

Recommendations for Biosecurity

Pour Demain is a non-profit think tank dedicated to a safe and positive future for our children, grandchildren and their descendants. Biosecurity and pandemic preparedness are among our focus areas. We are committed to effective and evidence-based policy.

The next pandemic is only a matter of time. To prevent and fight epidemics and pandemics, Switzerland needs versatile and complementary tools. Switzerland has what it takes to position itself as a leader in pathogen surveillance. Investing in pandemic preparedness is worthwhile because it reduces high societal and economic losses.

Pour Demain's recommendations for biosecurity take into account the entire chain of action: **Prevent** → **Detect** → **Respond**

Prevent

- **Implement capacity building program for biosecurity and biosafety:** Switzerland is launching a [training program](#) to support capacity building in countries with increased biological risks.
- **Strengthen Biological Weapons Convention:** Additional staff foster the implementation of the Biological Weapons Convention in Geneva, which monitors biological weapons.
- **Cooperate internationally:** Funding for international pandemic prevention should become an integral part of the Epidemics Act and will be independent of development cooperation (e.g. [CEPI](#), [FiF World Bank](#)). Switzerland supports the WHO and the future [WHO treaty](#) on Pandemic Prevention, Preparedness and Response as a leading [actor](#).
- **Global health** remains a focus of international cooperation, as strong health systems in the poorest countries also protect Switzerland.
- **Animal-human interface:** Switzerland is internationally committed to reducing production practices that are linked to disease outbreaks.
- **Increase laboratory safety:** Switzerland strengthens safety in safety level 3 and 4 laboratories, similar to the safety culture in aviation (in particular through unannounced audits at least every two years, transparent reporting of incidents, and personnel security checks).
- **Solid planning:** The federal government's [pandemic scenarios](#) are based on international best practices and are not too optimistic, especially the extreme scenario.

Detect

- **Institutionalize wastewater monitoring:** Continue monitoring of pandemic pathogens in [wastewater](#) and expand beyond SARS-CoV-2 to include other pathogens (based on the [SARS-CoV-2 monitoring](#) and [research project](#)).
- **Systematic sequencing:** Pathogens from wastewater, hospitals and medical facilities should be systematically sequenced. To this end, Switzerland is launching a national sequencing program for the early detection and monitoring of pathogens with high pandemic or public health potential (e.g. based on the national [SARS-CoV-2 monitoring program](#)).

- **Promote Sentinella reporting system:** [Syndromic surveillance](#) of pathogens through hospitals and clinics is developed (including through expansion and representative distribution of physicians' offices and rapid adaptation of the reporting form to new pathogens). Animal disease outbreaks will also be monitored, as they often precede human disease.
- **Institutionalize genomic data platform:** Switzerland has a genomic data platform in place for the long term (e.g. [Swiss Pathogen Surveillance Platform](#)).
- **Ensure electronic data input:** Electronic reports on pathogens replace email/fax. Pathogens that must be reported within 2 hours will continue to be reported by telephone as required.
- **Enable pathogen-agnostic screening:** Pathogen-agnostic technologies, such as metagenomic sequencing, have a great potential for the most effective screening of pathogens and should be enhanced.
- **Monitor strategic sites:** Pathogens often spread at hubs such as airports, tourist sites, retirement homes or hospitals. Therefore, Switzerland should examine the benefits of monitoring at strategic locations.
- **International surveillance and response:** Switzerland ensures that it has access to the epidemiological data of its neighbor states in normal situations and that cooperation is guaranteed in crisis situations (e.g. access to the [European Early Warning and Response System](#), transfer of patients with [EU Health Emergency Preparedness and Response Authority](#), higher contributions to [WHO contingency fund](#)).

Respond

- **Simplify vaccination admission:** In exceptional cases, Switzerland can approve vaccines such as medicines without an application from the manufacturer, as long as they have already been approved in other Western countries.
- **Regularly rehearse crisis situations:** Pandemics will continue to be regularly rehearsed with the involvement of all federal levels.
- **Clean the air:** Critical infrastructures install air purification systems to remain functional in a pandemic (e.g., HEPA14 filters or, in the future, [Long UV-C](#)).
- **Secure hospital capacities:** Civilian and military hospital capacities are regularly analyzed for pandemic scenarios and published (e.g. number of intensive care units).
- **Security of supply:** The federal government and the cantons regularly verify the availability of the prescribed protective material in good quality in stock and report accordingly. Production and supply chains are prepared for trade disruptions.
- **Guarantee crisis organization:** The Confederation and the cantons strengthen [crisis organization](#) and cooperation with the help of a clear and centralized [management organization](#).
- **Establish cohort studies:** With the help of a cohort as a [research platform](#), Switzerland can quickly conduct studies on novel pathogens.