Improving Health Research in EU through FAIR Data
To **facilitate and encourage** the EU Health Research community to **FAIRify, share and reuse** their datasets derived from publicly funded research initiatives through the demonstration of the potential impact that such strategy will have on health outcomes and health research.
Problem statement

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 824666
Methodological Approach

Raw Data Analysis → Data curation and validation → Data de-identification & anonymization

Raw → Licence attribution → Make data linkable

Data versioning → Metadata aggregation → Publishing

Indexing → Semantic modeling

FAIR

https://www.fair4health.eu/en/resources

https://www.youtube.com/channel/UCpycUlqaXMAJCZPatqcm4cg
The FAIR4Health core architecture

- **The core component** is an HL7 FHIR server.
- Utilizing the **HL7 FHIR standard** within the data source facilities provides support and is an **enabling factor for data FAIRification** in many aspects.
Why HL7 FHIR?

FAIR4Health evaluated if and how the HL7 FHIR standard can support the data FAIRification, highlighting the relationships between FAIR data object conceptual components and HL7 FHIR, assessing the Force11 Facets and Principles and the FAIRPorts requirements as described by Force11 community.

FHIR data doesn’t imply FAIR data... but FHIR may help the FAIRification...

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FAIR4Health Platform

EOSC technical architecture

FAIR4Health platform technical architecture

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Improving the reuse of data in biomedical research by making health research data Findable, Accessible, Interoperable and Reusable

#1 Identification of multimorbidity patterns and polypharmacy correlation on the risk of mortality in elderly

#2 Early prediction service for 30-days readmission risk in patients with Chronic Obstructive Pulmonary Disease (COPD)

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Opportunities for Cooperation

- RDA WG on ‘Raising FAIRness in health data and health research performing organisations’: https://www.rd-alliance.org/groups/raising-fairness-health-data-and-health-research-performing-organisations-hrpos
- FAIR4Health open community: https://www.fair4health.eu/en/membership