

# SYNDROMIC SURVEILLANCE IN PRIMARY CARE, an early warning system for pandemic preparedness

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Development of a standardized and automated syndromic surveillance tool for infectious diseases in Belgian General Practices

## TOOL NEEDED FOR TIMELY DETECTION OF POTENTIAL INFECTIOUS PUBLIC HEALTH THREATS

- Respiratory pathogen epidemics and pandemics are inherently **unpredictable** and **recurrent**
- Their **impact** on health care, human health and economic activity is significant
- **Early detection** is key to take appropriate measures
- **Primary care data** can provide early information on public health events

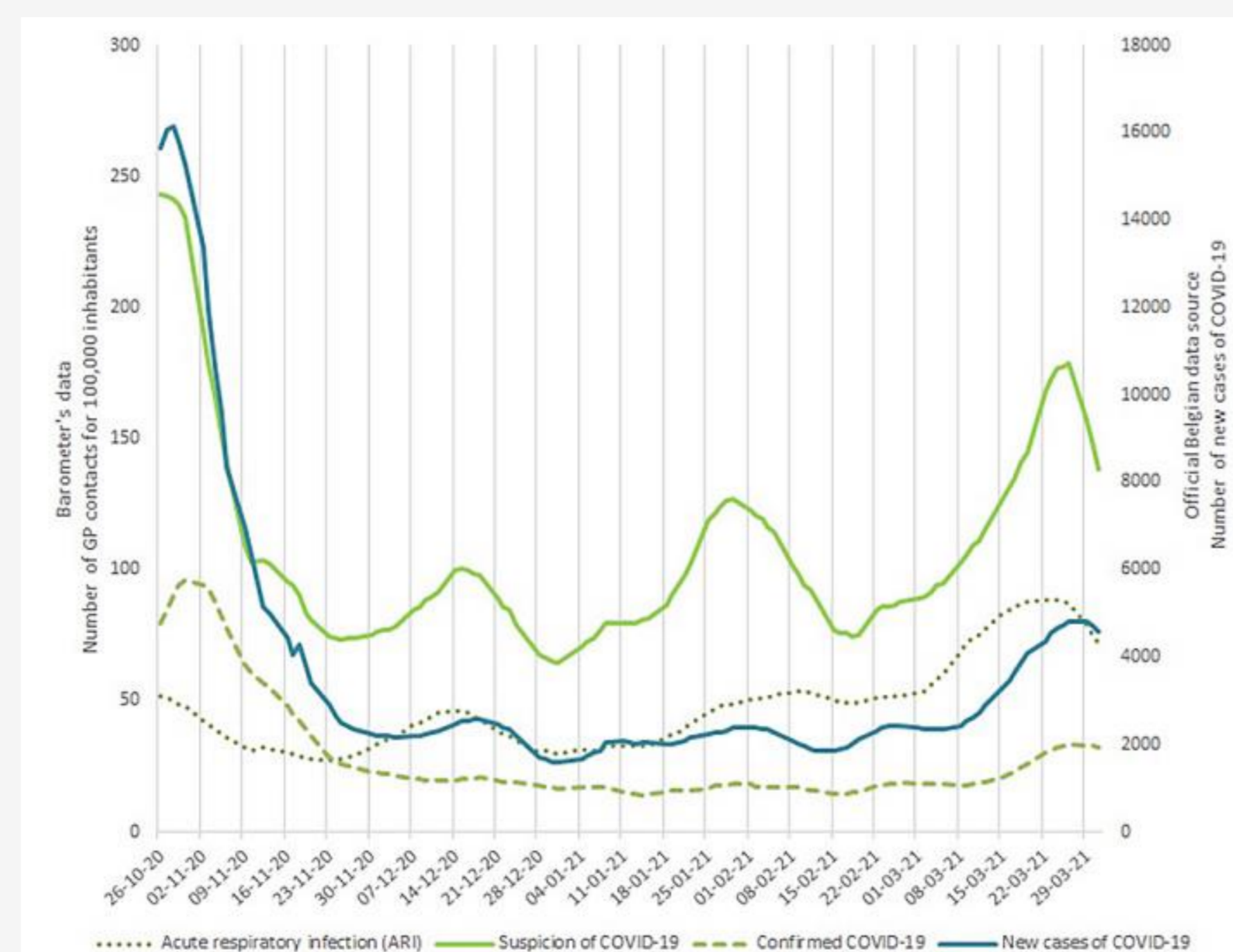


## THE COVID-19 GP BAROMETER provides timely and useful information + supported decision-making during the COVID-19 pandemic.

- ✓ Semi-automated data collection
- ✓ Daily extraction from the Electronic Medical Records (EMR) and transfer via Electronic Forms (eForms)
- ✓ Provides the daily number of GP contacts for COVID-19, acute respiratory infections, influenza-like illness and viral syndromes

- **Positive feedback** from GPs and stakeholders
- Fast and **easy implementation**
- **Rapidly available data**

The curve of contacts for suspected COVID-19 followed a **similar trend** compared with the curves of the **official Belgian data sources**



## THE INFECTION GP BAROMETER, an enhanced version of the COVID-19 GP barometer, is being developed. (GP = General Practitioner)

- ✓ Fully automated data collection
- ✓ Daily automated extraction from the EMR and transfer (no eForms)
- ✓ Surveillance of a proxy for episodes instead of contacts
- ✓ Broader infections and symptoms selection included
  - Acute Gastroenteritis
  - Sexual transmitted infections
  - Vaccine preventable disease
- ✓ Age categories implementation:
  - <1, 1-4, 5-14, 15-19, 20-29, 30-39, 40-49, 50-64, 65-84, >84 Y

## ADDED VALUE FOR POLICY MAKERS

- Rapid and cost-effective surveillance tool
- Applicable on a **large scale**
- **Early identification** and **monitoring** of infectious diseases **outbreaks** to support evidence-based decision-making
- Possible use as an **indicator** in the 'Respi radar' tool of the national Risk Assessment Group



### REFERENCES

- Vos B, Debouverie L et al. Monitoring COVID-19 in Belgian general practice: A tool for syndromic surveillance based on electronic health records. *European Journal of General Practice*. 2024;30(1):2293699.
- Nielen M et al. Estimating Morbidity Rates Based on Routine Electronic Health Records in Primary Care: Observational Study. *JMIR Med Inform*. 2019 Jul 26;7(3):e11929.

### ACKNOWLEDGEMENTS

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