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Appendix: How's My Health Dashboard Methods

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This appendix accompanies a set of resources describing the development of a prototype for a new digital resource, **How's My Health Dashboard**, which would help patients and health care providers work together to achieve health goals that are important to patients. This project was conducted by United Hospital Fund and supported by a grant from the New York State Health Foundation.

Accompanying resources, including interview guides and the dashboard prototype, may be found at [the United Hospital Fund website](#).

Methods

Setting and Participants

This project was conducted in a primary care practice that is part of a larger health system in New York City. UHF engaged the practice staff in recruiting patient participants. Our recruitment criteria included patients with diabetes who had some experience using a patient portal or other apps, patients who visit the clinic several times a year, and patients who speak English. We recruited 10 patients in total, but only seven were engaged through the entire course of the project. The project was determined to be exempt from the need for Institutional Review Board approval.

Practice Profile

- Multidisciplinary staffing model: MDs, NPs, registered dietician/certified diabetes educators, clinical pharmacists, nurse care managers, social workers, medical assistants, front desk staff.
- Strong leadership in quality improvement.
- Provides care to several thousand patients.
- Percent patient portal activation (Epic MyChart): 55%.

Patient Participant Profiles

- Ten patients participated. Seven completed the full set of five interviews; three participated in the first interview only.
- Ages ranged from 20s to 70s.
- Self-identified as African American/Black, Puerto Rican, or Puerto Rican/Cuban.
- Mostly women.
- All were diagnosed with diabetes (either Type 1 or Type 2) at least five years ago and up to 20 years ago and had other chronic conditions, such as depression, arthritis, low back pain, hypertension, and significant disabilities limiting ambulation.
- The patients received financial compensation for each interview they participated in.

Co-Design Approach

Given the limitations presented by the COVID-19 pandemic, we adapted the co-design methods to a virtual environment. We used co-design techniques—such as inquisitive interviews, storytelling, process mapping, and case studies—to engage patients and clinicians. We substituted planned, in-person group meetings of all participating patients and practice staff with in-depth, one-on-one interviews via Zoom or phone.

An interview guide was sent to participants via mail or email for their review and interview preparation. Each interview was carried out by two interviewers and a notetaker. All notes were transcribed by the notetaker, reviewed, and finalized by one appointed team member.

Empathic inquiry was central to the project as an interview technique, a method developed by the Oregon Primary Care Association.¹ It draws on principles of cultural humility, trust, and communication skill-building. This approach emphasizes listening without judgment; cultivating respect; and empowering interviewees by asking about their experiences, interests, and strengths—all with curiosity and care.

Using this technique, we elicited stories from patients about what it is like to live with diabetes and accounts from clinicians about what it is like to care for patients with chronic conditions. We also delved into their experiences interacting with each other.

We conducted two cycles of interviews. The first was exploratory and guided the development of the dashboard prototype; it is the subject of this report. The second cycle was aimed at getting feedback from participants.

Interviews

In the first cycle, each patient participated in a total of four one-on-one, one-hour long interviews about three weeks apart. The main objectives were getting to know each person; learning about their views of the relationship with primary care providers; listening to how they go about their lives, and balance their physical, social, and emotional needs; learning how they manage their health; and discovering what they hope for in seeking healthcare.

We elicited stories about patients' experiences interacting with primary care practices in general, as well as more recently in the context of the COVID-19 pandemic. This allowed us to get new information about the experience of virtual visits. This work occurred in the spring and summer of 2020, when medical practices in New York were quickly transitioning to virtual visits, while at the same time moving clinicians and other staff to positions needed to care for people with COVID-19.

We adapted a guide² to explore patient priorities, including what matters most to them in their lives as they manage a chronic condition such as diabetes (Interview Guide #1). We also delved into the details of patients' experiences with—and their level of confidence in—communicating what matters to them to their clinicians (Interview Guide #2). We then searched for existing standardized language that had been validated with patients and shown to accurately communicate concepts important to them, such as quality of care or risk of adverse outcomes, based on scores calculated from aggregated answers to several questions. We tested these with participants and found that not all standardized questions or word choices resonated with them (Interview Guide #3 and 4). The information gathered informed the selection of content for the first version of the dashboard prototype (Interview Guide #5).

In the first interview cycle, practice staff participated in one-on-one, one-hour long interviews. We explored their perspectives on the nature of their role and relationship with patients (e.g., coach, expert, advocate, partner). We elicited stories about typical interactions with patients, issues that were brought up, and challenges with achieving expected goals. We also obtained details about their workflow, including how they prepare for visits, follow up after visits, and coordinate care as a multi-disciplinary team. We sought their opinions on the use of health information technologies.

In addition, we held weekly team meetings with practice personnel to keep them apprised of the work and to discuss specific topics throughout the project.

Qualitative Analysis

Thematic analysis of patient and clinician interviews was conducted with MAXQDA, a qualitative data analytic tool, as well as with the use of the Fishbone Diagram tool, a quality improvement technique that is applied to identify many possible causes associated with an outcome—in this case ineffective interactions between clinicians and patients. We used it to structure the qualitative data transcribed from our interviews and to sort patient and clinician comments into useful categories.

The staff and patient interviews were conducted immediately after the first surge of COVID-19 in New York City, and during the summer and fall of 2020. The findings need to be interpreted in the context of a remarkable crisis that upset all aspects of New Yorkers' lives, particularly those of health care workers.

User Feedback

Once the first version of the dashboard prototype was developed, we sought feedback from clinicians and patients (see Methods). We conducted one-on-one interviews with each patient participant. We obtained feedback from the clinicians via one-hour interviews with two groups: first, the medical director and practice physicians; and second, the lead nurse and the diabetic educator, social worker, and medical assistants.

We walked the participants through an interview guide demonstrating each section of the prototype and solicited their opinion on the following aspects of the proposed dashboard: its ability to support communication about priorities that matter to patients; how easy it was to interpret; its guidance on health decisions; and how it might affect workflow and visit efficiency. We also probed for the willingness to use it, as well as anticipated challenges and barriers to use. We then revised the dashboard to reflect user feedback.

Patients

We tested the content and display for clarity and appropriateness by asking patients to go through the various dashboard sections and tell us how they would go about entering the requested information. Patients were also asked for their opinions about the dashboard's potential to improve their clinicians' understanding of their health concerns and priorities and what impact it might have on their care.

Clinicians

As in the patient interviews, we asked clinicians to provide feedback on the clarity and ease of interpretation of the dashboard. We described how content had been selected, how questionnaires were scored, and how to interpret the color coding and the visualizations of scores. We assessed face validity by seeking clinicians' opinions about whether the dashboard information would help them flag patients' priorities for an upcoming visit, and support agenda-setting. We also asked about their views of the dashboard's potential to improve their interactions with patients.

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Endnotes

- 1 Oregon Primary Care Association. Empathic Inquiry. <https://www.orpca.org/initiatives/empathic-inquiry>
- 2 Tinetti ME, Naik AD, and Dindo L. 2018. Conversation Guide for Patients and Caregivers for Identifying their Health Priorities. Patients Priorities Care. <https://patientprioritiescare.org/wp-content/uploads/2018/11/Conversation-Guide-for-Patients-and-Caregivers-for-Identifying-their-Health-Priorities.pdf>