

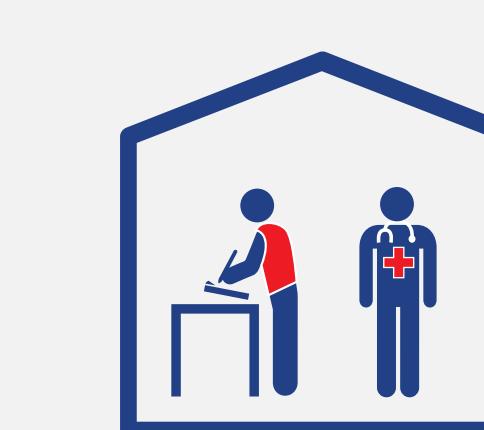
# "Show Me" for Family Assistance Centers

## A Participatory Design Approach to Mobile App Development



### Background

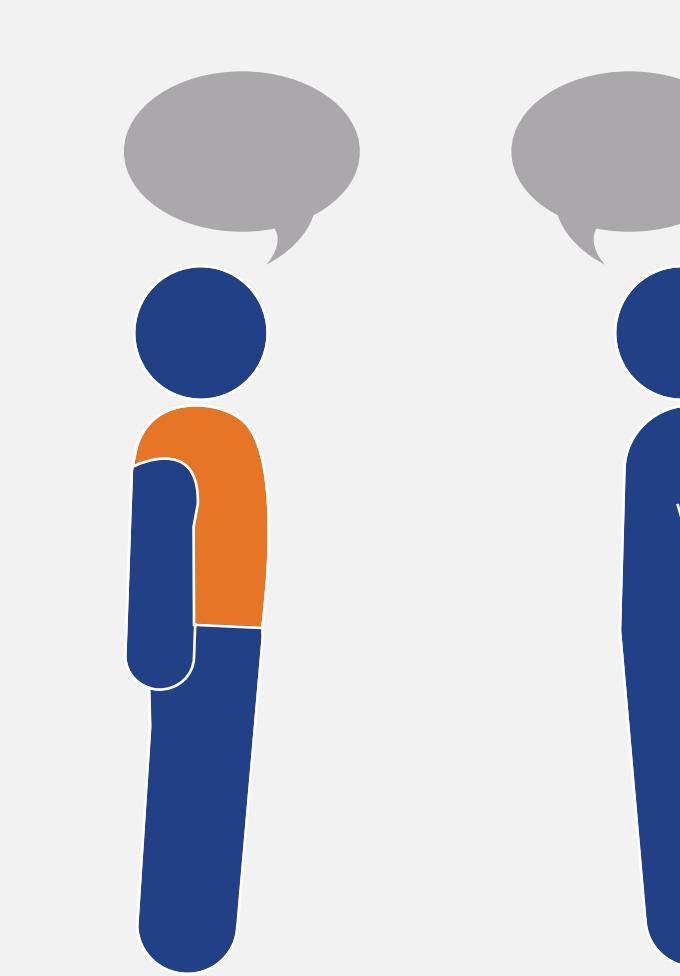
During a Mass Fatality Incident (MFI) — like a catastrophic plane crash or natural disaster — communities may set up a Family Assistance Center (FAC) so families have a place to get information about the victims.



FAC workers are under intense stress, and good communication is essential. Family members may be confused, upset, and traumatized. Many will not speak English or have other problems communicating. To make it easier for workers and families to connect and understand each other, we created a mobile app with a unique set of FAC icons, user prompts, and tips.

### Audience

- Emergency Personnel
- People with Communication Challenges — including people with very limited or no English proficiency, people who are Deaf or hard of hearing, and people who are cognitively delayed



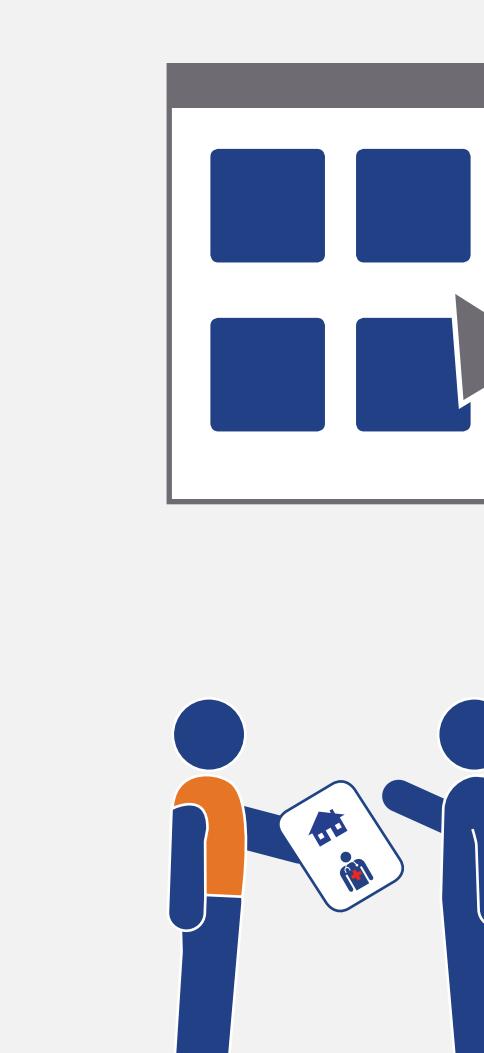
### Methods

We adopted a user-centered design (UCD) approach — a method for developing materials that involves end-users as co-creators in every step of the design process.

- In-depth interviews (IDIs) with emergency personnel who worked at an FAC during an MFI or contributed to a state's Mass Fatality Management Plan (n=7)



- Icon testing with individuals with communication challenges — including people with very limited or no English proficiency (n=5), people who are Deaf or hard of hearing (n=3), and people who are cognitively delayed (n=1) — to ensure that the icons were clear and understandable



- Clickable wireframe testing with professionals (n=5) — including director-level professionals, a social worker, and a clinical psychologist — to evaluate the usability of the FAC app

- Dyadic interviews with emergency personnel (n= 3) and people with communication challenges (n= 3) to see how well the 2 audiences use the tool together to communicate



This project was developed and funded by the Office of Preparedness and Emergency Management at the Massachusetts Department of Public Health.

### Presenters

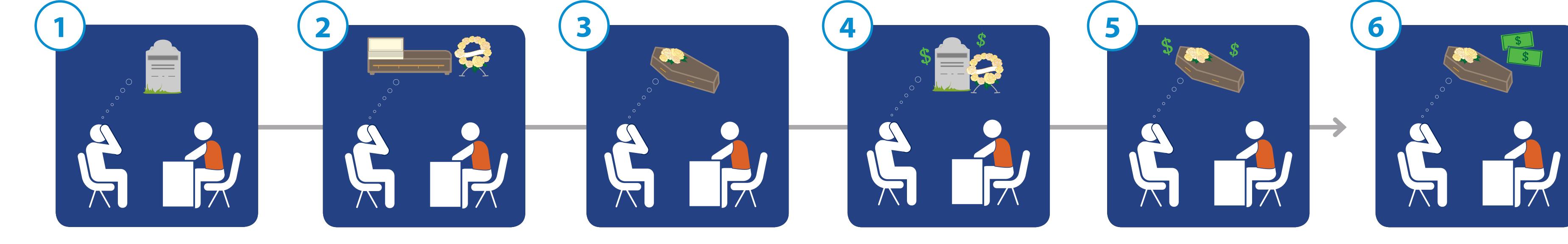
Ariana Adams-Gregg  
Caroline Conena

### Team

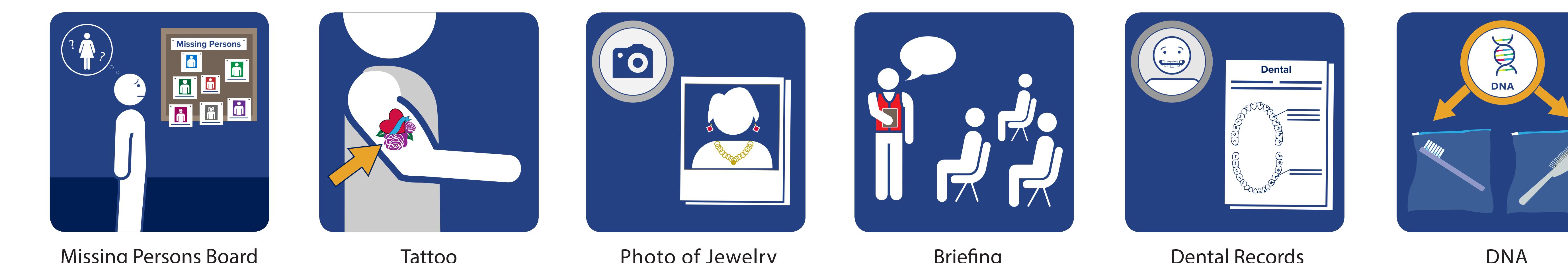
Kerry Evans, MPA (MDPH) • Morgan Griffin, MA • Cassidy Hayes • Amina Patton, MGD • Mary Ann Petti, MPH, CHES  
Xanthi Scrimgeour, MHED, MCCHES • Samantha Stone, MA (MDPH) • Ana Tellez, MA • Huijuan Wu, PhD, MS, MEng

### Developing FAC Icons

When we started, no specific FAC icons existed. Here's a quick look at some FAC-specific icons we developed to address key communication needs during an MFI.



Funeral Assistance



Missing Persons Board

Tattoo

Photo of Jewelry

Briefing

Dental Records

DNA

We tried out many different iterations of icons for testing. For example, the Funeral Assistance icon changed to address cultural differences surrounding death and funerals.

These FAC icons help family members understand how they can provide important identifying information about their loved ones to help with the search.

### Addressing Language Needs

IDI participants reported that people with limited or no English proficiency present the most common communication challenge to FAC staff.

**“**I would personally focus on language barriers. I've been involved in so many FACs and that's always been the number one problem.

— IDI Participant **”**



Language Settings

Audio Player for Translation

Translated Icon Label

We developed audio messages available in 11 different languages so FAC staff can play translations out loud to help explain key messages about how an FAC works.

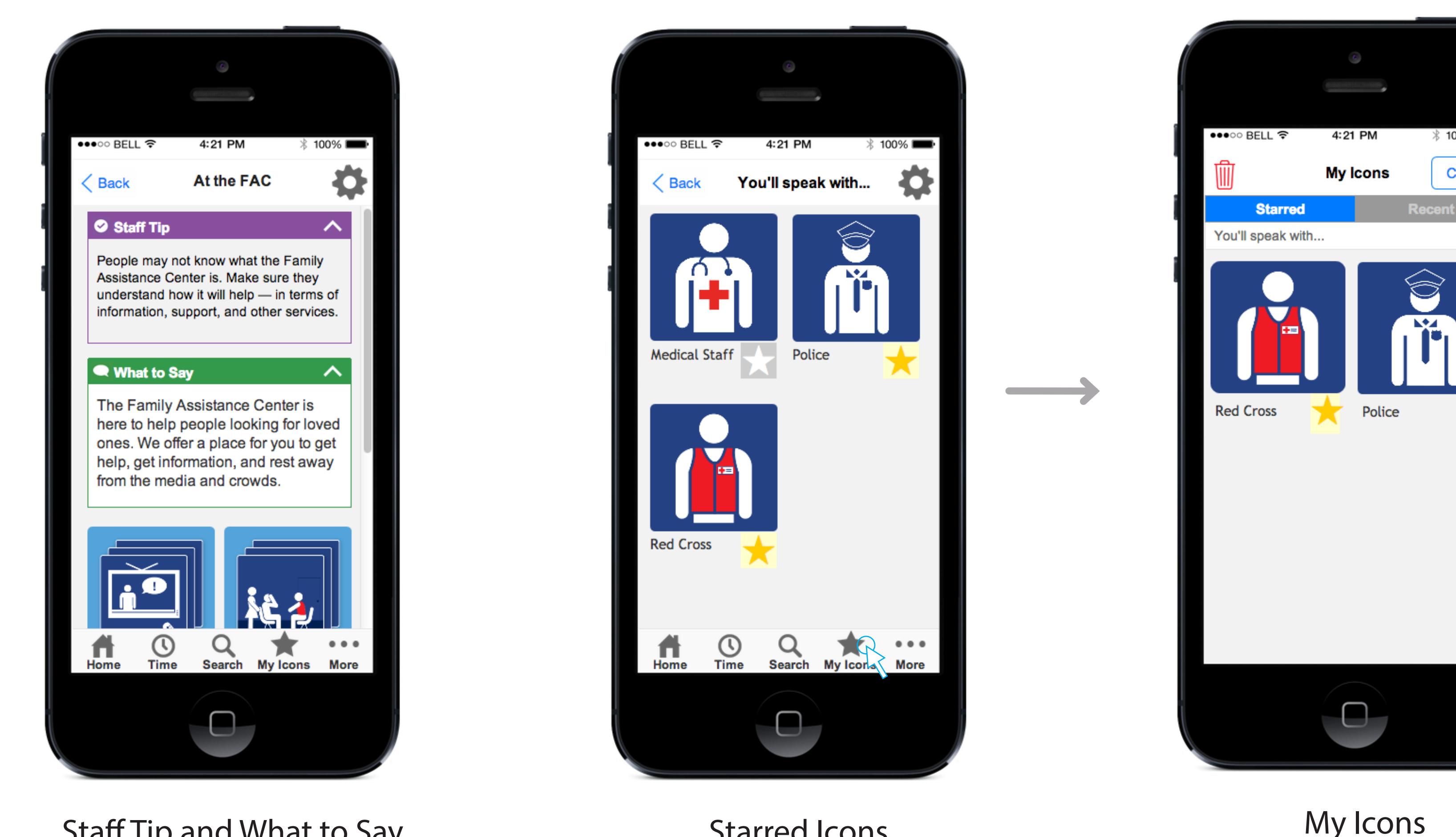
We translated icon descriptions, so FAC workers can show the icons along with their descriptions in the family member's native language.

### Supporting FAC Staff

Families generally don't understand the purpose of an FAC or how it will help. IDI participants stressed how important it is to walk families through the full range of services that an FAC offers.

**“**People don't know what to do [at an FAC]. They have absolutely no idea what their needs are. We need to let them know what's available.

— IDI Participant **”**



Staff Tip and What to Say

Starred Icons

My Icons

We added tips and prompts to help staff explain the FAC's purpose and process to address families' immediate needs and questions.

We created the "My Icons" feature so FAC staff can collect icons across the app and then access them in one place. Workers can use the feature to review key icons with family members at the end of their conversation, to make sure they all understand each other.