NIVEL
Research for better care

FluCov-Bulletin – mid-February 2024

FluCov project: ***combining data from around the world to better understand the co-circulation of influenza and COVID-19***

Commentary

Contents

Four years have passed since the initial report of atypical pneumonia in Wuhan, China, in January 2020, which was eventually associated with the novel **SARS-CoV-2** virus. The FluCov Bulletin offers a summary starting from January 2019, detailing the count of confirmed **influenza** and **SARS-CoV-2** detections, along with positivity rates of tested specimens, across 22 countries globally (see page 3).

Results

On a global level, **influenza** activity has further decreased since the beginning of January (see Figure 1). The following country patterns were observed for **influenza**:

- In the Northern Hemisphere, **influenza** activity remained elevated, but did not increase further in most European countries (**France**, **Germany**, **Netherlands** and **United Kingdom**). **Spain** and **Italy** reported low **influenza** activity (10-20% positivity) [1].
- **Poland** and **Israel** reported increasing **influenza** detections and percentage positive.
- In the **United States** and **Canada**, **influenza** activity remained at epidemic level, similar to the end of January. Until now, **influenza** A(H1N1)pdm09 was predominant, when subtyping was performed. In **Mexico**, **influenza** activity and the percentage of positive tests continued to decrease.
- **Influenza** activity decreased in **China** after reaching a peak in December (week 49/2023), but overall positivity rate in **China** remained over 25% in week 06/2024. The predominant virus in the first two weeks of February was **influenza** B/Victoria, and to a lesser extend A/(H3N2).
- **Influenza** detections also decreased in **South Korea**, with an increasing proportion of **influenza** B/Victoria.
- Low **influenza** detections were reported in **India**, **Japan**, **Philippines**, **Thailand** and **Vietnam**.
- In **Egypt**, **influenza** (B, no lineage determined) detections also decreased to a low level.
- In the Southern Hemisphere, **influenza** detections have been low in the countries covered by the Bulletin (**Brazil, South Africa** and **Australia**).

Globally, **SARS-CoV-2** detections never reached the levels observed during the late 2022 peak, mainly driven by China (see Figure 1). The following patterns were observed for **SARS-CoV-2** in the first half of February 2024:

- **SARS-CoV-2** activity decreased in **Canada**, **Italy**, **Netherlands**, **Poland** and the **United Kingdom** after a peak in December 2023. Activity also decreased in **India** and the **Philippines**, after a relatively small peak in January 2024.
- **SARS-CoV-2** activity was elevated, but slightly decreased in **Australia**.
- A slow increase in **SARS-CoV-2** activity was seen in **Thailand**, since October 2023.
- In **China**, **SARS-CoV-2** detections remained relatively low.
- No update on **SARS-CoV-2** activity was available for **Brazil, Egypt, France, Germany, Israel, Japan, Mexico, South Africa, South Korea, Spain, United States,** and **Vietnam** in the first half of February.
- According to the PAHO, **SARS-CoV-2** detections increased in **Brazil** in the last 4 weeks [2].

Implications

Global influenza activity has been decreasing since December 2023. In the Northern Hemisphere, however, influenza activity remains elevated in North America and most European countries covered by the bulletin. An increase in influenza activity was observed in **Poland** and **Israel**, relatively late, compared to other Northern Hemisphere countries. In the 2023/24 Northern Hemisphere season, the prevalent influenza strains have been A(H1N1)pdm09 and A(H3N2), with the latter being particularly predominant in **China**. However, influenza B/Victoria – the dominant and only influenza B lineage currently circulating– has started to be detected more frequently as of January (e.g. in **China** and **South Korea**). It is of importance that the lineage of influenza B specimens is determined, to contribute to a coordinated global effort to understand whether influenza B/Yamagata has ceased circulating [3].

As of February 2024, SARS-CoV-2 activity is decreasing in almost all countries, after an increase in late 2023. A decrease in SARS-CoV-2 hospital admissions has been reported in **Canada**, **Italy**, the **Netherlands** and the **United States**, after a peak in December 2023 [4]. In **Japan**, SARS-CoV-2 hospital admissions increased in January and seem to have stabilized in the first two weeks of February 2024. It's critical to acknowledge that the Bulletin's data completeness is impacted by scaled-back monitoring efforts, such as **France**'s strategy of testing predominantly high-risk individuals, and instances of non-communication with WHO [5]. This results in some data not being included in the FluCov Bulletin.

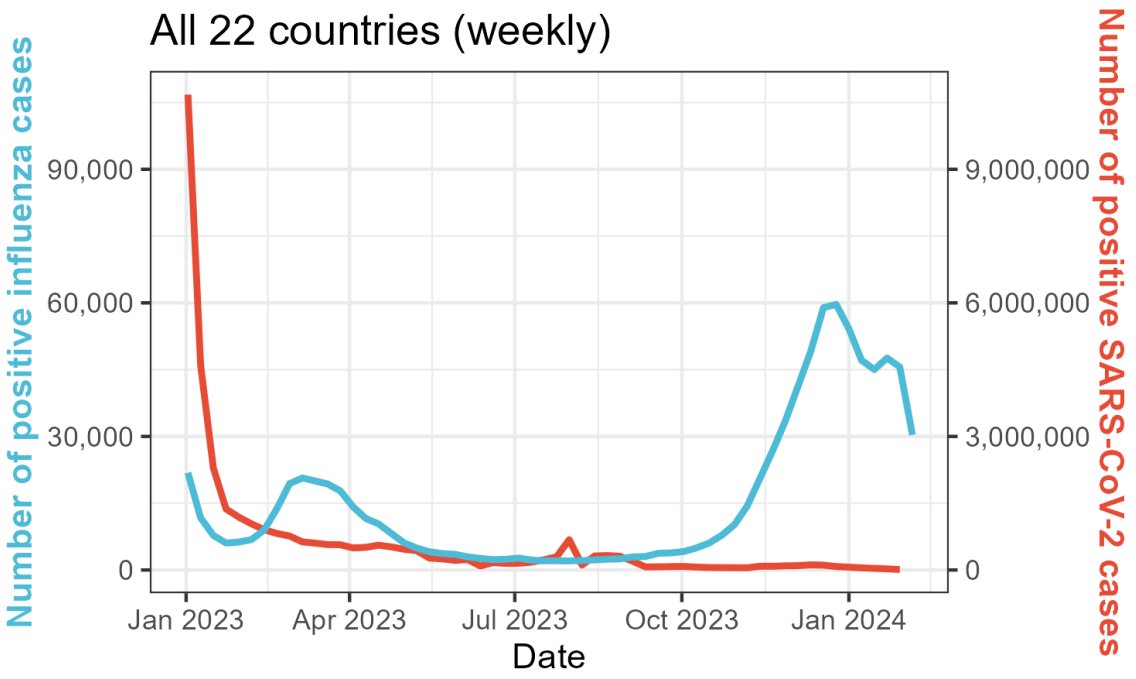


Figure 1: SARS-CoV-2 and influenza detections in the 22 countries covered by the Bulletin (period: from week 1/2023 to week 06/2024).

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, 2023 up to 11 February, 2024. For real time figures starting from 1 January 2019, please visit the **FluCov Dashboard.** 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 be accessed (real-time) at:
https://www.nivel.nl/en/dossier-epidemiology-respiratory-viruses/flucov-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

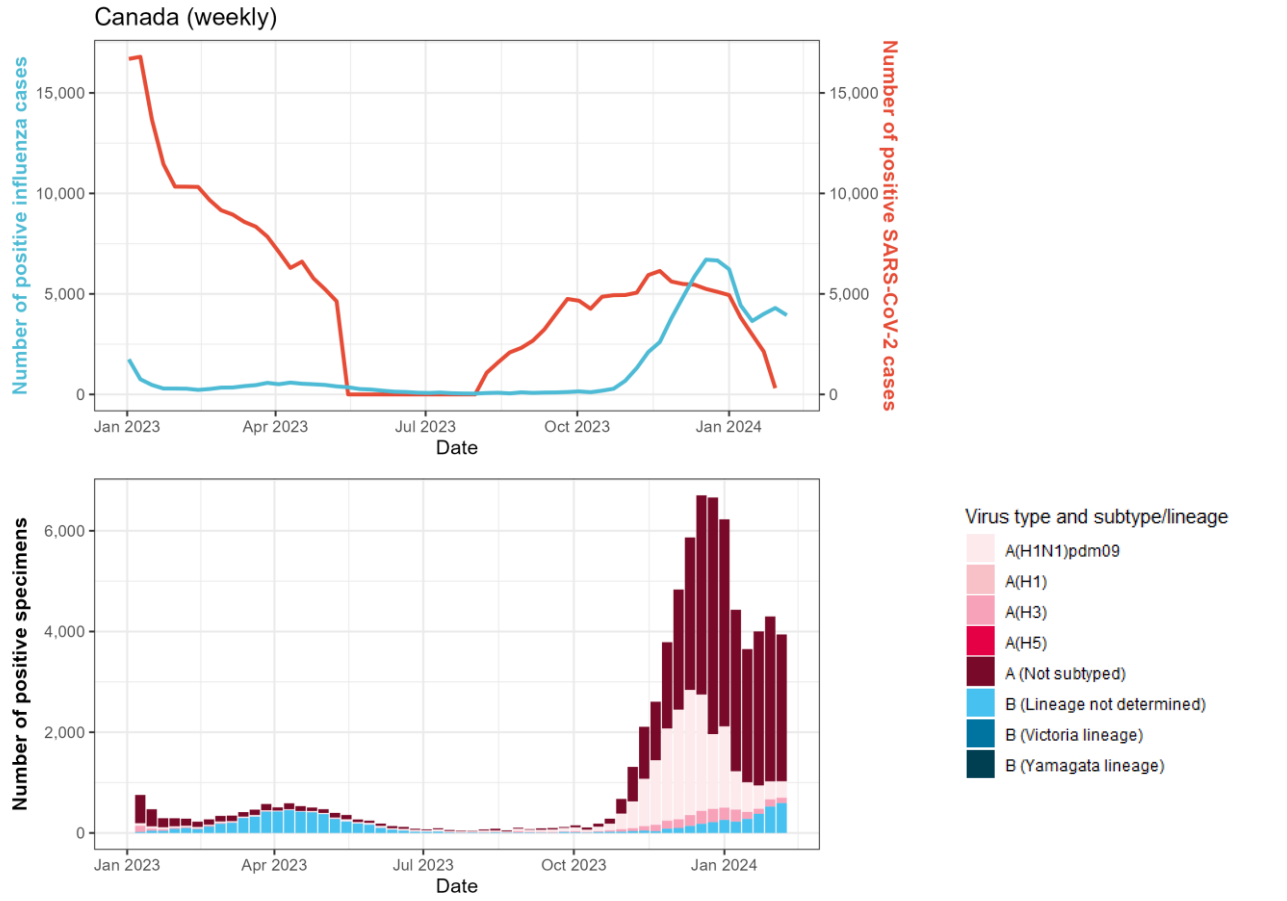
South East Asia
Philippines
Thailand
Vietnam

Western Asia
Israel

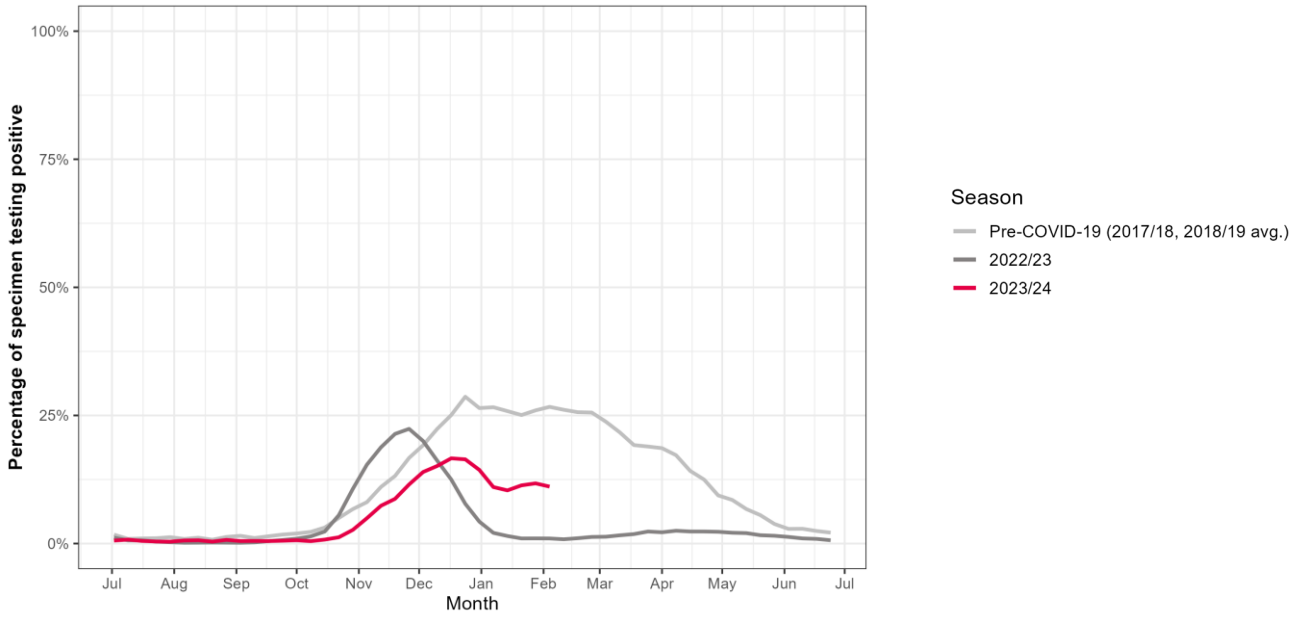
Oceania
Australia

North America

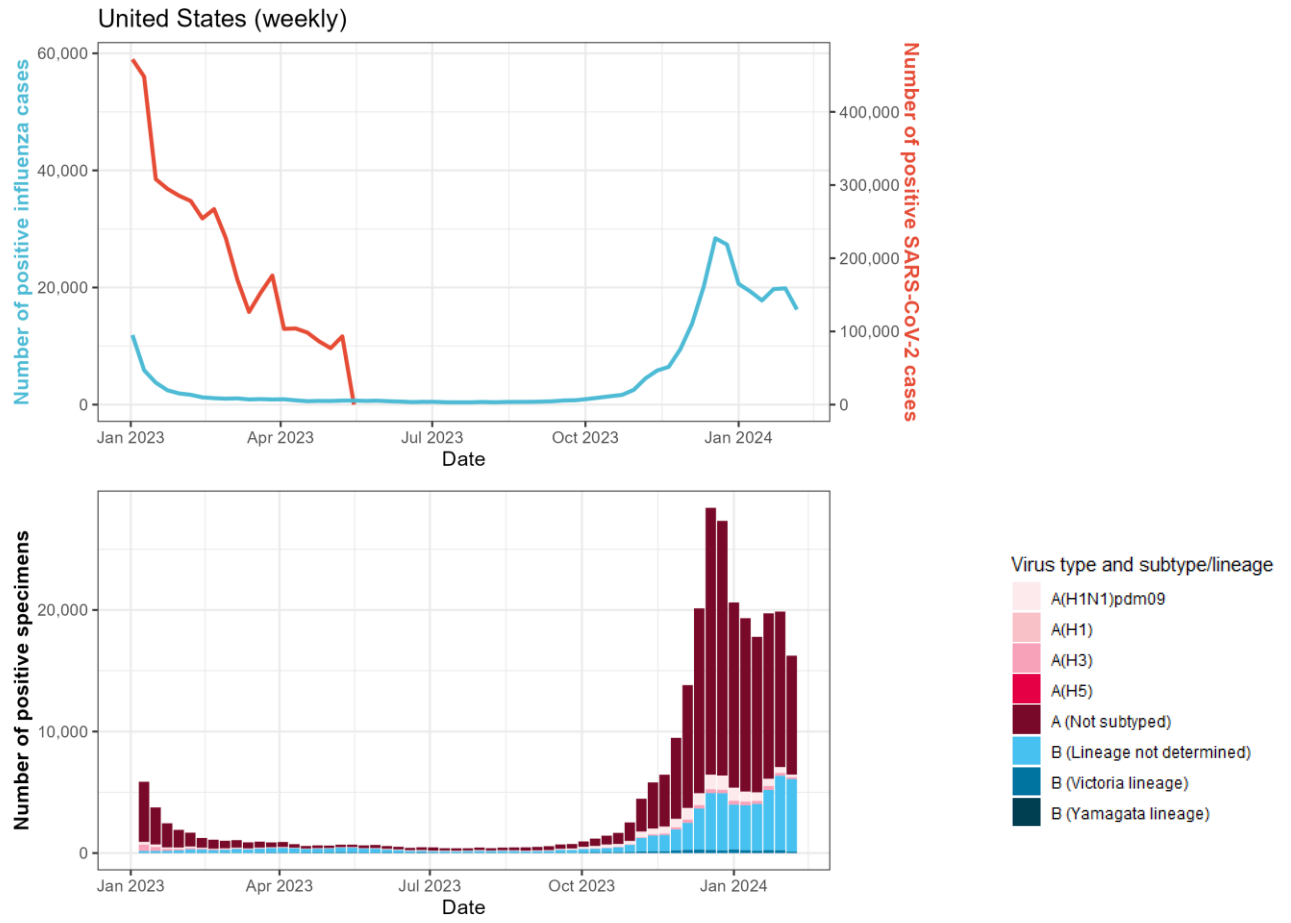
Canada



Percentage of specimens testing positive for influenza in different seasons



United States



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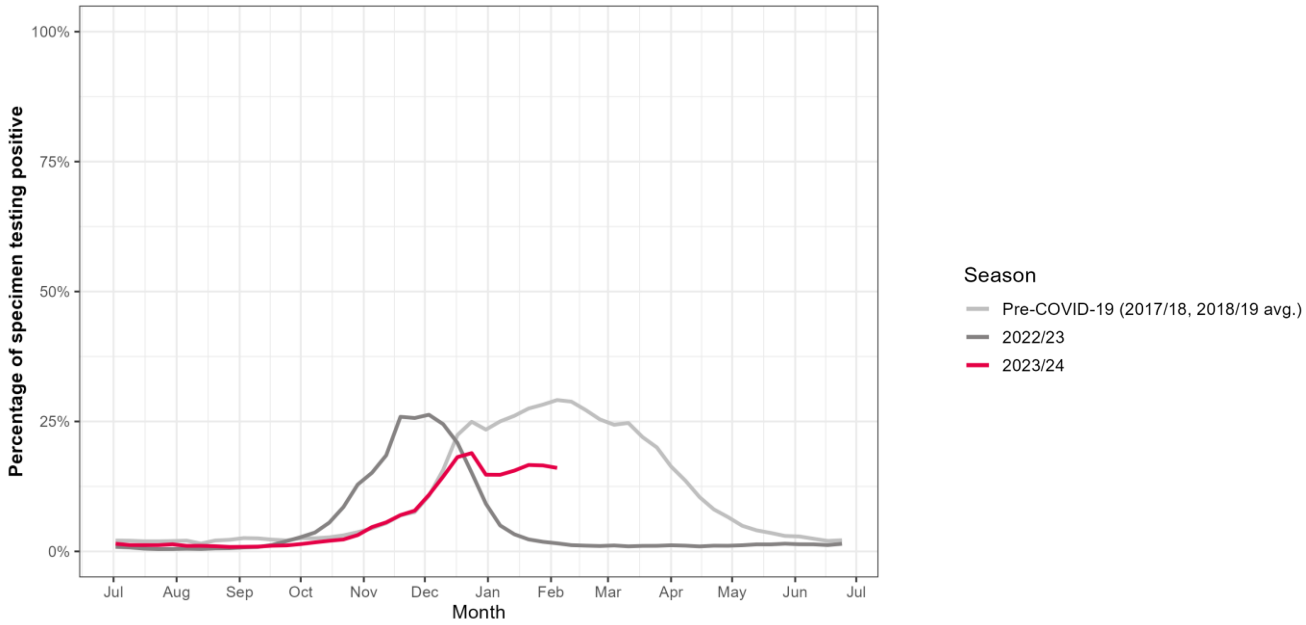
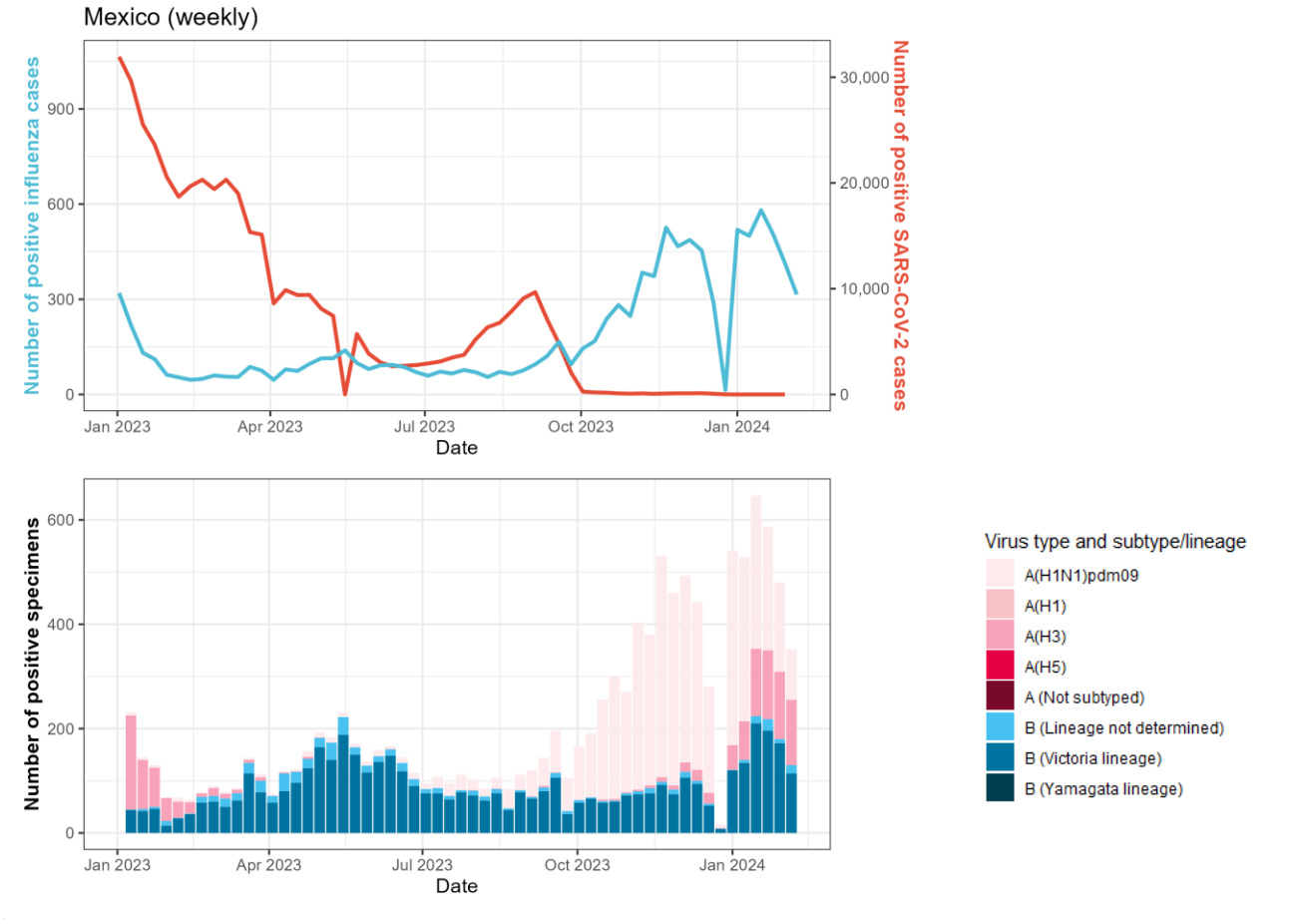


Central America Caribbean

Mexico



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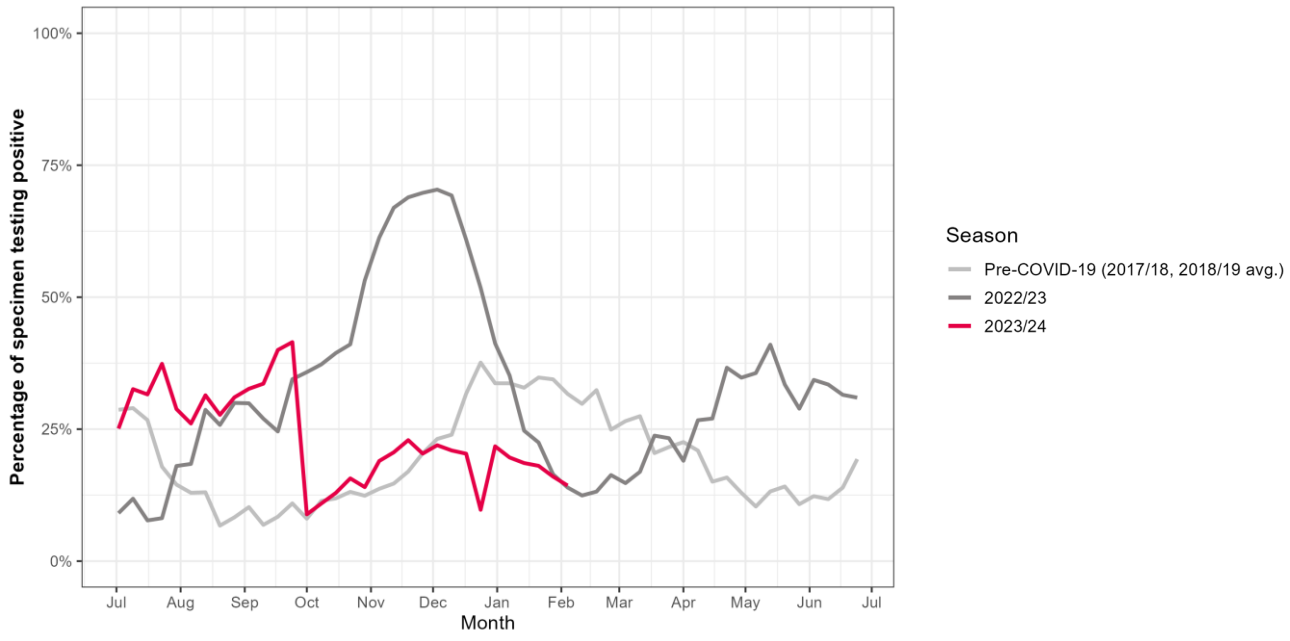
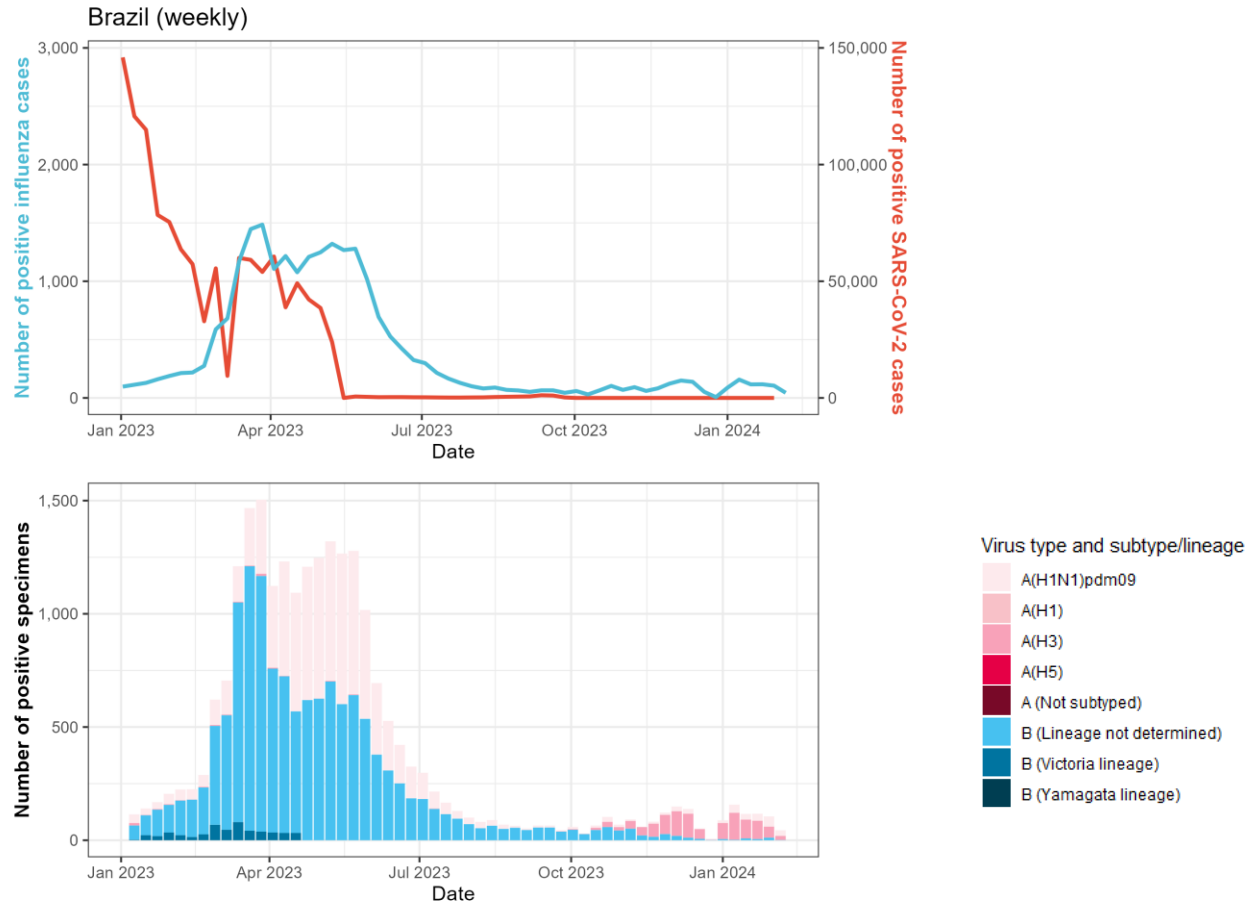


Tropical South America

Brazil



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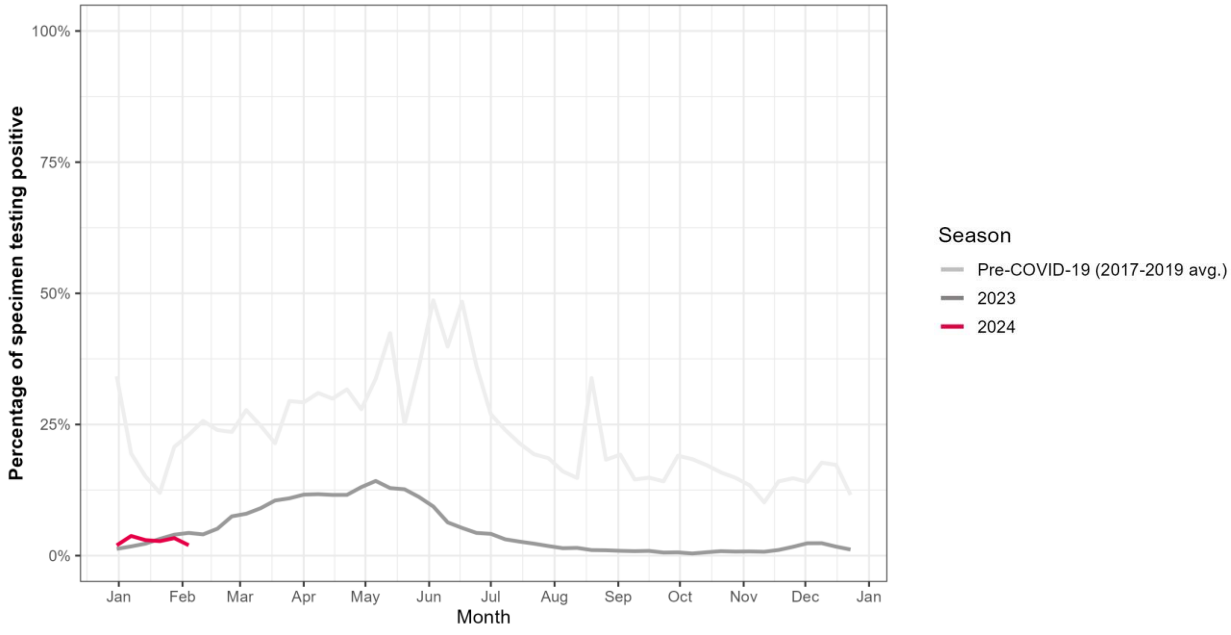
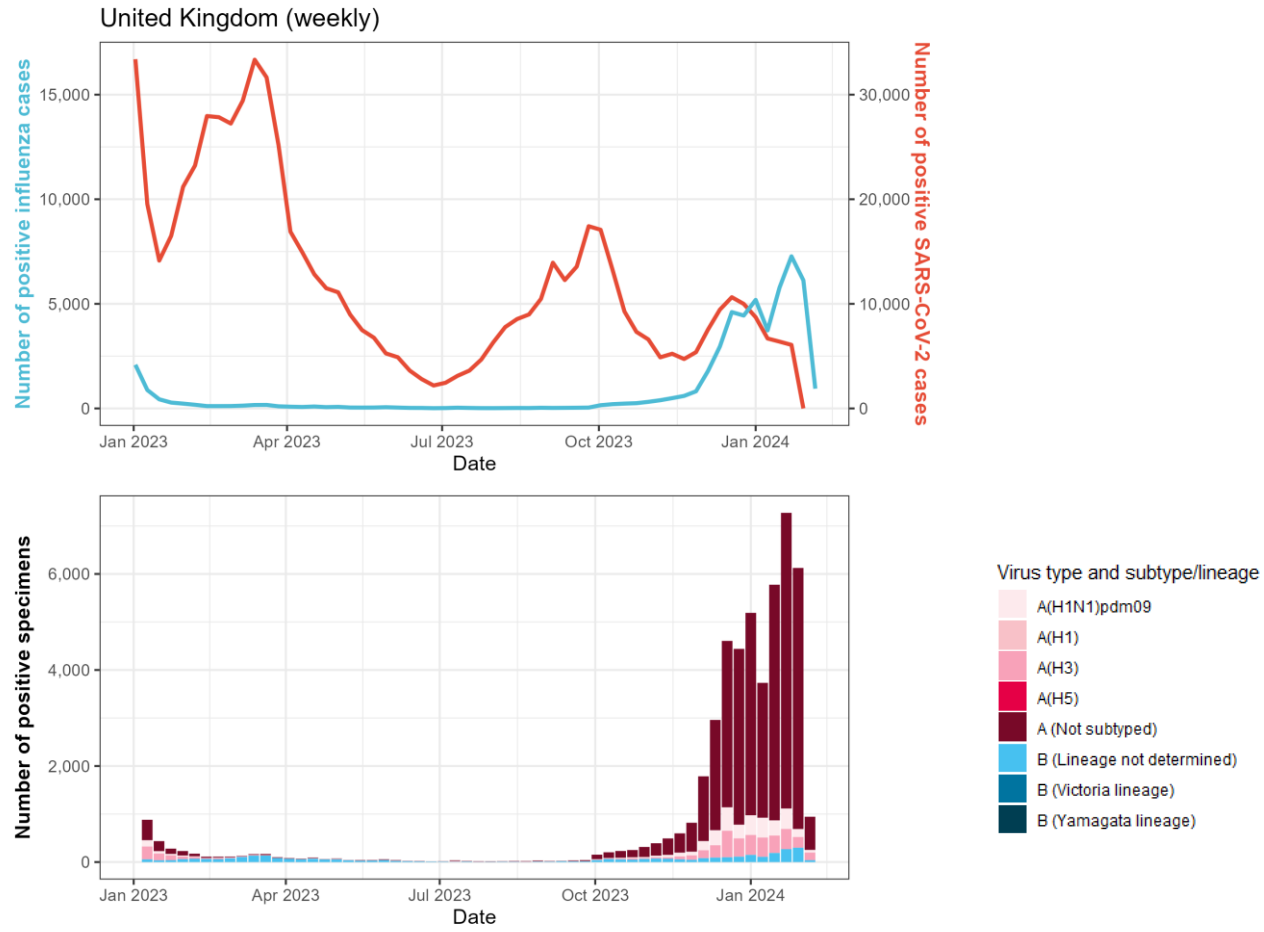


Northern Europe

United Kingdom



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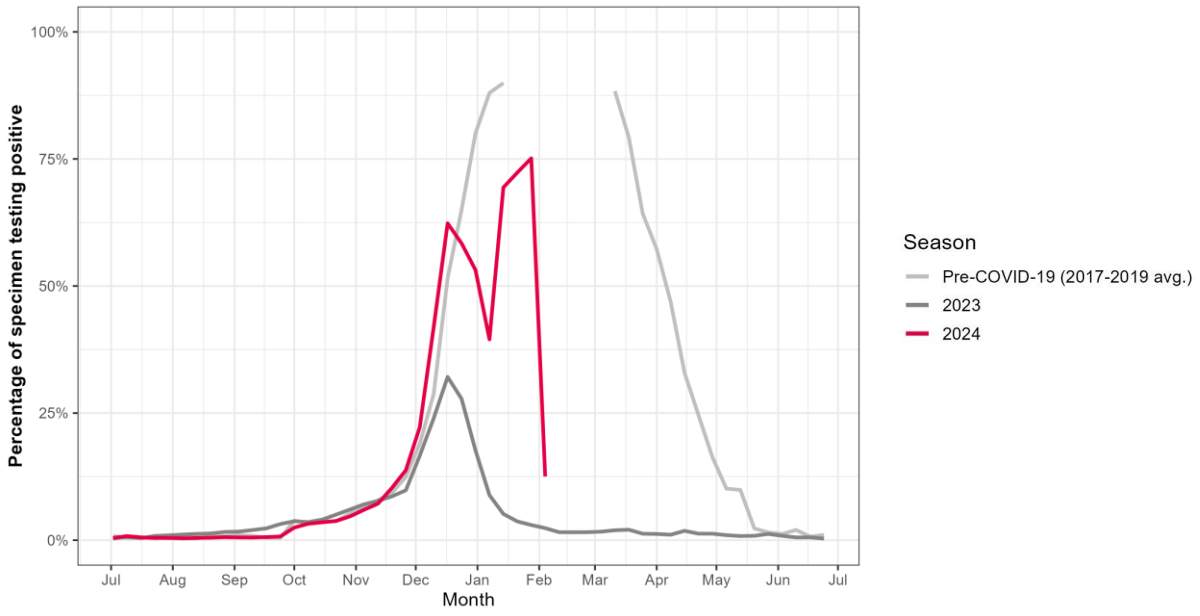
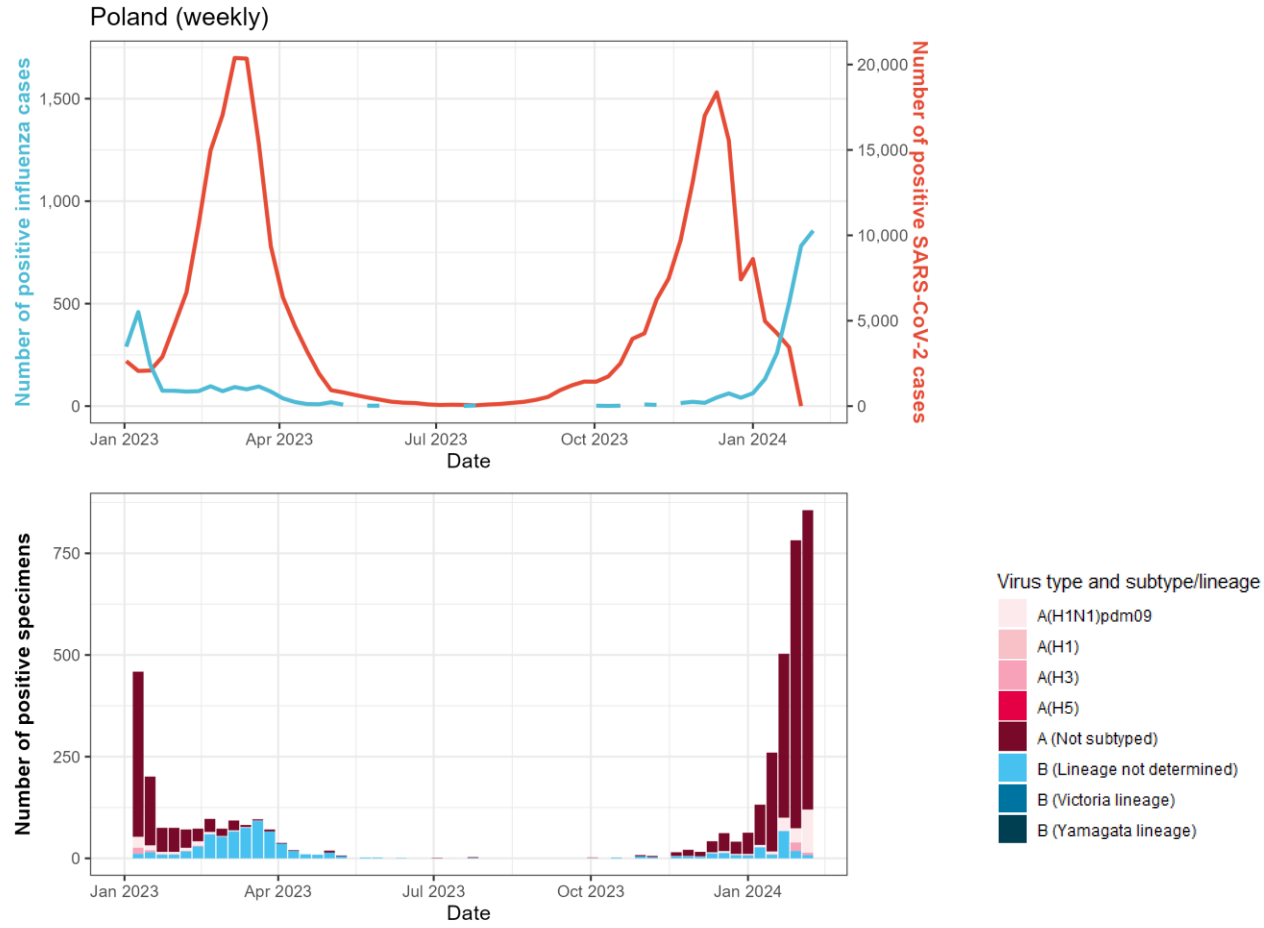


Eastern Europe

Poland



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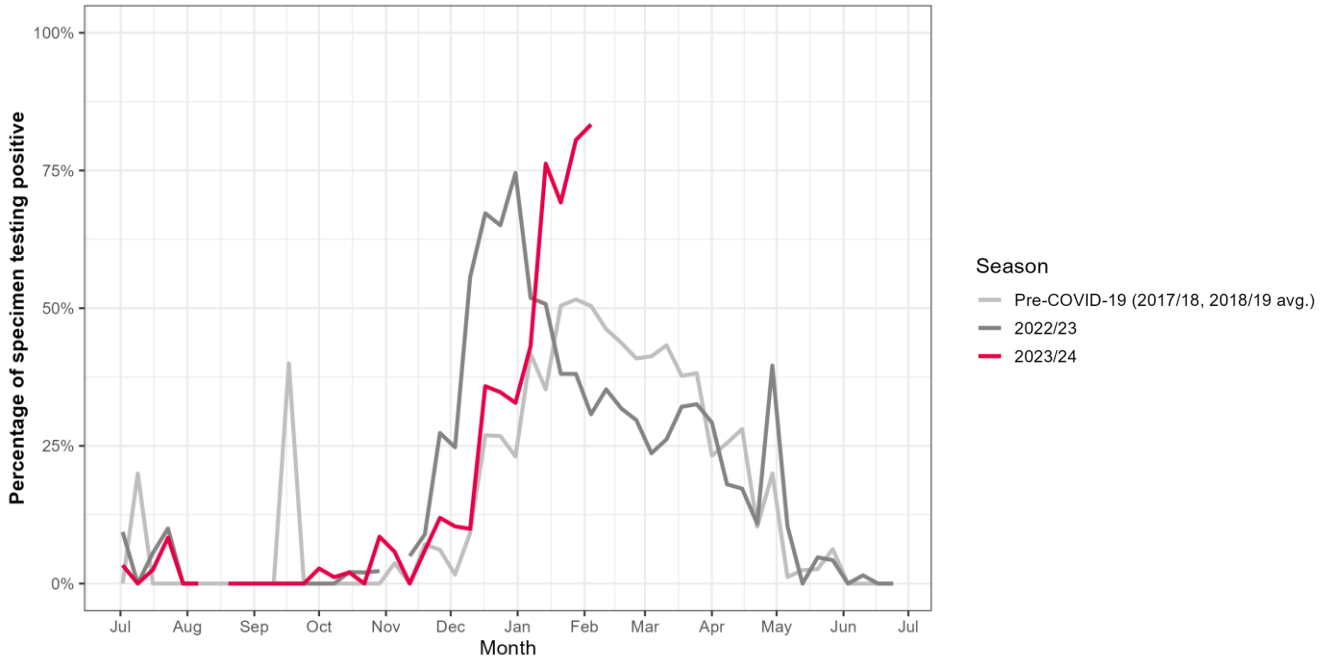
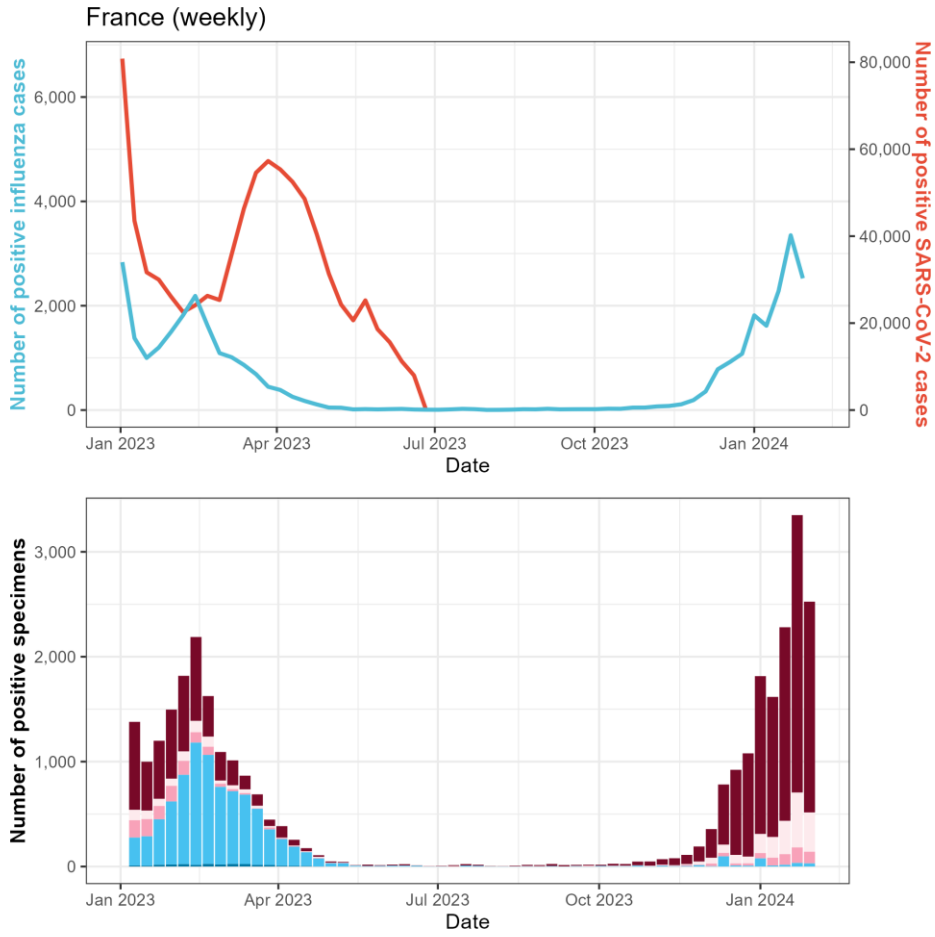


South West Europe

France



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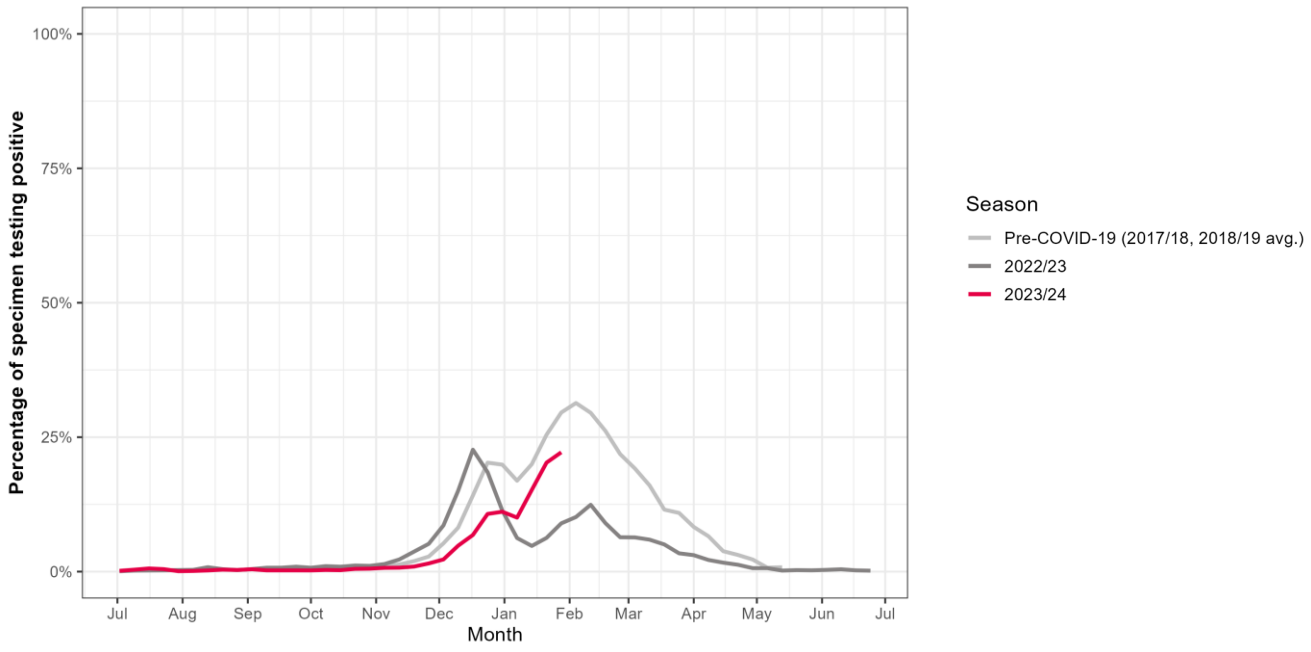
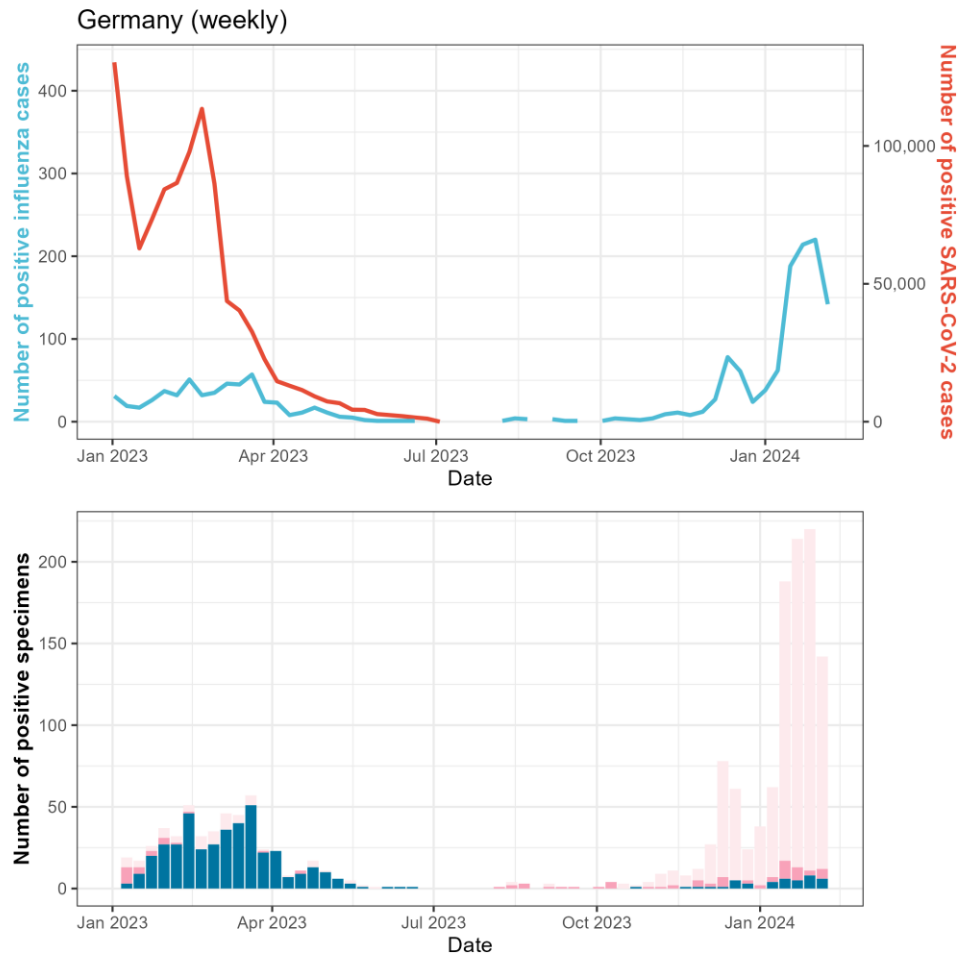


Germany



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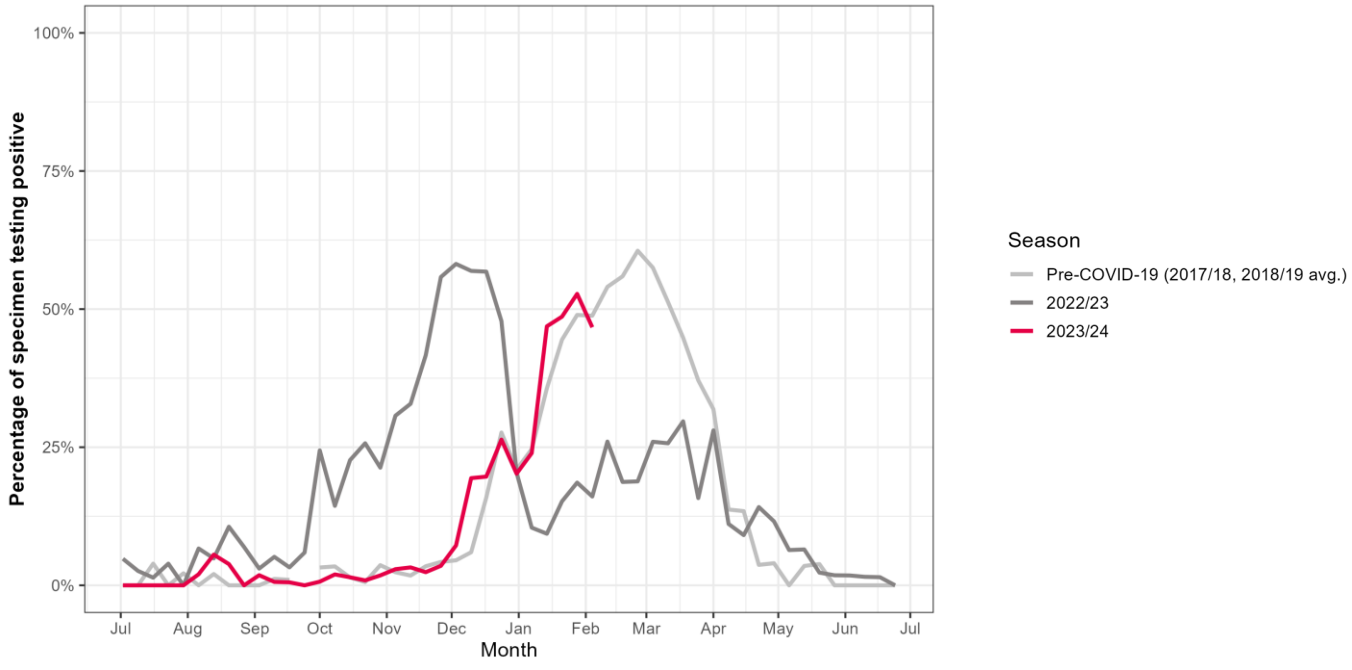
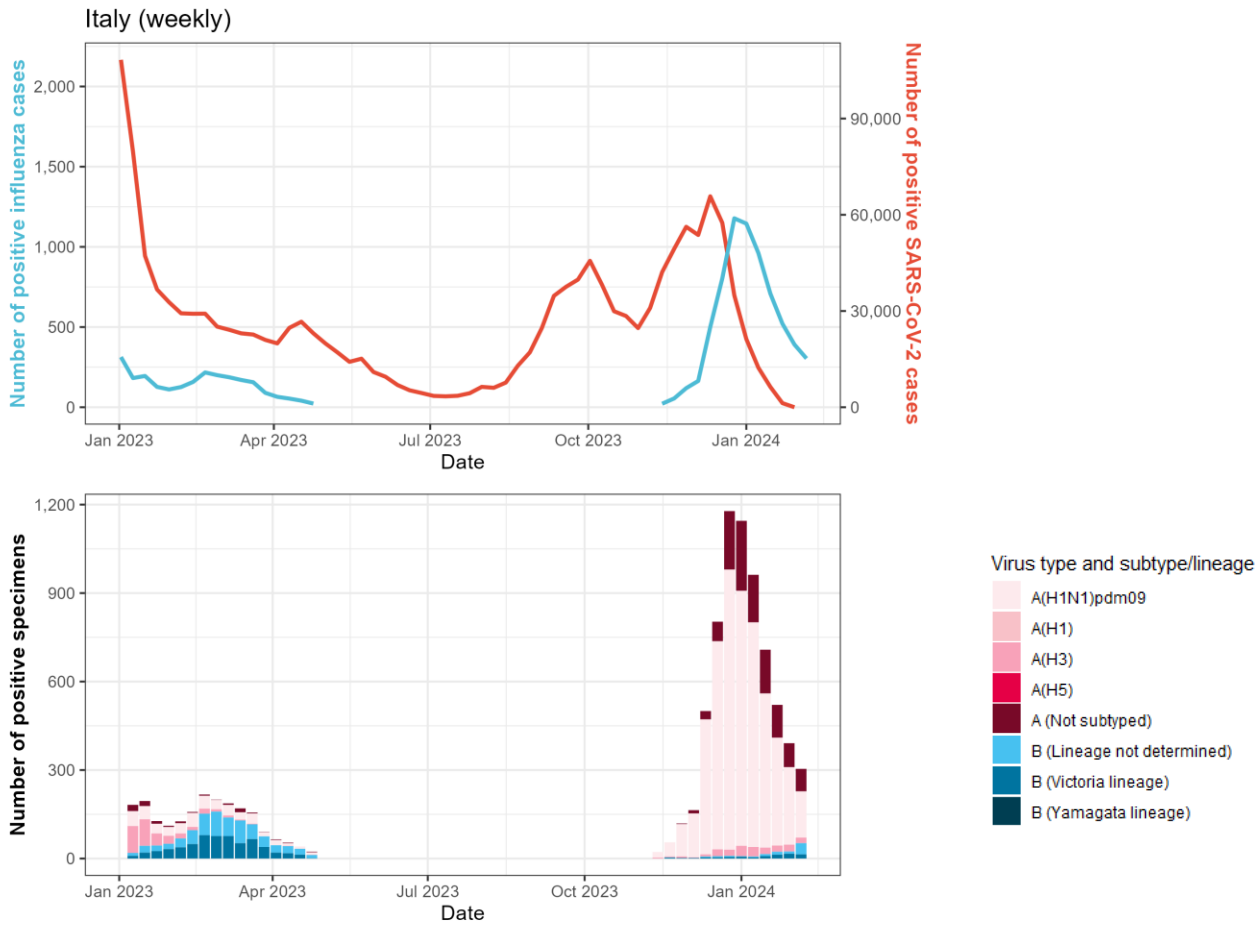
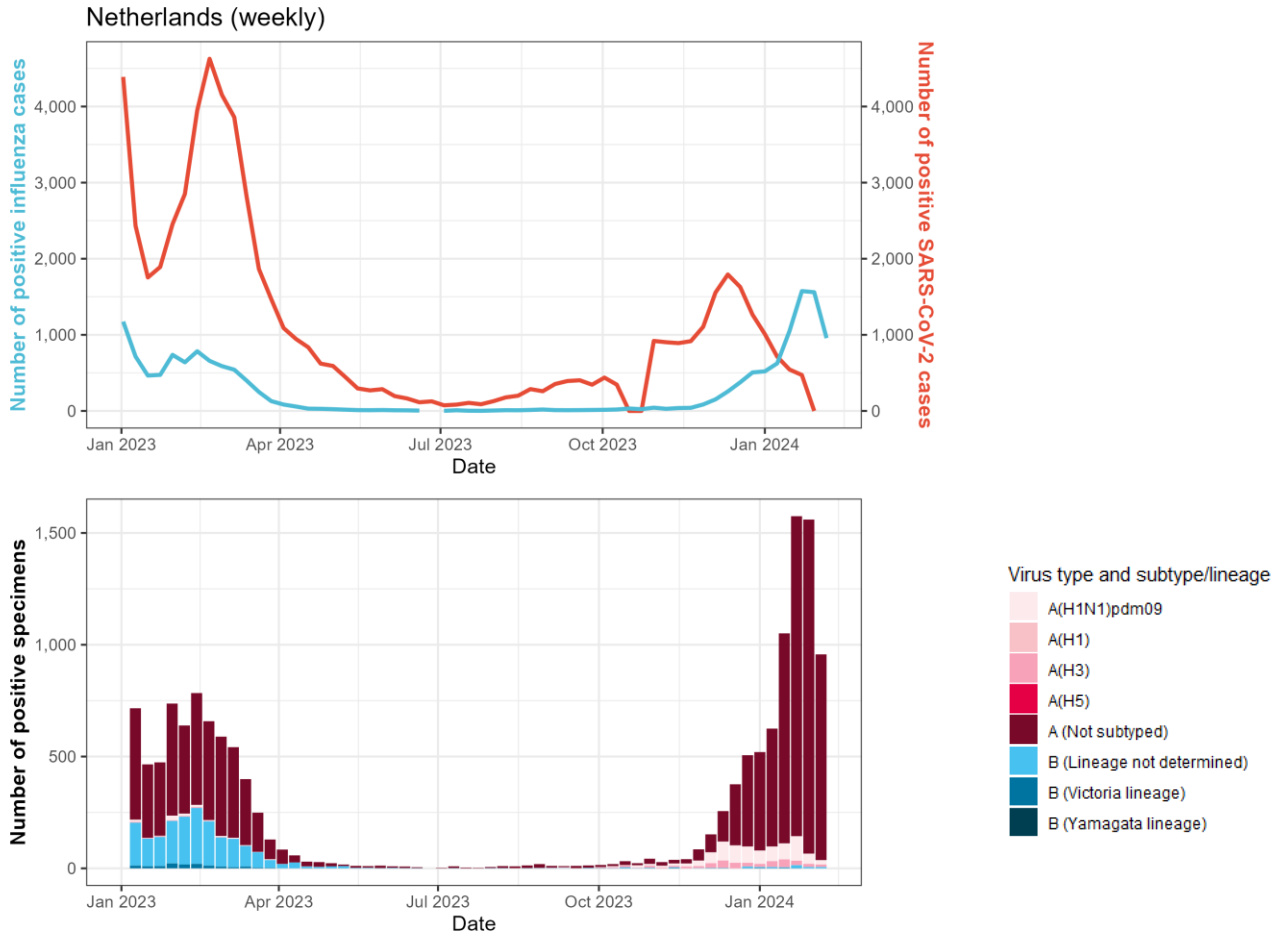


Italy



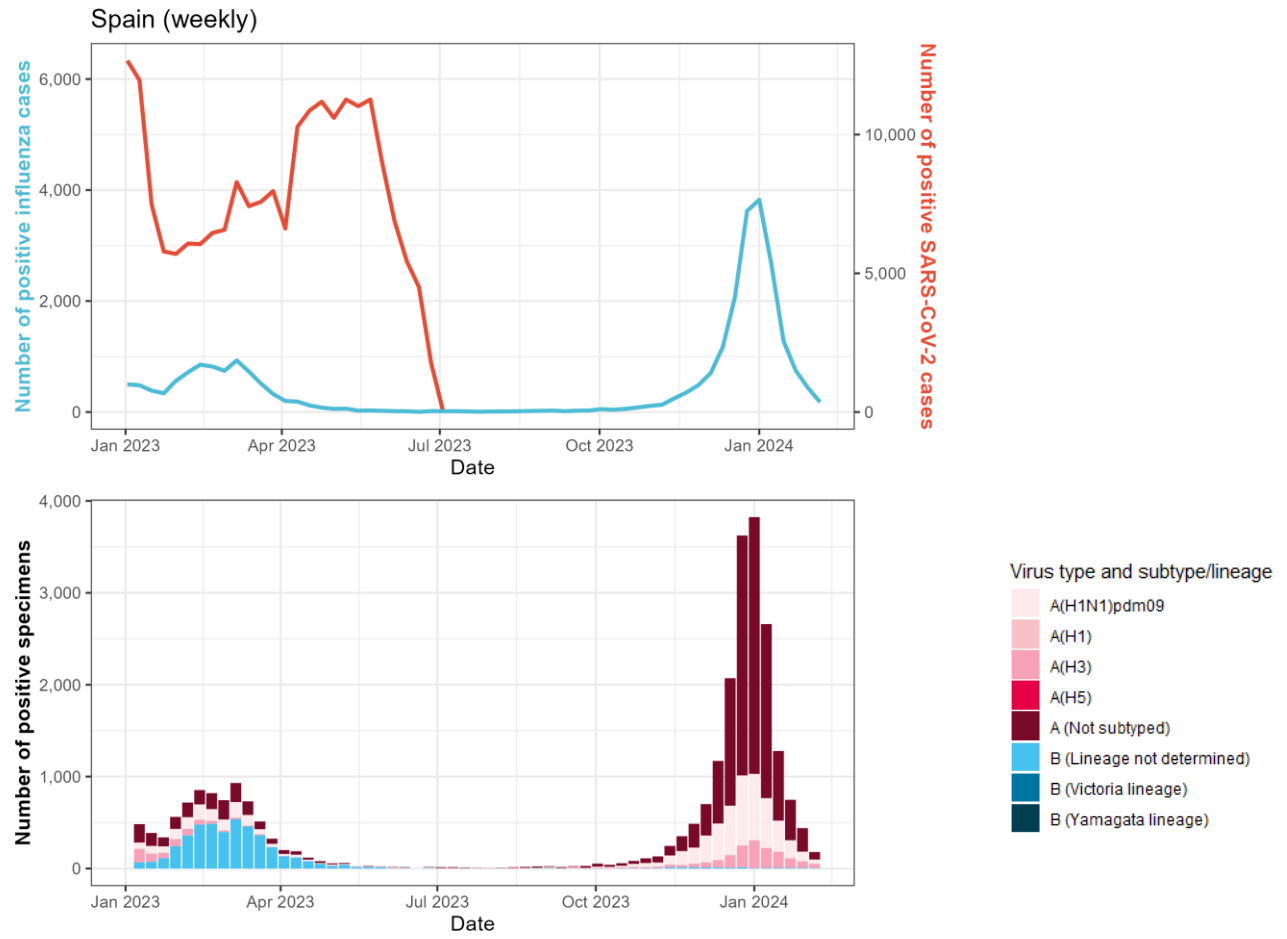
Percentage of specimens testing positive for influenza in different seasons: data not available

Netherlands



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

Spain



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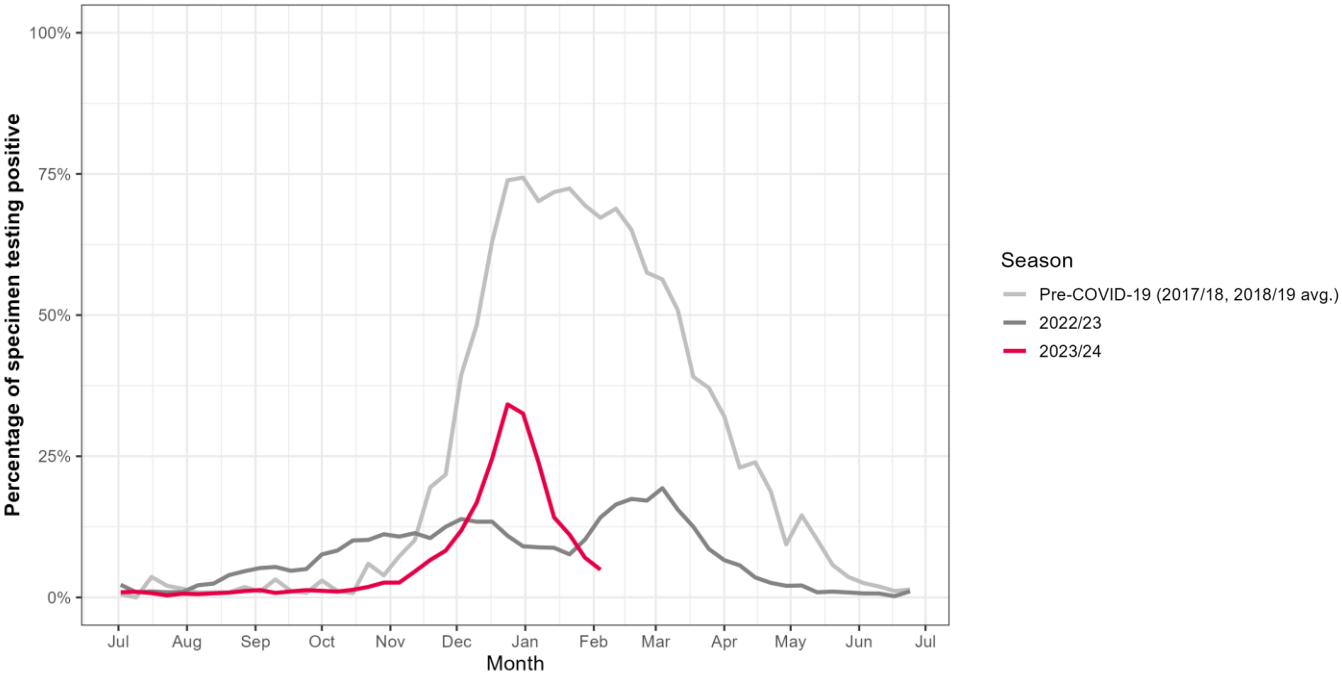
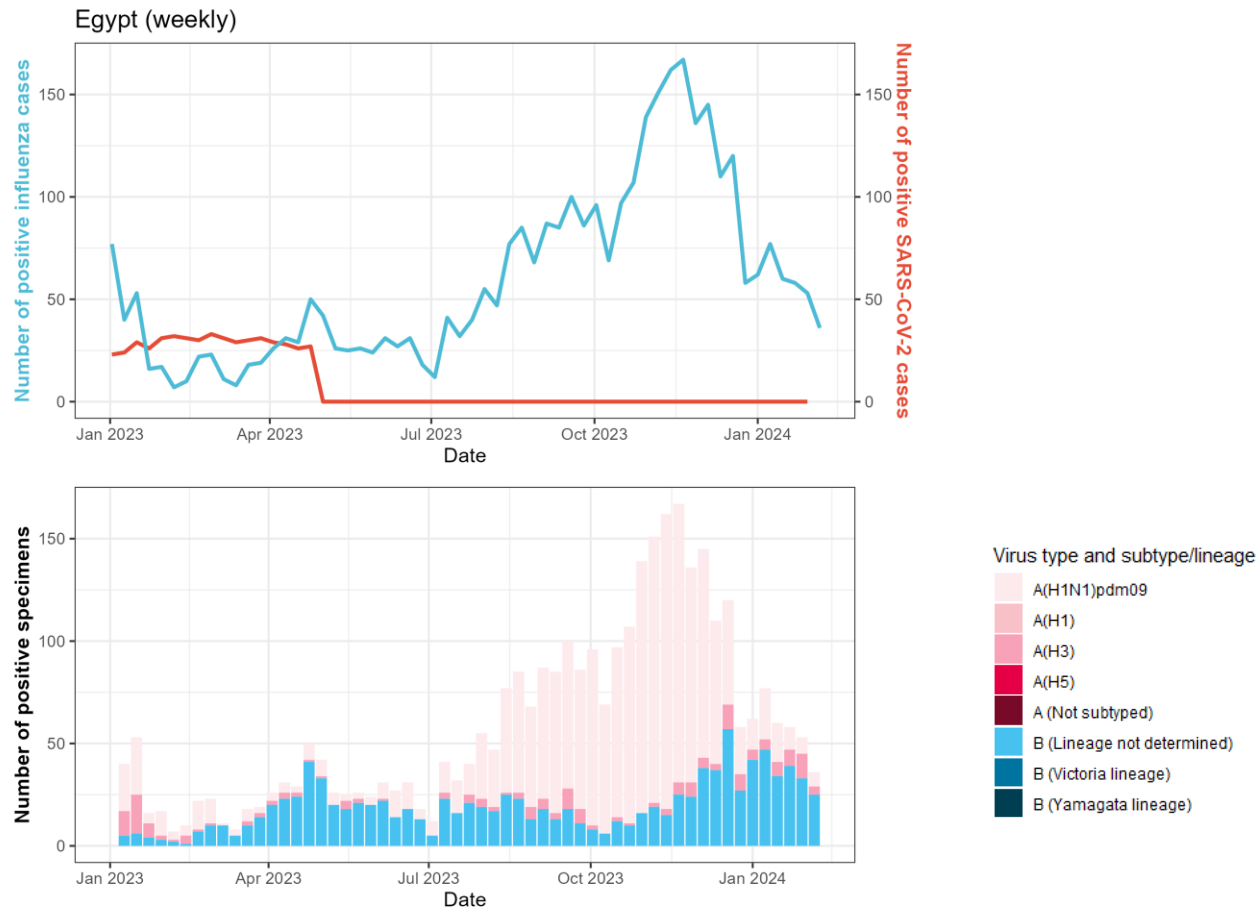


Northern Africa

Egypt



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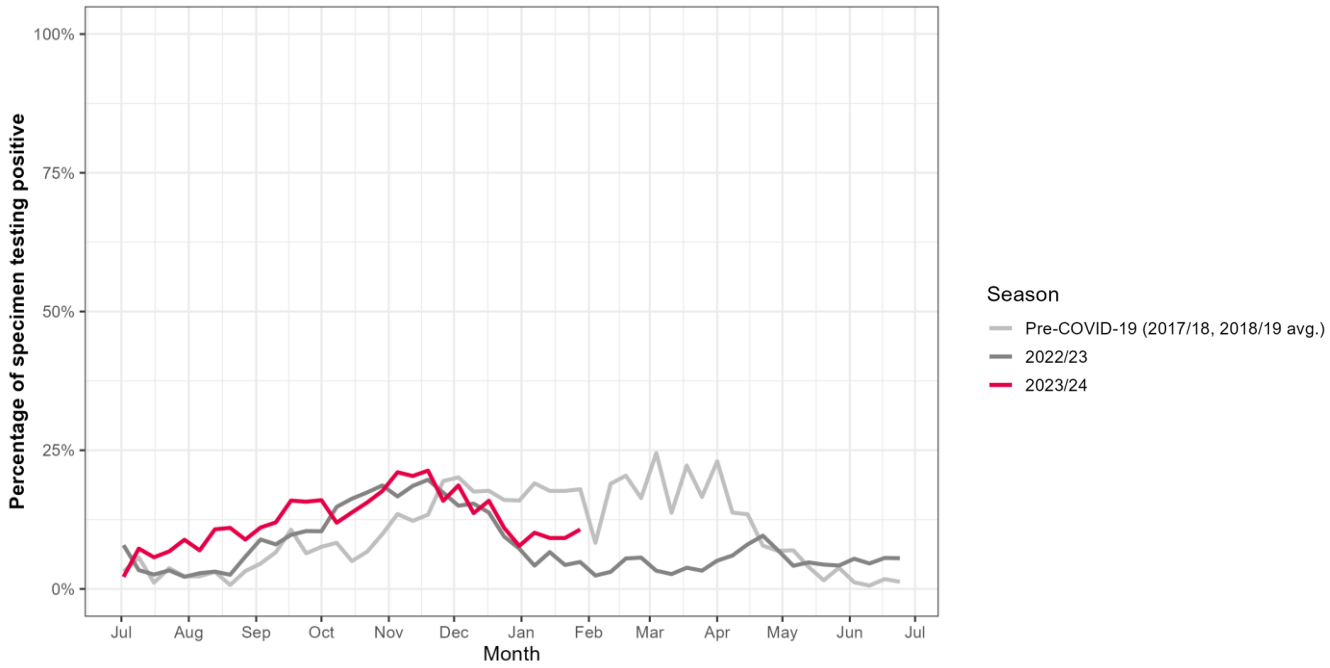
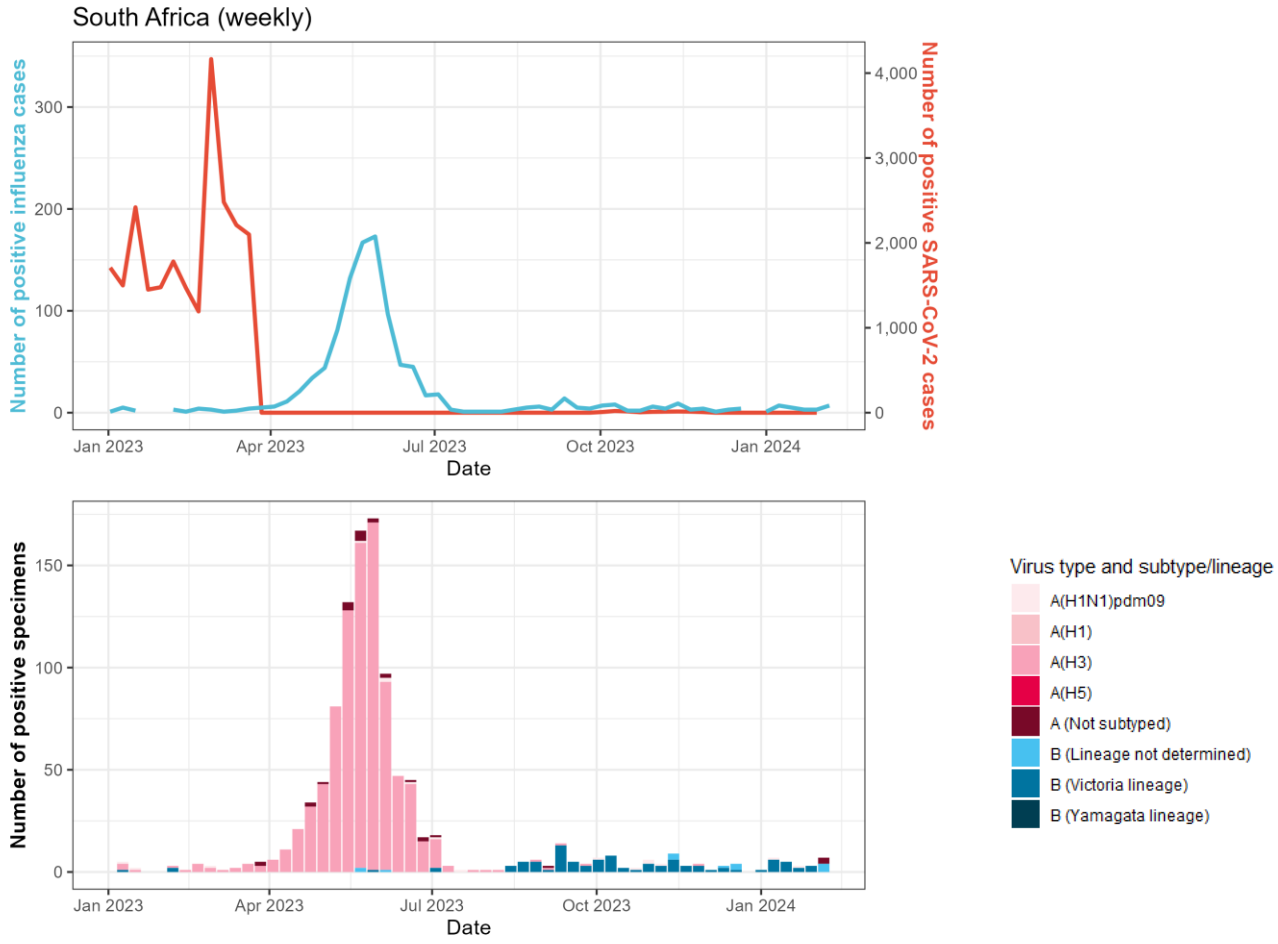
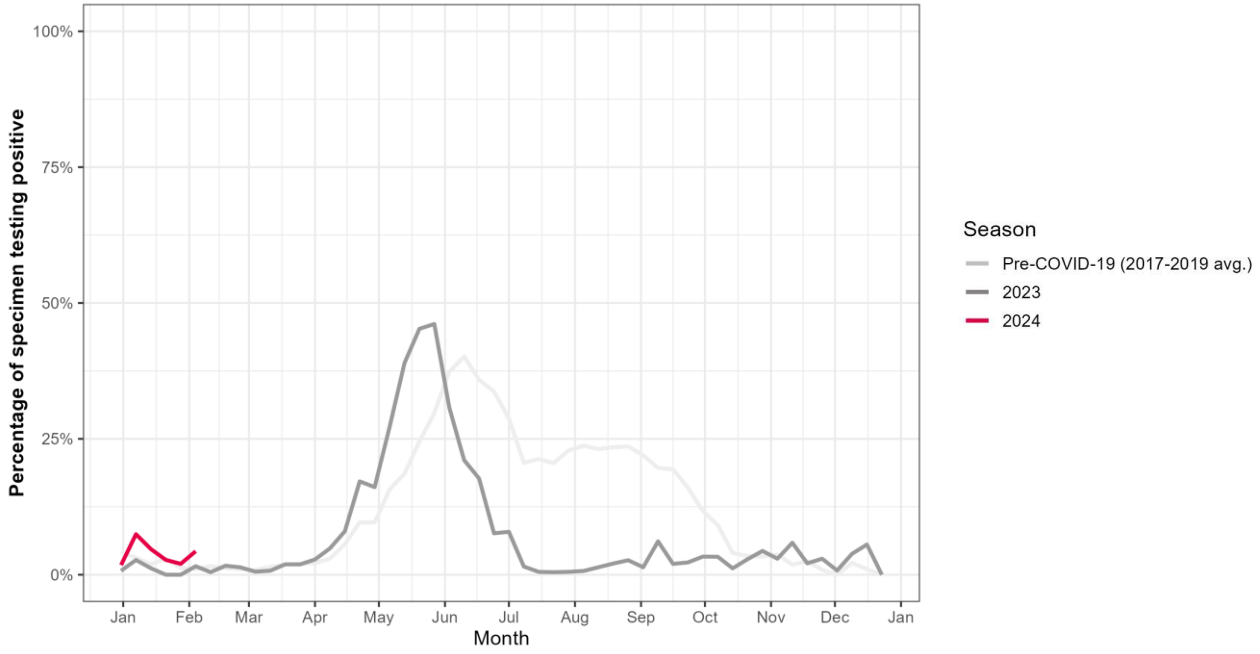


Southern Africa

South Africa

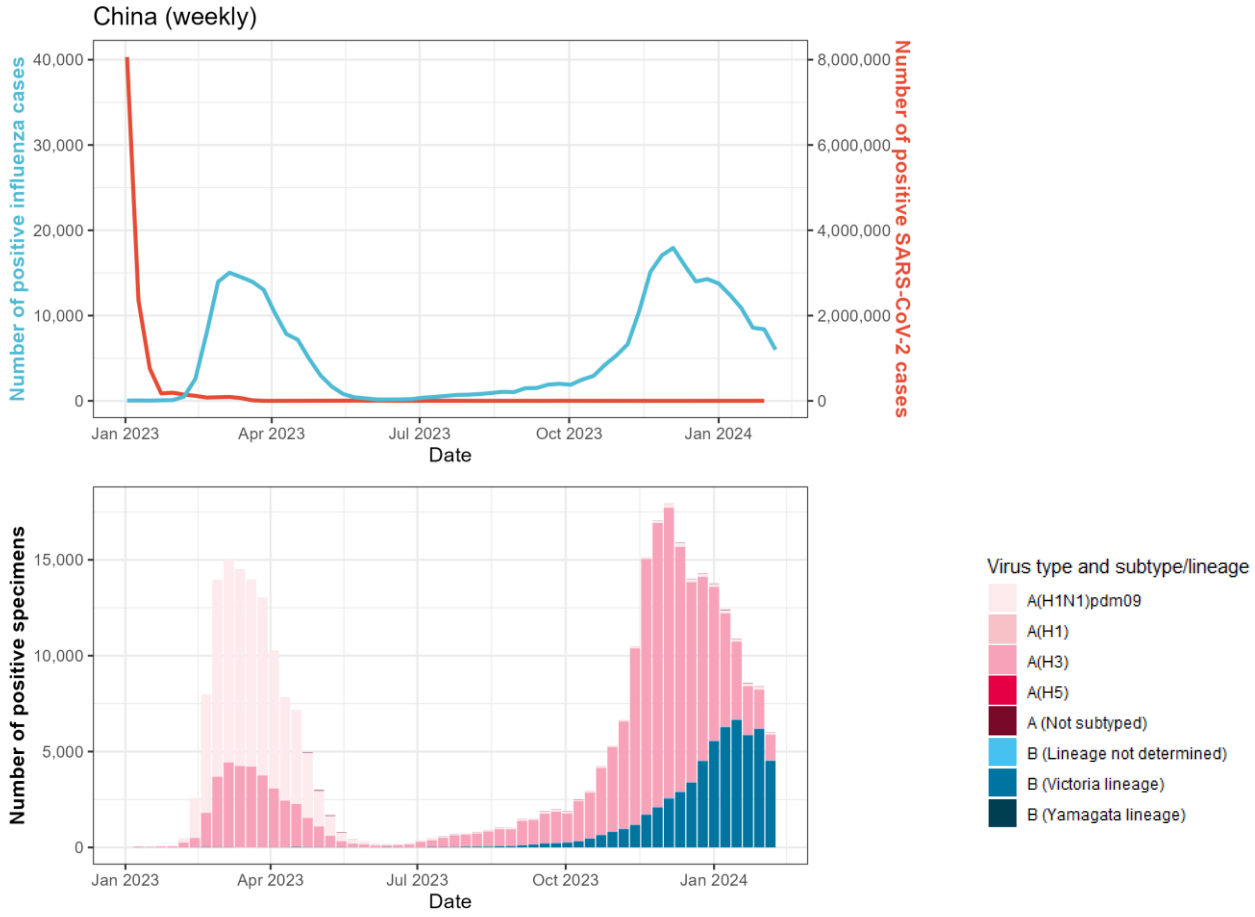


Percentage of specimens testing positive for influenza in different seasons



Eastern Asia

China



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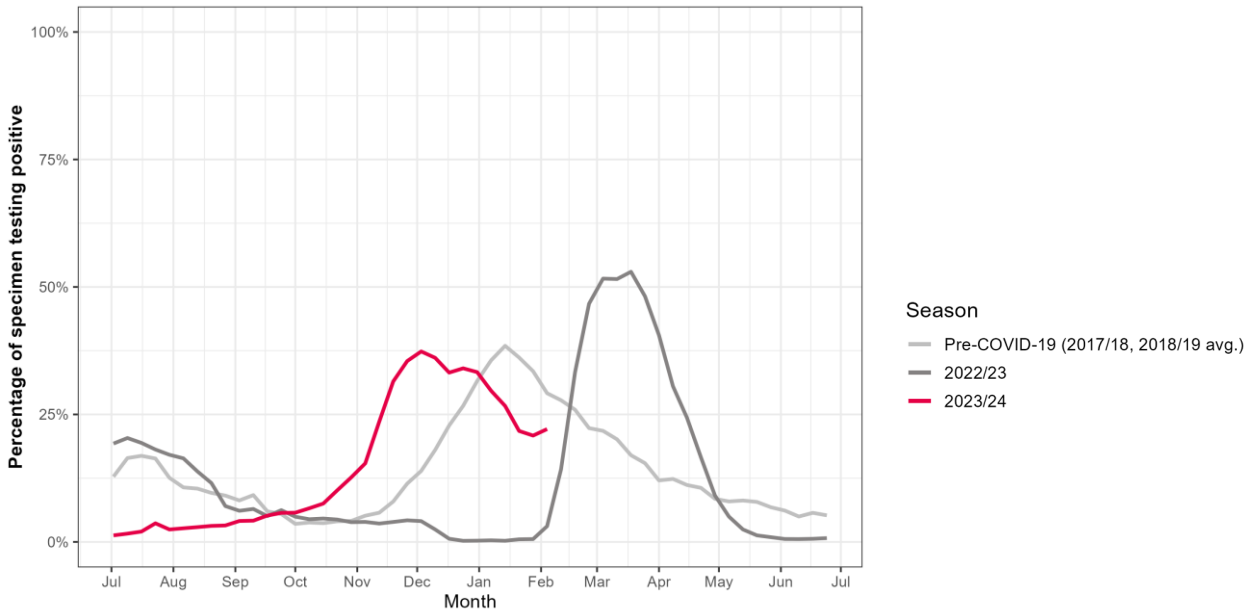
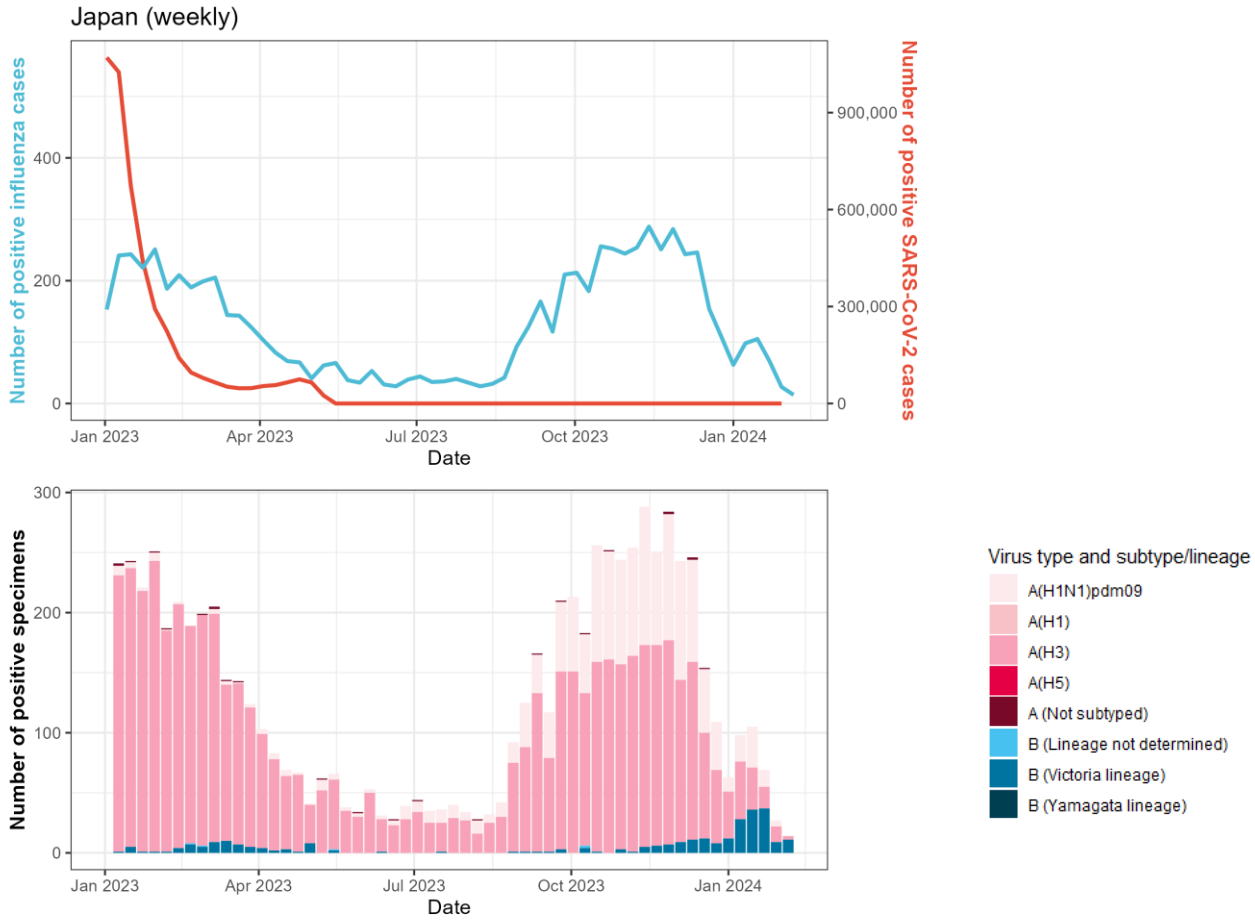
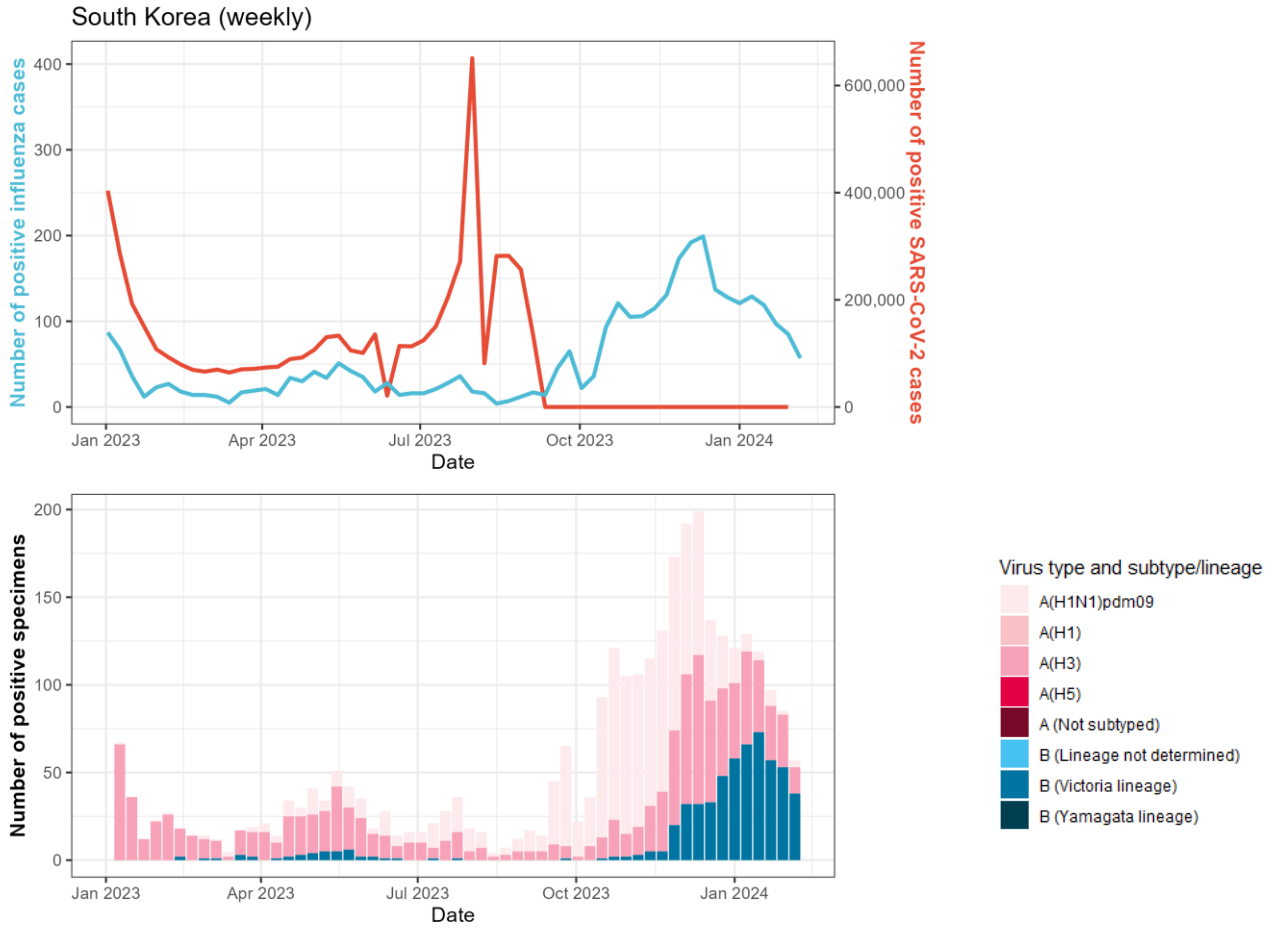


Japan

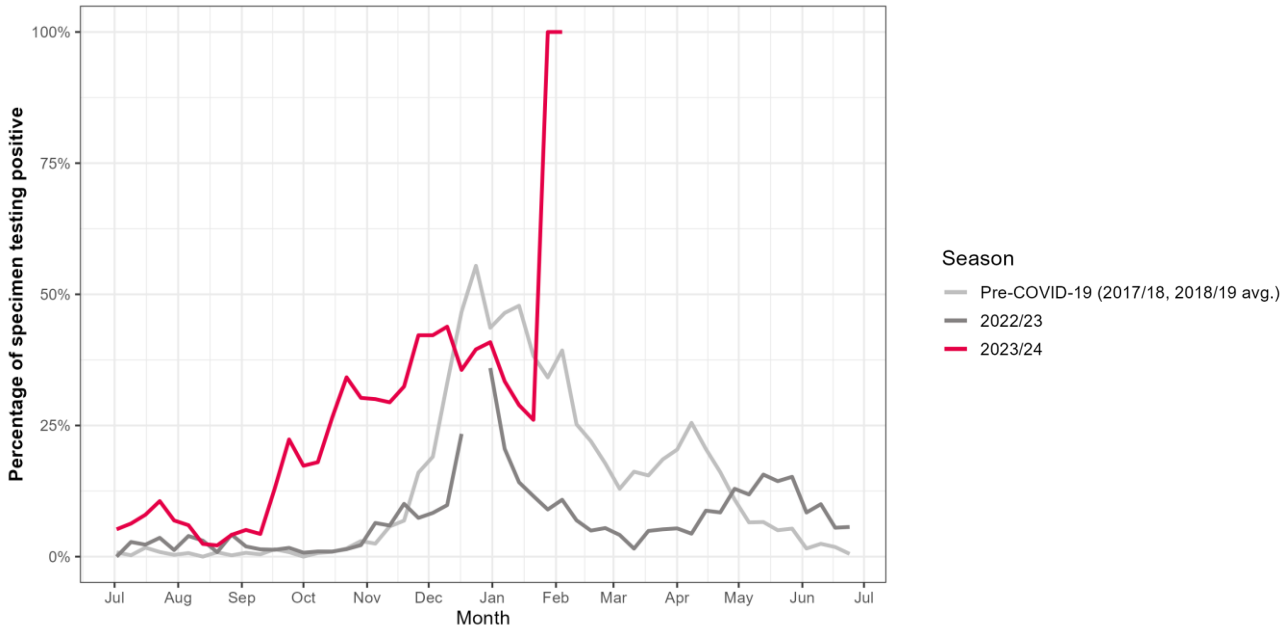


Percentage of specimens testing positive for influenza in different seasons: data not available

South Korea

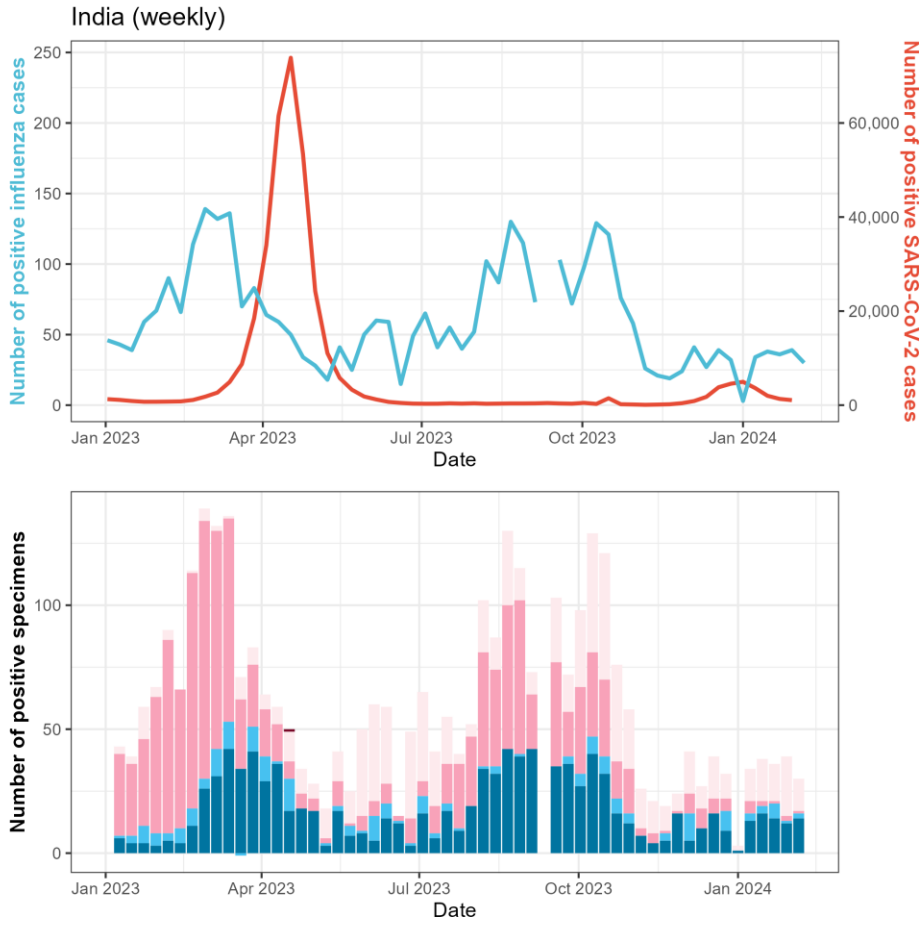


Percentage of specimens testing positive for influenza in different seasons

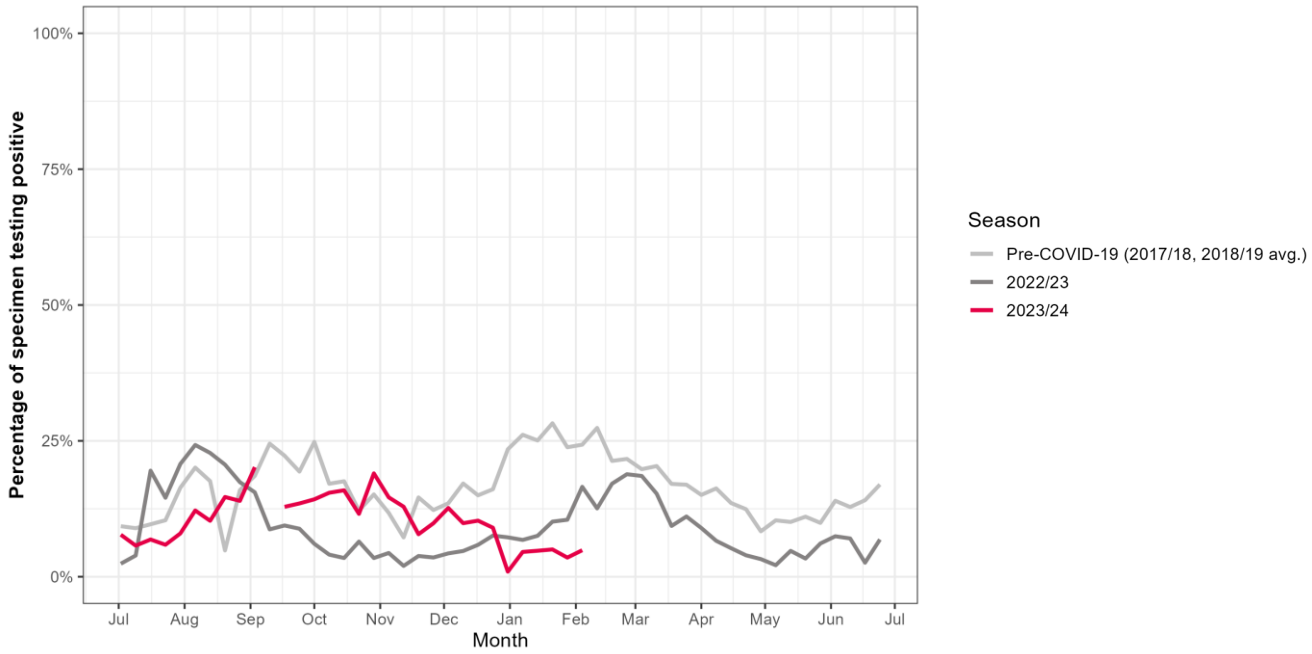


Southern Asia

India

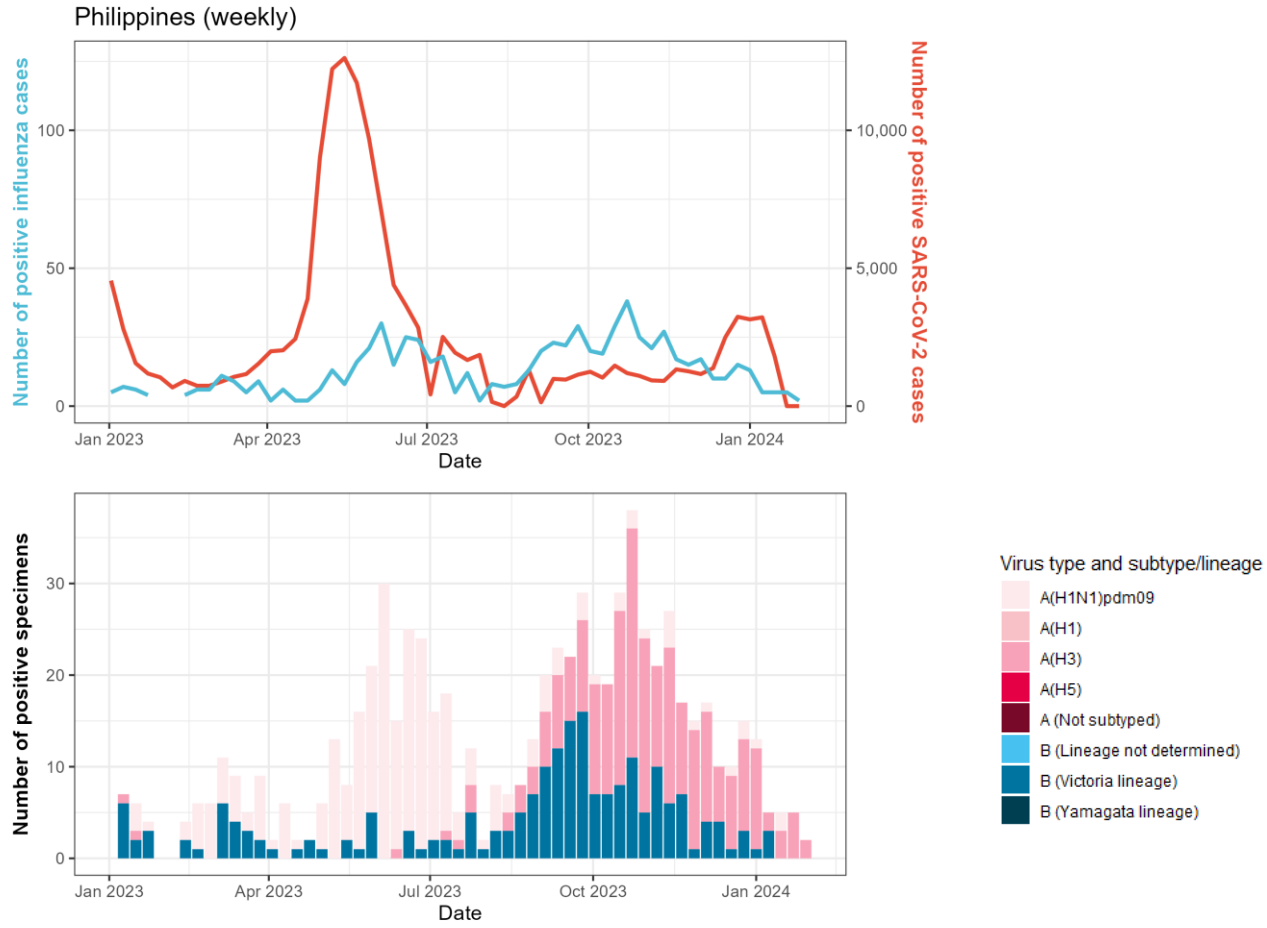


Percentage of specimens testing positive for influenza in different seasons

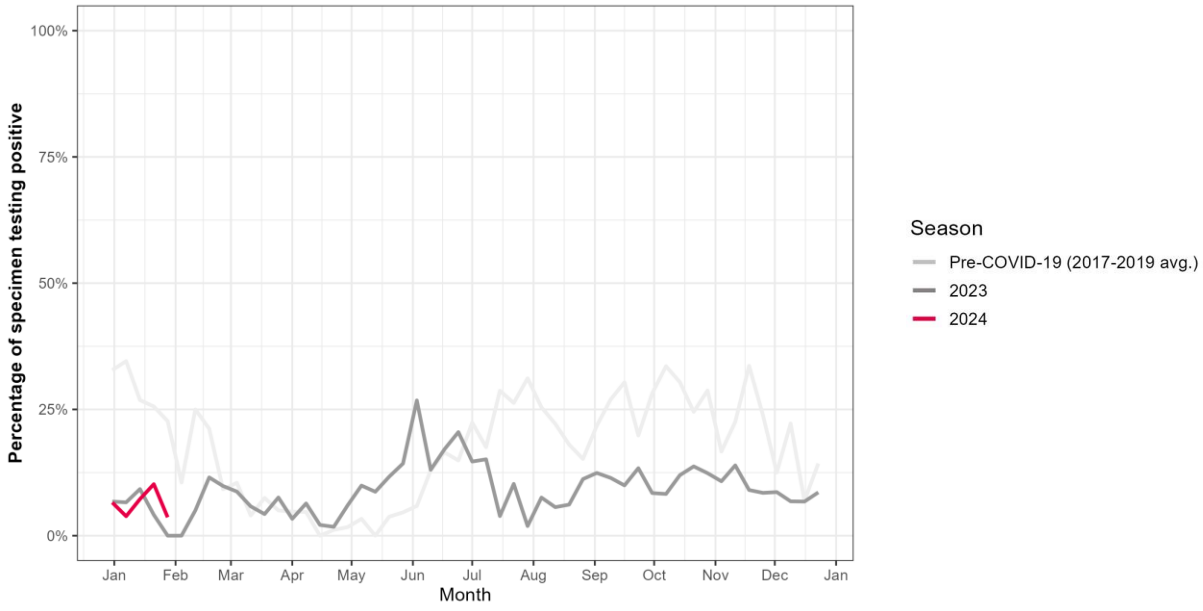


South-East Asia

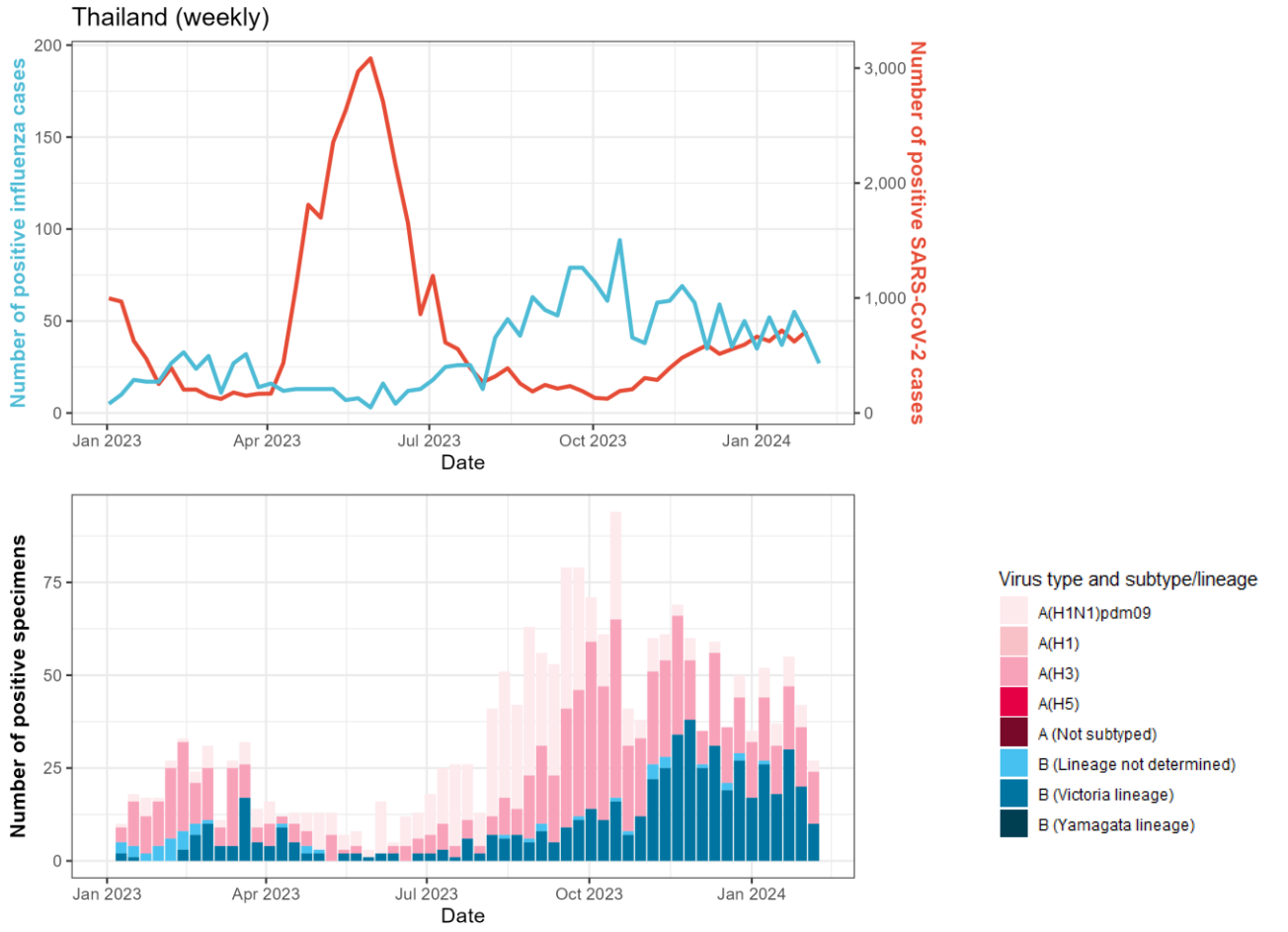
Philippines



Percentage of specimens testing positive for influenza in different seasons



Thailand



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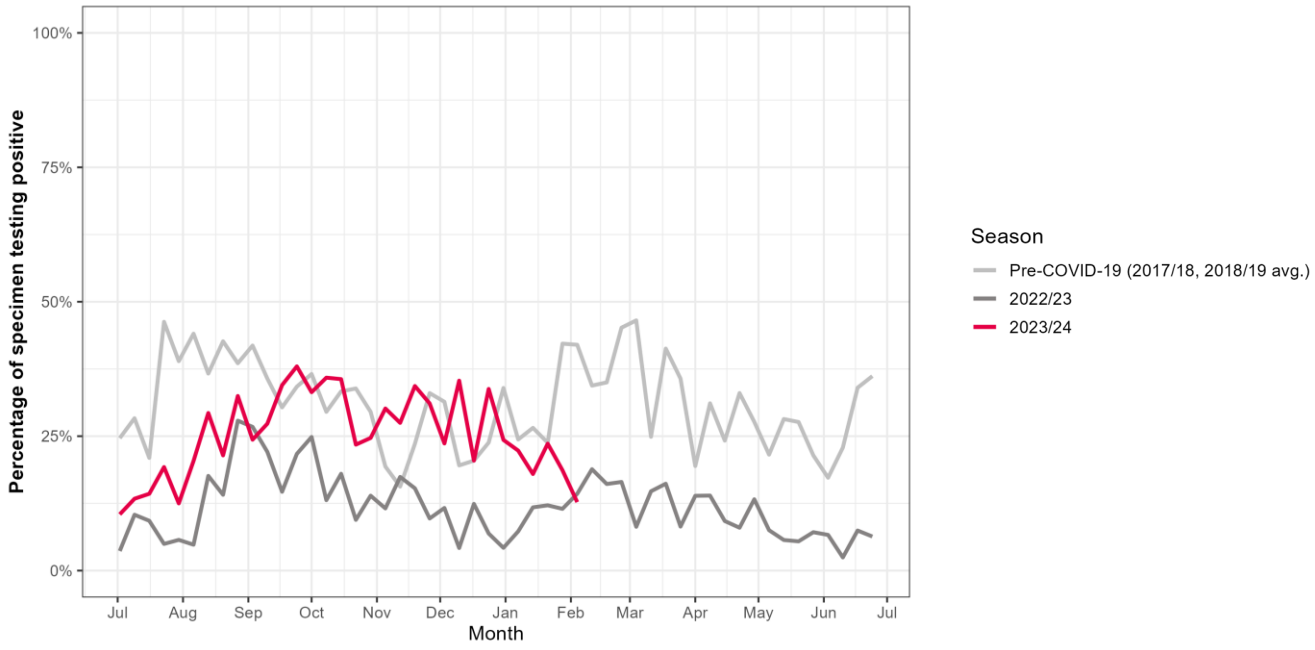
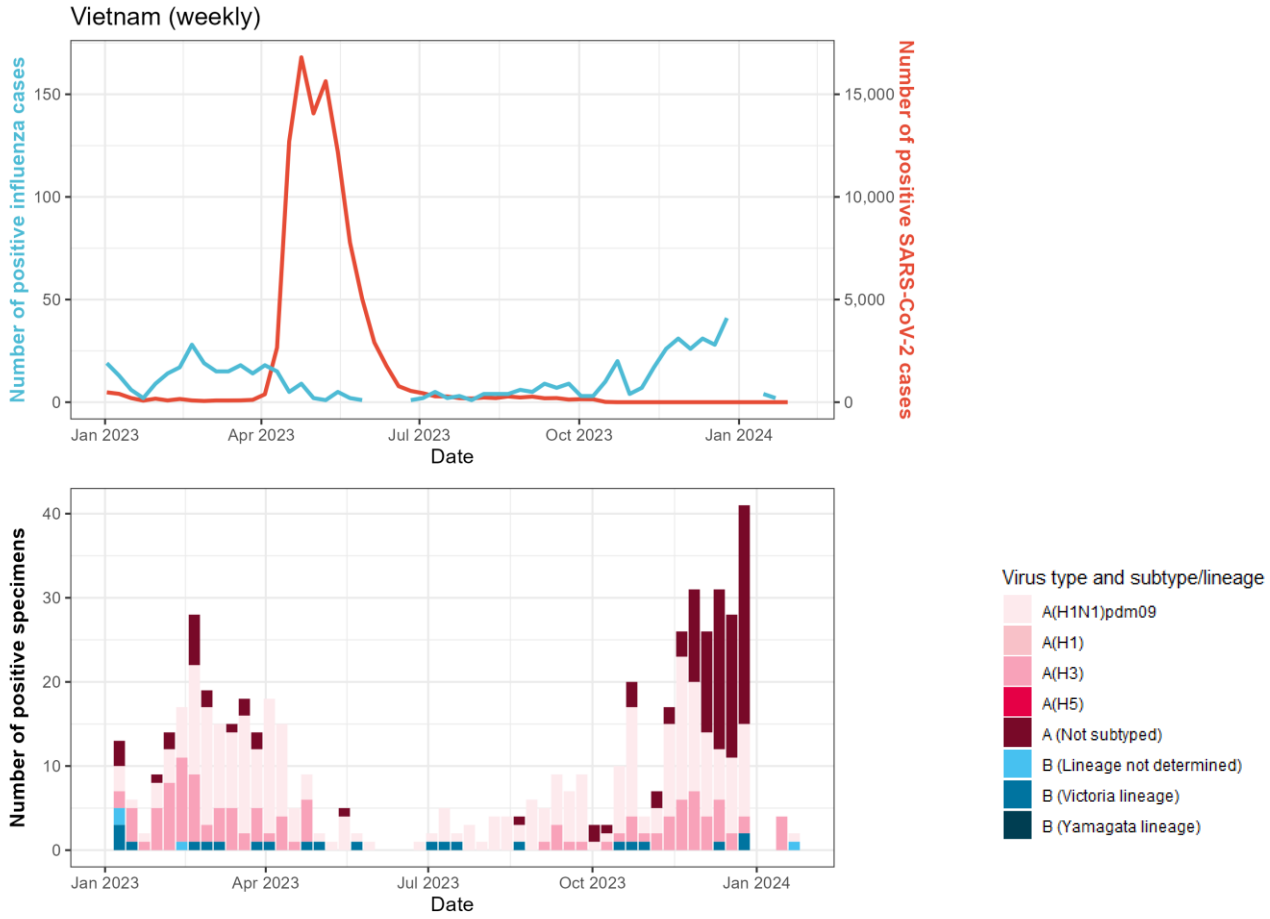


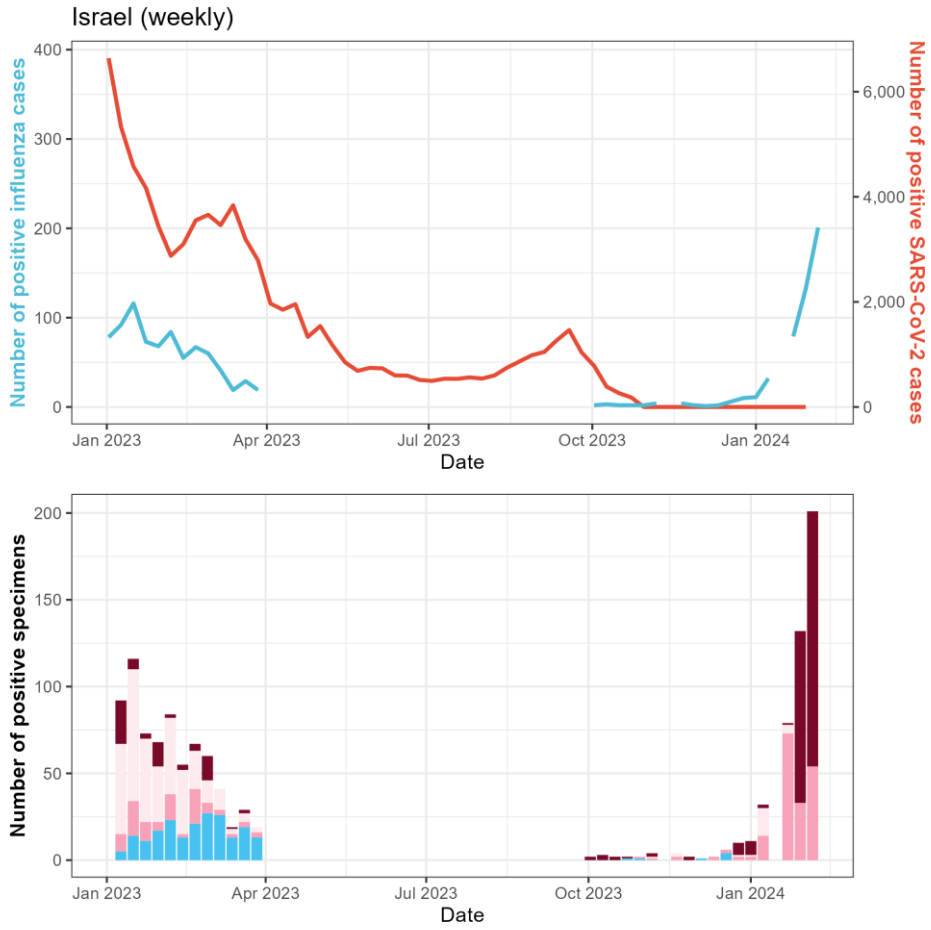
Vietnam



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

Western Asia

Israel



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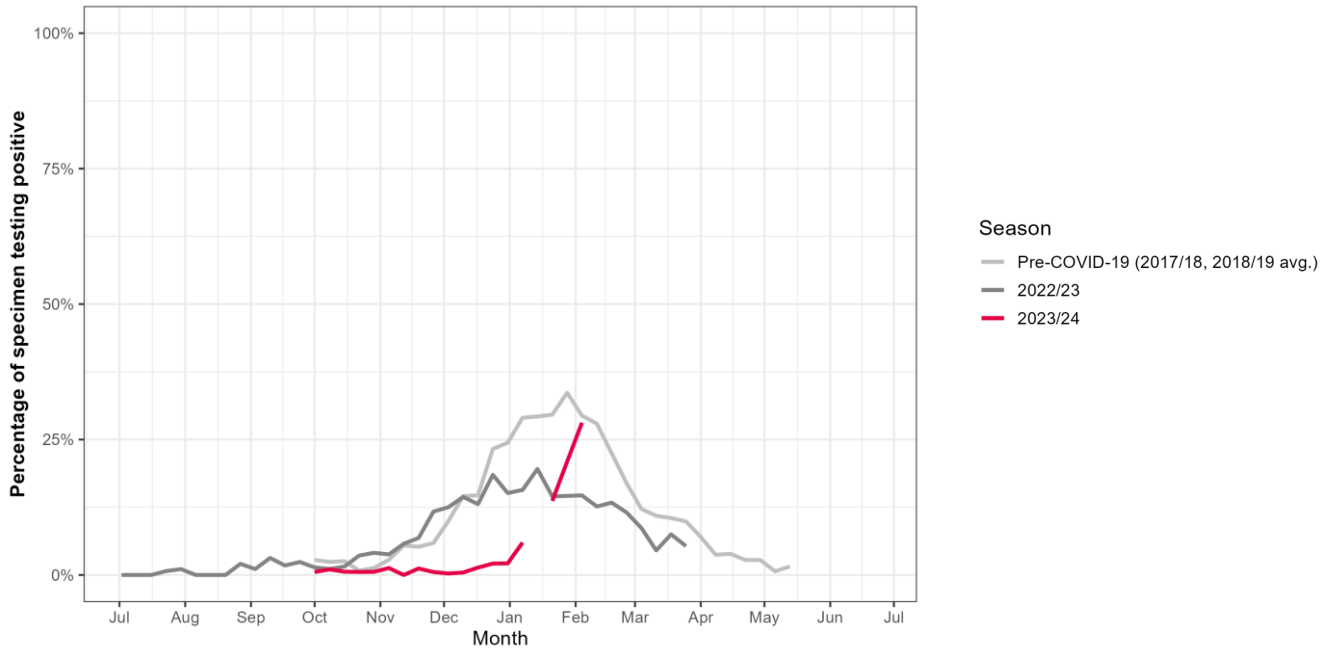
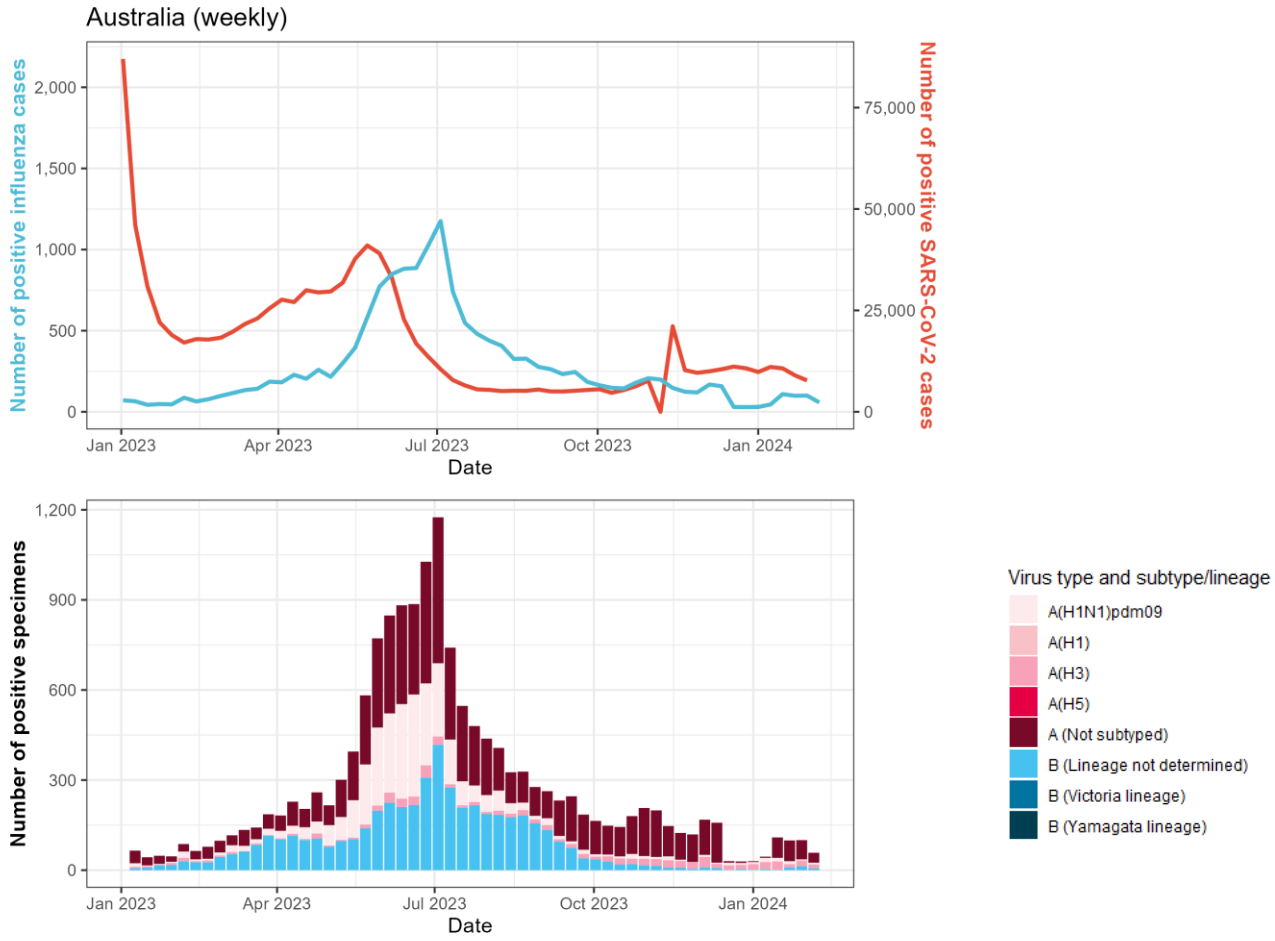
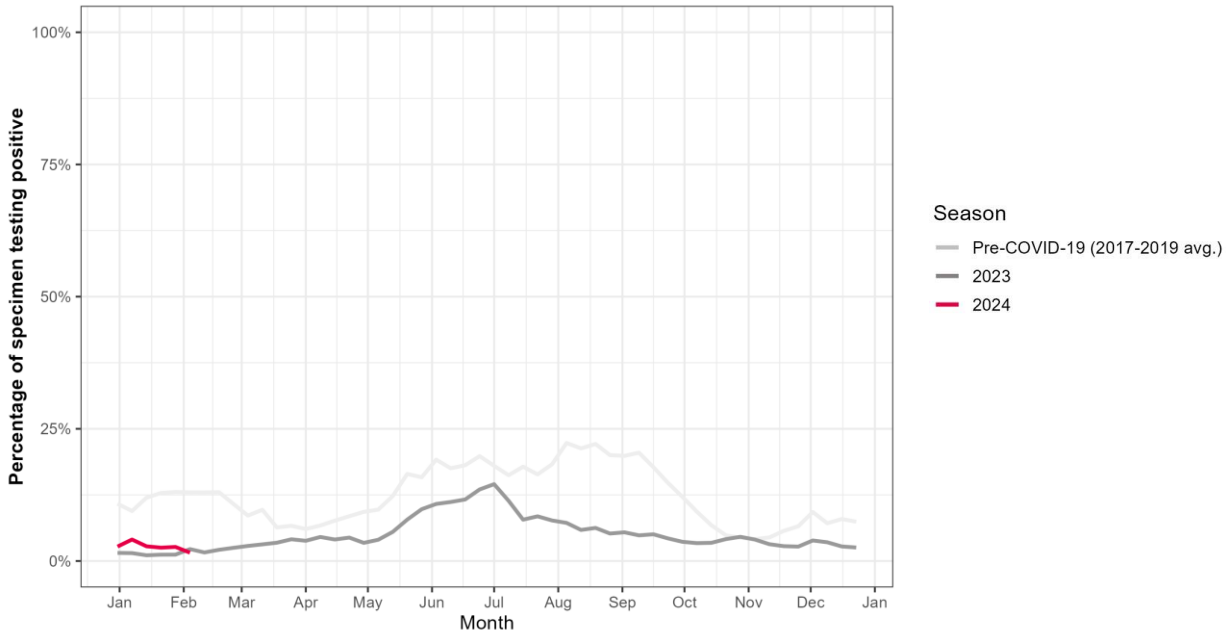


Oceania

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	28,296		949		
Australia	2021	338,311		8		
Australia	2022	10,327,434		14,654		
Australia	2023	1,027,494		15,422		
Australia	2024	40,585	40,585	283	283	2024-06
Brazil	2019			3,459		
Brazil	2020	7,448,560		1,391		
Brazil	2021	14,782,177		1,240		
Brazil	2022	13,893,600		3,648		
Brazil	2023	1,395,623		21,939		
Brazil	2024	0	0	478	478	2024-06
Canada	2019			43,196		
Canada	2020	539,241		44,956		
Canada	2021	1,422,482		337		
Canada	2022	2,514,662		71,314		
Canada	2023	283,644		47,166		
Canada	2024	13,881	13,881	18,353	18,353	2024-06
China	2019			122,757		
China	2020	96,324		31,237		
China	2021	34,534		26,151		
China	2022	62,314,792		56,455		
China	2023	36,877,077		260,766		
China	2024	5,027	5,027	45,616	45,616	2024-06
Egypt	2019			1,999		
Egypt	2020	131,315		659		
Egypt	2021	249,205		233		
Egypt	2022	134,994		2,709		
Egypt	2023	509		3,079		
Egypt	2024	0	0	216	216	2024-05
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		22,690		
France	2024	0	0	9,063	9,063	2024-05
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		796		
Germany	2024	0	0	502	502	2024-06

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
India	2019			10,428		
India	2020	10,187,850		655		
India	2021	24,598,952		5,128		
India	2022	9,890,304		1,948		
India	2023	336,066		3,282		
India	2024	11,904	11,904	111	111	2024-06
Israel	2019			1,796		
Israel	2020	399,105		1,424		
Israel	2021	965,663		456		
Israel	2022	3,391,936		774		
Israel	2023	84,854		841		
Israel	2024	0	0	122	122	2024-06
Italy	2019			6,361		
Italy	2020	2,039,182		7,485		
Italy	2021	3,583,249		31		
Italy	2022	19,438,072		5,817		
Italy	2023	1,597,745		5,256		
Italy	2024	41,194	41,194	3,336	3,336	2024-06
Japan	2019			10,343		
Japan	2020	217,312		2,915		
Japan	2021	1,514,477		9		
Japan	2022	26,534,616		273		
Japan	2023	5,537,167		7,106		
Japan	2024	0	0	237	237	2024-05
Mexico	2019			6,963		
Mexico	2020	1,453,414		4,799		
Mexico	2021	2,548,565		960		
Mexico	2022	3,243,611		10,314		
Mexico	2023	457,219		7,666		
Mexico	2024	0	0	2,106	2,106	2024-06
Netherlands	2019			5,166		
Netherlands	2020	773,198		3,235		
Netherlands	2021	2,312,304		471		
Netherlands	2022	5,480,565		14,019		
Netherlands	2023	64,963		9,582		
Netherlands	2024	2,739	2,739	3,771	3,771	2024-06
Philippines	2019			612		
Philippines	2020	469,003		52		
Philippines	2021	2,369,471		105		
Philippines	2022	1,220,895		260		
Philippines	2023	137,910		688		
Philippines	2024	8,183	8,183	28	28	2024-05
Poland	2019			1,786		
Poland	2020	1,259,923		1,282		
Poland	2021	2,790,909		2		
Poland	2022	2,314,550		1,604		
Poland	2023	266,683		2,085		
Poland	2024	21,300	21,300	958	958	2024-06

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
South Africa	2019			1,164		
South Africa	2020	994,911		157		
South Africa	2021	2,413,026		413		
South Africa	2022	640,295		1,171		
South Africa	2023	24,404		1,024		
South Africa	2024	0	0	16	16	2024-06
South Korea	2019			1,702		
South Korea	2020	56,855		505		
South Korea	2021	554,812		0		
South Korea	2022	28,047,388		295		
South Korea	2023	5,912,818		2,586		
South Korea	2024	0	0	466	466	2024-06
Spain	2019			16,358		
Spain	2020	1,919,549		8,827		
Spain	2021	4,180,589		2,206		
Spain	2022	7,654,824		18,089		
Spain	2023	225,378		18,090		
Spain	2024	0	0	8,511	8,511	2024-06
Thailand	2019			1,568		
Thailand	2020	6,142		297		
Thailand	2021	2,203,829		23		
Thailand	2022	2,511,838		575		
Thailand	2023	40,567		1,717		
Thailand	2024	2,628	2,628	179	179	2024-06
United Kingdom	2019			42,447		
United Kingdom	2020	2,344,433		14,377		
United Kingdom	2021	10,230,346		2,755		
United Kingdom	2022	11,584,258		26,896		
United Kingdom	2023	705,991		23,247		
United Kingdom	2024	27,875	27,875	21,971	21,971	2024-06
United States	2019			268,524		
United States	2020	18,890,446		229,766		
United States	2021	32,988,414		39,507		
United States	2022	47,140,633		469,968		
United States	2023	4,417,336		172,917		
United States	2024	0	0	77,460	77,460	2024-06
Vietnam	2019			355		
Vietnam	2020	1,440		146		
Vietnam	2021	1,650,233		39		
Vietnam	2022	9,872,529		399		
Vietnam	2023	99,798		556		
Vietnam	2024	0	0	6	6	2024-04

[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 [6]. The emergence of this new virus has had a major impact on the global circulation of respiratory viruses, including influenza and RSV [7]. 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 were compared to the prevention and control measures applied in each country using the Stringency Index from the Oxford COVID-19 Government Response Tracker (OxCGRT), when this indicator was available (until 31 December 2022) [8].

Data sources

- **Influenza**: FluNet [9] 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 [10]. 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 [11].
- **Government response tracker**: The Oxford COVID-19 Government Response Tracker (OxCGRT) [8] 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 19 February 2024 and cover the period 1 January 2019 to 11 February 2024. 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 referring to the exact same period. In case of any unclear details or perceived irregularities, feel free to contact us at flucov@nivel.nl.

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Project Website: https://www.nivel.nl/en/flucov

FluCoV Dashboard: https://www.nivel.nl/en/dossier-epidemiology-respiratory-viruses/flucov-dashboard

Funding

The FluCov Project is funded by Sanofi, France.