Influenza Update N° 434

12 December 2022, based on data up to 27 November 2022

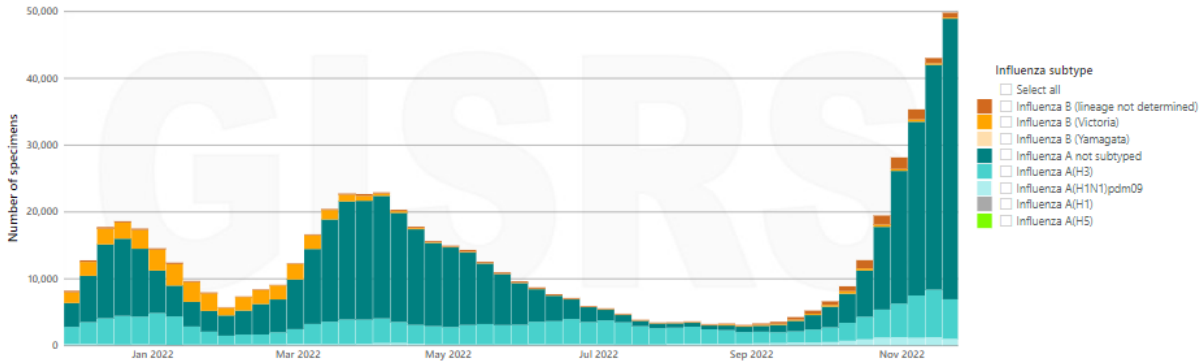
In this update, in addition to the influenza surveillance information, that of the SARS-CoV-2 surveillance by the Global Influenza Surveillance and Response System (GISRS) through its associated sentinel and non-sentinel surveillance systems and reported to FluNet is included. Information on respiratory syncytial virus (RSV) is included where available.

Summary

- **Countries are recommended to monitor the co-circulation of influenza and SARS-CoV-2 viruses. They are encouraged to enhance integrated surveillance, and in northern hemisphere countries step-up their influenza vaccination campaign to prevent severe disease and hospitalizations associated with influenza. Clinicians should consider influenza in differential diagnosis, especially for high-risk groups for influenza, and test and treat according to national guidance. Because of changes in surveillance of respiratory viruses during the COVID-19 pandemic, comparisons of current data with that from previous seasons may not always be valid and data should be interpreted with caution.**
- Globally, influenza activity increased and where subtyped, influenza A(H3N2) viruses predominated.
- In the countries of North America, influenza positivity and influenza-like-illness (ILI) activity continued to increase steeply in recent weeks. Many indicators were above levels typically observed at this time of year and some are near or above levels observed at the peak of previous epidemics. Influenza A(H3N2) was the predominant virus detected.
- In Europe, overall influenza activity continued to increase with influenza positivity from sentinel sites remaining above the epidemic threshold at the regional level. Influenza A viruses predominated among the reported detections in general, with A(H3N2) viruses accounting for the majority of subtyped influenza A viruses from sentinel sites and influenza A(H1N1)pdm09 viruses predominant among non-sentinel samples.
- In central Asia, influenza B virus activity continued to be reported from Kazakhstan and other countries reporting a few influenza A and B virus detections.
- In Northern Africa, influenza detections were low in reporting countries.
- In Western Asia, influenza activity appeared to decrease overall with all seasonal influenza subtypes detected in similar proportions.
- In East Asia, influenza activity of predominantly influenza A(H3N2) remained low overall among reporting countries but with some increases reported in southern China and the Republic of Korea.
- In the Caribbean and Central American countries, influenza activity of predominately influenza A(H3N2) increased in Mexico but remained low in most other reporting countries.
- In the tropical countries of South America, influenza detections were low and A(H3N2) viruses predominated followed by influenza B/Victoria lineage viruses.
- In tropical Africa, influenza activity remained low with detections of all seasonal influenza subtypes reported.
- In Southern Asia, influenza activity decreased this period mainly due to decreased activity reported in Iran (Islamic Republic of). Influenza A(H3N2) was the most frequently detected subtype in the subregion.

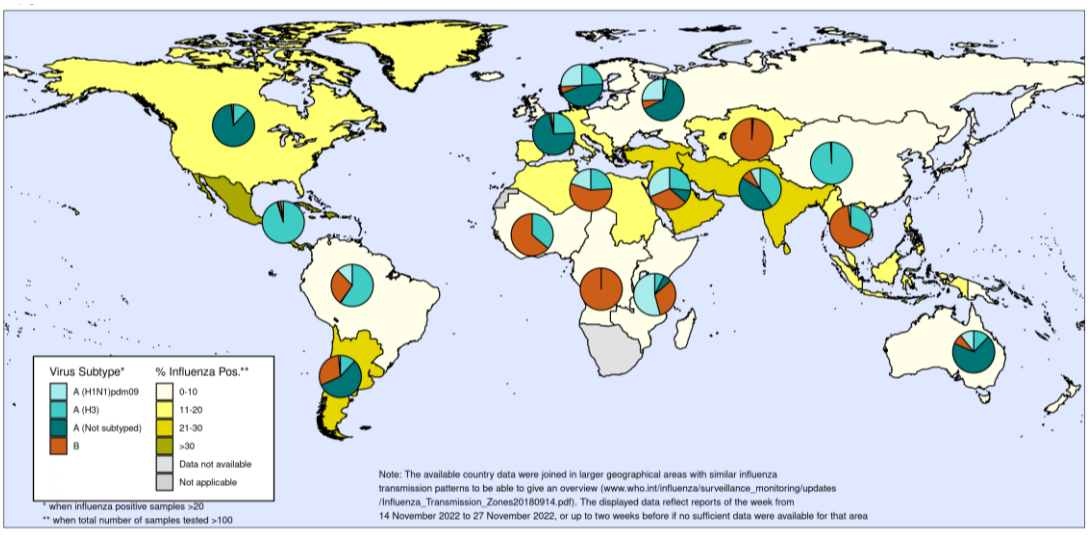
- In South-East Asia, detections of predominantly influenza A(H3N2) and influenza B continued to decrease.
- In the temperate zones of the southern hemisphere, influenza activity was low in most reporting countries, except in temperate South America where activity remained elevated in Argentina and Chile.

Number of specimens positive for influenza by subtype globally



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone[1]. Map generated on 09 December 2022.



- National Influenza Centres (NICs) and other national influenza laboratories from 125 countries, areas or territories reported data to FluNet for the time period from 14 November

[1]Information in this report is categorized by influenza transmission zones, which are geographical groups of countries, areas or territories with similar influenza transmission patterns. For more information on influenza transmission zones, see: https://www.who.int/publications/m/item/influenza_transmission_zones

2022 to 27 November 2022 (data as of 2022-12-09 08:20:25 UTC). The WHO GISRS laboratories tested more than 560 422 specimens during that time period. 93 082 were positive for influenza viruses, of which 91 170 (97.9%) were typed as influenza A and 1912 (2.1%) as influenza B. Of the sub-typed influenza A viruses, 2203 (14.4%) were influenza A(H1N1)pdm09 and 13 091 (85.6%) were influenza A(H3N2). Of the characterized B viruses (400), 100% belonged to the B/Victoria lineage.

SARS-CoV-2 sentinel surveillance

- Globally, COVID-19 positivity from sentinel surveillance increased to just over 10%, after a long-term downtrend beginning in mid-2022. Activity appeared to increase in the Region of the Americas with percent positivity around 14%, and in the South-East Asia Region with positivity just below 10%. In the European Region, positivity was stable slightly below 10%. In the African and Eastern Mediterranean and Western Pacific Regions, positivity remained below 10%. Globally, COVID-19 positivity from non-sentinel surveillance increased in recent weeks to around 25%.
- During the COVID-19 pandemic, WHO encourages countries, especially those that have received the multiplex influenza and SARS-CoV-2 reagent kits from GISRS, to conduct integrated surveillance of influenza and SARS-CoV-2 and report epidemiological and laboratory information in a timely manner to established regional and global platforms. The guidance can be found here: https://www.who.int/publications/i/item/WHO-2019-nCoV-integrated_sentinel_surveillance-2022.1.
- NICs and other national influenza laboratories from 73 countries, areas or territories from six WHO regions (African Region: 10; Region of the Americas: 18; Eastern Mediterranean Region: 5; European Region: 31; South-East Asia Region: 4; Western Pacific Region: 5) reported to FluNet from sentinel surveillance sites for the time period from 14 November 2022 to 27 November 2022 (data as of 2022-12-09 08:20:24 UTC). The WHO GISRS laboratories tested more than 49 444 sentinel specimens during that time period and 4743 (9.6%) were positive for SARS-CoV-2. Additionally, more than 220 234 non-sentinel or undefined reporting source samples were tested in the same period and 43 679 were positive for SARS-CoV-2. Further details are included at the end of this update.

For more detailed information, see the Influenza reports from WHO Regional Offices:

- WHO Region of the Americas: www.paho.org/influenzareports
- WHO Eastern Mediterranean Region: https://www.emro.who.int/health-topics/influenza/updates.html
- WHO European Region: www.flunewseurope.org/
- WHO Western Pacific Region:https://www.who.int/westernpacific/emergencies/surveillance/seasonal-influenza

Countries in the temperate zone of the northern hemisphere

- In the countries of North America, influenza positivity and ILI activity continued to increase steeply in recent weeks. In Canada, ILI activity continued to increase well above the pre-pandemic seasonal average for this time of year. Influenza percent positivity has been

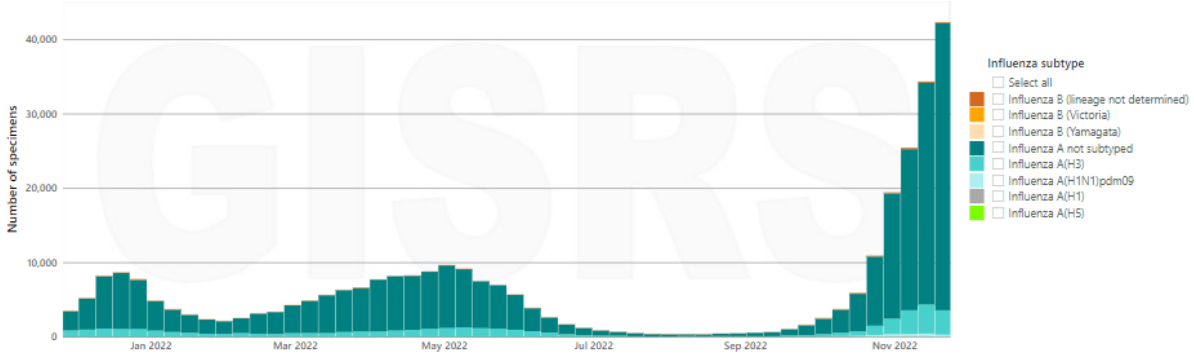
above the seasonal threshold for five consecutive weeks and was also well above the pre-pandemic seasonal average for this time of year. Cumulative influenza-associated hospitalizations were highest in children under five years of age and adults 65 years and older, and paediatric hospitalizations continued to increase and were at levels above the typical peak of epidemic activity. In the United States of America (USA), ILI continued to increase well above levels observed for this time of the year during the past five seasons, with increases observed in all age-groups and across the country. To date, cumulative influenza hospitalizations were greater compared to the same date for past seasons since 2010-11. The percentage of deaths attributed to pneumonia, influenza or COVID-19 in the USA remained above the epidemic threshold established from historical data, with the majority of recent mortality attributed to COVID-19 but with an increased number due to influenza in recent weeks. In both countries, several respiratory viruses were co-circulating. Influenza A viruses predominated and A(H3N2) viruses accounted for the majority of subtyped influenza A viruses. Influenza A(H1N1)pdm09 accounted for approximately 5% of subtyped influenza A detections in Canada and 16% in the USA in the most recent week. RSV activity remained elevated in both countries and above average levels for this time of year in Canada but seemed to have peaked in both countries.

- In Europe, overall influenza activity continued to increase, with influenza positivity from sentinel sites remaining above the epidemic threshold. Influenza A(H3N2) predominated among the subtyped influenza A viruses from sentinel sites, with some detections of A(H1N1)pdm09 and B viruses. Nine countries reported widespread activity and/or at least medium intensity and 11 reported influenza positivity greater than 10% in primary care sentinel surveillance systems. In Eastern Europe, influenza detections increased mostly due to A(H1N1pdm09) virus detections from non-sentinel sites in the Russian Federation but with increased influenza detections reported also in other countries. Increased ILI activity was reported in some of these countries and influenza-associated hospitalizations increased sharply in the Russian Federation. In Northern Europe, influenza detections were predominantly influenza A followed by B viruses, with A(H3N2) predominant among the subtyped A viruses except detections in non-sentinel surveillance from a few countries where A(H1N1)pdm09 predominated (Iceland, Ireland, Northern Ireland in the United Kingdom of Great Britain and Northern Ireland (UK), and Norway). Influenza detections increased slightly in a few countries (Ireland, Lithuania, Norway, Sweden and the UK). ILI increased to moderate levels in Denmark and slight increases were reported in other countries, but ILI generally remained low. Influenza hospitalizations and admissions to intensive care unit were at moderate levels in the UK. RSV activity (% positivity and number of notified hospitalizations for RSV) decreased but remained elevated in Ireland and RSV-associated hospitalizations increased in the UK following trends of pre-COVID-19-pandemic years. In Southwest Europe, influenza detections of predominantly A(H3N2) also continued to increase in some countries, especially in France, Germany, Italy, Portugal and Switzerland while a decrease in detections was reported in Spain in recent weeks. ILI also increased in some countries (Austria, France, Germany, Greece and Italy), especially in children and earlier compared to previous seasons in some countries. ILI activity was reported as low in France and moderate in Italy. Severe acute respiratory infection (SARI) activity also increased in a few countries (Germany and Spain). Rising cases of RSV infections were reported in France. Pooled all-cause mortality estimates from the

EuroMomo network showed elevated but decreasing excess mortality across some age-groups.

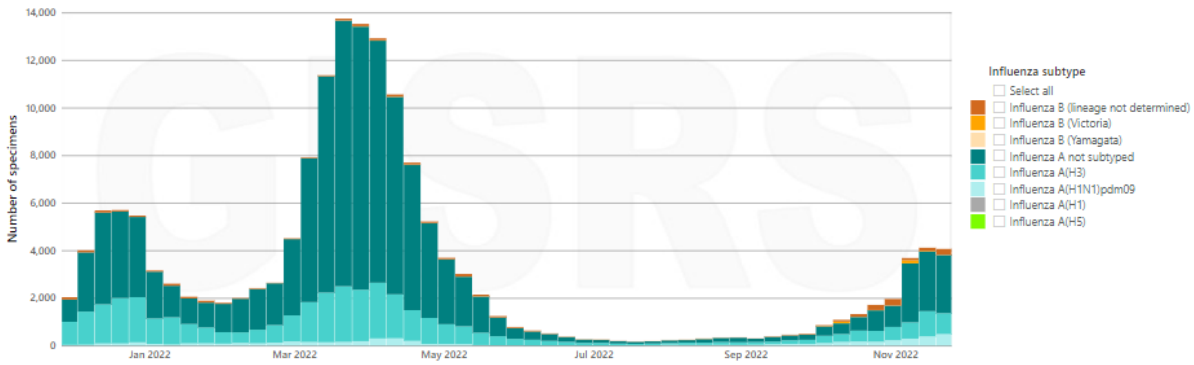
- In Central Asia, influenza activity was predominantly due to influenza B/Victoria lineage virus detections reported from Kazakhstan while a few influenza A(H1N1)pdm09 virus detections were reported in Kyrgyzstan. ILI increased in Kazakhstan and Kyrgyzstan and SARI increased in Kyrgyzstan.
- In Northern Africa, influenza detections of all seasonal subtypes were low in reporting countries.
- In Western Asia, influenza activity decreased in the countries of the Arabian Peninsula, with all seasonal influenza subtypes co-circulating. Increased detections of influenza A(H1N1)pdm09 were reported in Iraq. ILI and SARI activity remained elevated in Georgia, Saudi Arabia and Türkiye.
- In East Asia, influenza activity remained low. The number of detections decreased in northern China and increased slightly in southern China, with influenza A(H3N2) viruses predominant. The Republic of Korea reported increased detections of influenza A(H3N2) viruses; ILI activity continued to increase with higher rates among children and young adults; RSV activity appeared to decline in children under one year of age.

Number of specimens positive for influenza by subtype in North America



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Number of specimens positive for influenza by subtype in the WHO European Region



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Countries in the tropical zone

Tropical countries of Central America, the Caribbean and South America

- In the Caribbean and Central American countries, influenza activity of predominately influenza A(H3N2) increased in recent weeks, mainly due to increased circulation in Mexico. In Mexico, influenza positivity was at extraordinary levels compared to previous seasons, but ILI and SARI activities remained low. Detections of influenza A(H3N2) increased slightly in Haiti. In Jamaica, pneumonia activity remained at a moderate level. In Puerto Rico, detections of predominantly influenza A decreased slightly but remained above the seasonal threshold. In El Salvador, the SARI rate remained at a moderate level and above the expected level for this time of year with a low but increased level of influenza A(H3N2) activity. In Guatemala, influenza activity and ILI rate decreased slightly but remained higher than usual for this time of year. Detections of mainly influenza A(H3N2) followed by influenza B/Victoria lineage viruses and other respiratory virus activity were reported. In Honduras, increased but low influenza activity was reported, and activity was higher than usual for this time of year. Nicaragua continued to report detections of influenza B, with percent positivity at low levels but increased above the average for the time of year. Panama continued to report influenza detections of A(H3N2) and B viruses, and other respiratory virus detections. RSV activity remained low in most reporting countries except in Guatemala, Mexico and Panama.
- In the tropical countries of South America, influenza detections remained generally low, and A(H3N2) viruses predominated followed by influenza B/Victoria lineage viruses. In Bolivia (Plurinational State of) influenza detections of predominantly influenza B/Victoria and A(H1N1)pdm09 viruses continued to increase and percent positivity was at a moderate level. SARI activity remained at a moderate level. In Colombia, influenza detections were below the baseline level, but pneumonia and ARI remained at low levels, and slightly higher than the average for the time of year. In Ecuador, influenza activity due to predominantly A(H3N2) detections increased to moderate level while SARI remained low. Influenza activity increased to the seasonal threshold in Peru. In Brazil, RSV activity continued to decrease but remained elevated. Elsewhere, RSV activity remained at baseline levels.

Tropical Africa

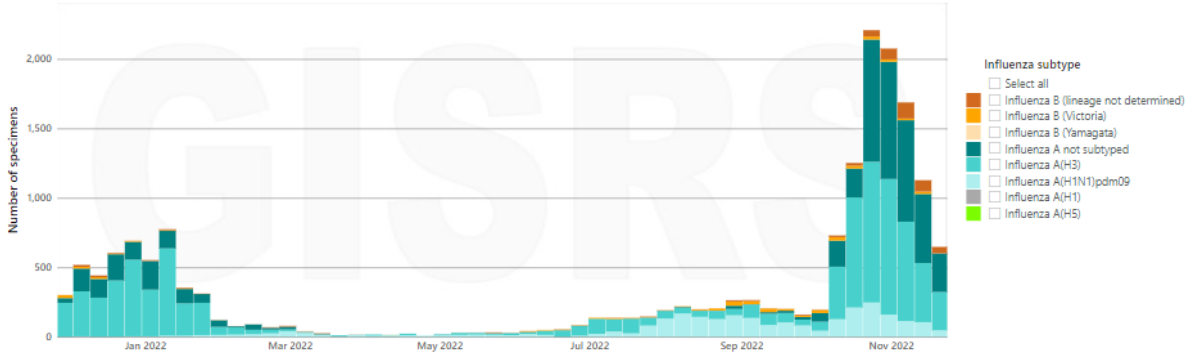
- In Western Africa, influenza detections were low in reporting countries with mainly influenza B/Victoria and influenza A(H3N2) viruses detected. Ghana and Togo reported decreased detections this period compared to the previous reporting period. Several other countries reported no influenza detections despite ongoing testing.
- In Middle Africa, Cameroon reported a single influenza B/Victoria detection.
- In Eastern Africa, influenza A and B detections continued to be reported. Ethiopia reported mainly influenza A(H3N2) and some influenza B viruses. Kenya reported sustained detections of mainly influenza A(H1N1)pdm09 and a few influenza B viruses. Mozambique reported increased detections of mainly influenza A(H3N2) and fewer influenza A(H1N1)pdm09 and influenza B detections. Mauritius reported sporadic influenza A(H1N1)pdm09 detections.

Influenza epidemics driven by A(H1N1)pdm09 continued in the French territories of Mayotte and Réunion. In Mayotte, influenza detections increased, while in Réunion indicators of influenza activity decreased. Zambia reported decreased detections of mainly influenza B and some influenza A(H1N1)pdm09 viruses.

Tropical Asia

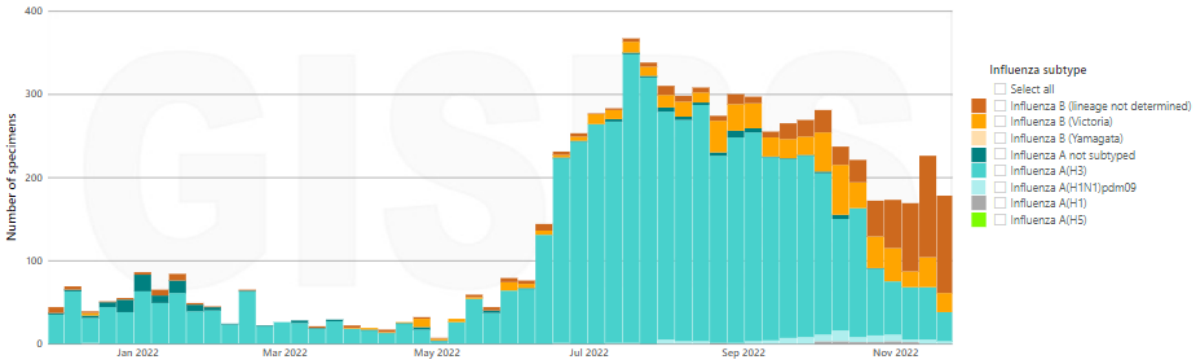
- In Southern Asia, influenza activity decreased this period mainly due to decreased detections in Iran (Islamic Republic of), where predominantly influenza A(H3N2) and few influenza B detections were reported. Influenza detections decreased in Sri Lanka, with all seasonal subtypes co-circulating. In Pakistan, influenza detections of mainly A(H1N1)pdm09 and B/Victoria lineage viruses continued to be reported at a moderate level. In other reporting countries, influenza detections remained low.
- In South-East Asia, influenza activity decreased in most countries reporting this period except in Cambodia, Malaysia and Thailand where detections of influenza A(H3N2) and B viruses continued to be reported and low numbers of all seasonal subtypes were reported in the Philippines.

Number of specimens positive for influenza by subtype in South Asia



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Number of specimens positive for influenza by subtype in South-East Asia



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

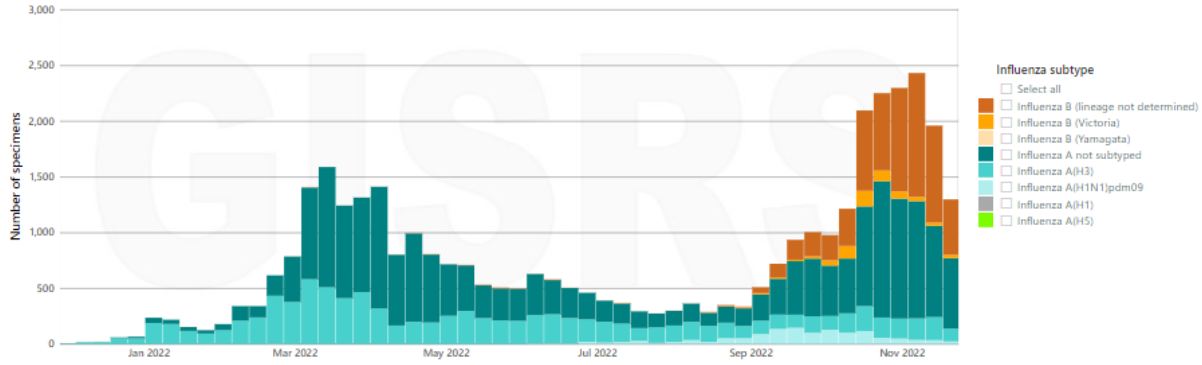
Countries in the temperate zone of the southern hemisphere

- In Oceania, influenza activity remained low overall with a few detections of influenza A viruses reported in Australia. Influenza activity remained low in New Zealand and the

hospitalization rate for SARI was low overall but increased in children under five years due to rhinovirus and RSV activity and decreased in adults over 80 years of age. In the Pacific Islands, ILI activity overall was low or decreased except in Samoa and the Marshall Islands.

- In South Africa, detections of influenza A(H3N2) decreased and influenza detection rates in ILI and pneumonia surveillance remained at inter-seasonal levels. There were few SARS-CoV-2 or RSV detections and the detection rate for RSV in children under five years of age remained below the epidemic threshold.
- In temperate South America, influenza detections remained elevated in Argentina and Chile and low in Paraguay and Uruguay. In Argentina, influenza B was predominant followed by influenza A(H1N1)pdm09 and positivity remained at a high level unusual for this time of year though ILI remained low and SARI was below the baseline. In Chile, influenza A(H3N2) predominated and percent positivity and ILI rates decreased slightly but remained unusually elevated for this time of year with positivity at a high level and ILI remaining at an extraordinary level. The SARI rate remained low. RSV activity remained low in the subregion.

Number of specimens positive for influenza by subtype in Temperate South America

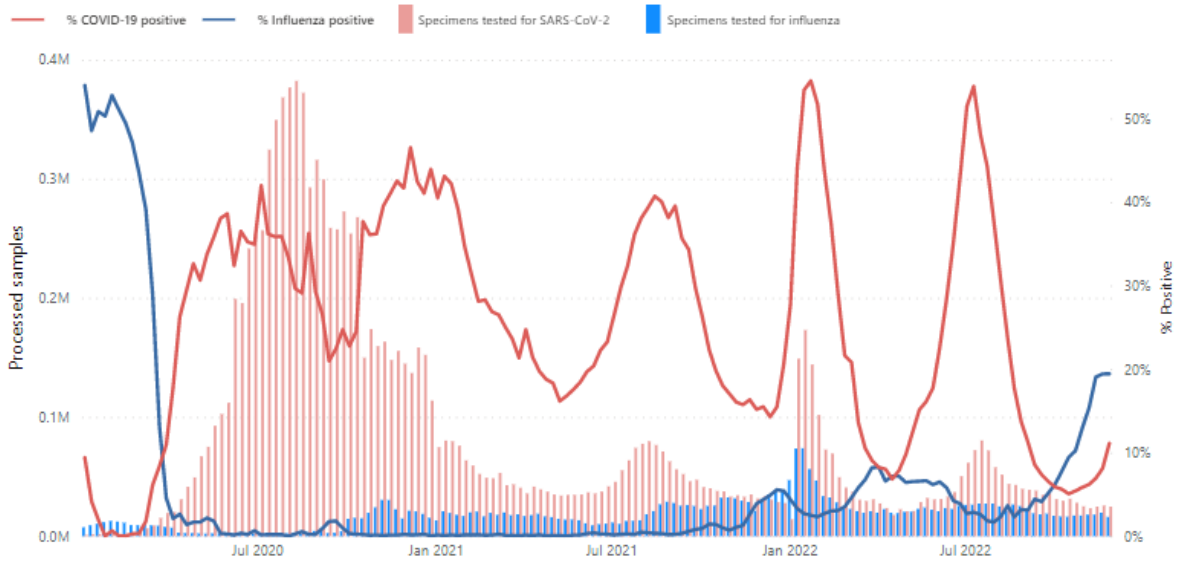


Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 12/12/2022

SARS-CoV-2 sentinel surveillance data reported to FluNet

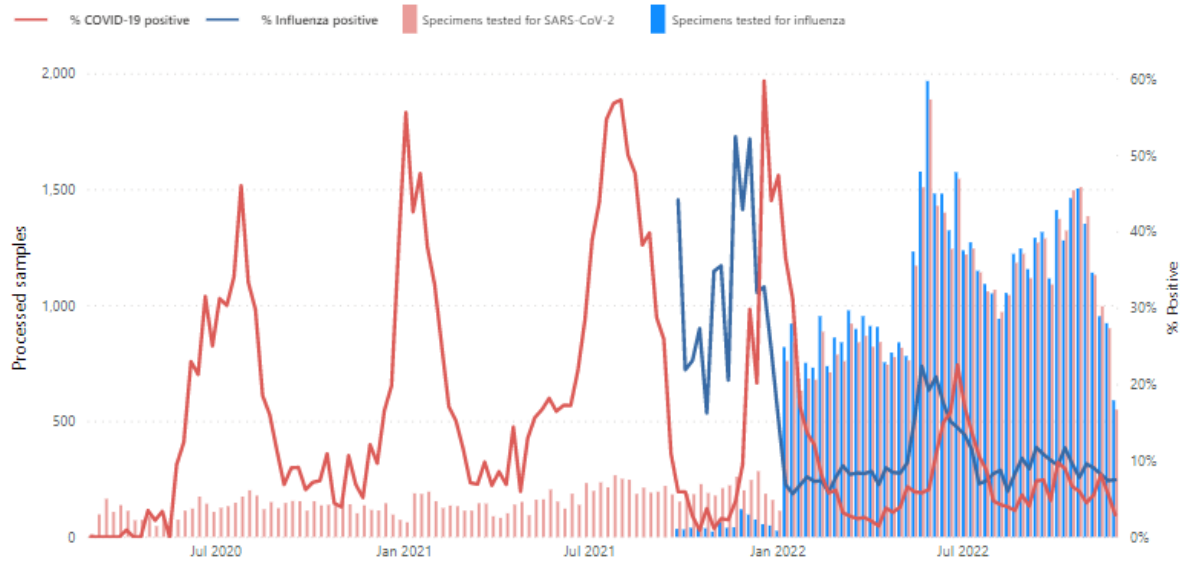
SARS-CoV-2 data are included from those countries reporting testing one or more sentinel specimens for SARS-CoV-2 per week. Influenza data are included from those countries reporting testing one or more sentinel specimens for influenza per week regardless of their reporting of SARS-CoV-2 testing data. Currently, there are a limited number of countries reporting such data to FluNet in a timely and consistent way. The charts below show the data globally and by WHO region from the data reported to date to WHO from a limited number of countries and thus the trends in percent positivity do not reflect the situation as a whole in the region. Additional information on data reported from countries can be found on the Integrated influenza and other respiratory viruses surveillance outputs dashboard here.

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet globally



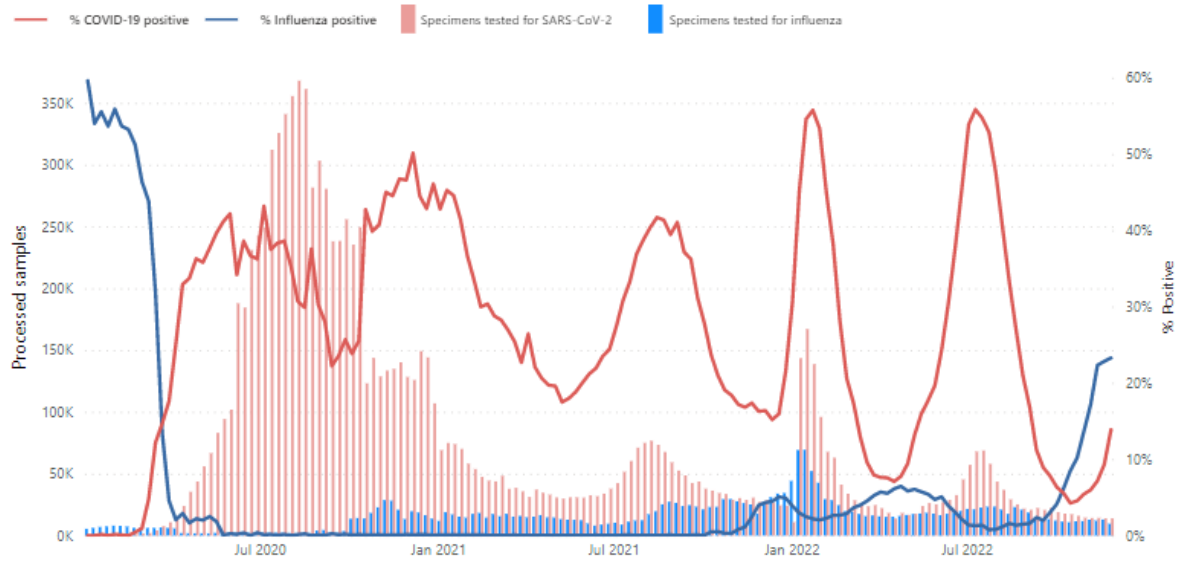
Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO African Region



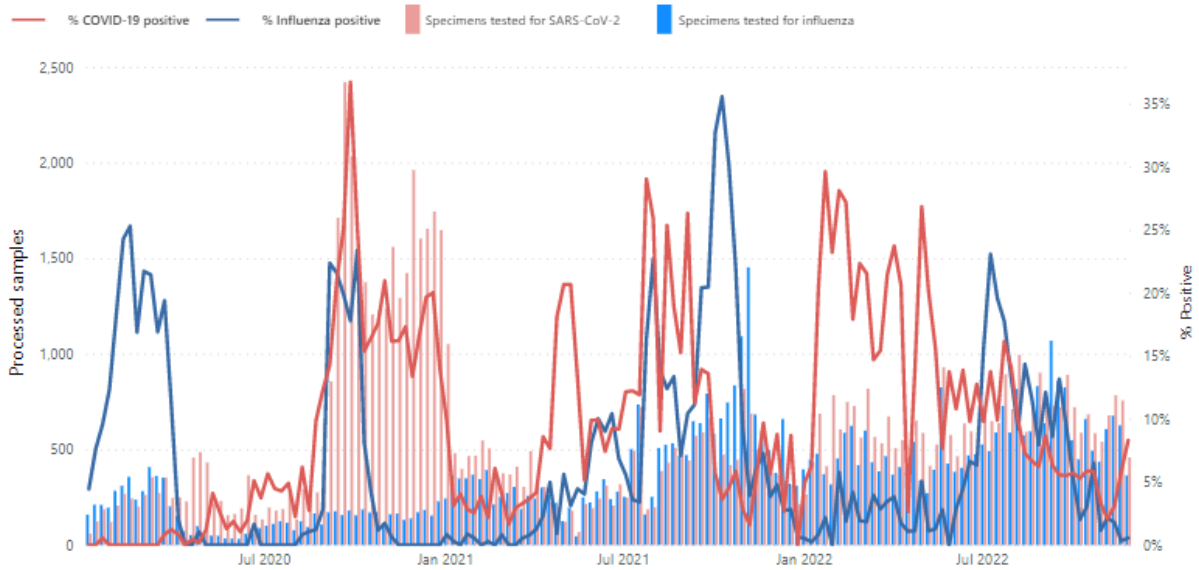
Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO Region of the Americas



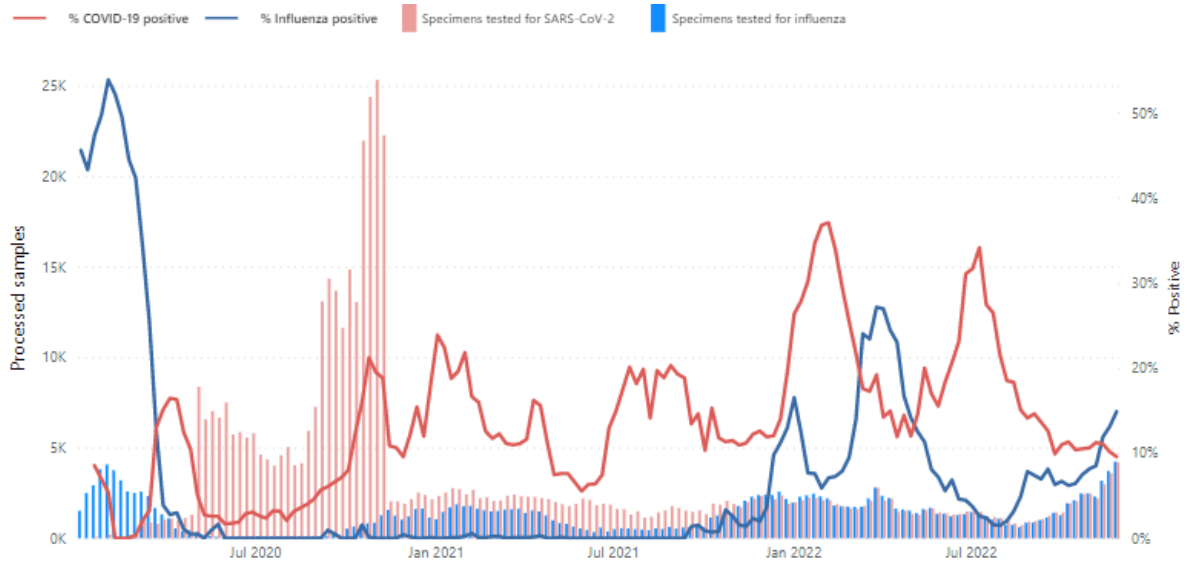
Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO South-East Asia Region



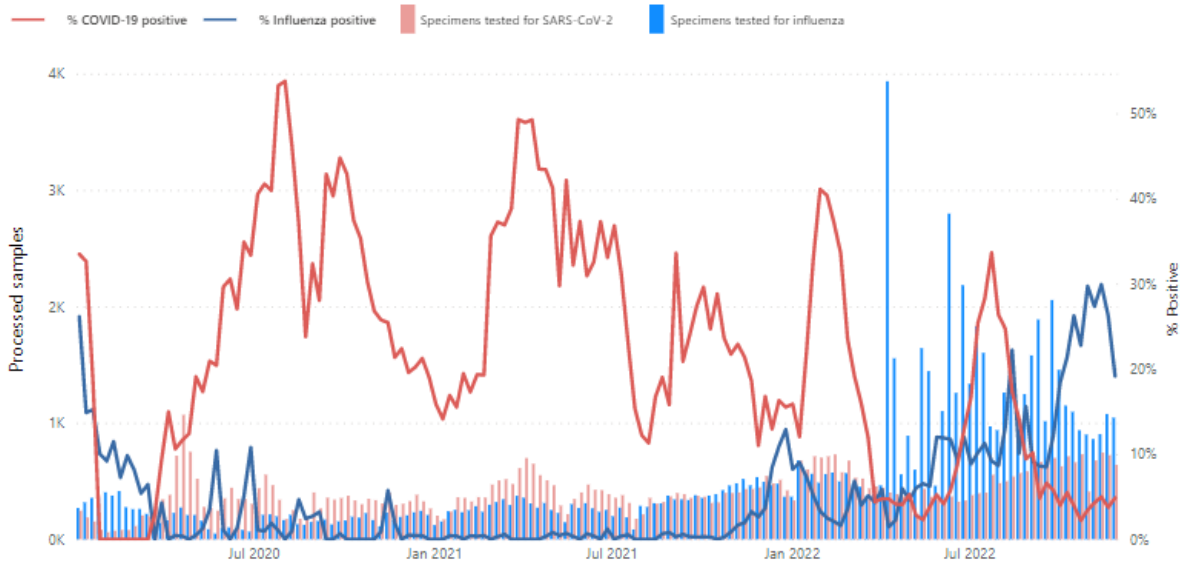
Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO European Region



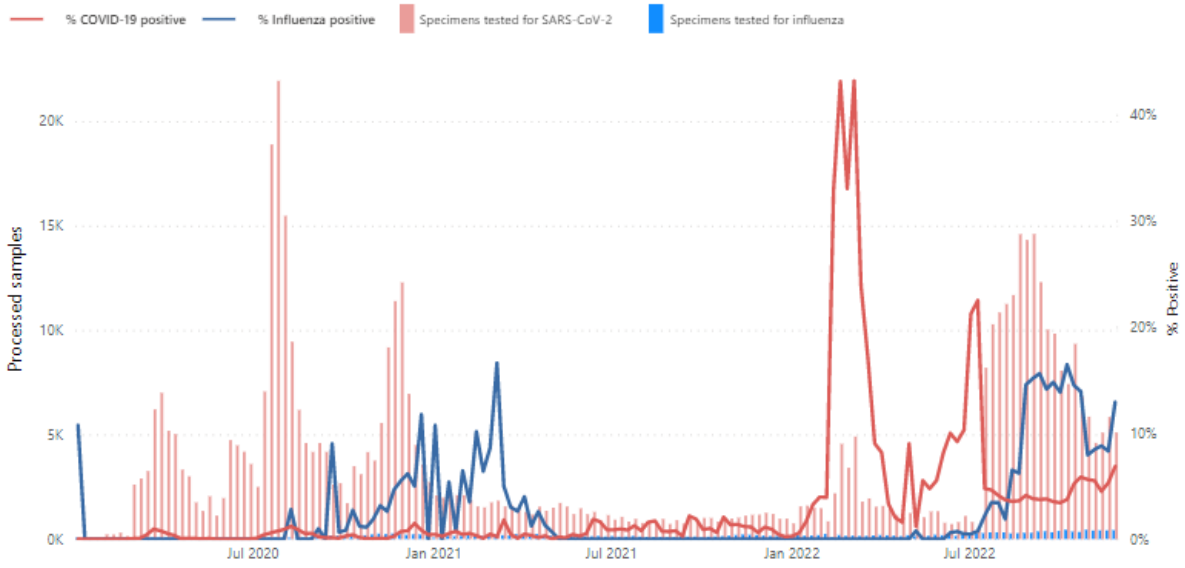
Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO Eastern Mediterranean Region



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Influenza and SARS-CoV-2 virus detections from sentinel surveillance reported to FluNet from countries, areas and territories in the WHO Western Pacific Region



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 09/12/2022

Sources of data

The Global Influenza Programme monitors influenza activity worldwide and publishes an update every two weeks. The updates are based on available epidemiological and virological data sources, including FluNet (reported by the WHO Global Influenza Surveillance and Response System), FluID (epidemiological data reported by national focal points) and influenza and other respiratory virus reports from WHO Regional Offices and Member States. During the COVID-19 pandemic, FluNet has also been receiving updates on testing of samples obtained from routine influenza surveillance systems for SARS-CoV-2. Completeness can vary among updates due to availability and quality of data available at the time when the update is developed.

Seasonal influenza reviews: Review of global influenza circulation, late 2019 to 2020, and the impact of the COVID-19 pandemic on influenza circulation
Epidemiological Influenza updates: https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates
Virological surveillance updates: https://www.who.int/tools/flunet/flunet-summary
Influenza surveillance outputs: https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-surveillance-outputs
Influenza – COVID-19 Interface, including surveillance outputs: https://www.who.int/teams/global-influenza-programme/influenza-covid19

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