
Global trends in infectious respiratory diseases

Dr Maria VAN KERKHOVE

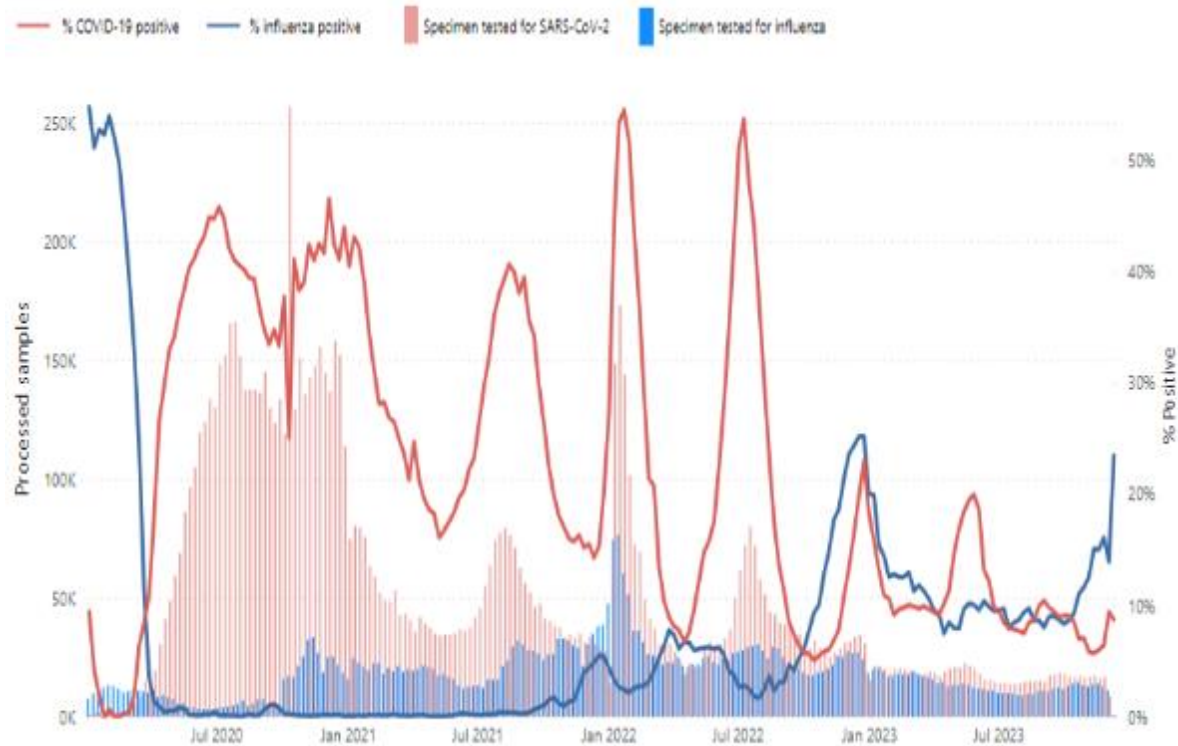
Director (ai), Department of Epidemic and Pandemic
Preparedness and Prevention

15 December 2023

Presentation outline

- **Overview of current global trends in infectious respiratory diseases:**
 - COVID-19
 - Influenza
 - Respiratory Syncytial Virus (RSV)
 - *Mycoplasma pneumoniae* pneumonia
- **Key recommendations for Member States**

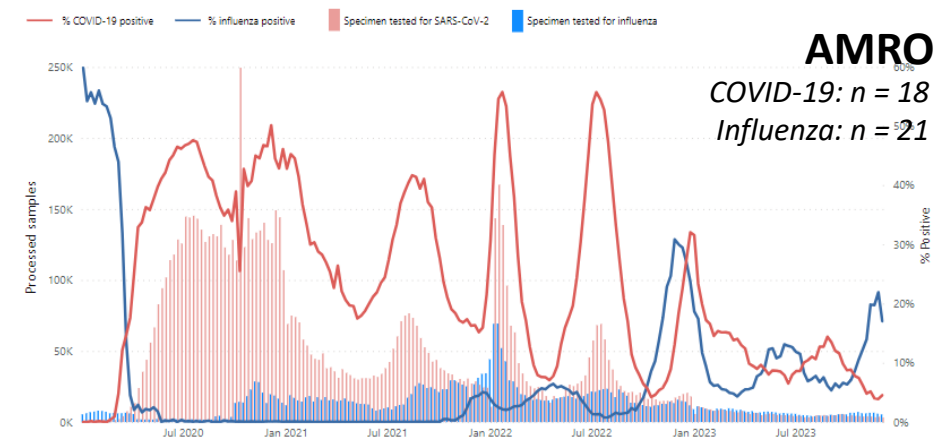
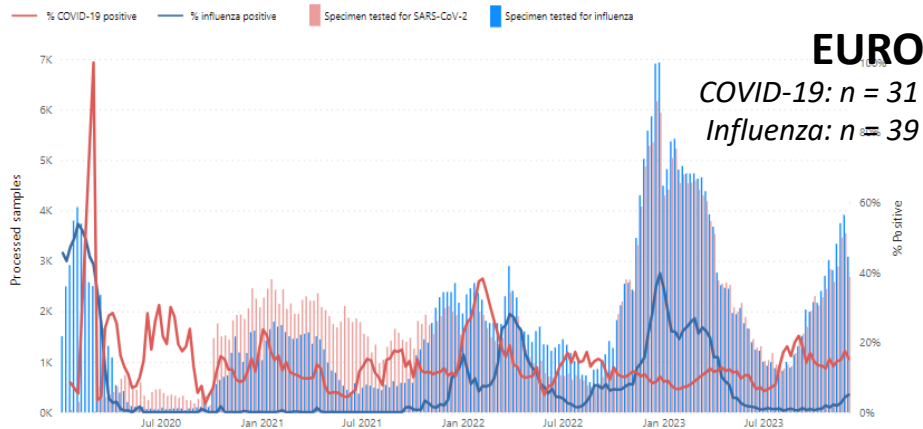
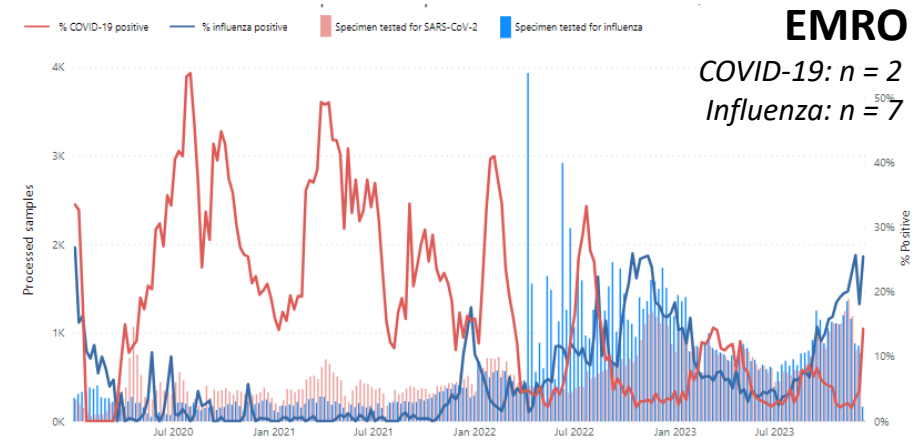
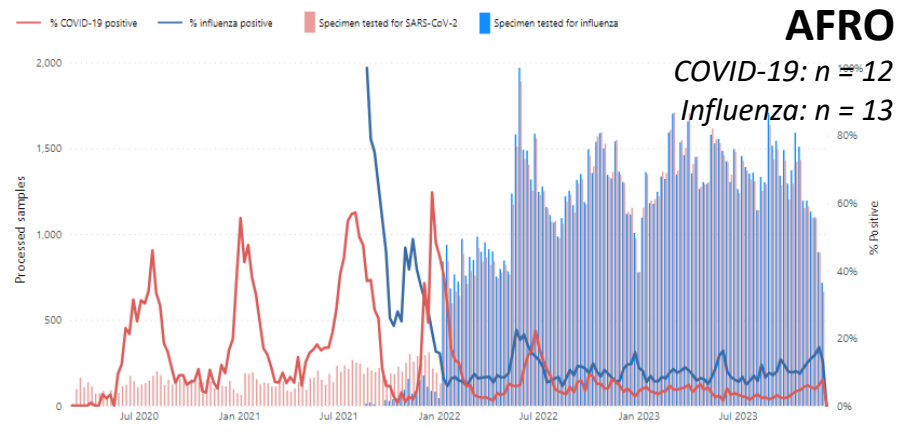
SARS-CoV-2, influenza, and RSV are co-circulating widely, continued vigilance and concerted action are needed



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS). Data generated on 12/12/2023

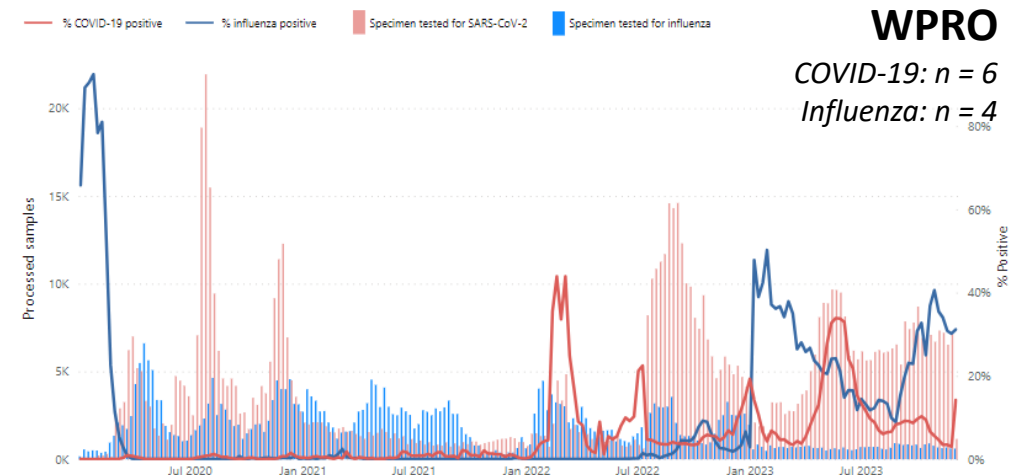
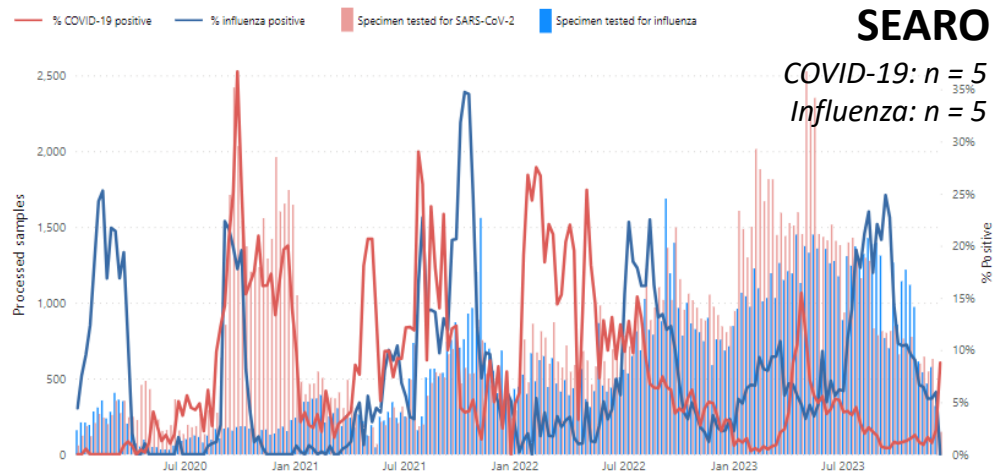
- 446k new COVID-19 cases (n = 95) and 1.9k new deaths (n = 40) reported for the 06 Nov - 03 Dec period, a 21% and 69% decrease from the previous 28-day period, respectively
 - Data must be interpreted with caution – rates of testing and data reporting have decreased substantially
- **SARS-CoV-2 positivity from sentinel surveillance decreased to ~3%**
 - Positivity was highest in the European Region, where it was stable at ~15%; stable around or below 5% in other regions
 - **SARS-CoV-2 positivity from non-sentinel surveillance was around 16% globally**
- **Influenza detections have increased** driven by the temperate Northern hemisphere, including in Europe / Central Asia, North America, and Eastern & Western Asia
- RSV activity (not visualized) has increased in North America and Europe, with **activity above the seasonal threshold in most reporting countries** in Europe

Overview of sentinel specimens testing positive for influenza and SARS-CoV-2 by WHO region, 2020-2023 (1/2)

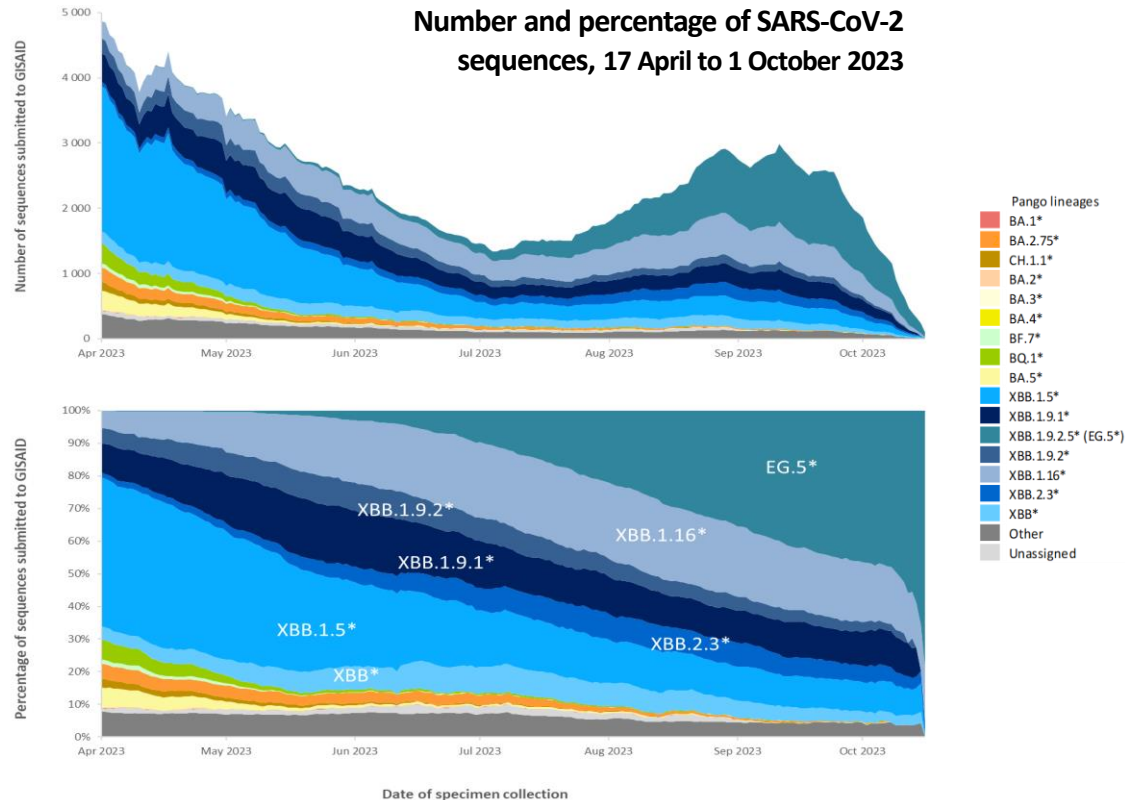


Data source: FluNet (www.who.int/toolkits/flu-net). Global Influenza Surveillance and Response System (GISRS). Data generated on 12/12/2023

Overview of sentinel specimens testing positive for influenza and SARS-CoV-2 by WHO region, 2020-2023 (1/2)



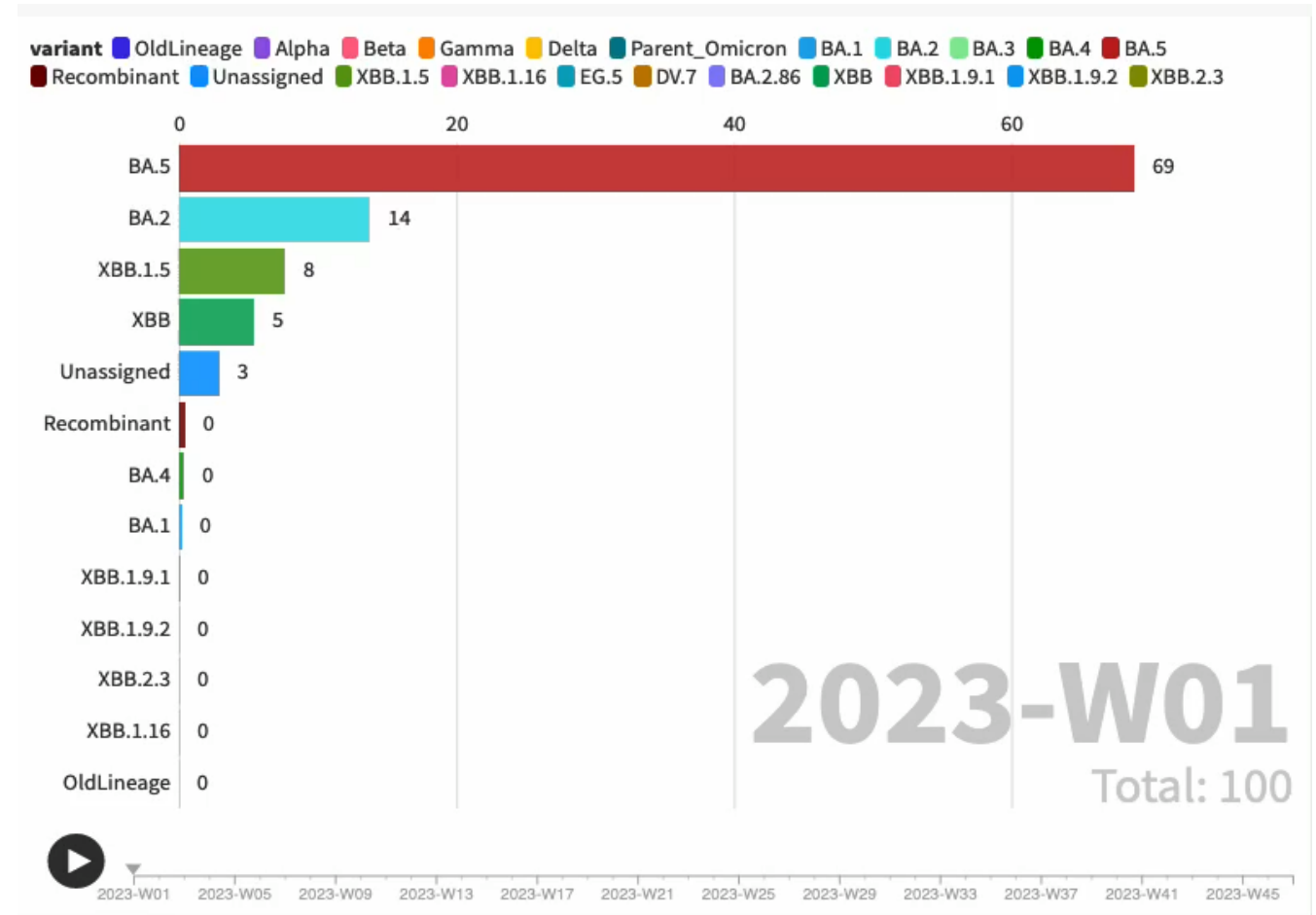
EG.5 and its descendent lineages remain the most reported SARS-CoV-2 Variant of Interest, with a prevalence of 47% in week 47



- **Four Variants of Interest (VOI) are circulating:** XBB.1.5; XBB.1.16; EG.5; BA.2.86
 - BA.2.86, designated a VOI as of 21 Nov, has been increasing in prevalence from 5% in week 43 to 22.6% in week 47
 - XBB.1.5 and XBB.1.16 continue to show declining trends.
- **Five Variants Under Monitoring (VUM) are circulating:** DV.7; XBB; XBB.1.9.1; XBB.1.9.2; XBB.2.3
 - All VUMs show a declining or stable trend in their prevalence during weeks 43 to 47 2023
- WHO TAG-VE has further **recommended listing JN.1 as a separate VOI from the parent BA.2.86** due to its increased immune evasion and higher transmissibility

Amidst continued SARS-CoV-2 circulation, the landscape of new variants remains fluid; more representative sequencing is needed

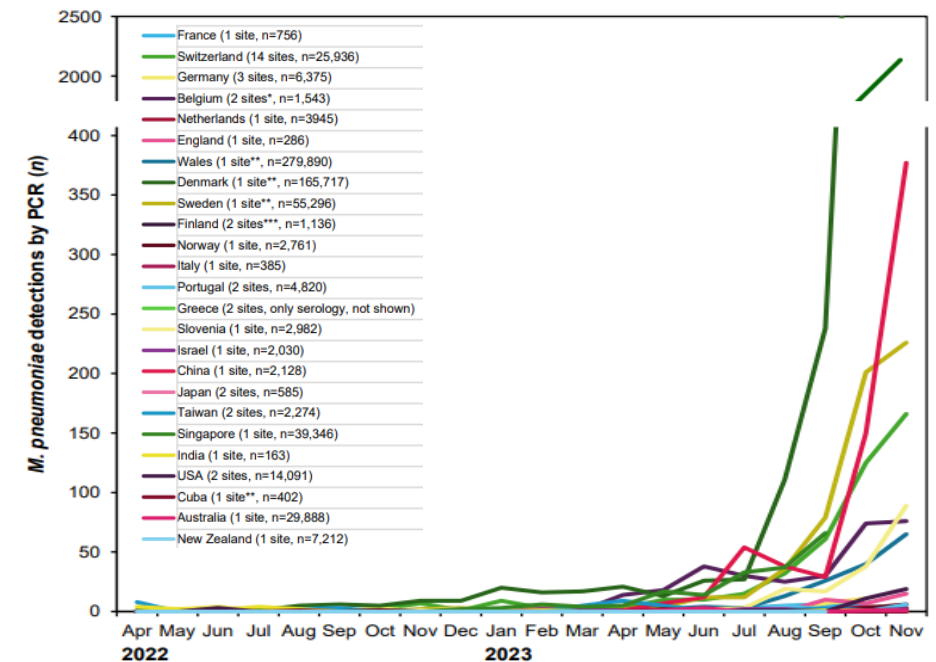
- **Variant circulation remains heterogenous across WHO regions, within a region, and within a country**
 - Globally, from 25 Sep - 22 Oct, 24 265 SARS-CoV-2 sequences were shared through GISAID, 68% decrease from the previous 28-day period
- SARS-CoV-2 reference lab network will **transition to a WHO Coronavirus Network (CoViNet)** with expanded focus
 - Will incorporate animal health and wastewater surveillance labs
 - Will have Reference labs in all WHO regions (selection process completed) supporting variant risk evaluations and integration with e-GISRS for sentinel surveillance at national level



Several Member States have reported recent increases in *Mycoplasma pneumoniae* detections, possibly reflecting typical periodic recurrence

- 6 EU/EEA countries have reported **recent increases in *M. pneumoniae* detections** either at national/local levels or in specific hospitals
 - France has observed an increase in ICU admissions
 - Denmark is reporting a higher number of cases than usual
- **Increases have been reported in all age groups**, but predominantly observed in children and adolescents
- **First-line treatment is a macrolide antibiotic**
 - There are currently no reports of atypical strains or usual evidence of resistance to first-line antibiotics
- **Surges in *M. pneumoniae* infections occur periodically, typically every two to five years**

ESCMID Study Group for Mycoplasma and Chlamydia Infections (ESGMAC) Mycoplasma Pneumoniae Surveillance (MAPS) Study: Prospective global detection of Mycoplasma pneumoniae (Apr 2022 – Nov 2023)



Data source: ESCMID MAPS study, <https://www.escmid.org/research-projects/study-groups/study-groups-g-n/mycoplasma-and-chlamydia/esgmac-maps-study>

Safe, effective vaccines are available for COVID-19, influenza; strengthened efforts needed to turn vaccines into vaccinations, closing equity gaps

COVID-19 vaccine uptake in older adults

Income group	Primary series coverage	Booster coverage
1) LIC	39 %	4 %
2) LMIC	78 %	28 %
3) UMIC	86 %	65 %
4) HIC	92 %	82 %
Total	83 %	55 %

COVID-19 vaccine uptake in healthcare workers

Income group	Primary series coverage	Booster coverage
1) LIC	65 %	8 %
2) LMIC	89 %	68 %
3) UMIC	92 %	25 %
4) HIC	89 %	15 %
Total	89 %	30 %

- Under latest [WHO recommendations](#), **one COVID-19 vaccine dose is recommended for those who have never received any COVID-19 vaccine** (except for inactivated vaccines), especially in groups at high risk of severe illness, such as older persons, adults with chronic diseases, individuals with immunocompromising conditions, pregnant persons and health and care workers.
 - **Periodic revaccination recommended for select risk groups, interval corresponding to an individual's level of risk**
- TAG-CO-VAC [recommended retaining the monovalent XBB composition of COVID-19 vaccines](#).
- Limited data suggest monovalent Omicron XBB vaccines do provide modestly enhanced protection; but **WHO EUL- / PQ-vaccine products, including those based on the ancestral virus, maintain reasonably high vaccine effectiveness against severe disease and death**
 - [Vaccination should not be postponed in anticipation of Omicron XBB vaccines](#), if they are not readily available.
- **COVID-19 and influenza vaccines are recommended for the same adult high-risk groups.** Where available, getting both vaccines is recommended.
- Important disparities in the COVID-19 vaccine rollout remain; LICs continue to lag behind other income groups

Key recommendations for Member States

- **Reinforce collaborative surveillance for COVID-19, influenza, RSV, and other respiratory diseases**, in order to provide a basis for situational awareness and risk assessment and the detection of significant changes in virus characteristics, virus spread, disease severity and population immunity
 - Continue reporting COVID-19 and influenza data, particularly mortality data, morbidity data, SARS-CoV-2 genetic sequences with meta-data, and vaccine effectiveness data to WHO, or in open sources, **via RespiMART (FluNet and FluID) directly or regional platforms**
- **Strengthen efforts to implement available safe and effective vaccines against COVID-19, influenza, and RSV** in indicated population groups as per the recommendations of WHO's Strategic Advisory Group of Experts on Immunization (SAGE)
- **Continue to deliver optimal clinical care through clear pathways for COVID-19, influenza, RSV, and other respiratory pathogens**, appropriately integrated into all levels of health services, including access to proven treatments and measures to protect health workers and caregivers as appropriate

Refer to the 09 Aug 2023 [Standing recommendations for COVID-19](#) for more on measures to be taken by Member States for long-term COVID-19 control

Thank you