PHIRI Road Show
Use cases & federated research

April 8th 2022
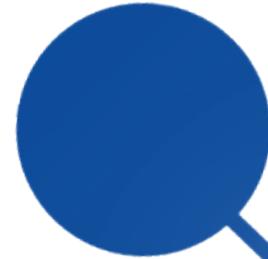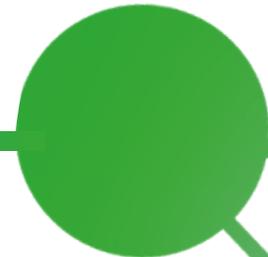
PHIRI use cases – Objectives

4 research use cases measuring the impact of COVID-19 on population health

Direct and indirect determinants of COVID-19 infection and outcomes in vulnerable population groups with reference to inequalities

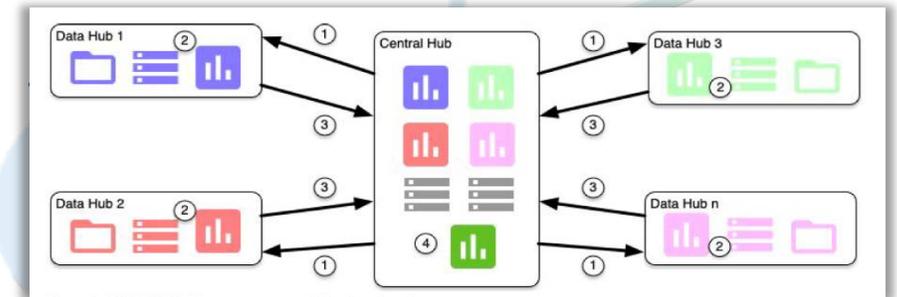COVID-19 related delayed care in breast cancer patients

The impact of COVID-19 on perinatal health and perinatal health inequalities

COVID-19 related changes in population mental health

Demonstrate how a broad variety of secondary data (e.g. administrative and survey data) can be pooled and/or reused in a distributed way across Europe:

2. Pilot activities for the benefits and added value of a research infrastructure by bringing together data from different European countries and **feeding the results into the federated research infrastructure**

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PHIRI use cases – Mid Project achievements

1st round questionnaire

✓ Aims to get a better sense on the actual access to data and data hubs' capabilities

2nd round questionnaire

✓ Specific of each use case, to start off the process of harmonising data throughout a common data model

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PHIRI use cases – Mid Project achievements

→ In **over 20 data hubs**, data is mobilized and ready to be analyzed in a distributed manner

USE CASES	SCIENSANO	GÖG	FBiH	CIPH	UZIS	NIHD	THL	INSERM	RKI	EOPYY/UTH	AEEK	ISS ISS/UNIVPM	CDPC	RIVM	NIPH/HD	DGS/UNL	INSP	NCZI	NIJZ	ISCIII	IACS	FoHM	SU	N PARTNERS
												PARTNERS PARTICIPATION												
A	P	L	P		P	P			P		P	P	P	P			P	P	P	P			L	15
B	L		P	P	P	P					P	P	P			P	P	P			L		P	13
C	P		P	L				L	P			P	P				P	P					P	10
D	P	P	P	P		P	L				P	P	P		P	P	P	P	L				P	15

Legend:
- **L** Leader
- **P** Participant partner

PHIRI use cases – Mid Project achievements

→ In **over 20 data hubs**, data is mobilized and ready to be analyzed in a distributed manner

→ In **12 data hubs**, the PHIRI-app Docker is already deployed and tested

USE CASES	PARTNERS PHIRI-APP DEPLOYMENT																							
	SCIENSANO	GÖG	FBiH	CIPH	UZIS	NIHD	THL	INSERM	RKI	EOPYY/UTH	AEEK	ISS ISS/UNIVPM	CDPC	RIVM	NIPH/HD	DGS/UNL	INSP	NCZI	NIJZ	ISCIII	IACS	FoHM	SU	N PARTNERS
A, B, C, D	D	*		D	D		*					D		D		*			D		D	D	D	9

Legend:	D	PHIRI-app Docker deployed and tested
	*	Partners that have made the commitment to test the solution in their systems (WP7 De

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PHIRI use cases – Mid Project achievements
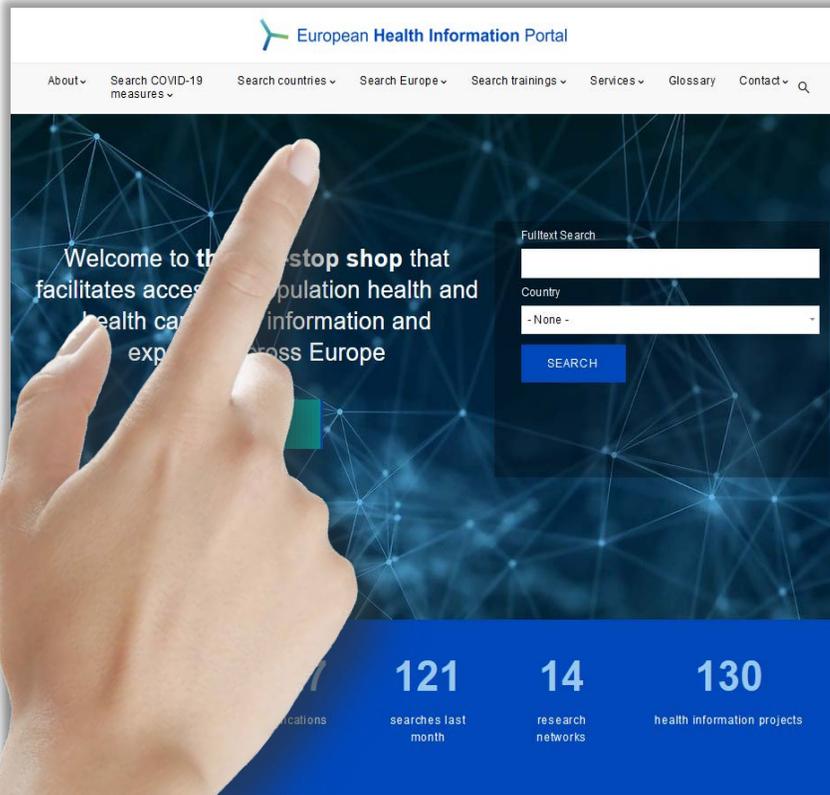
→ In **over 20 data hubs**, data is mobilized and ready to be analyzed in a distributed manner

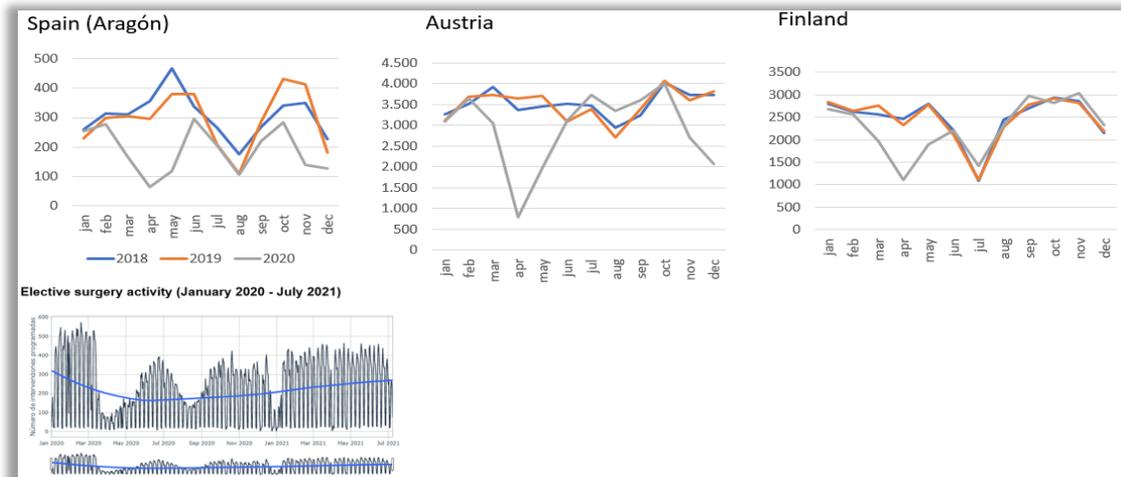→ In **12 data hubs**, the PHIRI-app Docker is already deployed and tested

→ First result are expected in **May 2022** and will be published on the **Health Information Portal**

FRI deployment at mid-term

Help desk + nodes
Domain

Help-desk + Nodes
IT + Domain

Nodes
Deploying Docker & running pipeline

Research Question → Common Data Model → Synthetic dataset → Quality Analysis (scripts) → Analysis (scripts) → Use Case Deployment → Outputs recollection & synthesis → Use Case Deliverable production

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docker

zenodo

What's next?

- Supporting the use cases' full deployment

- Developers' forum

- Mapping CDM to OMOP

- FRI upgrading
  - Communication across nodes – towards a M-to-M approach
  - Distributed algorithms - towards federated learning
  - Design of future computing solutions (hardware and software)
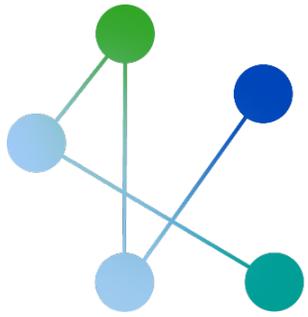
PHIRI
Population Health Information Research Infrastructure

Thank you very much for your attention!

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