

Establishing a nationwide collection of medical routine data in primary care - expanding the FIRE project

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Background

The FIRE Project

family medicine icpc research using electronic medical records

The «Family medicine ICPC Research using Electronic medical records» (FIRE) is a research network of Swiss general practitioners (GPs) which voluntarily provide anonymized, structured medical routine data derived from their electronic medical records (EMR). The FIRE project established the first and – to date – only database of clinical routine data in Swiss ambulatory care. Data extraction from routinely used (EMR) is, however, prone to bias due to incomplete EMR adoption and integration in daily practice, lack of medical documentation standards and interoperability (figures 1 and 3).

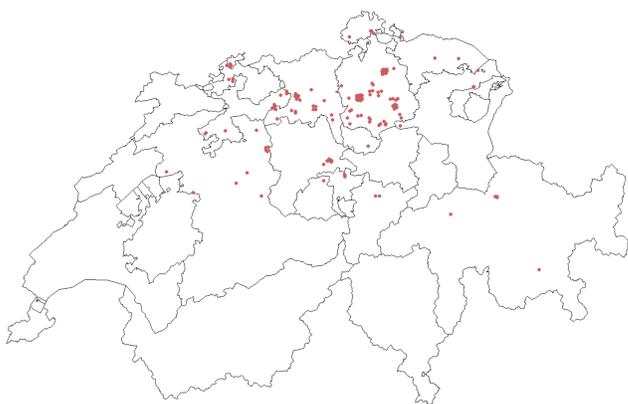


Figure 1 A total of 234 GPs are included, based in 13 different German speaking cantons, August 2017.

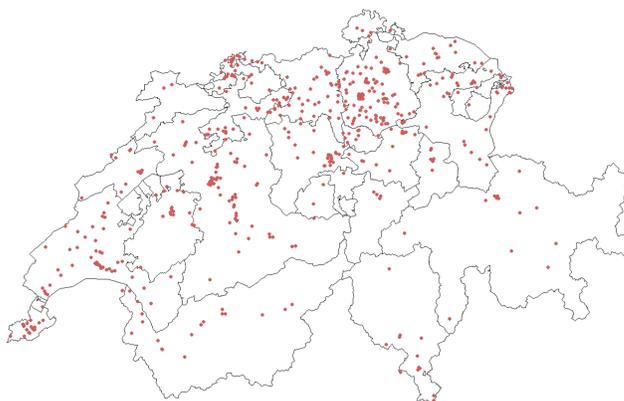


Figure 2 Our vision for the coverage of included GPs.

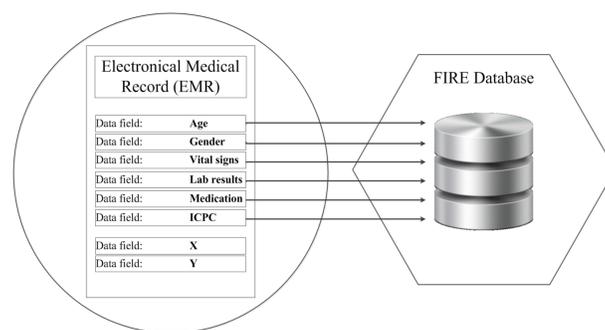


Figure 3 Scheme of FIRE dataflow showing the included core variables.

Goals

It is our objective to expand the FIRE project, achieve representative coverage of Swiss GP practices and establish a continuous monitoring of quality measures.

The aim of the study is to encourage general practitioners to record routine data in their routinely used software in a standardised format and to determine the optimum level of financial reward for this collaboration. In addition, data quality will be reviewed and improved if necessary (figure 2 and 4).

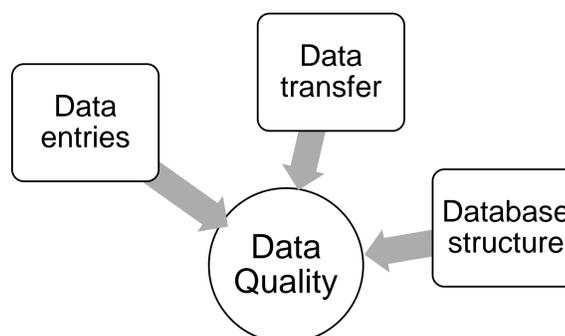


Figure 4 Improve data quality in means of structured data entries, improved data transfer and database infrastructure.

Approach

A multifaceted approach focusing on three domains:

Technical Aim

- Encourage further EMR providers to develop and provide a FIRE interface.
- Develop and improve the database structure.

Organizational Aim

- An inter-institutional team recruits new GPs in the different areas of Switzerland.
- Enhancing the proportion of structured data entries. Design and validate a training concept for GPs and medical assistants.

Economical Aim

- Validate a pay-for-performance incentive scheme that encourages GPs to participate in the FIRE-project, follow the standards of structured data capturing.

Expected Results

This project will improve the data situation in the out-patient care setting in Switzerland. The basis it provides will make it possible to institute monitoring of the quality of out-patient care and carry out comparative analyses. In addition, it will deliver knowledge about financial incentives for GP practices that can be input into compensation models.

References

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