

BHRCC DASH DESIGN SPRINT OVERVIEW

July 31, 2020

Introduction

In spring 2019 CHNA 20 created the Blue Hills Regional Coordinating Council (BHRCC), a voluntary group of stakeholders from multiple sectors collaborating to address transportation needs in the metro Quincy area of MA. In order to address these needs, the BHRCC partnered with MAPC to conduct a needs assessment and develop a plan to close the gaps, along with a visualization and information sharing tool. As part of this process, the BHRCC wanted to generate a community transportation "heat map" to use as a baseline tool for measuring change over time, showing us in a graphic, real-time format where gaps persist and how efforts are transforming utilization for vulnerable residents. The BHRCC received a grant from Data Sharing Across Sectors, or DASH, to carry out this work.

In February 2020, the Blue Hills Regional Coordinating Council/CHNA 20 engaged in a design sprint that was modeled on the Design Sprint Methodology as detailed by Google and Jake Knapp of Google Ventures (**Error! Reference source not found.**). The design sprint occurred over three, five-hour sessions (on consecutive Thursday mornings).

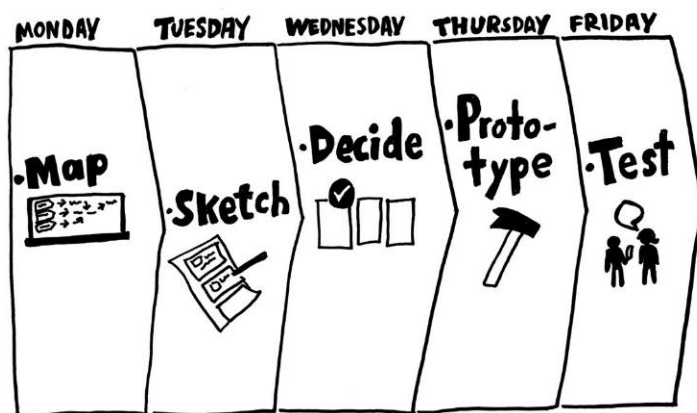


Figure 1: Design Sprint 5-day overview

The Design Sprint had three objectives:

1. To understand transportation-related assets and barriers existing with a geographical area so that the RCC and partners can identify potential methods for visualization
2. To build a prototype heatmap (product) so that the RCC and partners can summarize and visualize current conditions as update periodically as data become available.

3. To build a prototype heatmap in analog form so that the RCC and partners could create a potential digital version in the future

The BHRCC worked with MAPC to assemble a group of 12 – 15 community partners and regional healthcare/social services providers to participate in the 3-day design sprint. These service providers were the focus “user” of any potential visualization product that emerged from the design sprint.

Session 1

In session one, the team looked to create a shared knowledge base among all who were participating in the sprint and articulate the existing resources and challenges around transportation in the CHNA 20 region. The purpose was to foster shared understanding and provide focus for the additional steps in the design sprint process.

The first session began with an overview of the sprint design process. MAPC provide a summary of the three-day structure and some tools the group would use to ultimately develop a prototype. Following the overview, a set of “lightning talks” described the issues around transportation in the CHNA 20 region and how those are experienced by our target user – those who provide medical and social services for residents (Figure 2).

Lightning Talks



Figure 2. Lightning Talk topics

Attendees developed “How Might We” statements to frame the existing issues as future possibilities. The group used an affinity mapping exercise to organize the statements into categories that captured similar themes or focus areas (Figure 3). The categories represented sets of opportunities identified by the intended users.



Figure 3. Affinity mapping of How Might We Statements

To end the session, attendees engaged in a small-group activity to map the existing user journey that care providers embark upon to connect residents with transportation for various purposes (Figure 4). Following a group discussion of initial user journey maps, the small groups then designed improve user journey maps for an “ideal” scenario, given the existing transportation system (Figure 5).

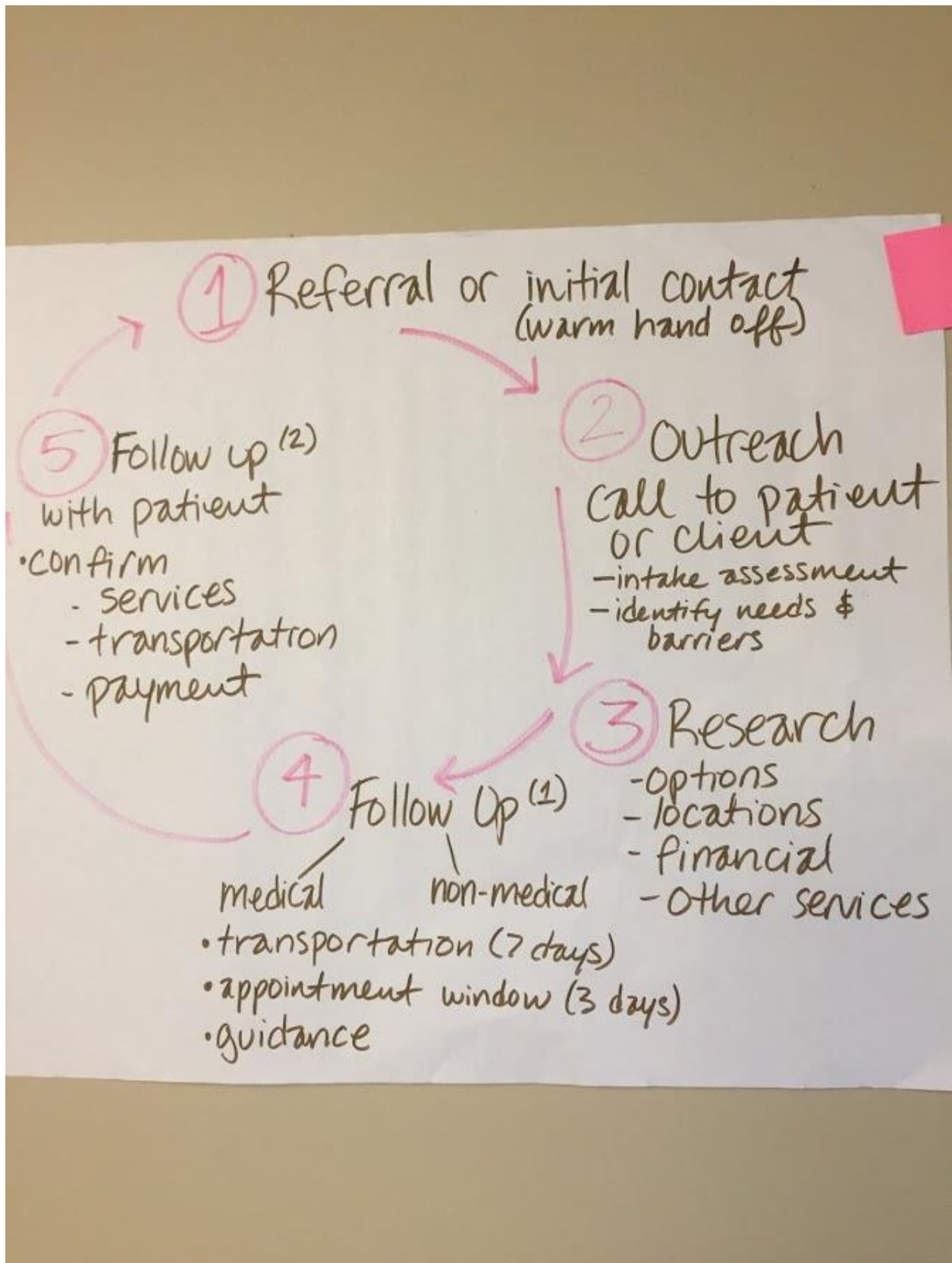


Figure 4. User journey map from session 1

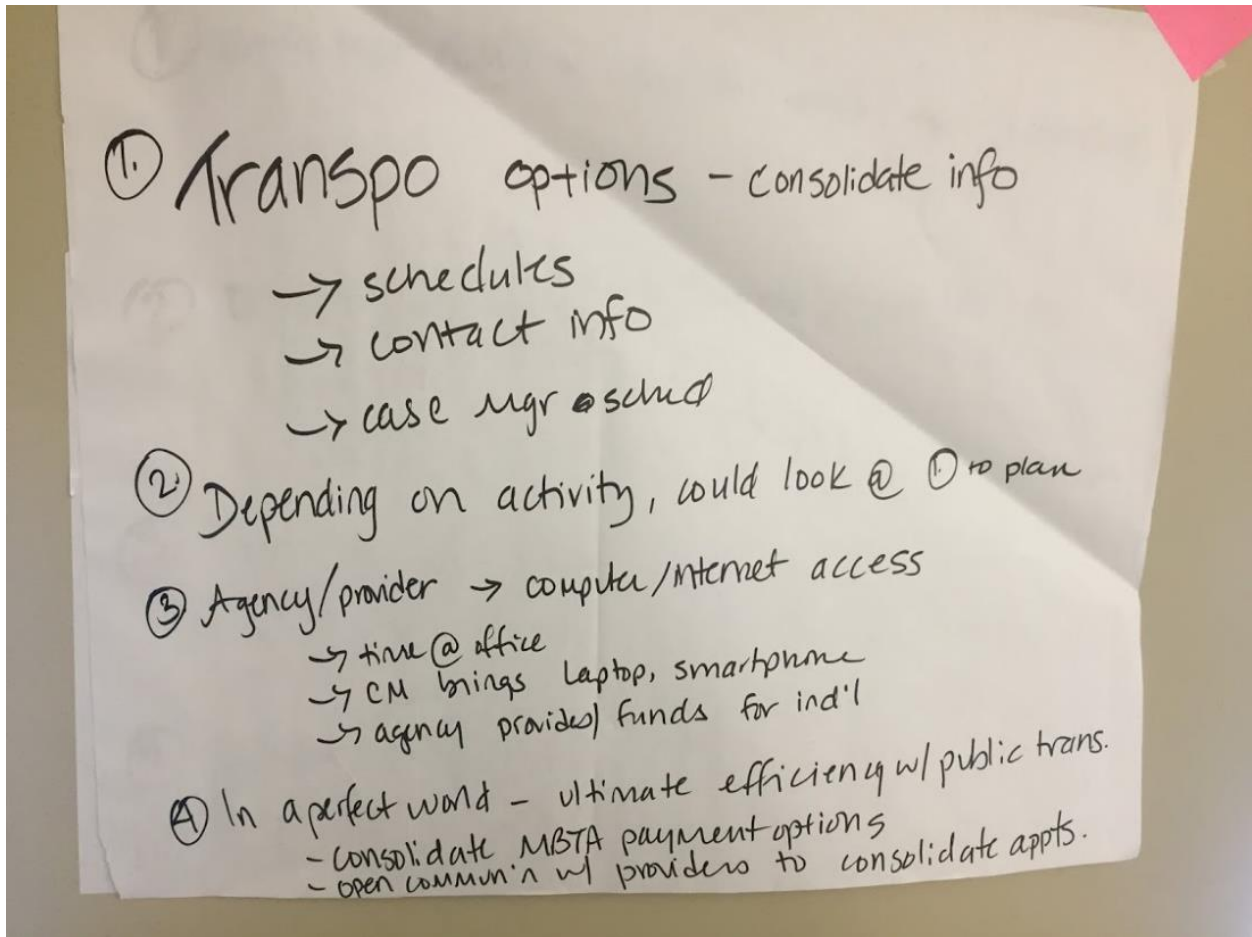


Figure 5. Improved user journey map from session 1

Session one ended with a recap of the work completed, a review of how the work represented building and sharing understanding that is important to the design process, and a request for attendees to explore “comparable solutions” and bring ideas to the next session. Comparable solutions are examples of how other fields have developed designs and answers when faced with similar challenges.

Session 2



The second session began with an overview of the prior session, including a summary of the lightning talks, the categories that the How Might We questions fell into, and a review of the journey maps and improved user journey. The How Might We categories that the facilitators noticed included those shown in Figure 6 below:

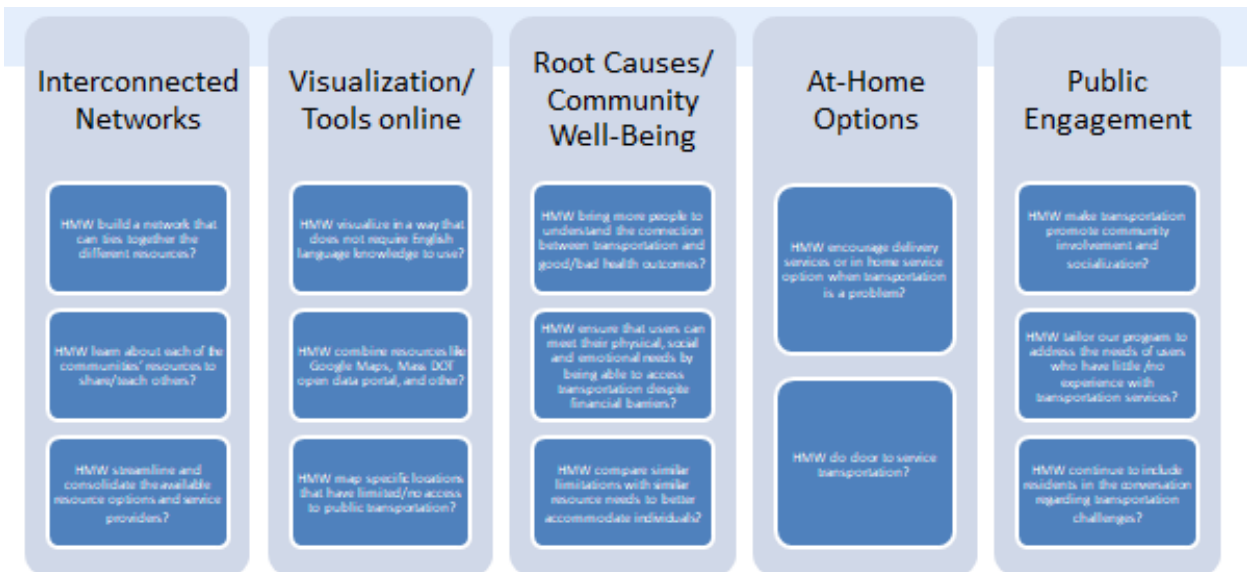


Figure 6. How Might We categories used in session 2

The common improvement areas identified by the facilitators in the improved journey maps (Figure 7) included:

- Consolidation
- Co-location of resources
- Up to date resource list
- Feedback option
- Medical/non-medical options
- Digital tool (online): scheduling, payment, confirmation, reminders, availability by municipality

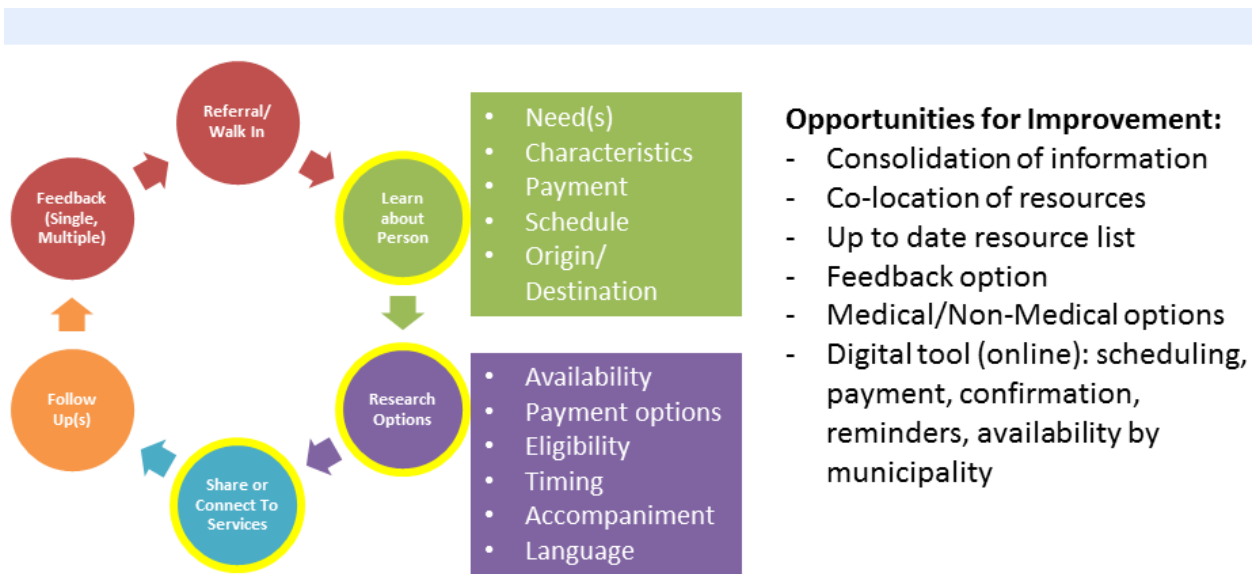


Figure 7. Synthesized user journey map with opportunities for improvement

Participants then presented comparable solutions they were aware of, including the Massachusetts Department of Transportation MA RideMatch tool. The solutions shared by participants included online mapping tools, travel websites, online retail and distribution, digital tools for customizing products, coupon books, and emergency preparedness binders (Figure 8).

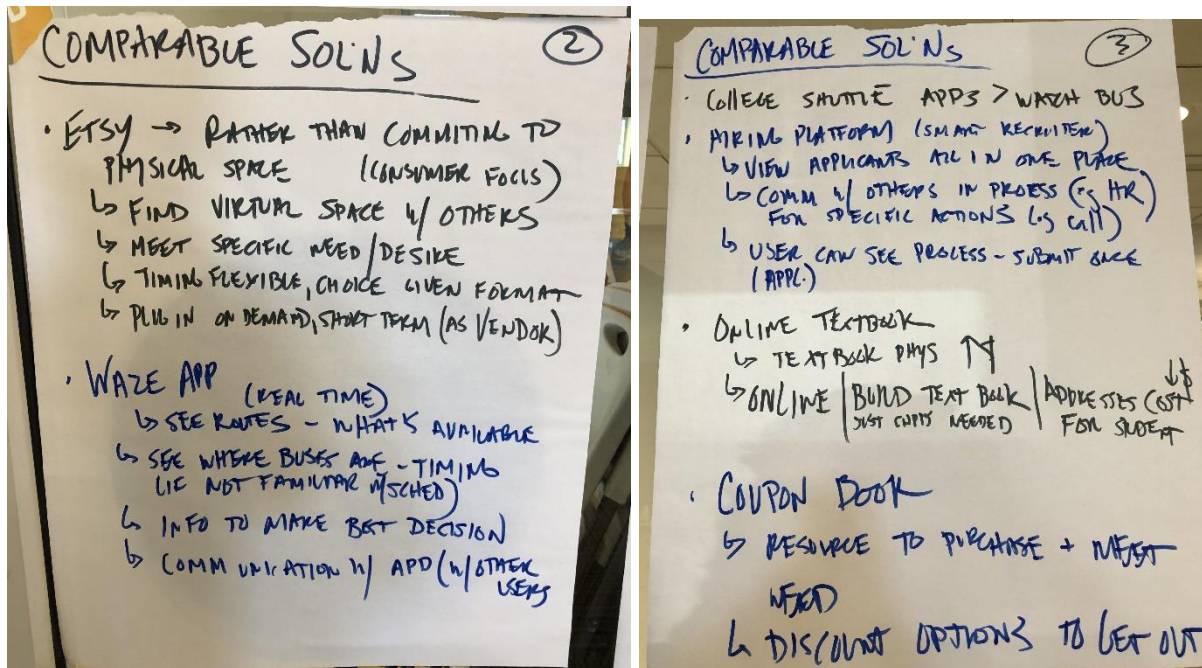


Figure 8. Examples of Comparable Solutions shared in session 2

The participants were then guided to generate eight sketches each (an activity called “crazy 8s”) of a proposed solution that addressed the improved journey map categories. The purpose of the activity was to push participants beyond their first idea and to generate a variety of solutions to the challenge.

The group’s ideas included ways to access service provider resources; mobile apps, call centers, and other platforms to book rides; and interpretation services (Figure 9). Individuals described their sketches and the group posed clarifying questions and provided feedback on sketches.

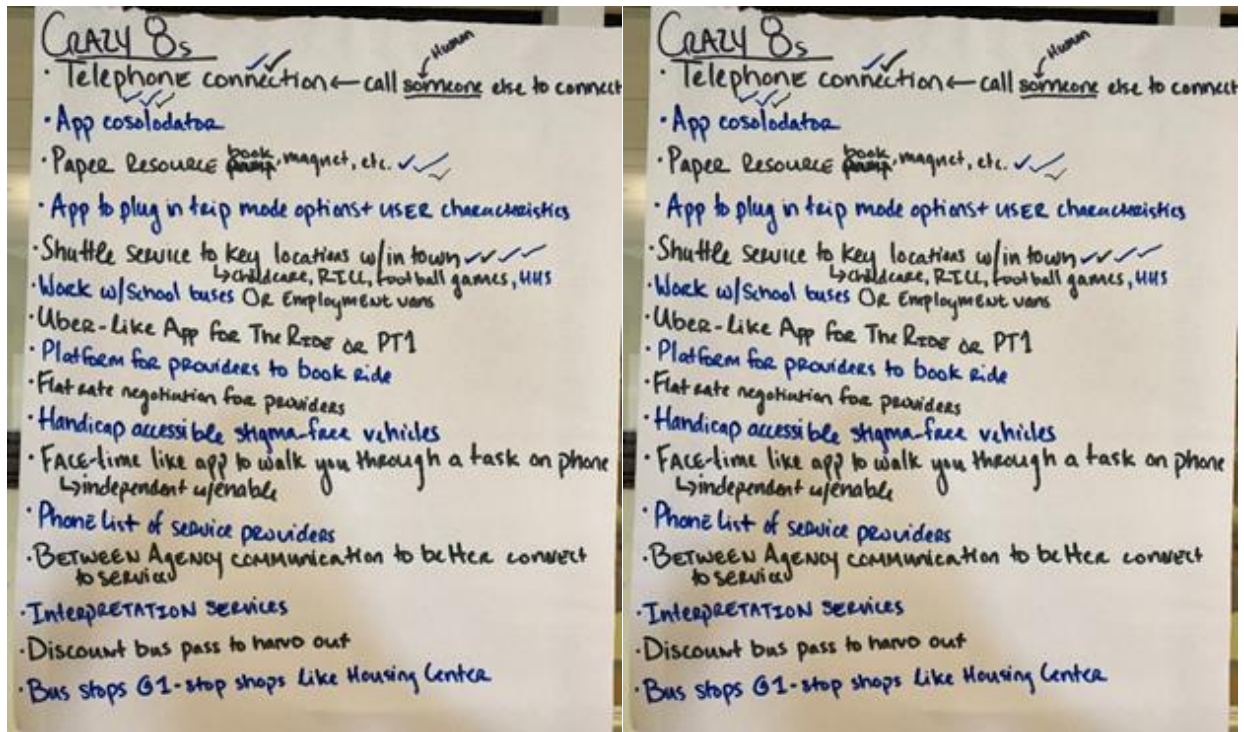


Figure 9. Notes from “crazy 8’s” sketching activity

Following the share out of initial sketches, participants were asked to consider what they and others had generated and identify a single solution that would like they like to take further. The group engaged in individual work to prepare their sketches and were asked to include a title, short description of elements, and process steps if relevant to their sketch. Participants then engaged in a gallery walk to post and view each other’s “final” solution sketch, and time was provided for each participant to walk the group through their sketch (Figure 10).



Figure 10. Group share of final solution sketches.

The discussion evolved into a group-led affinity mapping activity where similar solutions were arranged to be next to one another and through this, a preferred solution emerged (Figure 11). The preferred solution would be the focus of the work for session 3.

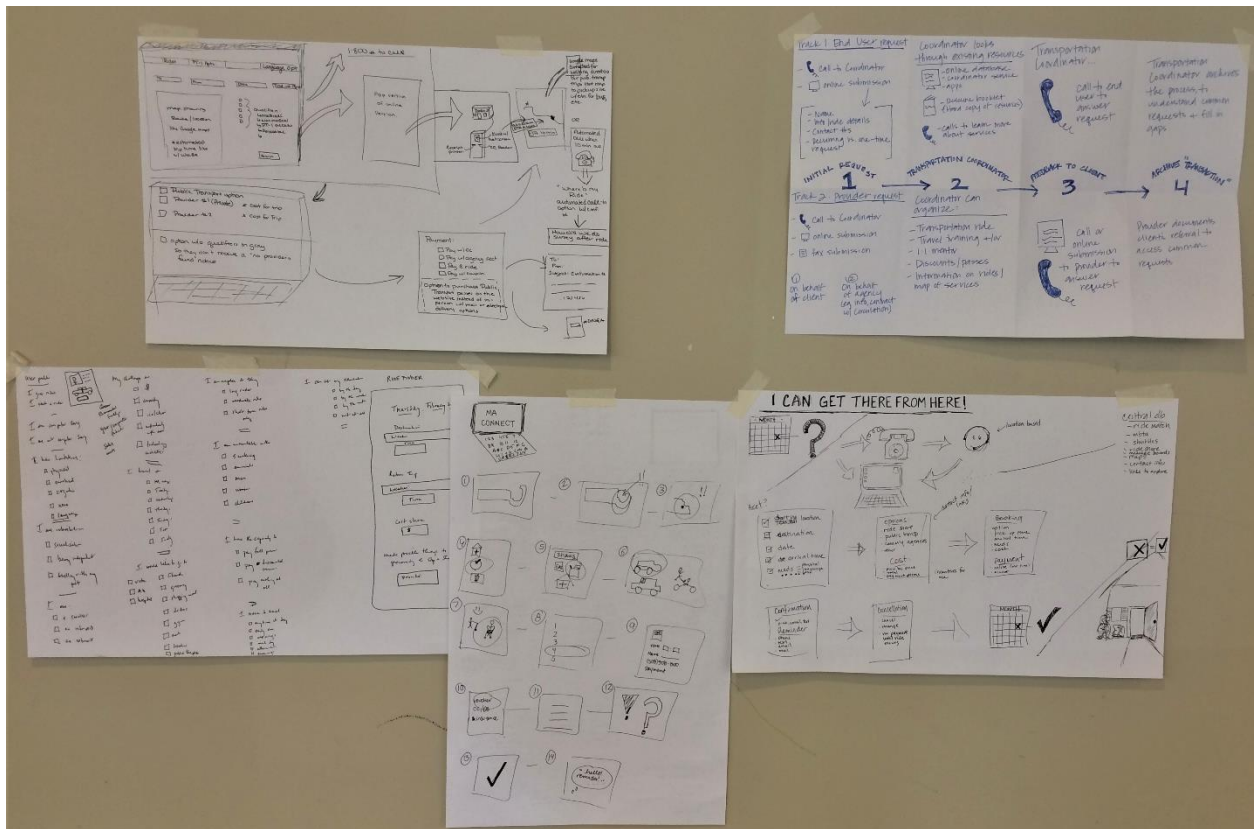


Figure 11. Preferred solution sketches

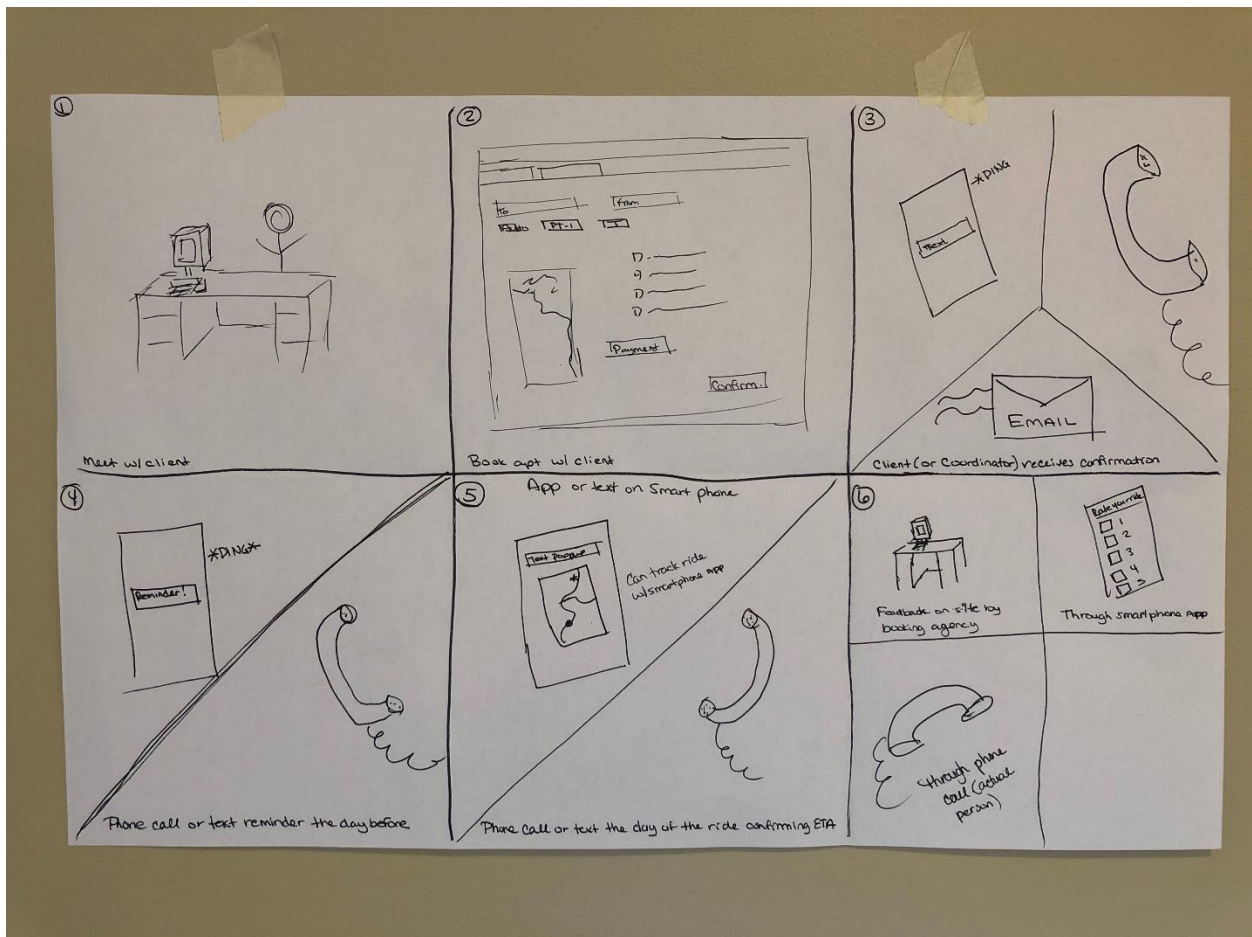
The group consensus on the final solution coalesced around common themes that included a call center for planning a trip, online data, and a map-focused solution.

Session 3

Session three focused on creating a low fidelity example of the preferred concept. The example, or prototype, is intended to be a facade of the experience envisioned in the sketch phase and to allow for testing with potential users.

As with the second session, the work began with an overview of the previous materials and the process to get to the preferred solution sketches. The group then revisited the key elements of the solution sketches in order to move forward with developing prototype elements.

The group's first activity of the day was to create storyboards in small groups of the major elements the final prototype should contain (Figure 12). A storyboard maps out each step of the experience a user would have with the preferred solution and clarifies what actions the group to take in order to develop the prototype.



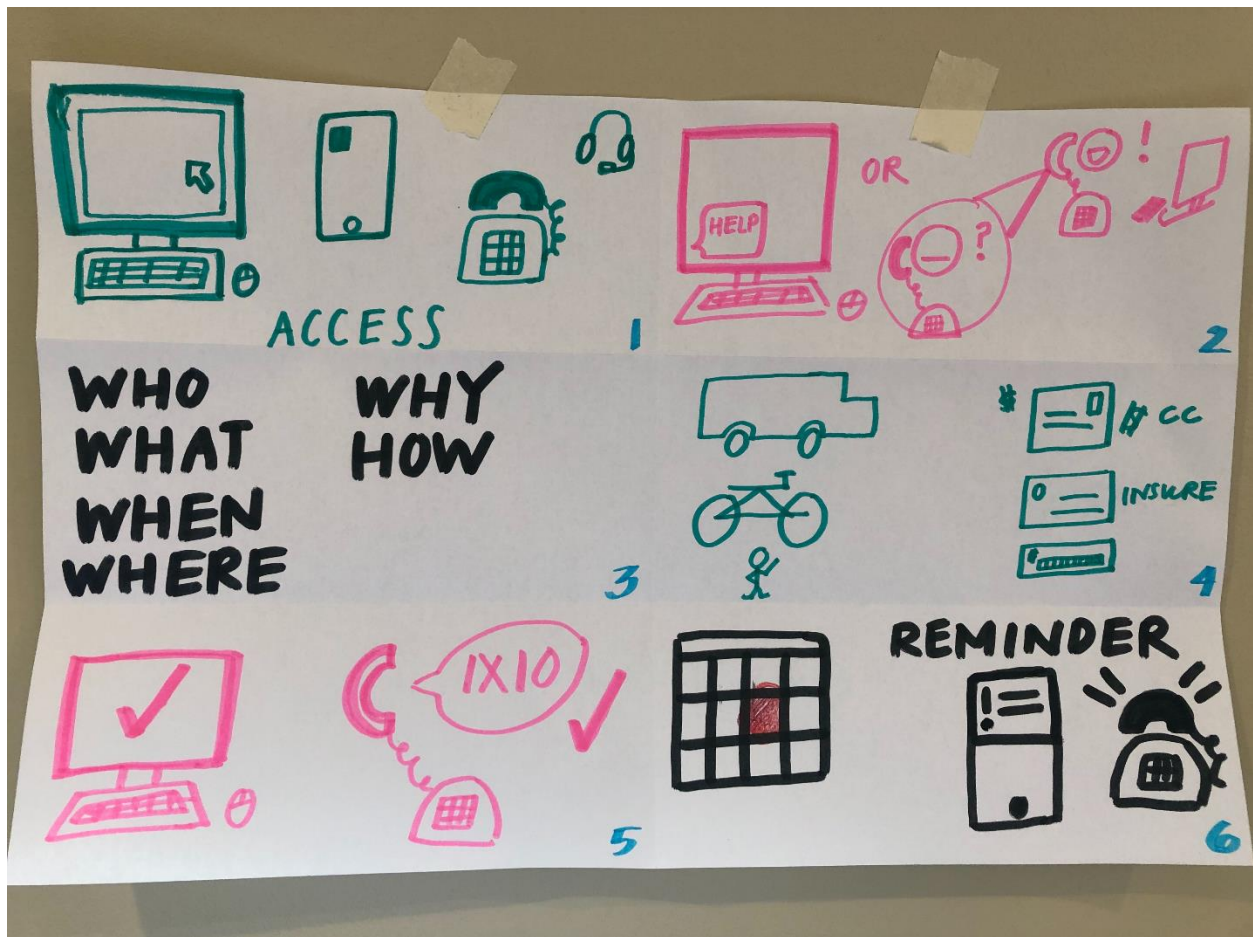


Figure 12. Storyboards of a potential final prototype

The facilitators performed a review of all the storyboards developed and identified the common elements in order to organize work for the remainder of the session. Elements of the storyboard were categorized as:

- User interface
- Profile of transportation user/client
- Database/visual
- Feedback and payment

The group then broke into these four categories (or work streams) to develop prototypes of those portions of the solution. They consulted each other to ensure that the four categories of the solution worked together; for example, the user interface group ensured that they had a space for the map and post-trip feedback on their proposed website/interface.

The user interface team designed a step-by-step webpage interface that allowed service providers to explore transportation options and local resources, create a client profile, book a trip, pay for services, provide the client a confirmation and reminder of their transport, and collect feedback after the trip (Figure 13).

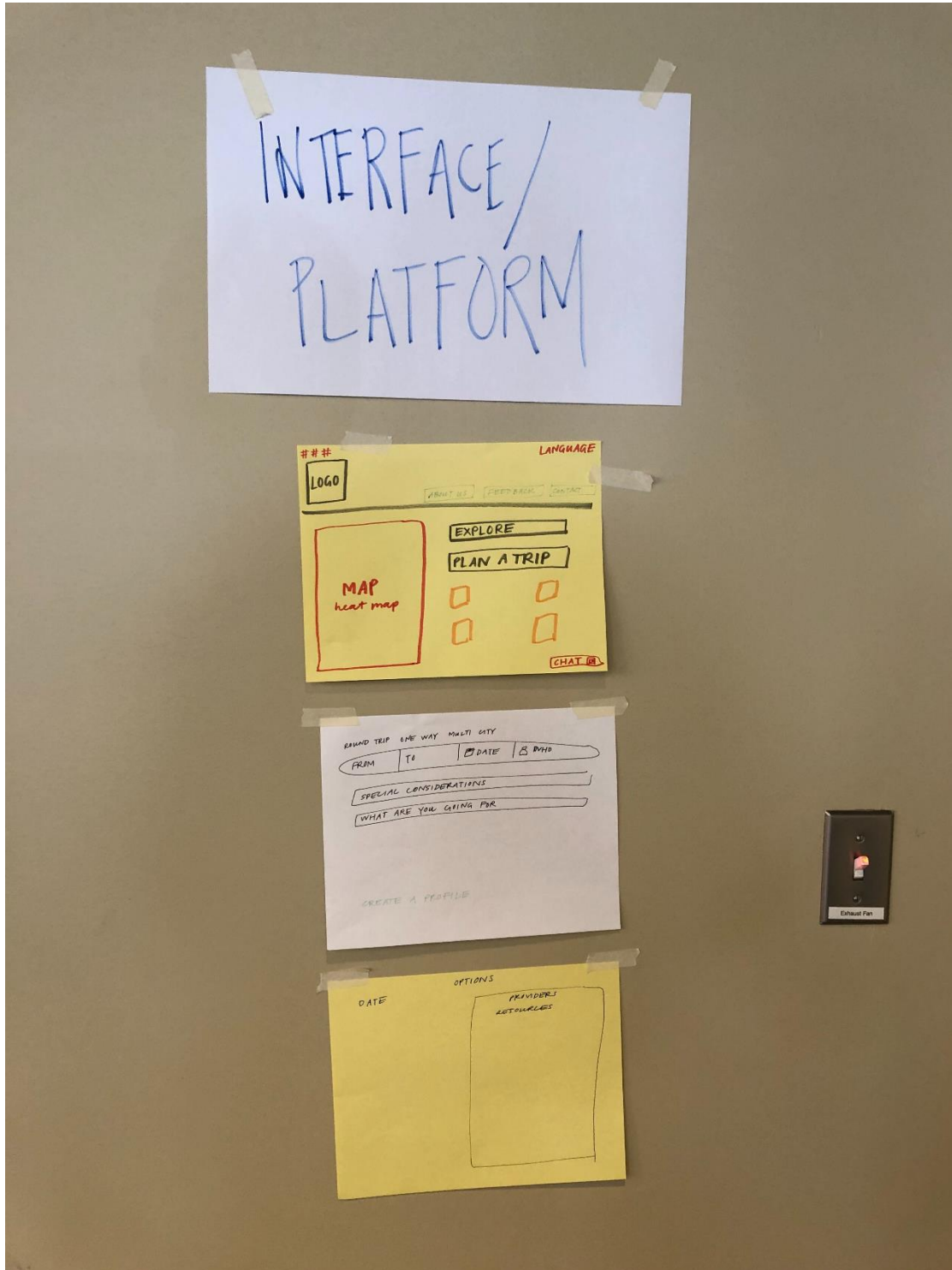


Figure 13. User interface prototype

The “client profile” group created a questionnaire that service providers could use to generate a client profile, including demographic information and a confidential section on any important medical or behavioral health information that transportation drivers should know about (Figure 14).

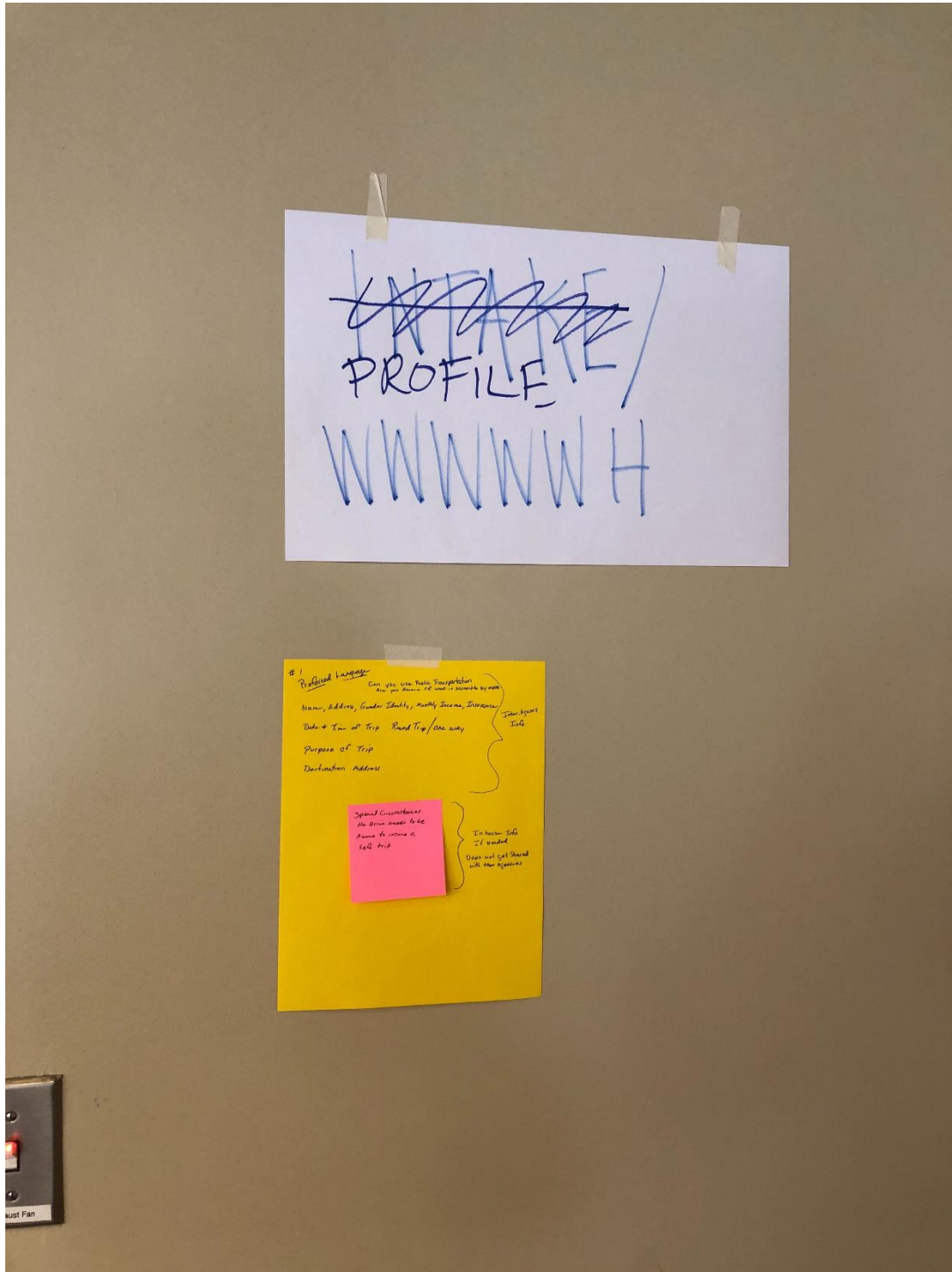


Figure 14. User profile prototype

The database/visual group designed a multi-pronged visual map and database system that allowed users to browse transit options, local resources for medical, food, and social/community resources, and use “explore” or “book a trip” features to give users a start-to-finish experience in finding and booking client travel (Figure 15).

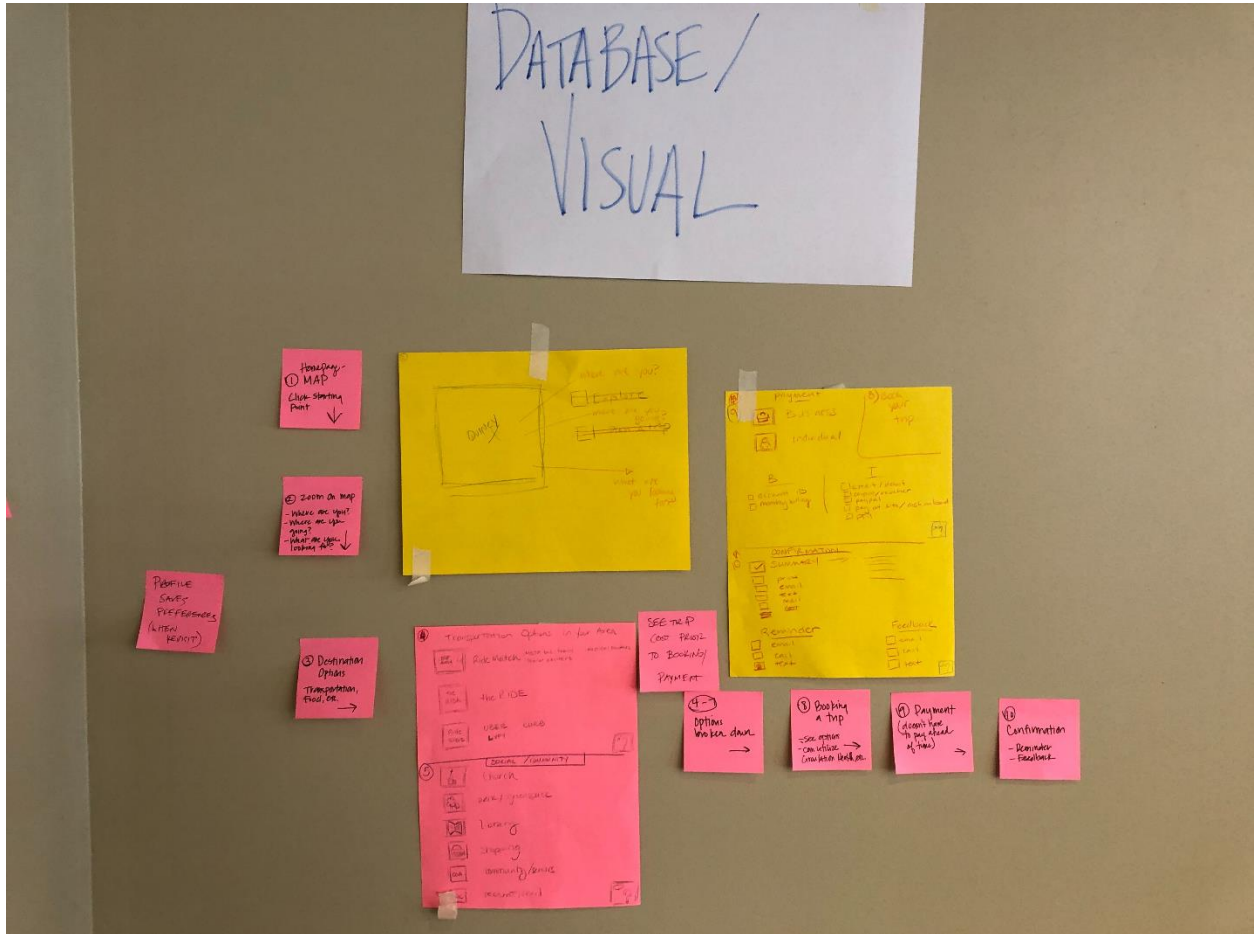


Figure 15. Database/visual prototype

The feedback/payment team designed multiple options for post-ride feedback, including texting, web-based, or phone call options, along with a payment option for individual or business accounts that also considers insurance payments (Figure 16).

FOLLOW UP / FEEDBACK / PAYMENT

FLU | feedback payment

• Live person (Phone | email | App)

- → How was ride today?
- → Did the ride price you up on time?
- How would you rate your driver?
- Do you have any positive or negative feedback?
- Feedback for internal staff or service providers.

↓
→ please to system.

- Payment:

- ~~Discounted business credits~~ ^{Monthly Billing} ^{tax: Rebuild}
- Ex: individual acct or business acct
- Voucher
 - Pay @ ride
 - Credit card / Debit card
 - PAY PAW ^{on any other apps.}
 - PT-1 option thru Mass Health.

ASSUMPTIONS:

1. • limited texting
2. • Internet & apps
3. • Language capacity are considered.

PHONE / EMAIL FEEDBACK

Rate your Ride
★ ★ ★ ★ ★

Rate your Driver
★ ★ ★ ★ ★

Rate the timeliness of your Ride
★ ★ ★ ★ ★

Please provide any positive feedback or suggestions for improvement.

TEXT FEEDBACK

Rate your ride (1-5)

Rate your DRIVER

Rate the timeliness of your ride

* Clients w/ Special needs can provide feedback through their caseworker on the website using the confirmation number.

* Client without smart phone or non access can call to a live person & provide feedback using the confirmation number.

PAYMENT OPTIONS:

- | | |
|---|--|
| <p>1. Business Accounts:</p> <ul style="list-style-type: none"> - credit card - monthly payment <p>Account ID</p> | <p>2. Individual accounts:</p> <ul style="list-style-type: none"> - credit card / debit - paypal - voucher number - PT-1 option thru mass health |
|---|--|

CASH
OPTION

Figure 16. Feedback/payment prototype

As a final step, the BHRCC CHNA 20 Program Manager served as the “weaver” to knit each individual element into a cohesive prototype story – see a preliminary sketch of this in Figure 17.

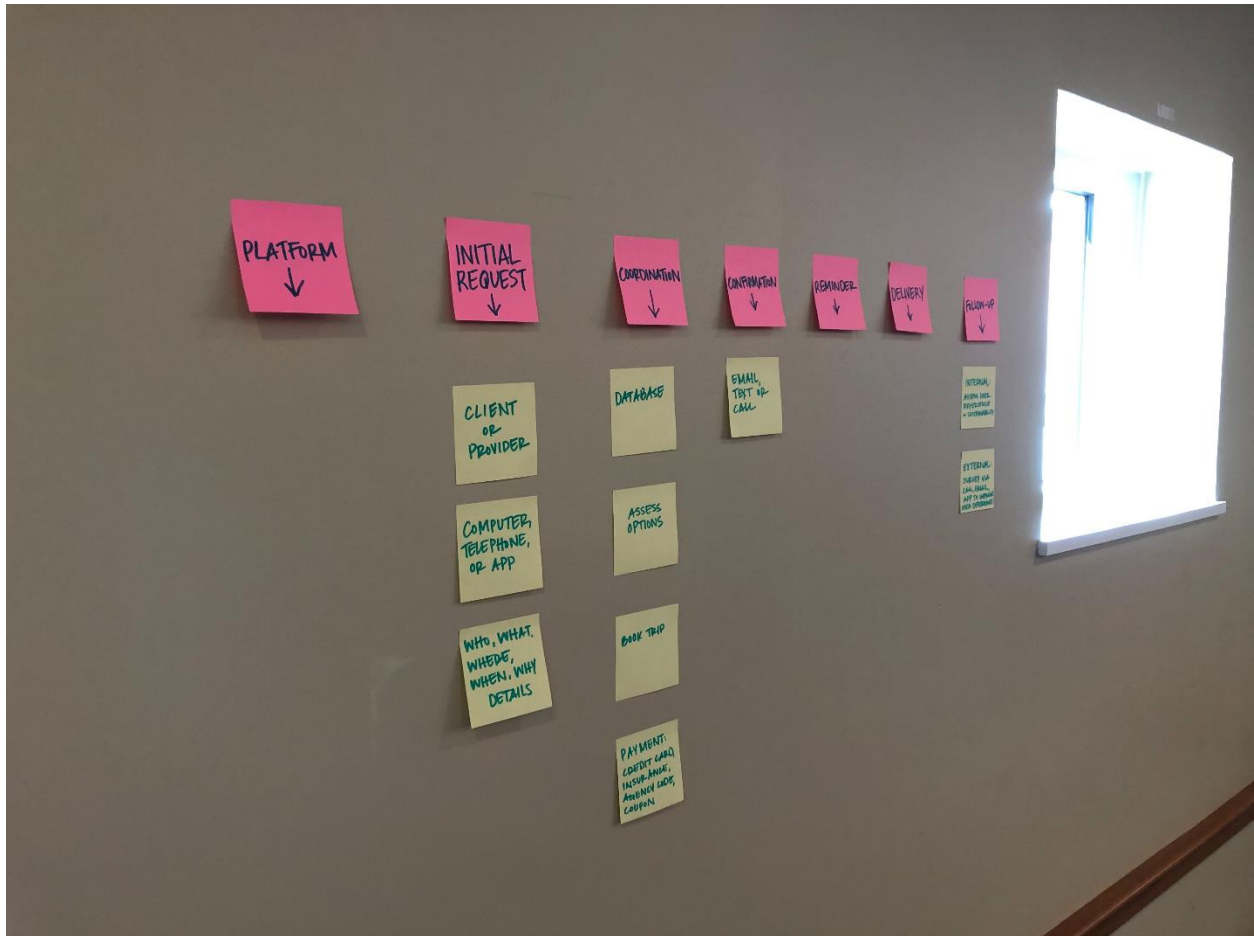


Figure 17. Preliminary prototype story

Prototype Building and User Testing

The MAPC team then used the prototype story to design a static slide deck with hyperlinks to simulate a digital tool.

Tool Logo

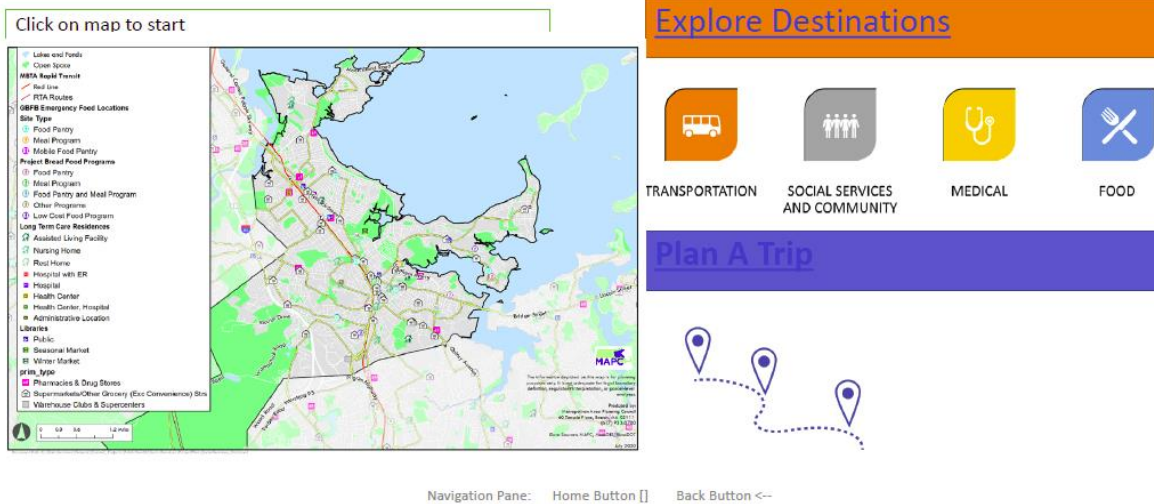


Figure 18: Digital prototype tool

This prototype was tested with four service providers who work in the CHNA 20 subregion:

- Mandy Situ, Boston Chinatown Neighborhood Center
- Patricia Zio, Greater South Shore Behavioral Health Collaborative
- Terri Chan, Quincy Asian Resources
- Peggy Montlouis, Town of Randolph

The objectives of user testing were to understand how users interacted with the prototype and its features, and to understand which features were most important and useful to the user testers, so that the prototype could be revised to meet user needs. The test included a simulation of using the prototype to explore destinations, book and pay for a trip, input client information, receive confirmations, and rate a trip. Some common themes that emerged from the user testing include:

- The “map” and “explore” features were useful to visualize where services are located in the areas where service providers worked, especially when there were descriptive icons and color-coding based on type of destination (e.g. hospitals, grocery stores, etc.). Testers wanted the ability to use the map to zoom in on destinations and to expand the types of locations available to view to include more specificity – for example, restaurants that offered hot take-out food.
- The “plan a trip” feature options were confusing to some testers, and the level of detail required for the “to/from” fields was unclear.
- The client “profile” feature and intake information did not have an immediately clear purpose to testers.

- Testers preferred to have clearer instructions and options on the payment and confirmation features.

Based on the testing results, the prototype was updated to reflect user preferences.

Next Steps

The next steps are for the MAPC team to determine the “minimum actionable product” that could be useful to service providers in the CHNA 20 subregion. Based on the user testing interest in the “explore” and “map” features, the MAPC team suggests building collaborations to improve the functionality and efficiency of existing tools in this space. These could include convenings with the teams who have created existing tools to find social service resources, including Aunt Bertha and Mass Network of Care, and teams who have created tools to find transportation to these places, including Massachusetts Department of Transportation’s RideMatch. The BHRCC team will update their network on the Design Sprint and look for opportunities to serve as a network weaver between the aforementioned organizations. This may include corresponding with the RideMatch tool team to update the tool to include more of the features identified in the prototype. The BHRCC team is also exploring the possibility of partnering with Boston University to build out additional features that could be added to existing tools.