USER FEEDBACK

In order to get feedback on our design, we created a video demonstrating the functionality of our design. We then ran focus groups and sent emails to potential users where we explained our product, showed the demo video, and asked questions for feedback. The questions we asked were:

- 1. What, if anything, do you like about this product?
- 2. What, if anything, do you dislike about this product?
- 3. Do you have any suggestions for improving this product?
- 4. Do you see yourself using this in real life? Why or why not?
- 5. Do you think the pillbox, reminder system, and notebook work well together? Why or why not?

We reached out to users from our target audience for feedback. However, in order to maximize the amount of feedback that we received in a very short amount of time, we also reached out to members of a more general audience: anyone who takes at least one medication regularly, regardless of whether they suffer from memory loss.

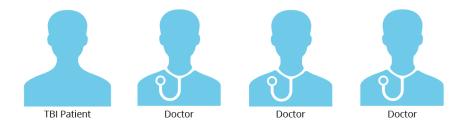
Our participants are summarized in the following graphic¹:

General Audience:



¹ *Feedback from the general audience was primarily solicited from friends, family and coworkers. While this approach led to important insights, it doesn't necessarily represent the opinion of the whole population. For more reliable results, random and stratified sampling should be used for additional usability testing.

Target Audience:



OVERALL RESPONSE

Overall, participants responded very positively to our design. Forgetting to take a medication was seen as a universal problem; one that our system played an important role in improving. Due to the accessible nature of our design, features were desirable to those with conditions related to memory impairments as well as those without. Even a young female participant explained "I would buy this for me!" While our prototypes are far from production ready, our user feedback illustrated that we are on the right track.

THINGS THAT WORK WELL

- Lights effectively catch the user's attention.
- There is a clear and valuable connection between the reminder and the pill box.
- Persistent reminders were seen as beneficial.
 - "Little things distract me."
- Participants enjoyed the flexibility of custom labels.
- Participants thought it was helpful to be able to add compartments as they wanted for different medications.
- Participants felt that the explanation of how to set alarms sounded reasonable.
 - "It's probably no more difficult than filling the boxes with pills."
- The journal was thought to be helpful, especially when a lot is happening or new medications are added.
- The system was even desirable for participants without medical memory loss.
 - "I'd buy that for me!"
 - o "I'm supposed to take Lipitor every day but I forget"

OPPORTUNITIES FOR IMPROVEMENT

- An application pairing would be nice so there wouldn't be as many physical objects to keep track of.
- Make sure label text can be large for those with vision impairment.
- Add custom notification tones.
- Sometimes pill boxes get lost. Add a find my pill box feature.
- When setting alarms, consider a "select all" type feature when setting an entire row of compartments to the same time.

EFFECT ON DESIGN

After gathering feedback from potential users, we were glad to see that the majority of the feedback was positive. Nonetheless, there is always room for improvement. While building more refined prototypes we carefully considered this user feedback. We increased the size of label slips and the whiteboard space on the reminder system the ensure they could accommodate larger text.

Scope and time restraints meant that we were unable to create a companion app. The team agrees this would be a convenient addition to the MedMem system. Content from the medication journal could easily be converted into this digital format and would enable caregivers to monitor information remotely.

In the end, our prototypes remain largely conceptual. The finer details of the technology and digital interface will require higher fidelity materials than we used for our refined prototypes. Future iterations should include a process for changing notification tones. A protocol for setting alarms could also be integrated into the system.