

# COVID-19 HEALTH INFORMATION SYSTEM ASSESSMENTS

## Sustainability Fact Sheet

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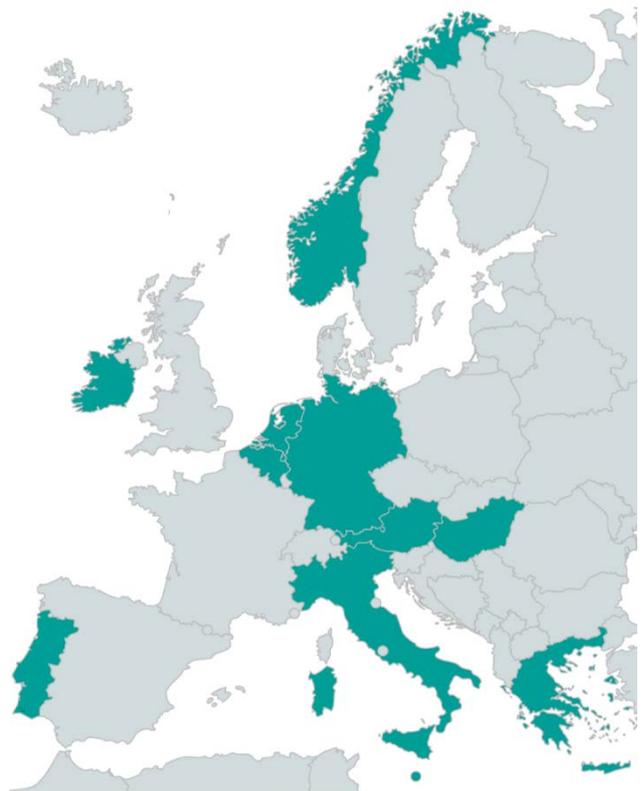
Reviewed by Claudia Habl, GÖG, Austria

Conducting assessments is vital to enhance the comprehension and effectiveness of Health Information Systems (HIS). These assessments offer valuable insights into the HIS's strengths and weaknesses, revealing gaps and bottlenecks that could impede the timely and accurate handling of health data. Within PHIRI, [the Population Health Information Research Infrastructure](#), COVID-19 HIS assessments were performed aiming at mapping the COVID-19 HIS monitoring the effect of the pandemic on population health.

### WHICH COUNTRIES WERE PART OF THE COVID-19 HIS ASSESSMENTS?

The assessments took place between January 2022 and April 2023 and were performed through 90 expert interviews in eight European countries: Belgium, [Italy](#), [Hungary](#), [Ireland](#), [Malta](#), the Netherlands, Norway and [Portugal](#). The figure on the right shows the countries that were involved in this exercise and the ones where the assessments were performed.

The PHIRI team created an adapted version of the [Health Information System assessment tool](#) developed by the WHO Regional Office for Europe, focusing on COVID-19 HIS monitoring the effect of the pandemic on population health. After attending a series of workshops, PHIRI assessors from several countries performed targeted interviews with key national players that process or govern COVID-19 population health information. A [detailed manual](#) explains the procedure followed in the assessments. The following domains were covered: data collection and data sources, data analysis and data management, development and use of indicators, human and technical resources, knowledge translation, reporting and dissemination.



### WHY COVID-19 HIS ASSESSMENTS?

The assessments aimed to:

1. Identify **strengths and weaknesses** of data flows across HIS monitoring the (broader) effects of COVID-19 in the examined countries.
2. Provide opportunities for countries to **learn from the experiences** gained during the assessments, and build on these when assessing their own HIS/ HI data flows.
3. Identify **data sources** (e.g. from the private sector or new data linkages) that may not have been used or fully exploited yet.
4. **Create opportunities for engagement and knowledge exchange** with national stakeholders and authorities.
5. **Support capacity building** across Europe, which in turn can contribute towards reducing HI inequalities within and between countries.
6. Provide key recommendations for building **resilient HIS** and **increase preparedness** for future crises.

## WHAT WERE THE MAIN OUTCOMES OF THE COVID-19 HIS ASSESSMENTS?

This exercise resulted in the publishing of a one-pager for each country (when the country allowed), a confidential detailed country report and a scientific publication “COVID-19 health information system assessments in eight European countries: identified gaps, best practices and recommendations” which will be published in early 2024 as part of a PHIRI Special Edition on the European Journal of Public Health. The main messages of the exercise can be summarized as follow:

1. **Leveraging COVID-19 lessons:** Countries can improve their health information infrastructure's resilience, efficiency and responsiveness by applying the knowledge gained from the COVID-19 pandemic. This will enhance their ability to effectively tackle future health threats.
2. **Building robust HIS:** Strengthening HIS necessitates the adaptation or creation of pandemic readiness plans, reinforcement of legal frameworks for data sharing and privacy protection, advocacy for data standards and definitions, and the implementation of a unique personal identifier.
3. **Working in a post-pandemic era:** In the aftermath of the pandemic, nations must integrate newly developed systems and innovations into existing structures. They should also maintain and cultivate trust among citizens through transparent communication.
4. **Bridging Resource Gaps:** To support overall healthcare capacity and preparedness, addressing resource deficits is crucial. This entails investing in IT expertise, training healthcare professionals in digital skills, and promoting data-driven decision-making.

## WHAT IS NEXT?

Continuing to conduct HIS assessments is of paramount importance to **strengthen pandemic resilience** and **national HIS capabilities**. These assessments can function as indispensable diagnostic tools for pinpointing vulnerabilities and weaknesses within national health systems, thereby presenting valuable opportunities for improvements. They not only enable health and healthcare infrastructure to adapt to evolving or emerging threats but also provide a means to **evaluate the changes** implemented since the previous assessment. While the current assessments were limited to the context of COVID-19 HIS, the expertise gained in organising and executing such exercise will be leveraged in the [European project EU Interoperability with the HERA's IT platform \(EU-HIP\)](#). In this collaborative initiative with [HERA](#), in-depth assessments will be undertaken in Croatia, Lithuania, Denmark and Iceland on information systems that collect intelligence on pathogens with the high pandemic potential, antimicrobial resistance, Chemical, Biological, Radiological, and Nuclear (CBRN) threats, and medical countermeasures.

## WHAT EVENTS WERE ORGANISED ABOUT THE COVID-19 HIS ASSESSMENTS?

The COVID-19 HIS assessments were showcased in multiple events, partly in collaboration with the [TEHDAS](#) (Towards the European Health Data Space) Joint Action and were widely attended.

- [European Public Health Week 2022](#)
- [Midterm project multi-stakeholder meeting 2022](#)
- [World Congress on Public Health 2023](#)
- [European Conference on Public Health 2023](#)

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