

# Design Better Together: Co-design Workshop Protocol To Develop An M-Diabetes Data Sharing System Between Patients And Clinicians



Norwegian Centre for  
E-health Research

Meghan Bradway<sup>1,2</sup>, Alain Giordanengo<sup>1,3</sup>, Astrid Grøttland<sup>1</sup>, Rebecca Morries<sup>4</sup>, Eirik Årsand<sup>1,2</sup>

<sup>1</sup>Norwegian Centre for E-health Research, University Hospital of North Norway, Tromsø, Norway

<sup>2</sup>UIT The Arctic University of Norway, Department of Clinical Medicine, Tromsø, Norway

<sup>3</sup>UIT The Arctic University of Norway, Department of Computer Science, Tromsø, Norway

<sup>4</sup>The University of Manchester, Centre for Primary Care, Manchester, United Kingdom

## Background and aims

Co-design is a method used to involve end-users in the design and development of a solution as opposed to merely testing the end result. While this is not commonly used to design mHealth interventions, it furthermore does not commonly involve both patients and health practitioners (HPs) at the same time. Here we summarize our experiences with “co-designing” a data-sharing system between patients and HPs.

## Methods

We hosted two workshops: one involving patients with Type 2 Diabetes & General Practitioners and a second involving patients with Type 1 Diabetes & Specialists and a diabetes nurse. Each daylong workshop involved two phases: 1) Patient-Experts and HPs meet in separate sessions to discuss components of ideal

consultations and document facilitative tools and concepts. 2) Both parties join during a common session where they discuss the key components of the consultation and place their feedback on a storyboard, illustrating the optimal elements for the system and intervention (see Figure 1).

## Results

There were two main categories of results from both co-design workshops:

### 1. Input for the design and implementation for patient data-sharing systems in general

- Expectations of patients’/HPs’ responsibilities for sharing and discussing data during consultations
- What information it should show and how it should be displayed so that it is relevant for both patients and HPs
- Possibilities and limitations regarding what such systems can vs. should provide during consultations

### 2. Lessons learned from the co-design method

- Greater understanding of both patients’ and HPs’ needs and priorities beyond what we would have gained with questionnaires or focus groups alone in such a short period of time
- The concept of “co-design” is still not commonly used in preparations for clinical mHealth interventions
- The purpose of how their input is to be used must be clearly explained at the start of and reiterated throughout the workshop.

## Conclusion

The co-design workshops successfully demonstrated that patients and HPs can practically come together and design a consultation interface. We aim to use these inputs to facilitate the planning of the Full Flow Study [1] that a) asks relevant questions to reveal impacts on the consultation discussion and each stakeholder separately and b) evaluates the performance and usability of the system itself.



**Figure 1.** Illustration of the Co-design workshop protocol between A) the first and B) the second workshops whereby Patient Experts and Health Care Personnel informed the design of a system that progressively displays mHealth data for discussion during consultations.

## References

- Full Flow of Health Data Between Patients and Health Care Systems. 2017 [cited 2017 July 10]; Available from: <https://ehealthresearch.no/en/projects/fullflow>