Could you present the missions of the Health Data Hub?

Created by the Law of 24 July 2019 on the organisation and transformation of the healthcare system, the Health Data Hub is a public partnership structure whose objective is to allow project leaders to easily access non-nominative data accessible on a secure platform, in compliance with regulations and citizens' rights. They will be able to cross-reference data and analyse them to improve the quality of care and support for patients.

The data made available by the Health Data Hub will be those of the historical National Health Data System (Health Insurance treatment sheets, hospital billing data, medical causes of death) as well as a "data catalogue" (cohorts, registers, extraction from hospital warehouses), built in a progressive and iterative manner in collaboration with the data collectors. The main challenge is to enhance the value of this effort to collect and improve the quality of databases so that sharing them more widely is not perceived as a loss of control by the players who created them. This sharing will make it possible to enrich the sources by encouraging their cross-referencing and to increase the number of projects for reusing these data to improve the quality of care.



© Health Data Hub

What is your initial assessment of the Health Data Hub's action in relation to its roadmap and what services do you plan to develop to facilitate the processing and use of data?



© Health Data Hub

Our roadmap was adopted in January 2020 and is broken down into 4 areas. The first challenge is to decompartmentalise health databases whose access rules are often heterogeneous and complex. Secondly, to set up efficient services to support project leaders. Our calls for projects have made it possible to select 20 innovative pilot projects using artificial intelligence techniques.

Thirdly, to position France as a leader in the use of health data. We have also been appointed as the competent authority on behalf of France for the joint action launched by the European Commission to set up a European health data area. Fourthly, to ensure the participation of civil society in this initiative by publishing clear, directly understandable information and by explaining our commitments to ensure the protection of health data.

What concrete progress has the Health Data Hub made 1.5 years after its creation?

The HDH is currently supporting 27 pilot projects and 15 Covid projects. 5 projects and 3 databases will be on the technological platform in the summer of 2021. More than 20 partnerships are under discussion with actors who will be able to contribute to the data catalogue tomorrow. To date, a number of projects are already showing concrete results.



© Health Data Hub

The **BACTHUB** project (AP-HP – Inserm) aims to understand the link between antibiotic use and the development of antibiotic-resistant bacteria. The HDH

supported the APHP in consolidating data on 50,000 patients from 37 hospitals over a 5-year period. The **HYDRO** project led by the start-up Implicity aims to correlate the data of 27,000 connected pacemakers with those of the Health Insurance to prevent heart failure attacks. The HDH has contributed, alongside the CNAM and the Implicity team, to improving the matching rate between these two data sources. The **ORDEI** project supported by the ANSM aims to automate the calculation of the rate of adverse drug reactions. The HDH has provided data science skills to create a first model of the tool using data available in open data.



© Health Data Hub

The **NHANCE** project supported by the AP-HP is a tool to improve the interpretation of ultrasound images of ventral organ lesions. The dedicated team has already automatically extracted 80,000 anonymous ultrasound images, whereas it would have taken two years to extract them manually.

In addition to supporting projects, the Health Data Hub plays an important role in animating the ecosystem. This is done by organising major events such as the **Grand Défi Santé**, data challenges (with the French Pathology Society), colloquia with the Ministry of Solidarity and Health, winter schools with the 3IA institutes, or a symposium on AI and medicine with **MIT** and the National Academy of Medicine.