# Influenza Update N° 437

23 January 2023, based on data up to 8 January 2023

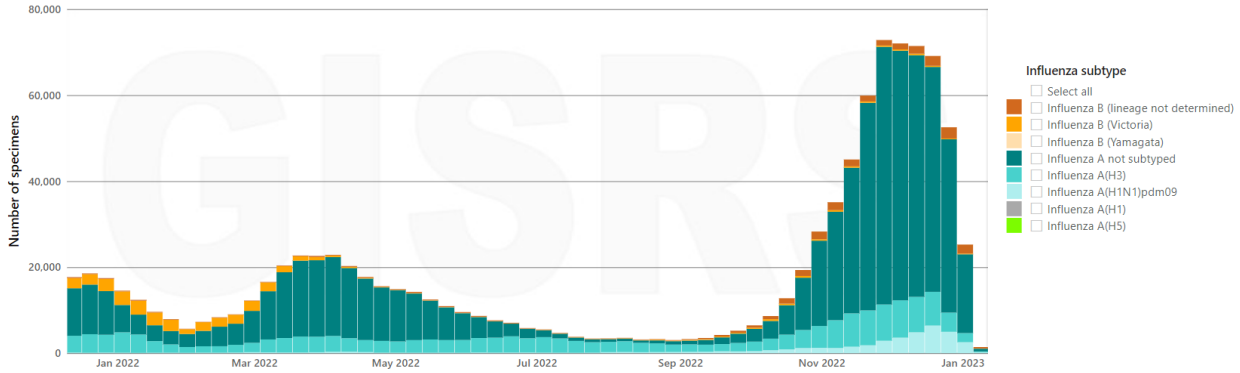
In this update, in addition to the influenza surveillance information, that of the SARS-CoV-2 surveillance by the Global Influenza Surveillance and Response System (GISRS) through its associated sentinel and non-sentinel surveillance systems and reported to FluNet is included. Information on respiratory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

## Summary


- **Countries are recommended to monitor the relative co-circulation of influenza and SARS-CoV-2 viruses and report to FluNet and FLUID directly or via regional platforms. 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 should be interpreted with caution. Under-reporting due to the end of the year holidays may affect the data and conclusions below.**
- Globally, influenza activity decreased but remained somewhat elevated due to activity in the northern hemisphere. Influenza A viruses predominated with a slightly larger proportion of A(H1N1)pdm09 viruses detected among the subtyped influenza A viruses during this reporting period.
- In the countries of North America, most indicators of influenza activity decreased to levels similar or below levels typically observed this time of year. Influenza A(H3N2) was the predominant virus detected.
- In Europe, overall influenza activity decreased but influenza positivity from sentinel sites remained above the epidemic threshold at the regional level. Overall, influenza A viruses predominated with similar proportions of A(H1N1)pdm09 and A(H3N2) influenza viruses detected in primary care sentinel sites but with regional differences. Many countries reported high or very high intensity, and more than half reported widespread activity. Indicators of influenza activity (influenza like illness (ILI), acute respiratory infection (ARI), severe acute respiratory infection (SARI), influenza-associated hospitalizations) decreased in many countries while other countries reported increases.
- In central Asia, influenza activity decreased overall with influenza A(H1N1)pdm09 viruses predominant followed by influenza B viruses, but with some differences in trends by country.
- In Northern Africa, influenza detections decreased after a peak in week 52, with all seasonal influenza subtypes detected.
- In Western Asia, influenza activity decreased overall with all seasonal influenza subtypes detected, though increased activity was reported in some countries.
- In East Asia, influenza activity of predominantly influenza A(H3N2) viruses remained low overall though detections continued to be reported at elevated levels in Mongolia and the Republic of Korea. In the Caribbean and Central American countries, influenza activity of predominantly influenza A(H3N2) viruses was low overall but remained elevated in Mexico.

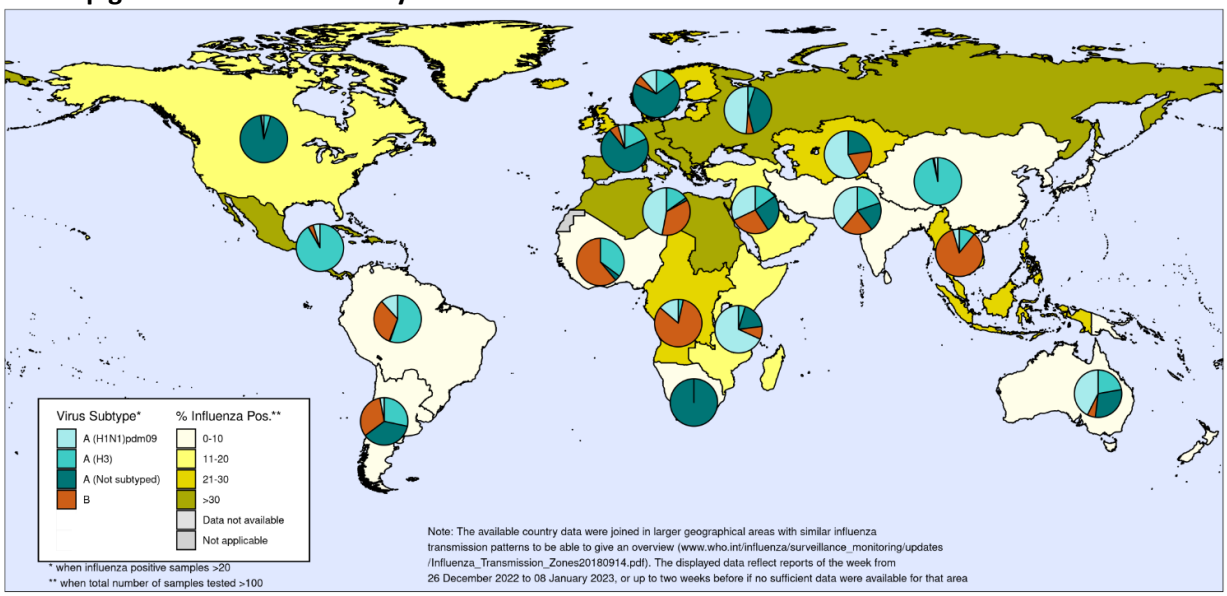
- In the tropical countries of South America, influenza detections were generally low, and influenza A(H3N2) and influenza B viruses predominated. Influenza positivity was at a moderate level in Ecuador.
- In tropical Africa, influenza activity was highest in eastern Africa but remained low overall with detections of all seasonal influenza subtypes reported.
- In Southern Asia, influenza activity was low and continued to decrease with influenza A(H1N1)pdm09 predominant and influenza A(H3N2) and influenza B also reported.
- In South-East Asia, detections of predominantly influenza B remained elevated due to continued detections reported in Malaysia.
- In the temperate zones of the southern hemisphere, influenza activity decreased to low levels.

**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 19/01/2023

**Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone[1]. Map generated on 20 January 2023.**






- National Influenza Centres (NICs) and other national influenza laboratories from 122 countries, areas or territories reported data to FluNet for the time period from 26 December 2022 to 08 January 2023* (data as of 2023-01-20 07:54:19 UTC). The WHO GISRS laboratories tested more than 563 948 specimens during that time period. 84 596 were positive for influenza viruses, of which 79 268 (93.7%) were typed as influenza A and 5328 (6.3%) as influenza B. Of the subtyped influenza A viruses, 8225 (51.9%) were influenza A(H1N1)pdm09 and 7621 (48.1%) were influenza A(H3N2). Of the type B viruses for which lineage was determined, all 394 (100%) belonged to the B/Victoria lineage.

## SARS-CoV-2 sentinel surveillance

- SARS-CoV-2 positivity from sentinel surveillance decreased globally, with a particularly sharp decrease in the WHO Region of the Americas where positivity decreased from over 30% to just above 20%. In the Western Pacific Region, positivity decreased very slightly and remained around 20%. Activity remained under 10% in the other regions. SARS-CoV-2 positivity from non-sentinel surveillance decreased significantly in the Region of the Americas and the Western Pacific region to approximately 20% and 10% respectively, but increased in the African region to 15%.
- 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

[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

guidance can be found here: https://www.who.int/publications/i/item/WHO-2019-nCoV-integrated_sentinel_surveillance-2022.1.

- National Influenza Centres (NICs) and other national influenza laboratories from 72 countries, areas or territories from six WHO regions (African Region: 10; Region of the Americas: 16; Eastern Mediterranean Region: 5; European Region: 34; South-East Asia Region: 3; Western Pacific Region: 4) reported to FluNet from sentinel surveillance sites for time period from 26 December 2022 to 08 January 2023* (data as of 2023-01-20 07:54:19 UTC). The WHO GISRS laboratories tested more than 21 831 sentinel specimens during that time period and 3737 (17.1%) were positive for SARS-CoV-2. Additionally, more than 274 346 non-sentinel or undefined reporting source samples were tested in the same period and 98 045 were positive for SARS-CoV-2.

**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

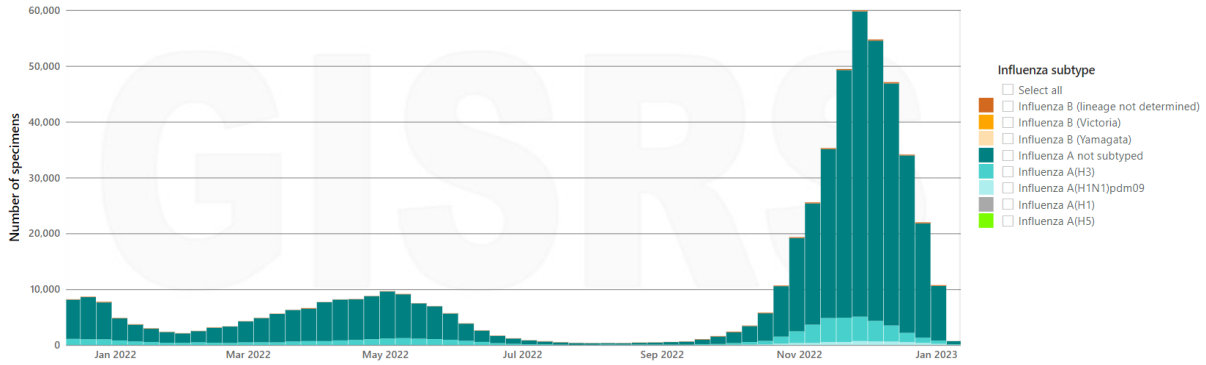
- In the countries of North America, influenza activity was still high with most indicators of influenza activity decreasing while others were stable. In Canada, influenza-like activity (ILI) activity and influenza positivity decreased below expected levels for this time of year. Cumulative influenza-associated hospitalizations were highest in children under five years of age and adults 65 years and older. Paediatric influenza-associated hospitalizations decreased to expected levels for this time of year. In the United States of America (USA), the percentage of outpatients visits for respiratory illness decreased but remained above the national seasonal baseline and moderate to high in many regions. Weekly influenza-associated hospitalization rates decreased to levels normally observed at this time of the year. The cumulative rate of influenza-associated hospitalizations this season was greater than those of previous seasons at this time of the year. However, this in-season cumulative hospitalization rate is still lower than end-of-season hospitalization rates for all but four pre-COVID-19-pandemic seasons (2015-16, 2013-14, 2011-12, 2010-11 seasons). The percentage of deaths attributed to pneumonia, influenza or COVID-19 in the USA increased and remained above the epidemic threshold established from historical data, with the majority of recent mortality attributed to COVID-19 but with an increased proportion due to influenza in recent weeks. Influenza positivity decreased in both countries, and several respiratory viruses co-circulated. Influenza A viruses predominated, and A(H3N2) viruses accounted for the majority of subtyped influenza A viruses. RSV activity decreased in the USA and was stable in Canada at average levels for this time of year.
- In Europe, overall influenza activity decreased slightly with influenza positivity from sentinel sites decreasing to 25% in week 1, above the 10% epidemic threshold. The proportion of sentinel specimens testing positive for influenza remained greater than the proportion testing positive for SARS-CoV-2 (10%). Both influenza A and B viruses were detected with roughly equal proportions of influenza A(H3N2) and A(H1N1)pdm09 among the subtyped viruses across sentinel sites. Fourteen of 37 reporting countries signalled high or very high influenza intensity and more than half (27/40) of countries reported

widespread activity. In Eastern Europe, influenza activity increased in most reporting countries, except Slovakia where positivity decreased this period but remained elevated. ILI increased in most countries except Belarus, Poland, the Russian Federation and Slovakia. Influenza A(H1N1)pdm09 was predominant in the subregion due to large numbers of detections reported by the Russian Federation. In Northern Europe, influenza activity decreased in most reporting countries, except Sweden where positivity increased this period. ILI remained elevated in most countries and was reported as very high in Denmark, high in Ireland and moderate in Norway and England, UK. Influenza hospitalizations increased in Ireland and Norway and decreased from extraordinary to moderate levels in England. Influenza A viruses predominated and the predominant subtype varied by country with both A(H1N1)pdm09 and A(H3N2) viruses co-circulating in most countries. In South West Europe, influenza activity decreased in many reporting countries, was stable in Belgium and increased in Croatia. ILI/ARI increased in Croatia, Montenegro, the Netherlands, North Macedonia was stable in Greece and Serbia and decreased in most other countries. SARI decreased in Belgium, France (to a low level) and Germany, increased in Albania and Croatia and remained stable in Spain. Among subtyped influenza A viruses, A(H3N2) predominated except in Croatia and the Netherlands. Both influenza A viruses co-circulated in relatively equal proportions in Serbia and Slovenia. Pooled all-cause mortality estimates from the EuroMomo network showed an elevated excess mortality and a substantial increase in pooled excess mortality among persons aged 45 years and older.[2]

- In Central Asia, influenza activity remained relatively high, with positivity above 22%. Influenza activity remained stable and ILI increased in Kazakhstan and Tajikistan and influenza activity and ILI decreased in Kyrgyzstan and Uzbekistan. An increased proportion of influenza A(H1N1)pdm09 among subtyped viruses was reported in Kazakhstan.
- In Northern Africa, influenza detections peaked in week 52. Morocco reported mainly influenza B followed by A(H1N1)pdm09 virus detections and sporadic influenza A(H3N2)detections. Tunisia reported decreasing detections of mainly influenza A(H1N1)pdm09 and some influenza A(H3N2) and influenza B/Victoria lineage viruses.
- In Western Asia, influenza activity continued to decrease in most countries of the Arabian Peninsula. Increased detections of predominantly influenza A(H1N1)pdm09 were reported in Armenia and Israel. Lebanon continued to report detections of influenza A(H1N1)pdm09. Detections of predominantly influenza A(H3N2) were reported in Türkiye in recent weeks. ILI activity continued to increase in Israel and ILI and SARI activity was reported at elevated level in Türkiye.
- In East Asia, influenza activity remained low. In China, influenza detections continued to decrease and low levels in China, following a sharp increase in the previous reporting period. In the Republic of Korea, ILI activity and influenza A(H3N2) virus detections appeared to have peaked but remained elevated across all age groups, especially in persons under 50 years of age. The rates of ILI and hospitalizations for pneumonia remained elevated above expected levels in Mongolia and increased detections of influenza A(H1N1)pdm09 and B viruses were reported especially among hospitalized patients. Few and decreasing influenza A(H3N2) detections were reported in Japan.

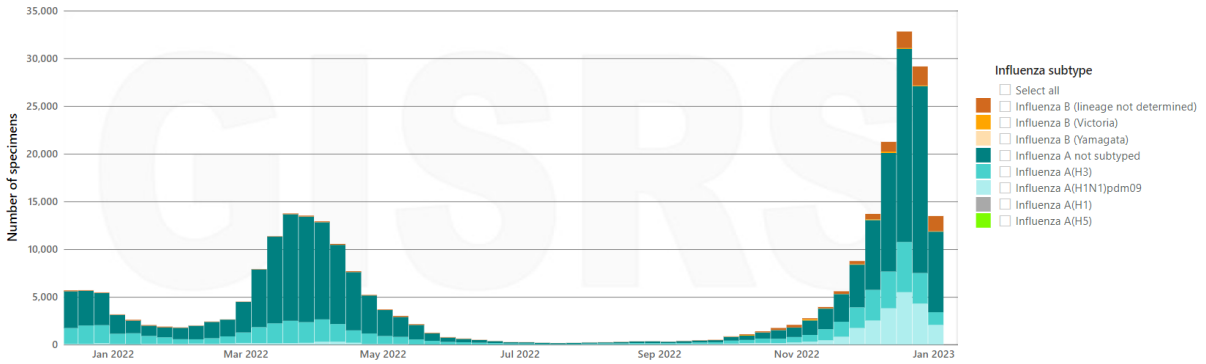
[2] Please refer to the EuroMOMO website for a cautionary note relating to interpretation of these data.

## Number of specimens positive for influenza by subtype in North America



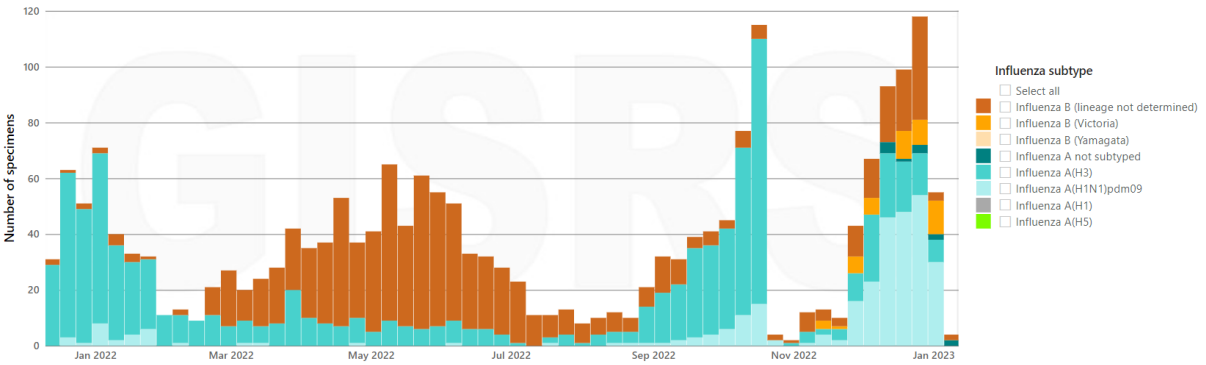

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

## 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 19/01/2023

## Number of specimens positive for influenza by subtype in the Northern Africa




**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

## 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) continued to decrease. In Mexico, influenza activity decreased to moderate levels but remained above average levels for the time of year. In Jamaica, indicators of influenza activity were below baseline, except the number of pneumonia cases which decreased from moderate to low levels. Consultations for bronchiolitis were high in the French Territories of Guadeloupe and Martinique. In Guatemala, influenza activity dropped to below the seasonal baseline and ILI was low. Influenza positivity increased in Honduras and was above the average for the time of year and the seasonal baseline. SARI increased and was above the seasonal baseline in the Dominican Republic, Mexico and El Salvador. SARS-CoV-2 activity increased in Mexico. RSV was elevated in Mexico and Guatemala.
- In the tropical countries of South America, influenza detections remained low, with A(H3N2) viruses and influenza B/Victoria predominating. In Ecuador, influenza A(H3N2) detections were elevated and influenza positivity was stable at moderate levels. In Peru, there was a slight increase in influenza detections and positivity was above the seasonal baseline but below the average for the time of year. In Bolivia, SARI decreased to moderate levels. In Ecuador, SARI and pneumonia cases decreased slightly and were at low levels. In Peru, SARI decreased to low levels. ARI fell sharply and was at low levels in Colombia. SARS-CoV-2 activity was elevated in Brazil, Bolivia, Colombia, Ecuador and Peru, though activity in Colombia and Peru decreased. RSV activity was elevated and increasing in Brazil.

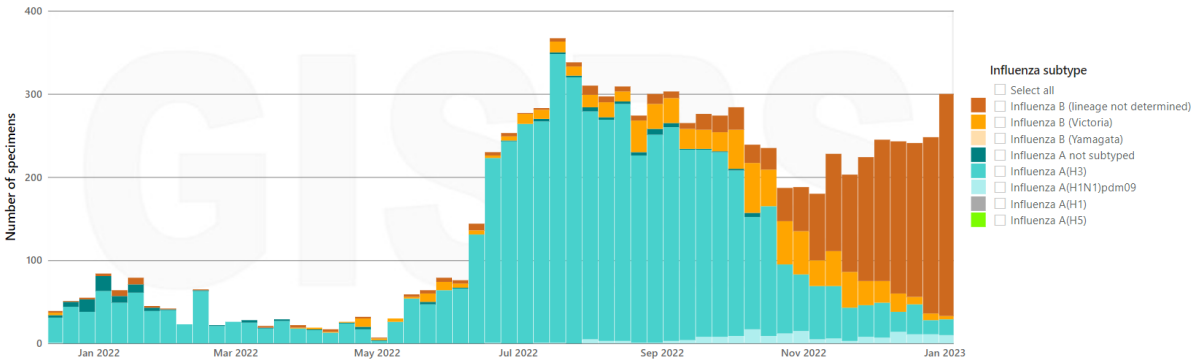
### Tropical Africa

- In Western Africa, influenza detections were few and continued to decrease. Burkina Faso reported sporadic influenza A(H1N1)pdm09 and influenza B/Victoria detections. Côte D'Ivoire and Ghana reported few detections of influenza A(H3N2), A(H1N1)pdm09 and influenza B/Victoria. Niger reported influenza B/Victoria lineage and influenza A(H3N2) detections. Togo reported sporadic detections of influenza B/Victoria.
- In Middle Africa, the Democratic Republic of Congo reported influenza B/Victoria detections and sporadic A(H1N1)pdm09 detections, but activity overall remained low.
- In Eastern Africa, detections of mainly influenza A(H1N1)pdm09 and fewer influenza A(H3N2) and influenza B viruses decreased. Ethiopia and the United Republic of Tanzania reported decreasing activity of mainly influenza A(H1N1)pdm09 viruses. Mozambique reported stable detections of mainly influenza A(H1N1)pdm09, while Kenya reported a single influenza B detection. Influenza epidemics driven primarily by influenza A(H1N1)pdm09 continue with decreasing activity in the French territories of Mayotte and Reunion.

### Tropical Asia

- In Southern Asia, influenza activity was low and continued to decrease with influenza A(H1N1)pdm09 predominant and influenza A(H3N2) and influenza B also reported. Influenza detections decreased in all reporting countries, except in Nepal and Sri Lanka. In Pakistan, detections of mainly influenza A(H1N1)pdm09 decreased slightly but remained elevated.
- In South-East Asia, influenza detections increased overall due to an increase in influenza B detections (Victoria lineage where determined) and a slight decrease in influenza A detections. The majority of detections were reported from Malaysia, where detections remained elevated and increased slightly. Cambodia, Lao People's Democratic Republic and the Philippines reported a decrease in detections. Thailand and Singapore reported stable detections of influenza B, influenza A(H3N2) and influenza A(H1N1)pdm09.

**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 19/01/2023

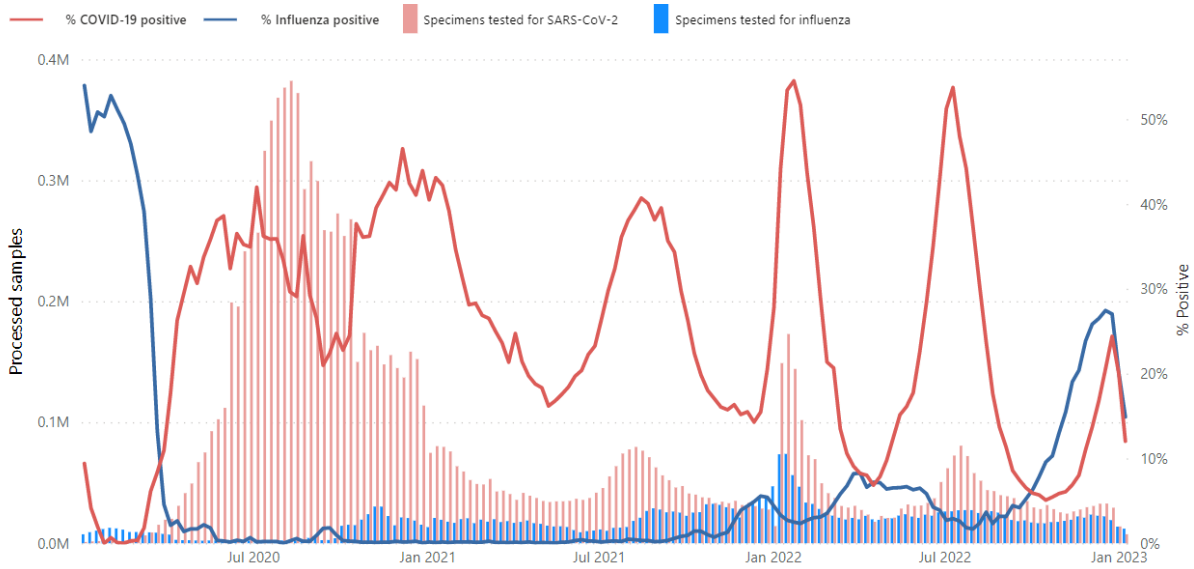
## Countries in the temperate zone of the southern hemisphere

- Across Australia, influenza detections and activity remained very low. The majority of detections were influenza A(H3N2) or A(H1N1)pdm09 with sporadic influenza B detections. In the Pacific Islands, ILI activity was low but activity increased in Fiji.
- In South Africa, no reports were received.
- In temperate South America, influenza detections decreased across the subregion. Influenza A(H3N2) was predominant, with influenza B and influenza A(H1N1)pdm09 also detected. In Argentina, influenza positivity decreased below the average for the time of year and remained at low levels. ILI and SARI were also at baseline levels. In Chile, although influenza positivity and ILI decreased, influenza positivity, ILI and SARI remained above the average for the time of year and the seasonal baseline. In Paraguay, percent positivity for influenza and SARI were above the average for the time of year and the seasonal threshold. In Uruguay, very few influenza A(H1N1)pdm09 detections were reported, and positivity decreased and remained below the seasonal threshold. SARI activity increased. SARS-CoV-2 activity was elevated across the region. RSV activity increased in Chile.

## SARS-CoV-2 sentinel surveillance data reported to FluNet

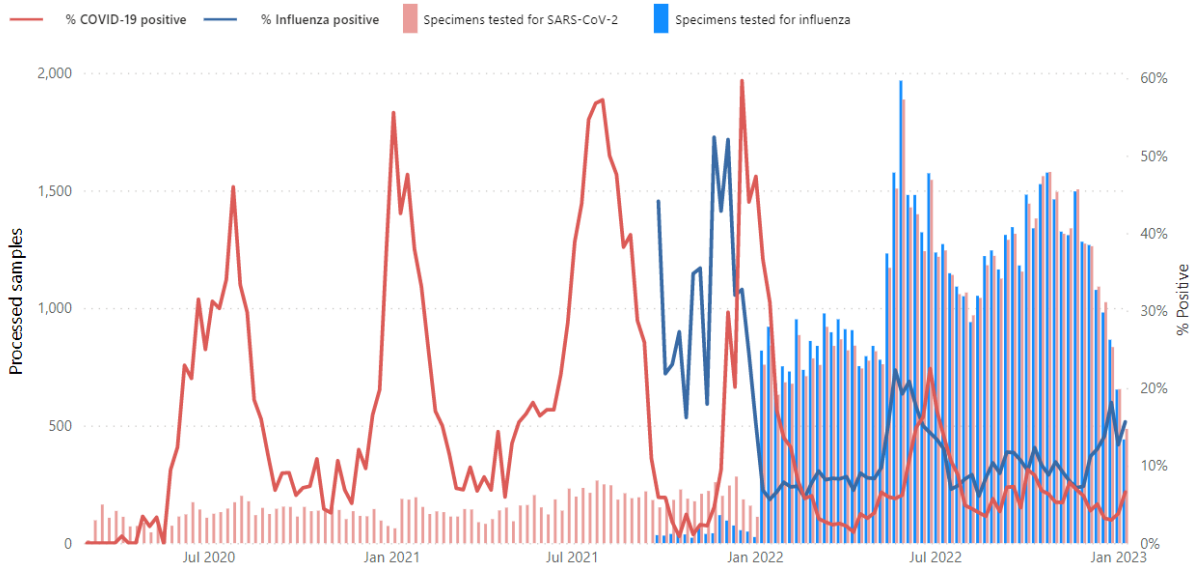
SARS-CoV-2 data are included from those countries reporting testing one or more sentinel specimens for SARS-CoV-2 per week. Influenza data are included from those countries reporting testing one or more sentinel specimens for influenza per week regardless of their reporting of SARS-CoV-2 testing data. 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**



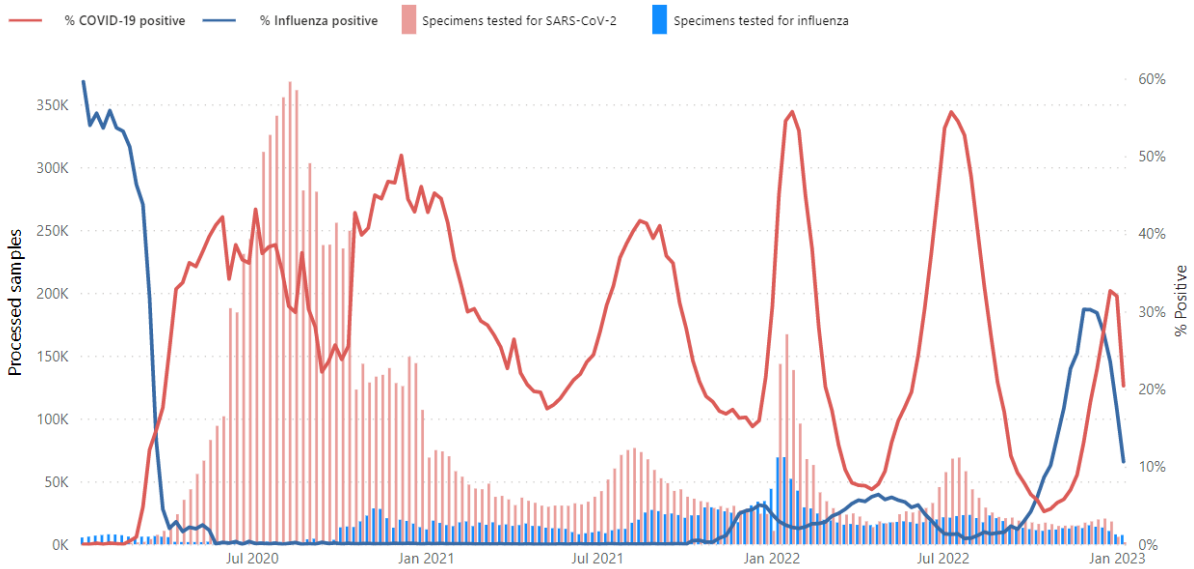

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

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



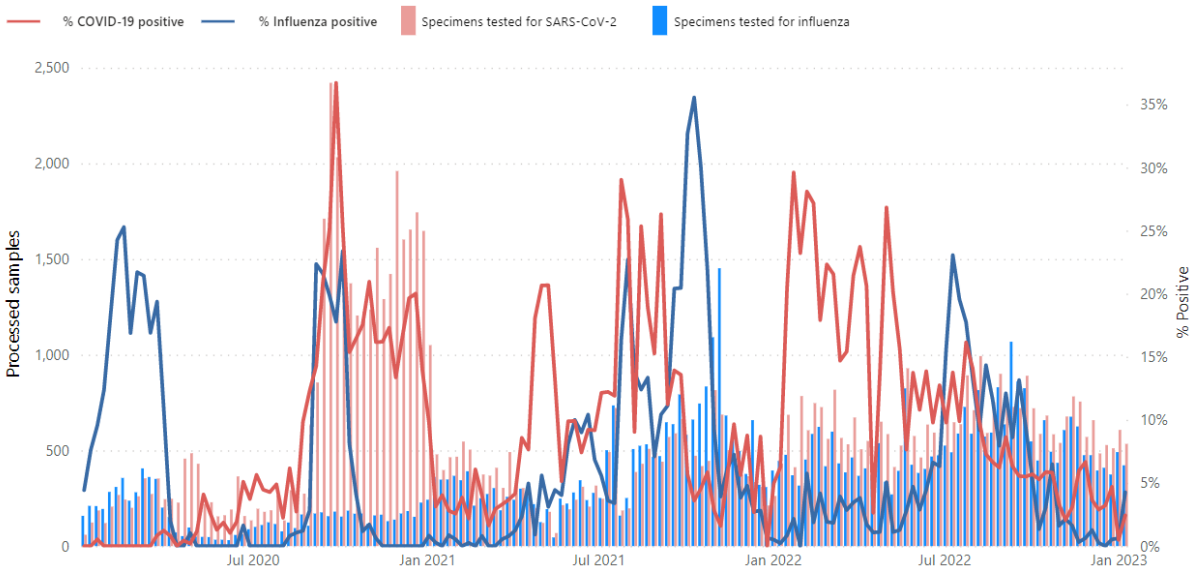

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

**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**



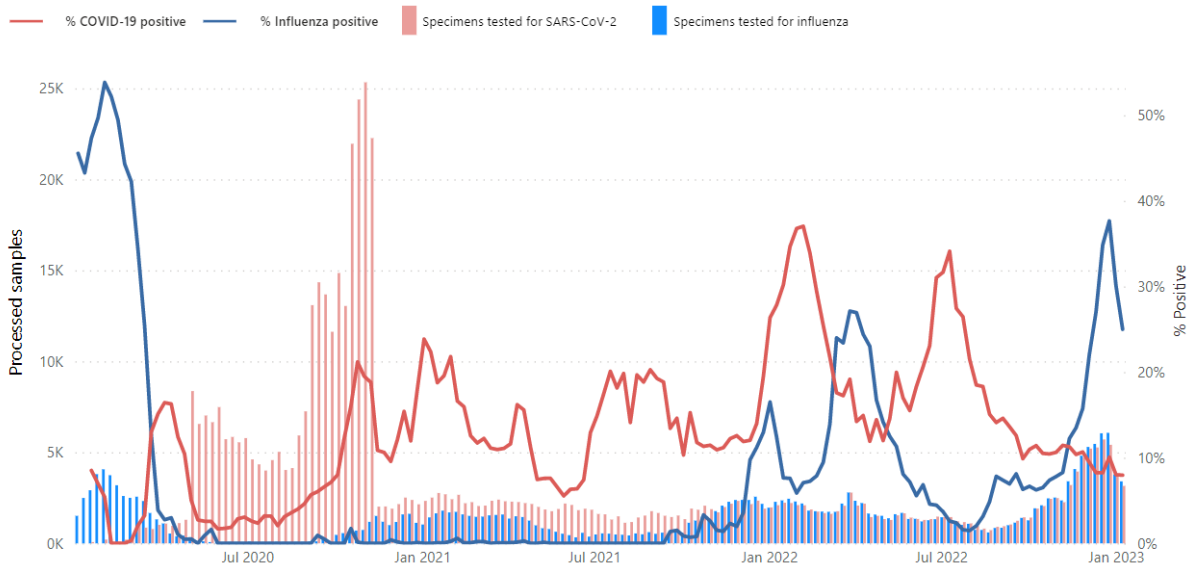

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

**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**



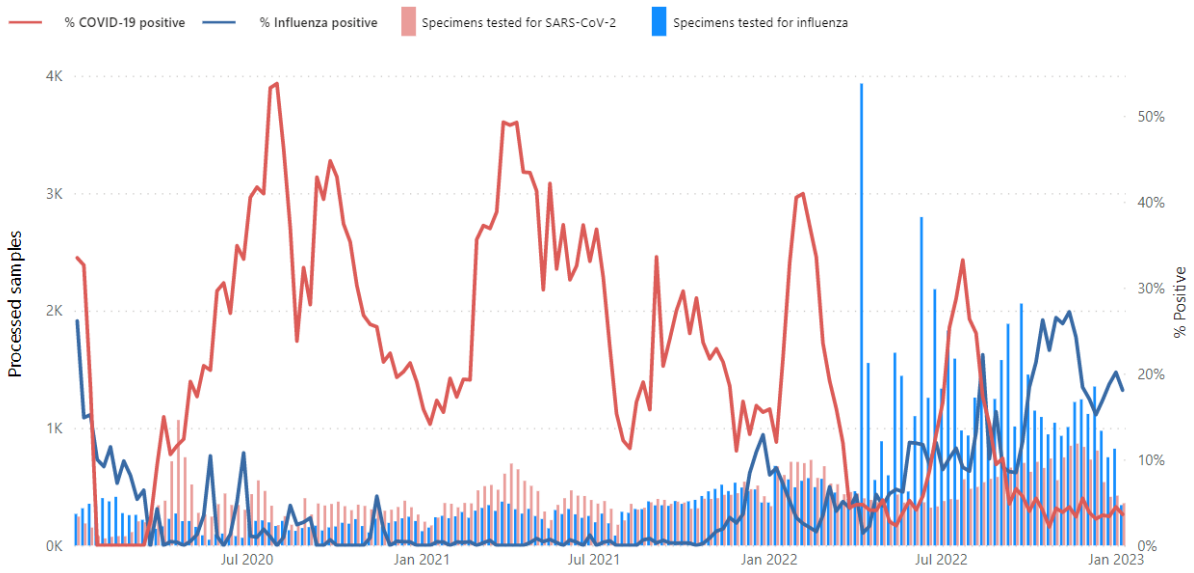

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

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



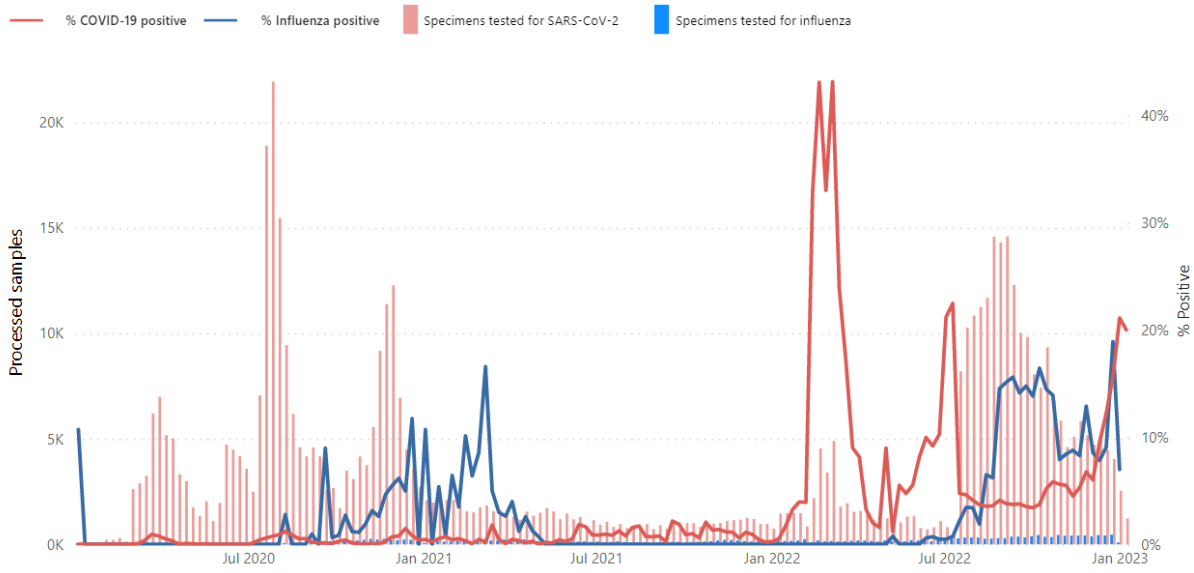

**Data source**: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 19/01/2023

**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 19/01/2023

**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 19/01/2023

## 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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