

POPULATION HEALTH INFORMATION RESEARCH INFRASTRUCTURE (PHIRI)

Health is a cross-border issue, recently demonstrated by the COVID-19 public health crisis. Especially in the area of **population health, a structured European mechanism for COVID-19 exchange** to organize and share information between countries is urgently needed. PHIRI allows for better **coordinated European efforts** across national and European stakeholders to generate the best available evidence for research on health and well-being of populations as impacted by COVID-19 to **underpin decision making**. In doing so, PHIRI lays the foundation for a federated research infrastructure on population health.

PHIRI aims to facilitate and support open, interconnected, and data-driven research through the sharing of cross-country COVID-19 population health information and exchange of best practices related to identification of data sources, access, assessment and reuse of data on COVID-19 determinants, risk setting and outcomes following ELSI and FAIR principles. PHIRI for COVID-19 has the following objectives:

1. To provide a **Health Information portal for COVID-19** with FAIR catalogues on health and health care data for structured information exchange across European countries. It facilitates access to and use of COVID-19 relevant population health and care data provided by EU countries' public health bodies represented in the PHIRI applicant consortium. It provides the services and tools necessary for researchers to link different data sources and to use Pan-European data in a GDPR compliant, federated way.
2. To provide **structured exchange between countries** on COVID-19 best practices and expertise. PHIRI shares public health and clinical management information and methodologies identified and allows researchers to provide relevant and evidence based information ready for use in research, and decision-making processes by citizens, clinicians, public health practitioners and policy makers.
3. To **promote interoperability and tackle health information inequalities**. PHIRI supports researchers and public health bodies to research queries related to COVID-19. It provides capacity building for management of COVID-19 relevant population health and healthcare data starting from the phase of designing data collections to analysis, reporting and preservation. Training of the health research community involves both the data producers and data users.

To this end, PHIRI builds with national nodes a **Health Information Portal (WP4)** on data sources, population health studies, training material and courses, considering ethical and legal aspects. The portal is supported by **WP7** that provides the technological substrate for the development of a **federated research infrastructure**. **WP5** develops a consolidated framework to assess the direct and indirect **impacts of COVID-19** on population wellbeing, morbidity and mortality. **WP6** looks at COVID-19 impacts in specific subgroups by conducting research through **use cases of immediate relevance** and facilitates research by making scalable, reproducible methods available within PHIRI. In **WP8**, the **RapidExchange Forum**, provides swift responses to research and policy questions that are raised in countries to handle the COVID-19 pandemic. **WP9** gains insights in **possible future health impacts** of the COVID-19 outbreak by modelling scenarios for national situations. This will be carried out in **close collaboration** with different types of actors and initiatives across Europe (**WP3**).

Ultimately, PHIRI represents an opportunity to pilot the premises of a **sustainable federated research infrastructure on population health** - thereby increasing national and European pandemic **preparedness** through research. An integrated and sustainable EU-wide population health information system facilitates better **harmonized response** at EU level to the COVID-19 pandemic with far-reaching repercussions on citizens' health, wellbeing, mobility, and employment.

Timeline: 1 Nov 2020 – 3 years

Financing: DG RTD – 5M€

Coverage: 41 partners in 30 countries

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