

Surveillance using routine general practice data

The added value of free-text descriptions

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Background

Real-time surveillance of infectious diseases important for timely detection of outbreaks and effective control measures

Electronic health records in primary care provide good information on the health of the Dutch population

Diagnosis codes not yet available for new (infectious) diseases

Aim

To evaluate the usefulness of the free-text descriptions that are recorded with the diagnosis by general practitioners (GPs) for the surveillance of infectious diseases with pandemic potential

Methods

- Electronic health records from ~400 general practices participating in Nivel Primary Care Database
- Weekly automated data extraction
- Analysis and interpretation of health problems recorded by ICPC codes
- Review of free-text descriptions of these diagnoses

Results

- Mpox:** ~4 million records of ~800.000 patients showed no indications for mpox cases
- Gastro-enteritis:** information on (possible) cause for 11/555 (2%) patients
- COVID-19:** useful weekly indicators for surveillance with free-text descriptions

COVID-19

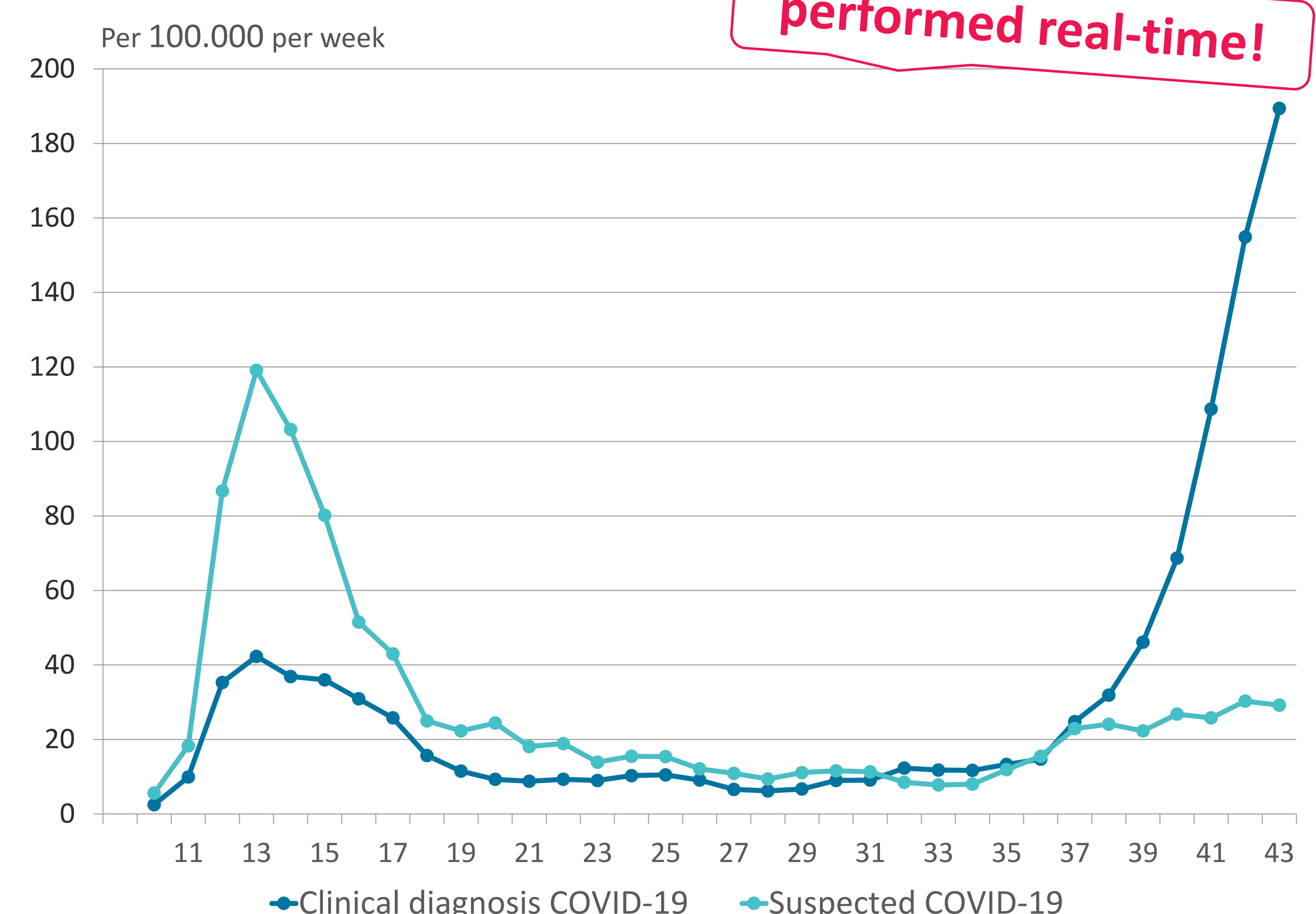
- Diagnoses of respiratory infections or symptoms, Feb-Oct 2020
- Professional guidelines for free text
- Search for 'covid', 'corona', 'sars'

Mpox

- Search for 'pox' or 'pok' in all diagnoses, Apr-May 2022

Gastro-enteritis

- D73 'Gastroenteritis, presumed infection' in children 5-14 years, Mar-Apr 2022
- Search for more specific diagnosis or pathogen



Conclusions

- In general, GPs make limited use of the option to add free-text descriptions to ICPC-coded diagnoses.
- However, for COVID-19, there were specific recommendations by the Dutch College of General Practitioners at the beginning of the pandemic, that facilitated real-time monitoring in primary care.

important lesson learned for pandemic preparedness