



## The Promise of Data Sharing in Healthcare: A Reality Check

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COCIR VIRTUAL SESSION

The Promise of Data in Healthcare | 2 November 2021

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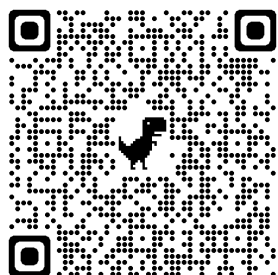


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## European Commission study on Monitoring the Interoperability of Electronic Health Records in the EU (2021)

- ▶ Data gathered in the form of a survey
- ▶ Respondents: national representatives of the eHealth Network and expert correspondents across the study countries
- ▶ Topics:
  - legal and regulatory context;
  - organisational level and financial investments;
  - security and access;
  - semantic interoperability;
  - technical interoperability;
  - the level of actual use of interoperable EHRs;
  - the use of EHR and big data for early warning and surveillance;
  - digital diagnosis of COVID-19.

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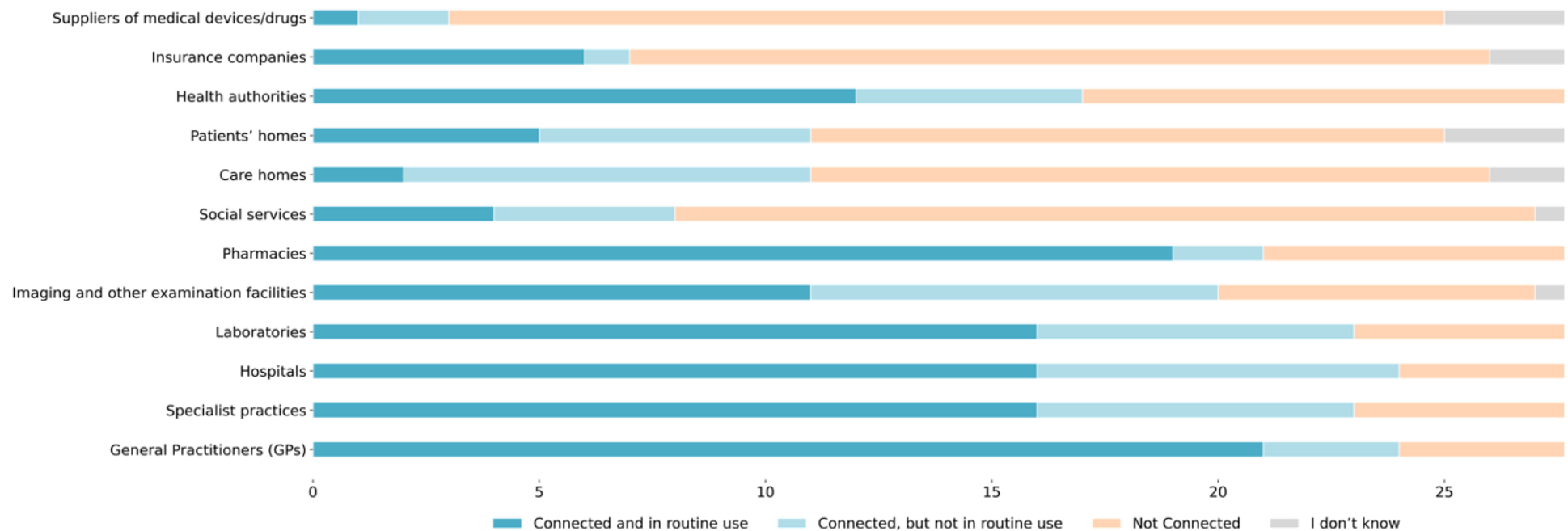


## Key results and summary

- ▶ The survey of actual data use is the closest approximation and data currently available about the reality of EHR across the whole EU - and thus of digitisation per se
- ▶ Provides decision-makers with a systematic approach to measuring EHR use and to measure progress in digital health in the future
- ▶ Heterogeneous picture:
  - National level EHRs do not exist in most Member States
  - Data exchange across sectors is a challenge in most countries
  - Majority of EHR data is unstructured data, limited use of international semantic standards
  - Large-scale data exchange across borders possible to limited extent (Estonia-Finland)
  - eHealth Network guidelines considered in only half of EU Member States

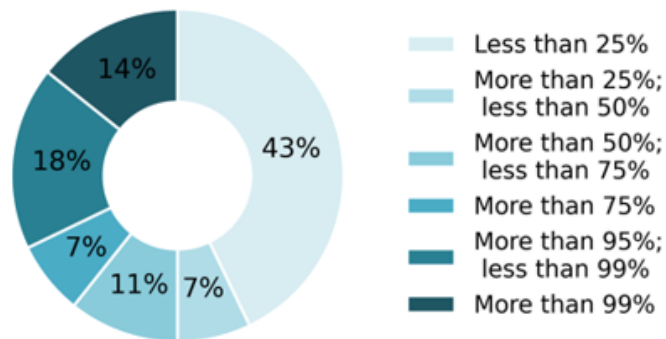
# Health Data Connectivity: EHRs systems which cross sectors are implemented in half of the EU

To which of the following organisations or persons is your national EHR system connected electronically? Are the connections to the organisations used routinely?

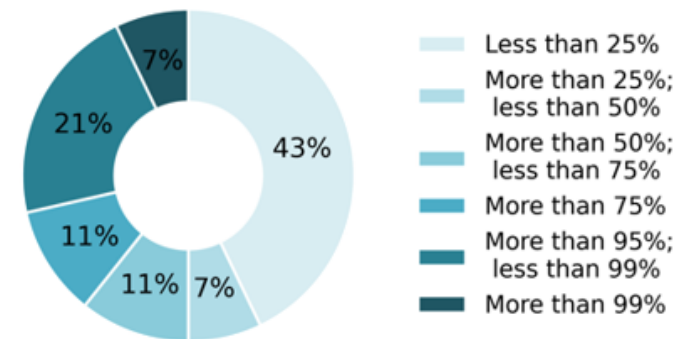


## Electronic data sharing among health professionals only in few advanced countries

What proportion of General Practitioners exchange EHR patient data with hospitals?

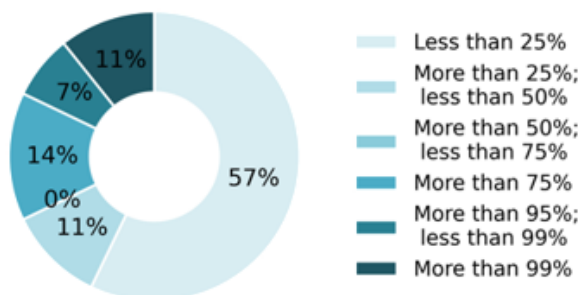


What proportion of General Practitioners exchange EHR patient data with specialists?

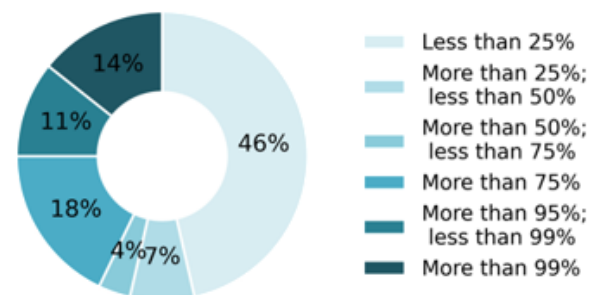


## Actual use of national EHR system by type of data with mixed picture

What is the approximate percentage of **Imaging reports** (as of the total number of all Imaging reports) sent to the national EHR system in the last year?



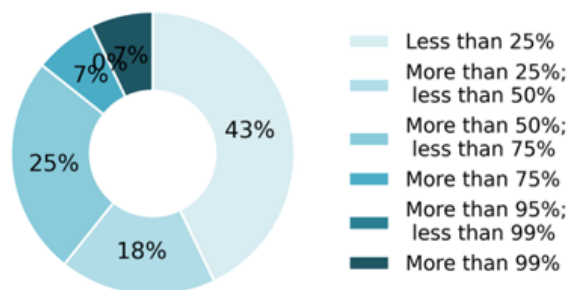
What is the approximate percentage of **hospital discharge reports** (as of the total number of all discharge reports) sent to another healthcare provider organisation in the last year?



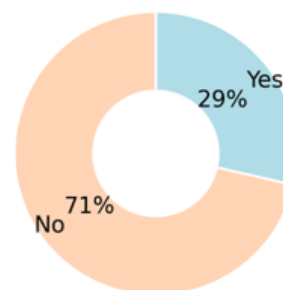
## Data quality: The amount of clearly structured electronic health data is low in most countries

Level of structured and coded content of patient data

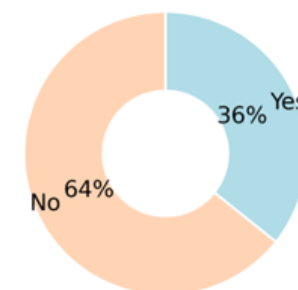
What is the approximate proportion of data entries by healthcare professionals on a national level that are structured and coded data based on clinical terminology standards?



Does your country maintain programmes such as healthcare provider training with the aim to improve data quality?



Does your country audit the clinical content of Electronic Health Records for quality?



## Proportion of structured and fully coded health data in national EHRs: mixed picture

- ▶ **The main prerequisite for exchangeable patient data is a structured format, only achievable through semantic interoperability**
  - ▶ Only two countries report that almost all electronic data is structured data
  - ▶ Four-in-five countries have a level of structured data below 75% and two-in-five countries below 25%

	Finland	France	Netherlands	Portugal	NHS England	Germany
Primary Sector	> 99%	< 25%	50% - 75%	25% - 50%	95% - 99%	< 25%
Secondary Sector	> 99%	< 25%	25% - 50%	< 25%	50% - 75%	< 25%
Pharmacies	> 99%	> 99%	75% - 95%	75% - 95%	75% - 95%	< 25%

Source: 2021 Study for the German Association of Research-Based Pharmaceutical Companies (vfa): "Status and perspectives of health data use in research. A European overview", empirica 2021








## How is health data made available to public research and to industrial research? For industry, legal access to data is yet another story

Legal permission to data access for industrial research from national EHRs

Potential use case	Finland	France	Netherlands	Portugal	UK	Germany
<i>Clinical trials</i> (patient recruitment)	✓	✓	✓	✓	✓	✗
<i>Clinical trials</i> (studies)	✓	✓	✓	✓	✓	✗
Pharmacovigilance	✓	✓	✓	✓	✓	✗
Personalised medicine	✓	✓	✓	✗	✓	✗

Source: 2021 Study for the German Association of Research-Based Pharmaceutical Companies (vfa):  
"Status and perspectives of health data use in research. A European overview", empirica 2021

-  **Heterogeneous level of digital health maturity**, interoperability and readiness towards supporting health data
-  **EHRs are not yet a reality** across the EU, many patients cannot easily access and use them or transmit their data between healthcare sectors and providers
-  Sharing data across borders or for secondary use **remains a vision**
-  If EHRs are not interoperable, the use of data in healthcare **will remain a very theoretical and scientific enterprise**
-  More national level work needed, European efforts need to **identify national needs** to support better



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# Thank you!

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