Intersystems & Hack Healthcare:
Exploratory Workshop Report

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Goal

The goal of the exploratory workshop was for InterSystems to explore, together with their close health ecosystem and partners, 3 key topics and to create a catalogue of challenges hypothesis within these topics: very specific, narrowly defined problems that InterSystems could sponsor at Hack Healthcare, and whose solution can take place within 18 months, without the need of new regulations or technology.

Participants were coming from a wide variety of the health ecosystems such as: hospitals, local politician, Trade & Professional Association, Facilitator, IT companies and Business consultancies

Methodology

Choosing the direction of the challenges

Three areas where the challenges were to be explored – below – had already been identified by InterSystems. Participants, divided into 2 groups based on their expertise and background, were asked to choose one of the three topics to work on with their group. The two topics selected by the groups are highlighted below.

1. **Improving data quality**
   Improving the quality of data collection, getting clean data: data need to be gathered correctly and tagged as it should to make sure it's HEALTHY DATA. Data is everywhere, however if the data collected is not trustworthy, it is not easily exploitable.

2. **Enhancing data sharing in and between hospitals**
   Enhancing data sharing between departments within hospitals, between different hospitals within the hospital networks, and between different hospital networks for the direct benefit of the patients. Finding a common way of communicating through, for example, standards, clean protocols, clearmy defined use cases, etc.

3. **Enhancing data sharing between the lines of care**
   Enabling better data exchange between the first and second lines of care: between hospitals and patients, hospitals and GPs, patients and GPs, but also with home nurses, physio, … etc.

Identifying most impactful and urgent issues

Participants of the first group thoroughly examined the framework of enhancing data sharing in and between hospitals, while the participants in the second group focused on enhancing data sharing between the lines of care. Both groups wrote down use cases based on their experience and linked to their topic and, through discussions, clustered similar problems together. They then examined the following components of the issues previously identified:

- **The urgency**: based on the imminence (is the problem already here, emerging soon, or still a long way off?) and lack of attention (is the problem being overlooked, or severely under-invested or is there already sufficient investment of money and effort in solving it?) of the problem

- **The impact**: based on the scale (how many people are affected by this problem?) and severity (how serious is the impact of this problem on an affected individual?) of the problem.

Based on this exercise, each group then chose one problem to present to the audience:

Topic	Problem identified
Enhancing data sharing in and between hospitals	Patient journey: importance of transfer points in sharing patient's data

To exemplify these problems the participants have taken several examples:

1. There is a problem of care continuity in the same hospitals, for example, within emergencies who have transfer problems when they need to transfer patients to other departments

2. There is a problem of care continuity when the patients change from one hospital to another during the care journey

3. How do we avoid record duplication of patient's tests in laboratory (in the same hospital or when the patients move from one to another)?

4. How do we address the sensitivity and importance of sharing patient's data the amongst the doctors and their colleagues?

5. How do we create ownership and trust for the patients in sharing their data?

6. Medication scheme: it is important that the medication scheme of each individual is available at all times for them to be able to share it when necessary

Topic	Problem identified
Enhancing data sharing between the lines of care	

To exemplify these problems the participants have taken several examples:

1. There is a problem in monitoring the medical parameters taken by the patient?

2. How to identify and prioritize in the most efficient way possible to treat the medical problems?

3. The laboratory results are not easily available all in one place for the patients

4. There is not an easy and efficient patient summary available for the patients to find their medication schemes, though the pharmacies have a system where the patient can consult their medication scheme as it exists in the Algemeen Medisch Dossier at the GP

5. Exchange among hospitals for care continuity where understanding medication scheme of/for the patients' needs to be improved

The challenges hypothesis

What is a challenge?

A challenge is, in the framework of Hack Healthcare, a very specific, narrowly defined problem whose resolution can take place within 18 months and would not require new regulations or technology.

Hack Healthcare is the open, public sandbox that brings together all healthcare ecosystem stakeholders in a seamless, successful collaboration between people and companies – even between those that are usually in direct competition with each other – building bridges across the ecosystem.

An example of challenge from Hack Healthcare 2022 Edition: Accurate picture of patient journey: How might we collect, verify, augment and analyse these data to build an accurate picture of the patient journey, taking into account the patient experience and clinical data?

Outcomes

The findings and discussions of the workshop helped generating the following challenges hypothesis:

Enhancing data sharing in and between hospitals

Availability of the patients' historical data is critical for ensuring optimal treatment. However, at this time patient data is not digitally transferable between hospitals in the same network, or between hospital networks.

- How might the patient transfer their data with them when they change hospitals?

- How might we make relevant historical data of the patient accessible to the patient and to all the health stakeholders working for them?

- How might we use "portability" of patient data to improve the patient journey? And this without being too dependent on hospital IT systems (such as HER...) and technology?

The first ideations to tackle these problems are the following:

- Unique Patient ID is key

- Structuring the data is the prerequisite

- Improve access rights for all the actors would facilitate communications, reinforce trust and improve cybersecurity

- Educate doctors on the importance of sharing data (for better care of patients) and help them by making it not time consuming

- A solution should be as unintrusive and co-operating with different hospitals IT systems and technology

Enhancing data sharing between the lines of care

Patients and family members that accompany them to the emergency room are frequently unable to give sufficient detail of the patients' full medication use. It is, however, critical that the medication scheme of each arriving patient is known at the time of arrival to avoid life-threatening drug interaction problems, allergic reactions and other complications.

- How might we provide a digital analogue of the "yellow box" that could be carried by a patient themselves or by an accompanying family member?

- How might we quickly identify and contact the treating GP to get the full picture of the medication regimen of a patient?

- How might we design and deploy a checklist that the ER personnel can use to avoid most of the obvious drug interaction issues by asking simple questions to the patient or their family member?

The first ideations to tackle these problems are the following:

- Track patient medication efficiently, real-time

- Design a relevant checklist upon entry in ER to avoid potential critical situations

- Improve access rights so the patients can decide at all times with whom they want (and they don't want) to share this medical information

What's Step 04?

Going forward, InterSystems will engage in other workshops to keep exploring the topics related to enhancing data availability for patients, wherever they are, identifying clusters with the healthcare ecosystem while determining narrowly defined issues/challenges to address at Hack Healthcare. After the two final challenges, sponsored by InterSystems, at Hack Healthcare are established upon conclusion of the workshops, they will be subject to review from an extended group, representing the entire healthcare ecosystem, in a series of Ecosystem Workshops, to ensure they stay business relevant for several companies and organizations. This results in bringing the challenges will be brought to the Hack Healthcare event on June 13-14, 2023 resulting in solutions proposed and worked upon by the event participants.

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