

FAIR Health Data and HL7 FHIR in the European Health Data Space

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Abstract

The European Health Data Space (EHDS) is a strategic priority for Europe. EHDS is a policy initiative that aims to provide a common framework across European Union Member States for the sharing and exchange of quality health data such as electronic health records, patient registries, and genomic data to support healthcare delivery (primary use), but also to facilitate health research, policymaking, and legislation (secondary use). In the context of supporting open health science and research using data from health care institutions in a safe and trustworthy way that complies to GDPR and other pertinent regulations is critical. In fact, creating or making available Findable Accessible Interoperable Reusable (FAIR) health data sets is crucial to stimulate and sustain innovation in the digital health economy supporting open science. The project FAIR4Health has spearheaded developments in this area through broad collaborations and a platform that allows access to health data sets through algorithms. The use of FAIR data in the health ecosystem finds support in HL7 International, where the HL7 FHIR standard and the “FAIRness for FAIR” implementation guide accelerate the availability of FAIR data sets. HL7 FHIR builds on the concept of Application Programming Interfaces and drives integration of health systems and creation of health data sets of attestable quality and provenance. In this effort, the use of the specifications for the European EHR exchange format (EHRxF) fulfils another part of the question. EHRxF aims to improve interoperability in lab observations, imaging studies and associated reports, discharge reports, patient summaries for rare diseases, and ePrescriptions. Its use improves the quality and interoperability of health data, while decreasing the time, effort, and cost involved. In this talk, after introducing the relevant initiatives, we will discuss how FAIR health data, EHRxF, and HL7 FHIR support the European Health Data Space considering also global implications for role of EFMI and national Societies in the training of future health informatics professionals.

Keywords: European Health Data Space (EHDS); Findable Accessible Interoperable Reusable (FAIR); European EHR exchange format