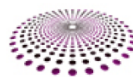


FluCov Epi-Bulletin – February 2022

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



Global **Influenza** Initiative

Commentary

Contents

It has been two years since the World Health Organization (WHO) requested information on a cluster of atypical pneumonia cases in Wuhan from Chinese authorities (January 1, 2020) that were 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 tested positive from January 2019 onwards in 22 countries (see [page 3](#)).

Results

At the end of 2021, we saw increased **influenza** activity in many countries included in this bulletin [1].

- In France, cases decreased in January 2022, however the country saw an increase in **influenza** cases over the course of February with the large majority of these cases (2.338/2.343) being influenza A.
- Most other countries appear to have passed the epidemic peak and are returning to little or no **influenza** activity (Brazil, Canada, Germany, India, Israel, Mexico and South Africa).
- Though the epidemic passed its peak in the United Kingdom and the United States, **influenza** activity appears to have plateaued around approximately 100 and 2,000 cases per week respectively.
- Since the start of 2022, no new **influenza** cases were reported in Egypt, Japan, South Korea and Vietnam. However, of these countries, Japan is the only one that has systematically continued updating the FluNet database.
- In addition, for Thailand and South Africa, no new cases were reported since the last Epi-Bulletin (January 2022).
- The majority of new cases since the last Epi-Bulletin were reported in the United States (6,457) and China (5,170) with most cases in the United States being Influenza A (6,337/6,457) and in China being Influenza B (5,166/5,170).
- In Australia, Poland and South Africa, the weekly number of new cases since the last Epi-Bulletin (January 2022) was lower than 10.

The number of reported **SARS-CoV-2** cases has surged to record levels in almost all countries included in the Epi-Bulletin since the end of 2021, probably due to the recent emergence of the Omicron variant and relaxation of non-pharmaceutical interventions (NPIs) [2].

- In our January Epi-Bulletin, we reported that this wave appears to have ended in Canada, India, Italy, Mexico, the Philippines, Spain, United Kingdom and United States, and this decline continued in February.
- The decline is now also apparent in Brazil, Israel, Japan, the Netherlands and Poland. Though we reported a decline in cases for Australia in the last bulletin, this country is currently experiencing a small resurgence in cases.
- A small resurgence in cases is also visible for China.
- South Korea, Thailand and Vietnam are the only countries which have experienced a steep rise in the number of **SARS-CoV-2** cases in February.

Implications

The increased circulation of **SARS-CoV-2** and **influenza** that started in November 2021 continued throughout the month of December. In January we reported that whereas some countries continued to experience a rise in **SARS-CoV-2** cases, the **influenza** epidemics seemed to have peaked in December 2021, with possible explanations being the reinforcement of NPIs in response to the Omicron variant or viral interference with the increased circulation of **SARS-CoV-2**. Throughout February, the majority of countries now report steep declines in both **SARS-CoV-2** and **influenza** cases though a minority of countries continue to report activity of **influenza** as well as **SARS-CoV-2**. Interestingly, the countries that are currently experiencing steep rises in the number of **SARS-CoV-2** cases (South Korea, Thailand and Vietnam) are also the countries reporting limited to no **influenza** cases. Explanations for this could again include viral interference or the reintroduction of NPIs, however **influenza** reporting is also somewhat inconsistent for these countries.

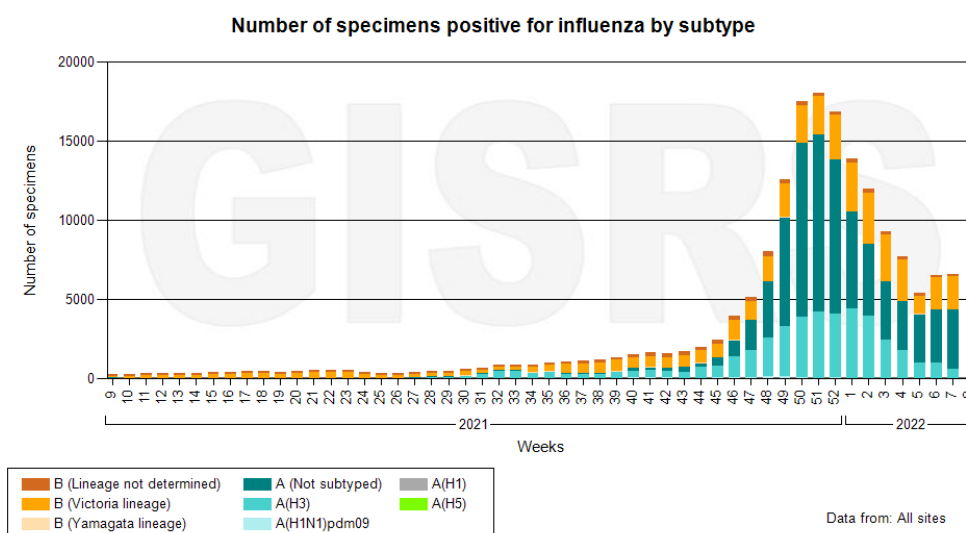
Importantly, and in contrast to the 2020/21 winter, we have witnessed the **co-circulation** of **influenza** and **SARS-CoV-2** in many countries during the 2021/22 winter. However, the levels of **influenza** activity have been relatively low compared to previous years in most countries. Despite this general pattern, a couple of countries have had (e.g. Brazil, India, Mexico and Israel) or are having (e.g. China and France) notable **influenza** activity. Globally, **influenza** activity has slowly been decreasing, though the last few weeks have seen this decrease plateau (see the WHO FluNet Figure below). Considering **influenza** B typically circulates later than **influenza** A (currently dominant), there may be some increased influenza B activity in March 2022 [3,4]. With the start of the 'typical' winter season for temperate countries in the Southern Hemisphere (e.g. South Africa and Australia) slowly approaching (May/June), it will be interesting to see if there is an increase in cases in these countries in the coming months.



Influenza Laboratory Surveillance Information
by the Global Influenza Surveillance and Response System (GISRS)

generated on 28/02/2022 09:30:51 UTC

Global circulation of influenza viruses



Data source: FluNet (www.who.int/flu-net), GISRS

© World Health Organization 2022

National Influenza Centre (NIC) Survey

We would like to invite NIC contact persons of countries included in this Epi-Bulletin to participate in our **NIC survey**. Through this survey we aim to better understand the influenza (FluNet) and SARS-CoV-2 surveillance data reported to WHO in 2020 and 2021. Participation is possible until the mid-March 2022 using the following link:

<https://s.surveypal.com/eHfBYgPI5>

- **Responded:** Australia, Brazil, China, France, Italy, India, Israel, the Netherlands, Philippines, Spain, South Africa, Thailand, UK, USA
- **Pending:** Canada, Egypt, Germany, Japan, Mexico, Poland, South Korea, Vietnam

Monthly plots by country

The plots per country show weekly data for influenza and SARS-Cov-2 infections from January 1, 2019 up to January 23, 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. 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 15-15](#) 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

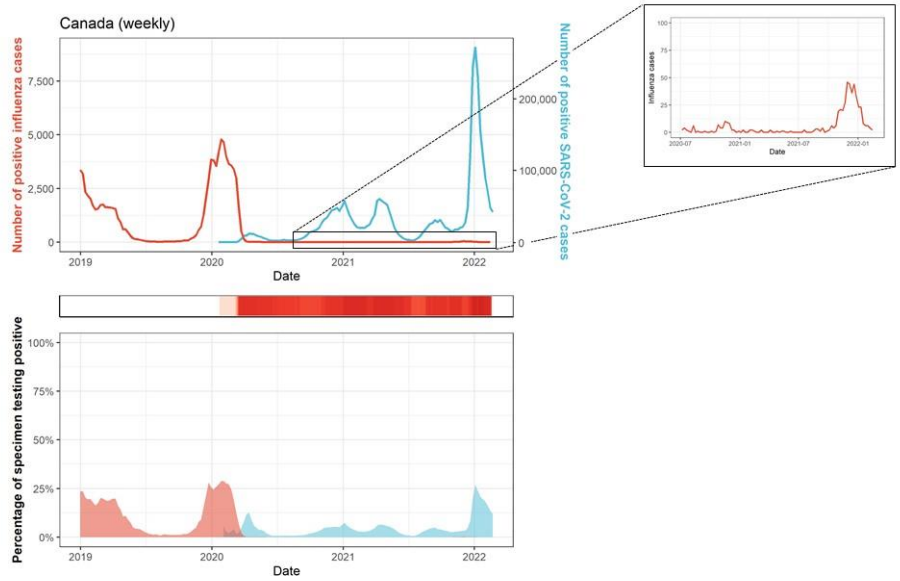
Israel

Oceania

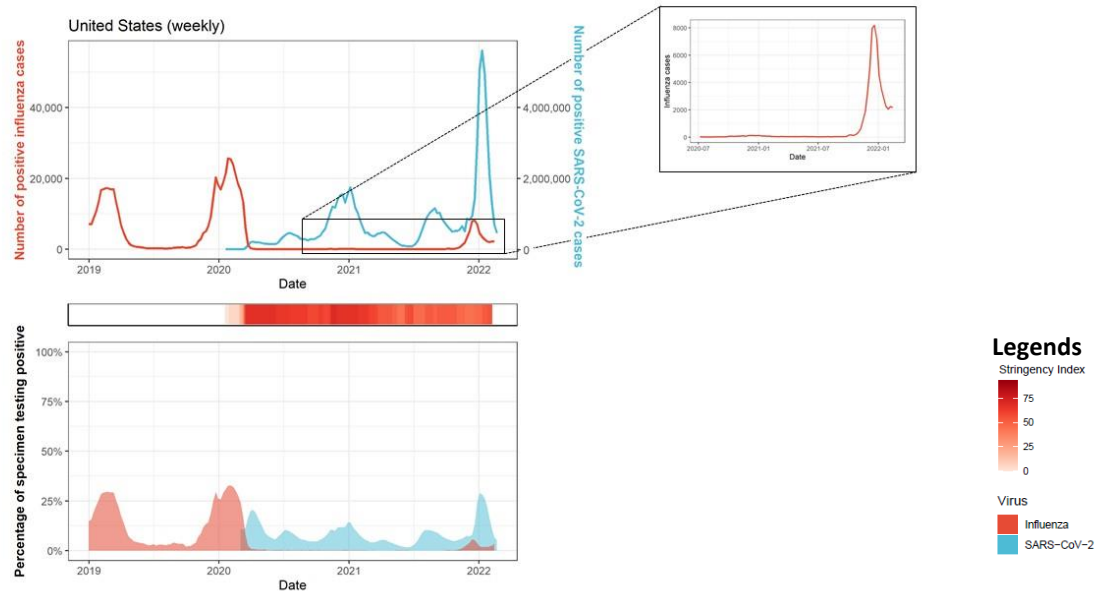
Australia

North America

Canada

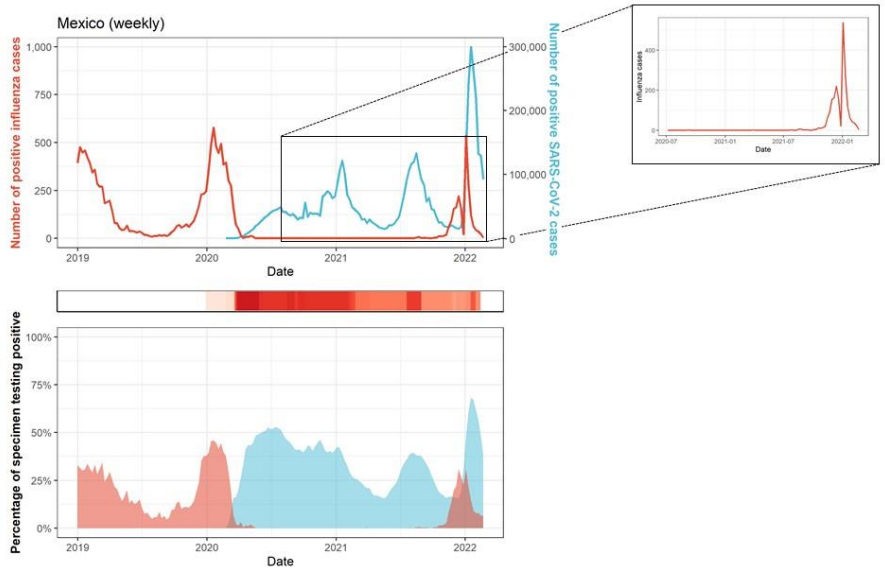


United States



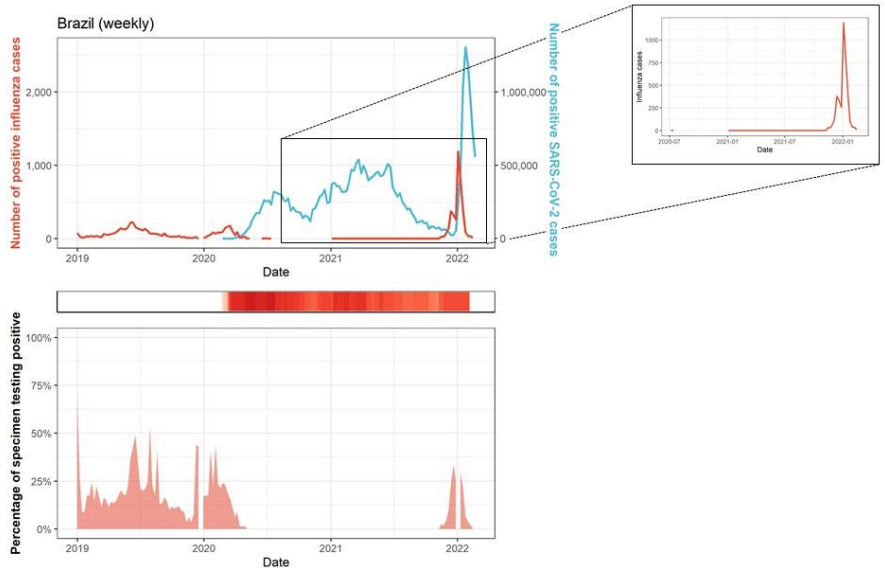
Central America Caribbean

Mexico



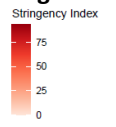
Tropical South America

Brazil

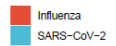


Note. Brazil has no positivity rate for SARS-CoV-2 because no denominator was available.

Legends

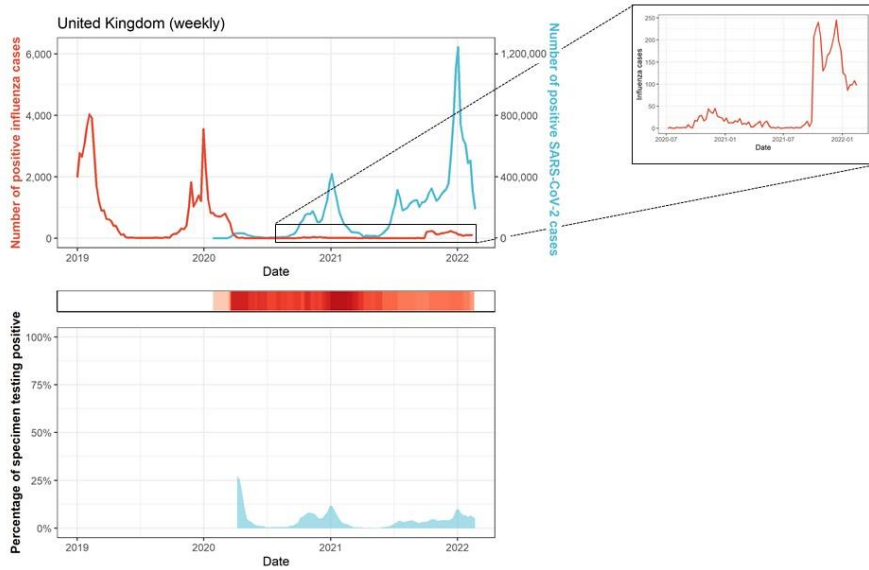


Virus



Northern Europe

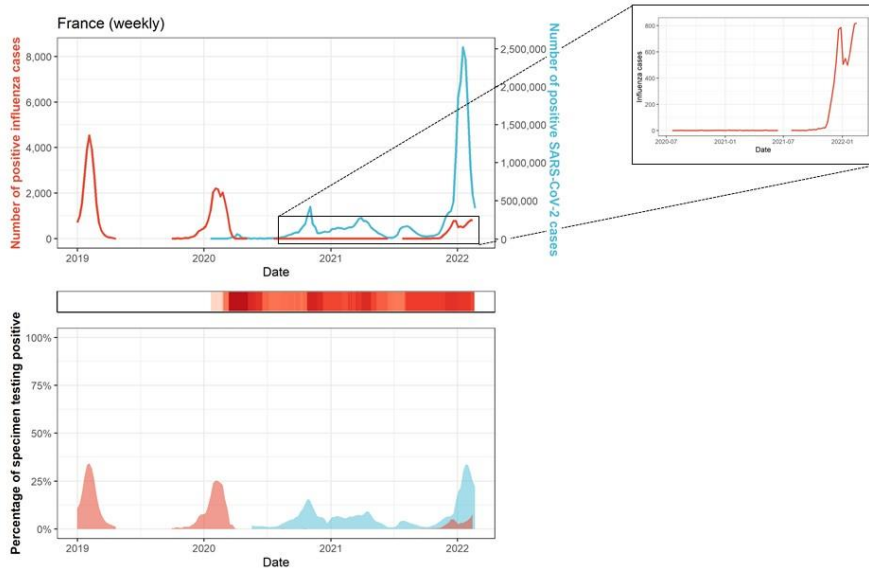
United Kingdom



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

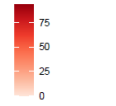
South West Europe

France

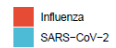


Legends

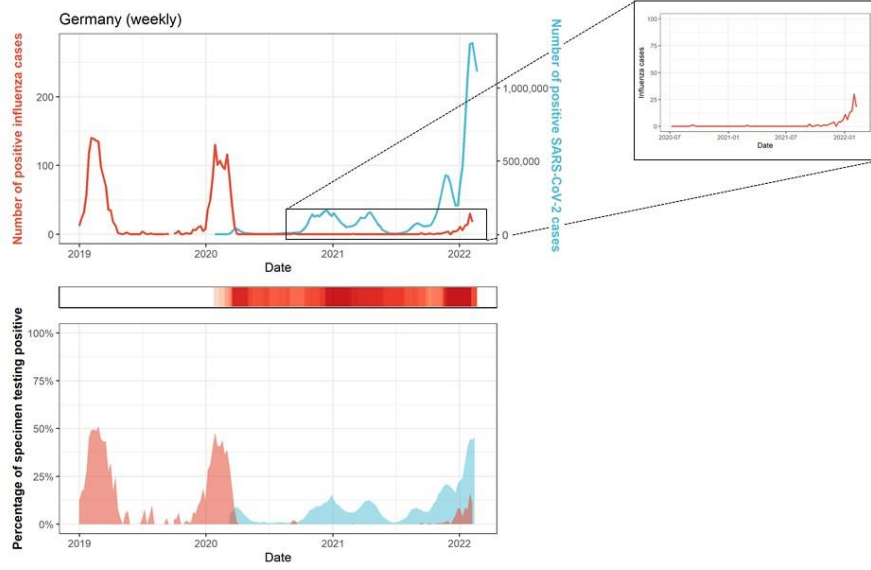
Stringency Index



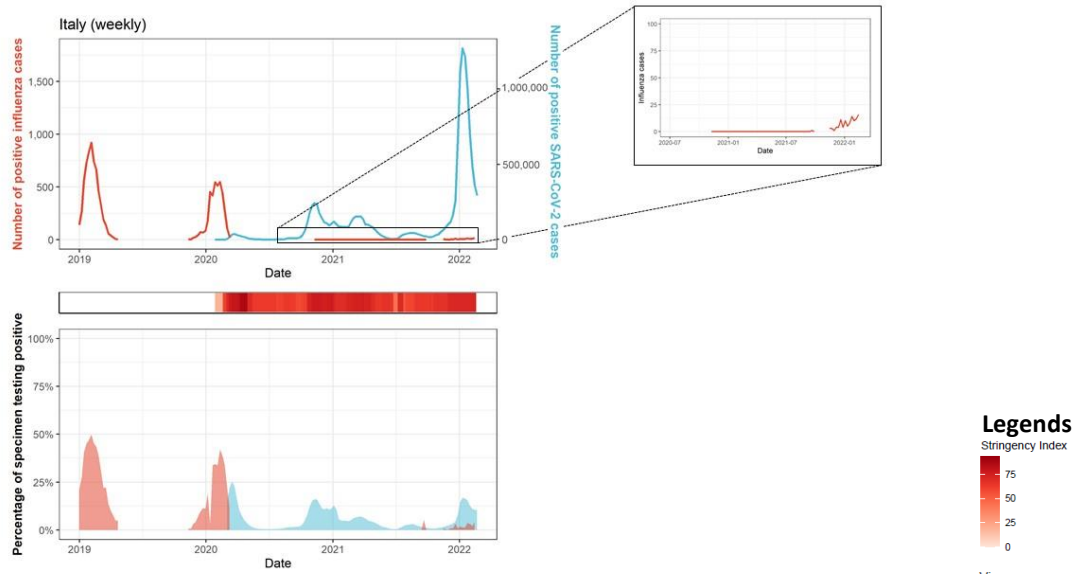
Virus



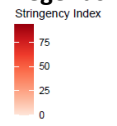
Germany



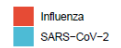
Italy



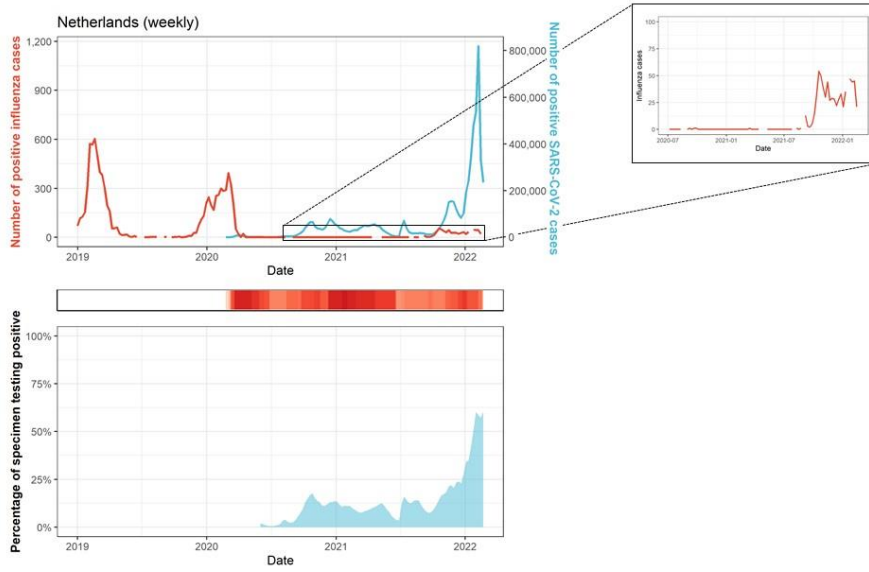
Legends



Virus

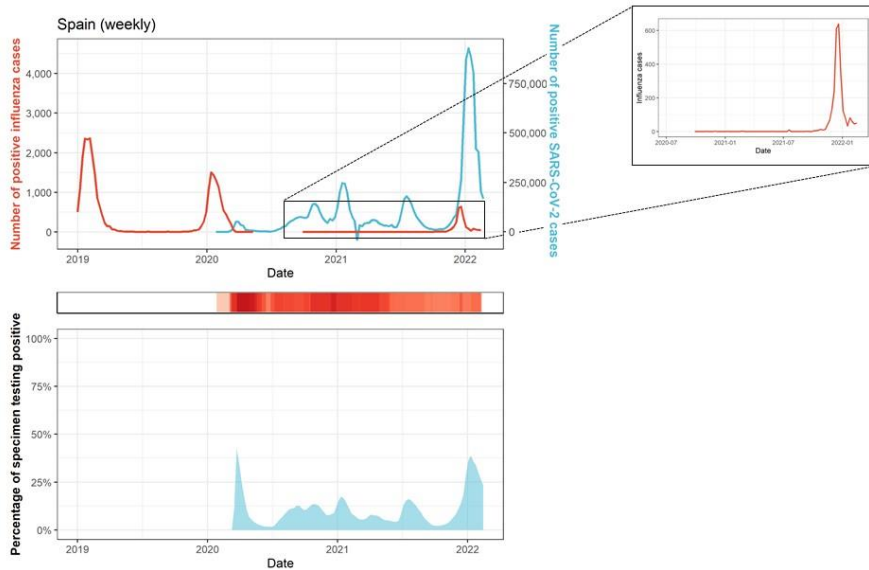


Netherlands



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

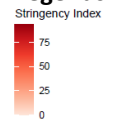
Spain



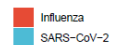
Note. Spain does not have a positivity rate for influenza because the denominator was deemed unreliable.

The number of SARS-CoV-2 cases dips below 0 as -74 347 new cases were reported on 2 March 2021.

Legends

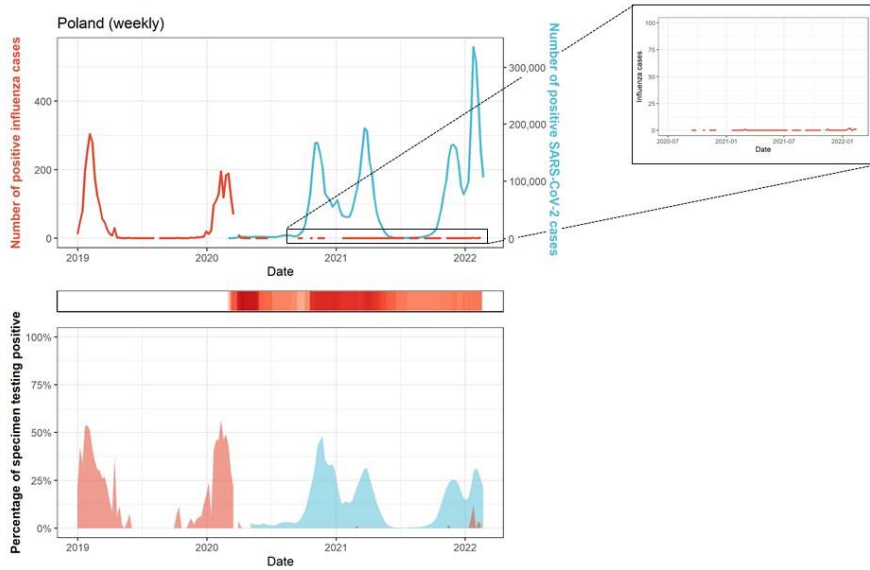


Virus



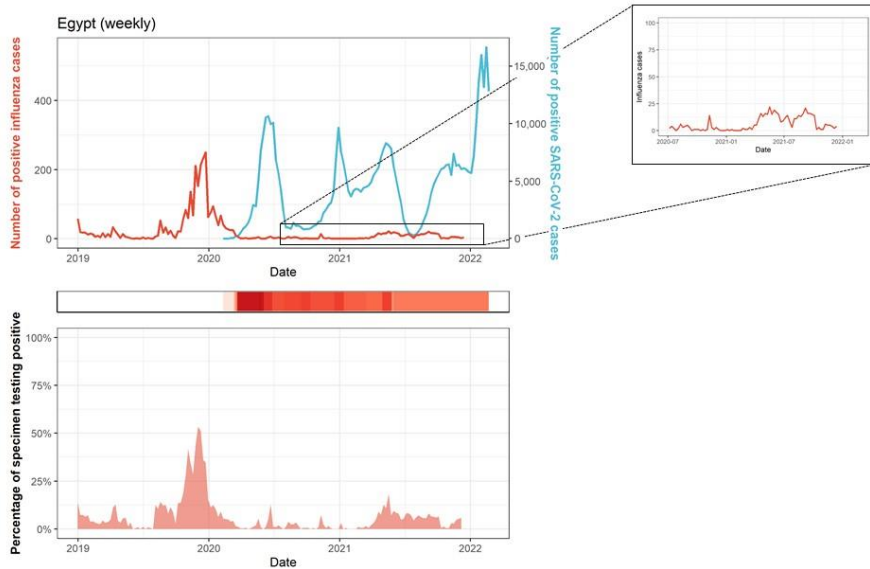
Eastern Europe

Poland



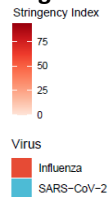
Northern Africa

Egypt



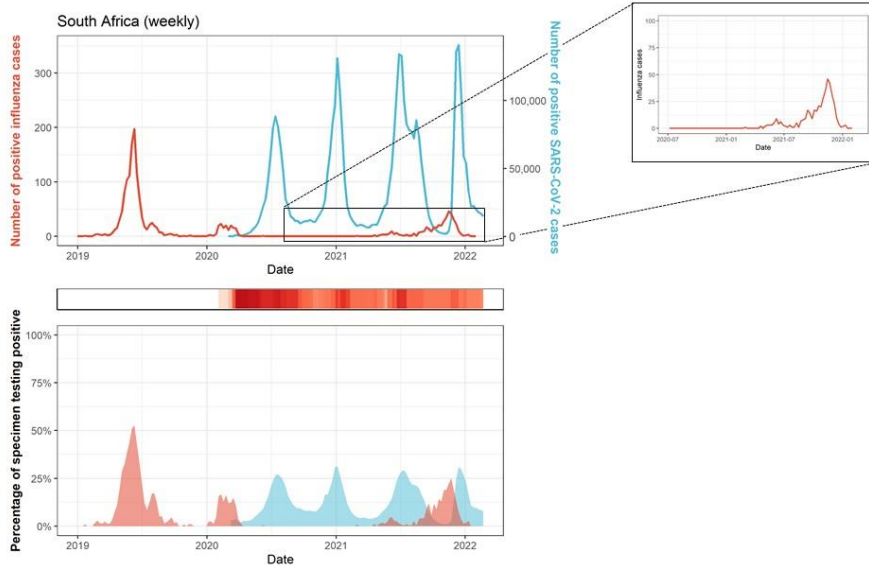
Note. Egypt does not have a positivity rate for SARS-CoV-2 because no denominator was available. No influenza data for Egypt has been uploaded onto FluNet since week 50, 2021

Legends



Southern Africa

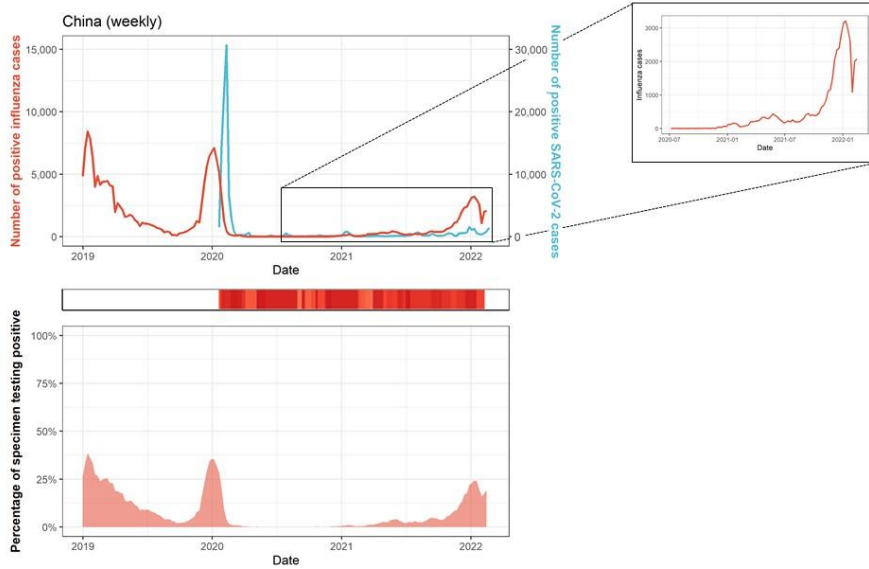
South Africa



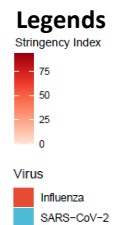
Note. No influenza data for South Africa has been uploaded onto FluNet since week 5, 2022

Eastern Asia

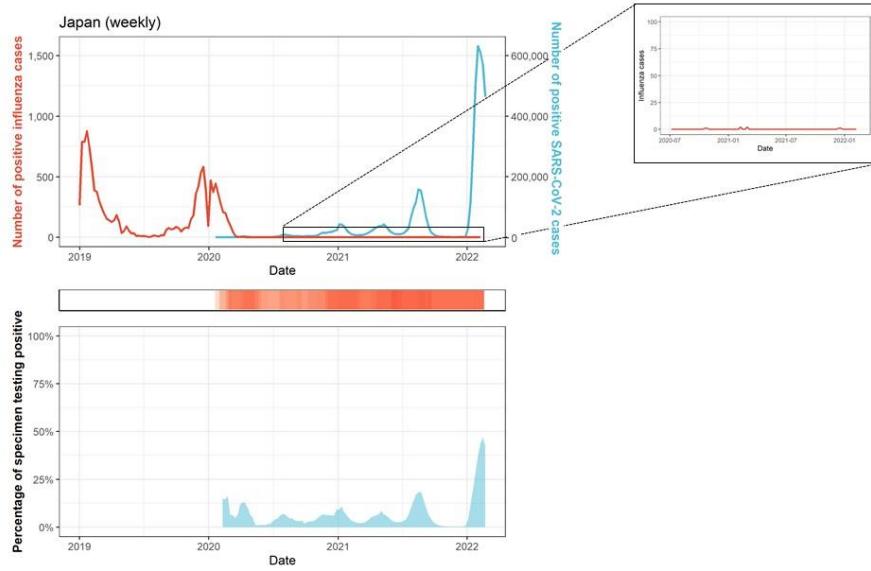
China



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

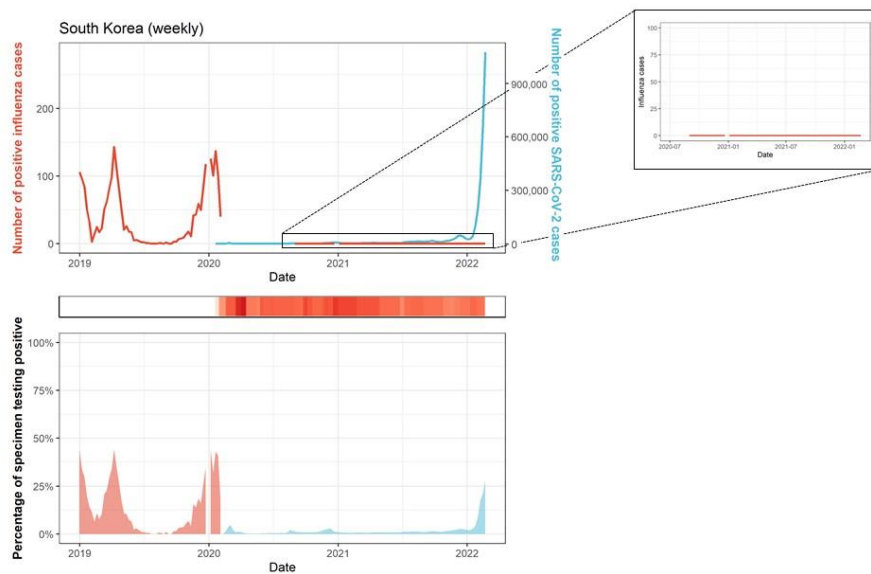


Japan

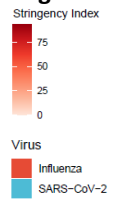


Note. Japan does not have a positivity rate for influenza because the denominator was deemed unreliable.

South Korea

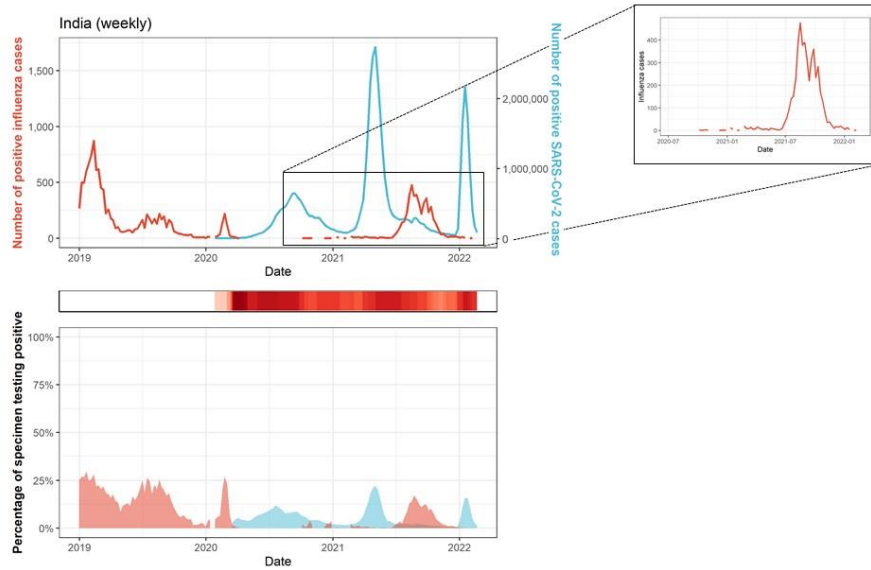


Legends



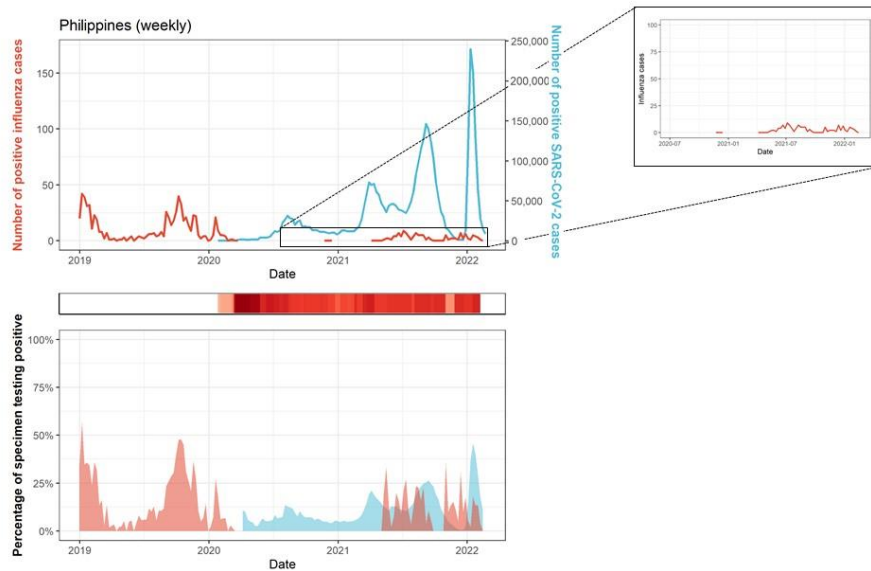
Southern Asia

India



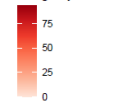
South East Asia

Philippines



Legends

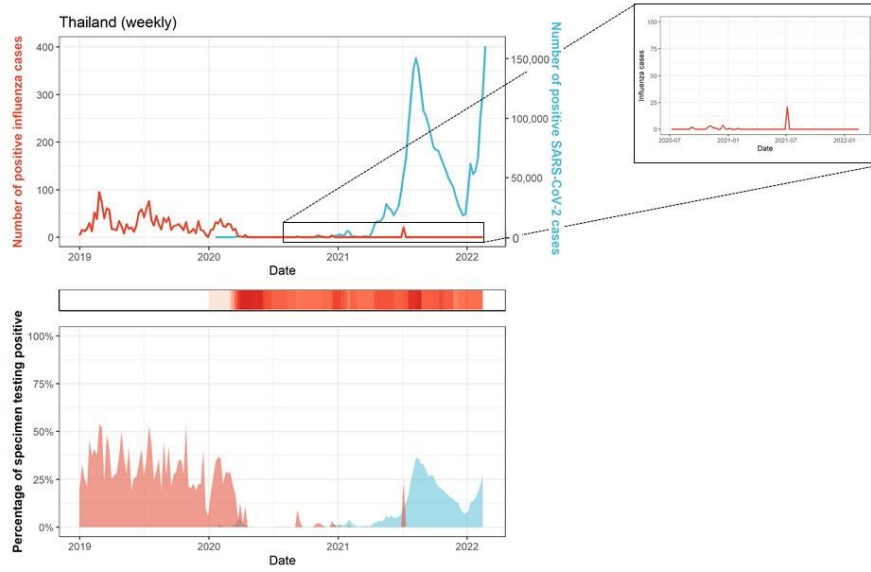
Stringency Index



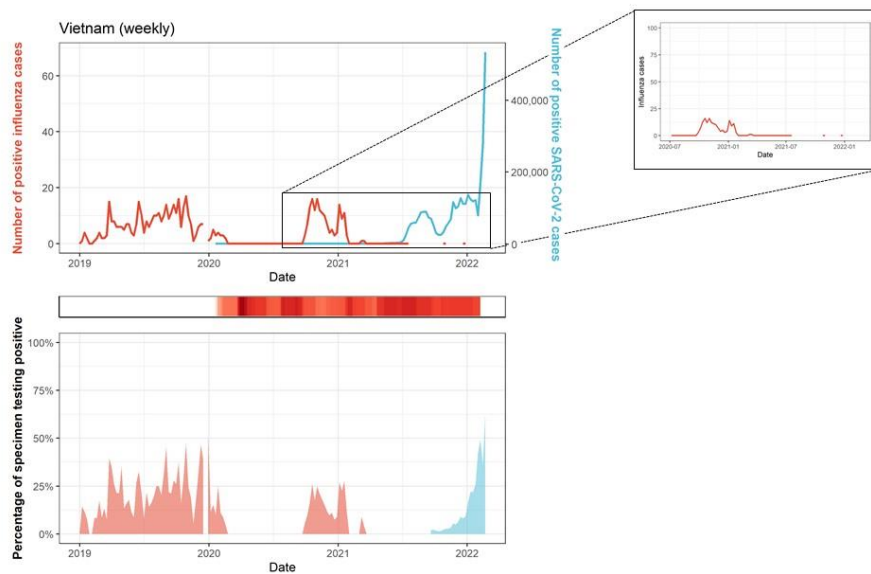
Virus

- Influenza
- SARS-CoV-2

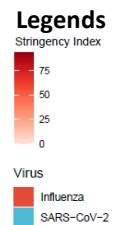
Thailand



Vietnam

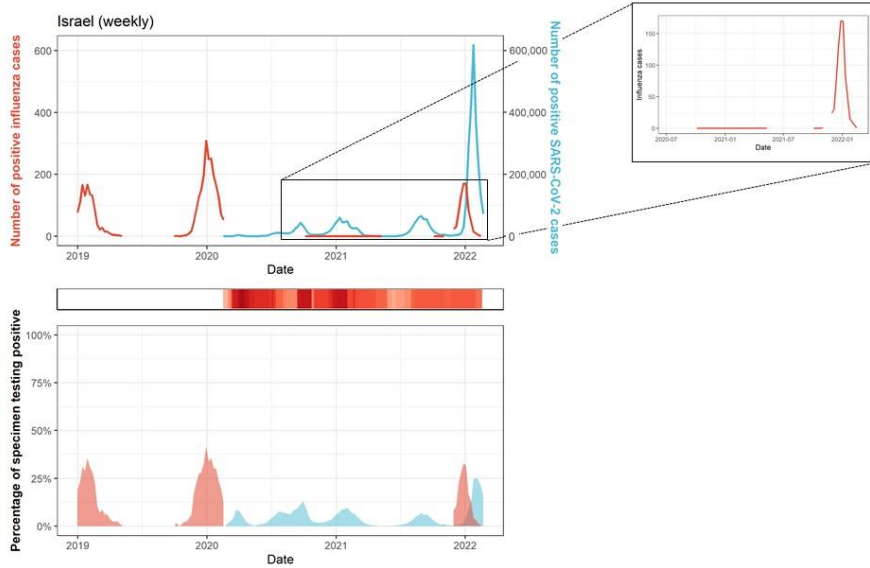


Note. No influenza data for Vietnam have been uploaded onto FluNet since week 4, 2021



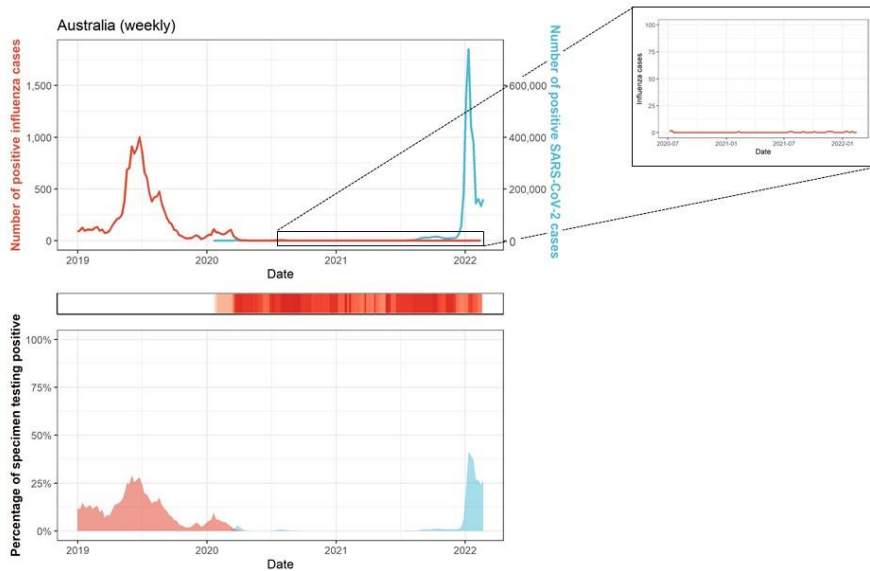
Western Asia

Israel



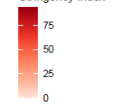
Oceania

Australia



Legends

Stringency Index



Virus

- Influenza
- SARS-CoV-2

Absolute numbers per country

| Country | Year | Cases ^a of SARS-CoV-2 | +/- since last month ^b | Cases ^a of influenza | +/- since last month ^b |
|-----------|------|----------------------------------|-----------------------------------|---------------------------------|-----------------------------------|
| Australia | 2019 | | | 14002 | |
| Australia | 2020 | 28425 | | 949 | |
| Australia | 2021 | 397071 | | 8 | |
| Australia | 2022 | 2809521 | 654631 | 3 | 1 |
| Brazil | 2019 | | | 3459 | |
| Brazil | 2020 | 7681032 | | 1391 | |
| Brazil | 2021 | 14485929 | | 1240 | |
| Brazil | 2022 | 6504732 | 3333041 | 2540 | 85 |
| Canada | 2019 | | | 43196 | |
| Canada | 2020 | 583232 | | 44956 | |
| Canada | 2021 | 1599528 | | 337 | |
| Canada | 2022 | 1109067 | 236246 | 72 | 12 |
| China | 2019 | | | 122757 | |
| China | 2020 | 86524 | | 31295 | |
| China | 2021 | 15243 | | 26184 | |
| China | 2022 | 7212 | 3387 | 17090 | 5170 |
| Egypt | 2019 | | | 1999 | |
| Egypt | 2020 | 138062 | | 659 | |
| Egypt | 2021 | 247513 | | 412 | |
| Egypt | 2022 | 98196 | 57860 | 0 | 0 |
| France | 2019 | | | 25405 | |
| France | 2020 | 2727705 | | 16589 | |
| France | 2021 | 7706191 | | 3071 | |
| France | 2022 | 12737505 | 3559127 | 4489 | 2343 |
| Germany | 2019 | | | 1215 | |
| Germany | 2020 | 1746929 | | 958 | |
| Germany | 2021 | 5446257 | | 31 | |
| Germany | 2022 | 7719440 | 4887163 | 92 | 48 |
| India | 2019 | | | 10428 | |
| India | 2020 | 10286709 | | 655 | |
| India | 2021 | 24574870 | | 4789 | |
| India | 2022 | 8069466 | 1461546 | 26 | 3 |
| Israel | 2019 | | | 1796 | |
| Israel | 2020 | 423262 | | 1424 | |
| Israel | 2021 | 960670 | | 446 | |
| Israel | 2022 | 2250571 | 733934 | 333 | 16 |
| Italy | 2019 | | | 6361 | |
| Italy | 2020 | 2107166 | | 3599 | |
| Italy | 2021 | 4018517 | | 31 | |
| Italy | 2022 | 6657153 | 1799720 | 75 | 38 |
| Japan | 2019 | | | 10200 | |
| Japan | 2020 | 235747 | | 2744 | |
| Japan | 2021 | 1496547 | | 6 | |
| Japan | 2022 | 3273585 | 2267421 | 0 | 0 |

| Country | Year | Cases ^a of SARS-CoV-2 | +/- since last month ^b | Cases ^a of influenza | +/- since last month ^b |
|----------------|------|----------------------------------|-----------------------------------|---------------------------------|-----------------------------------|
| Mexico | 2019 | | | 6963 | |
| Mexico | 2020 | 1426094 | | 4799 | |
| Mexico | 2021 | 2553629 | | 960 | |
| Mexico | 2022 | 1528906 | 566039 | 1102 | 106 |
| Netherlands | 2019 | | | 5166 | |
| Netherlands | 2020 | 806620 | | 3235 | |
| Netherlands | 2021 | 2346892 | | 461 | |
| Netherlands | 2022 | 3301798 | 1907723 | 239 | 110 |
| Philippines | 2019 | | | 612 | |
| Philippines | 2020 | 474064 | | 52 | |
| Philippines | 2021 | 2369915 | | 105 | |
| Philippines | 2022 | 818018 | 101795 | 16 | 4 |
| Poland | 2019 | | | 1786 | |
| Poland | 2020 | 1294878 | | 1282 | |
| Poland | 2021 | 2813337 | | 2 | |
| Poland | 2022 | 1558839 | 780900 | 5 | 2 |
| South Africa | 2019 | | | 1164 | |
| South Africa | 2020 | 1057161 | | 157 | |
| South Africa | 2021 | 2382539 | | 413 | |
| South Africa | 2022 | 215756 | 68820 | 5 | 0 |
| South Korea | 2019 | | | 1702 | |
| South Korea | 2020 | 61768 | | 505 | |
| South Korea | 2021 | 573484 | | 0 | |
| South Korea | 2022 | 2638196 | 2409407 | 0 | 0 |
| Spain | 2019 | | | 17228 | |
| Spain | 2020 | 1928265 | | 9373 | |
| Spain | 2021 | 4366480 | | 2145 | |
| Spain | 2022 | 4682779 | 1016271 | 474 | 155 |
| Thailand | 2019 | | | 1568 | |
| Thailand | 2020 | 6880 | | 297 | |
| Thailand | 2021 | 2216551 | | 23 | |
| Thailand | 2022 | 668492 | 443963 | 0 | 0 |
| United Kingdom | 2019 | | | 42447 | |
| United Kingdom | 2020 | 2491790 | | 14369 | |
| United Kingdom | 2021 | 10472900 | | 2805 | |
| United Kingdom | 2022 | 5124712 | 1579509 | 732 | 303 |
| United States | 2019 | | | 268524 | |
| United States | 2020 | 20193088 | | 229766 | |
| United States | 2021 | 34616724 | | 38069 | |
| United States | 2022 | 24235230 | 4062220 | 19617 | 6457 |
| Vietnam | 2019 | | | 355 | |
| Vietnam | 2020 | 1465 | | 146 | |
| Vietnam | 2021 | 1729792 | | 39 | |
| Vietnam | 2022 | 1712228 | 1167758 | 0 | 0 |

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 [5]. 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 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) [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. This data is extracted both from the John Hopkins repository on daily confirmed COVID-19 [10] cases as well as various national public health institutions.
- **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 1 March 2022 and cover the period 1 January 2019 to 27 February 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] FluCov Epi_bulletin – December 2021. https://www.nivel.nl/sites/default/files/algemene-content/FluCov%20EpiBulletin_Dec2021_11012022.pdf [accessed 7 February 2022]
- [2] 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]
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