

Evaluate

CSC 591 UX - Spring 2019

#digitalfamilyhistories, Optum Health

Team

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Client

Optum Health

Participants

We needed qualified participants to do a usability survey of our prototype. We sent out a link to the screening survey to our class group and friend groups.

Link to the survey: <https://forms.gle/QXGKgP7np3siL4w48>

A total of 11 responses were received and we chose 6 out of them who met the characteristics we were looking for.

List of characteristics wanted / not wanted:

- Wanted:
 - Balanced gender ratio (equal number of male and female participants)
 - Wide range of age distribution (as the application is targeted for a wide set of users)
 - Some experience/knowledge with health history forms (so that they can compare our solution with previous ones)
 - Have available time slot for an interview
 - Don't have an issue with their anonymized data shared in our study
- Not wanted
 - Uneven gender ratio
 - Similar age range
 - No availability

Survey results:

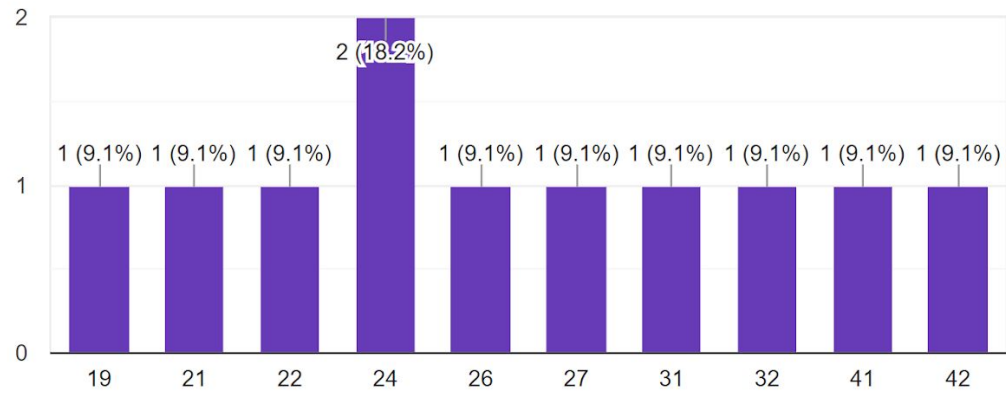
We chose 6 participants

- Who had some experience with health history forms
- Had available time slots
- Didn't have an issue their anonymized data shared
- Were from varied age group/gender

Below are the survey responses:

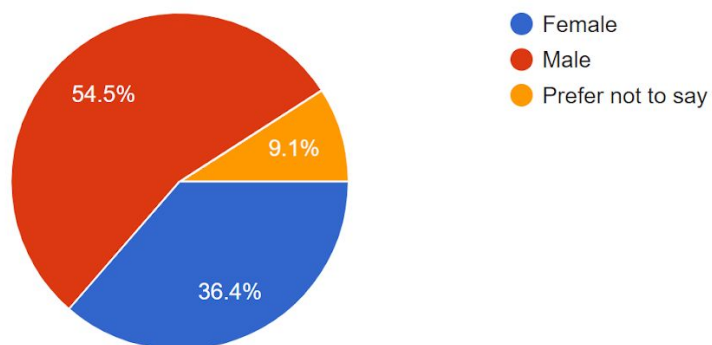
Age

11 responses



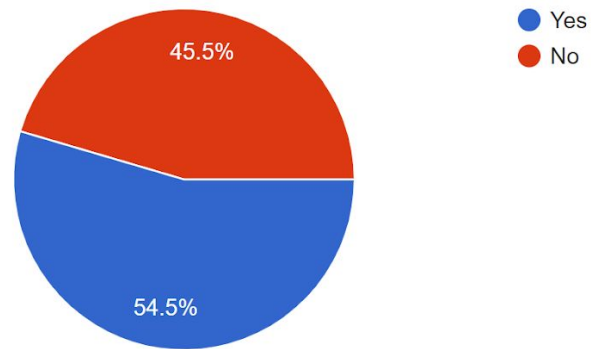
Gender

11 responses



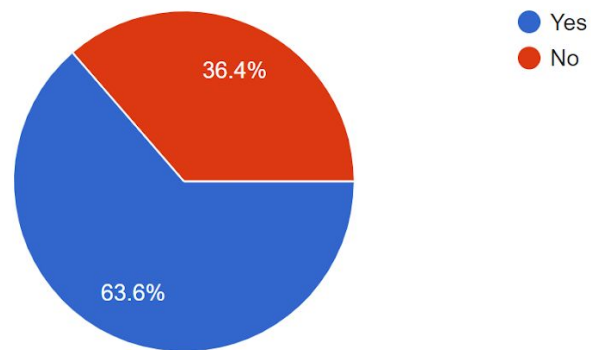
Have you filled any health history form before?

11 responses



Do you have any experience using any healthcare website?

11 responses



If yes, can you share some details about the form you used?
(how easy was it? what was the thing you liked about it? Did you think the form was very lengthy?)

5 responses

It wasn't that easy

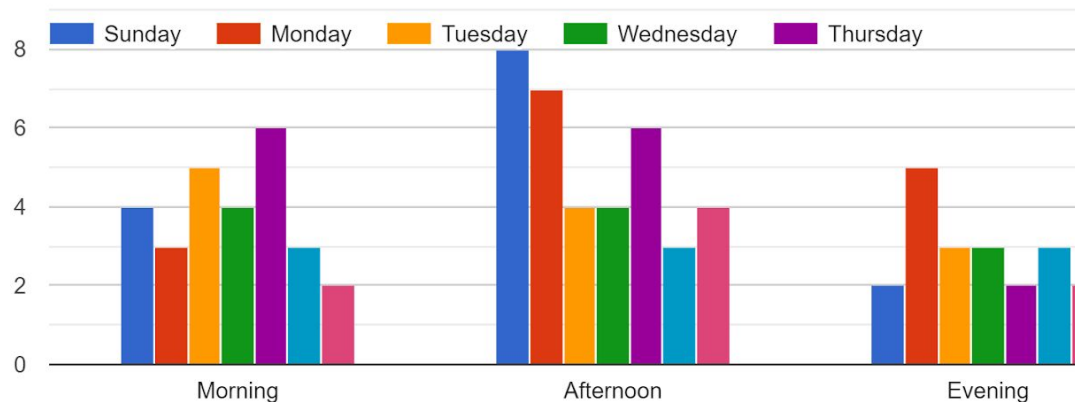
The form was quite lengthy & somehow felt that there were a lot of fields I did not understand or had to take help of the doctor.

i don't remember much about it...except that it was needed to fill forms

I felt the form was bad. It did not show good on mobile!!!!!!

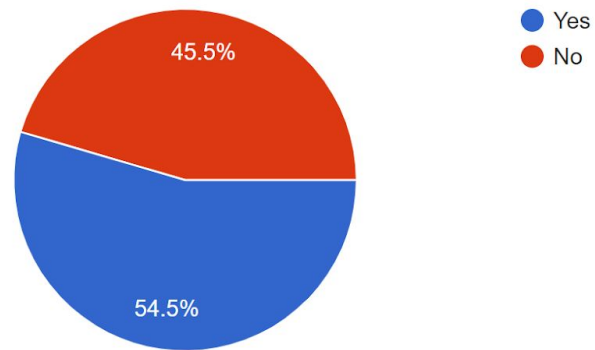
yes it was easy. I liked the end summary.

Availability for survey



Is it fine if we share your personal details like age, gender, etc. for the survey? (Email address will not be shared irrespective of the choice you make)

11 responses



Lab

- We reserved a room in the James B. Hunt library according to the availability provided by the selected participants.
- We used a laptop to demo the prototype we designed. The participant was allowed to freely navigate in the presented application.
- The laptop had Skype video call running in the background so that the reaction of the person along with the shared screen will be viewed by the rest of the team at a remote location. Apartment of one of the team members was used as a remote location. Also, the call was one way; mute from the remote apartment.
- One of us was sitting with the participant and interacting with him.
- Rest of the team was sitting in a remote location taking notes of the participant's responses.



Room at Hunt Library



Remote location for taking participant notes

Interview Script

- Welcome
 - Hi, my name is _____. I am a student of the UX class here at NC State.
 - Thank you so much for giving us your time to help us evaluate the prototype of our app!
 - This is a no pressure evaluation session - feel free to think out loud whatever you have in mind, before, during or after the session.
- Introduction
 - Have you been to any health care center recently?
 - You might have filled out a form of your health history. The health history form is the topic of our discussion today. We have made a prototype of the form that I'd like you to use and give your feedback.

- We wanted to improve the experience of filling out family health history digitally. Throughout the semester we have designed a prototype. It's not perfect and all the functionalities may not work yet.
- Once again, feel free to think out loud your thoughts.
- Prototype
 - So here's our prototype of the health history form. Please go ahead, you can start here. (Give control of laptop and open the application)
 - Here we have a tool that takes the medical information about you and your family and generates a risk profile based on the information provided. We also generate a pedigree based on the same information. Please note that we are in no way trying to evaluate your capabilities and just want to see how our application would be received.
- Testing
 - These are the different features we want to test out:
 - Sign up screen from the invite email
 - Your profile module
 - Family history module:
 - Ability to request/add parents information.
 - Ability to request/add grandparents information.
 - Ability to request/add other family members information.
 - Risk profile generation section.
 - Family pedigree generation section
 - We ask the following questions in order to encourage the user to think aloud:
 - What do you think about the alignment of columns?
 - How do you like the other member details addition feature?
 - Are the colors on the family page self-explanatory or do you think we should add legends for them?
 - Was there any information that you think we could have made mandatory?
- We thank the user and provide them the promised coffee!

Grid

Feature / Participant #	1	2	3	4	5	6
Accept Invitation	It clearly looks like an email which contains all necessary information and help if needed.	The invitation contained his doctor name. He thought there was too much unappealing text to read before getting started.	Assures me about data privacy	The purpose of the application was made clear	Easy to understand	Contains all the necessary information regarding the purpose of using the application
Sign Up	Usually, when creating an account, there is a re-enter password field. It seems missing here.	He liked this page and mentioned that it was good that it did not contain many fields for signing up.	No password policy is mentioned for creating passwords	Although, the password strength field is present, but it does not suggest how to make a strong password	Simple and easy to fill	It would have been better if there was a confirm password field.

Login	Nothing particularly different	No comments	Simple	Easy to fill	Concise	Good UI
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Feature / Participant #	1	2	3	4	5	6
Own Profile	Looked like just another form.	He did not understand what was the more checkbox in the form. Rest seemed okay to him.	Less interactive	Compact	Straightforward and self-explanatory.	Wanted to see his name populated instead of a placeholder for the prototype.
Family Details	Really liked the interface. It was clear that when I completed my own profile, it turned green and acceptable. However, the rest red icons indicated the remaining data. I feel it was quite self-explanatory.	The interface was pretty good as per him. He was clear in understanding that green indicated completed profile and red was the profiles yet to be completed. However, he suggested not to show uncles and aunts	It gives him the choice to fill out the information that he was comfortable sharing.	Visually appealing	It is not clear as what does different icon mean	The user wanted to understand what the colors indicated. Probably add a legend box.

		section if there wasn't any members added in that list.				
Family details from an existing profile	he liked the idea that he did not need to fill his parent's profile again if they already have an account. Simply import that!	He really liked this import feature. However, when the icon turned yellow, he thought that profile was incomplete and action should be taken by him to complete it.	Could have provided more information about the different profile creation options	The user liked the fact that he doesn't need to fill the form again.	Not clear how to use this feature	The user wanted to have a validation for the username when sending the request to a family member.
Add New Family Member	He asked why were there options for son and daughter as my health will not be dependent on the health of my son or daughter. It will only be vice-versa. So, these two options should not be included.	He liked the way that the feature was reused, that is, when you add an uncle, it is redirected to the same import/ create feature.	No comments	He liked the subtle changes made to the family profile page to incorporate the family details information.	He was able to navigate through easily	He had a question as to what happens when we want to add details regarding our great grandfather.

Feature / Participant #	1	2	3	4	5	6
Risk Profile	The profile looked complete. However, he wasn't sure how will he receive the analysis, will it all be in a descriptive email or a PDF file of the same.	He did not know how to interpret the profile. He was sure that tick was something good and cross something bad. He felt if there were a few more ticks and crosses then it would have been more meaningful.	Informative enough	There can be more level of risks as if only Red is given as an indication of disease. That can make patient worrisome.	User was satisfied with this page	The profile generated looked good but he still wanted to see the legends.
Family Tree	He was unsure about the generated Family tree.	He did not think that this is some other page showing more details.	More information about what does circle and square mean could have been provided.	The family tree structure is intuitive.	Should have provided legends to better explain family tree	Had a few questions regarding the meaning of the tree generated.

Results

Patterns

1. Registration email is informative enough [+]
2. No Password policies were mentioned for password strength field in Signup page [-]
3. UI for Login page is good [+]
4. Own profile page received good reviews as it was easy to fill and self explanatory[+]
5. Legends could be added to Family details and Family tree page [-]
6. Family details page received positive feedback overall as the user liked the UI and freedom to fill the family details [+]
7. The users were happy to see the ease with which they could add a new family member [+]
8. Users liked the Idea of importing existing profile functionality [+]
9. Add new family member received mixed reviews [Netural]
10. Risk level can be granularized into different levels [-]
11. Family tree could be made more informative [-]

Overall, the user feedback was positive. Users found the application to be functional but suggested some feedback that could enhance the overall usability. The import from existing profile feature was consistently appreciated by every evaluator.

Follow up

Based on the feedback, we propose the following changes: -

1. We will add password creation guidelines to assist users in creating a strong password.
2. Some users were confused by the layout of Family details page. More visual guides can be added to help the user to accurately identify input types.
3. We will add placeholders in the form fields wherever required.
4. We will provide a more granularized risk profile.

5. Current family tree information didn't initiate much interest from users, even though it is a critical stage of the application. More information, data points and visualizations can be added to engage users.

We didn't provide a more granularized report and tree because it was beyond the scope of this project.