

TITLE:

Improving data quality by conducting systemic changes in the collection process: perspectives from the French Technical Agency for Information on Hospital Care.

Introduction

In France, health data is generally collected in hospitals on a monthly basis for funding and evaluation purposes since 1996. The Technical Agency for Information on Hospital Care (ATIH) sets up the coding rules and the specifications of the data formats once a year. The primary data collection consists of discharge summaries (diagnoses, procedures), administrative and billing information of every hospital stay and every sector (public/private). Many costly drugs and their indications, and implantable medical devices are also included in the mandatory datasets. As researchers and policymakers set up new quality assessments and develop new funding models, the demand on hospital data collection increases and becomes more complex. Over the last ten years, the ATIH has added 11 datasets on top of the primary data collection representing around 190 more variables at the patient's level, with new data types such as biological results, follow-up data for selected conditions or treatments (chronic kidney disease, cancer medication, gene therapy), and patients' satisfaction. However, the exhaustivity and quality of these "new datasets" is low, resulting in a low exploitability. The increasing demand for data is currently impeded by the heavy reliance upon clinicians/care teams and manual data entries.

Methods

The ATIH has conducted a threefold study to describe the main obstacles and incentives to producing data collections. The first one consisted of a dozen field interviews with medical information teams and a quantitative online survey of 1427 healthcare institutions conducted in January 2022. The second one consisted of six interviews with the most established or innovative publishers of health information systems (HIS), and the analysis of the French national database on HIS software companies implemented in hospitals. The third one consisted of 7 interviews with national and local organizations in three countries (Australia, Denmark, England). A report was provided and several cross-cutting workshops were organized at the ATIH to identify priority areas for action.

Results

The first performance leverage concerns the adaptation of HIS within hospitals. The importance of good coordination of the information producers within institutions and the adaptation of software tools are crucial. Unfortunately, the short timeframe imposed by the regulations strongly constrains the ecosystem's players in their ability to adapt to the information system.

The second determining factor concerns the data flow from medical or administrative patient records to data production software. The study highlighted the atomisation of the publishers' market: a vast number of software solutions, covering more or less functional domains with few data standards, resulting in a very low level of interoperability and implying a significant amount of manual reprocessing, mainly via Excel.

Conclusions

The ATIH has identified several actions to design more efficient medical information collection processes related to new requests, from the urbanization of HIS to semantic interoperability, to simplify the production of medico-administrative data collections to alleviate the burden of clinicians and care teams.