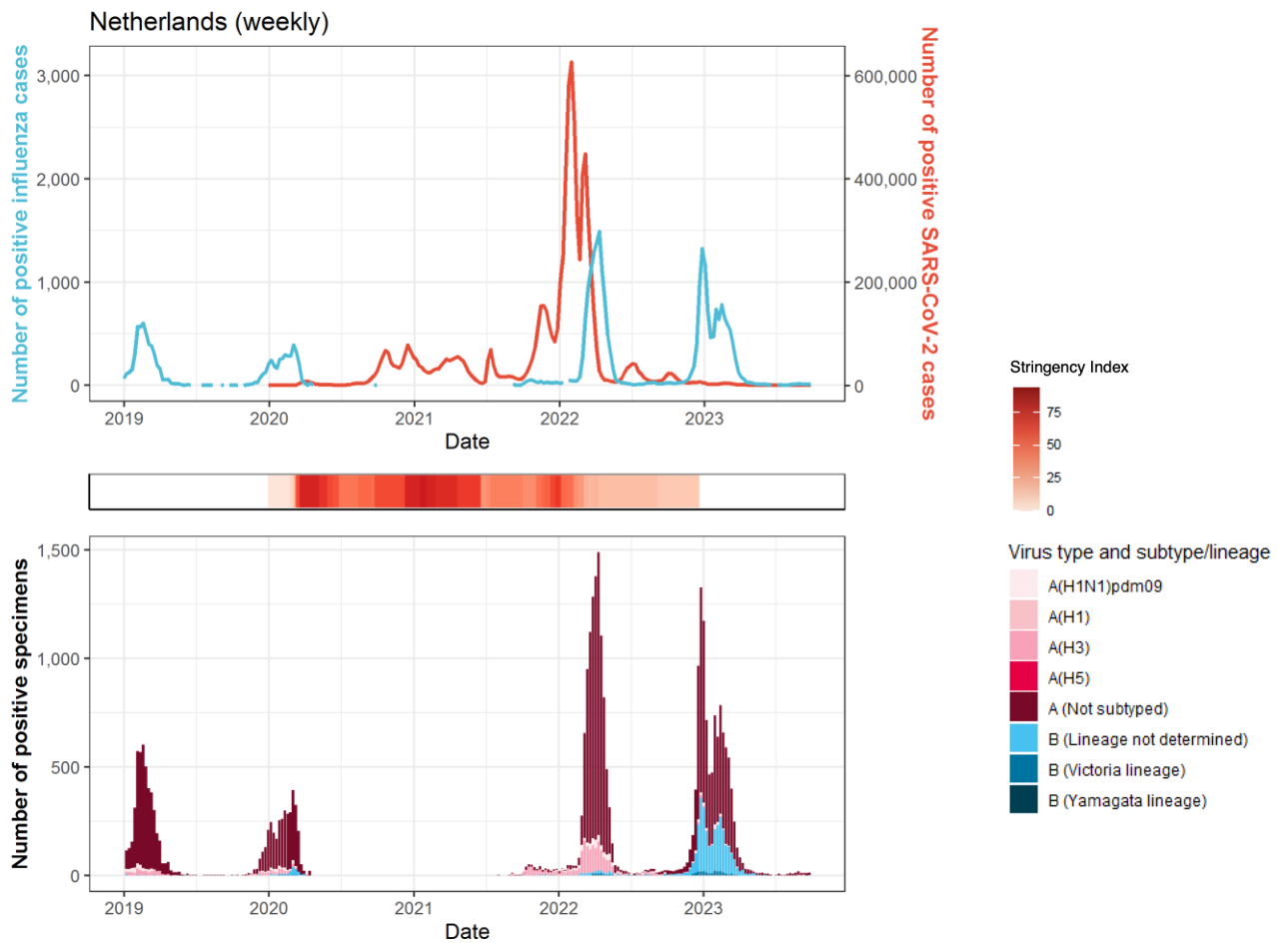
Italy



Percentage of specimens testing positive for influenza in different seasons

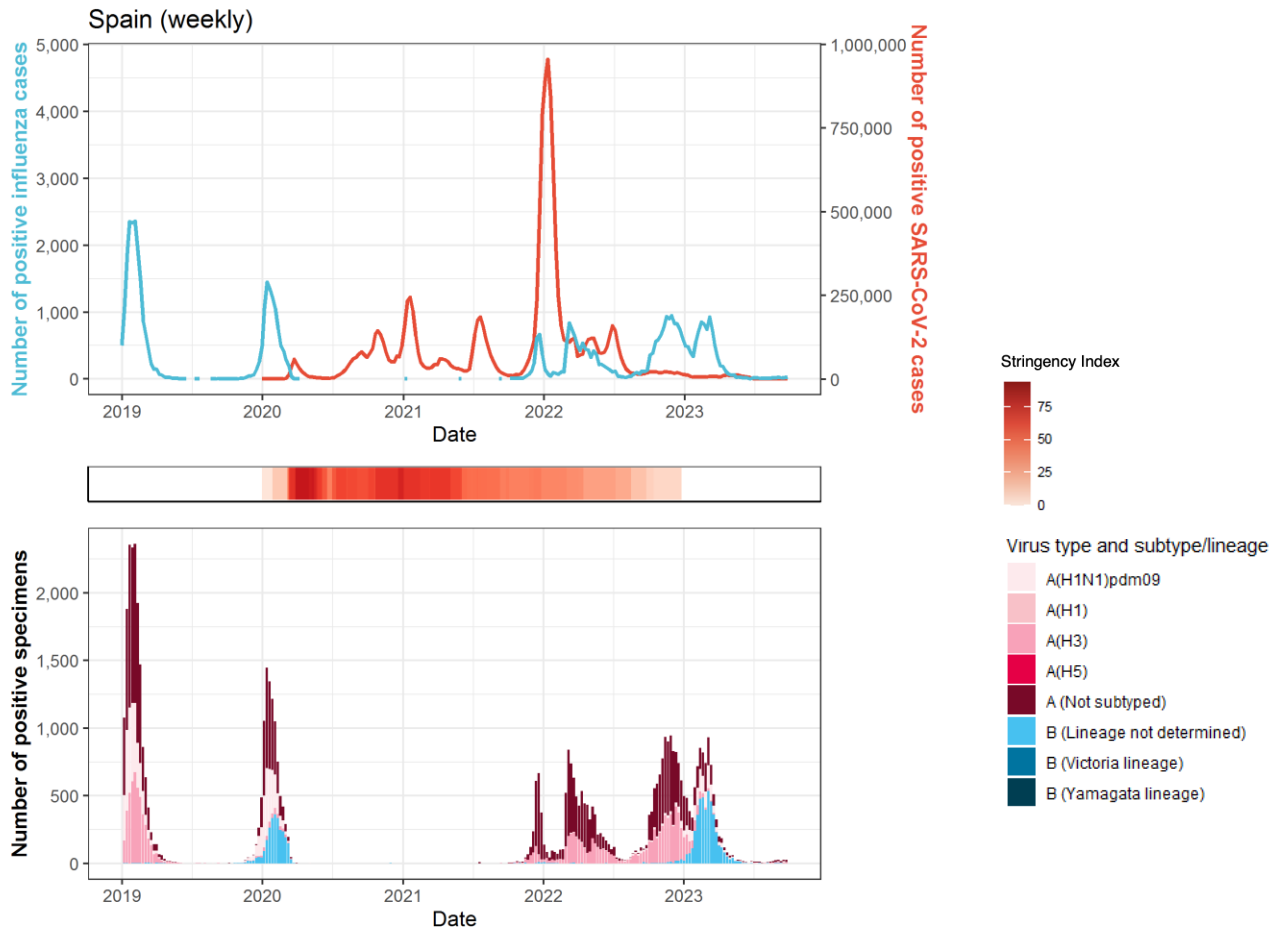


Netherlands

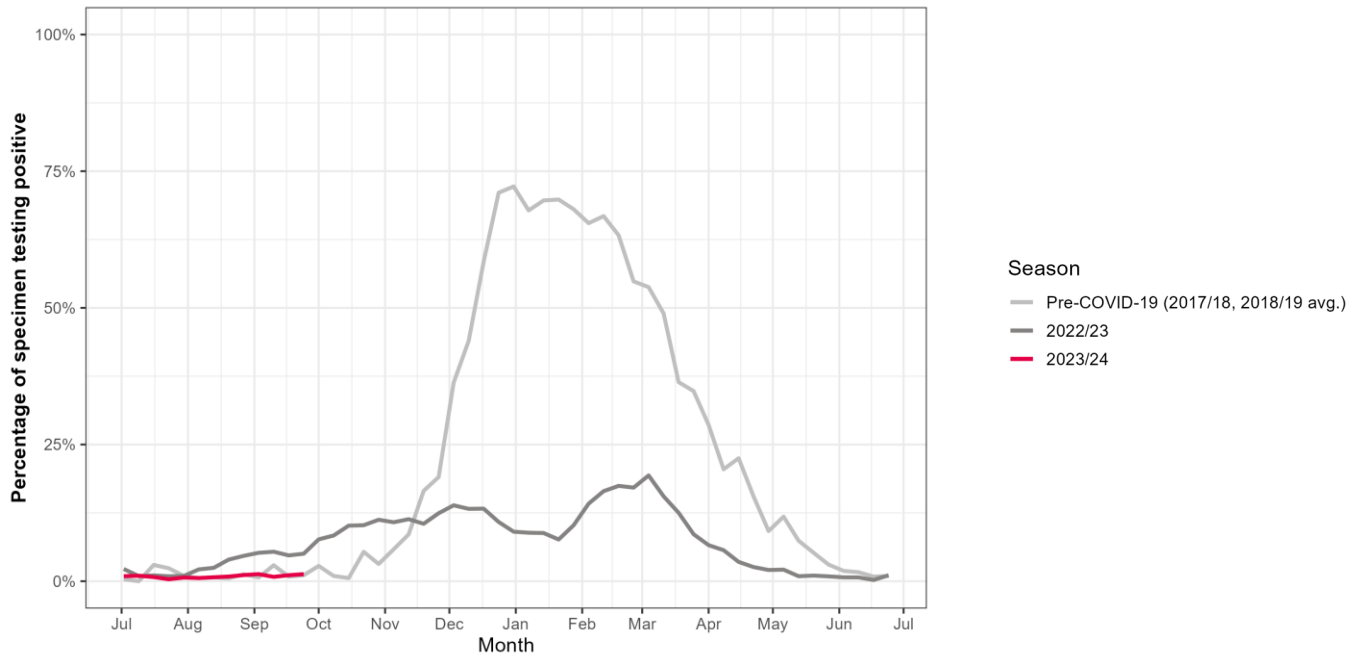


Percentage of specimens testing positive for influenza in different seasons: data not available

Spain

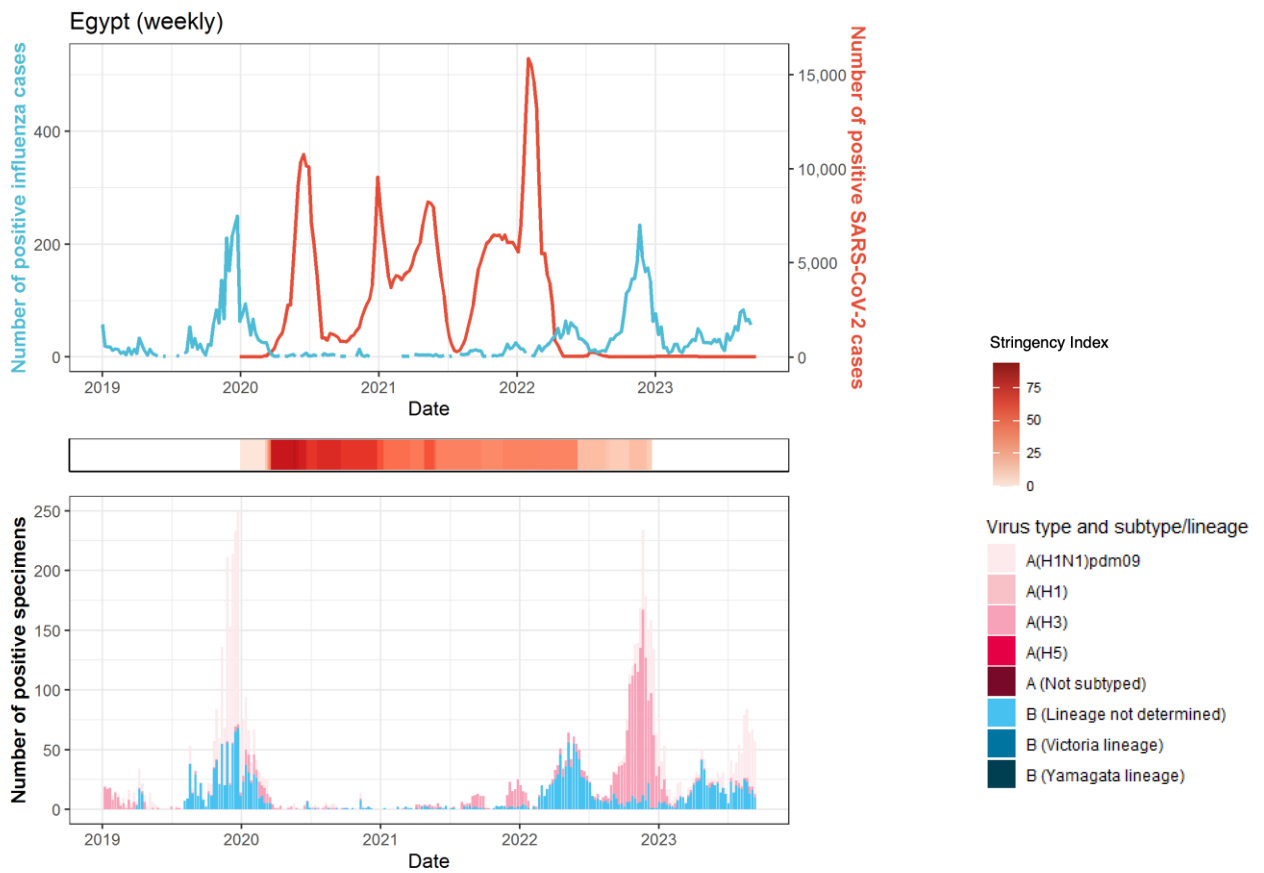


Percentage of specimens testing positive for influenza in different seasons

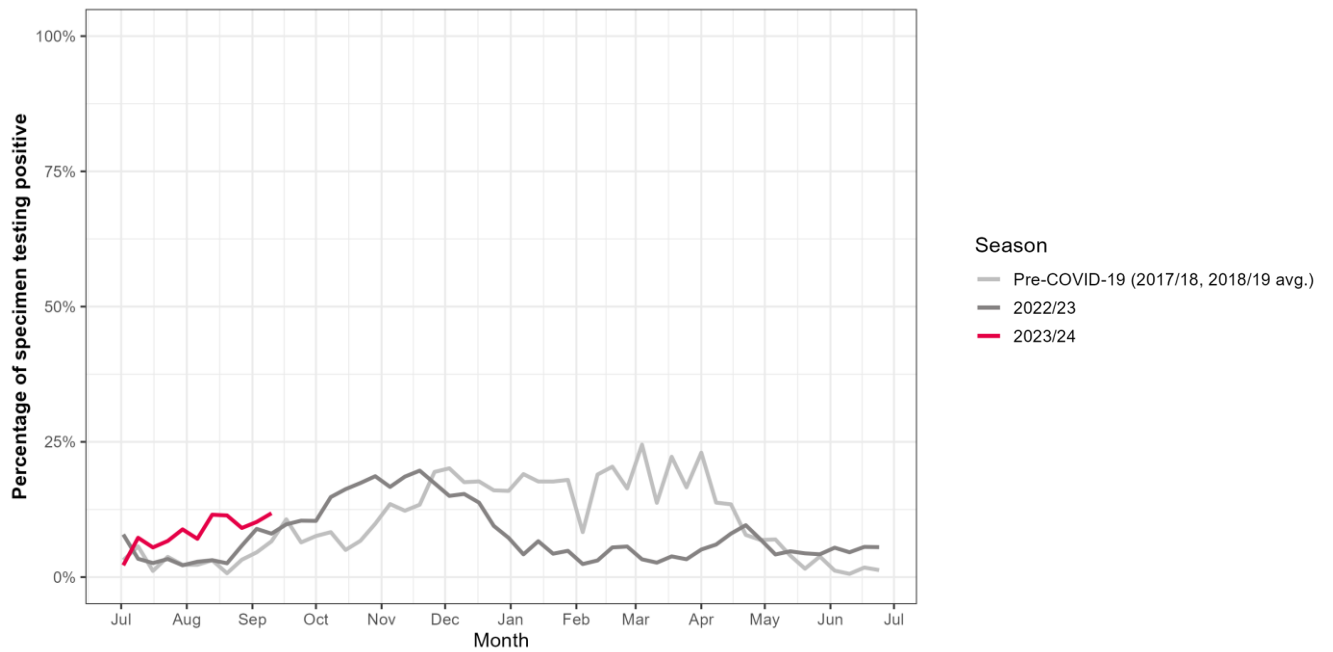


Northern Africa

Egypt

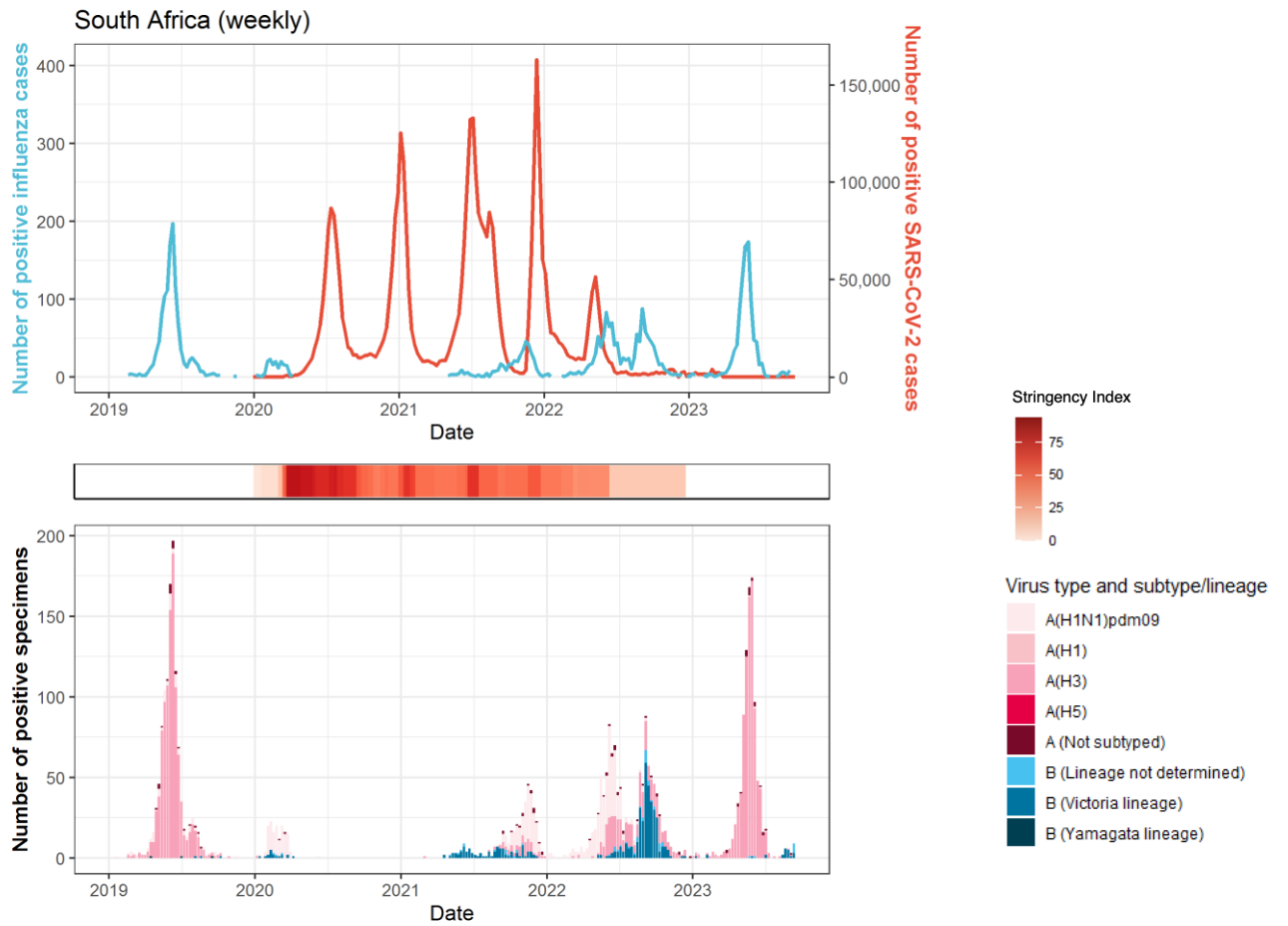


Percentage of specimens testing positive for influenza in different seasons

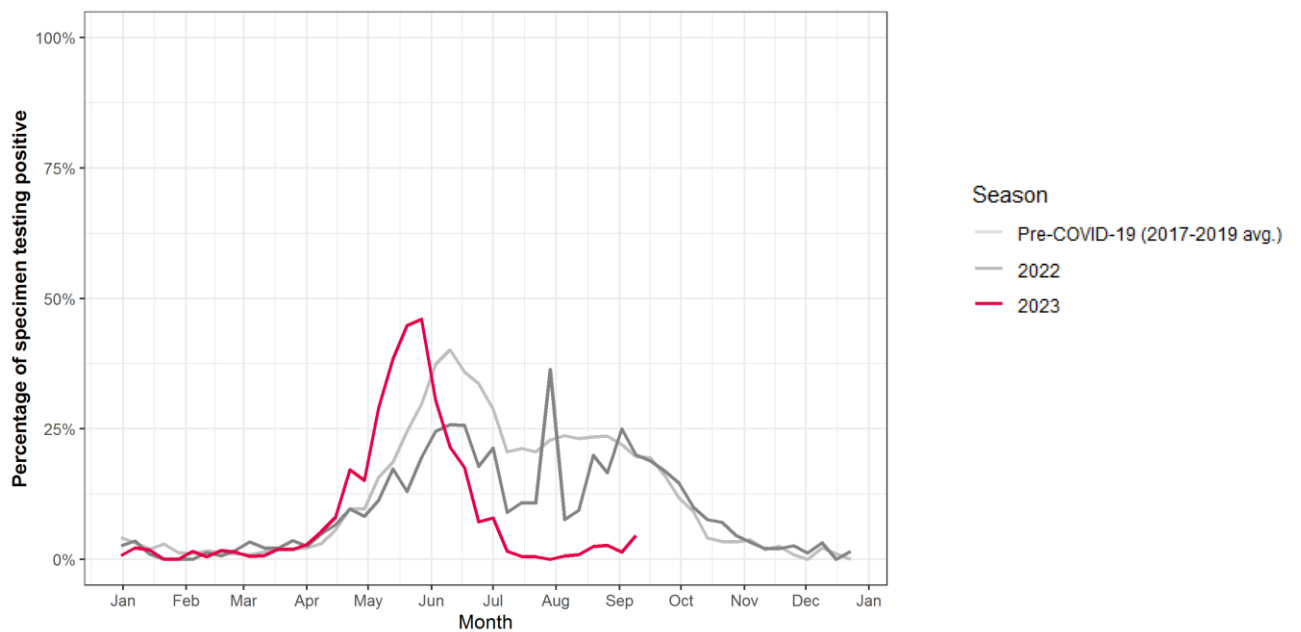


Southern Africa

South Africa

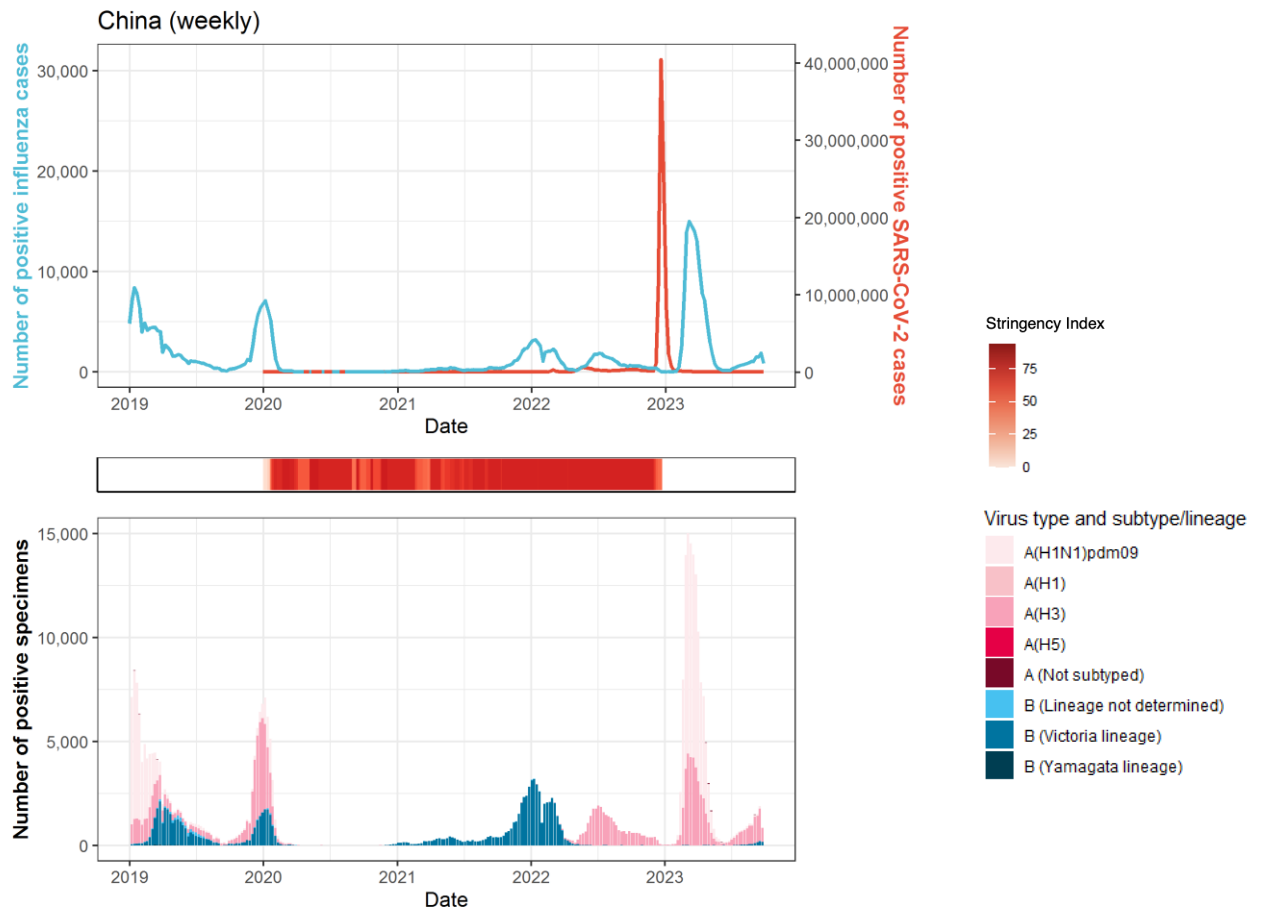


Percentage of specimens testing positive for influenza in different seasons

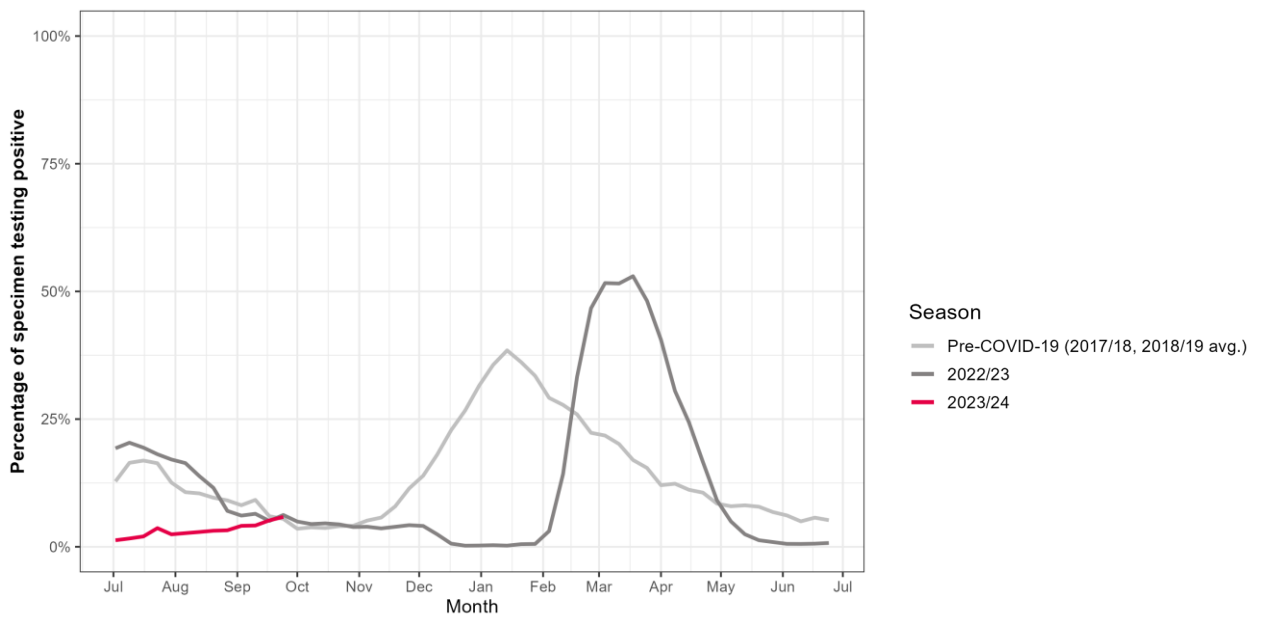


Eastern Asia

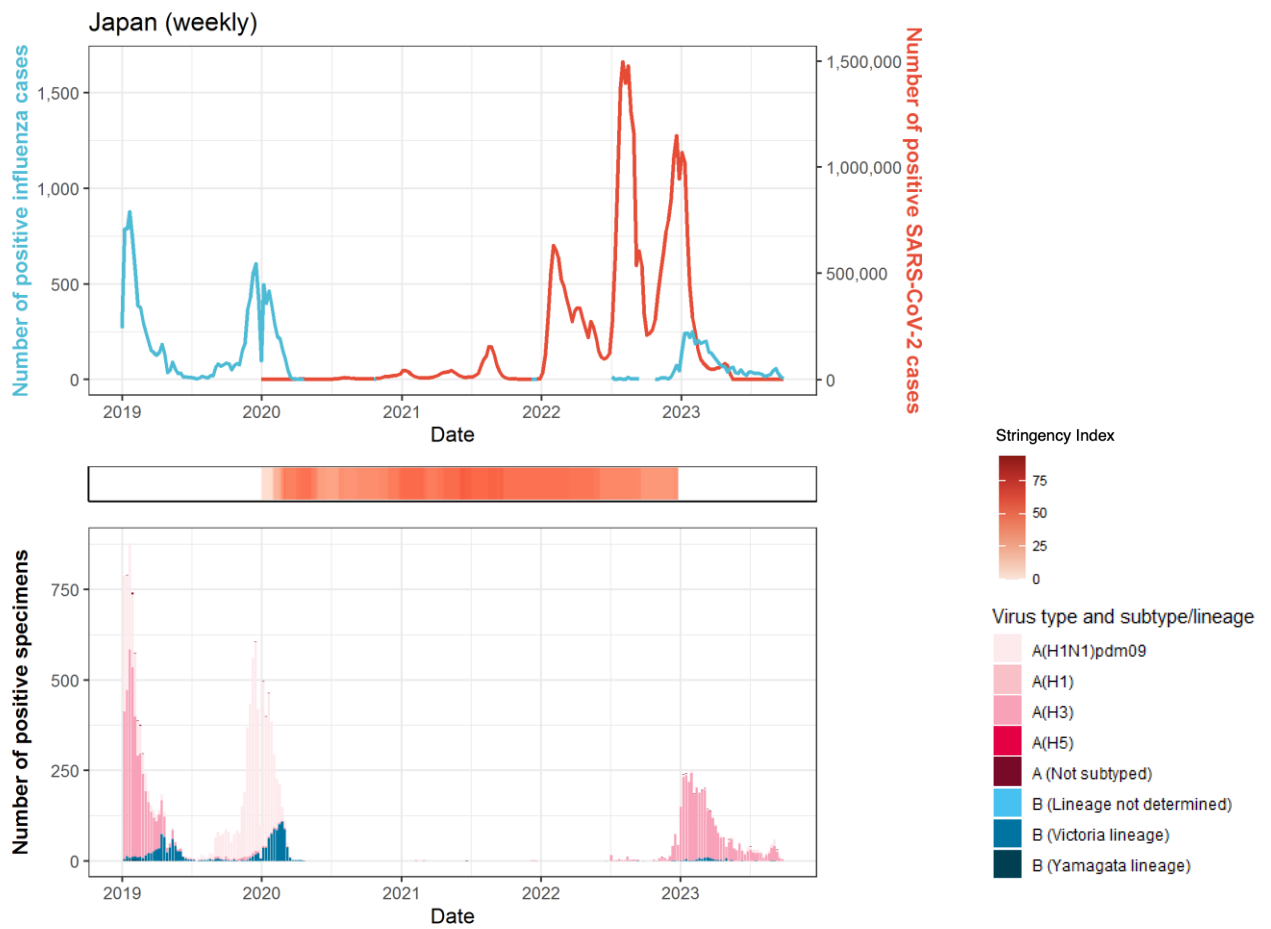
China



Percentage of specimens testing positive for influenza in different seasons

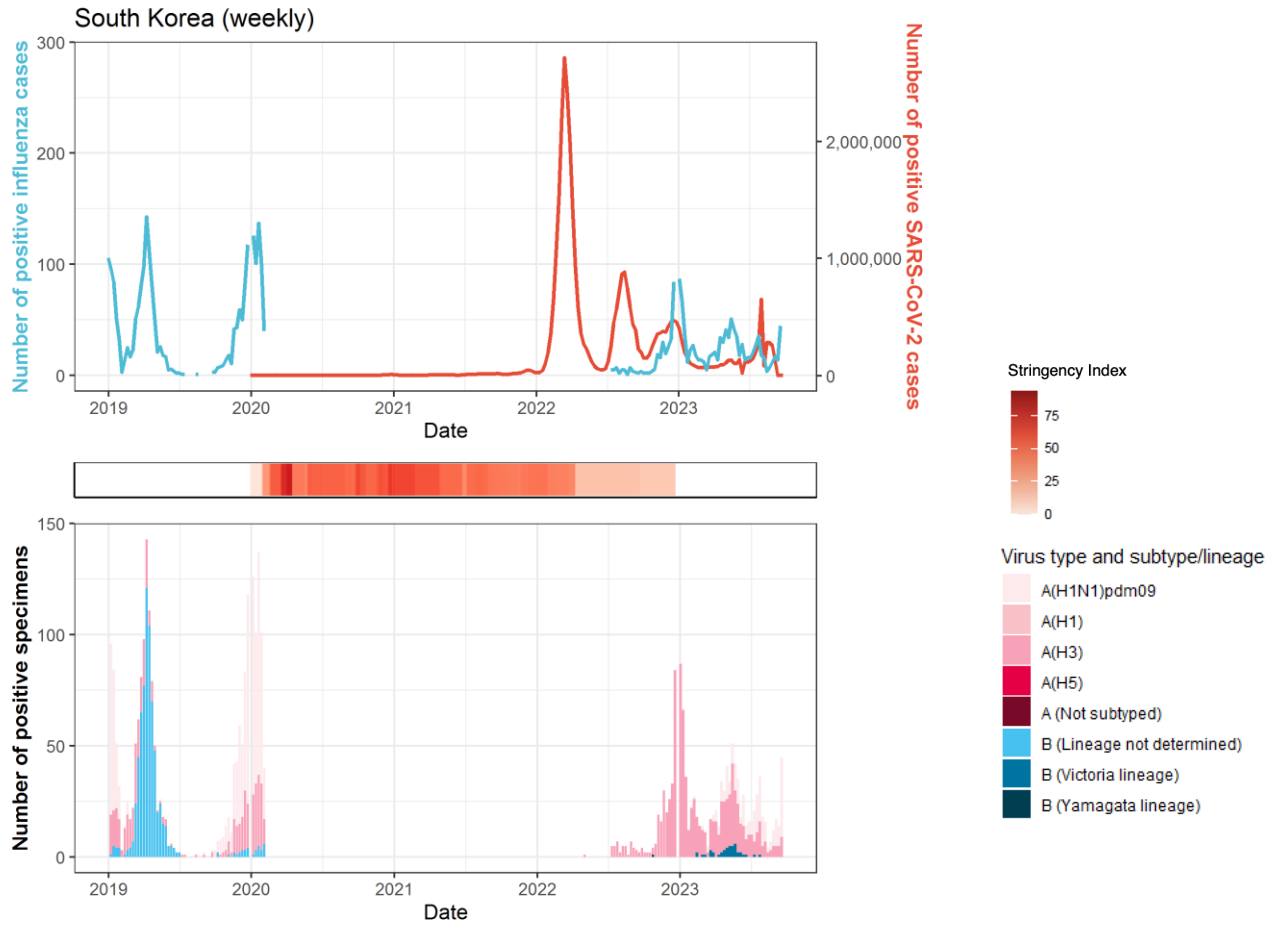


Japan

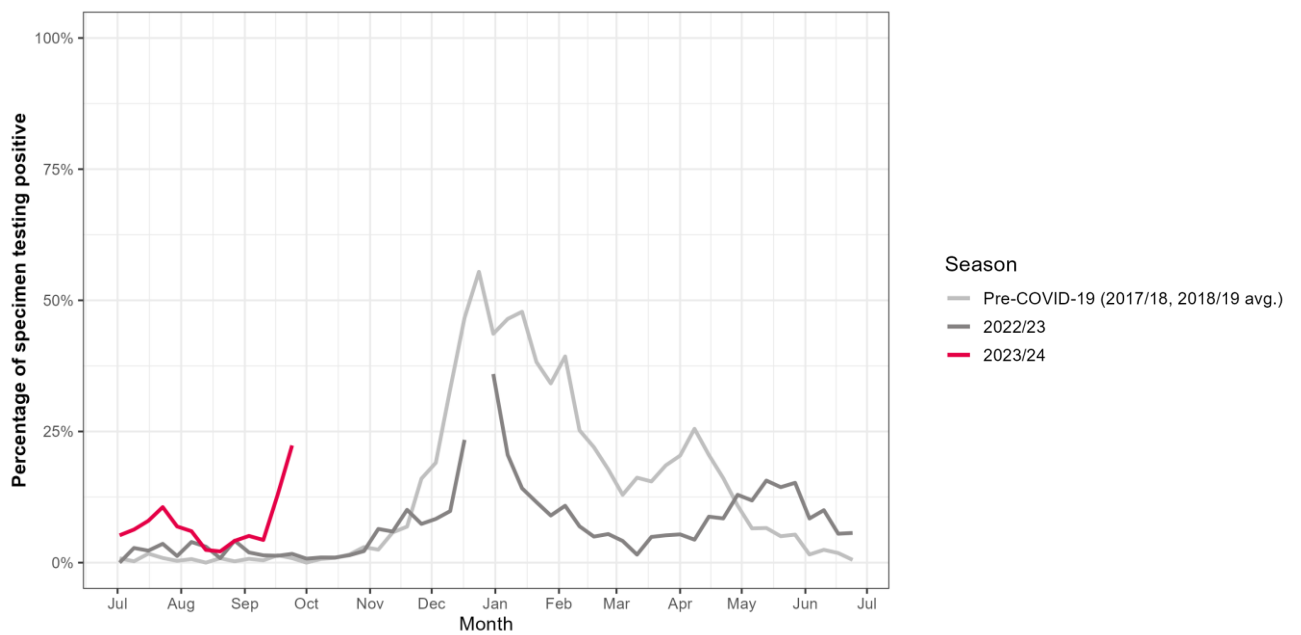


Percentage of specimens testing positive for influenza in different seasons: data not available

South Korea

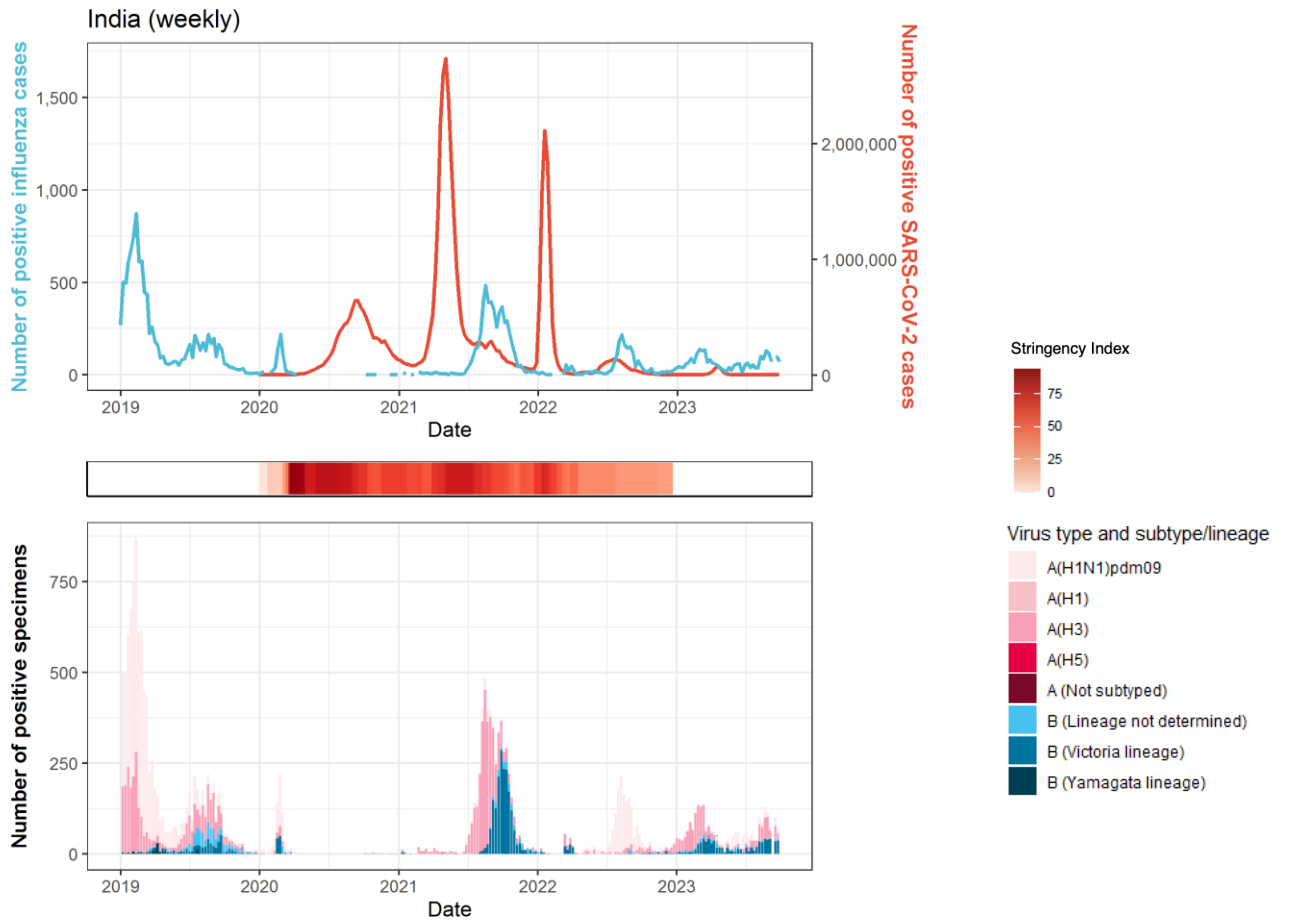


Percentage of specimens testing positive for influenza in different seasons

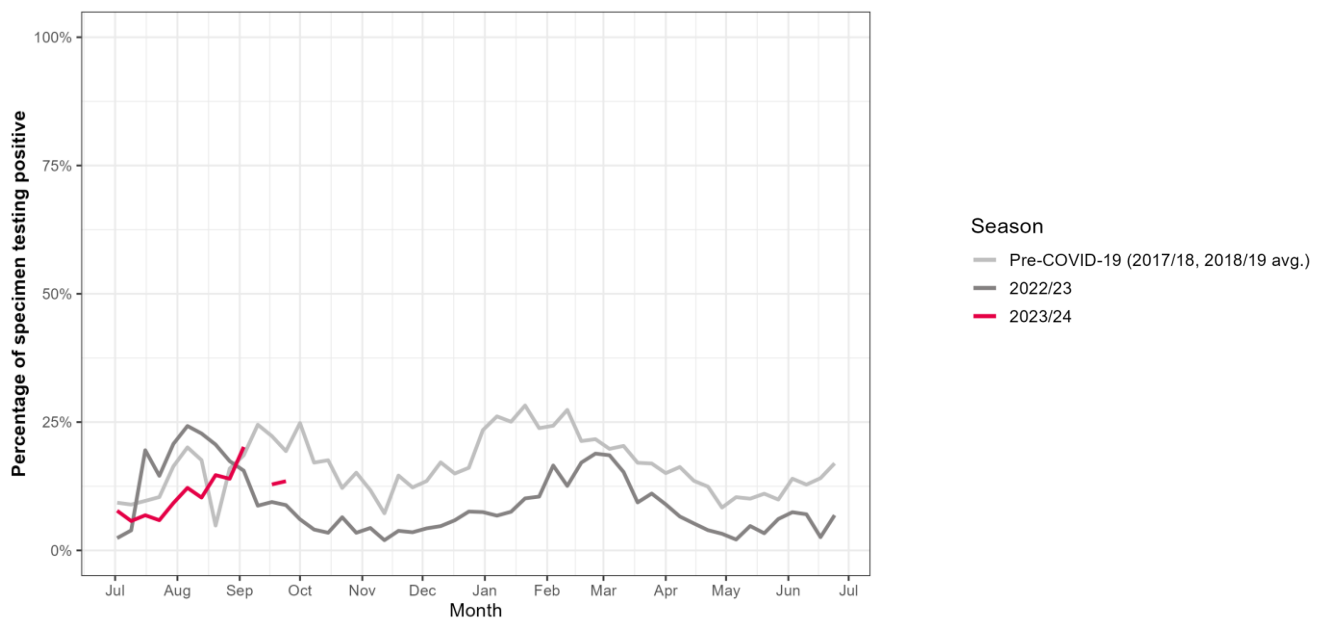


Southern Asia

India

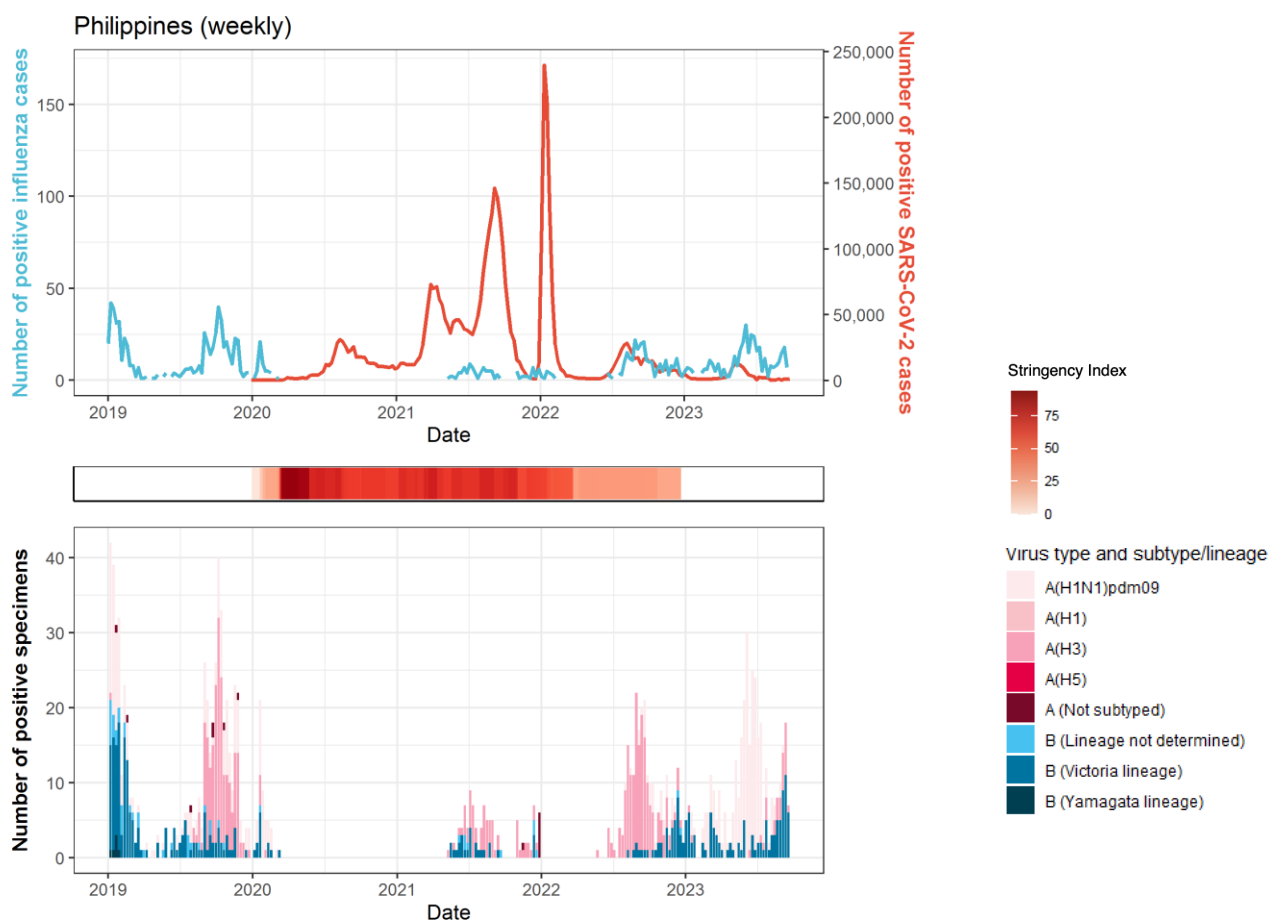


Percentage of specimens testing positive for influenza in different seasons

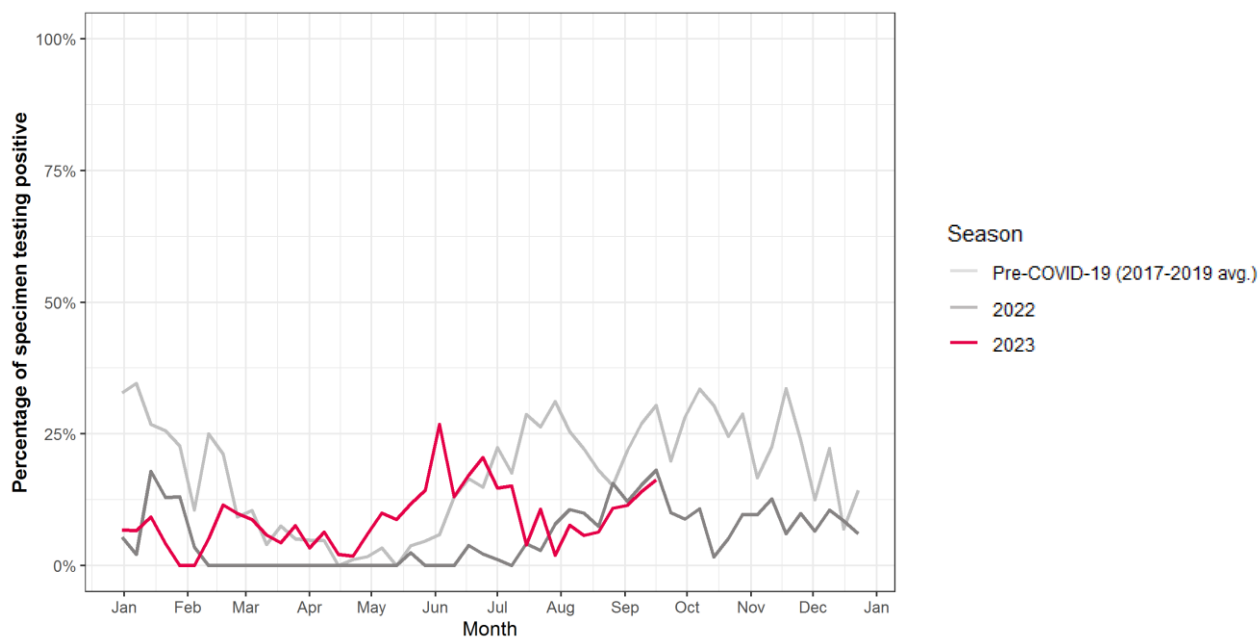


South-East Asia

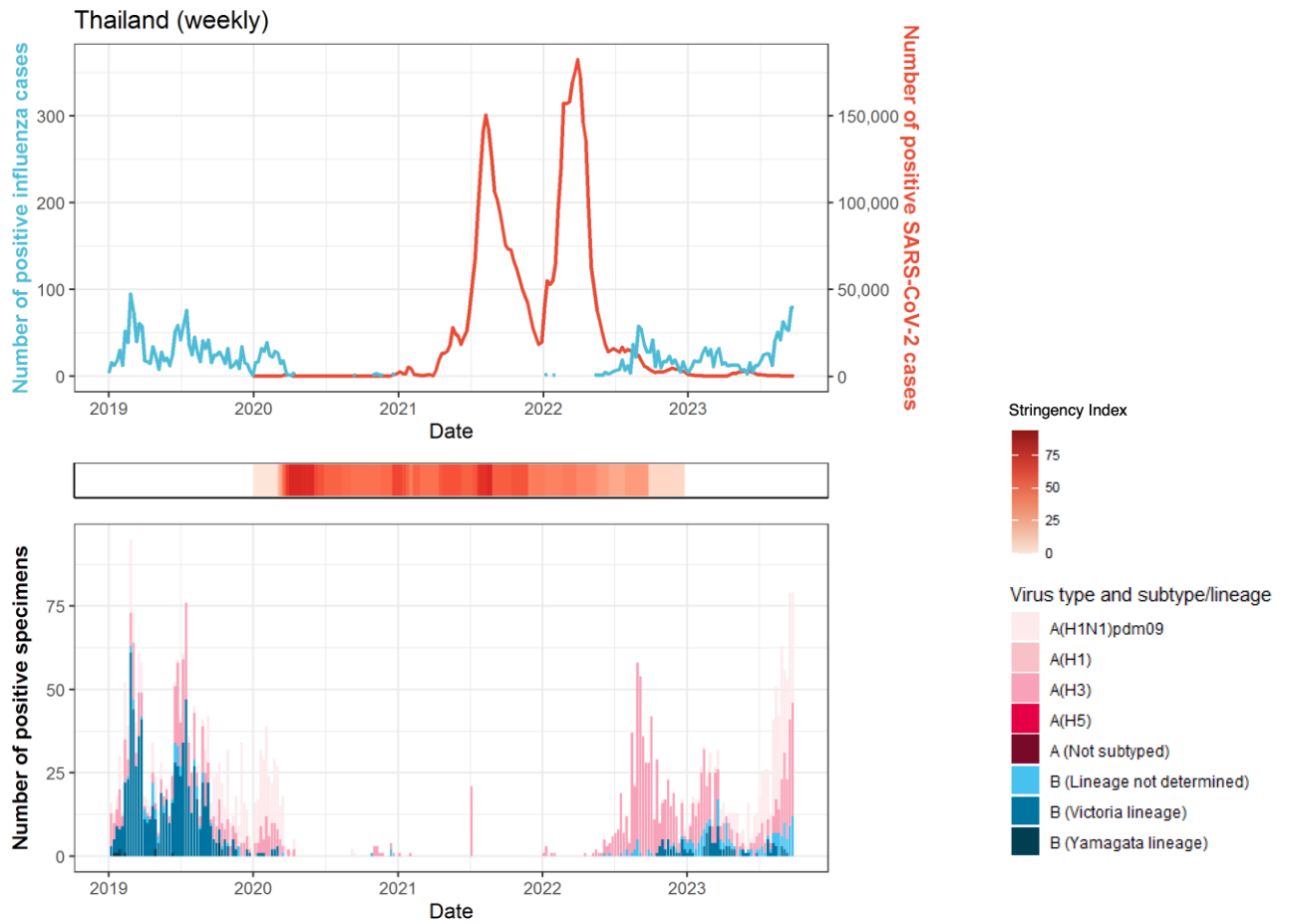
Philippines



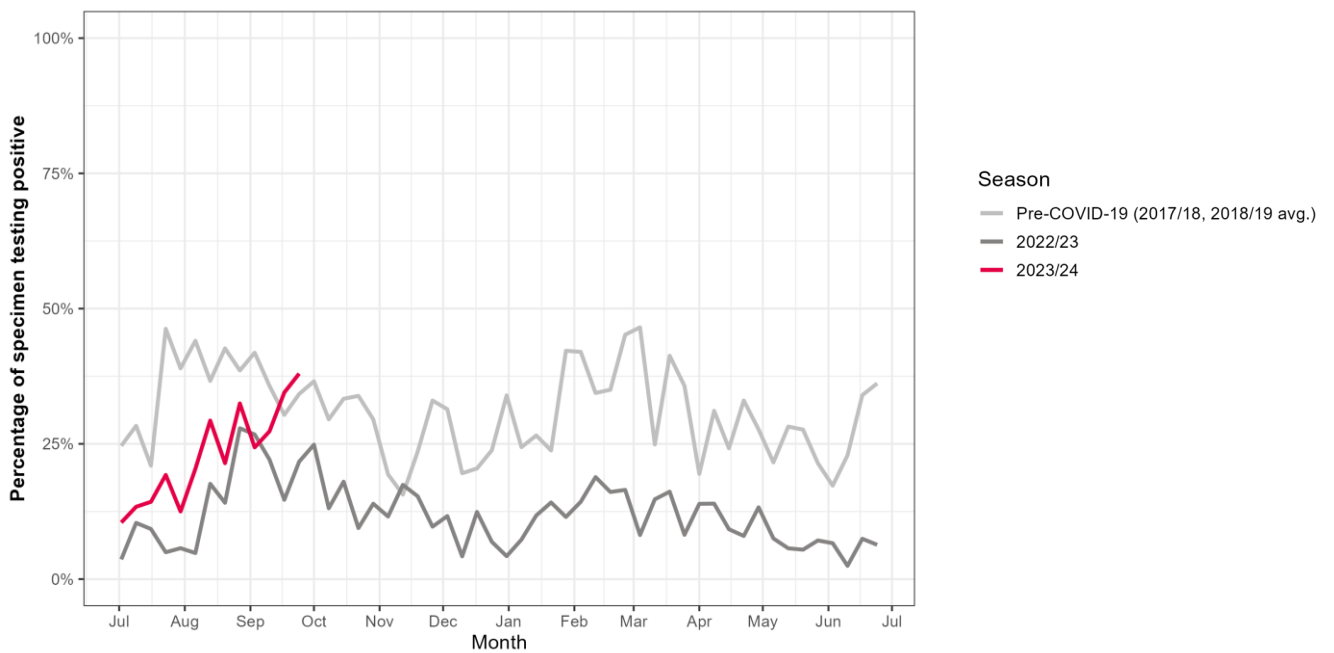
Percentage of specimens testing positive for influenza in different seasons



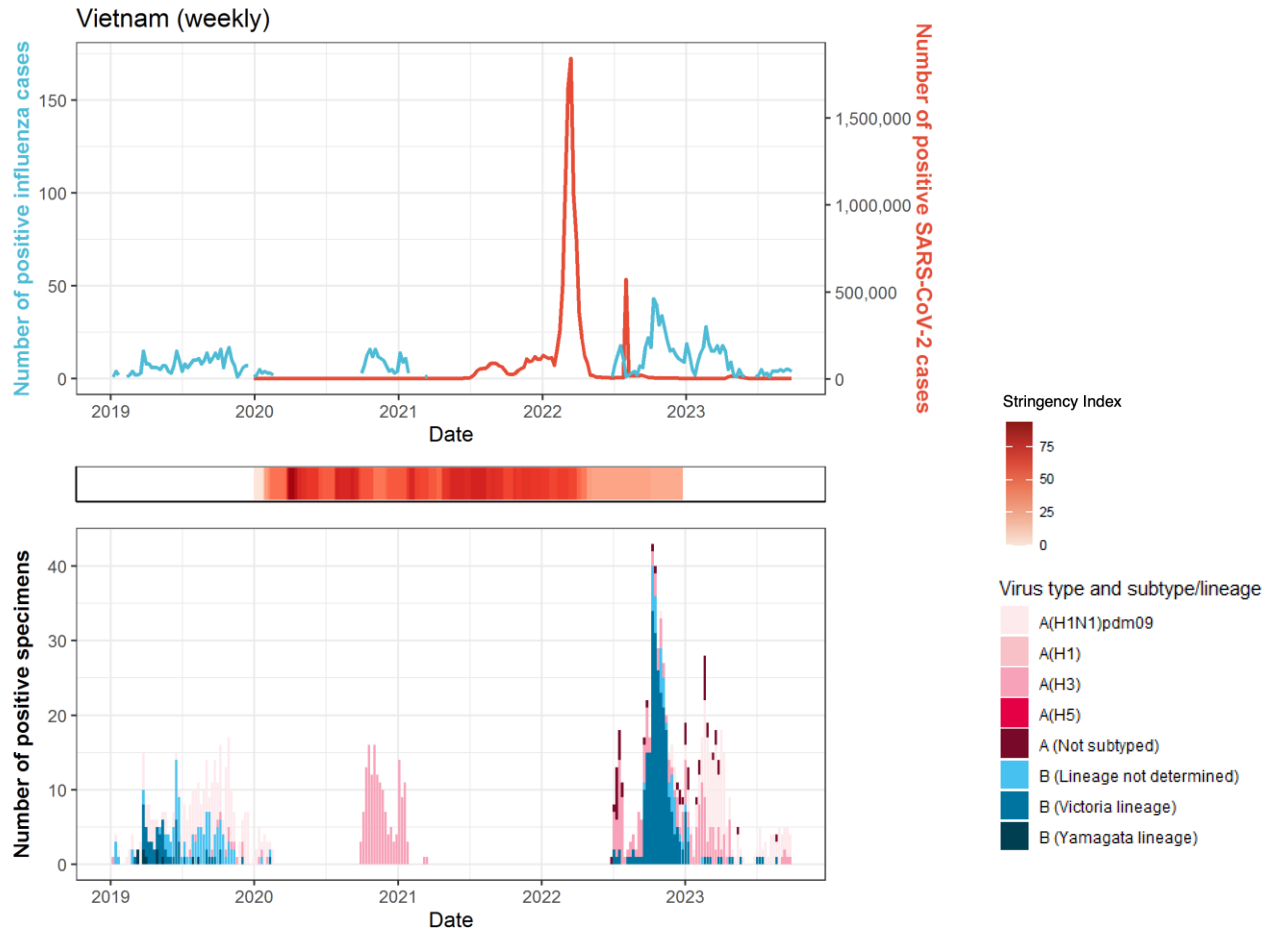
Thailand



Percentage of specimens testing positive for influenza in different seasons



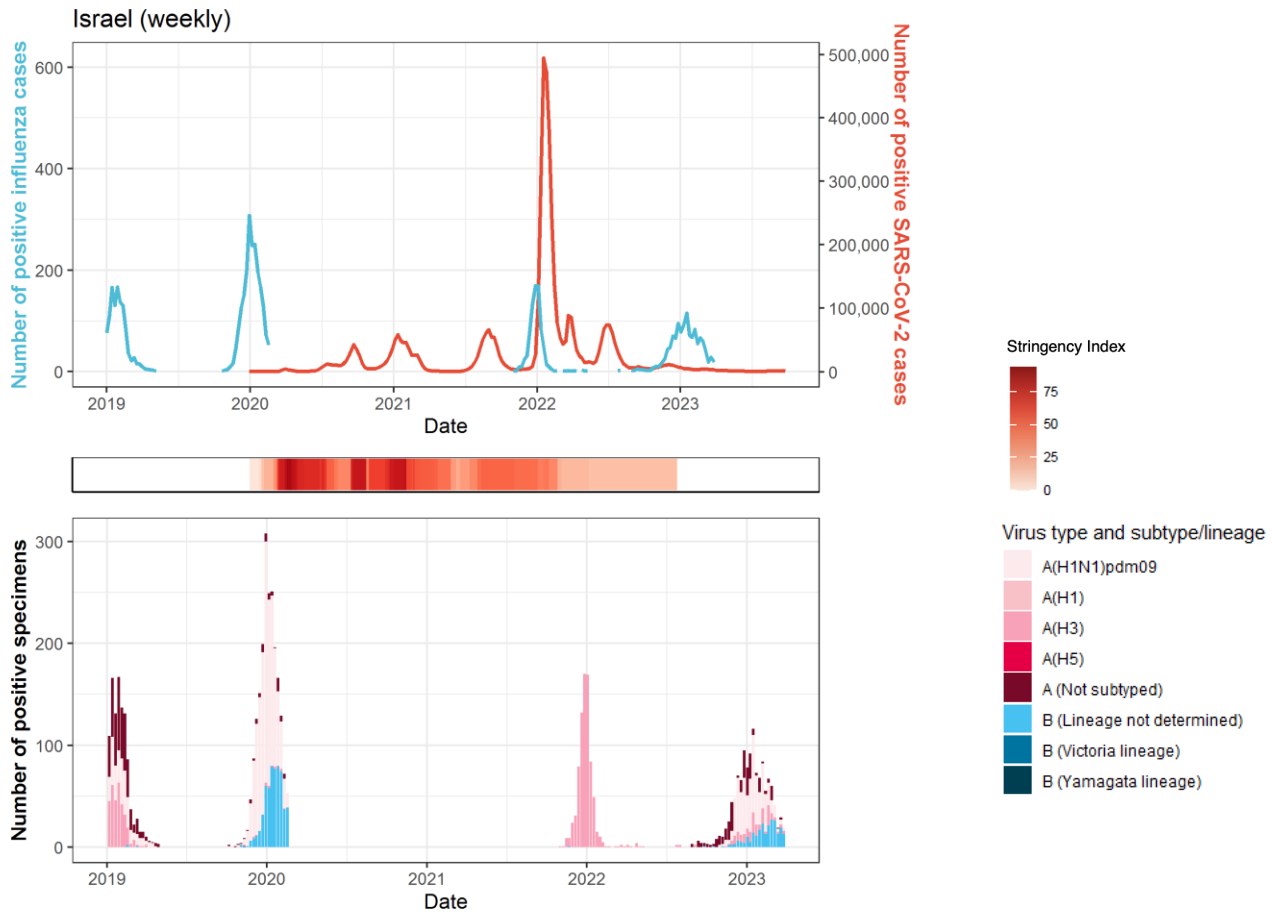
Vietnam



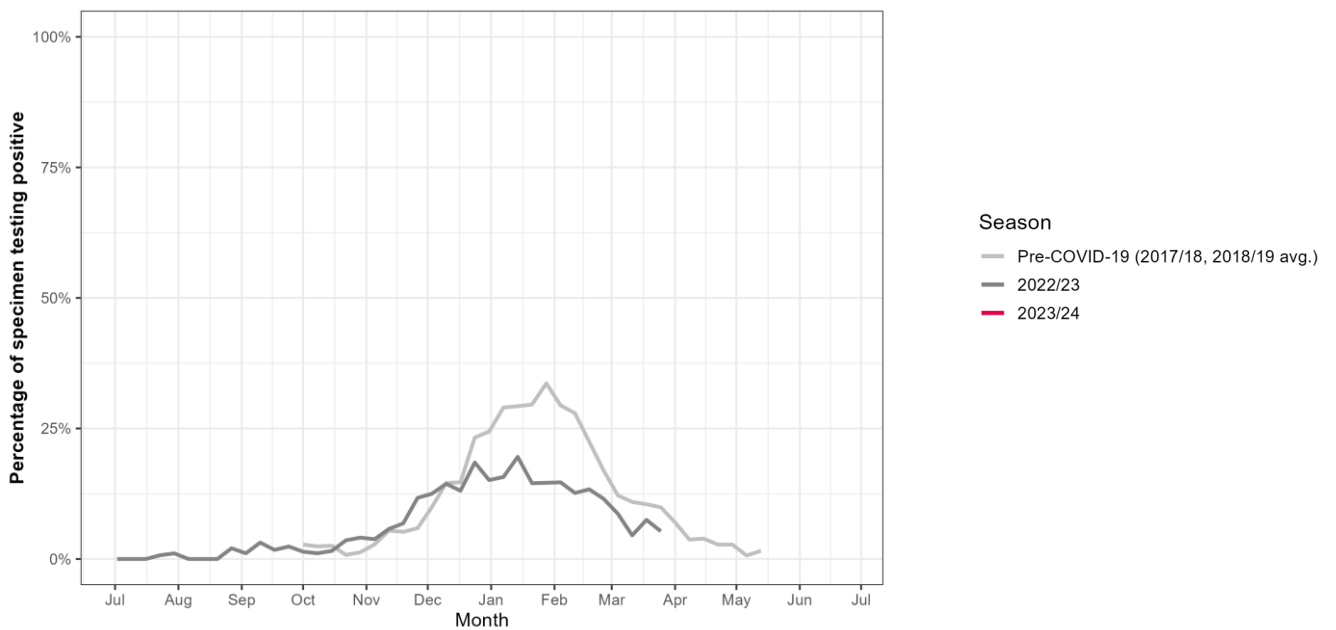
Percentage of specimens testing positive for influenza in different seasons: data not available

Western Asia

Israel

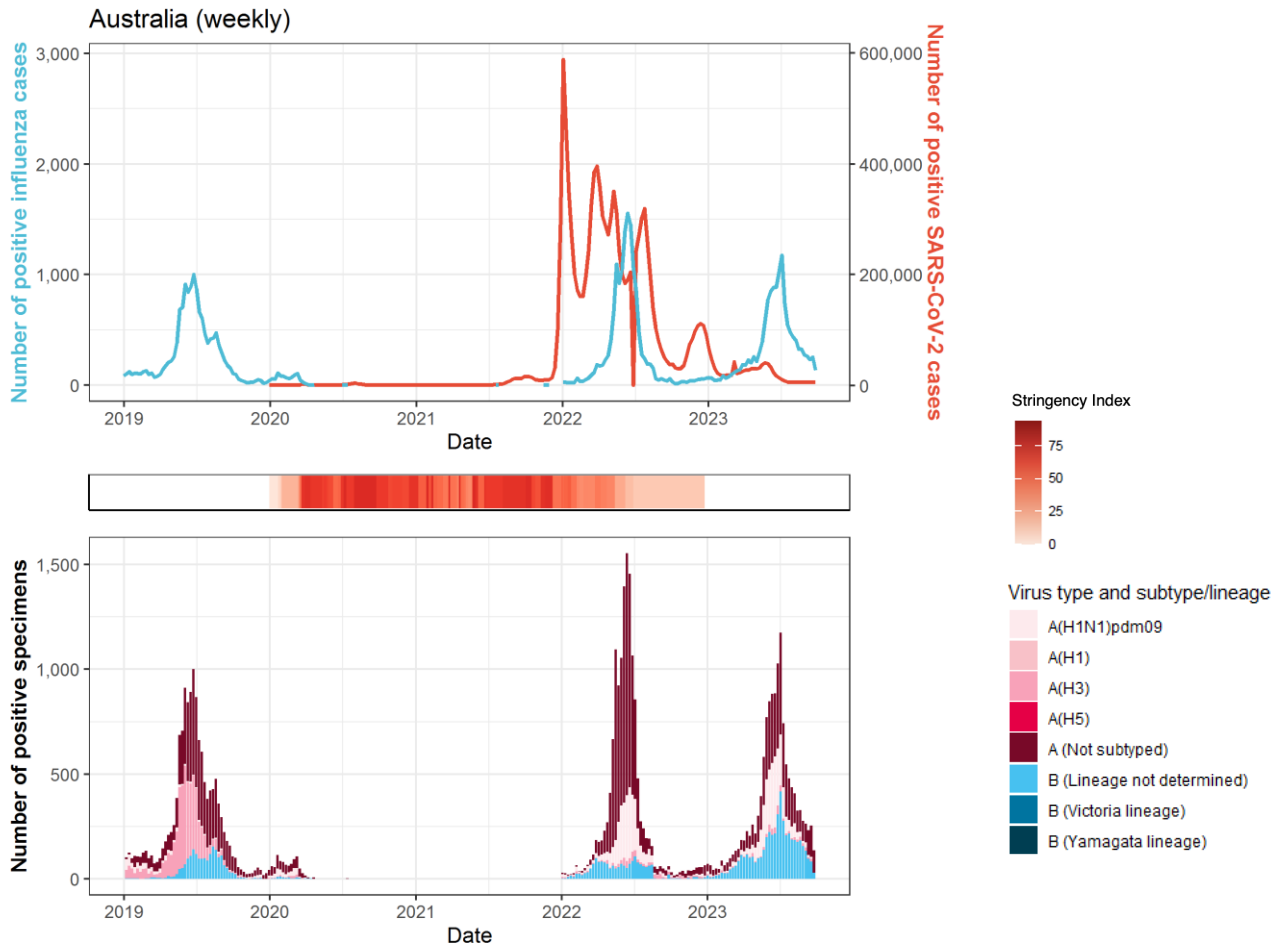


Percentage of specimens testing positive for influenza in different seasons

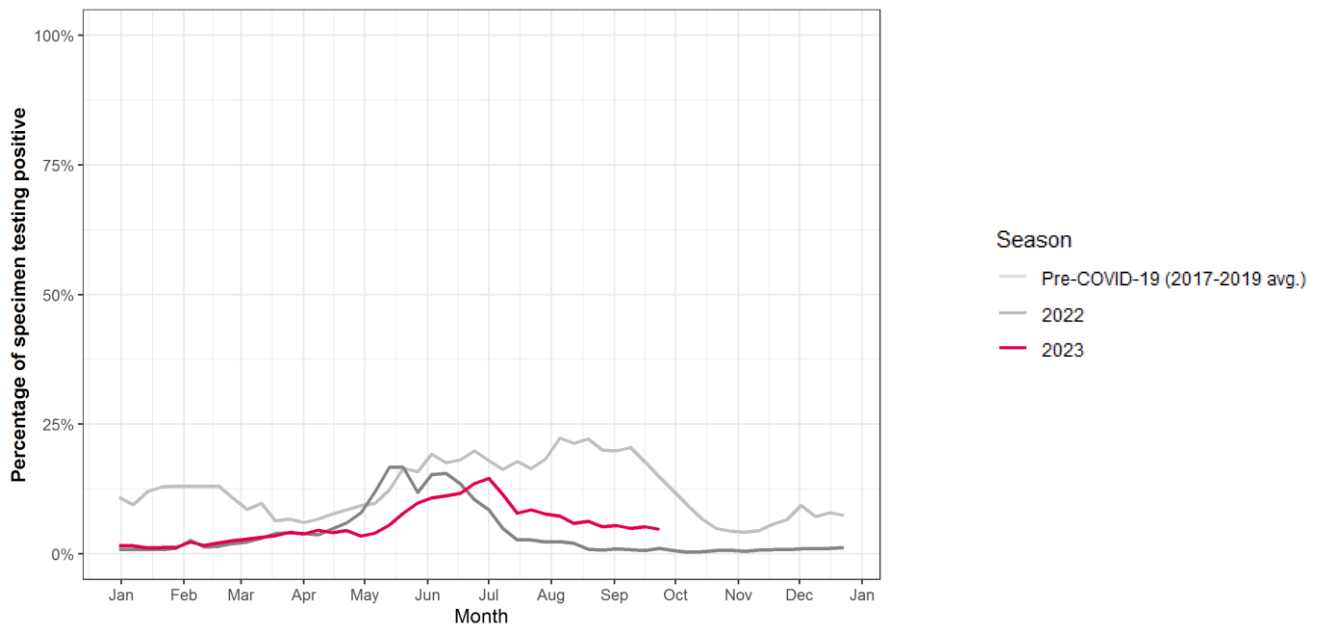


Oceania

Australia



Percentage of specimens testing positive for influenza in different seasons



Absolute numbers per country

Country	Year	Cases ^{a,b} of SARS-CoV-2	+/- since last month ^c	Cases ^a of influenza	+/- since last month ^c	Week of last influenza update
Australia	2019			14,002		
Australia	2020	28,381		949		
Australia	2021	338,226		8		
Australia	2022	10,418,952		14,430		
Australia	2023	822,607	20,381	13,566	886	2023-39
Brazil	2019			3,459		
Brazil	2020	7,563,551		1,391		
Brazil	2021	14,700,856		1,240		
Brazil	2022	14,038,581		3,648		
Brazil	2023	1,419,334	3,023	20,896	211	2023-39
Canada	2019			43,196		
Canada	2020	565,508		44,956		
Canada	2021	1,536,966		337		
Canada	2022	2,390,310		71,314		
Canada	2023	219,762	8,296	11,842	348	2023-39
China	2019			122,757		
China	2020	96,673		31,295		
China	2021	35,398		26,183		
China	2022	84,792,971		56,455		
China	2023	14,387,834	6,263	131,376	5,768	2023-39
Egypt	2019			1,999		
Egypt	2020	136,644		659		
Egypt	2021	248,084		233		
Egypt	2022	130,805		2,709		
Egypt	2023	490	0	1,281	124	2023-37
France	2019			25,405		
France	2020	2,338,258		16,589		
France	2021	6,371,668		3,071		
France	2022	29,279,621		40,148		
France	2023	1,007,943	0	18,928	62	2023-39
Germany	2019			1,215		
Germany	2020	1,660,178		958		
Germany	2021	5,353,865		29		
Germany	2022	30,227,893		1,923		
Germany	2023	1,195,820	0	552	5	2023-39
India	2019			10,428		
India	2020	10,266,679		655		
India	2021	24,572,130		4,789		
India	2022	9,840,329		1,421		
India	2023	320,398	1,615	2,556	248	2023-39
Israel	2019			1,796		
Israel	2020	419,661		1,424		
Israel	2021	962,276		456		
Israel	2022	3,381,654		774		
Israel	2023	76,226	5,048	801	0	2023-13

Country	Year	Cases ^{a,b} of SARS-CoV-2	+/- since last month ^c	Cases ^a of influenza	+/- since last month ^c	Week of last influenza update
Italy	2019			6,361		
Italy	2020	2,083,689		7,485		
Italy	2021	3,897,739		31		
Italy	2022	19,187,010		5,817		
Italy	2023	914,207	126,942	2,415	0	2023-17
Japan	2019			10,343		
Japan	2020	230,304		2,915		
Japan	2021	1,503,484		9		
Japan	2022	27,371,282		272		
Japan	2023	4,698,502	0	3,568	111	2023-39
Mexico	2019			6,963		
Mexico	2020	1,496,067		4,799		
Mexico	2021	2,538,755		960		
Mexico	2022	3,236,805		10,314		
Mexico	2023	419,281	22,405	3,593	477	2023-39
Netherlands	2019			5,166		
Netherlands	2020	773,198		3,235		
Netherlands	2021	2,312,304		471		
Netherlands	2022	5,480,565		14,863		
Netherlands	2023	52,748	1,302	7,968	45	2023-39
Philippines	2019			612		
Philippines	2020	472,523		52		
Philippines	2021	2,371,346		105		
Philippines	2022	1,218,790		260		
Philippines	2023	115,854	3,917	368	40	2023-38
Poland	2019			1,786		
Poland	2020	1,297,400		1,282		
Poland	2021	2,811,801		2		
Poland	2022	2,259,187		1,604		
Poland	2023	154,933	4,235	1,869	0	2023-39
South Africa	2019			1,164		
South Africa	2020	1,039,161		157		
South Africa	2021	2,407,371		413		
South Africa	2022	602,048		1,171		
South Africa	2023	23,953	0	961	12	2023-37
South Korea	2019			1,702		
South Korea	2020	60,722		505		
South Korea	2021	574,528		0		
South Korea	2022	28,424,023		295		
South Korea	2023	5,512,600	135,331	963	76	2023-38
Spain	2019			17,228		
Spain	2020	1,919,549		8,827		
Spain	2021	4,180,589		2,206		
Spain	2022	7,654,824		18,100		
Spain	2023	225,378	0	8,962	96	2023-39
Thailand	2019			1,568		
Thailand	2020	6,919		297		
Thailand	2021	2,216,551		23		
Thailand	2022	2,500,484		575		
Thailand	2023	33,554	1,067	982	267	2023-39

Country	Year	Cases ^{a,b} of SARS-CoV-2	+/- since last month ^c	Cases ^a of influenza	+/- since last month ^c	Week of last influenza update
United Kingdom	2019			42,447		
United Kingdom	2020	2,563,561		14,377		
United Kingdom	2021	10,878,143		2,755		
United Kingdom	2022	10,752,834		26,896		
United Kingdom	2023	549,245	52,704	5,992	122	2023-39
United States	2019			268,524		
United States	2020	19,577,585		229,766		
United States	2021	33,956,701		39,507		
United States	2022	45,877,410		469,968		
United States	2023	4,025,133	0	48,884	2,177	2023-39
Vietnam	2019			355		
Vietnam	2020	1,456		146		
Vietnam	2021	1,729,801		39		
Vietnam	2022	9,793,887		399		
Vietnam	2023	98,544	868	295	18	2023-39

^a Laboratory-confirmed cases.

^b As of the 24th bulletin, the data source, used by Our World In Data, for SARS-CoV-2 cases has been changed retrospectively. As a result, yearly totals displayed in this table may differ from those in previous bulletins.

^c 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. +/- since last month includes all cases over the last full calendar month.

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 [5]. The emergence of this new virus has had a major impact on the global circulation of respiratory viruses, including influenza and RSV [6]. 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 FluCov-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) [7].

Data sources

- **Influenza:** FluNet [8] 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 [9]. We used this platform to extract data on the number of cases, as well as tests performed per country. As of 8 March 2023, Our World in Data changed their primary data source from the John Hopkins repository on daily confirmed COVID-19 cases to the WHO [10].
- **Government response tracker:** The Oxford COVID-19 Government Response Tracker (OxCGRT) [7] 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 24 July 2023 and cover the period 1 January 2019 to 1 October 2023 (influenza) and 5 October 2023 (SARS-CoV-2). 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 flu cov@nivel.nl.

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