

Health Data Hub : an ambitious French initiative for tomorrow's health

March 2019

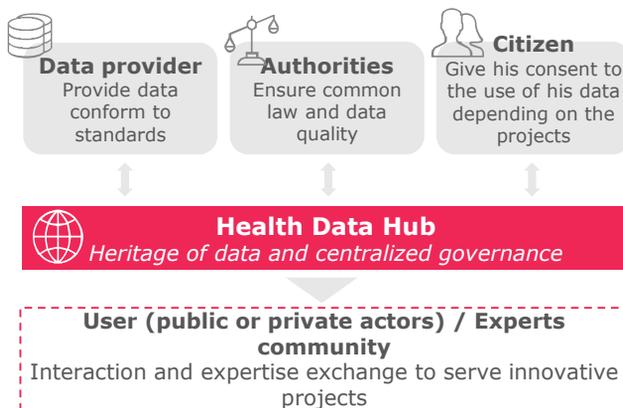
A strategic tool to serve innovation and promote Artificial Intelligence in healthcare.

The Health Data Hub, for which a prefiguration report was published at the end of 2018, is one of France's major initiatives within its Artificial Intelligence strategy to become one of the most attractive places for IA specialists. Its aim is to enrich the current medico-administrative open database and to concentrate all of the French heritage of health data in one place, where it can be used by researchers, health professionals, care institutions, industrial, insurers, start ups, medtechs...

Not only will it ease the access to relevant data for health actors but it will expand the scope of data available and provide the means needed to analyze these data (tools, team of experts, etc.)

This single and unique data platform will also be a place to share knowledge, as users, data providers and citizens will be able to interact with each other and benefit from each other's expertise in order to serve a common interest : innovation.

This unique interface is also a way to create a unified governance and a standard data format, opening the door to international databases while staying in a secured and regulated environment.

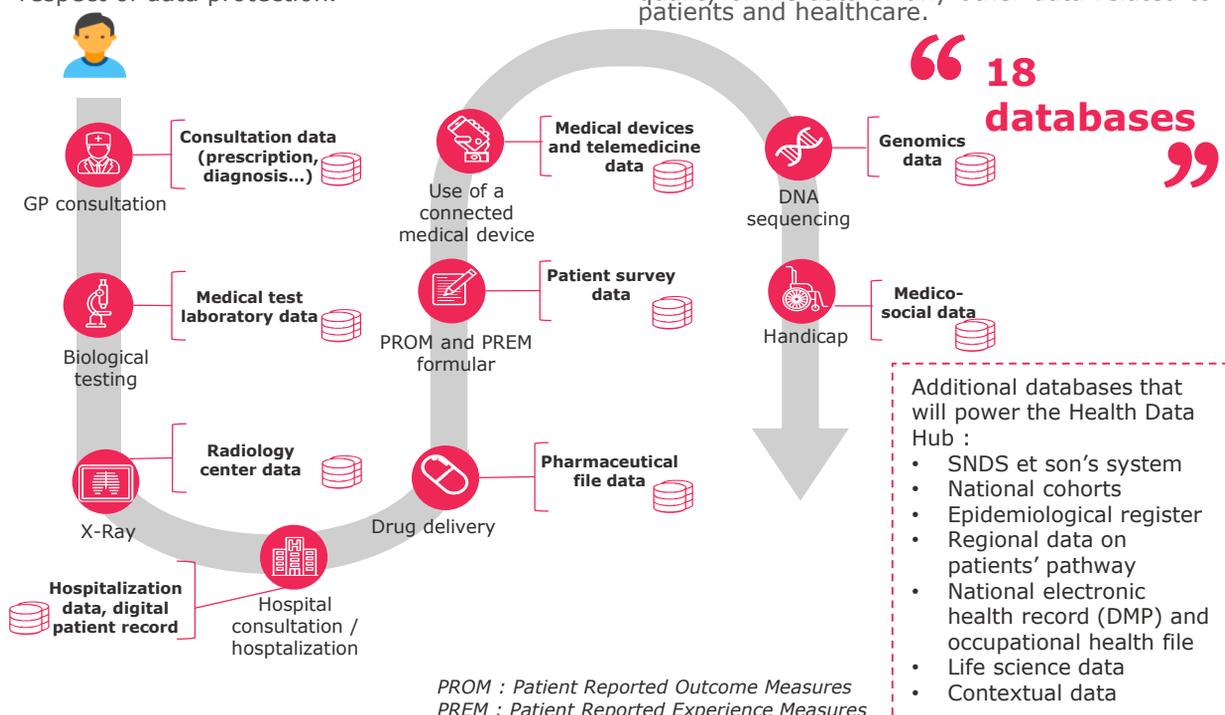


#1 One patient : 18 health databases

The Health Data Hub will be composed of 18 databases, from SNDS data to laboratory testing data. All of these databases will be filled with patient data; enriched all along the patient journey, in complete transparency and respect of data protection.

These possible sources for the Health Data Hub are not exhaustive and one of the project's requirements is to be able to be in constant evolution. The matching of these different data sets remains the major challenge of the initiative.

This health platform could, in the future, be connected with other data such as environmental data, patient compliance data, quality of life data or any other data related to patients and healthcare.



PROM : Patient Reported Outcome Measures
PREM : Patient Reported Experience Measures

#2 The patient remains actor of his own health

The « ENS » project

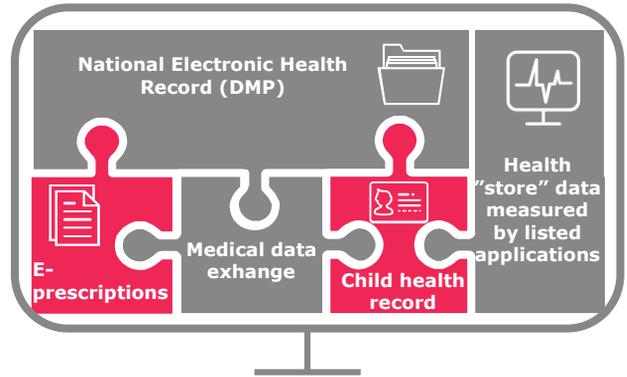
Creating a digital and personal health space for each user from birth is the purpose of the « ENS » project (« Espace Numérique de Santé », the e-health personal space). This interface will allow the user to manage all his health data, have a privileged interaction tool with the healthcare system and access different personalized services.

This project is part of the health care system transformation strategy « Ma santé 2022 » launched in March 2018, with ambition to be put in place by 2022 (subject to the health law vote, currently under examination by French Parliament). One of its objective is to empower citizens as actors of their healthcare throughout their life.

5 categories of data will compose the ENS:

- National Electronic Health Record (DMP) which contains data from health professionals (medical reports, results of medical tests, physicians letters...) and data from patients like documents from their original paper health record.
- E-prescriptions
- Medical data exchanges via mail between citizens and health professionals, via the secured ENS messaging or telemedicine tools...
- Child health record with information on vaccination, allergies, blood type, medical history...
- Vital signs data monitored by applications or connected medical devices that will be listed in the health "store". Indeed, it will be possible to use digital health services via the ENS if these applications and services are listed in the national e-health platform.

The « ENS » data environment



Health Data Hub and ENS

Each user of the ENS will have to sign an informed consent regarding data collection, use and dissemination. The user will be able to give access to his data to any public or private actors for example to be part of national cohorts or real-world evidence studies.

The Health Data Hub will have the power to provide data needed to produce predictive services thanks to a complete description of the entire French population. The predictive services could then be connected with other services for patients such as the ENS and send personalized advices to patients.

#3 For private and public actors : ambitious perspectives for innovation

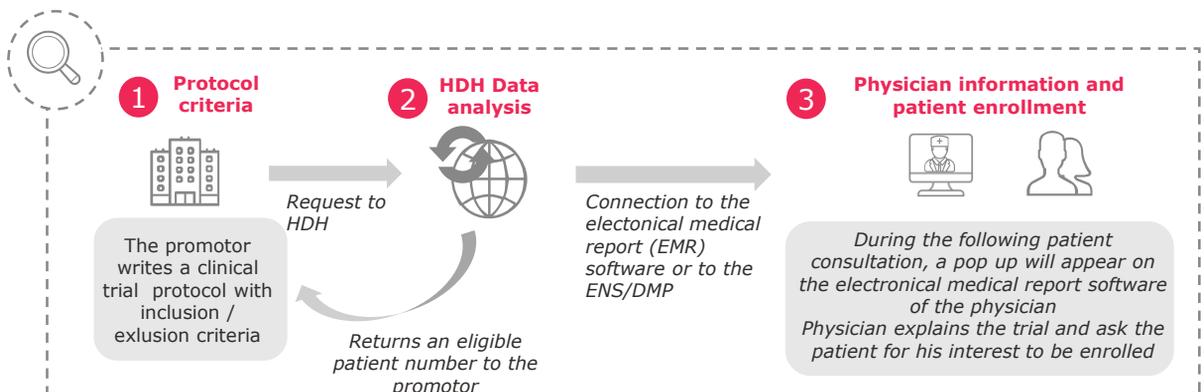
With the HDH and the many possibilities that "e-health" have to offer, there are endless perspectives of innovation and use. These possibilities are as profitable for private and public actors as for patients.

Here are some examples of the uses that could be implemented with trained algorithms, the HDH, the ENS and their connections to the whole healthcare system.

Patient enrollment in clinical trial

For clinical studies, patient enrollment becomes more and more complex. Half of the clinical studies are delayed due to enrollment issues.

The HDH could accelerate the enrollment process by instantaneously counting the number of eligible patients and informing then informing physicians of their eligibility during a consultation.

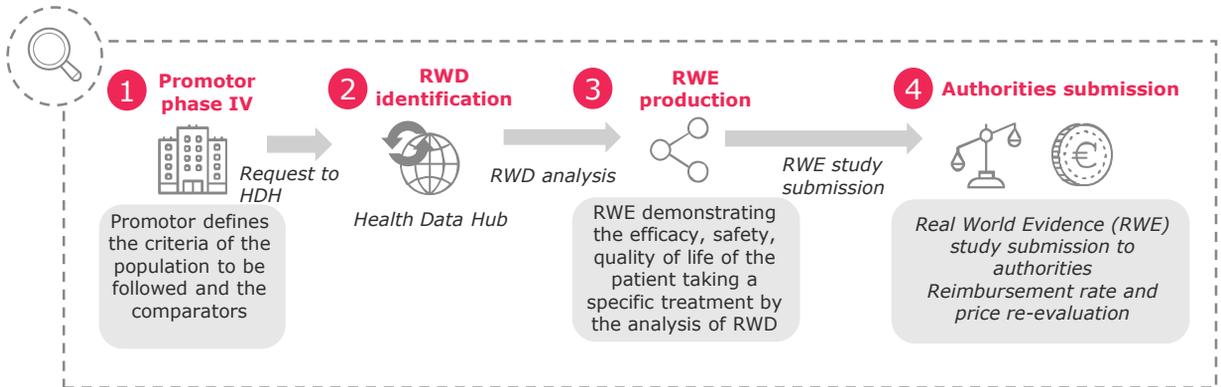


Real-World Data (RWD) and Real-World Evidence (RWE) production

Clinical studies are long and expensive to implement. They provide results on the drug administration in a specific controlled frame that is not real life conditions. Moreover it can be difficult to compare results between different clinical studies (indirect comparison of different new treatments).

RWD analysis could provide exhaustive and real life analysis. Aware of RWD potential, health authorities are developing new evaluation frames with RWE and artificial intelligence.

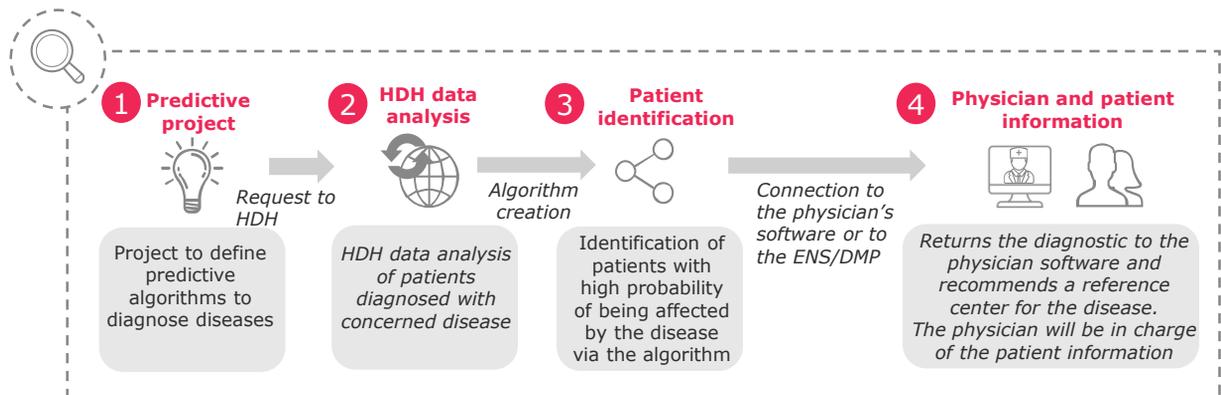
The HDH gives the possibility to access RWE data on patients.



Diagnosis assistance to healthcare professionals for rare diseases

Patients with a rare disease suffer from diagnostic wavering due to the poor knowledge on these diseases by most physicians.

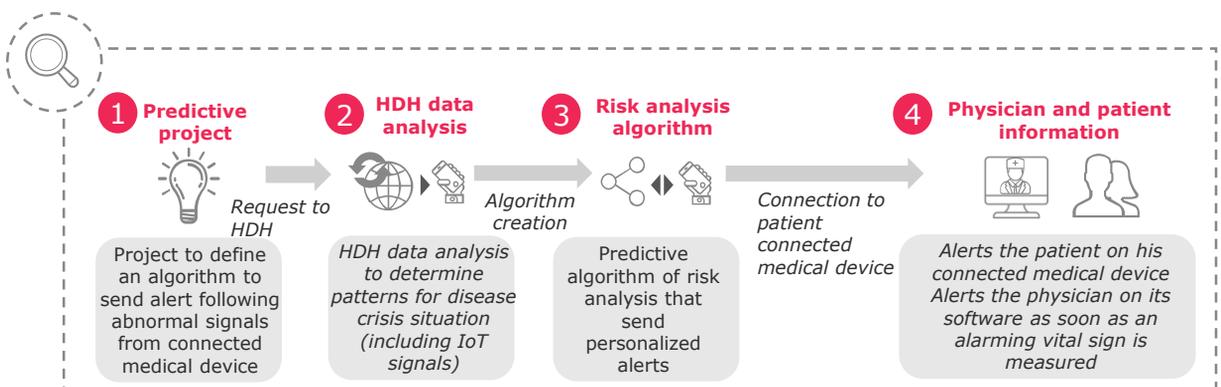
With the HDH, algorithm could be trained on health data coming from diagnosed patients. This algorithm could then produce a diagnostic probability for each patient during consultation depending on his clinical manifestations.



Patient follow-up with connected health tools

Patient follow-up during consultations is not always sufficient to avoid disease aggravation or crisis.

Permanent follow-up thanks to predictive algorithms integrated to connected medical devices could assist physicians in the identification of patients that require closer follow-up or an urgent consultation



#4 An opportunity to innovate with health data

The Health Data Hub creates a new paradigm around health data and its use for public and private projects

- Facilitated data access and collection
- Partnerships acceleration with healthcare facilities (medical test laboratories, radiology centers, general physicians...).
- Participation to a community sharing and implementing best practices (legal, IT, data processing)

#5 What are the next steps?

Health Data Hub dynamics have already started and it is time for key actors to take part:

- Build partnership with health data providers, start ups...
- Innovate with new projects using health data
- Be part of the next HDH call for projects !

Between 5 to 10 projects will start in April 2019 within the first call to projects of the HDH.

First results should be communicated by the end of 2019.

Our expertise

OpusLine supports you to accelerate your project with health data



We leverage our unique knowledge of transformations happening in health sector to fuel innovative ideas



We provide technical expertise and knowledge of all actors to support your market access activities



We provide a deep knowledge of Health data, use cases and analytics tools to maximize your BI initiatives

TO FIND OUT MORE

Joëlle Bouet

07 87 94 03 11

joelle.bouet@opusline.fr

Olivier Floch

06 37 99 28 64

olivier.floch@opusline.fr

Kilina Guerrier

07 63 30 11 82

kilina.guerrier@opusline.fr

Bertrand de Neuville

06 69 01 59 63

bertrand.deneuille@opusline.fr