# Assessing and communicating the impact of SARS-CoV-2 on influenza activity: the FluCov EpiBulletin

Sytske Wiegersma<sup>1</sup>, Lisa Staadegaard<sup>1</sup>, Marco Del Riccio<sup>1,2</sup>, Meral Akçay<sup>3</sup>, Clotilde El Guerche-Séblain<sup>3</sup>, Saverio Caini<sup>1</sup>, John Paget<sup>1</sup> <sup>1</sup>Netherlands Institute for Health Services Research (Nivel), Utrecht, The Netherlands <sup>2</sup>Postgraduate Medical School in Public Health, University of Florence, 50134 Florence, Italy <sup>3</sup>Sanofi Pasteur, Medical Influenza Franchise, Lyon, France

### INTRODUCTION

- FluCov assesses the impact of SARS-CoV-2 and its prevention and control measures on the global circulation of influenza
- Epidemiological data on SARS-CoV-2 and influenza activity, as well as prevention and control measures applied, are being collated for 20 countries
- Information is presented monthly through the winter months via an EpiBulletin

### **METHODS**

### Scope

- June 2021 EpiBulletin : 11 countries (Canada, US, UK, France, Germany, Italy, Spain, China, Japan, India, Australia)
- September 2021 EpiBulletin: 20 countries (newly included: Mexico, Brazil, Netherlands, Poland, South Korea, Philippines, Thailand, Vietnam, Israel)
- Years: 2019-2021

### Data

- Influenza data (N cases, % positive tests): WHO FluNet [1]
- Sars-Cov-2 data (N cases, % positive tests): OurWorldinData [2]
- Control measures: Oxford COVID-19 Government Response Tracker (OxCGRT) Stringency Index [3]

### RESULTS

Collated data are plotted for each country and updated monthly. Figure 1 shows the number of positive influenza and SARS-CoV-2 cases (top plot) and the percentage of influenza and SARS-CoV-2 positive specimen (bottom plot) for France. The bar in the middle displays the Stringency Index over time. Table 1 shows the absolute numbers for France in September 2021.

### Data sources

[1] WHO FluNet: <u>https://www.who.int/tools/flunet</u>

- [2] Ritchie H, Ortiz-Ospina, E, Beltekian, D, Mathieu, E, Hasell J, Macdonald B. et al. Coronavirus Pandemic (COVID-19). <u>https://ourworldindata.org/coronavirus</u>
- [3] Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford. <u>https://www.bsg.ox.ac.uk/research/research-projects/covid-19-</u> government-response-tracker

### **RESULTS (CONTINUED)** June 2021 EpiBulletin

- In the majority of countries, the expected influenza peak during the 2020 (Southern Hemisphere) and 2020/21 (Northern Hemisphere) winters was not observed
- Only some influenza activity across the season in India and China
- The number of SARS-CoV-2 cases rose, most countries showed two peaks of SARS-CoV-2 in the second half of 2020

### September 2021 EpiBulletin

- No influenza activity in the vast majority of countries, including Australia where no activity was detected during the typical Influenza epidemic season
- Clear influenza activity only detected in India (dominant virus: mix of influenza A (H3) and influenza B-Victoria) and China (dominant virus: influenza B-Victoria)
- Increase in SARS-CoV-2 cases in the majority of countries in the second half of 2021

All EpiBulletins are publicly released through: <u>https://bit.ly/EpiBulletin</u>

### CONCLUSION

- The EpiBulletins show a global decline of influenza activity since the start of the SARS-CoV-2 pandemic
- SARS-CoV-2 control measures (e.g. non-pharmaceutical interventions) have had direct effects on influenza outbreaks
- Many countries are currently loosening prevention and control measures, which may explain the overall increase in SARS-CoV-2 infections in the second half of 2021
- Upcoming monthly FluCov EpiBulletins will track the effect of loosening measures on influenza activity in the coming months

## Table 1: Absolute numbers for France, September 2021

Country	Year	SARS-CoV-2 cases	Influenza cases
France	2019	-	25.405
	2020	2.677.660	16.589
	2021	4.715.055	20











https://www.nivel.nl/en/flucov

- 500,000 컱 400,000 - 300,000 🗲 - 200,000 🎴 - 100,000 Ŏ 2019-07 2020-01 2021-01 2020-07 Date 2019-07 2020-01 2020-07 2021-01 Date **Funding:** The FluCov project is funded by Sanofi Pasteur via a collaboration agreement.

Figure 1: Influenza and SARS-CoV-2 activity - France, 2019-2021