PHIRI
Population Health Information
Research Infrastructure

#PHIRI3YEARS
CONFERENCE

From data to
public health actions!

22.09.2023 - Brussels

PHIRI anniversary conference: From data to public health actions!

The **Population Health Information Research Infrastructure** (PHIRI) facilitates and generates the best available evidence for research on the health and well-being of populations impacted by COVID-19. PHIRI has been running for three years bringing together key experts in health information across Europe from 30 countries and 41 organisations. On the 22nd of September, PHIRI has its final event where key topics will be discussed that are at the core of its activities:

1) **Powerful tools to boost the reuse of health data:** FAIR catalogues and federated architecture: we will explore how (population) health data can be made more Findable, Accessible, Interoperable and Reusable for research and policy making, and how PHIRI contributes to this aim through the European Health Information Portal and its federated infrastructure for population health research.

2) **Strengthening the European health workforce:** Short pitch and front-row comments on PHIRI capacity building activities, such as the European School on Health Information, and the Public Health Foresight studies training.

3) **Building stronger health systems:** here we cover two important PHIRI's activities: the assessment of national health information systems, and the work on foresight, modelling and scenarios.

4) **Building collective intelligence:** The PHIRI Rapid Exchange Forum: PHIRI will showcase the experience of its Rapid Exchange Forum and how it allows to provide a rapid exchange of information across countries during crisis times (COVID-19) and in peacetime.

September 22, 2023 | Location: Brussels, Townhall Europe

#PHIRI3years

Programme

9:00 **Registration and coffee**

9:30 **Opening**
*Opening remarks by **Dirk Ramaekers (Federal Public Service 'Public Health')***

9:45 **Keynote address | PHIRI: From data to public health actions!**
*Speaker: **Nienke Schutte (Sciensano)***

10:00 **Powerful tools to boost the reuse of health data**
Highlights of PHIRI:
- **Hanna Tolonen (Finnish Institute for Health and Welfare - THL)**
- **Enrique Bernal-Delgado (Health Sciences Institute in Aragon - IACS)**

Panel:
- **Jerome de Barros (European Commission - DG SANTE)**
- **Jana Makedonska (European Health and Digital Executive Agency - HaDEA)**
- **Niklas Blomberg (ELIXIR)**

10:45 **Intermezzo: Strengthening the European health workforce**
Pitch:
- **Luís Lapão (Nova University Lisbon - UNL)**
- **Mariana Peyroteo (Nova University Lisbon - UNL)**

Front-row comments:
- **Robert Otok (Association of Schools of Public Health in the European Region - ASPHER)**
- **Matthias Wismar (European Observatory on Health Systems and Policies - OBS)**

11:00 **Coffee break**

11:30 **Video: PHIRI achievements**

11:35 **Building stronger health systems**
Highlights of PHIRI:
- **Henk Hilderink (National Institute for Public Health and the Environment - RIVM)**
- **Miriam Saso (Sciensano)**

Panel:
- **Bruno Ciancio (European Centre for Disease Prevention and Control - ECDC)**
- **Dimitra Panteli (European Observatory on Health Systems and Policies)**
- **Eric Sutherland (Organisation for Economic Co-operation and Development - OECD)**
- **Maria Daniel Loureiro (European Commission - DG HERA)**

12:20	**Intermezzo: Building collective intelligence: the PHIRI Rapid Exchange Forum**
	Pitch:
	• **Claudia Habl (Austrian National Public Health Institute - Gesundheit Österreich - GÖG)**
	Front-row comments:
	• **Jorgen Stassijns (Sciensano)**
	• **Neville Calleja (Ministry for Health, Malta)**

12:35	**Wrap-up and closing**
	*Presented by **Andreas Holtel (European Research Executive Agency – REA)** and **Nienke Schutte (Sciensano)***

12:45	**Networking lunch**

*The event will be moderated by **Petronille Bogaert (Former principal investigator of PHIRI at Sciensano, since 1/09/23 Policy Officer B2 Health Security DG SANTE European Commission***

Speakers

Opening ad keynote address:

@DirkRamaekers
@SanteBelgique
@be_gezondheid

Dirk Ramaekers is the chairman of the management committee of the Federal Public Service Public Health (Belgium). During the COVID-19 pandemic, he served as the Head of the Task Force for COVID-19 Vaccination Strategy. Previously, he was a professor at KU Leuven and was associated with the Leuven Institute for Health Policy. Dirk specializes in general internal medicine, with a special focus on infectious diseases, emergencies and intensive care. He has a PhD in pharmacology and has been active in health care management and policy for 20+ years. He has also trained doctors and other professionals in evidence-based health care and leadership.

@Nienke_Schutte
@sciensano
@EU_HIS_Unit

Nienke Schutte is the Head of the EU Health Information System unit at Sciensano, which facilitates the exchange of health information across Europe by leading and participating in major European projects in health information. She holds a PhD degree in behavioural genetics. In 2018, she started working at Sciensano, the coordinating institute of PHIRI, the European Population Health Information Research Infrastructure. Her work focuses on facilitating the exchange of health information across Europe in a FAIR manner, aiming to build a sustainable pan-European research infrastructure to support population health research and evidence-based policy-making.

Panel 1: Powerful tools to boost the reuse of health data

Hanna Tolonen is a RDI Programme Director at the Finnish Institute for Health and Welfare (THL), Finland. She has significant experience working on collection and harmonization of health information across countries, and has worked on several health information related international projects. She has a PhD in Public Health and Adjunct Professorship in Public Health at the University of Eastern Finland. She is a vice-president of the EUPHA section of Public Health Monitoring and Reporting and member of Steering Committees of several European and national projects.

@tolonen_hanna
@THLorg

Enrique Bernal-Delgado is specialised in Public Health. In 2003, he founded the Data Science for Health Services and Policy research group at the Institute for Health Sciences in Aragon (IACS). Research areas of interest are the study of health systems performance, the effectiveness of real-life interventions and advanced methodologies for the reuse of massive real-world data. He is actively participating in the development of the European Health Data Space and the Health Research and Innovation Cloud.

@atlasvpm
@iacs_aragon

Jerome de Barros is policymaker at the European Commission (DG SANTE) with 10+ years of experience in Digital Health programmes and policies. He is developing the European Health Data Space (EHDS) legislation and IT infrastructures with a focus on data quality aspects, research and innovation, and secondary uses of data. Prior to joining the Commission, he was Data Driven Innovation Lead for Health & Care at the University of Edinburgh, working, among other projects, on the set up of the DataLoch, bringing together and leveraging health and social care data for the South-East Scotland region.

@jdebarros28
@EU_Health

Niklas Blomberg is director of ELIXIR, the pan-European, distributed research infrastructure for the sharing of life-science data. Dr. Blomberg holds a PhD from the European Molecular Biology Laboratory (EMBL), Heidelberg. He was previously Principal Scientist and Team Leader in Computational Chemistry at AstraZeneca R&D in Sweden. He has also previously been an industry advisor in national eScience initiatives and an active participant in cross-country research programmes.

@NBlomberg
@ELIXIREurope

Jana Makedonska works as a Programme Manager at the Health Research Unit of the European Health and Digital Executive Agency (HaDEA). Her research focused on multivariate inferential statistics and 3D geometric morphometrics. Her private sector experience centered on data standards and analytics and until recently, she was the policy officer principally in charge of the health data policy of the People Directorate at DG Research of the European Commission.

@EU_HaDEA

Intermezzo 1: Strengthening the European health workforce

Luís Velez Lapão is a Professor of Global Digital Health at the Universidade Nova de Lisboa and the Coordinator of the DiSHC Digital & Smart HealthCare Laboratory. He is the Head of WHO Collaborating Center for Health Workforce Policy and Planning. He was appointed to the Technical Advisory Group on Health Emergency Preparedness, Response, and Resilience in the WHO European Region (Preparedness 2.0). Luís holds a PhD in Systems Engineering (Smart Healthcare) from the Technical University of Lisbon and Habilitation on Healthcare Information Systems. He works in the areas of innovation and digital public health, with emphasis on capacity strengthening,

@NOVAunl

preparedness and resilience, implementation science, foresight and smart decision-making systems.

Mariana Peyroteo is a researcher with a master's in Public Health and Development. Her work focuses on Digital Health and Health Information Systems, with the goal of estimating the value of information in Digital Primary Health Care. She is currently enrolled in the PhD Program in Industrial Engineering with a specialization in Health Information and Technologies.

@marianapbs96
@NOVAunl

Robert Otok is the Director of the Association of Schools of Public Health in the European Region (ASPHER).

@ASPHERoffice

Matthias Wismar is a Programme Manager at the European Observatory on Health Systems and Policies based in Brussels. He holds a PhD in Political Science from Goethe University Frankfurt (Germany). His work focuses on health policy, politics and governance, the health workforce, European integration and intersectoral action and the Sustainable Development Goals. He is developing studies, policy briefs, rapid responses and face-to-face dissemination and knowledge brokering formats. In recent years, Matthias has focused his activities as a knowledge broker on Health in All Policies (HiAP), health impact assessment (HIA), Health for All (HFA) and health targets, among others.

@matthiaswismar
@OBShealth

Panel 2: Building stronger health systems

Henk Hilderink is a Senior Scientific Advisor in Population Health Foresight at the Dutch National Institute for Public Health and the Environment (RIVM). He has been working at RIVM since 2014 and was project leader of the Public Health Foresight Study (VTV) 2018. Before that, he worked for the Netherlands Environmental Assessment Agency (PBL), the Netherlands Interdisciplinary Demographic Institute (NiDi) and the Department of Public Health at the Erasmus University Rotterdam. Henk studied Mathematics at Radboud University Nijmegen, and obtained his PhD in Demography at the University of Groningen. His research focus is on integrated population and health scenarios, and he holds expertise in foresight and scenario development, burden of disease, demography and health modelling.

@rivm

Miriam Saso is researcher and project manager at Sciensano, the public health institute in Belgium for PHIRI and the EU interoperability with HERA's IT platform project. She has a background in European Public Health and a Master degree in Healthcare Policy, Innovation and Management. Her current work focuses on the assessment of health information systems as impacted by COVID-19 and on the implementation of the FAIR Data Principles to support the reusability of digital assets.

@SasoMiriam
@sciensano
@EU_HIS_Unit

Bruno Ciancio is the Head of Surveillance Section at the European Centre for Disease Prevention and Control (ECDC) and holds 20+ years of experience in infectious disease and epidemiology research and surveillance. During the pandemic, he was the head of the ECDC COVID-19 team, and worked on coordination of surveillance, microbiology, preparedness and response, infection prevention and control, among others. Bruno holds a medical degree from Università Cattolica del Sacro Cuore (Italy) and a Master in Epidemiology from the London School of Hygiene and Tropical Medicine.

@ECDC_EU

Maria Daniel Loureiro is Intelligence Analyst at the Intelligence Gathering, Analysis and Innovation unit of DG HERA (European Commission). She contributes to the development of ATHINA - Advanced Technology for Health Intelligence and Action IT System, while also being a member of the Environmental Threats team. Maria holds a Bachelor's degree in Computer Engineering from the Polytechnic Institute of Porto, as well as a Medical Degree from the University of Porto and a Master's degree in International Health Policy from the London School of Economics. Currently, she is pursuing a PhD in Health Data Science from the University of Porto. Her research focuses on exploring the role of digital health interventions to mitigate the impact of extreme heat on cardiovascular mortality.

@DMLoureiro
@EC_HERA

Dimitra Panteli leads the work on implementing innovation at the European Observatory on Health Systems and Policies. Her work aims to support evidence-informed health policy and health care, primarily in Europe. Before joining the Observatory, Dimitra was a senior researcher at the Department of Healthcare Management at the Technische Universität Berlin, focusing on health systems research and Health Technology Assessment. Dimitra studied medicine (Aristotle University of Thessaloniki, Greece) and public health (Charite Universitätsmedizin Berlin & Technische Universität Berlin).

@dimitrapanteli
@OBShealth

Eric Sutherland is a Senior Health Economist leading the Organisation for Economic Co-operation and Development (OECD)'s work in Digital Health, bringing together policy guidance for digital tools, integrated data, and responsible analytics including artificial intelligence. In that role, he is accountable for measuring and evolving the OECD's Recommendation on Health Data Governance (2017) and supporting digital health policy. Prior to joining the OECD, Eric led the Secretariat for pan-Canadian Health Data Strategy, bringing together experts and governmental leaders from across Canada to establish an integrated health data ecosystem. Eric authored the Pan-Canadian Health Data and Information Governance Framework and Toolkit and has taught courses in data science, health data governance, and privacy.

@esutherland272
@OECD

Intermezzo 2: Building collective intelligence - the PHIRI Rapid Exchange Forum

Claudia Habl is working in the field of health care for almost 25 years. She joined the Austrian National Public Health Institute (Gesundheit Österreich GmbH) in 1998 where she worked in the field of health and social care, focusing on big data, public health, health systems performance, health policy, medicines and medical devices. Her current position is Head of International Affairs and Consultancy Department. Claudia has more than a decade of experience in managing, leading and presenting large-scale EU projects. She is also General Secretary of the EURIPID Collaboration and represents Austria in a number of EU activities. She consults to the EU and WHO for a number of topics, including Big Data in Health care, medicine policy, male health and health information.

@CAH_Favoriten
@goeg_at

Neville Calleja is the Director of the Department of Health Information and Research at the Ministry for Health (Malta), and is the Head of the Department of Public Health at the University of Malta. Neville holds 15 years of experience lecturing medical statistics, epidemiology and public health to all health care professionals. He is also active at the European level in the field of Health Information for both the European Commission and WHO, as chair of the European Health Information Initiative within WHO (Europe). Prior to this, he was the first chair of the Small Countries Health Information for WHO (Europe) and is still an active member of the WHO Collaborating Centre for Health Systems and Policies in Small States within the Islands and Small States Institute within the University of Malta. Neville is active on a number of collaborative research projects, particularly in the area of health information.

@nevillecalleja
@DhirMalta

Jorgen Stassijns is the Head of Crisis Coordination and Strategy at Sciensano (Belgium) and Coordinator of the Belgian Risk Assessment Group (RAG). Jorgen is a medical doctor with scientific experience in tropical diseases, public health/disease control and epidemiology. Prior to Sciensano, he worked with the Institute of Tropical Medicine (Belgium) and Médecins Sans Frontières (MSF) in different tropical/humanitarian contexts in Africa, Asia and Europe, covering a broad range of tropical diseases and public health problems. He has worked both as a clinician on the field, as well as a medical coordinator and advisor. Jorgen is an expert in malaria and dengue control, diagnosis, and management, and was also heavily involved in capacity building, education, and research in the field of Antibiotic Resistance.

@sciensano

Moderation and project officer:

Petronille Bogaert is a Policy Officer in the Health Security Unit in DG SANTE at the European Commission. She is working on prevention, preparedness and response planning. Previously at Sciensano, she was a project researcher and head of the EU health information systems unit. Her work primarily focused on European research projects in the area of population health information and the re-use of health data. She coordinated the Population Health Information Research Infrastructure (PHIRI) and was working on the Joint Action Towards the European Health Data Space, EHDS2 Pilot, HERA-IT, BY-COVID and Healthy Cloud. She is a graduate from a double European Master of Public Health. She also holds a Bachelor's and Master's in Biomedical Sciences and has a PhD on the European perspective to support health information systems. She is president of the EUPHA Public health monitoring and reporting section.

@PetronilleBo
@EU_Health

Andreas Holtel is scientific and policy officer at the European Commission's Research Executive Agency. He is the project officer for PHIRI.

@REA_research

PHIRI & Key concepts

When the COVID-19 crisis hit, it showed that a substantial number of European countries had health information systems that were not well equipped to accommodate data and information flows that were needed. Also, rapidly sharing data and information *across* European borders and ensuring comparability of data proved to be difficult. To support the efforts to strengthen health systems in Europe and their preparedness, important lessons can be learned and best practices can be put forward to help countries assess their own response to the COVID-19 pandemic. In times of crisis and beyond, the availability and trustworthiness of **health information** is of great importance. PHIRI is playing a key role in this.

> **PHIRI provides a structured European mechanism for Health Information exchange**

PHIRI facilitates the best available evidence for research on health and well-being of populations impacted by COVID-19. PHIRI allows for better coordinated European efforts across national and European stakeholders to generate the best COVID-19 population health knowledge. PHIRI supports research across Europe through the identification, access, assessment and reuse of population health and non-health data to underpin public health policy decisions.
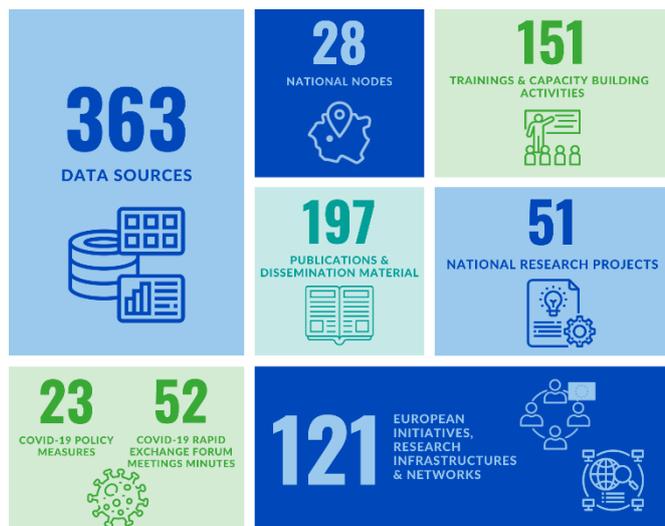
PHIRI increases national and European pandemic **preparedness** through research and policy support. An integrated and sustainable EU-wide population health information system facilitates better **harmonised response** at EU level to the COVID-19 pandemic with far-reaching repercussions on citizens' health, wellbeing, mobility, and employment.

PHIRI covers 30 European countries, partnering with national public health institutes, ministries of health and/or research, research institutes and universities. Learn more about some of PHIRI key activities and topics that will be covered in the event:

> **The European Health Information Portal**

The Health Information Portal is a one-stop shop facilitating access to population health and health care data, information and expertise in Europe.
The Portal includes a metadata catalogue on health data sources, its providers and managers; a metadata catalogue on trainings in all areas of population health information; overviews of EU health information projects; and a dedicated COVID-19 policy measures corner.
The Health Information Portal works towards services and tools necessary for researchers to access and link different data sources and to use Pan-European data in a GDPR compliant, federated way.

363 DATA SOURCES

28 NATIONAL NODES

151 TRAININGS & CAPACITY BUILDING ACTIVITIES

197 PUBLICATIONS & DISSEMINATION MATERIAL

51 NATIONAL RESEARCH PROJECTS

23 COVID-19 POLICY MEASURES

52 COVID-19 RAPID EXCHANGE FORUM MEETINGS MINUTES

121 EUROPEAN INITIATIVES, RESEARCH INFRASTRUCTURES & NETWORKS

Health information system assessments

A **health information system (HIS)** is the total of resources, stakeholders, activities and outputs enabling evidence-informed health policy-making. The health information system manages all types of health data, from EHRs to imaging data and population health data. HIS activities include: data collection, interpretation (analysis and synthesis), health reporting, and knowledge translation, i.e. stimulating and enhancing the uptake of health information into policy and practice.

PHIRI performs country visits, to map 12 national health information systems that monitor the effects of COVID-19 on population health.

Strengths and weaknesses of the COVID-19 health information systems of Member States are identified and recommendations are formulated.

Key recommendations:

- Strengthen health information system elements in **national pandemic preparedness plans**

- Increase potential of **unique identifier** for automated linkage of databases and datasets

- **Include infodemic management** in the overarching health information system strategy

- Increase early **training in data management tools** starting from the undergraduate level
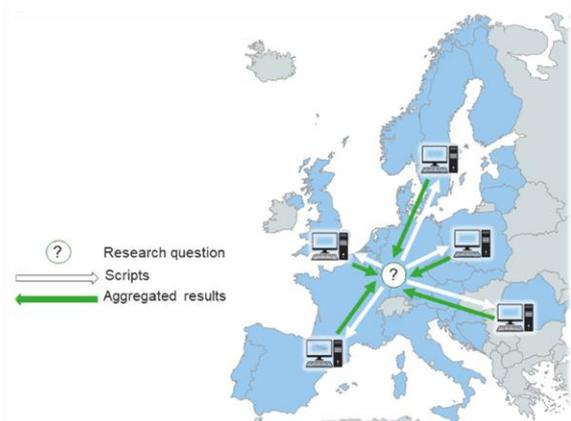
The Rapid Exchange Forum

PHIRI provides a biweekly platform for rapid exchange of policy questions: quick exchange between experts and institutions supporting the national governments in the crisis response. Examples of key topics addressed are long-COVID, COVID-19 legislation for data exchange, digitalization and key COVID-19 statistics such as mortality. Through this unique platform, PHIRI has been able to respond to urgent questions put forward by policy makers for which European response was needed.

Federated research infrastructure

PHIRI develops, implements and deploys a federated research infrastructure that leverages the reuse of real-world data to answer policy relevant research questions on the direct and indirect effects of the COVID-19 pandemic on the European population. The PHIRI federated architecture consists of a number of national nodes (PHIRI partners) and a central orchestrating hub at IACS (Instituto Aragonés de Ciencias de la Salud).

National node

A National Node is an organisational entity, often linked to a national institution or governmental unit that functions as a national liaison and brings together relevant national stakeholders in the country in a systematic way. The national nodes may function as a discussion and advisory forum in matters of health data and information both for national or international matters.

FAIR Data principles

FINDABLE, ACCESSIBLE, INTEROPERABLE, REUSABLE.

Principles to define the Findability, Accessibility, Interoperability, and Reuse of resources for humans and computers at the source.

- **Findable:** Data have sufficiently rich metadata and a unique and persistent identifier.
- **Accessible:** Metadata and data are understandable to humans and machines. Data is deposited in a trusted repository
- **Interoperable:** Metadata use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- **Re-usable:** Data and collections have a clear usage licenses and provide accurate information on provenance.

Secondary use of data – Data re-use

Secondary use refers to using data for a different purpose than the one it was originally collected for (i.e. than the primary use). According to the European Data Governance Act 2020 're-use' means the use by natural or legal persons of data held by public sector bodies, for commercial or noncommercial purposes other than the initial purpose within the public task for which the data were produced, except for the exchange of data between public sector bodies purely in pursuit of their public tasks.

Foresight

Public Health Foresight Studies are essential to gain insight in future health impacts of the SARS-CoV-2 pandemic, e.g. due to changes in regular healthcare delivery, lifestyle, and socio-economic developments. Foresight is a systematic, participatory, and vision-building process that explores the future to anticipate future trends and support present-day actions. PHIRI supports European countries in developing future scenarios to gain insights in possible future health impacts of the COVID-19 outbreak and beyond.