

Global Health Cast 31

March 29, 2023



Dr. Melvin Sanicas



Prof. Dr. Joe Schmitt

Every Week

12.00 noon - CET

What we talk about today

- **COVID-19 update**
- **Flu update**
- **March 24 was World TB Day**
- **Acute effects of caffeine consumption**
- **Persistence of YF-NT antibodies**
- **Safety of mRNA vaccines – the VAERS experience**
- **ARI-pathogens in wastewater**
- **Fake products: Zecki for prevention of ticks**

Figure 1. COVID-19 cases reported by WHO Region, and global deaths by 28-day intervals, as of 19 March 2023**

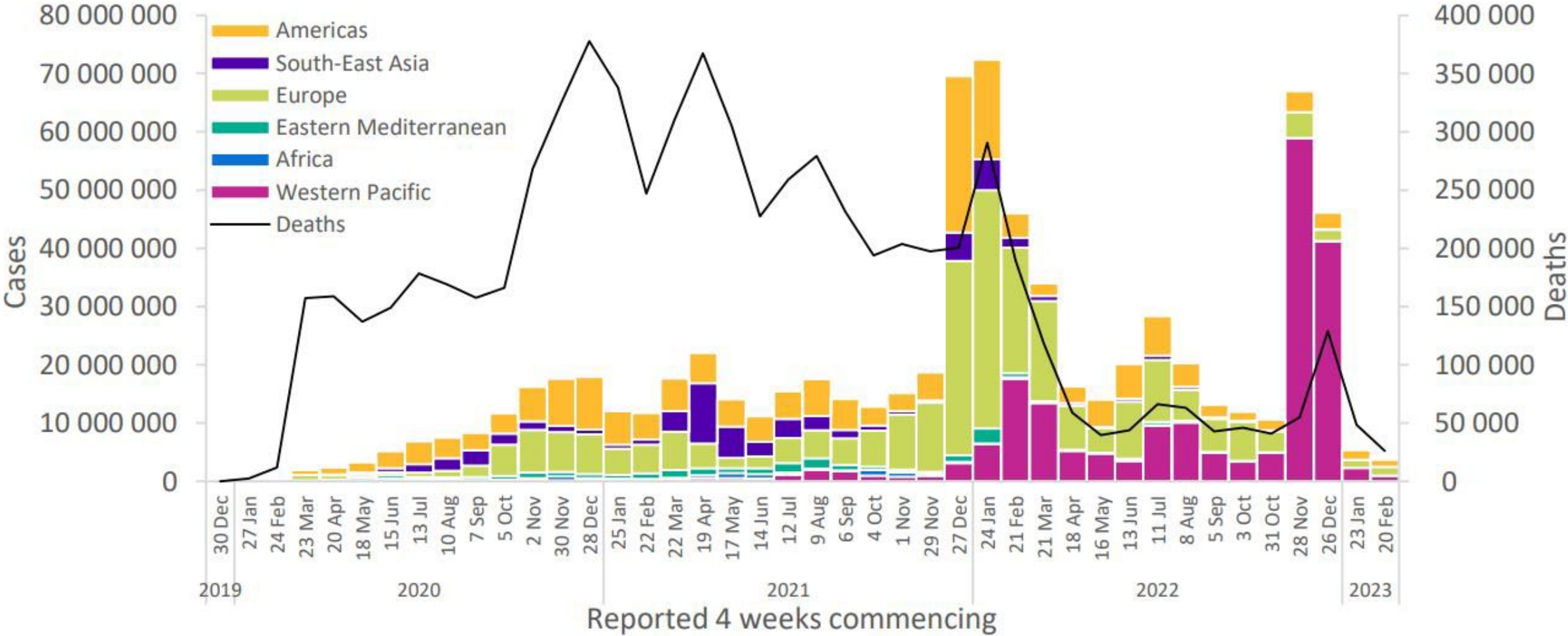
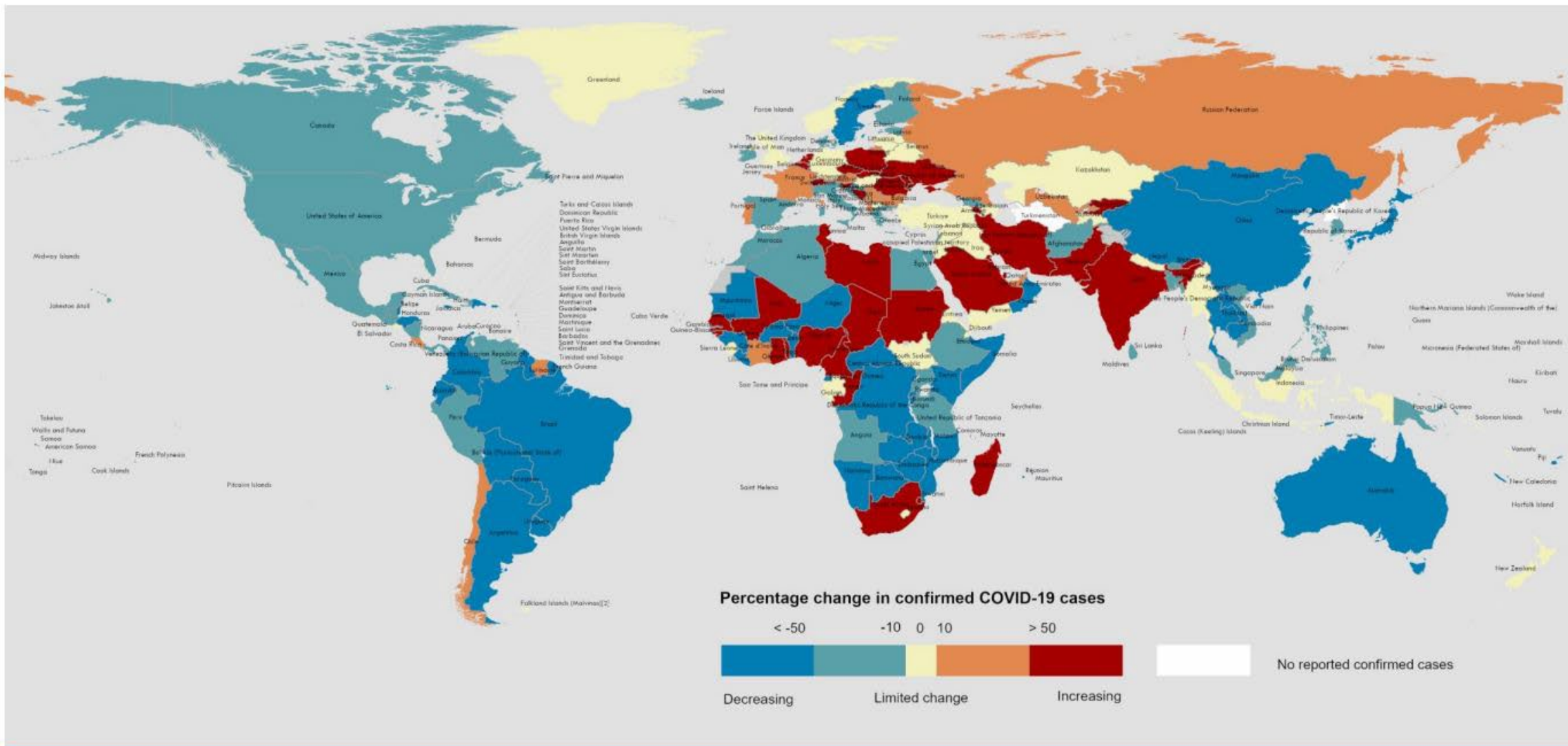


Figure 2. Percentage change in confirmed COVID-19 cases over the last 28 days relative to the previous 28 days, as of 19 March 2023**



Data Source: World Health Organization

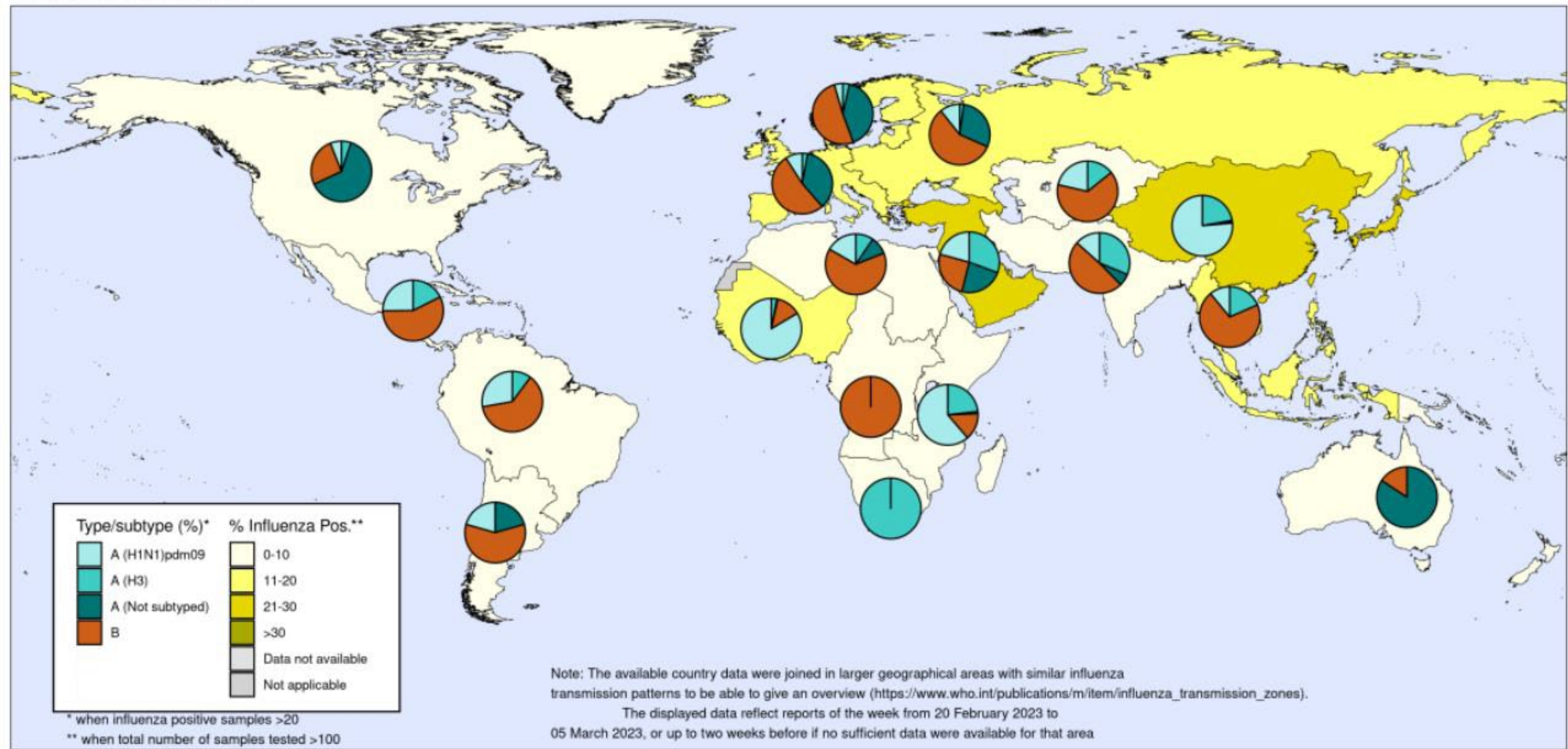
Map Production: WHO Health Emergencies Programme

Not applicable



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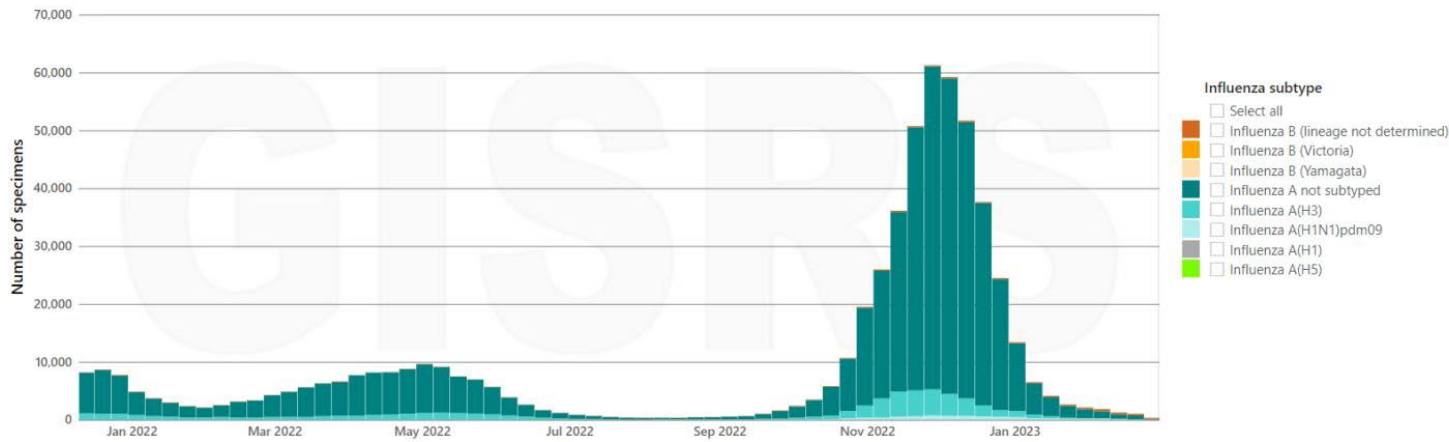


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers 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 (<https://www.who.int/initiatives/global-influenza-surveillance-and-response-system>)
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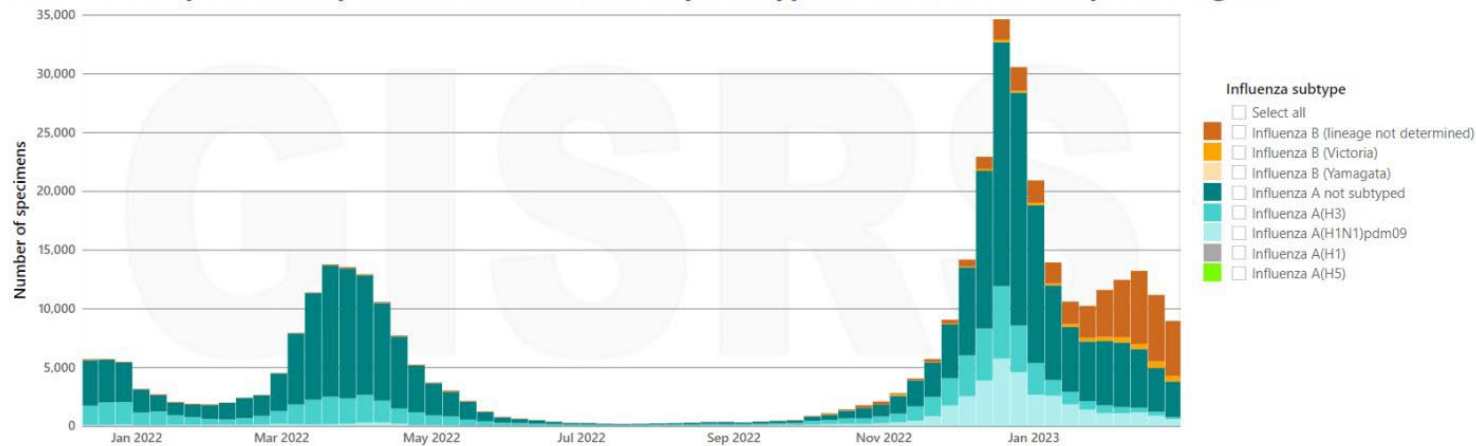
Number of specimens positive for influenza by subtype in North America



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 17/03/2023

In the countries of North America, influenza activity was low with most indicators of influenza activity at levels typically observed towards the end of the season. In Canada, influenza-like activity (ILI) activity returned to inter-seasonal level and influenza-associated paediatric hospitalizations remained low.

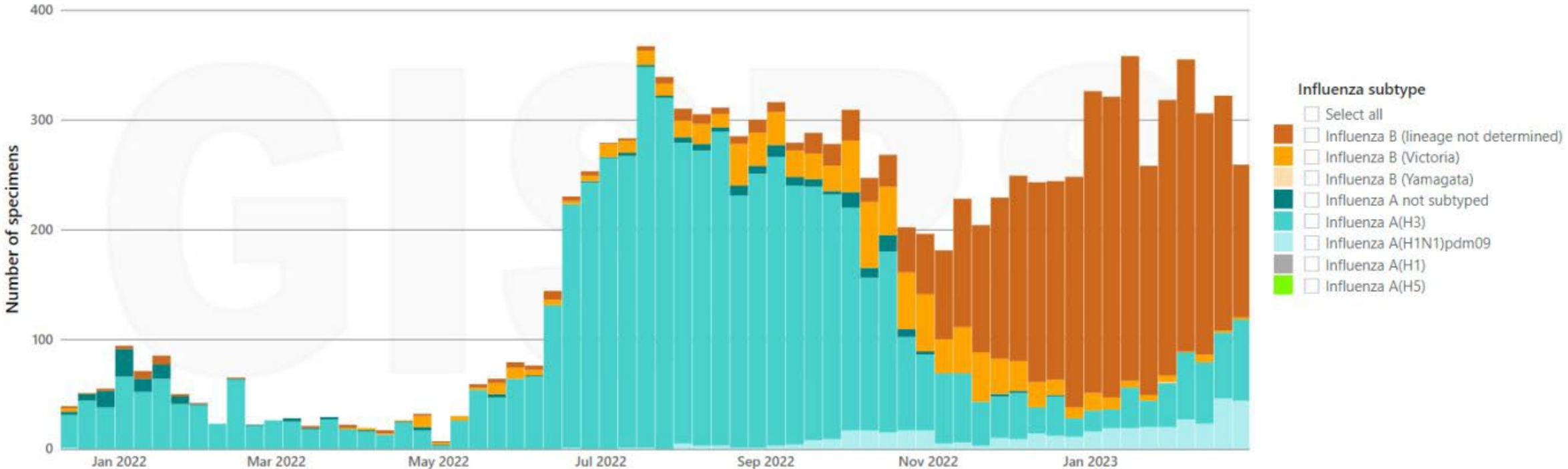
Number of specimens positive for influenza by subtype in the WHO European Region



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 17/03/2023

In Europe, overall influenza detections decreased slightly and influenza positivity from sentinel sites decreased although remaining above the epidemic threshold at the regional level. Out of 39 countries, 17 reported high or moderate intensity, and over half continued to report widespread activity.

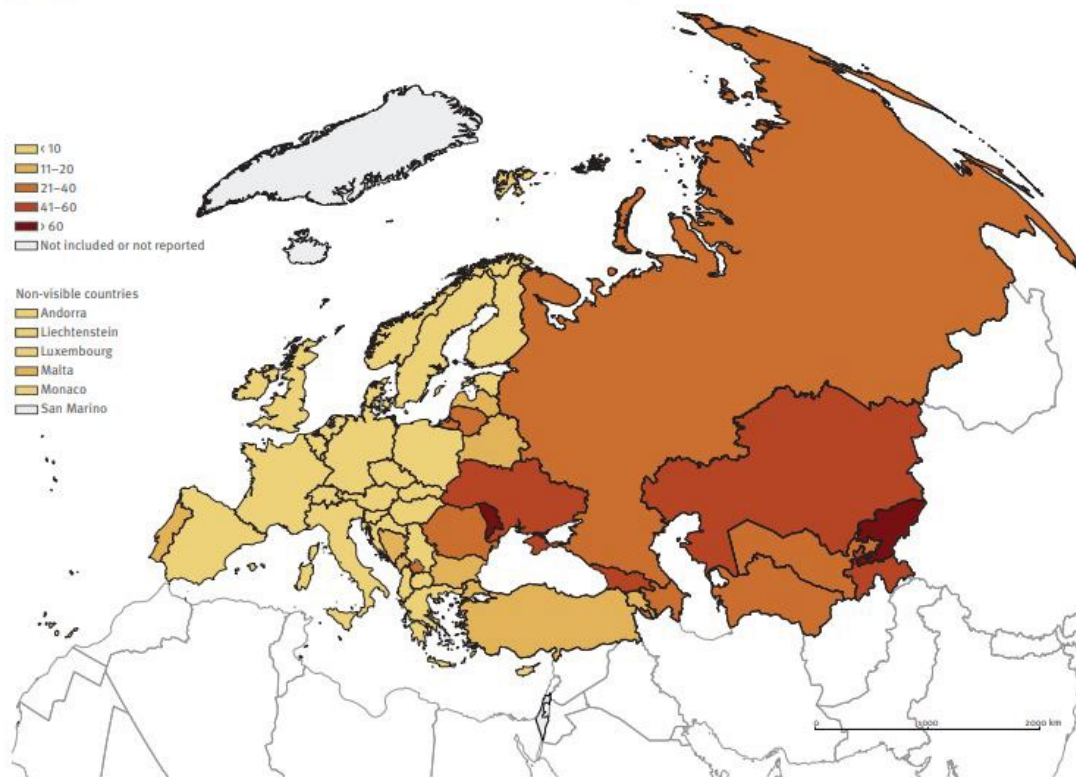
Number of specimens positive for influenza by subtype in South-East Asia



Data source: FluNet (www.who.int/toolkits/flunet). Global Influenza Surveillance and Response System (GISRS)
Data generated on 17/03/2023

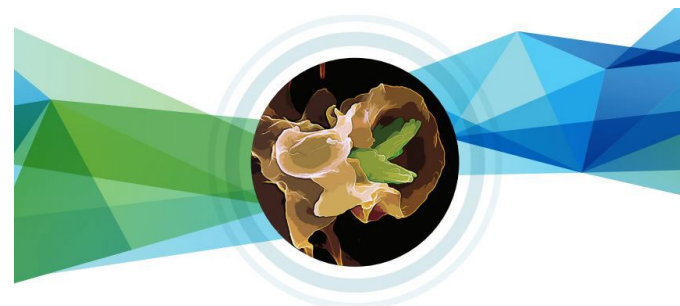
In South-East Asia, influenza detections remained elevated due to continued detections in Malaysia and increased detections in Singapore and Thailand.

Map 1. TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2021



Sources: 2021 data from the European Surveillance Systems (TESSy) and 2021 data from the WHO global TB data-collection system. Map production: ©ECDC.

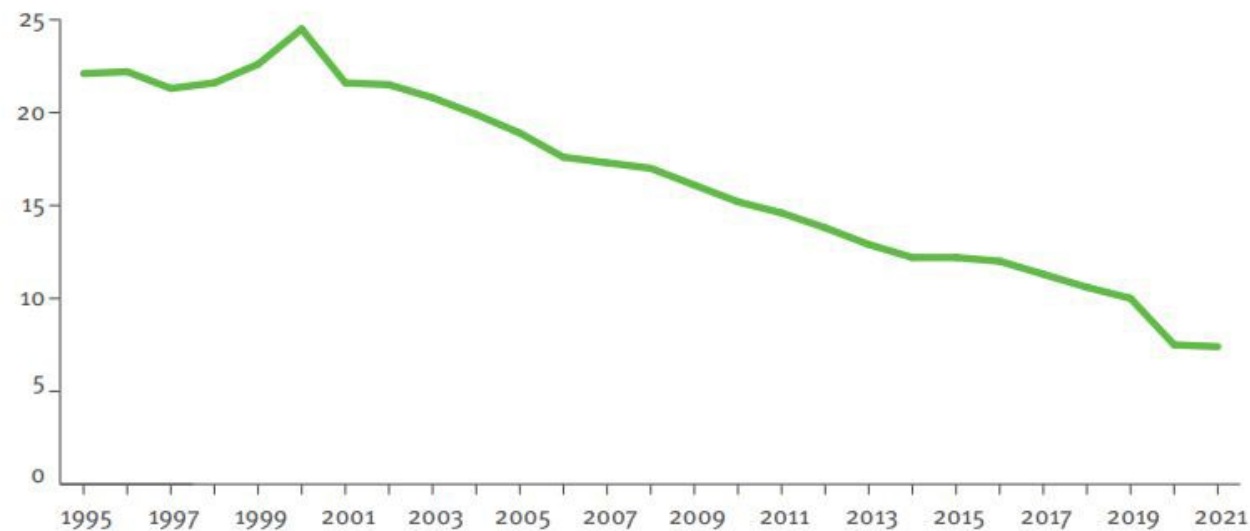
Conclusions: The remarkable progress in containing the burden of TB in the Region observed between 2015 and 2019 was jeopardized in 2020 and 2021 by the COVID-19 pandemic. As a result, in 2021, the downward trend in TB mortality came to a halt and incidence reversed, meaning that far fewer people were diagnosed and treated for TB.



Tuberculosis surveillance and monitoring in Europe

2023
2021 data

Fig. 3.2.1. TB notification rate per 100 000 population by year of reporting, EU/EEA, 1995–2021



Source: ECDC (3).

Africa's TB reduction rate falls short amid slowing global progress

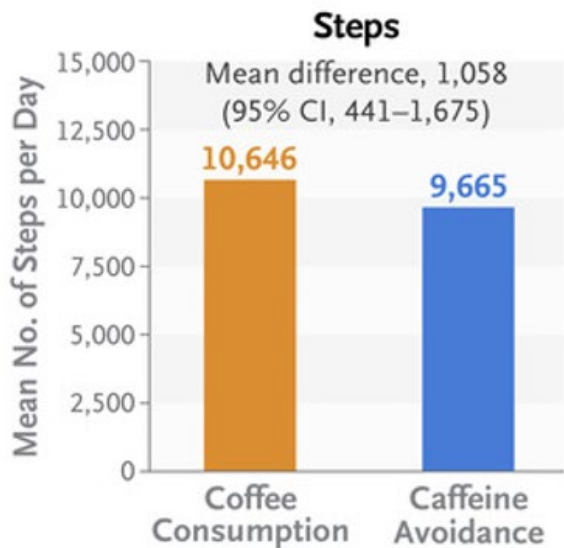
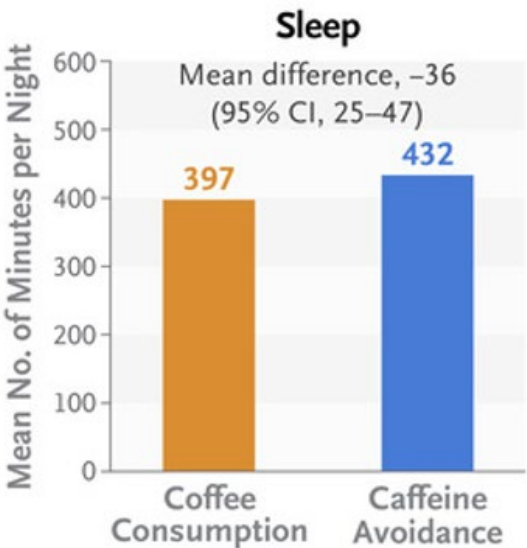
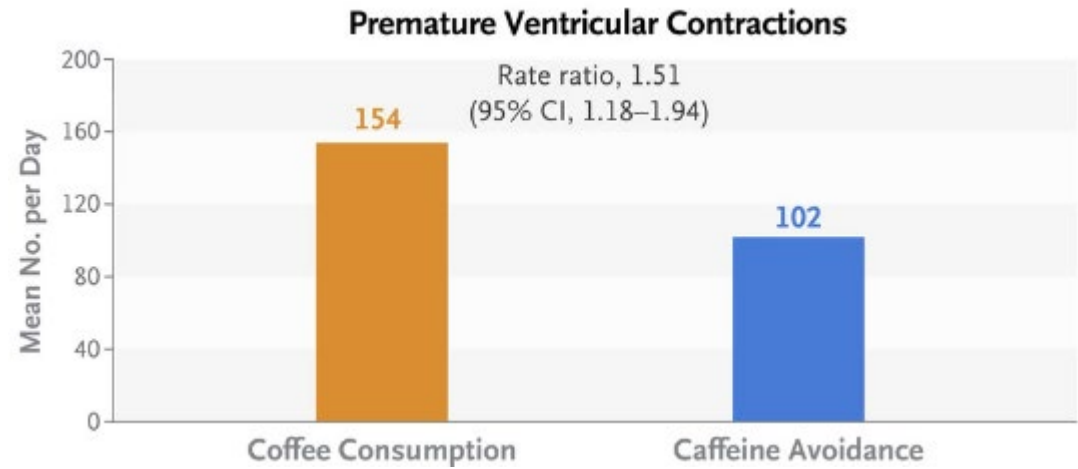
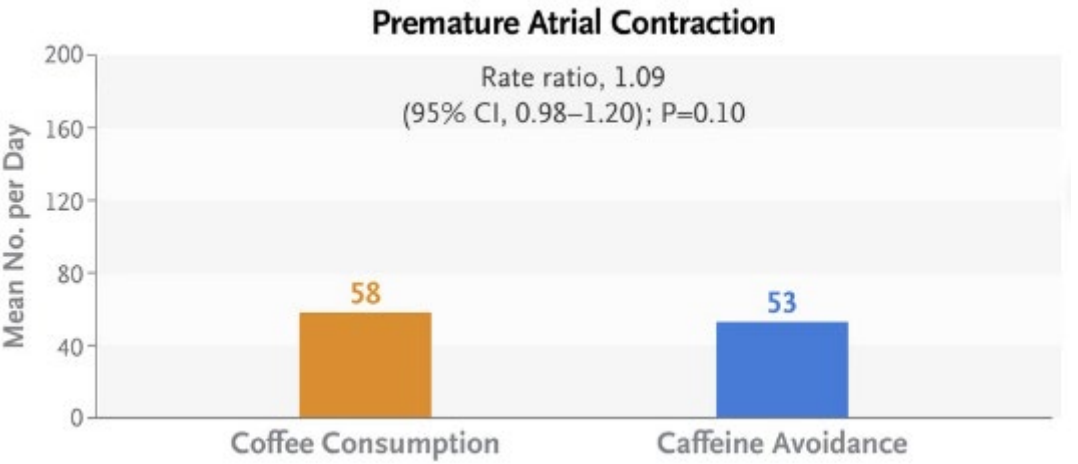
24 March 2023

Brazzaville – The African region is recording around 4% annual decline rate in tuberculosis (TB) cases. Although the rate is double the global pace, the region risks missing major milestones and targets to end the disease if efforts are not scaled up rapidly.

The World Health Organization's (WHO) End TB Strategy calls for countries to reduce TB deaths by 75% and cases by 50% by 2025 compared with the 2015 levels. To cross the 2025 milestone, the annual pace of reduction should reach 10% per year.

Yet despite the slowing pace towards the 2025 target, the African region has made progress in recent years. For example, TB deaths in the region fell by 26% between 2015 and 2021, with high-burden TB countries surpassing initial targets to lower TB cases. Accelerating TB elimination progress is crucial. This year World TB Day is being marked today under the theme “Yes, we can end TB” to spur national action to bolster TB prevention and control.

Acute effects of caffeine



Among 100 healthy adults, consumption of caffeinated coffee did not result in more daily premature atrial contractions than the avoidance of caffeine. Coffee consumption was associated with more recorded daily steps taken, fewer minutes of sleep per night, and potentially more daily premature ventricular contractions among persons who consumed more than one coffee drink per day.

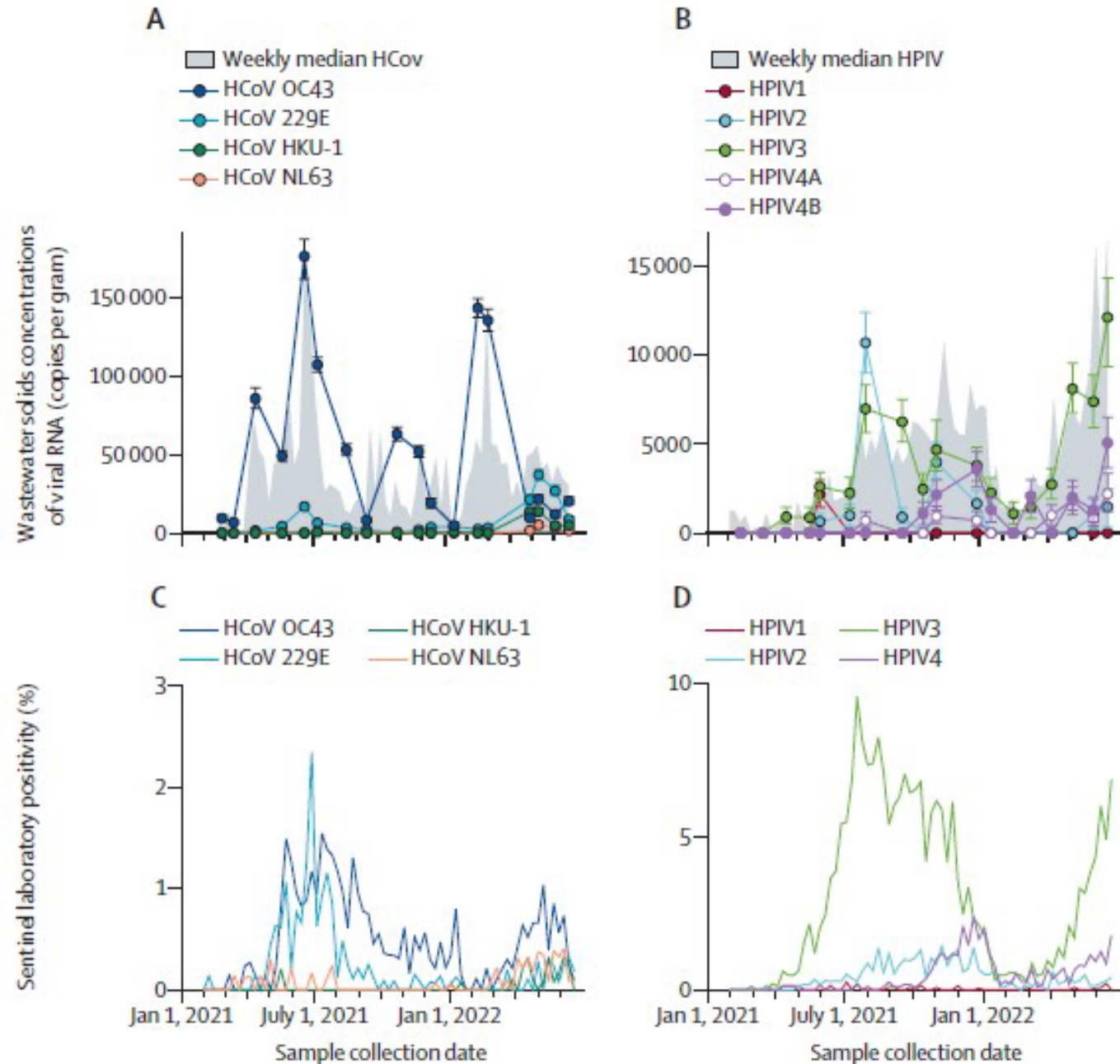
Duration of NT Titers Following Yellow Fever Vaccination

- ▶ Following WHO, one dose of yellow fever (YF) vaccine may guarantee protection lifelong in healthy adults. However, relatively little information is still available from ad hoc studies.
- ▶ The persistence of neutralizing antibodies (NT), which are considered to be an immune correlate of protection, was evaluated in a large number of military personnel vaccinated up to 47 years before.
- ▶ Overall, 322 individuals were studied. Median time from vaccination to blood collection for NT antibody evaluation was 9 years (<1 to 47 years).
- ▶ Of the 322 participants, 319 had neutralizing antibodies (99.1 %). The highest median PRNT₅₀ value was observed in those vaccinated ≤1 year before (median PRNT₅₀ = 320).
- ▶ The study confirms on a larger scale that, in healthy adults, neutralizing antibodies may persist as long as 47 years after a single YF vaccine dose.

Safety of mRNA Vaccines

- ▶ **Background.** Post-marketing surveillance activities of VAERS to detect adverse events from daily clinical practice and not detected earlier during clinical trials.
- ▶ **Methods.** Safety data concerning the BNT162b2 and the mRNA-1273 COVID-19 vaccines were collected from the Vaccine Adverse Event Reporting System (VAERS) from December 2020 to October 15, 2021. Descriptive analysis of individuals who experienced an adverse event after vaccination, PLUS a case-non-case analysis was performed.
- ▶ **Results.** At cut-off date, **758,040 reports** were submitted to VAERS, of which **439,401 were related to the Pfizer-BioNTech (BNT162b2) vaccine and 318,639 to the Moderna vaccine (mRNA-1273)**. Most common AE for both mRNA vaccines were headache, fatigue, pyrexia, dizziness, nausea, pain, chills, and pain in extremity. A disproportionality was found for BNT162b2 as compared with mRNA-1273 for some events of special interest, such as **myocarditis** [ROR 2.00; 95% confidence interval (CI), 1.93 to 2.06], **Bell's palsy** (1.34; 1.29 to 1.39), and **anaphylactic shock** (3.23; 2.96 to 3.53).
- ▶ **Conclusion.** Even if some rare adverse events were identified, our survey of post-marketing surveillance has provided further evidence of the favourable safety profile of mRNA vaccines.

Detection of ARI-viruses in wastewater (top row) and in sentinel laboratories (lower row)



Fake News – Fake Product



- ▶ **Natürlicher energetischer Schutz vor Zecken** durch hochwertige, energetisch aufgeschwungene Blütenessenzen.
- ▶ Die Zecken verändern sich ständig, genau wie andere Parasiten. Um das Zecki auf seinem hohen Wirkungsgrad zu halten, wird das Spray ständig den aktuellen Zecken Vorkommen angepasst. So ist die Zecke 2022 nun als neue Nosode im Zecki enthalten.
- ▶ **Das Zeckenspray von Johannes Wasser:**
 - Natürlicher Energieaufbau für Mensch und Tier (Katze, Hund, Pferd, Kleintiere)
 - Energetischer Schutz “um sich nicht Aussaugen zu lassen”
 - Beseitigung geopathischer Schwächen im Energiekörper
- ▶ **Tipp:** Zecki kann selbstverständlich auch auf bereits vorhandene Zeckenbiss oder Zecken Stichstellen zur energetischen Neutralisierung aufgetragen werden.

Price: 50 mL: € 29.-

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