

Key Messages

Background and Context

Pandemic surveillance is essential for detecting, monitoring, and responding to outbreaks of infectious diseases. Effective surveillance systems integrate various methods to track disease trends, assess healthcare burden, and guide public health interventions. In Switzerland, surveillance of illness caused by the three respiratory pathogens with greatest potential for pandemics and/or the largest burden of disease, SARS-CoV-2, influenza and RSV, relies on multiple complementary systems. The Swiss Sentinel Surveillance System (Sentinella) monitors acute respiratory infections and influenza-like illnesses through a network of general practitioners. This system is complemented by the Mandatory Reporting System and wastewater surveillance. Hospital-based surveillance (CH-SUR) was also used to detect severe cases of COVID-19 and influenza during the COVID-19 pandemic. During the COVID-19 pandemic, various other initiatives were set up by research institutions to supplement the core surveillance activities, for example, the Corona Immunitas network set up seroprevalence and related studies throughout Switzerland.

The Issue

While Switzerland has a strong surveillance system for respiratory diseases, we identified several key issues that should be addressed to strengthen pandemic preparedness, notably:

- Gaps in surveillance
- Limited connection between academia and public health administrations
- Low public trust and support

Policy options for Action

Policy option 1: Expand surveillance

To improve early detection and situational awareness in Switzerland, the following activities could expand the surveillance infrastructure:

- Improve Sentinella GP network participation by increasing GP recruitment and streamlining data collection
- Implement community-based participatory surveillance through expanding initiatives like GrippeNet would help capture data on symptomatic individuals who do not seek medical care
- Consider reintroducing semi-regular sero-epidemiological surveys across language regions
- Enhance surveillance in specific populations, e.g. persons living in nursing homes
- Introduce hospital-based syndromic surveillance by establishing a Severe Acute Respiratory Infection (SARI) syndromic surveillance system in hospitals

Policy option 2: Bridge the gap between administration and academia

A structured body that improves coordination between academia and public health authorities could be established. This vessel would facilitate regular discussions to align research with policy needs and ensure effective surveillance strategies while reducing working in silos.

Policy option 3: Build public trust

To build public trust and increase acceptance of health surveillance measures, targeted surveys would characterize public knowledge, beliefs, and concerns. This would help identify misconceptions, awareness levels, participation barriers, and trusted information sources. Organizations like the Swiss Centre of Expertise in the Social Sciences (FORS), that are experienced in national population-based surveys, could lead this effort. The findings would guide cost-effective communication strategies and tailoring outreach to skeptical persons or groups with lower public trust.

Implementation Considerations

Barriers to implementation include:

- Unclear perceived benefit to improve surveillance and get involved in participatory surveillance in general public
- Lack of resources, including human resources and time to set up new surveillance systems
- Limited prioritization of pandemic preparedness

Facilitators to implementation include:

- Use existing networks, such as professional networks (e.g. MFE; Medix), to engage general practitioners to participate in Sentinella
- Leverage expertise from Corona Immunitas seroprevalence studies to help set up new seroprevalence studies
- Use existing networks such as SSPH+ to help bridge the gap between academia and administration
- Build on existing surveillance systems for specific populations (for example the SURPRISE+ healthcare worker cohort)