



# PHIRI

Population Health Information  
Research Infrastructure

## Public Health and Social Measures in times of COVID-19 pandemic and beyond: Contributions to the Sustainability Plan

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## List of Abbreviations

HI	Health Information
HIP	Health Information Portal
NPIs	Non-pharmaceutical Interventions
PHIRI	Population Health Information Research Infrastructure
PHSM	Public Health and Social Measures
REF	Rapid Exchange Forum
WHO	World Health Organization
WP	Work Package
EHDS	European Health Data Space

## Executive summary

The Population Health Information Research Infrastructure (PHIRI) on COVID-19 seeks to lay the foundation of a federated research infrastructure on population health to support research across Europe to underpin public health policy decisions in current and future pandemics or crises.

The goal of PHIRI's Work Package (WP) 8 is to establish a sustainable and efficient infrastructure that fosters collaboration between competent authorities, advisors, researchers, and stakeholders for the effective management of the COVID-19 pandemic and beyond, the so-called Rapid Exchange Forum (REF). Details about the REF, its set up, target groups, and purpose can be found here: <https://www.phiri.eu/wp8>

The REF generates and disseminates evidence-based knowledge, whether old or new, among project collaborators, playing a critical role in bridging the gap between emerging policy requirements and evolving evidence, especially in times of crisis. It also offers service functions to all partners and works as a platform for collaboration between them and other European-level networks and tools, thus serving as true coordinated response mechanism.

During the COVID-19 Pandemic, the translation of evidence-based non-pharmaceutical interventions, now called Public Health and Social Measures (PHSM), into implementable decisions for public administrators and their advisors was very important. Thus, the contribution of the REF was vital, and it played a relevant role in improving the response to epidemic events, allowing the quick sharing of evidence among policymakers. As such, this document aims at addressing the sustainability plan for the infrastructure implemented – Rapid Exchange Forum (REF) – contributing to tackling the response to epidemical events by PHSM.

We took into consideration the activities developed under WP8, both on reviewing PHSM evidence and organising the Rapid Exchange Forum and how the Health Information Portal can leverage it. As a result, we propose the development of a sustainability plan to ensure that the REF-related activities and the updating of PHSM evidence continue without interruption.

In conclusion, this report advises PHIRI collaboration to implement the necessary measures to ensure the continued sustainability of these activities. Additionally, it is recommended that the PHIRI collaboration explores alternative funding options such as the EU4Health Work Programme. These actions will contribute to the long-term success of the project and benefit all stakeholders involved.

## Key points

- Specific PHSM measures implemented may vary depending on the nature of the disease, its mode of transmission, the epidemiological situation, the degree of implementation, and whether they were applied individually or in a cluster of measures.
- The REF was timely (with the first meetings in March 2020, even before the EC funding started) and valuable activity to cope with and mitigate the response and improve countries' preparedness. As of September 2023, we have reached the 55<sup>th</sup> REF session.
- It is important to leverage the national knowledge among European member states to continue understanding the different measures' significance over time and to highlight the complex overlapping dimensions of decision-making during a pandemic.

# PHIRI D8.6 – Sustainable Public Health: Rapid Exchange Forum for Social Measures

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## I. Introduction

The Population Health Information Research Infrastructure (PHIRI) is a European project funded under the Horizon 2020 program aimed at building a comprehensive research infrastructure for population health information in Europe.

PHIRI aims to develop and implement an infrastructure that integrates various data sources and research platforms to facilitate population health research. It focuses on harmonizing data collection, improving data quality and interoperability, and promoting data-driven decision-making for public health policy and practice.

- 1. Data Integration:** PHIRI aims to connect and integrate diverse population health data sources, including health registries, surveys, electronic health records and administrative databases. By combining these sources, PHIRI seeks to create a comprehensive and standardized data ecosystem that can support a wide range of research and analysis to contribute to the future of the European Health Data Space (EHDS).
- 2. Interoperability and Data Harmonization:** The project focuses on establishing common data standards and protocols to ensure interoperability between different data sources and platforms. By harmonizing data, PHIRI aims to enable seamless data sharing, analysis, and collaboration across research institutions and countries.
- 3. Data Analytics and Tools:** PHIRI develops advanced data analytics methodologies and tools to support population health research. These include methods for data linkage, data visualization, statistical analysis, and predictive modelling. These tools help researchers and policymakers gain insights into population health trends and identify risk factors.
- 4. Governance and Ethical Considerations:** PHIRI prioritizes ethical and legal frameworks for data sharing and the protection of individual privacy. It promotes transparency, informed consent, and compliance with relevant data protection regulations to ensure the ethical use of population health data.
- 5. Collaboration and Knowledge Sharing:** PHIRI fosters collaboration between researchers, policymakers, and stakeholders across Europe. It facilitates knowledge exchange, capacity building, and the sharing of best practices in population health research. Through collaboration, PHIRI aims to enhance the translation of research findings into evidence-informed policies and interventions.

For the last 3 years, PHIRI has been dedicated to researching COVID-19, and on its impact on Public Health and Social Measures (PHSM), previously non-pharmaceutical interventions (NPIs), related to the pandemic and how it translates to decision-making.

The World Health Organization (WHO) defines PHSM as a range of measures that can be applied individually or collectively to reduce the transmission of infectious diseases and promote health and well-being within communities (World Health Organization, 2023).

PHSM encompass various strategies, including both non-pharmaceutical interventions and pharmaceutical interventions, which may be implemented during outbreaks, pandemics, or other public health emergencies. These measures aim to minimize the impact of both infectious and non-communicable diseases on individuals, communities, and healthcare systems.

Public Health and Social Measures include but are not limited to the ones described in **Table 1**.

*Table 1 – Public Health and Social Measures*

<b>Clusters</b>	<b>Public Health and Social Measures</b>
<i>Access measures</i>	Closure of schools and kindergartens
	Workplace closure
	Closure of non-essential shops, gastronomy, and cultural events
	Access restrictions to shops, gastronomy, and cultural events
	Cancellation of public events
<i>Distancing measures</i>	Restriction on public gatherings
	Social distancing
	Hygiene measures
	Face coverings (all types)
	Voluntary quarantine by contacts
<i>Movement restrictions</i>	Case isolation at home
	Public transports closures
	Stay-at-home campaign
	Restrictions international movement
	International travel control
<i>Test, trace, vaccinate</i>	Testing policy (anyone with symptoms)
	Contact tracing
	Vaccination policy (all vulnerable groups)
<i>Communication measures</i>	Public information campaigns (and infodemics)

It is important to note that the specific PHSM implemented may vary depending on the nature of the disease, its mode of transmission, and the epidemiological situation. In collaboration with the WHO, public health authorities and policymakers determine the appropriate combination of PHSM based on scientific evidence, risk assessments, and local context to control disease outbreaks and protect public health effectively. Moreover, it is crucial to consider that many health-related policy measures were implemented to different degrees across the world. These measures were either applied in combination or individually. These different levels of implementations and contexts are relevant to how we can measure and evaluate their effectiveness. Overall, combined interventions have shown to be more effective and have a high impact on reducing the transmissibility of the disease, the collapse of healthcare services, and mortality (Patiño-Lugo et al., 2020).

## II. Aim

By adopting sustainable practices, the experts contributing to the REF aimed to mitigate the negative impact of the existing health information (HI) inequalities while promoting the well-being of individuals and communities by implementing evidence-based population health.

This document details a strategy on how to integrate sustainability into PHSM research and translation. The plan proposes to continue an infrastructure called the Rapid Exchange Forum (REF), which aims to facilitate a quick exchange of information among different actors and stakeholders (see MS 53 Needs assessment summary). Specifically, WP8's role in the Sustainability Plan (D3.3) involves outlining strategies and initiatives to ensure the sustainability of this service.

## III. Methods

The following steps are taken to achieve this goal of promoting the translation of PHSM, the worked done in several tasks were used:

1. Implementation of a sustainable infrastructure to support the rapid exchange of PHSM evidence between actors from competent authorities, their advisors, researchers, and stakeholders in the joint efforts to handle the COVID-19 pandemic – Rapid Exchange Forum (REF).
2. A comprehensive approach to provide needs assessment of evidence-based policy support among health policymakers to identify the gaps between research and decision making.

The methodology is further explained below,

### A. Rapid Exchange Forum

The REF was designed as the main component of WP8 of PHIRI, i.e. as a meeting platform to promote the fortnightly discussion and sharing of critical and relevant evidence about PHSM to support European countries in managing the COVID-19 pandemic.

The REF was run by a Secretariat at the Austrian Public Health Institute (GÖG) and was the basis for presenting and discussing learnings and best practices. The concrete aims, set-up and organisation of the Rapid Exchange Forum are elaborated in a factsheet under [www.phiri.eu](http://www.phiri.eu).

PHIRI includes participants from more than 33 countries, who – apart from France and Luxembourg – all took part in the REF meetings at least once. Additionally, sometimes the following organisations (ECDC, EUPHA, European Observatory on Health Systems and Policies, CPME, JRC, OECD, WHO, EMA, EC, DG SANTE, and ELIXIR) also attended the Exchanges.

The results and learnings from the REF can be found in the appropriate section of the Health Information Portal here: <https://www.healthinformationportal.eu/search-countries/search-covid-19-measures>

Regarding the dynamics of sharing PHSM, in this one-hour meeting, regularly organised every two weeks or as needed, the participants, such as members of PHIRI partners (<https://www.phiri.eu/project-team>), international organisations, and other experts' persons involved in national crisis management or advisors to ministries, answer questions and discuss experiences from their own countries related to the COVID-19 pandemic and other PHSM issues

that require rapid responses. This allows a rapid exchange of information across countries to learn from each other's challenges and best practices and compare strategies and impact evaluations of the pandemic. The methodology used is as follows:

1. **Topic selection:** The REF is organised around an urgent PHSM topic or question of timely relevance related to the participating countries, and answers to the questions are shared during the meeting as well as in writing immediately before or after the meetings.
2. **Evidence:** Upon dissemination of the PHSM topic, experts from Portugal, Hungary, and – as a backup – Italy would contribute to identify the evidence about the PHSM topic:
  - a. international websites seeking the latest updates on guidelines, consult their networks about new and upcoming projects, and
  - b. design a search on health-related databases for scientific evidence about PHSM. Priority was given to systematic reviews and meta-analyses that would pool together different estimates, aiming to get the best evidence needed for the different health institutes of Europe to make the most informed decision-making. This work was later used to help write a paper on PHSM.
3. **Tour de Table:** Finally, a tour de table about how each Country's Public Health Institution (identified by a PHIRI partner) is addressing the PHSM locally. The answers discussed during the REF meetings are uploaded to the Health Information Portal at the latest by the end of the week in which each meeting takes place.

## B. Evidence-based Policy Assessment

The REF and the Needs Assessment performed at the beginning (Röhring et. al. 2021) identified the requirement to have compiled evidence of the Public Health and Social Measures (PHSMs) and their health-related policies' impact on the management of COVID-19 throughout the different stages of the pandemic. To accomplish this, the WP8 team identified and selected scientific literature about PHSMs to provide information to the REF participants about evidence of measures that could contribute to containing the spread of the SARS-CoV-2 virus. The framework used was the set of indicators from the Oxford COVID-19 Government Response Tracker (OxCGRT), developed by the Blavatnik School of Government, University of Oxford. This information (and updates) is available at the Health Information Portal, including a set of scientific studies and papers organised by PHSMs topics. This work and information were compiled through the development of an evidence-based review (review of reviews currently submitted to a Q1 scientific journal) and a Modified Delphi panel study.

A review of reviews was conducted with the aim of providing a summary of different reviews on PHSMs to answer our research question "*Which PHSMs can be considered to have most impacted the epidemiological curve of COVID-19 from 2020 to 2022?*".

Most PHSMs were selected from the Oxford COVID-19 Government Response Tracker (OxCGRT). The OxCGRT collected publicly available information on 24 indicators of government response to the pandemic, three of which were retired before the end of the Tracker's active collection and publication period. The indicators included containment and closure policies such as school closures and restrictions on movement, economic policies, health system policies such as the COVID-19 testing regime, emergency investments into healthcare, and vaccination policies, among others (Hale et al. 2020). Two of the selected indicators were modified based on topics presented in and priorities identified during the REF meetings in the scope of the PHIRI project



(i.e., closure of kindergartens was added to the school closures indicator; aspects of several indicators within the OxCGRT category V, vaccination policies, were collated under one indicator). Furthermore, six indicators not individually tracked in the scope of the OxCGRT were added to the selected indicators through the REF meeting mechanism (i.e., Closure of non-essential shops, gastronomy and cultural venues; Access restriction to shops, gastronomy and cultural venues; Social distancing; General hygiene measures; Voluntary quarantine by contact persons; Case isolation at home), arriving in total at 19 indicators, respectively PHSMs, under study.

## IV. Results

### A. Rapid Exchange Forum

The PHIRI Rapid Exchange Forum for PHSM translation has been playing a vital role in accelerating the translation of research evidence into policies and practices that promote population health. By the end of August 2023, 53 REF (**Appendix A** – Rapid Exchange Forum and PHSM Topics) have addressed the main PHSM topics, this effort needs to be carried out to improve preparedness and more resilient health systems. Another relevant resource used was a set of interactive maps, dashboards, and catalogues summarizing the summary and lists of PHSMs applied per country over time (Khodaveisi et al., 2023).

This information (and updates) is available at the Health Information Portal, including a set of scientific studies and papers organised by PHSMs topics (PHIRI Project, 2023).

### B. Evidence from PHSM

The search identified 3212 citations after duplicate removal, and 3050 were considered ineligible at the titles and abstract screening stage. After proper evaluation, 162 were screened for full-text, and 35 were included. Of the 35 studies included, 16 were systematic reviews, 7 were systematic reviews and meta-analyses, 8 were rapid reviews, three were scoping reviews, and one was an evidence-based review. The number of papers included in these studies varied from 9 to 90, and all reviews addressed multiple countries. Most studies, 17 reviews, examined more than one PHSM in the same paper. The most studied PHSM was social distancing.

PHSMs with clear evidence of positive impact from the literature review are the closure of non-essential shops, gastronomy and cultural events, hygiene measures, face coverings, voluntary quarantine by contacts, case isolation at home, stay-at-home campaigns, restrict internal movement and testing policies.

PHSMs with a moderate level of evidence, often to be implemented as a combined intervention, are workplace closure, restrictions on public gatherings, social distancing, international travel control measures and contact tracing.

PHSMs with little evidence available to date, eventually requiring more studies, are the closure of schools and kindergartens, cancellation of public events, public transport closure, vaccination policy strategies, and public information campaigns.

This work and information were compiled through the development of an evidence-based review (review of reviews currently submitted to a Q1 scientific journal) and a Modified Delphi panel study.

## C. COVID-19 Policy Measures on Health Information Portal

The HIP now includes a section dedicated to information on policy measures put in place to manage the COVID-19 pandemic. This section consists of two pages: the REF page, which contains all relevant information, and the policy measures page.

The policy measures are divided into 5 main categories and consist of 23 non-pharmacological interventions, as outlined in Table 2.

Table 2 – Categories of COVID-19 Policy Measures

Category	
<b>Lockdown</b>	National lockdown (stay-at-home order)
	Regional lockdown(s) (stay-at-home order)
	Curfew (order to stay at home at certain times)
<b>Travel/Mobility</b>	COVID-19 border requirements to enter the country
	Domestic movement restrictions
	Recommendation to avoid non-essential travel (internal and/or external)
	COVID-19 airport requirements to enter the country
	Gathering restrictions
<b>Education Systems</b>	Restrictions for pre-schools and childcare facilities
	Restrictions for primary schools (up to 10 years)
	Restrictions for secondary schools (10 years and older)
	Restrictions for universities / higher education
<b>Test, trace, isolate</b>	Isolation of infected persons
	Quarantine of contact persons
	Active contact tracing
	Free testing facilities
<b>Personal protective measures</b>	Face masks recommendations for stores
	Face masks recommendations for public transport
	Face masks recommendations for certain public outdoor spaces
	Face masks recommendations in certain public indoor spaces
<b>Other</b>	Environment cleaning and disinfection
	Vaccination strategy
	Work from home recommendations (when possible)

At this point, 81 publications have been added and used as scientific evidence. This evidence was collected during 2020 and 2021 to foster the response to important questions related to the evolving pandemic and need of rapid response.

## V. Discussion

Considering the available scientific evidence on PHSMs' impact, as well as the subjective perspectives of subject matter experts who advise health policy, has allowed the present work to form a nuanced understanding of different measures' significance over time and to highlight the complex overlapping dimensions of decision-making during a pandemic, which can be considered both by national policymakers and the experts engaged in counselling policy during future health crises.

### A. The coverage of PHSM evidence

The coverage of the evidence about PHSM, and the possibility to discuss it among fellow experts brings value to the REF. The proposed PHSM sustainability Plan comprehends 6 main areas (see Figure 1):



*Figure 1 – Public Health and Social Measures sustainability plan*

### 1. Population Health Policy Integration

- a. Incorporate sustainability action considerations into public health and social measures policies, guidelines, and frameworks.
- b. Foster intersectoral collaboration to ensure sustainability is embedded in all relevant policies and programs, from capacity building to policymaking.
- c. Establish a dedicated task force or committee responsible for overseeing the implementation of sustainable public health and social measures management aiming at higher resilience.

### 2. Resource Management

- a. Promote the efficient use of resources, such as human resources, information, and materials, in public health and social measures interventions.
- b. Encourage the use of secondary data sources to improve the knowledge related to public health and social measures.

### 3. Capacity Building and Awareness

- a. Conduct training and capacity-building programs addressing the management of public health and social measures and interventions to raise the preparedness for future epidemic events.
- b. Develop educational materials for the general public, highlighting the importance of public health and social measures.
- c. Collaborate with academic institutions to integrate public health and social measures topics in the curricula.
- d. Engage with the community through outreach programs, workshops, and campaigns to promote the role of the communities in the successful implementation of measures and to tackle the infodemic.

### 4. Data Collection and Monitoring

- a. Establish a sustainable system for tracking and reporting key indicators related to public health and social measures, leveraging the results from PHIRI and other EU projects.

- b. Analyse the impact of PHSM intervention practices on public health outcomes and community well-being.
- c. Share data and progress reports with stakeholders to foster transparency and accountability.

## 5. Collaboration and Partnerships

- a. Collaborate with local, regional, and national stakeholders, including government agencies, NGOs, and community organisations, to foster the sustainability of public health and social measures interventions.
- b. Seek partnerships with community organisations and experts to leverage their knowledge and resources.
- c. Participate in research and policy-making networks and initiatives to stay up-to-date with best practices and emerging trends.

## 6. Continuous Improvement

- a. Regularly review and evaluate the effectiveness of sustainability initiatives and identify areas for improvement.
- b. Set ambitious targets and goals to drive continuous improvement in sustainability performance.
- c. Foster a culture of innovation and learning, encouraging health professionals to propose new ideas and initiatives for improving PHSM.

By implementing this Sustainable Public Health and Social Measures Plan, Europe member states can work towards a future where public health and social measures not only protect individuals and communities but also contribute to improving health systems' resilience.

## B. Promoting PHSM evidence for policy-making translation

Promoting an effective base of evidence for policymaking regarding PHSMs is crucial for ensuring that policies and interventions are based on sound scientific knowledge and have a positive impact on public health. Besides the collection and data monitoring to generate knowledge for decision-makers, is crucial to ensure knowledge translation and sharing across stakeholders.

From the work developed in this WP8, here are some key points highlighting the importance of evidence-based policymaking and strategies to promote it:

- **Utilising Research and Data**

- Encourage the generation of high-quality research and data on PHSM (e.g., PHIRI/WP8 and REF, and Health Information Portal), including studies on the effectiveness, feasibility, and cost-effectiveness of different interventions.
- Establish mechanisms for systematic reviews and meta-analyses to synthesize existing evidence and provide policymakers with comprehensive and reliable information on PHSM.
- Promote collaboration between researchers, policymakers, and practitioners to identify research needs and prioritize research topics that address policy-relevant questions.

- **Strengthening Knowledge Exchange**

- Foster strong partnerships and collaborations between researchers, academia and policymakers to facilitate the exchange of information and expertise.

- Establish platforms for regular dialogue and knowledge sharing (e.g., Health Information Portal), such as conferences, workshops, and policy briefings, to bridge the gap between research and policy communities.
- Develop accessible and user-friendly resources, such as policy briefs, infographics, and summaries, to present research findings in a format that is easily understandable and applicable to policy development.
- **Engaging Stakeholders**
  - Involve a diverse range of stakeholders, including policymakers, academic experts, public health practitioners, community representatives, and affected populations, in the policy-making process (i.e., co-participative implementation of PHSM interventions).
  - Seek input and feedback from stakeholders during the formulation, implementation, and evaluation of PHSM policies to ensure that they are contextually relevant and address the needs of the target populations.
  - Establish advisory committees or expert panels that include representatives from academia, research institutions, and relevant professional associations to provide evidence-based recommendations to policymakers.
- **Building Capacity**
  - Invest in building the capacity of policymakers and public health professionals in evidence-based decision-making (e.g., using new digital tools), research methods, and critical appraisal of scientific literature.
  - Offer training programs and workshops on evidence synthesis, research translation, and policy analysis to enhance the skills of individuals involved in policy development and implementation.
  - Support the development of research infrastructure (PHIRI) and resources within public health agencies and institutions to facilitate evidence generation and knowledge translation.
  - Leverage the Capacity building component of the Health Information Portal (one-stop-shop) and the Spring School on Health Information.
- **Monitoring and Evaluation**
  - Implement robust monitoring and evaluation systems to assess the impact and effectiveness of PHSM policies and interventions.
  - Regularly review and update policies based on emerging evidence and evaluation findings to ensure they remain relevant, effective, and aligned with public health goals.
  - Promote transparency and accountability by sharing evaluation results and lessons learned with stakeholders and the wider public.

## C. Rapid Exchange Forum Sustainability

Regarding these five areas, the REF may have helped more effectively to bridge the gap in the following manner:

<b>Utilising Research and Data</b>	Improving the organisation of Europe's response infrastructure, as well as strengthening national institutions and developing a more advanced federated data infrastructure, could potentially facilitate the sharing and utilisation of data (related with PHSM) for the purposes of policymaking and research.
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<b>Strengthening Knowledge Exchange</b>	REF contributed to an exchange in the field of population health in a broad and very timely, yet structured manner. It was purely established a regular place for cross-country learning and exchange on PHSM. It thus improved the efficacy of knowledge exchange.
<b>Engaging Stakeholders</b>	The engaging effort is crucial to motivate and engage stakeholders and to allow for better arguing about proper PHSM implementation. Therefore, more activities are required to enable the proper engagement of policymakers and researchers.
<b>Building Capacity</b>	The capacity-building effort is crucial to motivate and engage stakeholders and to allow for better arguing about proper PHSM implementation. While the INFACT 1 <sup>st</sup> School on Health Information and the PHIRI Spring School on Health Information were helpful, they didn't reach all the necessary stakeholders. To get policymakers and researchers involved, more capacity-building efforts are needed.
<b>Monitoring and Evaluation</b>	REF could additionally play a role on keep updated monitoring of European data on PHSM, leveraging the information of the Health Information Portal, thus also being an information source for ECDC and HERA.

Upon the promotion of evidence-based policy-making practices in the realm of PHSM, policymakers can make informed decisions, improve the effectiveness of interventions, and ultimately enhance public health outcomes and create more resilient health systems.

The main results and practical lessons that REF leaves us, is to improve PHSM translation into policy practice – and secondarily, the basis for its own sustainability. Here are some key points highlighting the importance of REF sustainability:

1. **Timely Decision-Making**: A Rapid Exchange Forum provides a platform for quick dissemination of research findings, allowing policymakers and practitioners to access the latest evidence and make informed decisions promptly. This is especially critical during public health emergencies or urgent situations where rapid response is necessary.
2. **Collaboration and Knowledge Sharing**: The forum has brought together researchers, policymakers, public health practitioners, and other stakeholders from various countries and institutions. It facilitates collaboration and fosters a multidisciplinary approach, enabling the sharing of diverse perspectives, expertise, and experiences. This collaborative environment enhances the understanding of complex population health issues and encourages innovative solutions.
3. **Bridging the Gap between Research and Practice**: The forum has been serving as a bridge between the research, decision making and practice communities. It facilitates the exchange of knowledge, translating research findings into actionable policies and programs that have a direct impact on population health outcomes. By fostering dialogue and interaction between researchers and practitioners, it helps ensure that research is relevant, practical, and applicable to real-world settings (and in real time).
4. **Evidence-Informed Policy Development**: The Rapid Exchange Forum has been promoting evidence-informed policy development by providing policymakers with direct access to the

latest research evidence. By facilitating discussions and interactions between researchers and policymakers, it enables evidence to be translated into policy recommendations that are aligned with population health goals and supported by robust scientific evidence.

5. **Stakeholder Engagement and Participation**: The forum actively has been engaging stakeholders from different sectors, including government agencies, academia, community organisations, and affected populations. This inclusivity ensures that diverse perspectives are considered in the decision-making process and helps build support and ownership for population health initiatives. It also increases the likelihood of successful implementation and sustainability of policies and programs. The need was addressed by the organisation of 5 Special REF and 2 webinars for the public.
6. **Responsive to Emerging Issues**: Rapid Exchange Forums are agile and adaptable platforms that can quickly respond to emerging population health challenges and issues. They facilitate real-time discussions, information sharing, and collaborative problem-solving, enabling stakeholders to address emerging health threats, explore innovative approaches, and adapt policies and practices to changing circumstances. This was e.g. demonstrated by the active collaboration with PREPARE Cluster by the PHIRI team.
7. **Continuous Learning and Improvement**: The forum promotes a culture of continuous learning and improvement. Evaluating the impact of policies and programs, identifying knowledge gaps, and fostering ongoing dialogue between researchers and practitioners, enables the refinement and enhancement of population health interventions based on emerging evidence and best practices. For instance, a Spring School on Health Information took place in 2023, which will be repeated in 2024.

This REF forum needs to continue functioning after the end of the project, perhaps a new organisational framework between PHIRI, WHO and ECDC could allow that to materialize.

## 7. Call-to-action

Strengthening and improving the resilience of public health requires proper and focused policymaking. Therefore, our effort to promote the translation of evidence is very relevant to help understand how these health-related policies and measures helped to contain the spread of the SARS-CoV-2 virus and which combinations of measures may have had the highest positive impact.

This combined effort of REF (network) and PHSM updating collection can be an important element to address both the preparedness and resilience of Europe regarding the next health crisis in future. The continuity of the WP8 team's effort in supporting the HIP will enable these resources to continue to be accessible to policymakers as they respond to future threats.

Besides PHIRI, several other European projects have been initiated to address the COVID-19 pandemic and implement effective Public Health and Social Measures across the region. A closer collaboration with some of these projects can both provide wider scientific discussion and provide additional resilience to the REF endeavour. Here is a summary of some prominent European projects and programmes in this domain:

- **European Health Emergency Preparedness and Response Authority (HERA):** The HERA programme aims to strengthen Europe's capacity to respond to future health emergencies, including COVID-19. It focuses on accelerating the development, authorization, and deployment of safe and effective vaccines, treatments, and diagnostics. HERA also supports research and innovation to address emerging variants and improve surveillance and early warning systems.
- **Vaccine Infrastructures and Communication for Europe (VACCELERATE):** VACCELERATE is a European Union-funded vaccine trial network that aims to enhance vaccine deployment and acceptance across the region. It focuses on building a sustainable vaccine infrastructure, ensuring equitable access to vaccines, and addressing vaccine hesitancy through effective communication and engagement strategies.
- **COVID-19 Social Sciences Research Tracker:** This project is an online database that tracks and catalogues ongoing social science research related to COVID-19 across Europe. It provides a comprehensive overview of studies investigating the social, economic, and psychological impact of the pandemic and PHSM. The tracker facilitates collaboration, knowledge sharing, and evidence-informed decision-making.
- **Rapid European COVID-19 Emergency Research Response (RECOVER-E):** RECOVER-E is a collaborative project that aims to accelerate research and innovation to combat COVID-19. It focuses on developing diagnostic tools, therapies, and vaccines, as well as understanding the social and economic impacts of the pandemic. The project aims to inform policy development and support the recovery and resilience of European societies. The EU-funded RECOVER project constitutes a comprehensive research response against SARS-CoV-2, aiming to address patient and public health level interventions. The project builds on the expertise of the FP7 PREPARE project and will undertake clinical studies in primary and hospital care as well as epidemiological and biological investigations and modelling to fill knowledge gaps on SARS-CoV-2 infectivity and transmission. The project's results are expected to strengthen clinical research preparedness for future emerging infectious diseases at a global scale.
- **COVID-19 Vaccine-induced Immunity, Variants, and Re-infections Network (CoVaRR-Net):** CoVaRR-Net is a research consortium that focuses on studying vaccine-induced immunity, emerging variants of concern, and re-infections related to COVID-19. The project aimed at improving the understanding of immune responses, developing strategies to enhance vaccine effectiveness and informing public health measures for controlling the spread of the virus.
- **Epidemic Intelligence to Minimize COVID-19 Impacts on European Society, Public Health and the Economy (EPIPose):** EPIPose is a collaborative project that utilizes mathematical modelling and data analysis to inform decision-making and minimize the impact of COVID-19 on European society. It aims to provide real-time epidemic intelligence, evaluate PHSM strategies, and support policymakers in optimizing public health interventions.

Numerous projects in Europe showcase collaborative efforts to combat the COVID-19 pandemic and implement effective public health and social measures. Some partners of the PHIRI Project are collaborating with these projects through research, innovation, and knowledge sharing. These initiatives aim to improve preparedness, response, and recovery while safeguarding the health of European populations. The lessons learned from these projects have enhanced our knowledge, and if implemented effectively, health systems can become more resilient. Therefore, it is crucial to establish the right mechanism to sustain these activities among member states, including seeking additional funding for programs such as COST actions.



## 8. Conclusions and recommendations

Although PHIRI specifically focused on COVID-19 related PHSM, its infrastructure and methodologies are also highly relevant to understanding the impact of the pandemic on population health and supporting evidence-based PHSM in a broader manner. The integrated data sources and analytical tools developed by PHIRI can contribute to the research and evaluation of COVID-19-related interventions (as well as future pandemics), risk factors, and health outcomes, informing public health strategies and decision-making during the pandemic.

A Rapid Exchange Forum for population health translation is an important building block in crisis preparedness and can play a critical role in facilitating the timely and effective translation of research evidence into policies and practices. By fostering collaboration, knowledge sharing, and evidence-informed decision-making, such a forum enhances population health outcomes and contributes to the overall well-being of communities.

The bi-weekly Rapid Exchange Forum played a crucial role in the PHIRI project, by collecting and evaluating effective public health and social measures. This report highlights how these activities helped to manage the crisis and emphasize the importance of continuing this work through the planned European Health Data Space. Specifically, it outlines key strategies and initiatives for incorporating sustainability principles into public health and social measures, such as ensuring that outcomes are integrated into new procedures.

This report is part of the contribute to PHIRI Deliverable 3.3, the Sustainability Plan, which aims to maintain the "REF" and "PHSM updating" functions beyond the end of the PHIRI project.

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# Appendices

## Appendix A – Rapid Exchange Forum and PHSM Topics

List of REF Topics related with PHSM, with research questions and meeting date.

REF No.	Question keyword	Question	Date
1	Testing strategy/ Preparations for winter	<ul style="list-style-type: none"> <li>• What are the testing strategies currently in your country?</li> <li>• How is your country preparing for winter in relation to COVID-19?</li> </ul>	16.11.20
2	Vaccine prioritization	Vaccine prioritization lists – target groups: <ul style="list-style-type: none"> <li>• Order of target groups (1. HCWF, 2. vuln groups,..)</li> <li>• Where do young people who are vulnerable fit in?</li> </ul>	30.11.20
2	Mass testing	Experiences on mass testing	30.11.20
3	Update on COVID-19-diagnostics	Update on COVID-19 diagnostics (strategy, ongoing projects, policy direction) - especially children strategies	14.12.21
4	RAT tests	Are RAT tests being used to: <ul style="list-style-type: none"> <li>• Find more cases to ask to isolate</li> <li>• Allow test negative people to do things which otherwise would not be allowed e.g. fly, visit care homes and hospitals, reduce isolation duration</li> </ul>	04.01.21
5	Risk classification/traffic light systems	Which indicators and thresholds are used in order to change the risk level/class or traffic light of the systems (threshold values and/or ranges of incidences)?	18.01.21
5	Measures winter/Christmas 2020	Have any measures been taken before Winter/Christmas to better prepare the Healthcare system for the 3rd wave? (e.g. new beds/infrastructure/hiring new people)	18.02.21
6	Moribund COVID-19 patients	<ul style="list-style-type: none"> <li>• Are there specific protocols or procedures for the treatment of moribund COVID-19 patients all the way through death and burial available in your country?</li> <li>• If yes, what kind of protocols or procedures are in place/available?</li> </ul>	01.02.21
7	Reduction in infection rates in vaccinated persons	Is there any reduction in infection rates in vaccinated persons already visible?	15.02.21
10	Vaccination strategy	<ul style="list-style-type: none"> <li>• What is your vaccination strategy?</li> <li>• Which products are used for which age groups?</li> <li>• Is data on the effectiveness of vaccines already available in your country?</li> <li>• Does your country plan or already started studies to assess the effectiveness of the corona vaccinations (case-control studies in the roll out phase)? If yes, please share further information.</li> <li>• Is or will someone be working on a synthesis/summary of the data on vaccine effectiveness that is available from each country.</li> </ul>	29.03.21
11	Long COVID	<ul style="list-style-type: none"> <li>• What is being done in your country considering the management of “long COVID”, specifically:</li> <li>• Is your country collecting data/conducting studies (e.g. surveillance) on long COVID – if so, please describe how this is done (e.g. data collection, study design, organisational/legal aspects...).</li> <li>• Which guidelines/recommendations (national or international) is your country following considering the definition, diagnosis and treatment of long COVID?</li> </ul>	12.04.21
11	Masks outdoors	<ul style="list-style-type: none"> <li>• Is wearing masks outdoors mandatory in your country?</li> <li>• If yes, in which settings is wearing masks outdoors mandatory?</li> </ul>	12.04.21

12	Re-opening projects	<ul style="list-style-type: none"> <li>• Are there controlled/piloting projects in your country with the aim of testing options for re-opening steps in the sectors culture/sports/entertainment/gastronomy? (E.g. despite current lockdown measures a 'mass event' is organized where all attendees have to present a negative test result.)</li> <li>• If yes, please describe finished/ongoing/planned projects and/or re-opening concepts for these sectors in your country.</li> </ul>	26.04.21
12	Testing school children	Are there any studies about children's perceptions and mental health regarding testing children in schools?	26.04.21
03 Special REF	Validity of vaccination certificates	<ul style="list-style-type: none"> <li>• What are the criteria regarding the validity of vaccination certificates for travel purposes in your country?</li> <li>• If there are differences between incoming and outgoing travellers, please specify.</li> <li>• If bilateral agreements are in place, please specify.</li> </ul>	17.05.21
14	Treatment/management of long COVID patients	<ul style="list-style-type: none"> <li>• How does your country organise the treatment/management of long COVID patients? Are there specialised clinics/departments/centres or are concepts for their creation being developed?</li> <li>If so, please provide details, such as: <ul style="list-style-type: none"> <li>• Which professional groups (specialists, nurses, psychologists, ...) and disciplines are involved?</li> <li>• How can individuals access the clinics (walk-in, referral ...)?</li> <li>• Are the clinics stand-alone entities or part of larger institutions such as hospitals or primary care centres?</li> </ul> </li> </ul>	07.06.21
15	Updates on travel certificates in the countries	• Updates on travel certificates in the countries	21.06.21
16	Vaccination compliance	<ul style="list-style-type: none"> <li>• What is the COVID-19 vaccination rate in your country?</li> <li>• What is the level of COVID-19 vaccination compliance in your country?</li> <li>• Are measures either in place or planned for enhancing public trust in COVID-19 vaccination?</li> </ul>	05.07.21
17	Delta variant	<ul style="list-style-type: none"> <li>• Has your country implemented new/adapted measures specifically to address the threat posed by the spread of the Delta variant?</li> <li>• Or are such measures planned?</li> </ul>	02.08.21
18	School start in autumn 2021 (with regard to delta, recommendations for adolescents to get vaccinated, progress of vaccination, etc.)	<ul style="list-style-type: none"> <li>• Are you preparing/discussing specific measures/strategies for the start of schools in autumn (Y/N) ?</li> <li>• Which measures are in place / planned for schools in your country / region? (Y/N) <ul style="list-style-type: none"> <li>- Different rules apply for children &lt;12 years and those &gt;12 years</li> <li>- Split classes / alternate terms</li> <li>- Mandatory face-masks</li> <li>- Regular testing of school-kids</li> <li>- Regular testing of teachers/staff</li> <li>- Distance teaching/learning</li> <li>- Humidifiers</li> <li>- Other: _____</li> </ul> </li> <li>• In case schools have already opened after summer break: Do you see effects on incidence (rate of infected persons) already?</li> </ul>	30.08.21
18	3rd dose of vaccine	Which country is considering the third dose of vaccine?	31.08.21
19	Vaccination hesitancy	<ul style="list-style-type: none"> <li>• Are there studies/surveys in your country aimed at identifying individual reasons for vaccine hesitancy? (please also share links to international studies that you are aware of)</li> <li>• Has your country taken specific actions to enhance people's willingness to get vaccinated? (e.g. innovative/targeted communication approaches; reward-based nudging approaches)</li> </ul>	13.09.21

20	Hospitalizations of vaccinated/unvaccinated persons	<ul style="list-style-type: none"> <li>• Is there any data available in your country on the proportion of vaccinated/unvaccinated hospitalized?</li> <li>• Is there any data available in your country on the proportion of vaccinated/unvaccinated persons who require treatment in ICUs?</li> <li>• If yes, please share further information.</li> </ul>	27.09.21
22	Tourism - payment policy / testing policy	<ul style="list-style-type: none"> <li>• Who is or should be paying COVID-19-tests for tourists in your country?</li> <li>• Does your country have a specific testing strategy for tourism in place? If yes, please share further information.</li> </ul>	25.10.21
23	Health of HCW	<ul style="list-style-type: none"> <li>• What kind of monitoring is your country doing to protect the health of Health of healthcare workers?</li> <li>• What factors are you looking at, when it comes to protection of HCW? (e.g. anxiety, depression, burnout, ...)</li> <li>• Is data on the health of HCW collected routinely in your country?</li> </ul>	08.11.21
24	Measures Update	Brief report of updated Non-Pharmaceutical Interventions / Measures	22.11.21
25	COVID-19 vaccinations for children	<p>In the light of the recent EMA decision:</p> <ul style="list-style-type: none"> <li>• Do you currently have a specific vaccination strategy for children below 12 years? Yes/No</li> <li>• If yes, please share further information.</li> <li>• If yes, to what extent schools, school doctors and nurses will provide Covid-19 vaccinations for children?</li> </ul>	06.12.21
26	VOC 'Omicron'	<ul style="list-style-type: none"> <li>• What is the state of play regarding the recent VOC 'Omicron' in your country?</li> <li>• Has your country implemented new/adapted measures specifically to address the threat posed by the spread of the Omicron variant? (Or are such measures planned?)</li> </ul>	21.12.21
27	VOC 'Omicron' - Update	<ul style="list-style-type: none"> <li>• Are there any (further) containment measures (i.e. closure of businesses, closure of bars, closure of schools/kindergardens, restrictions in private or public gatherings, wearing nose-mouth masks indoor/outdoor) planned in your country?</li> <li>• If yes, which measures? If not, please kindly explain reasons for not introducing any measures.</li> <li>• If you are using risk classification systems to assess the current epidemiological risk in your country/its regions ("traffic light" systems): have you made or are you planning to make changes to them (indicators, thresholds)?</li> </ul>	17.01.22
28	Overview of current national / international duration of "vaccination passes" / "recovered passes"	<ul style="list-style-type: none"> <li>• What is the duration of your digital certificates / vaccination passes on a national or international level (in case there is a difference)? Please explain:</li> <li>• if there is any difference between the vaccine given (i.e. AZ/ Pfizer/ Moderna/ J&amp;J/ other)?</li> <li>• if there is any difference when persons are boosted or not?</li> </ul>	31.01.22
29	Long COVID management	<ul style="list-style-type: none"> <li>• Are there existing or planned processes for coordinated management of care for long COVID patients in your country? If yes, please describe/share:</li> <li>• Tools for (differential) diagnosis / symptom screening for clinicians?</li> <li>• Standardised treatment pathways for long COVID patients?</li> <li>• Patient information material about long COVID?</li> <li>• Registries of long COVID patients?</li> </ul>	14.02.22
30	Long-term pandemic monitoring and surveillance	<ul style="list-style-type: none"> <li>• Was the 'state-of-emergency' activated in your country when the pandemic hit, or other emergency legislation set in place in order to set up a COVID-19 monitoring and surveillance system, including regulations for data access and linkage of data sources? Did your constitution already include such mechanisms before COVID-19?</li> <li>• As a state of emergency or emergency decrees are temporary, what will happen to your COVID-19 monitoring mechanism in the long run? Has a long-term strategy been developed to ensure the continuity of surveillance of COVID-19 and research?</li> </ul>	28.02.22

31	Health screening for refugees from Ukraine	<ul style="list-style-type: none"> <li>• Is there any health screening protocol that is being put in place for arriving refugees from Ukraine in your country at the moment (concerning COVID-19 and/or other screenings)? COVID-19 certificates from Ukraine have been established as equivalent to EU certificates in the Commission Implementing Decision 2021/1380.</li> <li>• Are there mandatory stipulations for entry of refugees arriving to your country from Ukraine when it comes to COVID-19 vaccination status, and/or is there a non-mandatory vaccination offer for arriving refugees?</li> <li>• Are (and if so how are) additional vaccinations and vaccination history recorded for refugees from Ukraine in your country?</li> </ul>	14.03.22
32	Strategies for winter 2022 and BA.2 subvariant	<ul style="list-style-type: none"> <li>• Is your country taking actions at the moment (or are there plans in place) to anticipate/mitigate a potential spike in COVID-19 infections in autumn/winter 2022? Have any strategies to this effect been developed based on lessons learned in the previous two years?</li> <li>• Have plans and strategies changed in your country since emergence of the BA.2 subvariant? If so, how? Are there any recommendations you would like to share with other countries in this scope?</li> </ul>	28.03.22
33	COVID-19 pandemic evaluation	<ul style="list-style-type: none"> <li>• Have any data analyses or studies been published in your country yet (on national level, or comparing several countries) that investigate direct and indirect health impacts of the pandemic (including indicators such as excess mortality, burden of disease, diminished mental health and well-being, diminished physical activity, loneliness, years of life lost, DALYs/QALYs etc.)?</li> <li>• Other than already published works, is there data analysis currently ongoing or in preparation in your country that investigates direct and indirect health impacts of the pandemic? If so, which indicators are mainly being investigated in this scope?</li> </ul>	11.04.22
34	Communication strategies	<ul style="list-style-type: none"> <li>• What communication channels are currently used by official sources in your country to disseminate COVID-19 information / which is the most common tool?</li> <li>• In your opinion, which communication channels/tools are working best to reach the people in your country at this stage of the pandemic? Have there been any (recent) adaptations to your country's national communication strategies with respect to countering pandemic fatigue and improving effectiveness of communication?</li> </ul>	25.04.22
35	COVID Mortality	<ul style="list-style-type: none"> <li>• How long does the entire process take to obtain ICD-10 coding of causes of death from death certificates?</li> <li>• Do you already have access to information (complete or partial) on COVID-19 as cause of death from death certificates? Have the death certificates now been integrated in the COVID-19 mortality statistics?</li> <li>• Are death certificates completed by the physician in electronic or paper format? If completed electronically, what location of death do they cover (ex. hospital only?) and what is the coverage in relation to all deaths?</li> <li>• Are there any COVID-19 mortality reports you can share, or reports of excess mortality during the COVID-19 crisis?</li> </ul>	09.05.22
37	National public vaccination plans	<ul style="list-style-type: none"> <li>• Do you have a publicly funded plan with recommended vaccinations (for everyone or only for kids)? If yes, please provide the link if it is published.</li> <li>• In the light of Chickenpox and Diphtheria, are there any plans to update publicly funded vaccination plan? For which disease(s) and for which age-cohort?</li> <li>• If not, when did the last update take place in regard to which disease or booster jab?</li> </ul>	20.06.22

38	Protecting vulnerable groups	<ul style="list-style-type: none"> <li>• Is your country currently taking any actions to protect vulnerable groups (i.e. groups who are, due to their own health status, highly susceptible to severe COVID-19)? For example, if no obligatory mouth nose protection needs to be worn, are there e.g. specific train compartments where masks are worn or similar measures?</li> <li>• How do you define vulnerable groups? (Are these primarily groups who define themselves as vulnerable or are defined as vulnerable based on existing evidence?)</li> </ul>	04.07.22
39	Comparing the European COVID-19 situation at the beginning of Summer 2020 and 2021 with Summer 2022	<ul style="list-style-type: none"> <li>• Is the current overall COVID-19 situation in your country similar to that at the beginning of the two previous Summer seasons (2020 and 2021), or are there clear differences?</li> <li>• Have the expectations expressed in last summer seasons regarding the European pandemic status in the Summer of 2022 come true, or has the situation developed differently from what was expected?</li> <li>• What do you expect for the 2022 Autumn season?</li> </ul>	18.07.22
40	Healthcare workforce conditions before and since the pandemic	<p>In your country, what were</p> <ul style="list-style-type: none"> <li>• the average hours worked per week by doctors/nurses before the pandemic vs. now?</li> <li>• the average monthly salary of doctors/nurses before the pandemic vs. now?</li> </ul> <p>If possible, please provide separate answers for both:</p> <ul style="list-style-type: none"> <li>• doctors/nurses in hospitals and</li> <li>• doctors/nurses in the outpatient sector</li> </ul>	01.08.22
41	Cost-effectiveness of vaccines and NPIs	<ul style="list-style-type: none"> <li>• What kind of research are you developing in terms of the cost-effectiveness of vaccines and non-pharmaceutical interventions (NPIs) in your country?</li> <li>• In the past since start of the pandemic, has existing evidence on cost-effectiveness of interventions already factored into political decision-making (if so, please provide details)? For future strategies on NPIs in your country, is evidence on cost-effectiveness foreseen to play a role (if so, please provide details)?</li> <li>• Will it be sustainable economically to keep vaccination to the entire population? Will there be priority groups as foreseen in your country?</li> </ul>	29.08.22
42	Upcoming school and kindergarten year 2022/23	<p>With regard to the upcoming school and kindergarten year and as follow-up to the situation in 2021:</p> <ul style="list-style-type: none"> <li>• Are there still mandatory measures in place or only voluntary initiatives? Are voluntary measures publicly supported?</li> <li>• If there are mandatory measures in place or planned for autumn/winter season what is foreseen in regard to quarantine / mask wearing / testing strategy in schools and kindergartens?</li> </ul>	12.09.22
43	Future vaccination priorities and vaccine trials addressing public health needs	<ul style="list-style-type: none"> <li>• Which of the following issues have the highest public health priority in your country in relation to future COVID-19 vaccination strategy and vaccine trials: Vaccine efficacy, vaccine development, specific populations, or any other?</li> <li>• Is there any example in your country of COVID-19 vaccine trials that are addressing public health needs?</li> </ul>	10.10.22

44	Digitalisation - going from a paper death certificate to an (100%) electronic death certificate	<ul style="list-style-type: none"> <li>• Could you describe the dataflow, from the source filling in the death certificate to the final destination (statistical institute or others)? The different stages through which a death certificate passes would be of interest.</li> <li>• If necessary, could you describe the process of making this transition between paper registration and electronic registration? What were the specific periods &amp; phases? Have you planned a hybrid situation (paper/electronic) or an exit from the paper system and a direct transition to electronics?</li> <li>• Have you implemented direct cause-of-death coding using ICD-10 codes in the registration tool or does the doctor have to type? If you implemented direct ICD-10 coding in the tool, who set it up and is there still manual code checking? Does it contain a kind of decision tree to fill it out/to avoid obvious errors?</li> <li>• Is there a real time use of this digital data? And if not, have you planned a direct use of the data in case of epidemiological emergencies (such as COVID-19).</li> </ul>	24.10.22
45	Update on Long Covid management	<ul style="list-style-type: none"> <li>• Have there been any major changes in your country following your possible original response in early 2022 (29 REF) when it comes to existing or planned processes for coordinated management of care for long COVID patients in your country?</li> <li>• Specifically, do these processes also relate to tools for (differential) diagnosis / symptom screening for clinicians, and standardised treatment pathways for long COVID patients?</li> <li>• In addition, could you briefly describe how your country organises the treatment/management of long COVID patients? Specifically, are there specialised clinics/departments/centres and are these clinics stand-alone entities or part of larger institutions such as hospitals or primary care centres?</li> <li>• Does your country have a registry of Long COVID patients?</li> </ul>	05.12.22
46	Diagnosis Coding	<p>Are the health care providers (hospitals and publicly/privately funded outpatient care centres) in your country obliged to use a coding system for diagnoses?</p> <p>If yes,</p> <ul style="list-style-type: none"> <li>• Did the implementation predate COVID-19, or has it only been implemented since then?</li> <li>• Please describe the coding system in place (e. g, ICD, ICPC, SNOMED, CT, other or combinations).</li> <li>• Please describe the usage of the data (who's the data holder, COVID analyses, analyses in general, scientific studies regarding COVID...).</li> </ul>	30.01.23
47	Waiting list for scheduled hospital care / Data on waiting times	<ul style="list-style-type: none"> <li>• Are waiting lists and/or wait times for the following types of scheduled hospital care an issue in your country? <ul style="list-style-type: none"> <li>- Inpatient/Day Case procedures</li> <li>- Outpatient appointments (i.e., specialist assessment)</li> </ul> </li> <li>• Does your country publish data on waiting lists and/or wait times for scheduled hospital care? This may include total numbers currently waiting on the list and numbers waiting over certain time bands (e.g., 12 months) for <ul style="list-style-type: none"> <li>- Inpatient/Day Case procedures</li> <li>- Outpatient appointments</li> </ul> </li> <li>• If yes, what breakdowns does your country report for waiting list data, which may include e.g. <ul style="list-style-type: none"> <li>- Categories of waiting lists (e.g., patients waiting for an appointment date, patients who have received an appointment date and are waiting to come in)</li> <li>- Time period waiting (0-3 months, 3-6 months etc.)</li> </ul> </li> </ul>	13.02.23



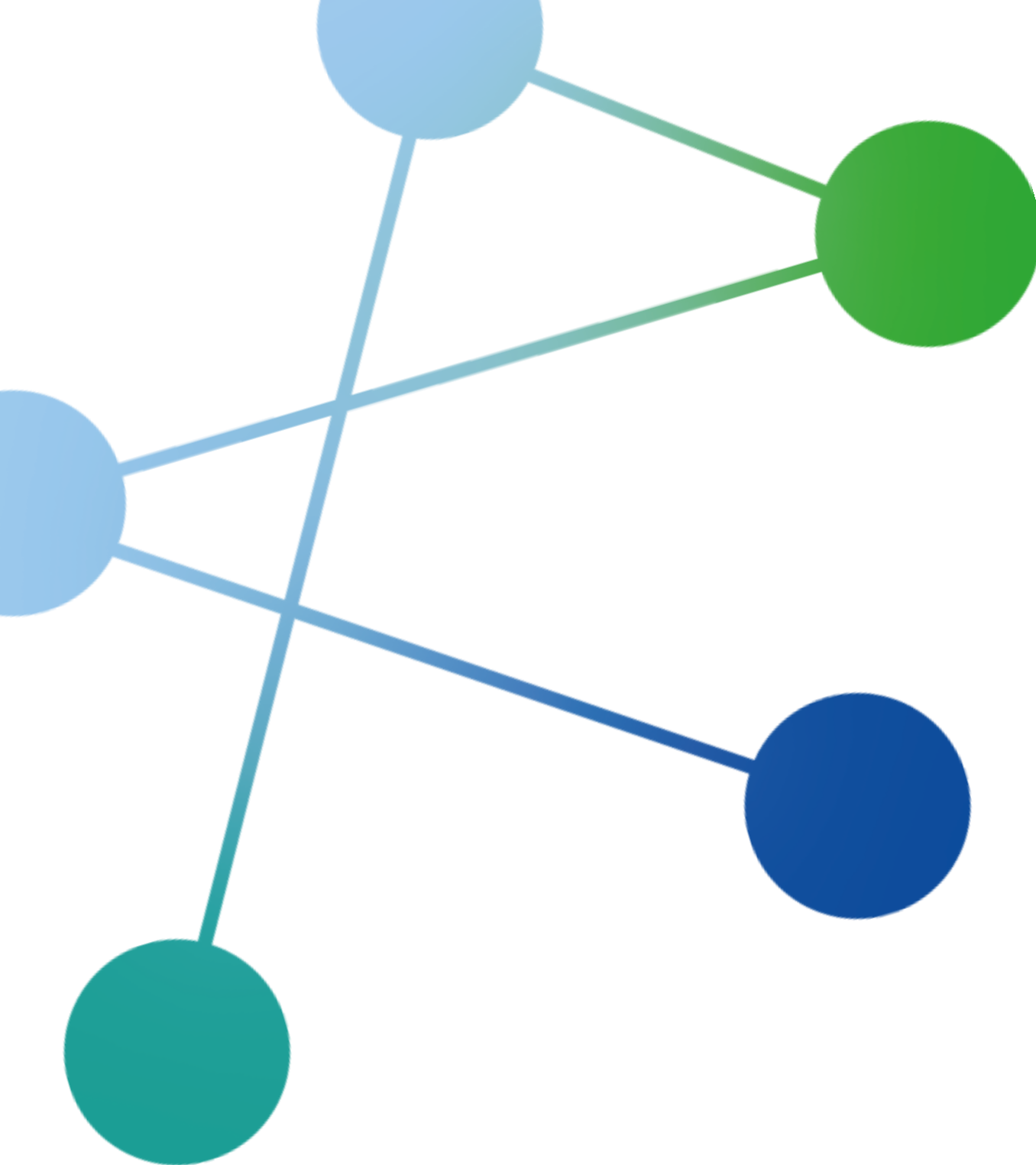
	<ul style="list-style-type: none"> <li>- Geographical disaggregation</li> <li>- Any other disaggregation</li> <li>• How are wait times measured? For example, <ul style="list-style-type: none"> <li>- Outpatient waiting time: time from GP referral to specialist consultation</li> <li>- Inpatient waiting time: time from when the patient is added to the treatment waiting list to when they are treated</li> <li>- Referral to treatment waiting time: time from GP referral to treatment.</li> </ul> </li> <li>• Does your country publish data on the level of inflows to and outflows from waiting lists (i.e., the numbers being added to and removed from waiting lists)?</li> <li>• What formats are the data published in (e.g., open data, PDF reports, others)?</li> </ul>	
49	<p>Vision on resilience indicators</p> <ul style="list-style-type: none"> <li>• As COVID-19 measures has been lifted or relaxed around Europe, which COVID-19 indicators, if any, are foreseen to be measured long-term in your country, and are there any thresholds defined that would trigger reintroduction of measures or emergency action?</li> <li>• Have analyses been performed in your country regarding population adherence to NPIs (e.g. via mobility data, surveys), and/or has there been a weighted analysis of effectiveness and economic viability of measures on another basis?</li> <li>• Have strategies/tools/mechanisms for measuring or evaluating the improvement of health system resilience been set up or are there plans to do so?</li> </ul>	27.03.23
50	<p>Treatment of long Covid patients</p> <p>In order to keep up with this topic, we would kindly ask for a follow-up to REF 14 (07/06/21):</p> <ul style="list-style-type: none"> <li>• How does your country organise the physical and psychological treatment of long COVID patients, especially with regard to Mental Health?</li> <li>• Are there specialized clinics/departments/centres in place or are specialized clinics/departments/centres currently being developed? If so, please provide details, such as: <ul style="list-style-type: none"> <li>- Which professional groups (specialists, nurses, psychologists, ...) and disciplines are involved?</li> <li>- How can individuals access the clinics (walk-in, referral ...)?</li> <li>- Are the clinics stand-alone entities or part of larger institutions such as hospitals or primary care centres?</li> <li>• Are there specific pathways in the treatment of children and youths established? If so, please provide details, such as: <ul style="list-style-type: none"> <li>- Is there a publicly funded facility for parents to obtain publicly funded long Covid consultations with specialised physicians?</li> <li>- Have any day care centres been set up for children affected by long Covid?</li> </ul> </li> <li>• Is there any available data on waiting times or information on bridging measures during the waiting period for a specialized programme?</li> <li>• Is there any legal protection or special support for employees (not to get terminated or pressured, e.g. helpline) in the process of diagnosis-finding?</li> </ul> </li> </ul>	24.04.23
52 Special Edition EUPHW	<p>Covid-19 impact on population's mental health</p> <ul style="list-style-type: none"> <li>• How does your country measure the pandemic's effect on the population's mental health? <ul style="list-style-type: none"> <li>• Which tools or monitoring (systems) does your country use to obtain information on the mental health of the population?</li> <li>• Which subgroups are most affected in your country?</li> <li>• What implementation measures have been/are being taken to respond to the impact of the pandemic?</li> <li>• How does your country deal with suicidality in the wake of the pandemic? Is there any special support since the pandemic?</li> </ul> </li> </ul>	22.05.23

53	National action plan on postviral / postinfectious syndromes	Does your country have a national action plan or similar strategic policy papers regarding postviral / postinfectious syndromes (in general or associated with specific pathogens, e.g. Long COVID)? We are interested in documents that cover aspects such as care pathways, healthcare planning and financing, data collection and registries, research, awareness raising and others. Please provide links to the relevant documents or websites?	05.06.23
55	New Covid-19 variants	<ul style="list-style-type: none"> <li>• How are MoH preparing for the next winter? Are there any specific plans or are you aware of any ongoing planning with regard to the new Covid-19 strains BA 2.86 (Pirola) and EG 5 (Eris)?</li> <li>• To what extent are MoHs using lessons learned from the Covid-19 pandemic? Please give examples.</li> </ul>	11.09.23

## Disclaimer

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