What we know about influenza and COVID-19
Influenza is an acute respiratory infection caused by influenza viruses

- Influenza ≠ Common cold
- Causes serious illness and death
- Safe and effective vaccines are available for seasonal influenza
- Influenza virus is constantly mutating
- Novel influenza viruses can cause pandemics
There are many different types of influenza viruses

- **Seasonal influenza** is caused by seasonal influenza viruses; there can be annual epidemics in temperate climates or year-round activity in non-temperate climates
- **Seasonal influenza** affects individuals in every country and results in up to one billion cases, three to five million severe cases, and up to 650,000 respiratory-related deaths worldwide every year
- **Zoonotic influenza** occurs when an animal influenza virus infects a person
- **Pandemic influenza** occurs when a new influenza virus spreads from person to person and people have no immunity
What causes influenza?

Influenza infection is caused by influenza viruses which circulate in all parts of the world

- There are 4 types of influenza viruses, types A, B, C and D
- Influenza A and B viruses circulate and cause **seasonal epidemics** of disease
- Influenza A viruses also circulate in animals and can infect people causing **zoonotic influenza**
- Only influenza type A viruses are known to have caused **pandemics**

**Influenza A viruses** are further classified into subtypes according to the combinations of the hemagglutinin (HA) and the neuraminidase (NA), the proteins on the surface of the virus. Currently circulating in humans are subtype A(H1N1) and A(H3N2) influenza viruses.
Why we are concerned about influenza

• In the past decade, seasonal influenza has caused severe illness and death.
• Before the current pandemic, seasonal influenza was estimated to have infected 1 billion people a year globally, caused severe disease in 3-5 million people, and 290,000-650,000 influenza related respiratory deaths.
• It burdens health systems in low and middle income countries which can least afford them.
• Seasonal influenza also leads to high economic burden, due to direct and indirect medical costs, and loss of income and productivity due to illness.
Avian influenza and influenza pandemic

During the COVID-19 pandemic, zoonotic influenza continued to be detected

• Avian influenza viruses actively evolved and spread:
  ➢ **China**: first human infections with A(H3N8) and A(H10N3) subtypes
  ➢ **Russian Federation**: first human infections with A(H5N8) subtype
  ➢ **UK and USA**: human infections of A(H5N1) subtype reported for the first time

Signals of a threat of an influenza pandemic persisting throughout the COVID-19 pandemic. Countries should never let down their guard against such threat and strengthen preparedness for an influenza pandemic.
Current influenza activity

Globally, influenza activity picked up when public health and social measures (PHSM) were lifted in 2021, to pre-COVID-19 levels

- Globally, influenza activity is currently low with influenza A(H3N2) viruses predominately detected
- In the temperate zones of the southern hemisphere, overall influenza activity is low except in South Africa where activity increased slightly recently
- In North America and Europe, influenza activity remains at inter-seasonal levels
- In South-East Asia, influenza activity is predominately influenza A(H3N2)

Global Influenza Programme – Surveillance and Monitoring
Percentage of respiratory specimens that tested positive for influenza

By influenza transmission zone

Map generated 29 September 2022

Note: The available country data were joined in larger geographical areas with similar influenza transmission patterns to be able to give an overview. The displayed data reflect reports of the week from 05 September 2022 to 11 September 2022, or up to two weeks before if no sufficient data were available for that area.

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data source: Global Influenza Surveillance and Response System (GISRS), FluNet (www.who.int/flunet)

World Health Organization

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Influenza is detected and monitored by a global network

The Global Influenza Surveillance and Response System (GISRS) is used to conduct global influenza surveillance

- GISRS is a WHO-coordinated network of over 155 institutions in 122 Member States
- GISRS actively:
  - monitors influenza activity globally
  - recommends seasonal influenza vaccine compositions twice a year for the Northern and Southern hemisphere influenza seasons
- many countries also coordinate syndromic surveillance with virologic surveillance

In 2022, GISRS celebrates its 70th anniversary, working round the year, on the front of fight against influenza and ORVs, protecting the world.
Northern Hemisphere (NH) influenza season is upcoming

- Observations from the Southern Hemisphere (SH) 2022 season:
  - Influenza epidemics varied in timing and severity among countries, also in comparison with previous seasons
  - Overall influenza activity picked up again often to levels of pre-COVID pandemic (or even higher)
Can influenza and SARS-CoV-2 circulate at the same time?

Yes, according to data collected as part of influenza surveillance, activity with influenza and SARS-CoV-2 can occur simultaneously.

- However, measures taken as part of the response to COVID-19 are also effective in controlling influenza.
- Influenza also co-circulates with other respiratory viruses, such as respiratory syncytial virus, the viruses that cause colds and others.
- Integrated surveillance for these respiratory viruses is important to understand the co-circulation and burden imposed by these viruses.
What are the symptoms of seasonal influenza?

Symptoms of seasonal influenza include a sudden onset of fever, cough, headache and malaise among other symptoms

- The cough can be severe and can last 2 or more weeks. Most people recover from fever and other symptoms within a week without requiring medical attention
- Influenza can cause severe illness or death especially in people at high risk
- Many of the symptoms of influenza are the same as those for COVID-19
Influenza vs. COVID-19: How are they different?

Symptoms can be similar. Only lab testing can differentiate between influenza and COVID-19

- Influenza and COVID-19 are two different diseases caused by two different viruses
- COVID-19 is caused by SARS-CoV-2 and belongs to the coronavirus family
  - Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases.
  - SARS-CoV-2 was a novel coronavirus that had not been previously identified in humans
- Influenza is caused by influenza viruses that belong to a family called Orthomyxoviridae. These are common in humans. However, they evolve and a novel influenza virus could lead to a pandemic
- Both diseases affect the respiratory tract

People can get both COVID-19 and influenza at the same time but it is rare. Those who experience severe symptoms such as: fever and/or cough associated with difficulty breathing, shortness of breath, chest pain or pressure, or loss of speech or movement should seek medical care immediately.
Who is most at risk of severe influenza?

**Seasonal influenza**
- Young children (<59 months)
- Older persons (>65 years old)
- Pregnant women
- Persons with chronic conditions
  - cardiac conditions (hypertension & cardiovascular disease)
  - chronic lung conditions (asthma or COPD)
  - endocrine disorders (diabetes)
  - neurological disorders (stroke & neurodevelopmental conditions)
  - chronic kidney disease
  - metabolic disorders
  - hematologic disorders
  - chronic liver disease and other immunosuppressed conditions, including cancer & HIV/AIDS
  - chronic conditions requiring immunosuppressive therapy, such as chronic steroid treatment or chemotherapy
- Persons with obesity

**COVID-19**
- Older persons
- Persons with chronic conditions
  - cardiac conditions (hypertension & cardiovascular disease)
  - chronic neurological disorders, including stroke, chronic lung disease (e.g., COPD)
  - diabetes
  - chronic kidney disease
  - immunosuppressed conditions (e.g., active cancer, transplant recipients, dialysis, untreated HIV and/or a detectable viral load, active treatment with immunosuppressive medication)
- Persons with obesity
- Persons who smoke
How seasonal influenza spreads

Seasonal influenza viruses spread easily from a cough, sneeze or contaminated hands of an infected person

• Seasonal influenza spreads easily, especially in crowded areas including schools and nursing homes
• It spreads:
  ➢ When an infected person coughs or sneezes, droplets containing viruses (infectious droplets) are dispersed into the air, and infect persons in close proximity who breathe these droplets in.
  ➢ by hands contaminated with influenza viruses.
• To prevent transmission, people should cover their mouth and nose with a tissue when coughing and wash their hands regularly
Treatment for seasonal influenza

Treatment is symptomatic and supportive unless illness is severe or complicated or influenza virus infection is confirmed

- For patients that are not in a high-risk group, treatment focuses on relieving symptoms of influenza such as fever
- Patients that are known to be in a group at high risk for developing severe or complicated illness should seek medical attention and should be treated with antiviral drugs, such as neuraminidase inhibitors (i.e. oseltamivir), as soon as possible to maximize therapeutic benefits
Protecting from influenza

The most effective way to prevent the disease is vaccination

- Safe and effective vaccines are available and have been used for more than 60 years
- Immunity from vaccination wanes over time so annual vaccination is recommended to protect against influenza. Injected inactivated influenza vaccines are most commonly used throughout the world
- The composition of influenza vaccines need to be updated periodically in order for the vaccines to be effective
- On 23 September 2022, WHO issued recommendations on the composition of influenza vaccine for use in the 2023 SH season

Global Influenza Programme -- Vaccines
SAGE recommendations for influenza vaccination

WHO recommends that all countries consider implementing a seasonal influenza immunization programme

- The following populations are identified for priority use of the influenza vaccine to protect high-risk groups against severe disease and death:\(^1\):
  - Children
  - Health workers
  - Individuals with comorbidities and underlying conditions
  - Older adults
  - Pregnant women

- WHO recommends annual influenza vaccination prior to the beginning of the influenza season (i.e., in October for the Northern Hemisphere season and in April for the Southern Hemisphere season)
  - For countries in tropical and subtropical areas that experience influenza activity throughout the year, the seasonal influenza vaccine should be administered prior to the start of the primary period of increased influenza activity

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\(^1\) Vaccines against influenza: WHO position paper – May 2022
Preventing seasonal influenza in the context of COVID-19

• Administer an influenza vaccine every year to prevent and reduce severe disease\(^1\)
• Administer two doses of COVID-19 vaccine to eligible persons* 
• Ensure individual measures are implemented\(^2\)

**COVID-19 vaccines & seasonal influenza vaccines can be administered during the same visit\(^1\)**

* or one dose if an one dose schedule COVID-19 vaccine; an additional dose is recommended in immunocompromised persons

In summary

- Influenza is an acute respiratory infection caused by influenza viruses
- Influenza infection is caused by influenza viruses which circulate in all parts of the world
- Seasonal influenza viruses spread easily from the cough or sneeze or contaminated hands of an infected person
- Symptoms of seasonal influenza include a sudden onset of fever, cough, headache and malaise among other symptoms. Symptoms are similar to those due to COVID-19
- Only lab testing can differentiate between influenza and COVID-19
- It is possible to catch both diseases at the same time. The most effective way to prevent hospitalization and severe COVID-19 and influenza is vaccination with both vaccines
- Treatment for seasonal influenza is symptomatic and supportive unless illness is severe or complicated or influenza virus infection is confirmed
- The most effective way to prevent seasonal influenza is vaccination
- The Global Influenza Surveillance and Response System (GISRS) is used to conduct global influenza surveillance
- Globally, influenza activity picked up with lifting of PHSM and varied in timing and intensity. Influenza activity did reach pre-COVID levels
- According to data collected as part of influenza surveillance, activity with influenza and SARS-CoV-2 can occur simultaneously in countries
COVID-19 & seasonal influenza protective measures

Protect yourself & others

- Keep your distance
- Wash your hands frequently
- Cough & sneeze into your elbow
- Ventilate or open windows
- Wear a mask
WHO resources on influenza during COVID-19

• **Readiness for influenza during the COVID-19 pandemic**
The policy brief provides a concise summary of information and considerations to ensure optimal management of influenza during the COVID-19 pandemic.

• **End-to-end integration of SARS-CoV-2 and influenza sentinel surveillance: revised interim guidance**
This guidance provides interim guidance for the integration of SARS-CoV-2 and influenza virologic and genomic surveillance, from sentinel site case enrolment and sampling to the eventual sharing of the virus sequence data, a process known as end-to-end surveillance.

• **Preparing GISRS for the upcoming influenza seasons during the COVID-19 pandemic – practical considerations**

• **Public health surveillance for COVID-19: interim guidance**

• **Global Influenza Surveillance and Response System (GISRS)** (who.int)

• **Coadministration of seasonal inactivated influenza and COVID-19 vaccines** (who.int)

• **Coronavirus disease (COVID-19): Similarities and differences between COVID-19 and Influenza** (who.int)

• **Overview of Public Health and Social Measures in the context of COVID-19**
The document is intended to inform national and local health authorities and other decision-makers at all levels.

• **Vaccines against influenza: WHO position paper - May 2022**
This position paper is concerned mainly with vaccines and vaccination against seasonal (epidemic) influenza.

• **Considerations for implementing and adjusting public health and social measures in the context of COVID-19**
An interim guidance.

• **Interim recommendations for an extended primary series with an additional vaccine dose for COVID-19 vaccination in immunocompromised persons** (who.int)