

Mental Health Services Act (MHSA)
Innovation Technology Suite Evaluation

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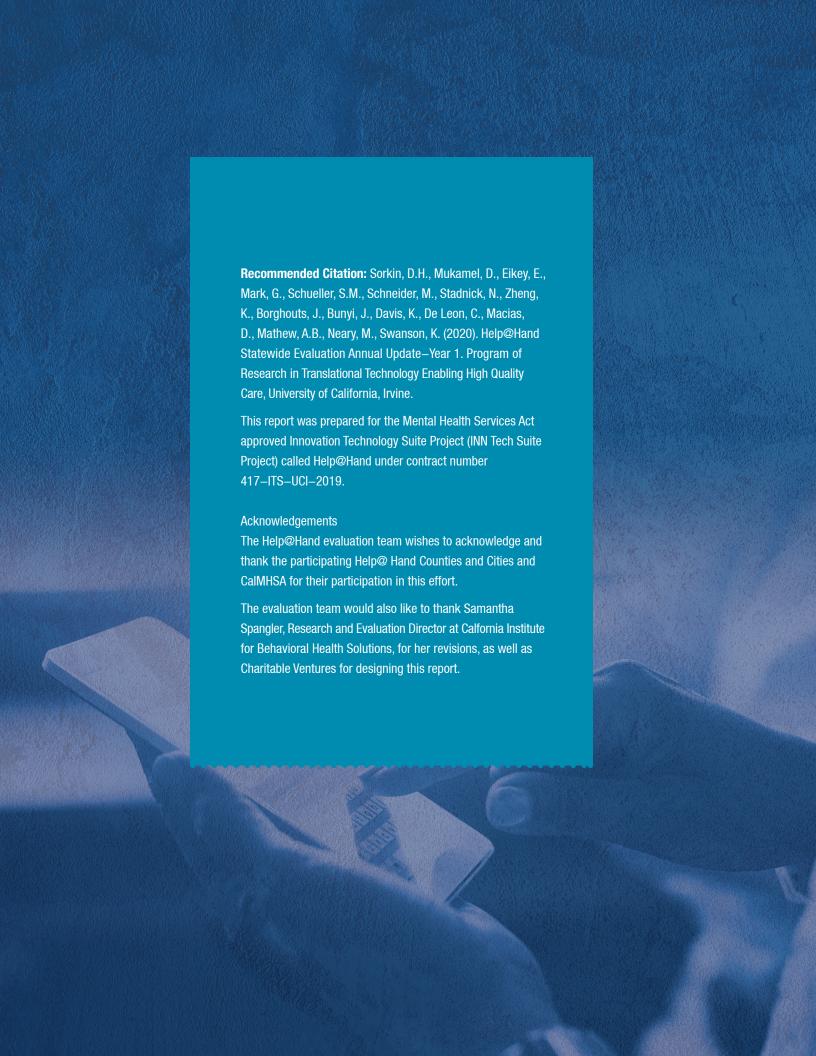
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## **EXECUTIVE SUMMARY**

#### INTRODUCTION

Help@Hand is a five-year statewide collaborative demonstration project funded by Prop 63 (also known as the Mental Health Services Act) that is designed to bring interactive, technology-based, mental health solutions into the public mental health system through a highly innovative set, or "suite", of mobile applications. The project also integrates Peers (individuals with lived experience of mental health issues and co-occurring issues) throughout the project. Currently, twelve Counties and two Cities participate in the project. These include: Kern, Los Angeles, Marin, Modoc, Mono, Monterey, Orange, Riverside, San Francisco, San Mateo, Santa Barbara, and Tehama Counties; Tri-City; and City of Berkeley.

The primary activities of Help@Hand over the past year can be characterized by four R's: Re-innovate; Re-envision; Re-organize; and Reach.

### Reinnovate

- Released a Request for Statement of Qualification (RFSQ) in order to add new apps to suite
- Developed a process to pilot new apps
- Established the Help@Hand Peer Model by defining Peers and their role in the project

### Reenvision

- Identified key strategic priorities to guide the first Tech Suite Innovation collaboration of County/City behavioral health departments in California
- Created and adapted tools, training, and support to help critically examine apps within the behavioral health setting
- Sought guidance from various experts in technology implementation, finance, and digital legal fields

## Reorganize

- · Reorganized the budget model:
  - Allocated more funds for local control to allow more decision—making autonomy and resources for County/City level implementation
  - Retained funds at the Collaborative level to allow cost sharing for common needs

## Reach

- Met with local stakeholders to provide updates and gather feedback on topics such as digital mental health literacy
- Published first Quarterly Stakeholder Update Report and began planning webinars for the public
- Created the Help@Hand brand and developed a marketing plan

## HELP@HAND EVALUATION ACTIVITIES AND FINDINGS (YEAR 1- SEPTEMBER 2018 TO DECEMBER 2019)

## Market Surveillance examined technologies in the marketplace similar to Help@Hand and found:

- There is considerable variability in the app marketplace.
- The content or functions of apps change, sometimes quickly, due to updates. Furthermore, apps frequently are added or removed from the marketplace or change names.
- Digital phenotyping apps were not widely available for the public.
- Obtaining usage data will be key to measuring the success of Help@Hand apps.
- Only a small number of users ever used the app again after the day of download.

#### Site Visits with County Leadership, Clinicians, and Staff found:

- A particular technology's success is likely influenced by contextual factors outside the technology itself, including perspectives of leadership, providers, and Peers.
- Help@Hand technologies met with initial enthusiasm from clinicians, but unanticipated barriers resulted in challenges with meeting those expectations.
- Positive impressions are not sufficient to lead to successful implementation.
- Developing local champions appears to be a key strategy for achieving effective communication and knowledge, as well as successful implementation.
- Using technology in mental health service delivery is new and unanticipated challenges are likely to
  occur. Identifying and addressing these challenges quickly is important to maintain positive impressions
  and engagement.

#### Peer Program Evaluation consisted of interviews and surveys, and indicated:

- Peers are a ready and valuable resource with great potential to inform the appropriate selection and deployment of Help@Hand technology.
- There was a great deal of variability in how Peers were identified, hired, trained, managed and supervised.
- More clearly defining the Peer role and providing appropriate support will facilitate retention.

## Data collected through heuristic evaluations and surveys/interviews/focus groups with community members and technology users revealed:

- Community members see the potential value of using mental health technologies.
- Community members also revealed barriers to adoption and continued use of mental health technologies.
- Addressing usability concerns will be critical for encouraging the adoption and continued use of these technologies.

## Work conducted on the outcomes evaluation and data dashboard consisted of:

- Working with the California Health Interview Survey and California Health and Human Services to develop a state-wide data collection strategy to assess Help@Hand outcomes.
- Identifying comparison counties to better understand the impact of Help@Hand.
- Incorporating multiple stakeholder perspectives to choose a mental health stigma measure through a community-based selection process.
- Obtaining publicly available data.

## Preliminary work to evaluate the second Request for Statement of Qualifications (RFSQ) process suggests:

- Providing clear instructions to Vendors on information that should be presented during demos will make it easier for Counties to compare across technologies.
- Information related to available features, data storage, sharing, and security is important and useful to collect from Vendors.
- Understanding information related to the user experience of the apps is important to avoid the risk of wasting Counties' time, effort, and money.
- Standardizing processes, data collection strategies, and tools across Counties will enhance the value of the information that Counties will obtain from their efforts.



Recommendations based on findings from Year 1 are provided on page 63-65.

## INTRODUCTION



Help@Hand is a five-year¹ statewide collaborative demonstration project funded by Prop 63 (now known as the Mental Health Services Act) and has a total budget of approximately \$101 million. It is designed to bring interactive technology–based mental health solutions into the public mental health system through a highly innovative set (or "suite") of mobile technologies. The project intends to provide people across California with free access to mobile technologies designed to provide: education on the signs and symptoms of mental illness, including emotional/behavioral destabilization; connection to help in real-time; and access to mental health services when needed. In addition, Help@Hand leads innovation efforts by aiming to integrate peers (individuals with lived experience of mental health issues and co-occurring issues) throughout the project.

Through these efforts, Help@Hand focuses on the following five shared learning objectives:



Detect and acknowledge mental health symptoms sooner;



Reduce stigma associated with mental illness by promoting mental wellness;



Increase access to the appropriate level of support and care;

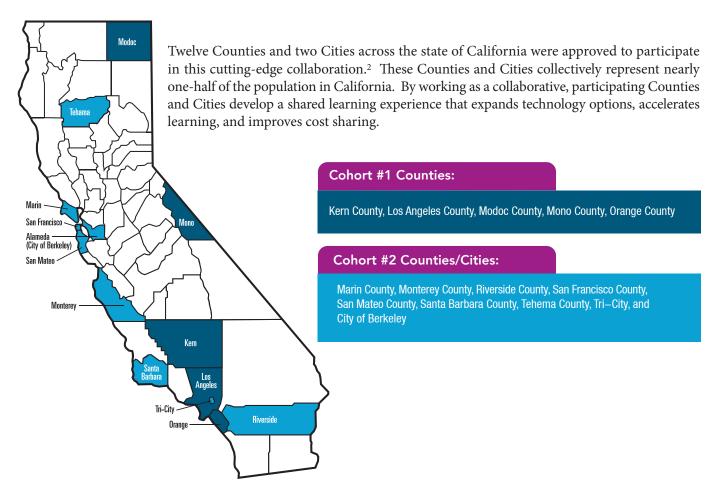


Increase purpose, belonging, and social connectedness of individuals served;



Analyze and collect data to improve mental health needs assessment and service delivery.

<sup>&</sup>lt;sup>1</sup> The project was originally designated as a 3-year effort.



#### ABOUT THE EVALUATION

The University of California, Irvine (UCI) in partnership with the University of California, San Diego (UCSD) is conducting a comprehensive formative evaluation of Help@Hand. The evaluation involves observing and evaluating the project as it happens in order to provide real-time feedback and learnings.

The following evaluation report presents activities and findings for Year 1 (September 2018-December 2019) of the project.<sup>3</sup> The report is organized as follows:

- Summary of Activities: Describes the key activities and milestones accomplished in Year 1.
- Evaluation: Details evaluation activities and findings related to the following
  - o System Evaluation
  - o Implementation Evaluation
  - o User Experience and Technology Evaluation
  - o Outcomes Evaluation and Data Dashboard
  - o Help@Hand RFSQ and Pilot Evaluation
  - o Help@Hand Evaluation Advisory Board
- Recommendations: Presents recommendations based on findings.

<sup>2</sup> Counties and Cities can join the collaboration by submitting a proposal to the Mental Health Services Oversight and Accountability Commission. Upon approval, Counties and Cities enter the collaboration by contracting with CalMHSA which serves as the administrative and fiscal intermediary for the project. Inyo County joined the collaboration in 2018, but transitioned out due to insufficient internal resource capacity.

<sup>&</sup>lt;sup>3</sup> In Year 1, evaluation activities were contracted for Cohort #1 Counties. As a result, the evaluation focused primarily on Cohort #1 Counties.

## **SUMMARY OF ACTIVITIES**

Four R's characterize the primary activities of Help@Hand over the past year: Re-innovate; Re-envision; Re-organize; and Reach.

#### September 2018

#### Oversight and Help@Hand Leadership

MHSOAC approved addition of Cohort #2

Approved Cambria Solutions to test and implement current apps and to develop infrastructure supporting new technologies

#### **County Activities**

Launched Mindstrong (Modoc County)

Conducted provider evaluation site visit at Harbor UCLA Medical Center DBT Clinic (Los Angeles County)

#### October 2018

#### **County Activities**

Conducted focus group evaluation session to obtain feedback about perceptions of 7 Cups with the Wellness Center Central and the Orange County Recovery and Education Institute (Orange County)

#### **November 2018**

#### Oversight and Help@Hand Leadership

Approved Statewide Evaluation Plan

#### **County Activities**

Conducted user story testing (Kern, Modoc, Mono Counties)

### Other

Held Help@Hand in-person Evaluation Advisory Board meeting

#### **December 2018**

#### Oversight and Help@Hand Leadership

Approved budget model

#### **County Activities**

Launched Mindstrong at Harbor UCLA Medical Center (Los Angeles County)

Conducted full day leadership, provider, and client evaluation site visit at Kern County, Behavioral Health & Recovery (Kern County)

Conducted user story testing (Los Angeles, Orange Counties)

Conducted series of on-boarding events for Mindstrong with introductory sessions with providers (Orange County)

#### January 2019

#### **Project Management**

Finalized contract and items to be included in the California Health Interview Survey (CHIS)

The collaborating Counties and Cities have pivoted during the last year, reshaping the project to better meet its objectives and address barriers that have been encountered. The activities undertaken can be characterized as the following broad efforts:

- **RE-INNOVATE:** To better accomplish Help@Hand's primary learning objectives, new digital mental health applications and new processes for integrating Peer guidance were introduced, thus increasing the potential benefit to California's diverse populations.
- **RE-ENVISION:** The Help@Hand Collaborative pivoted the leadership model to allow for increased individual County decision-making in an effort to balance the individuality of each county with the objective to gain from shared knowledge.
- **RE-ORGANIZE:** To support this new vision, the Collaborative re-structured and developed a new budget model that provides shared resources and efficiencies across its members, where appropriate, and allows for the development of individual County initiatives.
- REACH: Integral to Help@Hand is maintaining close ties to its stakeholders. These efforts have been ongoing and strengthened during the year by reaching out to new groups and developing new communications tools to increase the Help@Hand project reach.

Below are more details on each of these four categories.

#### **RE-INNOVATE**

Three therapeutic focus areas were identified at the project's inception: (1) Peer Chat and Digital Therapeutics; (2) Virtual Evidence-Based Therapy utilizing an avatar; and (3) Digital Phenotyping using passive data for early detection and intervention. Seven qualified vendors were identified through a Request for Qualification (RFQ) process and conducted in-person demonstrations of their products. Two vendors, Mindstrong and 7Cups, were selected as the initial Help@Hand technology products based on a review of qualifications, demonstrations, and testing by end-users and staff.

With the addition of Cohort #2, the Collaborative learned that more than two apps needed to be available as options in order to meet the diverse needs of all target populations, and to address the variability of County technical infrastructure. Responding to this need to expand technology offerings within the project, Help@Hand released a Request for Statement of Qualification (RFSQ) in September 2019. The RFSQ was an opportunity for new technology vendors to submit applications

## February 2019

#### Oversight and Help@Hand Leadership

Approved Peer staffing model

Approved revised vision statement, purpose statement, collaboration agreement, and collaboration processes

#### **County Activities**

Help Implementation Workshop with Cohort #1 and #2 Counties/Cities

#### Other

Trained Evaluation in Mental Health Consumer and Recovery Movement and created opportunities for Peers to participate in the evaluation

#### **March 2019**

#### Oversight and Help@Hand Leadership

Initiated work to address reversion dollars and create budget trailer language to extend project from 3–5 years

Approved 7Cups product roadmap and timeline

#### **County Activities**

Completed first Mindstrong pilot (Kern County)

Hosted 7Cups testing workshop (All Counties/Cities)

Tested 7Cups to identify any defects and validate if 7Cups met minimum viable product (All Counties/Cities)

Conducted full day leadership, provider, and client evaluation site visit in Modoc County, Behavioral Health Department and Sunrays of Hope (Modoc County)

#### **Project Management**

Established Change Control Board (CCB)

Used JIRA as product management system

Established implementation calls between CalMHSA and individual Counties/

Established monthly collaboration meetings – one for Tech Leads and another for Peer Leads – to facilitate discussion and shared learning among Counties/Cities

Created "The Forecast," Help@Hand's bi-weekly internal newsletter Launched Help@Hand SharePoint site

#### **Other**

Presented overview of Help@Hand and its Peer Model at MHSA Partners Meeting

Introduced the Help@Hand Peer Model at the California Coalition for Mental Health Meeting

Held Help@Hand Evaluation Advisory Board meeting via phone

#### **April 2019**

## Oversight and Help@Hand Leadership

Approved Help@Hand as the project's new brand name Reviewed draft Request for Statement of Qualifications (RFSQ)

#### **County Activities**

Initiated pause on continued product development of 7 Cups and Mindstrong Conducted Mindstrong client evaluation site visit (Kern County)

#### May 2019

## **County Activities**

Held Southern California Help@Hand Peer Summit (hosted by Santa Barbara with Kern, Los Angeles, Riverside, and Orange Counties)

to join Help@Hand. A total of 112 technology vendors submitted applications and were reviewed by a panel of judges. Of the 112 applications, 93 were qualified for further consideration.

To facilitate a thoughtful and thorough selection from the 93 qualified technology vendor applications, the Collaborative developed a phased process allowing Counties to explore and test possible technologies. This process involved identifying 20 technologies of interest for the Counties that were demonstrated in order to help the Collaborative better understand how the technologies would work within a County behavioral health environment. Currently, Counties are analyzing whether the technologies meet their requirements and are developing plans to test those technologies that meet their needs in a pilot setting. These plans will be presented to the Help@Hand Leadership who will approve or deny the pilot. Approved pilots will be implemented. Results from the completed pilot process will be shared with the Help@Hand Leadership who will vote to approve or deny the technology being added to the portfolio (the suite of technologies available for any participating County to use).

A second major accomplishment of Year 1 was the development of the Help@Hand Peer Model, which clarified the definition of a Peer as well as their role in the project. Peer Summits were held in Northern and Southern California to convene Help@Hand Peers in order to inform project work.

#### **RE-ENVISION**

Given this was the first time County behavioral health departments worked together as a Collaborative, the Help@ Hand Leadership faced a challenge of not having a well-established collaboration model. As such, the Help@ Hand Leadership formed a Roadmap Workgroup that identified key strategic priorities to guide the work of the Collaborative in order to achieve the project's vision. These priorities related to: project management (i.e., fiscal management, legal and risk management, administrative, procurement and contracts, and governance) as well as change management (i.e., internal communication, external communication, stakeholders, readiness and planning, implementation, and evaluation). Leadership approved these priorities (shown below) in August 2019. The workgroup is in the process of recommending strategies to support the priorities.

Furthermore, many of the Counties/Cities participating in this program had never worked with or vetted a digital mental health tool for use within the public behavioral health setting. As such, there were no models or roadmaps outlining how to initiate and support this integration. CalMHSA, as the project manager, not only had to provide the Collaborative with tools, training, and additional support related to product selection, organizational change management (OCM), and risk and liability analysis, but also had to adapt and tailor these for County processes.

#### June 2019

#### Oversight and Help@Hand Leadership

Identified RFSQ evaluation panel and finalized the evaluation scoring process

#### **County Activity**

Held MHSA Steering Committee and Community: Peer—Led Digital Mental Health Literacy Community Session (Orange County)

#### **Project Management**

Completed Technology Initiation Worksheets

#### **Other**

Held Help@Hand in-person Evaluation Advisory Board meeting

## **July 2019**

#### Oversight and Help@Hand Leadership

Senate Bill 79: Tech Suite funds no longer subject to reversion in June 2020

Introduced draft of Help@Hand Roadmap. The Roadmap outlined 5 strategic priorities (budget, contract, legal and risk management, governance, and communications)

Approved changing Leadership meetings to a weekly occurrence, alternating one week with information sharing and the next with voting on key motions

Approved hire of a financial specialist with Digital Health experience to review and develop a fiscal plan

Approved engagement of a law firm with Digital Health experience for services, including renegotiating existing vendor contracts and providing expertise

#### **County Activity**

Held Digital Mental Health Session (Kern, San Mateo County, and Tahema Counties)

Announced creation of a brochure of recommended apps at Tech Lead Collaboration meeting (Kern County)

Announced county–built prototype of 1–on–1 app peer chat app (Riverside County)  $\,$ 

Inyo County opted out of Help@Hand

#### **Project Management**

Introduced Draft of Risk & Liability worksheet

## August 2019

#### Oversight and Help@Hand Leadership

Approved formation of Risk and Liability workgroup

Approved the engagement of a vendor with experience in the review of Digital Health Solutions to administer and refine RFSQ, including demos of approved vendors

Approved contracting with Manatt Law firm for legal services

Approved contracting with Adam Powell for financial consulting services Approved strategic priorities of the 2019/2020 Roadmap

Approved Catalyst as vendor to administer the RFSQ

7 Cups received 30-day notice of termination of contract for convenience

#### **County Activity**

Held Digital Mental Health Session (San Francisco, Marin, Tri–City, Los Angeles, Santa Barbara, and Riverside Counties)

#### **Project Management**

Previewed County Needs Assessment Tool

#### September 2019

#### Oversight and Help@Hand Leadership

Announced retirement of Wayne Clark as CalMHSA's Executive Director Announced transition off of Ann Collentine, Deputy Director for Programs at CalMHSA with Jeremy Wilson, Program Director & PIO at CalMHSA to take over

Formed ad—hoc group to develop a crisis protocol to identify primary and secondary points of contact for each county for clinical crisis

#### **Project Management Strategic Priorities**

#### **Fiscal Management:**

Clear budget model and consistent reporting of expenses, including a detailed financial plan to sustain the project through closeout.

#### **Legal & Risk Management:**

Well-defined risk factors, and clear understanding of legal implications to create a safety net (protection) for the Collaborative and users.

#### Administrative:

Document processes and repository of artifacts that guide the project and provide visibility.

#### **Procurement & Contracts:**

Comprehensive contract management that includes considerations for digital mental health; and clear accountability and protection for all parties.

#### **Governance:**

Clear, timely, and structured approach to equally engage and activate relevant decision-makers for feedback/ guidance on project direction.

#### **Change Management Strategic Priorities**

#### **Internal Communication:**

Clear and continuous communication to provide the Collaborative and internal stakeholders with timely, transparent, and relevant information to spport awareness, buy-in and informed decision-making.

#### **External Communication:**

Clear, timely, transparent, and relevant information communicated to external stakeholders to raise awareness, garner buy-in, and support for the project.

#### Stakeholders:

Representation and integration of Stakeholders, Peers and Community throughout the project.

#### Readiness & Planning:

Support foundational planning and preparation allowing counties to understand their needs, priorities, goals, and desired outcomes within the parameters of the collaborative.

#### Implementation:

Facilitation and tools to support counties in deploying the technologies that best fit their stated needs.

#### **Evaluation:**

Identify and document observations, recommendations and lessons learned, which are continuously applied to improve project processes and overall outcomes.

In addition, experiences with social media in Year 1 led the Collaborative to consider and develop policies related to social media. In particular, Help@Hand Leadership developed a protocol for responding to and managing crises presented in social media channels.

As the project encountered barriers, the Collaborative sought assistance from various experts which was critical for project success. For example, consultants were brought in to support technology implementation efforts; a financial strategist was attained to inform the reorganization of the project budget; and digital legal experts were consulted to develop contracts and supporting legal documents that better reflected the current digital environment - particularly related to pricing, product development, ownership, and risk.

#### RE-ORGANIZE

Another major transition in the Program included the reorganization of the budget model. Central to the goals of the Collaborative is sharing cost. The benefit of a cost-sharing model is that it allows Counties to pool together funds for shared needs such as procurement, contracting, evaluation

#### September 2019 (Continued)

Approved Pilot Process and Governance process Presented overview of RSE marketing plan

#### **Project Management**

Launched 2nd RFSQ

Suspended Change Control Board (CCB)

Introduced Organizational Change Management (OCM) survey template

#### **Other**

Held Help@Hand Evaluation Advisory Board Meeting via phone

#### October 2019

#### Oversight and Help@Hand Leadership

Approved project extension deadline to be made at individual County level

#### **County Activity**

Held Northern California Help@Hand Peer Summit (hosted by Marin and San Mateo Counties with Kern, Marin, Modoc, Riverside, San Mateo, San Francis—co, Tehama, Tri—City, Los Angeles, and Santa Barbara Counties)

Shared Kern branded app brochure in Modoc

#### **Project Management**

Closed RFSQ period and official judging process occurred from 10/14/19-10/25/19

Presented RFSQ application status update

Previewed ADA compliant logo for Help@Hand

Announced update to redesigned Help@Hand SharePoint

#### **Other**

Held Conference on Conceptualizing and Measuring Mental Illness Stigma for Evaluation

#### November 2019

#### **County Activity**

Held demonstrations with 20 technologies

Announced adoption of "Appy Hours" for improving technology literacy in the community by several Counties

Held Digital Mental Health Session (Modoc County)

#### **Project Management**

Approved 93 technologies for the use in the Help@Hand Project Shared checklist for determining Counties' readiness to train a team for testing new technologies

Launched new Help@Hand SharePoint site

Launched Help@Hand branded business tools

Researched and provided device acquisition and management options

#### **December 2019**

#### Oversight and Help@Hand Leadership

Finalized Roadmap with Roadmap workgroup

Risk and Liability workgroup engaged contractor to provide clinical guide Approved changing Leadership meeting to occur monthly

#### **Other**

Held Help@Hand In-Person Evaluation Advisory Board Meeting Developed semi-annual OAC Report

#### **Project Management**

Presented RFSQ application status update
Previewed ADA compliant logo for Help@Hand
Announced update to redesigned Help@Hand SharePoint

#### **Counties**

Held Northern California Help@Hand Peer Summit (hosted by Marin and San Mateo Counties with Kern, Marin, Modoc, Riverside, San Mateo, San Francisco, Tehama, Tri–City, Los Angeles, and Santa Barbara Counties)
Shared Kern branded app brochure for users in Modoc

and marketing. Furthermore, the ability to negotiate with technology companies as a group allows for small Counties to be able to innovate alongside larger Counties. Over the last year, however, Help@Hand moved from a model in which the majority of County/City funds were pooled in a shared model to allocating more funds to local County/City control. While still valuing the Collaborative, Counties recognized that their unique infrastructure and populations required decisions that were County-specific, rather than Collaborative. Thus, this new budget model allowed more decision-making autonomy and resources to support Counties/Cities with their implementation of technology. Local funds were used for marketing, project management, product management, training and other activities involved in the implementation of technology at the local level.

At the same time, the Collaborative continued to keep some funds at the Collaborative level. These funds support the overall administration of activities across Counties. In particular, these funds support the project management, procurement, contract management, marketing and evaluation impacting all Help@Hand Counties/Cities.

#### **REACH**

The Collaborative continued to meet with local stakeholders to provide project updates and gather feedback informing project activities. For example, spearheaded by the Peer and Community Engagement Manager, the Collaborative met with over 300 local stakeholders to understand their technology needs which informed development of a digital mental health literacy curriculum.

In September 2019, Help@Hand published its first Quarterly Stakeholder Update Report. It was designed to provide project updates and answer questions from the public. These reports along with periodic webinars in the future may allow Help@ Hand to inform and reach a greater audience moving forward.

In addition, the Collaborative invested in branding and marketing, since these are critical in terms of raising awareness, as well as supporting project and product adoption and sustainability. In Year 1, the Collaborative worked with RSE to develop the Help@Hand brand concept. Development involved various activities to vet several ideas among target populations and other key stakeholders across the state. The final Help@Hand brand concept (which included a logo, graphic illustrations, and color scheme) aimed to appeal to all populations that Help@Hand hopes to serve.

Along with the brand concept, a marketing plan was developed and provided a plan for activities that would market the overall statewide brand and technology implementations for the pilot and portfolio. The plan also recommended several outreach and engagement activities Counties should consider implementing as appropriate. Lastly, marketing included development of a website (https://helpathandca.org/), which provided an online presence for the project and information about the project.

**Appendix A** highlights County identified program information, milestones, lessons learned, and recommendations from Year 1.

## 1 SYSTEM EVALUATION

## **Key Points**

- Marketplace data analysis showed that uptake and sustained use of certain apps were actually quite low, indicating the importance of active approaches by the Collaborative to enhance retention.
- Availability of marketplace data was not consistent. Thus, detailed data provided directly from the app developer would be crucial to measuring the performance of Help@Hand apps.
- The collaborative process evaluation was fully developed as a mixed methods assessment (an interview and survey) to understand the factors that facilitate and impede the implementation and sustainability of Help@Hand from the perspectives of the MHSOAC, CalMHSA, County Leaders, and Vendors.

#### **OVERVIEW**

Health and human services do not exist in a vacuum; instead, they are embedded in, and impacted by multiple environmental factors. These factors may influence the implementation, adoption, and use of Help@Hand products and their ultimate ability to impact mental health services and outcomes. This chapter focuses on work related to evaluating system-related factors that may influence the implementation of Help@ Hand. The following methods and learnings are detailed below:

- Market Surveillance
  - o Identification of Apps for the Market Surveillance o Analysis of Apps for Market Surveillance
    - Retention
    - Downloads
    - Active Users

oLearnings from Market Surveillance

- Environmental Scan
- Collaborative Process Evaluation

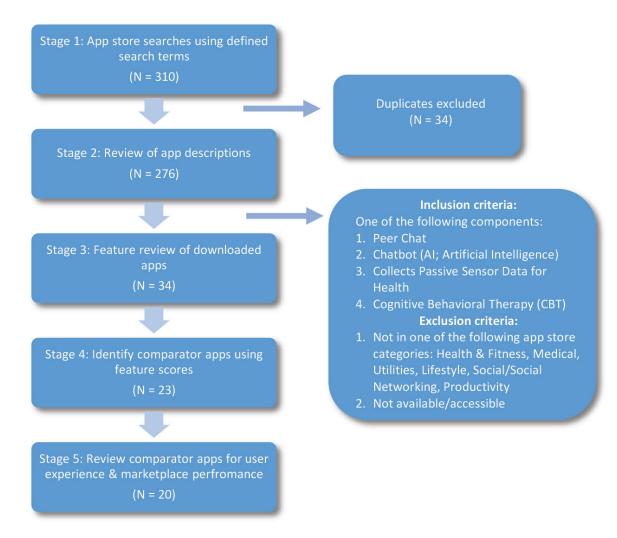
#### MARKET SURVEILLANCE

One such system-related factor is the broader app market. In addition to technologies selected by Help@Hand Counties, there are a number of similar mental health apps that are available for use in the broader marketplace. Uptake of a particular Help@Hand app may be influenced by other competitor apps in the open marketplace. As such, the Help@Hand evaluation team conducted a market surveillance (a comprehensive examination of "similar" technologies in the marketplace).

## **Identification of Apps for the Market Surveillance**

In Year 1, the focus of the market surveillance was to identify apps comparable to 7Cups and Mindstrong (the two Help@Hand apps at the time). **Figure 1** illustrates the full framework of review stages. Detailed results from stages 3 and 5 are shown in **Appendix B**.

Figure 1. Market Surveillance Framework



Keywords associated with both apps were systematically searched on the Google Play and iTunes app stores, resulting in a list of 310 apps. The evaluation team subsequently reduced this list through various stages of review, which resulted in a list of 34 relevant apps.

Each of these apps were downloaded and reviewed for the presence or absence of 12 key features shown in **Table 1**. Four of these features (1-on-1 support; 24/7 support; Chatbot (AI); Digital Phenotyping) were particularly relevant to Help@Hand, and thus any app containing one of these four features was selected as a "comparator app <sup>4</sup>" (note that no apps identified through this search contained a digital phenotyping component). This resulted in 23 comparator apps.

<sup>&</sup>lt;sup>4</sup> Comparator apps are apps which are comparable to the originally selected Help@Hand apps (7Cups and Mindstrong).

Table 1. Definitions of features assessed within apps during full feature review

Feature	Definition
1-on-1 support	1-on-1 support, specific to the individual, delivered through a chat or messaging medium
24/7 support	User can receive support 24/7
Chatbot (Artificial Intelligence (AI))	User can have a conversation with a chatbot, which mimics the language and communication of a human
Assessment of symptoms or condition	Users input data to assess their current symptoms, conditions, or overall health status
Chatroom	Space where users can chat with one another in real time in instant messaging format
Didactic content	Psychoeducation or other information and educational content
Digital phenotyping	Passively collected sensor data is used to assess, measure or predict health status
Forum	Space where users can join public conversations and post publicly
Interactive tools	Parts of the app, outside of programs with content, which the user can interact with (e.g., journaling, mood-tracking)
Link to offline services or people	App actively connects the user with other services outside of the app (e.g. notifies therapist if user is in a crisis)
Passive sensor data collection	App passively collects sensor data (without user entry); may include information on how the user interacts with their phone (e.g. keystrokes), location, activity
Programs with linear content	Interactive modules the user progresses through in a linear way, with each stage building on content from the last

The 23 comparator apps were further vetted for: (1) user experience as measured by Mobile App Rating Scale (MARS)<sup>5</sup>; and (2) marketplace performance as measured by data obtained from Apptopia, an app analytics company. For the latter, analytics data was available for apps ranking within the top ~1500 on iOS and within the top ~650 on Android per app store category. As such, data was available for only 20 of the comparator apps since they ranked high enough in the app store. **These 20 apps comprised the final list of comparator apps.** 

<sup>5</sup> MARS is a well-known, validated, and standardized tool designed to assess the engagement, functionality, aesthetics, and information quality of health apps (Stoyanov et al, 2015).

**Table 2** lists each of the 20 comparator apps and their relevant app category (24/7 support 1-on-1 support Chatbot (AI)). It is important to note that there is significant overlap between categories, particularly 24/7 support and 1-on-1 support, as many apps have both features.

Table 2. Comparator A	nne Include	ad In Markatalas	o Dota Analysis	by App Catagony
lable 2. Comparator A	ipps include	ea in iviarketpiac	e Data Analysis,	by App Category

App Name	24/7 support	1-on-1 support	Chatbot (AI)
Good Grief: Chat & Messaging	•	•	
HealthUnlocked Communities	•	•	
iPrevail	•	•	
Joyable		•	
MoodTrack	•	•	
PSY: Mental health chat psychological help	•	•	
Psychology Chat	•	•	
Replika		•	•
rTribe	•	•	
Sanvello	•		
Sibly	•	•	
TalkLife	•	•	
UP!		•	
Wakie	•	•	
We Are More	•	•	
What's Up	•		
Wisdo	•	•	
Woebot		•	•
Wolf+Friends	•	•	
Youper	•	•	•
Total	15	18	3

## **Analysis of Apps for Market Surveillance**

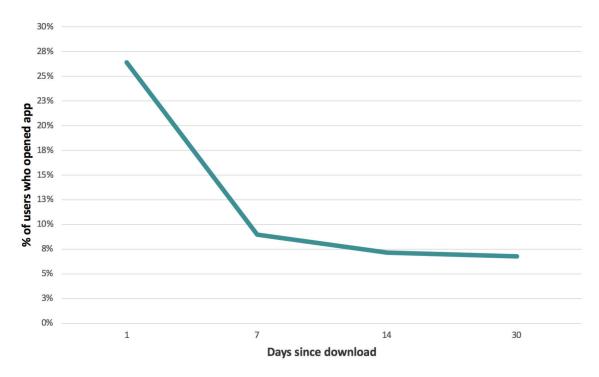
The evaluation team assessed the 20 comparator apps for the following areas: (1) retention; (2) downloads; and (3) active users. These findings may act as baseline data against which future Help@Hand apps can be compared.

#### Retention

Retention describes sustained app use after the day of download (which is referred to as "Day 0"). Overall retention trends for all 20 comparator apps from Day 1 to Day 30<sup>6</sup> are shown in **Figure 2**. Consistent with previous research (Baumel, Muench, Edan, & Kane, 2019), retention dropped considerably between Day 1 and Day 7 and was then relatively stable until Day 30.

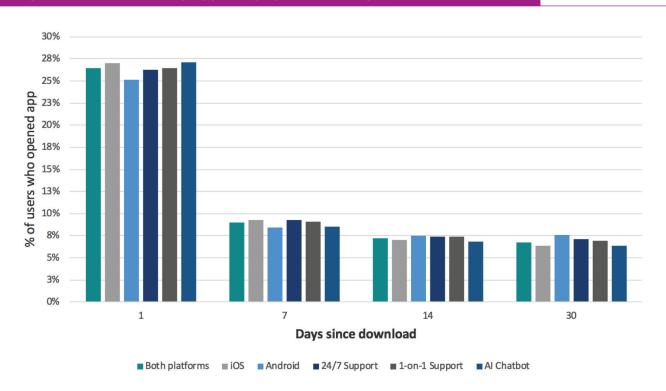
<sup>6 &</sup>quot;Day 1 retention" is the percentage of users who open the app one day after download, while "Day 30 retention" is the percentage of users who open the app 30 days after download. Similar verbage can be used for any days between 1 and 30.

Figure 2. Overall Retention Across 30 Days



**Figure 3** demonstrates retention by platform (i.e., iOS; Android). It also shows retention by the app category most relevant to Help@Hand for which comparator apps were available (i.e., 24/7 support; 1-on-1 support; AI Chatbot). Despite differences across app categories on other metrics (such as downloads shown below), retention did not differ greatly between app categories in that retention was similar across all categories.



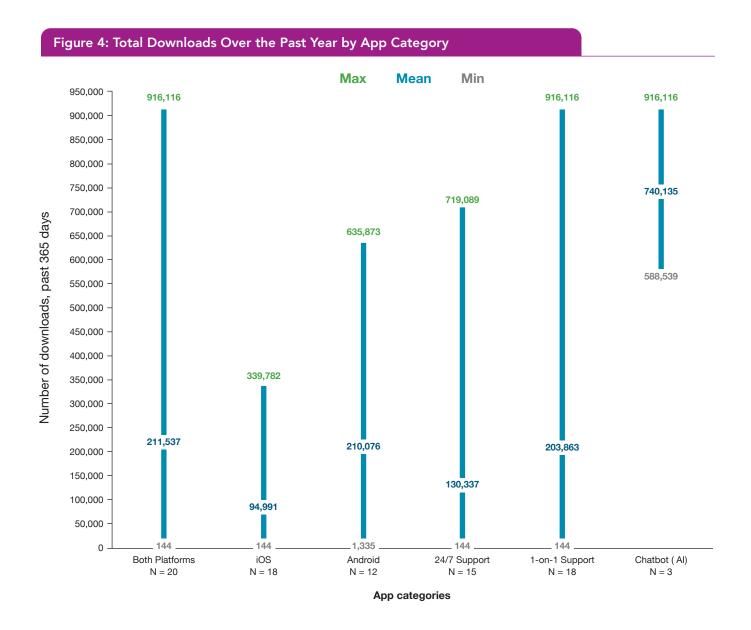


#### **Downloads**

Downloads refer to the number of new users downloading the app for the first time. If a user gets a new phone or re-downloads the app, it still counts as one download. **Figure 4** shows the number of downloads over the past 365 days divided by app category.

The range of downloads was large with the maximum total downloads over the past year for any app over 900,000 and the minimum less than 150. This illustrates the extreme variability within the app marketplace.

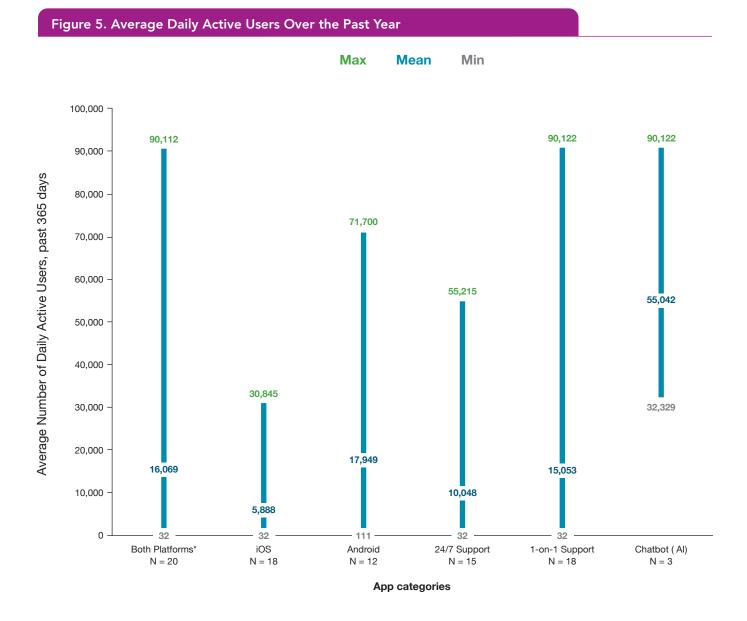
Apps in the Chatbot (AI) group have a higher average download rate than other categories, however it is worth noting that only 3 apps fell into this category and ranked high enough to have analytic data available. This may suggest that Chatbot (AI) apps might be popular among consumers at least in terms of willingness to download the app, but again we caution against strong conclusions due to the few number of apps included here (n=3).



#### **Active Users**

Users are described as "active" if they opened the app at least once in a certain time frame. The average number of Daily Active Users over the past year is shown in **Figure 5**\* and the average number of Monthly Active Users over the past year is shown in **Figure 6**\*.

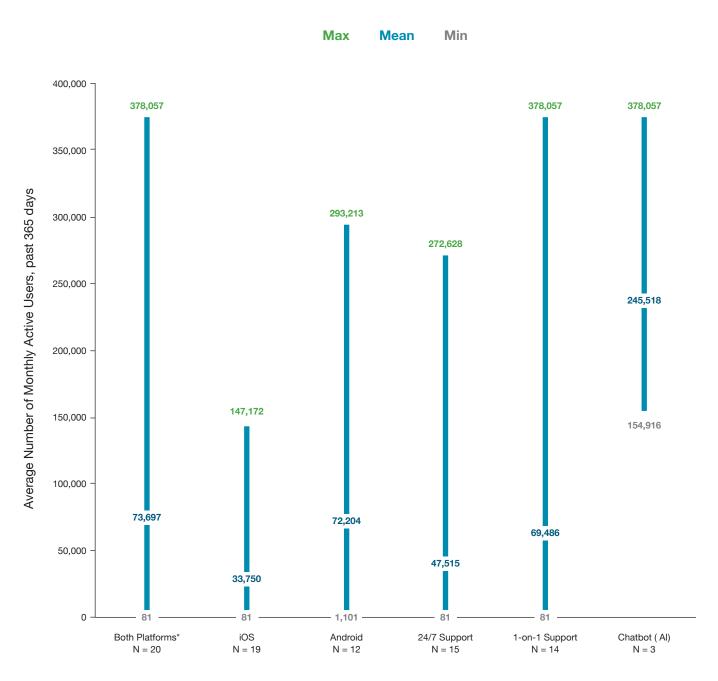
Both figures show that iOS apps had fewer Active Users than Android apps. This may be due to the fact that Android has a larger market share than iOS; in 2019, smartphones running the Android operating system held an 87 percent share of the global market (Statista, 2019). This may be because Android has a lower entry-level price point and broader price range than iOS, and makes it more accessible for persons with lower socioeconomic status.



<sup>\*</sup>In Figure 5, the sample for "both platforms" combines the average number of iOS users with the average number of Android users.

<sup>\*</sup>Monthly Active Users refer to those users who opened the app at least once in a 30-day time period. A user who opens the app once and a user who opens the app 20 times over the last 30 days are both counted as a Monthly Active User. In Figure 6, the sample for "both platforms" combines the average number of iOS users with the average number of Android users.

Figure 6. Average Monthly Active Users Over the Past Year



App categories

<sup>\*</sup>average number combined across iOS & Android platforms

## **Learnings from Market Surveillance**

The evaluation team performed a full cycle of the market surveillance in Year 1. Learnings from the full cycle are synthesized below.

## A lot of variability exists in the app marketplace.

- Few apps had identical patterns of features and the functionality of mental health apps varies significantly.
- Although two apps looked similar at face value (e.g. "mindfulness apps"), the patterns of features they contained and how they functioned were likely to differ.
- There were wide ranges of downloads and active users among the apps that were examined.

### Apps changed over a relatively short period of time.

- Review of comparator apps at different levels and time points (app description reviews, full feature reviews, user experience reviews, etc.) highlighted that apps were updated frequently. On average, some apps update as often as every 18 days.
- Updates may have impacted user experience (i.e., added or removed features) and accessibility (i.e., changes in pricing).
- Updates also resulted in significant branding changes over this past year (Pacifica relaunched as Sanvello, and Reachout as We Are More).

## Digital phenotyping apps were not widely available for the public.

- The original procurement process for Help@Hand was designed to select apps employing digital phenotyping technology. The evaluation team did not identify any apps (other than Mindstrong) with a digital phenotyping component. This may have been in part due to the methodology, which will be modified for the next cycle.
- Digital phenotyping technology was in a relatively early development stage, as such these technologies may continue to change considerably, especially over the life of Help@Hand.

## Obtaining usage data will be key to measuring the success of Help@Hand apps.

- The availability of app analytics data was determined by each app store; as noted above, data are only available for apps ranking with the top ~1500 for iOS and top ~650 for Android per app store category.
- There was a lack of transparency from app stores on what the metric of "rank" meant. Stores used a combination of data on downloads, active use, retention, install and uninstall activity, and positive and negative user reviews to rank apps, but the exact algorithm was not publicly available.
- Detailed data provided directly from the app developer yielded more consistently available data points to help Counties understand product performance. This data will also allow Counties to determine the real-world engagement and effectiveness of the apps and help achieve learning objectives.

## Only a small number of users used apps after the day of download.

- As shown by retention data, uptake and sustained use of these apps was quite low. This indicates that active approaches by the Collaborative to enhance uptake and retention will therefore be critical.
- The retention data shown in this report can provide a baseline of user retention by which to judge retention data provided by selected app companies.
- In some cases, people may acquire the desired skills early on and no longer need the app. For other apps, sustained use may be key to gaining therapeutic benefit, but may not be needed for an app offering a one-time stress assessment. When considering app usage data, Counties should consider the intended use of the app and how it will impact retention.

#### **ENVIRONMENTAL SCAN**

Other system-related factors that may affect the implementation of Help@Hand are general attitudes towards mental health (i.e., mental health stigma at the population-level) and key media events related to mental health generally as well as Help@Hand specifically. The purpose of an environmental scan is to monitor public perceptions of mental health documented through key media events. The aim is to understand how factors related to the broader international and national stage (i.e., a celebrity opening up about their struggles with mental health or a potentially traumatic world event) may impact Help@Hand.

To date, the evaluation team has collected news stories based on keywords related to Help@Hand (i.e., 7Cups, Mindstrong, mental health apps, mental health, etc.) and the Cohort #1 Counties (i.e., Kern, Los Angeles, Modoc, Mono, and Orange). Analysis of news stories and social media such as Twitter has not begun due to limited staffing to support the environmental scan.

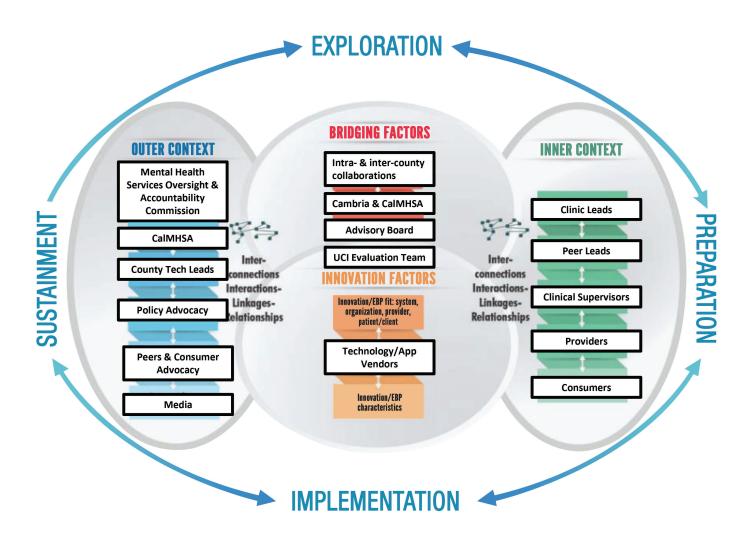
#### COLLABORATIVE PROCESS EVALUATION

The success of Help@Hand is also dependent on the extent to which the collaboration among Collaborative members and between the Collaborative and Vendors is productive. The collaborative process evaluation was developed in order to understand the factors related to and the impact of organizational collaboration. In particular, the evaluation team designed a collaborative process evaluation to understand the factors that might facilitate and impede the implementation and sustainability of Help@Hand at the organizational level.

The design of this assessment was guided by the Exploration, Preparation, Implementation, Sustainment Framework (EPIS) (Aarons, Hurlburt & Horwitz, 2011; Moullin, Dickson, Stadnick, Rabin & Aarons, 2019). The EPIS Framework highlights key phases that guide and describe the implementation process and enumerates common and unique factors within and across levels of the outer context (system, policy) and inner (organizational, provider, consumer) context, across factors that bridge outer and inner context, and the nature of the innovation being implemented and the role of innovation developers. Figure 7 shows the EPIS framework as applied to the Help@ Hand project and key stakeholders. The primary focus of the collaborative process evaluation include the outer context, bridging factors, and innovation factors, which are described in greater detail in **Appendix C**.

<sup>&</sup>lt;sup>7</sup> To develop the organizational assessment, UCI collaborated with Help@Hand staff along with Drs. Cathleen Willging and Elise Trott Jaramillo at Pacific Institute for Research and Evaluation and Dr. Gregory Aarons at UC San Diego. Drs. Willging and Trott Jaramillo are applied anthropologists with expertise in qualitative methods and ethnography as applied to health sciences and implementation research and evaluation. Dr. Gregory Aarons is a Professor of Psychiatry at UC San Diego with expertise in organizational change strategies, implementation science, and measure development. He also led the development of the EPIS framework. Drs. Willging, Trott Jaramillo, and Aarons have a strong history of collaborating on mixed methods research and evaluation projects similar to Help@Hand.

Figure 7. EPIS Framework as Applied to the Help@ Hand Project and Key Stakeholders



Interviews and online surveys with Help@Hand decision-makers and influencers were planned to occur every six months across the span of the project. Changes to the interview guides, surveys, and process would be made to reflect progression through the phases of the EPIS framework. In Year 1, the evaluation team developed interview guides and surveys. Interviews were also scheduled with MHSOAC, CalMHSA, Counties, and Vendors. However, the Collaborative requested to postpone interviews in October 2019. As such, there are no learnings/findings from the collaborative process evaluation in Year 1.

## 2 IMPLEMENTATION EVALUATION

## **Key Points**

- Evaluating the implementation of Help@Hand within each County helps to understand how processes can be adapted and tailored to increase the potential of Help@Hand technologies in transforming mental health service delivery.
- The success of a particular technologies is likely to be influenced by contextual factors outside of the technology itself, including perspectives of leadership, providers, and Peers.
- Help@Hand technologies met with initial enthusiasm from clinicians, but encountered challenges with meeting those expectations because of unanticipated barriers.
- Developing local champions appears to be a key strategy for achieving effective communication and knowledge, as well as successful implementation.
- Using technology in mental health service delivery is new and, as such, unanticipated challenges are likely to occur. Identifying and addressing these challenges quickly is important to maintain positive impressions and engagement.
- Peers are a ready and valuable resource with great potential to inform the appropriate selection and deployment of Help@Hand technology.

#### **OVERVIEW**

Understanding the barriers and facilitators of implementation at the County level is critical for contextualizing the successes and challenges of Help@Hand. This chapter focuses on work related to evaluating site-level and Peer factors that may influence the implementation of the Help@Hand technologies. As Counties move into implementing specific technologies within identified target audiences, additional evaluation efforts will be focused on considering key important factors of implementation.

The following methods and findings are detailed below:

- Site Visits: County Leadership, Clinicians, and Staff
  - oFindings
  - oLearnings from Site Visits with County Leadership, Clinicians, and Staff
- Peer Program Evaluation
  - oFindings
  - oLearnings from Peer Program Evaluation

## SITE VISITS: COUNTY LEADERSHIP, CLINICIANS, AND STAFF

To understand the how site level factors might influence the Help@Hand program, the evaluation team conducted site visits which consisted of interviews and surveys with County Leadership and as appropriate clinicians and staff involved in implementing Help@Hand. In Year 1, the evaluation team conducted site visits prior to implementation, as well as following implementation, as displayed in **Table 3**.

dole of overview of county site visits					
County <sup>8</sup>	Follow-Up Site Visit				
Kern	December 2018	November 2019			
Los Angeles	September 2018	June 2019			
Modoc	March 2019	October 2019			
Orange	N/A	N/A			
Mono	N/A	N/A			

Table 3 Overview of County Site Visits

## **Findings**

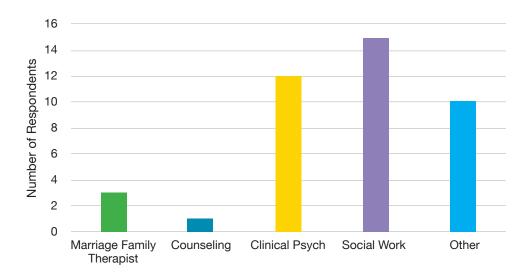
The pre-implementation period was defined as approximately one month prior to the start date of implementation in a given County. For these site visits, the Implementation Climate Scale and Implementation Leadership Scale were collected and asked about both Mindstrong and 7Cups.

The follow-up period was approximately 8 months after the implementation start date. For both pre-implementation and follow-up site visits, the Accessibility, Appropriateness, and Feasibility Measure and the Perceived Characteristics of Intervention Measure were collected.

Aggregated data from pre-implementation and follow-up site visits are presented.

<sup>8</sup> Site visits were not conducted in Orange or Mono Counties since implementation in these Counties did not occur in Year 1.

Figure 8. Disciplines of Clinicians Across Counties



### **Disciplines of Clinicians**

Across Counties, clinicians were trained in a variety of ways. **Figure 8** shows that the majority of clinicians were social workers, clinical psychologists, and a variety of other disciplines (i.e., recovery specialists, psychiatric nurses, and case managers).

## Clinician Ratings of Organizational Climate and Technology

During pre-implementation site visits, clinicians were asked about the degree to which they felt that the organization's climate was generally supportive for implementing new innovations (Ehrhart et al., 2014). Specifically, clinicians were asked about the level of educational support, perceived recognition and rewards, and openness toward implementing Mindstrong and/or 7Cups. **Table 4** indicates that clinicians felt their organizations were generally open and supportive to try these new technologies.

Table 4. Organizational Climate

	Pre-Implementation (n=32)	
Participants were asked to the extent they agree with the statements  0 – Don't Agree at all  1 – Agree to a Slight Extent  2 – Agree to a Moderate Extent  3 – Agree to a Great Extent  4 – Agree to a Very Great Extent	Mean	Standard Deviation
There is educational support for Mindstrong and/or 7Cups	3.3	0.2
There is recognition for Mindstrong and/or 7Cups	2.9	0.4
There are rewards for engaging in Mindstrong and/or 7Cups	1.7	0.3
There is a reason for the clinic to select Mindstrong and/or 7Cups to be used	2.8	0.3
The clinic is open to using Mindstrong and/or 7Cups	3.2	0.3

The same clinicians also were asked to rate the degree to which they felt clinic leadership was proactive, knowledgeable, and supportive in regards to implementing new technologies (i.e., Mindstrong and/or 7Cups). As shown in **Table 5**, results indicated that across Counties, there was agreement to a great extent that leaders were proactive, knowledgeable and supportive towards the implementation of Mindstrong and 7Cups.

Table 5. Clinic Leadership Knowledge and Support for Technology

	Pre-Implementation (n=32)	
Participants were asked to the extent they consider their leadership  0 – Don't Agree at all  1 – Agree to a Slight Extent  2 – Agree to a Moderate Extent  3 – Agree to a Great Extent  4 – Agree to a Very Great Extent	Mean	Standard Deviation
Proactive towards implementing Mindstrong and/or 7Cups	2.8	2.8
Knowledgeable towards implementing Mindstrong and/or 7Cups	3.1	3.1
Supportive towards implementing Mindstrong and/or 7Cups	3.3	3.3

In addition, clinicians were asked about their views on the technology applications themselves, specifically if the technologies were viewed as being acceptable, appropriate, and feasible (Weiner et al., 2017) for use with their clients. Ratings were completed by clinicians during the pre-implementation and follow-up site visits to understand perceptions about Mindstrong and 7Cups. Due to a halt in activities with 7Cups, only data for Mindstrong is presented below. As shown in **Table 6**, the results assessing acceptability, approriateness and feasibility of Mindstrong at pre-implementation and follow-up indicated stable and neutral (neither strongly favorable nor unfavorable) perceptions.

Table 6. Acceptability, Appropriateness and Feasibility of Mindstrong

	Pre-Implementation (n=31)		Follow-u	p (n=23)
<ul> <li>1 – Completely Disagree</li> <li>2 – Disagree</li> <li>3 – Neither Agree nor Disagree</li> <li>4 – Agree</li> <li>5 – Completely Agree</li> </ul>	Mean	Standard Deviation	Mean	Standard Deviation
Acceptability of Mindstrong	3.5	0.7	3.3	0.9
Appropriateness of Mindstrong	3.4	1.1	3.4	1.0
Feasibility of Mindstrong	3.8	0.9	3.5	0.8

A more in-depth examination of clinician attitudes towards characteristics of Mindstrong indicated slightly more variability. On average, clinicians reported slight to moderate agreement that the characteristics of Mindstrong positively impacted their work. Between the pre-implementation and follow-up visits, clinician attitudes generally decreased, especially for characteristics related to producing visible clinical improvement, improving the quality of work clinicians deliver and providing helpful supportive materials for clients. These results illustrate the perceptions of Mindstrong's characteristics over time and further contextualize the decreased use of Mindstrong. These results are in **Table 7**. Due to small sample sizes, there should be caution with interpreting these results and changes over time.

Table 7. Perceived Characteristics of Mindstrong

	Pre-Implementation (n=26)		Follow-Up (n=22)	
<ul> <li>0- Don't Agree at all</li> <li>1- Agree to a Slight Extent</li> <li>2- Agree to a Moderate Extent</li> <li>3- Agree to a Great Extent</li> <li>4- Agree to a Very Great Extent</li> </ul>	Mean	Standard Deviation	Mean	Standard Deviation
Is the product superior than other products	1.0	0.9	0.7	0.9
The product fits well with the way I work	2.0	1.0	1.6	1.3
The product produces improvements I can see	1.3	0.9	.8	0.9
The product can be adapted to fit different settings	1.8	1.2	1.6	1.1
The product can be adapted to meet the client needs	1.9	1.1	1.5	0.9
Using this product improves the quality of work I do	1.7	1.2	1.1	1.4
The knowledge about using this product can be easily taught	2.4	1.0	2.3	1.4
The skills needed to implement this product can be easily taught	2.4	1.0	2.3	1.4
The instruction manual for the product is helpful	2.1	1.1	1.9	1.3
The product has helpful supportive materials for clients	2.1	1.1	1.3	1.1

Many of these challenges, however, were overcome due to strong clinical leadership in implementing Mindstrong and a responsiveness from Mindstrong to provide technical support and updates.

Specific questions were also asked about the usefulness and perceptions of Mindstrong's biomarker feature. Results in **Table 8** suggested that the biomarker data itself may not be particularly useful for improving the quality of the relationship between the clinician and patient.

Clinicians reported perceptions that, although some clients were using the 7Cups and Mindstrong tools, the majority of clients were not. They also noted several initial challenges to implementation of Mindstrong, such as:

- Lack of hardware (i.e., computers in clinician offices to review client Mindstrong data in session) and software needed to use Mindstrong;
- Issues with integrating Mindstrong into the clinical workflow and DBT treatment model;
- Client characteristics (e.g., severe pathology, close to treatment termination); and
- Lack of interest from some clinicians to use digital tools.

Table 8. Perceptions of Mindstrong Biomarker Data

	Follow-Up (n=20)	
Item: How has the data from the biomarkers affected  1 – Completely Disagree  2 – Disagree  3 – Neither Agree nor Disagree  4 – Agree  5 – Completely Agree	Mean	Standard Deviation
Communication with clients	1.8	0.9
Ability to educate clients.	1.9	0.9
Clients' perceptions about you.	1.8	0.9
Process of providing DBT.	2.0	1.0
The treatment you provide to clients.	2.0	1.0
Time spent interacting with clients.	1.9	1.0
Time spent completing notes.	1.7	0.8
Ability to identify the need for clinical intervention before clients reach a crisis situation.	1.7	0.8
Ability to monitor clients' symptoms and functioning.	1.9	1.0
Clients' insight into their symptoms and functioning.	1.9	1.0
Clients' motivation to participate in treatment.	1.8	0.9

## Learnings from Site Visits with County Leadership, Clinicians, and Staff

Learnings from County site visits are synthesized below.

Across all Counties, pre-implementation site visits showed mixed enthusiasm for 7Cups and Mindstrong. Clinicians were eager to use 7Cups and Mindstrong with their clients and thought that Help@Hand would bring about beneficial change.

- Clinicians who were more familiar with the apps tended to be more positive, whereas providers who were less familiar were less confident in using the apps with their clients.
- Clinicians felt somewhat positive towards the acceptability, appropriateness, and feasibility of Mindstrong. However, clinicians viewed the biomarker feature less favorably than other features of Mindstrong, with some noting a lack of perceived clinical validity and utility.
- Overall, clinicians were open to offering these apps to their clients.

Follow-up site visits found that general enthusiasm for mental health apps remained but qualitative data from providers indicated that Mindstrong and 7Cups had little to no users within each County since the pre-implementation site visit due to a number of factors.

• Some factors were external to the sites (i.e., communication channels between the Counties and the Vendors diminished due to a change in CalMHSA policies), while others were internal (i.e., turnover in personnel who received training or personnel who were not trained initially).

A number of facilitators and barriers were identified across the three Counties through pre-implementation and follow-up site visits.

• Table 9 illustrates these facilitators and barriers in the context of the Exploration, Preparation, Implementation, and Sustainment (EPIS) framework (Moullin et al, 2019). It also includes an illustration of how recommendations can be framed to address the facilitators and barriers.

<sup>9</sup> The EPIS framework is explained in the "System Evaluation" section of this report.

Table 9. Observed Implementation Facilitators and Barriers and Recommendations

<b>(0</b>	Outer Context	Inner Context	Innovation Factors	Bridging Factors
EPIS Domains	The environment external to the organization	The characteristics within an organization	Characteristics and/or fit of the innovation	Factors that influence the implementation process through interaction between outer and inner context factors
Facilitators	Excitement for the potential for transformational and meaningful change in mental health services through the cross—county Help@Hand project.	Support from organization—al leadership (people feel supported to try new things, attend trainings, increase their education and profes—sional development).  Dedicated on—site support for provider use of Help@Hand apps (e.g., regular check—ins during supervision meetings about Help@Hand app use).	Interest and optimism about the potential for mental health apps, to bring positive change.  Mindstrong and 7Cups were seen as easy to use, especially by those who had gained experience using the apps.  Initial trainings provided by the app vendors were seen as helpful	Learning from other counties through the Help@Hand Collaborative about supports and challenges during app planning and implementation.
Barriers	Turnover in Help@Hand staff and evolving project management procedures led to delays in implementation timelines.	Competing time and resource demands.  Unsure of who to turn to with questions regarding the Help@Hand project and apps.  Lack of knowledge around apps led to difficulties in introducing and using them with clients.	Site personnel lacked confidence in and were confused by Mindstrong's biomarker feature, concerns with the validity and utility of the biomarkers.  Concern around fit of the apps with client's needs, availability of necessary resources (e.g., smartphone access, data plans).	Communication challenges between the Counties and vendors.
Sample Recommendations	Ensure strong project management and executive leadership to provide clear and supportive guidance to counties participating in the Help@Hand project.	Develop "clinical champions" that have the appropriate support and resources (e.g., dedicated time and specific responsibilities) to enable change and sustainment related to Help@Hand im—plementation.	Ensure consistent and early communication with the app vendors to anticipate and address possible "fit" challenges. This can support use and utility of the apps.  During pre—implementa—tion planning and training, demonstrate the clinical utility and benefit of the apps to providers and clients	Continue to provide dedicat— ed and structured opportu— nities for sharing learnings across the Help@Hand collaborative.  Emphasize project learnings that transcend knowledge about the apps and their specific implementations.

#### PEER PROGRAM EVALUATION

In addition to site visits, the evaluation team interviewed and surveyed Peers. The evaluation team conducted seven one-on-one phone interviews with Peer Leads in Cohort #1 Counties. Peer Leads were identified by County Tech Leads as the County employee overseeing the Peer component of Help@Hand. In addition, anonymous surveys were completed by Peers in these Counties who were at that time expected to support Help@Hand. Peers were identified by Peer Leads as individuals with lived experience who were explicitly engaged in supporting Help@Hand on an ongoing basis.

Interviews and surveys were completed in two waves during Year 1. Wave #1 was deployed when Help@Hand included only 7Cups and Mindstrong. Since Peers were expected to support the two apps, the Wave #1 survey included specific questions about these apps. Wave #2 occurred after the project pivoted toward expanding the suite of technologies through the Request for Statement of Qualification (RFSQ) release. Surveys in Wave #2 did not reference 7Cups and Mindstrong so that they could be deployed across multiple counties, some of which were no longer utilizing Mindstrong and/or 7Cups. **Table 10** details when interviews and surveys were performed for each Cohort #1 County.

Table 10. Peer Lead Interviews and Peer Surveys

County	Wave #1 (September 2018-August 2019)	Wave #2 (September 2019-December 2019)
Kern	х	х
Los Angeles	х	N/A
Modoc	N/A	х
Orange	х	х
Mono	N/A	N/A

## **Findings**

Peer Lead interviews provided insights on the following: (1) the definition of a Peer; (2) Help@ Hand's Peer structure; (3) Peer activities; (4) benefits of and challenges with Help@Hand's Peer component; and (5) the perceptions of engaging Peers in Help@Hand. Peer surveys echoed these themes.

#### **Definition of a Peer**

Counties were consistent in the overarching criteria for being a Peer: a person with lived experience with mental health challenges and with the recovery process. One County also stated Help@Hand Peers should have prior experience with technology. Another County emphasized interpersonal skills.

### Help@Hand's Peer Structure

All Peer Leads reported that there were 2-3 full-time Peers supporting Help@Hand. However, there was considerable variability in how Peers were identified, hired, trained, managed and supervised.

One Peer Lead reported a formal and well-supported structure that included a formal job posting and interview process, a 2-week period of orientation and onboarding in addition to specific Help@Hand training for new staff, ongoing weekly meetings with the Peer Lead, and submission of periodic timesheets to their Team Supervisor

<sup>10</sup> Detailed notes were taken during the interview. These notes were summarized and shared with the interviewee for modification and approval. Only approved interview summaries were analyzed.

<sup>11</sup> The RFSQ release and other important project milestones are described in the "Summary of Activities" section of the report.

who was also a County employee. Another Peer Lead reported that 7Cups originally recruited and trained their Peers. These Peers transitioned to be consultants for the County and were employed by CalMHSA. A third Peer Lead reported that their County had contracted with a local community-based mental health services organization to hire, train, and supervise Peers. The fourth Peer Lead reported that their County assigned two Peers with prior roles within the County to support Help@Hand. These Peers reported directly to the Tech Lead.

#### **Peer Activities**

Although Counties described a number of ways Peers support Help@Hand, several reported that Peers provided input on materials and technologies (i.e., the App Guide and potential apps for Help@Hand pilots) considered or developed for the community. All Counties are waiting for the project to reach a stage of greater maturity and stability in order to better define the role of Peers within Help@Hand.

## Benefits and Challenges with Help@Hand's Peer Component

All interviewees were enthusiastically optimistic about the potential contributions that Peers can likely make after their role is more clearly defined. Anticipated contributions include providing feedback on proposed intervention tools (e.g., specific technologies, Appy Hours, App Guides, etc.), creating and producing educational materials to support Help@Hand and engaging with members of the target population to promote and support their use of Help@Hand apps.

At the same time, the interviews revealed two challenges within the Help@Hand Program. First, there was some turnover in Peers across the four Counties. Reasons for Peers leaving the project included: a mismatch between the Peer's expectations of the job and the actual characteristics of the job; mental health relapse; and promotion or finding a job elsewhere. Second, a few Counties' Peers noted challenges with the lack of a standardized tool for evaluating Apps being considered for Help@Hand pilots.

### Perceptions of Engaging Peers in Help@Hand

Several counties noted strong support and appreciation for the CalMHSA-sponsored Peer activities, including the Peer Summits. Two Counties mentioned their intention to deploy Appy Hours as a result of the Peer Summits.

#### **Peer Survey Results**

The data collected from the anonymous Peer Surveys largely affirmed the findings from the interviews with the Peer Leads. Thirteen Peers responded to the Wave #1 survey, representing two Counties. The data indicated that 46% of respondents received formal training related to their Help@Hand role, 70% were very confident or totally confident in their ability to help someone use 7Cups, and 11% were very confident or totally confident in their ability to help someone use Mindstrong. It should be noted that at this stage, Peers had not been accorded a specific role related to supporting the use of Mindstrong, and many of them had no experience with the app at all. Seven Peers responded to the survey during Wave # 2, representing three Counties. The Wave #2 surveys showed that Peers were overwhelmingly supportive of the concept that mental health apps (in the abstract) were useful for assisting individuals seeking support for mental health needs (100% of respondents reported that mental health apps are "very useful"). In addition, the Wave #2 data indicated that Peers were very confident that including Peers in Help@ Hand would be effective for improving access to mental health needs, decreasing mental health services stigma, and providing early intervention for individuals seeking mental health services.

## **Learnings from Peer Program Evaluation**

Learnings from the Peer Program Evaluation are synthesized below.

## Peers have the potential of making an important contribution to Help@Hand program.

- Peers were overwhelmingly supportive of the concept that mental health apps could be useful for assisting individuals seeking support for mental health needs.
- Peers were enthusiastically optimistic about the potential contributions they could likely make in the Program.

# There was a great deal of variability in how Peers were identified, hired, trained, managed and supervised.

• The role of the Peers in the Help@Hand project varies greatly across the different Counties/Cities. As such, efforts should be made to understand how

Peers are being integrated into Help@Hand, with a particular effort made toward understanding their potential impact.

#### There was Peer turnover.

- Peer Leads reported turnover in the Peer staff owing to a number of reasons, including a mismatch between the Peer's expectations of the job and the actual characteristics of the job, mental health relapse, and promotion or finding a job elsewhere.
- More clearly defining their roles and providing appropriate support will facilitate retention.

# 3 USER EXPERIENCE AND TECHNOLOGY EVALUATION

### **Key Points**

- The user experience and technology evaluation assessed factors supporting adoption and continued use among the target populations.
- Expert users assessed usability of 7Cups and Mindstrong to identify
  potential issues that could affect user adoption and continued use (or
  abandonment) of the technologies and to provide recommendations
  for improvement.
- Overall, actual and potential users perceived benefits of mental health technologies in the recovery process, particularly around increasing access to care, facilitating connection, reducing stigma and increasing awareness of symptoms. However, they also revealed a number of barriers and concerns to adoption and continued use of such technologies.
- The evaluation team worked with Los Angeles County to plan a baseline assessment (an effort to collect baseline values of key variables and understand the needs of the target population) at a local community college.

#### **OVERVIEW**

The user experience and technology evaluation focuses directly on the user<sup>12</sup> and non-user<sup>13</sup> experiences with the technologies. The user experience and technology evaluation examines what factors relate to adoption and continued use among the target populations. It utilizes both qualitative and quantitative methods in order to gain a comprehensive view of the usage and viability of the Help@Hand apps.

This chapter focuses on work related to the user experience and technology evaluation. The following methods and findings are detailed below:

- Heuristic Evaluation and User Evaluation Efforts
  - o Heuristic Evaluation of 7Cups and Mindstrong
  - o User Evaluation Efforts
    - Adoption and Use: Target Audience of Help@Hand Technologies
    - Usage and Perceived Usefulness: Users of Help@Hand Technologies
  - o Findings
  - o Learnings from Heuristic Evaluation and User Evaluation
- Identification of Target Audience Needs: College Students
  - o Los Angeles County and El Camino College Baseline Assessment

For the purposes of this report, the most important takeaways that emerged across the user experience and technology evaluation efforts in Year 1 are presented. **Table 11** summarizes these efforts.

Table 11. Summary of User Experience and Technology Evaluation Efforts in Year 1

What was assessed?	From where did the data come?	How was data collected?				
Usability	Experts in Human Computer Interaction <sup>14</sup>	Heuristic evaluations (n=28)				
Adoption and continued use	Survey continued use Target audience of Help@Hand technologies Intervie Focus gro					
Usage and perceived usefulness	Users of Help@Hand technologies	Surveys (n=4) Interviews (n=8)				

### HEURISTIC EVALUATION AND USER EVALUATION

### Heuristic Evaluation of 7Cups and Mindstrong

In Year 1, the evaluation team conducted heuristic evaluations of Help@Hand technologies (7Cups and Mindstrong). A heuristic evaluation is an informal method often conducted by expert users to assess if technologies follow established usability guidelines (Nielsen, 1994). This evaluation was particularly useful at identifying major issues (Nielsen, 1992). For Help@Hand, a heuristic evaluation provided important information to improve Help@

<sup>&</sup>lt;sup>12</sup> A user is defined as an individual who uses a computer technology or network such as apps.

<sup>13</sup> A non-user is defined as an individual who is aware of the app but chooses one of the following: (1) not to download the app (these individuals are "never triers"); (2) download the app but do not register (these individuals are "non-registers"); or (3) download the app and register but do not have any activity with the app (these individuals are "non-adopters").

<sup>14</sup> Experts in Human Computer Interaction performed the heuristic evaluations to assess the technology. The evaluation team synthesized the data from the experts.

In Year 1, the evaluation team conducted heuristic evaluations of Help@Hand technologies (7Cups and Mindstrong). A heuristic evaluation is an informal method often conducted by expert users to assess if technologies follow established usability guidelines (Nielsen, 1994). This evaluation was particularly useful at identifying major issues (Nielsen, 1992).

For Help@Hand, a heuristic evaluation provided important information to improve Help@ Hand products by identifying potential issues that could affect user adoption and abandonment of technologies. Heuristics that guided the experts' evaluation were taken directly from Nielsen & Molich (1990) and are listed below.

- Visibility of system status: Always keeps users informed regarding what is happening in the app
- Match between the system and real world: Uses language/concepts familiar to the user
- User control and freedom: Allows users to exit screens easily and supports undo/redo
- Consistency and standards: Follows clear conventions
- Error prevention: Checks or eliminates errors through confirmations before action
- Help users recognize, diagnose, and recover from errors: Ensures errors are in plain language for users to easily understand the issues and provides solution
- Help and documentation: Provides help information should be easy to find, searchable, not too long, and list concrete steps relevant to the user's task
- Recognition rather than recall: Makes information visible
- Flexibility and efficiency of use: Tailors to the level of the user
- Aesthetic and minimalist design: Removes unnecessary or irrelevant information.

Evaluators were tasked with assessing 7Cups and Mindstrong and prepared written reports as described below.

**7Cups:** Eighteen experts conducted a heuristic evaluation of 7Cups in February 2019. At the time, approximately two-thirds of users accessed 7Cups via a desktop or mobile web (rather than a mobile app). Thus, the evaluation assessed the different platforms (i.e., web and app), but primarily focused on the web version of 7Cups.

**Mindstrong:** A heuristic evaluation of Mindstrong on both Android and iPhone devices was conducted by 10 experts in April 2019.

### **User Evaluation Efforts**

**Table 12** details surveys, interviews, and focus groups with potential Help@Hand users and actual Help@Hand users in Year 1. Results from all user evaluation efforts were intended to help inform Counties on how to promote adoption of current and future mental health technologies.

Table 12. User Evaluation Efforts with Target and Actual Help@Hand Users

Who was involved?	Where and when?	How were they asked?
Target Help@Hand Users	Modoc (March 2019)	Surveys, interviews, focus groups
Mindstrong Users	Kern (December 2018, April 2019) <sup>15</sup> Los Angeles (planned for Year 2)	Surveys, interviews
7 Cups Users	Kern (December 2018) <sup>16</sup>	Surveys, interviews

<sup>&</sup>lt;sup>15</sup> A small sample of individuals who had used Mindstrong in Kern County completed surveys and semi-structured interviews.

<sup>&</sup>lt;sup>16</sup> A small sample of individuals who had used 7Cups in Kern County completed surveys and semi-structured interviews.

### Adoption and Use: Target Audience of Help@Hand Technologies

The evaluation team conducted surveys, interviews, and focus groups with target users in Modoc County to assess factors that may influence their adoption and continued use of mental health apps and websites.

### Usage and Perceived Usefulness: Users of Help@Hand Technologies

The evaluation team conducted interviews and surveys with Mindstrong and 7Cups users in Kern County to assess users' perceptions and reported use of these apps.

### **Findings**

Our data revealed that many see potential in the Help@Hand technologies for addressing pressing mental health needs of consumers. As **Figure 9** shows, these include timely access to care by providing in the moment support, improved connection facilitated by interactions with peers and/or providers, personalized and empathetic support through tailored interventions and/or better aligning user needs with the support provided, opportunities for reflection facilitated by personal data, and useful mental health information that is easily and readily available via the technologies.

### Figure 9. Potential of Help@Hand Technologies







Improved Connection



Personalized, Empathetic Support



Opportunities for Reflection



Useful Mental Health Information

Although users and potential users generally reacted positively to the idea of mental health technologies, a number of barriers emerged that need to be addressed in order for Help@Hand technologies to be successful. As shown in **Figure 11**, common issues identified were related to access, resource requirements, support needed to use the technologies, usability, privacy, stigma, peer vetting and matching, and relationship with provider. Some of these barriers emerged as pain points for adoption and use of 7Cups, which is now no longer contracted as part of Help@ Hand. For example, heuristic evaluations revealed some usability concerns around users' abilities to navigate 7Cups. Additionally, there were concerns about 7Cups' governance and policies around handling malicious behavior and Listeners being able to relate to users they were supporting. Target populations in rural areas reported privacy and access concerns. These barriers demonstrate the importance of a more in-depth understanding of target audiences' needs and more vetting of technologies in order to better match technologies to target audiences.

Many concerns can be addressed through one or more of the following strategies: better vetting of the technologies, better understanding of the target audience, better alignment between the target audience and the technology, and digital literacy training. **Figure 10** provides potential solutions for identified barriers.

### Figure 10. Barriers and Facilitators to Adoption and Use of Help@Hand Technologies

Barriers	Facilitators	Solutions
Access Issues	Accessible using various devices and platforms     Language used can be understood by those with low literacy     Options for assistive technology and accessibility (e.g., vision impaired)	Better vetting of technology     Better understanding of target audience     Better matching target audience to technology
Resource Requirements	Reliable internet access     Understanding smartphone access and/or data plans     Addressing cost to maintain access to internet or data plan     Addressing cost of services provided by technology	Better vetting of technology     Better understanding of target audience     Better matching target audience to technology     Possible County—provided resources (e.g., smartphones, internet, etc.)
Support Needed to Use	Help installing and setting up technology     Continued assistance to use technology (e.g., phone change, hospital stay) as well as understand and interpret data     Support after technology is discontinued	Better understanding of target audience     Digital literacy training     "On the ground" assistance     Role of Peer support     Plan for technology discontinuation
Usability	Aesthetically–pleasing interface     Clean, not overwhelming interface     Easy to navigate interface     Ability to quickly access to help information and documentation	Better vetting of technology via usability testing     User testing before deployment     Better understanding of target audience     Better matching target audience to technology     Digital literacy training
Privacy Concerns	Understanding of what user information the technoogy can access, what user data is collected (e.g., location), user data will be used, and who has access to user data	Better vetting of technology     Better understanding of target audience     Digital literacy training
Stigma	Addessing negative feelings or perceptions around using the technology, rooted in stigma around mental health or mental illness	Better understanding of target audience     Better matching target audience to technology     Framing and marketing of and around technology, including better communication of technology's benefits
"Peer" Vetting and Matching (where applicable)	Identifying and blocking of "trolls" quickly     Alignment of lived experiences of "peer" using the technology with consumers	Better vetting of technology     Governance and policy of malicious behavior     Better understanding of target audience     Better matching target audience to technology
Relationship with Provider (where applicable)	Ensuring consumers feel connected with and understood by healthcare provider	Better understanding of target audience     Foster positive relationships and meaningful connections between providers and consumers     Ensure technology also meets the needs of the provider (see Implementation Core)

### Learnings from Heuristic Evaluation and User Evaluation

Learnings from the Heuristic Evaluation and User Evaluation are synthesized below.

### Community members see the potential value of using mental health technologies

- Both community members who had tried the technologies and those who had not were excited about the potential of mental health technologies in the recovery process, particularly around increasing access to care, facilitating connection, reducing stigma and increasing awareness of symptoms.
- Many saw potential in the Help@Hand technologies, including timely support and care on demand, improved connection with peers and providers, personalized and empathetic support, opportunities for reflection facilitated by personal data and useful mental health information.

## Community members also revealed barriers to adoption and continued use of mental health technologies

- Community members identified a number of barriers, including lack of access to smartphones, poor Internet access, related financial costs, insufficient resource requirements, limited support needed to use the technologies and inappropriate or malicious behavior, particularly among technologies that utilize support from others.
- Some participants were concerned about the privacy and confidentiality of their data while using the technologies.

 Many of these concerns can be addressed with thorough vetting of technologies, strong alignment between target audience needs and technology capabilities, and digital literacy training.

## Addressing usability concerns will be critical for encouraging the adoption and continued use of these technologies.

- Community members who used Mindstrong highly appreciated the personalized feedback they received and that care could be provided on demand. They were unsure, however, on how to interpret, reflect, and act on biomarker data. Thus, if apps provide personal data (whether manually or automatically tracked), then users need to be able to interpret, reflect on, and act on that data for it to be useful.
- Trained evaluators identified a number of concerns related to the usability of both Mindstrong and 7Cups. Future Help@Hand technologies, therefore, should ensure that apps or websites do not have too much content which may overwhelm users and make the technology difficult to navigate. Further, Help@Hand technologies should clearly explain what data is being collected, how it is used, and who has access, as well as include easy access to help information and documentation.

### IDENTIFICATION OF TARGET AUDIENCE NEEDS: COLLEGE STUDENTS

College-aged students have been identified as an important target audience. As such, the evaluation team developed standard procedures for a baseline assessment (an effort to collect baseline values of key variables in the target population) of college students' needs around mental health. In general, baseline assessments provide Counties access to timely data and feedback that identify the most important needs and desires of a community, which, in turn, may inform implementation planning and decision making. In particular, these assessments might identify: (1) factors likely to influence the adoption of Help@Hand apps; (2) current apps and other technologies used in the community; (3) current mental health needs and beliefs of the target population; (4) baselines for outcome and digital mental health literacy measures; and (5) insights for recruitment strategies.

### Los Angeles County and El Camino College Baseline Assessment

Los Angeles County expressed interest in understanding unmet needs among community college students to support mental health, how apps may reach these unmet needs, and in understanding ways to engage community college students, including those not currently using such technology.

In September 2019, El Camino College partnered with Los Angeles County and the evaluation team to conduct a baseline assessment on El Camino's campus.<sup>17</sup> The objectives for this effort were:

- Identify broad existing and unmet wellness and mental health needs
- Understand how digital tools, such as apps, may address these unmet needs
- Understand what features of these tools can effectively meet students' needs
- Identify characteristics of individuals who might benefit most from apps and digital tools to support mental health and wellness
- Understand how to engage students, including those not currently using such digital tools

Identifying a sample of students representing the College's population is critical for generalizing findings to the entire El Camino College student population. As such, a request was submitted and approved to obtain a representative list of enrolled students, balanced by gender and ethnicity.

In Year 2, an El Camino College staff member will assist with participant recruitment by inviting approximately 5,000 students to participate in the survey via email.

<sup>17</sup> The El Camino College baseline assessment is part of UCl's IRB. In addition, an application to El Camino College's Institutional Review Board (IRB) requesting approval to conduct this assessment on the College's campus was submitted. The El Camino College IRB approved the request in November 2019.

### 4 OUTCOMES EVALUATION & DATA DASHBOARD

### **Key Points**

- The Help@Hand evaluation team worked with the California Health Interview Survey and California Health and Human Services to develop a strategy to collect statewide data that would assess the Help@Hand outcomes. The data would allow for comparisons between Help@Hand Counties and similar Counties in California not participating in Help@ Hand (i.e., Control Counties).
- Given that measuring mental illness stigma varies, the Help@ Hand evaluation team hosted a conference titled "Conceptualizing and Measuring Mental Illness Stigma for Evaluation." The conference helped facilitate partnerships among experts and Peers. It also resulted in the identification of specific mental illness measures of stigma to be considered for inclusion in the Help@Hand evaluation.
- Publicly available data was obtained for the creation of a data repository and the building of decision support dashboards.

### **OVERVIEW**

This chapter focuses on work related to evaluating the impact of Help@Hand at a state wide level. The following methods and learnings are detailed below:

- Outcomes Evaluation
  - o Detailed Description of Proposed Data Source
    - California Health Interview Survey (CHIS)
    - California Health and Human Services Data
    - Within-App Data
    - County-Level Electronic Health Records
  - o Identification of Control Counties
  - o Measurement of Mental Illness Stigma
- Data Repository and Data Dashboards
- Learnings From Outcome Evaluation and Data Dashboards

#### **OUTCOMES EVALUATION**

The outcomes evaluation is designed to examine the statewide impact of Help@Hand among its target populations. In particular, the outcomes evaluation measures impact on Help@Hand's five shared learning objectives:

- Detection and acknowledgement of mental health symptoms sooner
- Reduction of stigma associated with mental illness by promoting mental wellness
- Increased access to the appropriate level of support and care
- Increased purpose, belonging, and social connectedness of individuals served
- Analyze and collect data to improve mental health needs assessment and service delivery

Four primary sources of data were identified to evaluate the statewide impact of Help@Hand. These data sources include: (1) California Health Interview Survey (CHIS); (2) California Health and Human Services data; (3) within app data and (4) county-level electronic medical records (EMR). In Year 1, the evaluation team worked to develop appropriate measures for each source as well as acquire data from these sources. **Table 13** describes specific data elements from each data source that will measure the first four outcomes. The fifth outcome is broad and will be assessed continuously through the entire Help@Hand formative evaluation.

Table 13. Outcomes Data Elements by Data Source

	Detect and Acknowledge Mental Health Symptoms Sooner	Reduce Stigma Associated with Mental Illness	Increase Access to Support and Care	Increase Purpose, Belonging, and Social Connectedness
(1) California Health Interview Survey (CHIS)	Kessler–6 <sup>19</sup> (6 questions)  Sheehan Disability Scale (4 survey questions)	Treatment seeking stigma (2 questions)	Self–reported mental health seeking behavior <sup>20</sup> (5 questions)	Purpose, belonging, social connection (3 questions)
(2) California Health and Human Services data	Diagnoses data		Utilization and medication pathways data	
(3) Within App Data		To Be Determined— A	pp Dependent	
(4) County Level EMR	Diagnoses data		Utilization and medication pathways data	Social connectedness data (if available)

### **Detailed Description of Data Sources**

Below is a description of each data source. There were no learnings/findings in Year 1 since much of the data needed to evaluate Help@Hand outcomes would not be available until Year 2 and beyond.

### California Health Interview Survey (CHIS)

CHIS is a web and telephone survey that asks questions on a wide range of health topics to a random sample of teens and adults throughout the state of California. Conducted by the UCLA Center for Health Policy Research in collaboration with the California Department of Public Health and the Department of Health Care Services, CHIS is the largest state health survey in the nation.

The evaluation team identified several questions routinely included in CHIS that are relevant to the Help@Hand outcomes. In addition, the evaluation team added questions to CHIS to address areas relevant to Help@Hand that are not already in the survey. In 2018, these questions were tested with teens and adults. Questions were revised based on testing and added for the CHIS 2019-2020 cycle which were administered from September 2019 through December 2019 for adult surveys and from September 2019 through January 2020 for teen surveys. Data collected during these periods are anticipated to be ready for final release in October 2020.<sup>21</sup>

#### California Health and Human Services Data

The evaluation team plans to analyze Medi-Cal claims data, inpatient and emergency department discharge data, and vital statistics data in order to compare access to care, access to appropriate levels of care, and outcomes across Help@Hand Counties. Analysis will also draw comparisons with similar Counties in California not participating in Help@Hand (i.e., Control Counties).

<sup>19</sup> Kessler et al., 2003

<sup>20</sup> Includes alcohol and drugs

<sup>21</sup> CHIS data collection is sub-contracted by CaIMHSA with the University of California, Los Angeles (UCLA) Center for Health Policy Research. The California Health and Human Services Agency's Committee for the Protection of Human Subjects (CPHS) reviewed and approved the data collection as issued under the California Health and Human Services Agency's Federal-wide Assurance #00000681 in September 2019. UCLA's Office of Human Research Protection also designated UCLA as the IRB of record for Aus Marketing Research System, Inc. in September 2019.

In order to be able to access this data, the evaluation team submitted an application to the California Health and Human Services Committee for the Protection of Human Subjects Institutional Review Board (IRB). The application sought approval to receive data between 2015 and 2023<sup>22</sup> from the Department of Health Care Services for Medi-Cal claims data, the Office of Statewide Health Planning and Development (OSHPD) for inpatient and emergency department records, and the California Department of Public Health (CDPH) for vital statistics data. In addition, the evaluation team submitted requests to each of these entities to obtain actual data.

### Within-App Data

During Year 1, CalMHSA contracted with two Vendors- 7Cups and Mindstrong. The evaluation team discussed with both Vendors access to app data in order to evaluate the Help@Hand outcomes. In addition, the team worked with 7Cups until their contract was paused and ultimately cancelled to develop a measurement strategy that included collection of general user information, usage data, and responses to surveys given to users within the app. The team is currently working with Mindstrong to develop a similar strategy that would be applied with Counties planning to pilot and implement Mindstrong. As Counties move into their pilots, discussions with specific technology Vendors will have to be initiated to collect data that may speak to the five Help@Hand shared learning objectives.

### **County-Level EMR**

County mental health departments use EMR systems and/or other County specific program to record data about clients, mental health encounters and overall services, which can indicate achievement of outcomes. The evaluation team began discussions with several Cohort #1 Counties, including their IT, Compliance and Legal departments, to understand their data systems as well as their requirements to share relevant data for the evaluation.

In addition, the evaluation team continued to have discussions with CalMHSA about updating the CalMHSA Participation Agreements with the Counties and Vendors in order to allow sharing of protected health information (PHI) data.

#### **Identification of Control Counties**

Three Control Counties for each Help@Hand County were identified based on similarities with the Help@Hand County on the following factors: County-level socio-demographics, economics, education level, use of specialty mental healthcare services, and death rates due to self-harm in 2017. Data to calculate these similarities were from the U.S. Census 5-year American

Community Survey, California Health and Human Services open data, and EpiCenter Health Data. **Figure 11** is a map of California where Cohort #1 and #2 Counties are in red and Control Counties are in blue.

Figure 11. Help@Hand Counties with Control Counties Help@Hand Counties Control Counties **Plumas** Butte Glenn Mendocino Sacramento San Joaquin Stanislaus Sonoma Mariposa Marin Contra Costa San Francisco Alameda Merced San Maten Madera Santa Cruz San Benito Monterey Kern San Bernardino Riverside Orange San Diego

<sup>22</sup> Data for the period 2015-2023 was requested under the assumption that the Help@Hand Project would be extended from a 3-year project to a 5-year project.

### Measurement of Mental Illness Stigma

In operationalizing how to measure changes in stigma associated with mental illness, the evaluation team learned that the conceptualization and measurement of mental illness stigma varied. To address this, the evaluation team brought experts together to identify mental illness stigma measures to appropriately use for the Help@Hand evaluation. In particular, the evaluation team hosted a two-day conference titled "Conceptualizing and Measuring Mental Illness Stigma for Evaluation" held on October 17-18, 2019 at the UCLA Lake Arrowhead Conference Center. The conference aimed to:

- Facilitate conversations about mental illness stigma among experts in the field including people with lived experience, academic researchers, and individuals involved in related County, State, and National initiatives
- Understand the ways that mental illness stigma has been conceptualized both in the scientific literature and in practice;
- Compile measurements for a framework to assess mental illness stigma specifically for the Help@Hand evaluation plan; and
- Build meaningful partnerships based on mutual respect between participants.

The conference succeeded in strengthening knowledge, discussion, and partnership among participants. It also highlighted a process for including Peers in the Help@Hand evaluation as well as bringing together expertise from multiple perspectives to contribute toward advancing the project and the overall field. It also resulted in recom-

mendations of potential measures to assess mental illness stigma in the Help@Hand evaluation.

Following the conference, the evaluation team continued to work with conference participants to identify specific domains and measures to use in the Help@Hand evaluation by using the Delphi method.<sup>23</sup>

### DATA RESPOSITORY AND DATA DASH-BOARDS

Along with measuring outcomes, the Help@Hand evaluation includes the creation of a data repository (a large database infrastructure that allows for the collection, storage and management of datasets for data analysis, sharing and reporting). The data repository will be utilized to develop decision support dashboards. The

process for including Peers in the Help@Hand evaluation as well as bringing together expertise from multiple perspectives to contribute toward advancing the project and the overall field.

data repository and dashboards may serve to support Counties with program planning activities and monitoring. The data repository and dashboards may serve to support Counties with program planning activities and monitoring.

Ongoing discussions with Orange County, who is partnering with the evaluation team to test the decision support dashboards, were held to understand their dashboard related needs and requirements. Conversations were also held with the Mental Health Services Oversight and Accountability Commission (MHSOAC) to learn about MHSOAC's initiative to develop a statewide dashboard for the general public on mental health services. Although the Help@Hand and MHSOAC's dashboards differ, information and data would continue to be shared in order to enrich both efforts.

<sup>23</sup> The Delphi method was developed by the RAND Corporation in the 1950s to allow a group of experts to reach consensus. The method involves asking a group of experts to provide anonymous feed-back on questionnaires. Feedback in the form of a summary representation of the "group response" to the same questionnaire is then provided.

To begin developing the data repository, identification and collection of publicly available data from the Census Bureau and the California Health and Human Services (CHHS) Open Data started. **Table 14** details the specific data elements collected.

Table 14. Data Sources for Data Repository

Data Source	Variables	Stratified by
Census Bureau population estimates for 2010–2017	Population Estimate Count	<ul> <li>Year</li> <li>California County</li> <li>Age</li> <li>Sex</li> <li>Race</li> <li>Hispanic Origin</li> </ul>
CHHS Open Data: OSHPD Patient Discharge Data 2009–2014	• Count of Hospitalizations	<ul> <li>Year</li> <li>California County</li> <li>Type of Facility Control (i.e. District, non-profit, etc.)</li> <li>Facility</li> <li>Principal Diagnosis Group (PDG)</li> </ul>
CHHS Open Data: OSHPD Emergency Department Data 2009–2014	<ul><li>Count of ED Visits</li><li>Count of ED Admissions</li></ul>	<ul> <li>Year</li> <li>California County</li> <li>Type of Facility Control (i.e. District, non-profit, etc.)</li> <li>Facility</li> <li>Principal Diagnosis Group (PDG)</li> </ul>
CHHS Open Data: Adult and Youth SMHS Utilization 2014–2017*	<ul> <li>Residential Treatment Service</li> <li>Crisis Residential Treatment Service</li> <li>Crisis Stabilization</li> <li>Hospital Inpatient</li> <li>Hospital Inpatient Administrative Day Service</li> <li>Psychiatric Health Facility</li> <li>Day Rehabilitation</li> <li>Mental Health Services</li> <li>Crisis Intervention</li> <li>Case Management/ Brokerage: Targeted Case Management</li> <li>EPSDT: Supplemental Specialty Mental Health Services – Therapeutic Behavioral Services</li> <li>Intensive Home—Based Services</li> <li>Day Treatment Intensive: Full Day</li> <li>Day Treatment Intensive: Half Day</li> <li>Intensive Care Coordination</li> <li>Fee—for—Service</li> </ul>	Year     California County     Age     Sex     Race     Written Language

 $<sup>^{\</sup>star}\mbox{Data}$  shown comes from eight different datasets from the CHHS Open Data.

### **Learnings from Outcomes Evaluation and Data Dashboard**

Learnings from planning the outcomes evaluation and data dashboard are synthesized below.

### Plan ahead for requesting data from California Health and Human Services

- The application process is time intensive and lengthy. Be sure to include ample lead-time.
- Recognize that there is on average an 18-month delay between the date of the medical encounter and the date data can be received. As such, the timing of the request needs to consider what data would be available at a given time.
- There is a fee associated with the request. Thus, budget for the expense of requesting the data.

## Consider leveraging large on-going national or state-wide data collections to understand changes in shared learning objectives.

- The California Health Interview Survey (CHIS) can be leveraged to provide important health information specific to a County or region.
- Consider cost since it can be costly to add questions and/or to oversample in a specific are.
- Plan ahead to add questions to the CHIS since survey questions are determined in two-year cycles.

# Utilize a community based selection process to incorporate multiple stakeholder perspectives in selecting the mental health stigma measures.

- Educating Mental Health Stigma experts on the Peer lived experience with stigma was necessary in selecting appropriate measures to be used in the Help@Hand evaluation.
- Listening to experts on existing tools and methods for measuring stigma was required to ensure
  the selection of appropriate measures based on
  psychometric science.
- Discussing Mental Health Stigma with this community process formed important collaborations and working relationships based in trust and shared decision-making.

Identification of Control Counties can facilitate understanding the impact of Help@Hand.

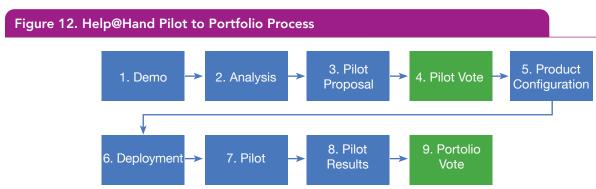
# 5 HELP@HAND RFSQ AND PILOT EVALUATION

### **Key Points**

- Launching the Request for Statement of Qualification (RFSQ) to portfolio process is trailblazing the creation of new processes for learning about, vetting, testing, and ultimately bringing new products to Help@Hand.
- The Collaborative completed the "Demo" phase, and is working on the "Analysis" phase as well as developing pilot proposals.
- Observations of live demos revealed that only some Vendors addressed aspects related to the user experience. The least discussed aspects were the percentage of users that drop off, the pattern of usage, and when users typically abandon the app.
- The evaluation team developed tools to help assess the user experience during the "Analysis Phase." A focus group guide, demographic survey, and study information sheet were shared with the Collaborative and can be found in **Appendix F** of this report.

### **OVERVIEW**

Towards the end of Year 1, Help@Hand pivoted from focusing on the two primary technologies (7Cups and Mindstrong) to adding new technologies through a Request for Statement of Qualifications (RFSQ) and pilot process. **Figure 12** describes the proposed stages of examination as products move from the initial RFSQ approval (which precedes Step 1: Demo) to Step 7: Pilot, and ultimately toward the Help@Hand portfolio. **Appendix D** has more information about the process.



\*Created by Help@Hand

The following methods and preliminary learnings are detailed below:

- RFSQ to Pilot to Portfolio: Process Evaluation
  - o RFSQ Advertisement and Release
  - o RFSQ Application Review
- Analysis Phase
  - o Demos
- Preliminary Learnings from the RFSQ and Pilot Process

### RFSQ TO PILOT TO PORTFOLIO: PROCESS EVALUATION

The Help@Hand evaluation developed a process evaluation to understand the RFSQ and pilot process. In particular, the process evaluation answers the key questions below. It also allows for the systematic documentation of findings and learnings. The evaluation has the potential to assist in fine-tuning the process in real-time, as well as to inform future RFSQ and pilot processes. To date, approval to conduct this work is pending approval from the Help@Hand Leadership.

### Key questions for the process evaluation:

- To what degree was the process effective in identifying the technologies most likely to meet Help@Hand's needs?
- What aspects of the process might be improved if such a process were to be repeated?
- How were target audiences' experiences captured throughout the process? What was the impact of this feedback?

The proposed process evaluation plan suggested the following steps:

- 1. Document the planned sequence of activities and associated timelines.
- 2. Document the number of apps that progress through each stage of the process and the timing of this progress.
- 3. Conduct interviews and surveys with key stakeholders to identify facilitators and barriers to successful implementation of the RFSQ and pilot process.
- 4. Provide recommendations to maximize success.

**Table 15** captures important data that would be collected for the process evaluation. Preliminary data for the first few milestones are presented.

Table 15. Proposed Data to Be Collected for Process Evaluation of RFSQ and Pilot Process

Milestone	Metric(s)	Data Collected
RFSQ Advertisement	Reach Duration	Description of dissemination plan for RFSQ announcement
RFSQ Release	Reach Duration	# 'clicks of interest' # calls for information # emails for information
RFSQ Applications Receipt	Vendor Engagement	# applications initiated # applications completed Access to raw data submitted on applications
Initial RFSQ Applications Review	Robustness of Review Process	Description of Plan for review process # completed reviews per app
		Averages, ranges and standard deviations of scores # apps with widely divergent scores Access to raw data for completed reviews
RFSQ Applications Review by Help@Hand Leadership	App Fit	# apps discussed by leadership # apps invited to Demo Vote tallies Meeting minutes from pre–vote discussion
Demo	Consideration of User Experience Reach	Observations of whether/how aspects related to user experience were addressed # and type of questions asked during the Q&A # Counties requesting Demo # Counties attending Demo # individuals attending Demo Access to recorded Demo

### **RFSQ Advertisement and Release**

Following the advertisement and release of the RFSQ, 112 applications from potential Vendors were received. Some Vendors were identified and reached out to by Catalyst's (the contractor administering the RFSQ process) network and other Vendors were referred by the Counties. **Table 16** shows Vendor outreach efforts. The overwhelming majority of Vendors were reached through email. Social Media yielded few additional Vendor applications.

**Table 16. Vendor Outreach Effort** 

	Count
Vendors Contacted via Email	794
Vendors Contacted via LinkedIn	10
Vendors Contacted via Facebook	1
Total	805

### **RSFQ Application Review**

**Table 17** shows the reasons as to why some of the 112 applications were removed during the initial vetting. Roughly 17% of applications were removed, with the most common reason being that the product did not match any of the three categories of apps specified by the RFSQ.

Table 17. Reasons Vendors Removed during Initial Vetting

	Count
Vendor's Product is in the "Other" Category	9
Vendor Submitted Incomplete Application	3
Vendor is Not Ready to Pilot	3
Vendor Does Not Have Privacy Policy/Process	2
Vendor Withdrew Application	1
Vendor Submitted Irrelevant Product	1

Of the 112 applications, 93 Vendors remained for further consideration after the initial vetting. **Table 18** shows how many of these Vendors had key features. Many Vendors had multiple key features. Two-thirds of the remaining Vendors offered products with a Peer Chat/Digital Therapy feature. Therapy avatars and passive data collection were each included in about a third of the remaining Vendors.

Table 18. Number of Vendors by Key Features

	Count
Peer Chat/Digital Therapeutic	75
Therapy Avatar	32
Passive Data	41
Other	6

### **ANALYSIS PHASE**

Forty judges were involved with scoring the 93 Vendors on seven different considerations:

- 1. Strength of match with Help@Hand project goals
- 2. Availability of data to support product effectiveness
- 3. Product Fit in the public health system
- 4. Product capability to address behavioral health
- 5. Product capability to meet health technology and mental health care professional standards
- 6. Scalability
- 7. Degree to which the product presentation and content are recovery oriented

A panel of at least three judges with expertise in health technology, information technology, and mental health evaluated each Vendor. Mental health experts also represented the Peer perspective. Each judge in the panel individually reviewed a Vendor application and provided a score based on a scale of 1-10 (1 is the lowest score and 10 is the highest score) for each consideration listed above. Scores were summed across the seven scoring criteria for a maximum score of 70.

Vendors were ranked according to the average score across judges in the panel reviewing the Vendor's application. Average scores ranged from a high of 61.7 to a low of 14.7. **Table 19** lists the Vendors selected by the Counties to provide a demo. The table also includes the Vendor's total score and rank from the panel review.

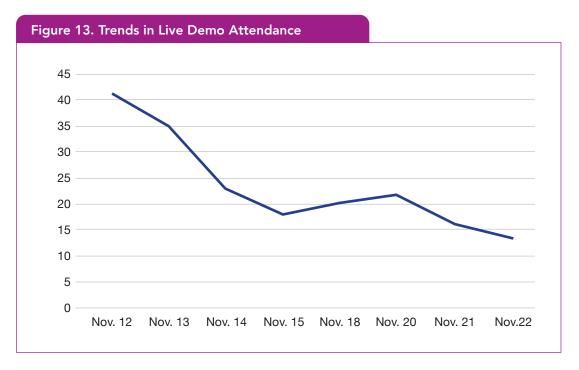
Table 19. Vendors participating in Demos with their Rank and Score

Demo	Rank Based on the Judging Process	Judges' Total Score
1	1	61.7
2	2	61.4
3	3	61.3
4	4	61.0
5	4	61.0
6	7	59.0
7	8	58.7
8	9	58.3
9	16	55.0
10	18	54.7
11	26	53.0
12	28	52.7
13	41	50.3
14	42	50.0
15	45	49.0
16	46	48.8
17	47	48.7
18	55	47.0
19	68	43.7
20	87	28.0

### **Demos**

As mentioned above, Vendors whose apps were approved through the RFSQ were available to provide a demonstration of their apps to interested Counties. Sixteen Vendors were initially asked to demo their apps and, at the request of Counties, four additional Vendors were also asked to present a demo. Twenty live demos were scheduled between November 12- 22, 2019, with each demo consisting of a 10-minute presentation by the Vendor and a 20-minute session to answer questions.

The evaluation team observed these demos using the data collection sheet<sup>24</sup> shown in Appendix E. **Figure 13** shows that the first day of the demos had the highest number of attendees with 46 participants signed on during the live demo. However, attendance declined for the rest of the demos. Please note that it is possible that people viewed the demos together, and thus the number of participants captured for each demo under reports the actual number of viewers.



Following each of the Demos during the first week of app Demos, an on-line survey was sent to County Leads requesting their feedback on the process.

"Overall, these initial demos are a nice first step but are only introductory and in no way provide suitable information for a county or CalMHSA to decide whether they are viable to continue for any kind of pilot."

"I am starting to have a very hard time differentiating the apps. I do not feel like the demos are providing the right kind of information for counties to make informed decisions on whether to proceed with the vendor to the next stage"

"[The Live Demos were] well organized, adequate information given to counties ahead of time (almost too much to sort through before demo but not complaining, we wanted the information!)"

<sup>&</sup>lt;sup>24</sup> The data collection sheet focused on whether and how Vendors discussed the user experience during the demos.

Results from observations focused on the user experience reveal:

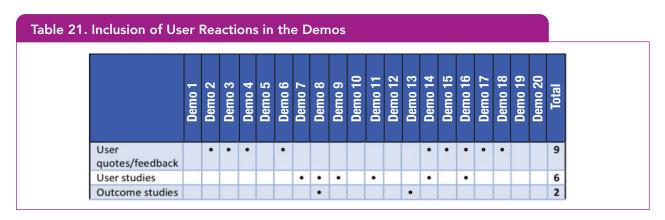
• <u>Demos Addressed the User Experience</u>: **Table 20**<sup>25</sup> depicts if Vendors addressed important aspects related to the user perspective. It can be seen that all Vendors discussed whether their app was available in different languages and for the target audience of the Counties. The least discussed aspects were the percentage of users that drop off, the pattern of usage, and when users typically abandon the app.

Table 20. Discussion of User Experience Aspects During the Demos

	Demo 1	Demo 2	Demo 3	Demo 4	Demo 5	Demo 6	Demo 7	Demo 8	Demo 9	Demo 10	Demo 11	Demo 12	Demo 13	Demo 14	Demo 15	Demo 16	Demo 17	Demo 18	Demo 19	Demo 20	Total
Language options	٠	٠	٠	٠	٠	٠	·	٠	٠	٠	٠	•	٠	٠	·	٠	٠	٠	٠	٠	20
Target audience	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	20
Resources needed	•		•	•	•	•	•	•		•		•	•	•	•	•	٠	•			18
Reaction of users		•	•	•		٠	•		•		•		٠	•	•	•	٠	٠			14
# of current users	•		•			•	•		•			•									13
Privacy						•	٠						٠	•	•	•	٠	•	•	•	12
Accessibility	•		•	•	•	•	•	•	•	•				•			•				1
Crisis protocols		•	•		•	•		•				•	•		•		•	•			10
Usability			•				•	•		•			•	•			•	•	٠		9
Questions related to user experience			•		•	•	•	•			•		•	•		•					9
Percentage of users that drop off										•											7
Pattern of usage by users									•	٠				•							7
Intended pattern of usage by vendors	•		•	•														•			5
Moment when users typically abandon app									•			•				•		•			4

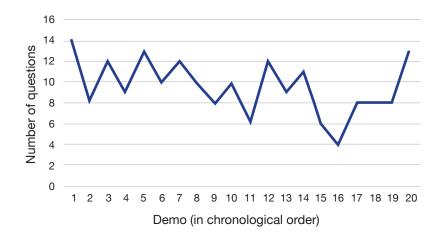
<sup>25</sup> The table is vertically ordered according to the order in which demos were scheduled (i.e., Demo #1 was the first demo on the first day). It is horizontally ordered according to the total number of Vendors addressing a certain user perspective aspect.

• Most Demos Incorporated the User Experience: Fourteen out of the 20 Vendors incorporated user quotes and feedback, and/or discussion of studies focused on users (i.e., needs assessments, user testing, deployment studies, and outcomes studies). **Table 21** shows how Vendors described user experience and involvement.<sup>26</sup> The most common way was to include user quotes and/or user feedback. Six Vendors discussed user studies to understand user needs and/or evaluate how users experienced using the app. Two Vendors did not talk about how users experience their app but did talk about outcome studies that focused on the effectiveness of their app (e.g., in reducing depression symptoms).



• <u>Number of Questions Asked</u>: **Figure 14** shows the number of questions that were asked for each demo<sup>27</sup>. A total of 191 questions were asked across the demos, with an average of 10 questions per demo.

Figure 14. The Number of Questions Asked per Demo



• <u>Types of Questions Asked:</u> The most common questions were related to: (1) app features and content; and (2) technical aspects of the app, particularly with regards to data storage, sharing, and security. A few asked questions about: (3) logistics about contracting and collaboration between the Counties and the Vendor; and (4) the design and evaluation of the app.

<sup>&</sup>lt;sup>26</sup> The horizontal axis of the figure depicts the order in which demos were scheduled: for example, number 1 is the first demo on the first day and number 20 the last demo on the last day (i.e., Demo #1 corresponds to 1 since it was the first demo on the first day).

<sup>27</sup> The horizontal axis of the figure depicts the order in which demos were scheduled: for example, number 1 is the first demo on the first day and number 20 the last demo on the last day (i.e., Demo #1 corresponds to 1 since it was the first demo on the first day).

• Questions Asked about User Experience: All Vendors were asked at least one question related to who the app is intended for and/or how users are expected by the Vendor to interact with the app. Vendors were asked standard questions by Catalyst about if the app is available in different languages other than English and about how user data is stored and protected.<sup>28</sup> In total, Vendors were asked 95 questions related to users, which represent about half of the questions. **Table 22** shows an overview of the type of questions that were asked related to user experience.

Table 22. Type of questions asked that related to user experience

Question category	Number of questions asked related to user experience
Language options	20
Data storage, sharing, and security	19
Accessibility of the product	7
Content	7
User/Peer involvement	7
App features	6
Resources needed	6
User metrics	5
User studies	4
Target population	4
Ease of use	3
Monitoring	3
Customization	2
Academic research and publications	1
System integration	1

### **Development of Instruments to Assess User Experience**

The evaluation team was asked to develop tools to help assess the user experience. In particular, a guide on how to conduct and interpret focus groups in early testing during the "Analysis Phase" of the Help@Hand RFSQ and pilot process was developed and shared with the Collaborative. The guide along with a sample study information sheet<sup>29</sup> can be found in **Appendix F**.

<sup>&</sup>lt;sup>28</sup> Two Vendors already talked about these aspects in their presentation so were not asked this question.

<sup>&</sup>lt;sup>29</sup> The study information sheet can be used by Counties to provide focus group participants with information on the purpose of the focus group, what they can expect during the focus group, and ways in which participants' data may be used.

### **Preliminary Learnings from the RFSQ and Pilot Process**

The following preliminary learnings were gained through observations as well as discussions with key stakeholders. Please note data is still being collected and analyzed.

### It is important for the Collaborative to standardize processes as well as data collection strategies and tools across Counties as much as possible.

 A standardized process will help ensure that data is collected systematically and allow for comparisons.

## These apps will ultimately be used by County residents, so it is important to understand aspects related to the user experience of the apps.

- Understanding aspects of user experience include examining resources needed to use the app, language options, and retention rates.
- Without understanding factors related to the user experience, Counties risk wasted time, effort, and money.

### Not all Vendors addressed the user perspective during the demos nor were they asked questions related to user experience.

- It is not known whether some Vendors did not consider users in developing and evaluating their technology or whether they decided to not discuss it as part of the demo.
- To make Vendors easy to compare, not just in terms of the features they offer, but also in terms of how they address user experience, it is important to provide clear instructions to Vendors to include this as part of future demos.

# Questions asked in any process can be an important indicator of what was of interest and/or what was not sufficiently covered by other means.

 Based on questions asked during the demos, information about available features and information related to data storage, sharing, and security are important and useful information to collect from Vendors.

### HELP@HAND EVALUATION ADVISORY BOARD

It is imperative that the Help@Hand evaluation has guidance and consultation from a team of state-wide experts and representatives across a broad spectrum of fields, stakeholder groups, and target populations. In particular, the Help@Hand Evaluation Advisory Board ensured the evaluation:

- Considered key target audiences and addressed County-level variability
- Included measures of both process outcomes (implementation) and behavioral/health status outcomes (changes in participants) relevant to Help@Hand's goals
- Used methods appropriate to the project, especially with respect to scope and data collection
- Served as a vehicle for program improvement and program accountability that informed potential replication of the project
- Aligned with promising best practices
- Contributed to the existing knowledge base.

The Board met quarterly in Year 1 (three times in-person and two times by telephone). Meetings involved the evaluation team providing the Board updates on the Help@Hand evaluation as well as eliciting feedback and guidance from the Board.

The Evaluation Advisory Board was comprised of a diverse group which included CalMHSA partners and community members; behavioral health and social scientists; decision-makers with experience guiding evaluation structure and direction as well as practical experience in community, County, and large-scale evaluation efforts; and individuals with lived experience. In particular, members included:

- Experts with experience in mental health and/or technology evaluation;
- Experts with experience in implementation science and evaluation;
- Philanthropic and/or non-profit representatives;
- Community-level mental health advocacy;
- County-level Help@Hand leaders;
- Individuals with lived experience;
- Mental Health Services Oversight and Accountability Commission representative

### Members included the following voting and non-voting members.

### **Voting Members**

Chair, Sergio Aguilar-Gaxiola, MD, PhD
 Director, UC Davis Center for Reducing Health Disparities

 Professor of Clinical Internal Medicine, UC Davis

Doris Estremera, MPH<sup>30</sup>
 Mental Health Services Act (MHSA) Manager, San Mateo County Health - Behavioral Health & Recovery Services

• Sharon Ishikawa, PhD MHSA Coordinator, Orange County Health Care Agency – Behavioral Health Services

Karen D. Lincoln, PhD, MSW
 Associate Professor, School of Social Work, University of Southern California
 Director, USC Hartford Center of Excellence in Geriatric Social Work

Brian S. Mittman, PhD
 Research Scientist, Health Services Research and Implementation Science, Kaiser Permanente Southern California

• Maria Martha Moreno, MS³0 Administrative Services Manager, Riverside University Health System- Behavioral Health

• Keris Myrick, MS, MBA Chief of Peer Services for the Los Angeles County Department of Mental Health

• Theresa Nguyen, LCSW Vice President of Policy and Programs, Mental Health America

• David W. Oslin, MD Chief of Behavioral Health, Professor of Psychiatry, University of Pennsylvania

Lawrence A. Palinkas, PhD
 Professor of Social Work, Anthropology and Preventive Medicine, University of Southern California

Brian R. Sala, PhD
 Deputy Director, Evaluation and Program Operations, Mental Health Services Oversight and Accountability Commission

Danielle A. Schlosser, PhD
 Lead Clinical Scientist, Mental Health, Verily
 Assistant Professor of Psychiatry, Department of Psychiatry, UCSF

 Brandon Staglin, MS President, One Mind

Lindsay Walter, JD<sup>30</sup>
 Deputy Director Admin and Operations, MHSA Chief – Santa Barbara County Department of Behavioral Wellness

#### **Non-voting Members**

• Samantha Spangler, PhD Research and Evaluation Director, California Institute for Behavioral Health Solutions

Jeremy Wilson, MPPA<sup>30</sup>
 Program Director and Public Information Officer, CalMHSA

Wayne W. Clark, PhD<sup>31</sup>
 Former Executive Director, CalMHSA

<sup>30</sup> Joined the Help@Hand Evaluation Advisory Board in Fall 2019.

<sup>&</sup>lt;sup>31</sup> Participated in the Help@Hand Evaluation Advisory Board in Fall 2018 to Summer 2019.

### **RECOMMENDATIONS**

Based on evaluation findings presented throughout this report, the evaluation team recommends the following for the overall Help@Hand Collaborative and the individual Help@Hand Counties.

### RECOMMENDATIONS TO THE HELP@HAND COLLABORATIVE

- Understand that working in the context of a multi-county collaborative is complex. Articulating a clear set of shared core values and visions is a necessary first step. The governance structure, associated policies, and the (shared) budget model needs to reflect these shared core values.
- Establish structures driven by Counties that foster the sharing of learnings. For example, Counties could alternate presenting on different cross-collaborative topics on quarterly webinars. Topics might include strengthening the peer workforce, strategies for selecting technology products to fit communities, and/or how and when to engage County privacy and information officers.
- An innovation project needs to be considered not only from the perspective of the technology, but also from the perspective of the County. For example, 'terms of use' may be appropriate for a technology implementation but may not be enough for addressing County privacy and information security concerns.
- Reflect on the recent RFSQ process to identify opportunities to improve future RFSQ processes. This may include Counties retrospectively reviewing their recent RFSQ experience (e.g. consider what additional information would have assisted in the County making the decision to follow-up or not follow-up with a technology vendor (e.g. language availability, cultural competency)? Additionally, we recommend that Counties that meet with Vendors as they move forward with pilots document requested information that assists in their decision to engage/not engage with a technology Vendor.
- The Collaborative should consider restructuring the judging rubric to be more focused for each criteria, instead of embodying several factors into a single criteria. For example, the scoring category most relevant to the Peer evaluation of the apps includes the following: Is the product recovery oriented? Does it support and/or promote a process in which individuals can improve their health and wellness, live a self-directed life, and strive to reach their full potential? Is the product's tone warm and welcoming? Does the tone communicate hope or sound strength-based instead of "illness focused"? With so many disparate characteristics being scored with a single numerical value, it makes it difficult to provide actionable evaluations of the technology product.
- Guidelines for live demos provided to Vendors should include greater discussion of: (1) how users were considered in the development and/or evaluation of their product; (2) information related to data storage, sharing and security; (3) availability and development process for non-English language and/or culturally competent options; and (4) availability of evidence describing product usefulness and/or effectiveness. Furthermore, improving live demo guidelines will be strengthened by defining and establishing a shared understanding of terminology used by Counties and Vendors.
- Evaluate and, where appropriate, require Vendors and/or Counties to follow the Health Information Technology standards.
- Engage necessary County departments (i.e., information technology (IT), County Council, information security, etc.) early and identify areas where cross-County collaboration can promote efficiency (i.e., creating shared processes and/or documents).
- Staff requirements at the County level for a project of this nature were underestimated. In addition to requiring dedicated full-time project staff, additional compensated time should be considered for other critical County employees (e.g. information technology and security, compliance).

- Create and/or update materials that explain to potential technology Vendors (i.e., private sector) how Counties define their special populations (i.e., Medi-Cal, underserved, mono-lingual) and what Counties need to best serve these populations.
- Documents created to support County processes (e.g. Organizational Change Management, Crisis Protocols, Needs Assessment) are helpful and important. They need to be continuously adapted and updated to reflect the needs of the County and to identify the necessary and useful core components.
- Protocols for addressing social media events need to be consistent across the Collaborative and be shared with Vendors, so that they can participate in the public response and incorporate program protocols into their own protocols.
- Continue to work on addressing variability in how Peers were identified, hired, trained, managed and supervised. Creating clearer expectations may ensure Peer retention in the program.
- Coordinate sharing of inofmration about available services and related necessary data between Vendors and Counties, helping all to stay informed on innovative and/or successful strategies. Clearly articulate expectations for information and data sharing in the Vendor contract. Help Counties and Vendors share strategies for managing data quality and integrity.
- Continue to work with Counties to standardize data collection methods and instruments where possible.
- Work with Counties to develop a sustainability plan for shared services that aligns with individual County plans.

### RECOMMENDATIONS TO HELP@HAND COUNTIES

- Continue to reflect on the multiple factors outside of the technology itself (e.g. the app marketplace, media events) that may influence the uptake and use over time of the technologies that have been selected.
- App technologies are updated frequently. Consider how these updates may impact the user experience.
- Although digital phenotyping technology was identified as a core Oversight and Accountability Commission (MHSAOAC) component, these types of products are relatively early in their development stage, and as such, may continue to change considerably, especially over the Help@Hand project period. As products evolve, these changes will have implications for how technologies can be successfully implemented, marketed, and evaluated that will need to be considered.
- Vendor collected data is likely to give decision makers the most consistent information on product performance. Counties should understand how and what data will be made available to them. For example, Counties should discuss with Vendors the definition and explanation of data provided (i.e., "active users" may be defined differently across Vendors); how and when the data was collected; and how the data will be presented back (i.e., at the individual level and/or the aggregate level over time). Counties should request that Vendors provide detailed usage data and retention rates for County users.
- Understanding how people use the apps also is crucial to understanding app performance. As shown by retention data, uptake and sustained use of health apps generally is quite low. In order to develop meaningful metrics, Counties should acquire Vendor data about typical usage of their product and where available, typical usage among a similar population as the Counties' target audiences and use this data to develop meaningful benchmarks. In addition, Counties should think beyond documenting "how many" and "how much" people use the product to include considerations of the ways in which people use the technologies in their lives when setting goals around the use of a product over time.
- Consult County IT and Legal departments early in the process on compliance and health information technology standards pertaining to apps as well as data sharing with Vendors in order to understand what County needs which may vary by risk tolerance.

- Counties must determine their goals and benchmarks prior to launching each technology. These benchmarks will depend on the target population, use case, and selected technology apps. Benchmarks should be determined using a combination of marketplace usage data (such as the Help@Hand market surveillance analysis shown in this report), app usage data provided directly from the Vendor, and expected outcomes driven by envisioned use defined by the County.
- Organizational change management is critical. It is important to ensure positive impressions not only in the beginning of implementation, but throughout the entire process. Counties should assess on a regular basis stakeholder attitudes towards, and commitment to, the implemented technologies and the Help@Hand program as a whole. Based on these regular assessments, Counties should address identified problems in a timely fashion.
- Work with the Vendors to establish continued trainings and follow up support after implementation of the technology.
- Monitor facilitators and barriers of implementation on a continuous basis in order to identify the critical factors affecting successful implementation and to address those factors as needed.
- Integrate Peers in implementation since they have the potential of making an important contribution to the Help@Hand program.
- Address barriers to adoption, including access to smartphones, poor Internet access, related financial costs, and stigma. Possible ways to address these barriers include: carefully vetting the technologies - particularly with Peers; ensuring selected technologies align with target audience needs, and supporting digital literacy training.
- Document and evaluate County efforts and activities that extend beyond technology implementation, which have emerged as being potentially important for building a digital mental health system of care (i.e., "App Hours", Peer Workshops, efforts Digital Mental Health Literacy).
- Utilize materials and supports that have been created by the Help@Hand Collaborative and are available on Sharepoint. Counties can complete these materials individually, or the work can be facilitated and completed with Help@Hand Collaborative staff.
- Early in the process, consult County IT and Legal departments on compliance and health information technology standards pertaining to apps, as well as data sharing with Vendors, to understand what a specific County needs to know, which may vary by risk tolerance.
- Establish clear policies and procedures to inform clients and consumers of how the County will engage with technology Vendors and how client and consumer data will be used.

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### APPENDIX A: COUNTY SPECIFICS

Cohort #1 Counties completed the following tables which describe program information, lessons learned, and recommendations from Year 1. Similar tables will be developed for Cohort #2 Counties as these Counties identify products for pilot testing and implementation for their target audiences.

Kern County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (Oct. 2019–Dec. 2019)
Tech Lead(s)	• Lamar K. Brandysky, LMFT	Lamar K. Brandysky, LMFT	Lamar K. Brandysky, LMFT	Lamar K. Brandysky, LMFT
Implementation Champion Clinic(s)	Behavioral Health and Recovery	Consumer Family Learning Center Peers and the Self-Empowerment Team	Consumer Family Learning Center Peers and the Self-Empowerment Team	Self-Empowerment Team     PIO, Mitchall Patel     Marketing, Melissa Rossiter
Team Composition	Project Lead, Peer Lead, 2 Peers	Project Lead, Peer Lead, 2 Peers (2 vacant positions)	Project Lead, Peer Lead, 2 Peers	Project Lead, Peer Lead, 2 Peers
Target Audience(s)	Clients with serious mental illness	Clients with serious mental illness	Clients with serious mental illness	Clients with serious mental illness     Kern County Residents
Products In Use/ Planned	Mindstrong     7 Cups (Planned)	Mindstrong     7 Cups (Planned)     New apps as they become available (Planned)	• N/A	App Brochure, 2nd Edition—English & Spanish versions
Implementation Approach	• To be determined	Mindstrong- Pilot completed, Phase II on hold     7 Cups- Pilot completed, Currently on hold	Shifted implementation focus to App Brochure	Wide distribution of the App Brochure     Date set to present App Brochure to     County Board of Supervisors in Jan.     Kern BHRS Management     Kern BHRS contract CEOs     Starting systemic distribution to other     Kern County agencies
Other Unique Qualities (about implementation, target audience, or other program aspect)	Not applicable	Mindstrong and 7 Cups were vetted by a peer focus group	Peers reviewed proposed Apps for usability, engagement, variety, privacy, and other factors.  Offered to assist other Counties develop their own tailored app guide	Planning to offer clinician education on App Guide Assisting other Counties develop their own tailored app guide: Mono, Modoc, & Santa Barbara Planning drafts for Nevada, Fresno & Inyo counties.
Milestone(s)	Each app was tested by a team of peer users     Planning for Mindstrong implementation in DBT team	Mindstrong and 7 Cups were vetted by focus group of peers  Multiple challenges with Mindstrong and 7 Cups were identified and communicated to CalMHSA  Planned Mindstrong implementation with DBT team, but effort was put on hold.  Created a brochure of publicly available apps for county-wide distribution	Each App in the brochure was vetted by a focus group of peers and reviewed to assure relevance.     Production of a brochure of publicly available apps for county-wide distribution.     Edited Kern's App Brochure in order to have a Modoc version.     Began assisting Santa Barbara County to complete their implementation of an App Brochure.	Published the 2nd Edition of "The Peers' Guide to Behavioral Health Apps" app guide—English & Spanish Created a version of the app guide for Modoc, Mono, and Santa Barbara Counties that included content modifications and printing set-up. Prep & planning for a Peer Workshop: a four-hour empowerment training for BHRS and Contracted Peers. Empowered Peers though the app guide development and dissemination Prep & Planning for hosting 2-day Digital literacy training for peers from throughout the state.
Lessons Learned	<ul> <li>The proposed Apps need to be thoroughly vetted prior to piloting with clients. A prime role of County mental health is to assure the provision of safe products to their vulnerable population.</li> <li>Digital Literacy takes one-on-one coaching and so is time consuming and labor intensive.</li> <li>Consumers benefit from basic digital literacy training.</li> <li>Collaborating with fellow counties is fruitful and productive.</li> <li>Working with county agencies requires an abundance of patience and perseverance.</li> </ul>			
Recommendations	Focus on producing a product. T	ime and energy can be spent on process a	nd procedures with no resulting product.	

Los Angeles County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (Oct. 2019–Dec. 2019)
Tech Lead(s)	Ivy Levin, LCSW     Alex Elliott, MSW	Katherine Steinberg, MPP, MBA     Ivy Levin, LCSW     Alex Elliott, MSW	Katherine Steinberg, MPP, MBA     Ivy Levin, LCSW     Alex Elliott, MSW	Katherine Steinberg, MPP, MBA     Ivy Levin, LCSW     Alex Elliott, MSW
Implementation Champion Clinic(s)	Harbor UCLA DBT program     Peer Resource Center (for 7 Cups)	Harbor UCLA DBT program	Harbor UCLA DBT program	Harbor UCLA DBT program
Team Composition	Behavioral Health Director, 2 Tech Leads, Chief Information Officer, Chief of Peer Services, Evaluation Lead, Privacy SME, Security SME, DBT Clinical Champion, Public Information Officer	Program Lead/Project Manager, Behavioral Health Director, 2 Tech Leads, Chief Information Officer, IT Project POC, Chief of Peer Services, Evaluation Lead, Privacy SME, Security SME, DBT Clinical Champion, Public Information Officer	Program Lead/Project Manager, Behavioral Health Director, 2 Tech Leads, Chief Information Officer, Chief of Peer Services, Evaluation Lead, Pri- vacy SME, Security SME, DBT Clinical Champion, Public Information Officer	Program Lead/Project Manager, Chief Medical Officer (Executive Sponsor), Behavioral Health Director, 2 Tech Leads, Chief Information Officer, IT Project POC, Chief of Peer Services, Evaluation Lead, Privacy SME, Security SME, DBT Clinical Champion, Public Information Officer
Target Audience(s)	Asian-Pacific Islander     Isolated individuals     People at risk for hospitalization or relapse	Transitional age youth and college students County employees Complex needs individuals (i.e., those with multiple and repeated hospitalizations) Individuals and family members uncomfortable accessing community mental health services seeking de-stigmatized care and supports for well-being Existing mental health clients seeking additional support or seeking care/support in a non-traditional mental health setting	Transitional age youth and college students County employees Complex needs individuals (i.e., those with multiple and repeated hospitalizations) Individuals and family members uncomfortable accessing community mental health services seeking de-stigmatized care and supports for well-being Existing mental health clients seeking additional support or seeking care/support in a non-traditional mental health setting	Transitional age youth and college students County employees Complex needs individuals (i.e., those with multiple and repeated hospitalizations) Individuals and family members uncomfortable accessing community mental health services seeking de-stigmatized care and supports for well-being Existing mental health clients seeking additional support or seeking care/support in a non-traditional mental health setting
Products In Use/ Planned	<ul><li>Mindstrong Health</li><li>7 Cups</li></ul>	Mindstrong Health     New apps as they become available through CalMHSA (Planned)	Mindstrong Health     New apps as they become available through CalMHSA (Planned)	Mindstrong Health     New apps as they become available through CalMHSA (Planned)
Implementation Approach	Mindstrong for current Dialectical Behavioral Therapy (DBT) clients     7 Cups as a public wellness and prevention approach	Mindstrong for current DBT clients	Mindstrong for current DBT clients	Mindstrong for current DBT clients
Other Unique Qualities (about implementation, target audience, or other program aspect	Modified Mindstrong Health app for use in DBT program     Not using Mindstrong clinical services	Modified Mindstrong Health app for use in DBT program (i.e., added diary card to Mindstrong app)     Not using Mindstrong clinical services	Modified Mindstrong Health app for use in DBT program (i.e., added diary card to Mindstrong app)     Not using Mindstrong clinical services	Modified Mindstrong Health app for use in DBT program (i.e., added diary card to Mindstrong app)     Not using Mindstrong clinical services

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Los Angeles County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (0ct. 2019–Dec. 2019)	
Milestone(s)	Mindstrong at Harbor UCLA DBT Clinic     7 Cups - on hold	Mindstrong continued to be used at Harbor UCLA DBT Clinic LACDMH 7 Cups use remained on hold LACDMH hired a Consultant Project Manager Refined target population and objectives of Tech Suite for LAC Developed a framework for consideration of continued/expanded use of Mindstrong Articulated user stories and criteria for essential components of a 7Cups minimally viable product to pilot in college environment Contracted with and launched work with Painted Brain as peer workforce	<ul> <li>Mindstrong continued to be used at Harbor UCLA DBT Clinic</li> <li>Worked on readiness, aligning group goals, and understanding needs from the perspective of leaders and front line staff internally to DMH including</li> <li>Collaborated with Monterey to provide feedback on their RFI and hosted them in LAC to present to LAC leadership and representatives from OC and Kern</li> <li>Began to design trifold brochure on digital health recommendations based on learnings from clinic front line</li> <li>Worked with Painted Brain to develop and field an app usage survey across all 8 service areas in the county</li> <li>Painted Brain developed digital health literacy curriculum and hosted Appy Hour to collect community feedback on module 1 of the digital health curriculum reeds</li> <li>Developed fast track process for digital health with LACDMH IT process</li> <li>Conducted interviews and observations among each target populations to better understand unmet needs and how technology might support those needs (interviews among county employees, ride-alongs with first responders, interviews on community college campuses)</li> <li>Developed relationships community college campuses)</li> <li>Developed relationships community college champions for deeper needs assessment and pilot exploration</li> <li>Developement of digital health opportunities outside of the CalMHSA coordinated efforts including an opportunity to bring Headspace to county employees and bringing UCLA's STAND program to community college students</li> <li>Developed relationships with Veteran's Champion in LAC to better understand unmet needs and how technology might support those needs.</li> </ul>	<ul> <li>Mindstrong continued to be used at Harbor UCLA DBT Clinic</li> <li>In October 2019, LACDMH launched a Digital Health Employee Learning Collaborative with over 40 participants. The initial Collaborative kick-off started with the development of a replicable process to identify resources to support digital health engagement. The purpose of the Collaborative is to develop readiness for digital health engagement. The purpose of the Collaborative is to develop readiness for digital health within LACDMH through learning and engagement opportunities. LACDMH will continue to bring key internal stakeholders together periodically to learn and share ideas.</li> <li>LACDMH Help@Hand Team also designed a trifold "Guide to Wellbeing Apps" brochure that offers a quick guide of free digital resources intended to be customized for specific stakeholders within LA County.</li> <li>The LACDMH Help@Hand Team evaluated the vendors for fit with local needs and participated in the demos of the top vendors to explore if their technical and programmatic feasibility meets the Los Angeles County resident's needs.</li> <li>LACDMH is currently developing concept proposals for potential pilots with multiple technology vendors in 2020.</li> <li>LACDMH created clear process for tracking the review and approval of the technologies under consideration through various subject matter experts (ClOB, privacy) and other key stakeholders across the department</li> <li>LACDMH ClOB is conducting security and privacy reviews of technologies currently under consideration for potential pilots</li> <li>Painted Brain continued developing the digital health literacy curriculum and completed drafts of multiple training modules</li> <li>Painted Brain continued developing the digital health literacy curriculum modules</li> <li>Painted Brain completed drafts of multiple digital health literacy curriculum modules</li> <li>Painted Brain pompleted drafts of multiple outside of Help@Hand: 1) December 17th LACDMH mad</li></ul>	
Lessons Learned	<ul> <li>Ensure more training and monitoring is done for implementation sites to allow for greater iteration and engagement opportunities</li> <li>Even more due diligence is required around product functionalities and offerings to confirm they meet county expectations and needs prior to contracting</li> <li>Continue to collect understanding of unmet needs for target audience to help inform technology selection, piloting, and scaling</li> <li>Articulate success metrics and plan for collection ahead of pilot implementation (identify the quantitative and qualitative metrics to measure effectiveness with digital mental health and wellness applications)</li> <li>Refocus technology selection from customization and development to employment of technologies currently in use in health and academic settings</li> <li>Establish a central point-person as the lead project manager and leadership representative to triage and delegate tasks to team members and govern implementation and contracting</li> <li>Planning for launch of internal LAC DMH learning collaborative to help with readiness of internal stakeholders</li> <li>Utilize hands-on demos, videos, and visualizations to engage stakeholders in learning about the features of Tech Suite technologies</li> </ul>				

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Los Angeles	<b>Quarter 1</b>	<b>Quarter 2</b>	<b>Quarter 3</b>	<b>Quarter 4</b>
County	(Sept. 2018–Feb. 2019)	(March 2019–May 2019)	(June 2019–Sept. 2019)	(Oct. 2019–Dec. 2019)
Recommendations	Maintain realistic goals about     Plan early what success metr     Engage expertise in digital he     Consider piloting technologies     efforts until after initial usabil     Consider a phased approach     Execute vendor contracts link     Iterate on project budget to e ency to counties about budge     Facilitate more open sharing,     Stay up to date on the mobile     Bring lessons learned from of     Compare products on the Tec     Despite pressure around reve     Facilitate meaningful collabor     Ensure all information is prov     Ensure there is clarity with bu     Stay up to date on the free m     Monitor Tech Suite technolog     Eliminate barriers to individual	timeframe for internal IT review of vendors rics will be met for advancing to spread of tealth piloting is that require only minimal customization to ity is demonstrated to roll-out, starting with only 1 or 2 counties red to clear milestones of project success insure it reflects the vision for a suite (or ment and costs of deliverables requested communication and learning across counties the digital health technologies and allow for neather organizations that have created tech such Suite bench to what is available in the digital health technologies and allow for neather organizations that have created tech such Suite bench to what is available in the digitation and sharing among counties (facilitate ided to the counties in a timely manner so the digeting on what dollars are available from folible digital health technologies that are availes analytics dashboards to inform quality in als' participation in the tech suite by spending the same and the counties of the counties of the counties analytics dashboards to inform quality in als' participation in the tech suite by spending the same and the counties of the counties of the counties analytics dashboards to inform quality in als' participation in the tech suite by spending the counties of the	nu) of technologies to increase access to mental and among counties and vendors (include tech, e w technologies to be a part of the selection on o tes back to this collaborative	meline lan during pilot planning luct development. Wait on customization health and wellbeing and ensure transpar- evaluation, marketing vendors and CalMHSA) n-going basis sushing timelines forward heans to the collaborative) y learnings in an expedited manner an plan and execute on plans efficiently raries and the Statewide Peer Run Warm line s ers might be (i.e. increase the number of USE

Modoc County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (Oct. 2019–Dec. 2019)
Tech Lead(s)	Rhonda Bandy, PhD	Rhonda Bandy, PhD	Rhonda Bandy, PhD	Rhonda Bandy, PhD
Implementation Champion Clinic(s)	Modoc County Behavioral Health	Modoc County Behavioral Health	Modoc County Behavioral Health	Modoc County Behavioral Health
Team Composition	Modoc County Behavioral Health (MCBH) Branch Director, MCBH MHSA Coordinator, Behavioral Health Peer Specialist	Modoc County Behavioral Health (MCBH) Branch Director, MCBH MHSA Coordinator, Behavioral Health Peer Specialist	Modoc County Behavioral Health (MCBH) Branch Director, MCBH MHSA Coordinator, Behavioral Health Peer Specialist	Modoc County Behavioral Health (MCBH) Branch Director, MCBH MHSA Coordina- tor, Behavioral Health Peer Specialist
Target Audience(s)	<ul><li>Current clients</li><li>County residents</li></ul>	<ul><li>Current clients</li><li>County residents</li></ul>	Current clients     County residents	Current clients     County residents
Products In Use/ Planned	• Mindstrong • 7 Cups	<ul><li>Mindstrong</li><li>7 Cups</li></ul>	Mindstrong     7 Cups—Growth Paths only (planned)	DBT Diary Cards from Mindstrong (tentative)     Apps vetted by other Counties that Modoc chooses off the bench (planned)
Implementation Approach	Mindstrong for current clients     7 Cups as a public wellness and prevention approach	<ul> <li>Mindstrong for current clients</li> <li>7 Cups as a public wellness and prevention approach</li> </ul>	Mindstrong for current clients     7 Cups as a public wellness and prevention approach	None until apps available on bench     Starting up Appy Hours for Digital     Literacy Training in preparation for app     implementation
Other Unique Qualities (about implementation, target audience, or other program aspect)	Not applicable	Mindstrong available to all behavioral health clients in the County     Phones will be offered to clients who do not have a phone	Mindstrong available to all behavioral health clients in the County     Phones will be offered to clients who do not have a phone	Phones not offered until apps are implemented
Milestone(s)	Conducted "soft-launch" with Mindstrong Health and Care     Planned final step of full launch which involves determining how to make phones and internet available to clients as they present a need for Mindstrong	Conducted "soft-launch" with Mindstrong Health and Care     Planned final step of full launch which involves determining how to make phones and internet available to clients as they present a need for Mindstrong	Phone protocols developed, but not implemented Joined the Help@Hand Roadmap Workgroup	Developed Appy Hours
Lessons Learned	<ul> <li>Patience—waiting for CalMHSA to finalize contracts, provide budget, get time extension with OAC, and Help@Hand leadership to establish future strategic direction.</li> <li>Should not have moved into phone contracts; paying every month for phones that are sitting in boxes.</li> </ul>			
Recommendations	Make specific effort to keep the Help@Hand collaborative culture between Counties to capture shared learnings			

### Mono County

• Mono County's participation in Help@Hand was on hold in Year 1.

Orange County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (Oct. 2019–Dec. 2019)
Tech Lead(s)	Sharon Ishikawa, PhD     Flor Yousefian Tehrani, PsyD, LMFT	<ul><li>Sharon Ishikawa, PhD</li><li>Flor Yousefian Tehrani, PsyD, LMFT</li></ul>	Sharon Ishikawa, PhD     Flor Yousefian Tehrani, PsyD, LMFT	Sharon Ishikawa, PhD     Flor Yousefian Tehrani, PsyD, LMFT
Implementation Champion Clinic(s)	CYBH PACT     County Crisis Assessment Teams	CYBH PACT     County Crisis Assessment Teams	UCI Medical Center	UCI Medical Center     OC Community Colleges (initial communications begun to explore interest and feasibility of being implementation sites)
Team Composition	Peer Lead, 2 Peers, 2 staff to facilitate community feedback meetings	Peer Lead, 2 Peers at 7 Cups, 2 staff to facilitate community feedback meetings	Peer Lead, 2 Peers, IT, Compliance, Contracts, PIO, Cambria (3.5 FTE) to support Mindstrong launch	Peer Lead, 2 Peers, Compliance, PIO, AQIS, Cambria (3.5 FTE) to support Mindstrong Launch
Target Audience(s)	Mindstrong:  • Transitional age youth (ages 13-25) engaged in the Program for Assertive Community Treatment (PACT)  • Individuals 13+ engaged in the crisis services continuum  • Additional programs to be added later (Full Service Partnerships, Recovery Centers, etc.)  7 Cups:  • To be determined	Mindstrong:  Transitional age youth (ages 13-25) engaged in PACT  Individuals 13+ engaged in the crisis services continuum  Additional programs to be added later (Full Service Partnerships, Recovery Centers, etc.)  Cups:  To be determined	Mindstrong:  Adults 18+ Severe mental illness diagnosis English speaking Individuals who own a smartphone with unlimited data, talk and text May be expended depending on research on Lifeline phones and Mindstrong data usage  7 Cups: To be determined	Mindstrong  Adults 18+  English fluency  Resident of Orange County  Diagnosis of Major Depressive Disorder, Bipolar Disorder, Schizophrenia, or Schizoaffective Disorder  Anxiety disorders, substance use disorders or other co-occurring diagnoses are ok  May have a history of psychiatric hospitalization and/or 1+ crisis evaluations within last 12 months  Device eligibility: owns a smartphone with unlimited data, talk and text  May be expended depending on research on Lifeline phones and Mindstrong data usage
Products In Use/ Planned	Mindstrong: Health, Health Services and Care (Planned)     7 Cups (Planned; contingent upon addressing issues identified during soft launch)	Mindstrong: Health, Health Services and Care (Planned)     7 Cups – Growth Paths only (Planned)     7 Cups (Planned; contingent upon addressing issues identified during soft launch)	Mindstrong Crisis Prevention Services (Planned)     7 Cups—Growth Paths only (Planned)	Mindstrong Crisis Prevention Services (Planned)
Implementation Approach	Mindstrong (not in use yet)     7 Cups (not in use yet)	<ul><li>Mindstrong (not in use yet)</li><li>7 Cups (not in use yet)</li></ul>	<ul><li>Mindstrong (not in use yet)</li><li>7 Cups (not in use yet)</li></ul>	Mindstrong (not in use yet)
Other Unique Qualities (about implementation, target audience, or other program aspect)	Serving individuals regardless of insurance type/status	Serving individuals regardless of insurance type/status	Serving individuals regardless of insurance type/status     Began discussions on how to meaningfully address informed consent	Serving individuals regardless of insurance type/status Creating plan to pilot/test Lifeline phones Extensive conversations and iterative refinement around informed consent process involving project team, compliance, peers, UCI Medical, Mindstrong and video production company; including digitization of consent form and creating companion video/audio
Milestone(s)	Mindstrong:  PACT: Pre-implementation; tentative MS launch date in April  Crisis services continuum pre-implementation	Mindstrong: PACT: Pre-implementation; tentative MS launch date in Spring 2020 Crisis services continuum pre-implementation	Mindstrong: Tentative pilot launch date in January 2020 (Pending guidance from Manatt and County Counsel on FDA)	Mindstrong: Tentative pilot launch at UCI Medical Center in Spring 2020 (pending finalized informed consent form/process & referral) Implementation planning for Community Colleges, with preliminary soft pilot launch in Fall 2020

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Orange County	<b>Quarter 1</b> (Sept. 2018–Feb. 2019)	<b>Quarter 2</b> (March 2019–May 2019)	<b>Quarter 3</b> (June 2019–Sept. 2019)	<b>Quarter 4</b> (Oct. 2019–Dec. 2019)	
Lessons Learned	<ul> <li>Shared vision and support from executive leadership</li> <li>Prioritize system prep, program prep and implementation planning over launching</li> <li>Involve tech experts in the planning, development and management at the overall collaborative and local level</li> <li>Communication w/vendors, checking in to ensure information, messaging, and shared vision is accurate</li> <li>Tech vendors should be held to equitable standards</li> <li>Create a checklist of pre-launch activities (i.e., coordinate meetings w/Compliance, IT, County Counsel, QI)</li> <li>Ability to course correct, shift/change when needed</li> <li>Frequently define terms, especially in the beginning, to ensure shared understanding</li> <li>Collaborate/communicate with the program managers and staff in programs where app will be launched</li> <li>Obtain feedback from clinicians/peers early on to assess interest/readiness to use the app services</li> <li>Continually manage expectations at all levels (i.e., community, programs, vendors)</li> <li>Risk and Liability workgroup, legal counsel, and crisis response protocols are critical elements to the project</li> <li>Acknowledge challenges such as managing details with a small team and creating an environment where counties and vendors can openly discuss challenges, concerns and issues</li> <li>Shared messaging that the Help@Hand project is not about implementing apps, it's about developing a sustainable digital mental health system of care for CA (i.e., infrastructure building)</li> <li>Apps that involve clinical integration require implementation support staff with clinical experience</li> </ul>				
Recommendations	<ul> <li>With an ever expanding team, needed to identify strategies for effective communication and decision-making process</li> <li>Flow of communication (i.e., within/between/among CalMHSA, counties, vendors)</li> <li>Plans and frequency of coordinated calls between counties</li> <li>Status update following the Cambria meetings</li> <li>Systematic process for testing/vetting apps, including user safety</li> <li>Process for procuring and demoing new apps/vendors, as well as for adding new components to the Suite</li> <li>Planning, development and implementation process be streamlined and sustainable in the future (e.g., security vetting, compliance, etc.)</li> <li>Meaning for counties to collaborate</li> <li>Consider risk and liability as part of County planning and readiness</li> <li>Clinical integration should be the primary focus when planning launch of mental health treatment-focused apps and should include implementation staff with clinical experience</li> <li>Before engaging program implementation partners, prepare an effective work plan that prioritizes necessary/required preconditions to have in place prior to launch (i.e., roadmap of involved parties and logical order/priorities for IT, data sharing, Compliance, clinical integration, etc.)</li> <li>Consider use of DARCI model as a strategy for effective and expedited communication and decision-making</li> <li>Existing Tech is not necessarily geared with the County mental health plan consumer in mind so when exploring and procuring technology, be very clear in including the type of tech the target population will likely have access to, as well as language capabilities (should be included in RFA language, criteria)</li> </ul>				

# APPENDIX B: DETAILED RESULTS FROM STAGE 3 AND 5 OF THE MARKET SURVEILLANCE

Detailed results from stages 3 and 5 of the market surveillance are shown below.

#### Stage 3: Feature review of downloaded apps

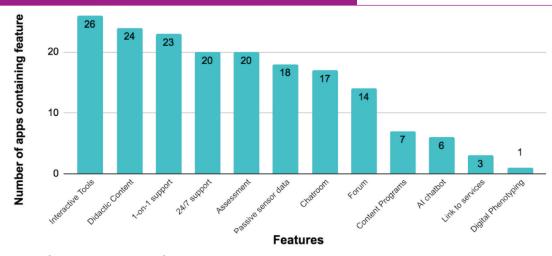
The following table reveals the numbers of features contained within each of the apps reviewed.

Table 1. Feature Review of Downloaded Apps

Ann nome	Total # factures in ann (out of 12)
App name	Total # features in app (out of 12)
7 Cups	9
Sanvello	9
00Tify	8
rTribe	8
iPrevail	8
Reservoire	7
Wisdo	7
Replika	7
Mindstrong	6
Woebot	6
Youper	6
TalkLife	6
Wolf+Friends	6
UP!	6
Joyable	5
Wakie	5
Tell A Buddy	5
Sleepio	5
What's Up	4
MoodTrack	4
HealthUnlocked Communities	4
Good Grief: Chat & Messaging	4
Reachout: My Support Network	4
PSY – mental health chat	4
Psychology Chat	4
MindCare	4
MoodPath	4
FearTools – Anxiety Aid	3
Cognitive Diary CBT Self-Help	3
Cognitive Styles CBT Test	3
lcoachi: self-care & self-love	3
MoodKit	3
MoodTools	3
Sibly	2
CBT Thought Record Diary	2
Moodnotes	2

The following graph summarizes the numbers of apps with each of the reviewed features.

Figure 1. Numbers of Apps with Each of the Reviewed Features



Stage 5: Review of comparator apps for user experience

The following table describes user experience reviews of comparator apps. Expert raters were experienced app raters who had psychology degrees. User rater was one young person.

The table also indicates which of the features deemed to be particularly relevant to Help@Hand (1-on-1 support; 24/7 support; Chatbot (AI); Digital Phenotyping) were contained in each app. As noted in the report, no app reviewed contained a digital phenotyping component.

Table 2. Review of Comparator Apps for User Experience

App name	24/7 support	1-on-1 support	Chatbot (AI)	Expert rating	User rating
Sanvello	•			4.80	4.79
Woebot		•	•	4.52	4.38
Youper		•	•	4.49	4.33
Replika		•	•	4.39	4.09
Wolf+Friends*	•	•		4.38	
Joyable		•		4.29	4.88
iPrevail	•	•		4.16	3.56
UP!		•		4.06	3.55
rTribe	•	•		4.05	4.24
OOTify OOTify	•	•	•	3.79	4.09
HealthUnlocked Communities	•	•		3.58	3.90
Reservoire	•	•	•	3.56	4.43
Wisdo	•	•		3.38	4.25
TalkLife	•	•		3.34	3.51
We Are More	•	•		3.15	3.79
Wakie	•	•		3.08	3.45
PSY – mental health chat Psychological help	•	•		2.86	3.17
What's Up	•			2.67	3.83
MoodTrack	•	•		2.59	3.72
Good Grief: Chat & Messaging	•	•		2.50	3.68
Tell A Buddy	•	•		2.15	2.94
Psychology Chat	•	•		2.10	3.25
Sibly**					

<sup>\*</sup> There was no user review as the user did not feel the app was relevant to them since Wolf+Friends is an app for parents.

<sup>\*\*</sup> Could not gain access to the app to complete a review of features or user experience.

The table below shows the average app store rankings on iTunes (iOS) and Google Play (Android) app stores over the past year. Note that data was only available for apps ranking with the top 1500 for iOS and top 650 for Android per app store category.

Table 3. Average App Store Rankings

App name	iOS	Android
Sanvello	162	229
Youper	192	109
Wisdo	298	117
Replika	323	113
What's Up?	468	509
Woebot	478	115
TalkLife	511	178
Psychology Chat	846	469
Wakie Chat	863	406
rTribe	1406	399
Wolf+Friends	885	[no Android app]
Health Unlocked	1408	[no Android app]
UP!	[no iOS app]	512
PSY	[no iOS app]	422
Joyable	985	[did not rank]
Sibly	994	[did not rank]
We Are More	1045	[did not rank]
iPrevail	1197	[did not rank]
Mood Track	1236	[did not rank]
Good Grief	1345	[did not rank]
Reservoire	[did not rank]	[did not rank]
OOTify	[did not rank]	[did not rank]
Tell A Buddy	[did not rank]	[did not rank]

## APPENDIX C: DETAILED DESCRIPTION OF EPIS FRAMEWORK USED IN COLLABORATIVE PROCESS EVALUATION<sup>32</sup>

#### **OUTER CONTEXT**

The outer context describes the environment external to the organization, and can include the service and policy environment and characteristics of the individuals who are the targets of the EBP (e.g., patients, consumers). The outer context also includes inter-organizational relationships between entities, including governments, funders, managed care organizations, professional societies, advocacy groups, etc., that influence and make the outer context dynamic.

<b>EPIS Construct</b>	EPIS Definition	Applicability to Help@Hand
Leadership	Characteristics and behaviors of key decision—makers pertinent at all levels who are necessary but not sufficient to facilitate or promote the implementation process and delivery/use of the innovation.	<ul> <li>Complexity and confusion both between and within counties regarding who makes decisions related to the Help@Hand project</li> <li>Role of the state—level Oversight &amp; Accountability Comission in decision—making</li> <li>Varying perceptions of satisfaction and effectiveness of leadership approaches across the counties and within counties</li> <li>At the start of the project, counties were given a fairly high level of autonomy</li> </ul>
Service Environment/ Policies	State and federal sociopolitical and economic contexts that influence the process of imple—mentation and delivery/use of the innovation.	<ul> <li>State Level: Reversion funds; 3–5 year timeline for innovation projects; pre–existing and changing relationship between the state and technology vendors</li> <li>Project Level: competing projects, requests for financial audits from CalMHSA; skepticism on how funds are spent</li> </ul>
Funding/Contracting	Fiscal support provided by the system in which implementation occurs. Fiscal support can target multiple levels involved in implementation and delivery/use of the innovation.	<ul> <li>Significant delays in executing contracting, delays in payment</li> <li>Variation in the level of FTE support across project (e.g. at County level, within CalMHSA, technology)</li> <li>Varying perspectives regarding the appropriateness of resources and support for project management</li> <li>Varying perspectives regarding the appropriateness of resources for technology development and adaptation</li> </ul>
Inter–organizational Environment & Networks	Relationships of professional organizations through which knowledge of the innovation/EBP is shared and/or goals related to the innovation/EBP implementation are developed/established.	<ul> <li>Help@Hand includes a structurally complex, multi-level and multi-layered network of stakeholders:         <ol> <li>15 Counties overseen by 2) CalMHSA and 3) the OAC, 4) Tech Vendors developing and adapting the apps, 5) project management and technology implementation overseen by Cambria, 6) RSE: a project marketing organization and 7) UCl, the evaluation team.</li> </ol> </li> <li>There are varying levels and perceptions about trust, cohesion, shared values, shared vision within and across the Help@Hand project network.</li> </ul>

<sup>32</sup> Appendix C describes those components of the EPIS framework that are the primary focus of the collaborative process evaluation (i.e., the outer context, bridging factors, and innovation factors). It does not include the inner context component, which is captured in the implementation evaluation.

#### **BRIDGING FACTORS**

Bridging factors are deemed to influence the implementation process as the inner context of organizations is influenced by the outer system in which the organization operates, but those influences are reciprocal (e.g., industry lobbyists impacting pharmacy legislation, direct to consumer marketing, etc.)

<b>EPIS Construct</b>	Definition	Applicability to Help@Hand
Purveyors/intermediaries	Organizations or individuals providing support or consultation for implementation and/or training in the innovation	Cambria was brought on mid—way through the first year of the project to provide general project manage— ment and structure technology implementation
Community—Academic partnerships	Active partnerships between researchers and key community stakeholders, who can represent multiple levels involved in im—plementation (e.g., system representatives, organizational leaders, providers, consumers), that can facilitate successful implementation and delivery/use of the innovation.	<ul> <li>Various mechanisms within County and across collab—orative for sharing information that have been added over time (e.g. Change control board to centralize place where decisions are made, each county has at least one designated Tech lead, regular calls with Cambria, use of project management software such as Share—point and Jira)</li> <li>Varying perceptions about the impact of these mechanisms to foster collaboration and information exchange</li> <li>Sharing a vision and promoting it in a partnership (and how it might change over time)</li> <li>Reasons for partnering and/or participating in collabo—rative vary</li> </ul>

#### **INNOVATION FACTORS**

Innovation factors have to do with characteristics of the innovation to be implemented and include: characteristics of the innovation developers, characteristics of the innovation, and fit to system, organization, provider and/or client.

<b>EPIS Construct</b>	Definition	Applicability to Help@Hand
Innovation fit	The extent to which the innovation/EBP fits the needs of the population served or context in which it is implemented. Features or qualities of innovations to be implemented.	<ul> <li>This has been a challenge for the Help@Hand project: expected turn—key products and that did not meet expectations.</li> <li>The fit is poor between target audiences (e.g., older adults, clients with high levels of paranoia) and apps</li> <li>There have been some limitation identified around the lack of perceived fit of the two apps, and thus has prompted the project to initiate a new Request for Statement of Qualifications to identify new vendors</li> </ul>
Innovation Developers	Characteristics of the individuals or team(s) responsible for the creation of the EBP/inno—vation that may be the subject of implemen—tation efforts.	<ul> <li>Process on how the app vendors were originally selected</li> <li>There has been frustration from both Counties and App Vendors about the level of requested changes, the communication around the 'problem(s)' and requested fixes.</li> </ul>

### APPENDIX D: HELP@HAND - PILOT PROCESS SUMMARY (CREATED BY HELP@HAND)

#### **California Mental Health Services Authority**

3043 Gold Canal Drive, Suite 200

Rancho Cordova, CA 95670

Office: 916.859.4800

Fax: 916.859.4805

www.calmhsa.org

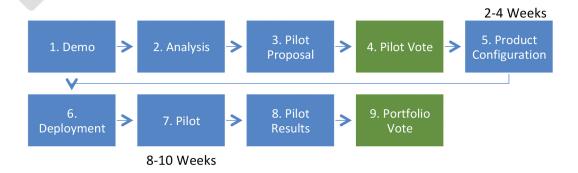
#### **HELP@HAND - PILOT PROCESS SUMMARY**

### **Purpose**

The purpose of this document is to provide an outline of the pilot process for onboarding new technologies to the Innovation Technology Suite (Help@Hand) project. The pilot process enables the Help@Hand collaborative to conduct initial assessments for compatibility with the project by executing a controlled deployment of the product in their communities or counties. This will serve to gather important information to guide the collaboratives decision to approve a technology to be a full-scale portfolio partner. The current proposed timeline for a pilot is three months, comprised of one month of development and two months of deployment. Any product that has not had a full deployment to date will be required to go through a pilot process. This process will also be periodically reviewed and adapted based on experience to improve all pilots.

Based on the lessons learned from earlier implementation efforts, the pilot approach is intended to provide several advantages, including granting Counties/Cities the ability to:

- 1. Quickly validate the technologies' capabilities and viability of being part of the Help@Hand Suite with minimal resource investment
- 2. Focus communication between vendor and piloting County/City to expedite the path to deployment
- 3. Assess compatibility between County/City and vendor
- 4. Gather engagement feedback from peers and community
- 5. Identify product changes to be required for portfolio implementation



\*Note that timelines for each stage will vary by County and Product. These will be outlined in each pilot proposal.

#### Process

#### 1. Demo

Vendor

performs a demonstration of the product to interested counties. This may be conducted virtually or in person and will be facilitated by CalMHSA and/or Catalyst. CalMHSA/Catalyst will provide scenarios to be demoed to better understand how the technology would work within the County/City behavioral health environment.

Deliverable(s): test accounts, product documentation, product demo

#### 2. Analysis

Once a County/City is interested in a product, CalMHSA will work with the County/City to perform a Fit Gap Analysis to check the product features against their requirements. CalMHSA and the County/City will also conduct a Risk and Liability Analysis for the product. County/City should pull in any security, privacy, or legal resources during this stage. If the technology is a good match, the County/City may conduct further exploration of the technology to understand the potential utility within their community. This may involve County/City staff testing, focus groups, and other vetting activities.

Deliverable(s): Fit Gap Analysis Worksheet, Risk Analysis Worksheet, County/City and/or focus group testing results

#### 3. Pilot Proposal

If the County/City reaches a decision to pilot during the Analysis stage, CalMHSA will work with the County/City to develop an implementation plan and a pilot proposal. These documents will outline items such as development scope, cost, timelines, peer engagement, marketing, and evaluation components. This is also the stage where the County/City will bring involve any security, privacy, or risk resources for input. Upon finalizing the proposal, the piloting County/City will present their proposal to Leadership for approval. Contract build also take place at this stage.

Deliverable(s): Implementation Plan, Pilot Proposal (i.e. Scope of Work, Evaluation Plan, Marketing Plan, etc.)

#### 4. Pilot Vote (Leadership Approval)

This stage will be the formal Leadership vote to approve the pilot. All members of Leadership will receive a copy of the pilot proposal and all accompanying documentation in

advance of Leadership meeting to vote. The piloting County/City will present the proposal at the Leadership meeting. After the presentation, Leadership will have time to review, ask questions, and vote to approve or deny the pilot. If approve, the Contract with the vendor will be executed at this time.

Deliverable(s): Pilot Proposal Presentation, Leadership Vote Results, Leadership Formal Feedback

#### 5. Product Development

Once a pilot proposal has been approved by Leadership, the vendor will work to implement the requirements for the County's Minimally Viable Product (MVP) as outlined in the pilot scope of work. The MVP should be as close to base functionality provided "out-of-the-box" as possible with minimal customizations. CalMHSA will assist the County/City (if requested) through testing, validation, and acceptance of any and all development work for this stage. During this stage, the County/City may work with CalMHSA, RSE, and UCI to begin planning for marketing and engagement and evaluation efforts required for the pilot.

Deliverable(s): Sprint Delivery Reports, Testing Reports, County/City Validation of MVP, Marketing Materials

#### 6. **Deployment**

Once the County/City validates and accepts the MVP, the product is deployed in the County/City and the marketing and outreach and evaluation efforts begin in the community.

At this stage, other interested Counties/Cities will have access to test the product for their own analysis.

Deliverable(s): TBD (Utilization Dashboard, Pre-pilot User Satisfaction Survey)

#### 7. Pilot (Implementation)

While the pilot is in progress, regular check ins will be conducted between all parties to document progress. Metrics will be gathered around all documented assessment categories defined within the Pilot Proposal and the Pilot Results Report. Any necessary changes to budget, scope, or timeline of the pilot will go to Leadership for approval.

Deliverable(s): Checkpoint Metrics, Progress Report

#### 8. Results (Pilot Results Report)

As the pilot period is completed, the County/City will develop a Pilot Results Report. This report will contain analysis on all applicable areas including topics such as:

- Product Management
  - Defects
  - Vendor service level agreements

\*Note that timelines for each stage will vary by County and Product. These will be outlined in each pilot proposal.

#### **Process**

#### 1. Demo

Vendor

performs a demonstration of the product to interested counties. This may be conducted virtually or in person and will be facilitated by CalMHSA and/or Catalyst. CalMHSA/Catalyst will provide scenarios to be demoed to better understand how the technology would work within the County/City behavioral health environment.

Deliverable(s): test accounts, product documentation, product demo

#### 2. Analysis

Once a County/City is interested in a product, CalMHSA will work with the County/City to perform a Fit Gap Analysis to check the product features against their requirements. CalMHSA and the County/City will also conduct a Risk and Liability Analysis for the product. County/City should pull in any security, privacy, or legal resources during this stage. If the technology is a good match, the County/City may conduct further exploration of the technology to understand the potential utility within their community. This may involve County/City staff testing, focus groups, and other vetting activities.

Deliverable(s): Fit Gap Analysis Worksheet, Risk Analysis Worksheet, County/City and/or focus group testing results

#### 3. Pilot Proposal

If the County/City reaches a decision to pilot during the Analysis stage, CalMHSA will work with the County/City to develop an implementation plan and a pilot proposal. These documents will outline items such as development scope, cost, timelines, peer engagement, marketing, and evaluation components. This is also the stage where the County/City will bring involve any security, privacy, or risk resources for input. Upon finalizing the proposal, the piloting County/City will present their proposal to Leadership for approval. Contract build also take place at this stage.

Deliverable(s): Implementation Plan, Pilot Proposal (i.e. Scope of Work, Evaluation Plan, Marketing Plan, etc.)

#### 4. Pilot Vote (Leadership Approval)

This stage will be the formal Leadership vote to approve the pilot. All members of Leadership will receive a copy of the pilot proposal and all accompanying documentation in

# APPENDIX E: DATA COLLECTION SHEET FOR THE LIVE VENDOR DEMOS

**Demo Date and Time:** 

**Product/App:** 

Number of Attendees	Name of Attendees	Did/how did the vendor describe how users experience/re— act to the product?		Did/how did the audi— ence of the demo ask/ discuss how users experience/react to the product?		Did/how did the vendor describe usability?		Did/how did the vendor address the resources that users need to download and use app?
Did/how did they vendo discuss accessibility?	Did/how did the discuss other lar options for produ	nguage	Did/how did discuss how users' crisis	to deal with	Is the pro available	duct publicly ?	#	of current users
When do users typicall abandon tool?	y % of users who	drop off	Target audie	nce	Questions during Q8		01	ther Notes

**Evaluation Team Member Name:** 

### APPENDIX F: USER EXPERIENCE TOOLS FOR PILOT EVALUATION



10/07/2019

A Guide for Focus Groups in Early Testing:
UCI's Recommendations for Getting Potential Users' Feedback
Analysis Phase of the Help@Hand Pilot Process

The document below describes the process by which the Evaluation team recommends conducting the examination of early users during the Analysis Phase which is pictured below in the Help@Hand Pilot Process Overview. In order to maximize the ability to share relevant information across the various Pilot sites and to ensure the quality of the data collected, we recommend that CalMHSA and the Counties standardize their data collection strategies and instruments. As such, we offer the following guide. This guide should be viewed as an early draft, as we are not necessarily privy to all the current processes being established by CalMHSA/Cambria/Counties.

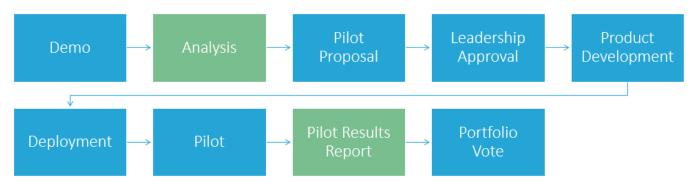


Figure 1: Help@Hand Pilot Process Overview

\*Adapted from figure created by Help@Hand

#### I. Overview

**Objective:** Gather potential users' initial input about products that may be piloted The goal of the focus groups is to obtain feedback from representative groups of the target audiences who the counties would envision being potential users of the Help@Hand apps. The idea is to quickly capture initial input that may indicate the likeliness of adoption and satisfaction of the product.

**Instructions for Use:** The purpose of this guide is to provide an overview of constructs and questions that are important to consider when designing and conducting focus groups to gather users' feedback on products during the Analysis phase of the Help@Hand Pilot Process. This guide introduces constructs and provides sample questions that can be asked during focus groups, but questions can be tailored based on target audience and product features.

We want to remind users of this guide that the participants in the focus groups likely have mental health lived experiences. As such, recruitment strategies need to be clear and sensitive to the population being recruited. Further, the facilitator of the focus group needs to be trained to work with this population and be perceived as someone who is 'safe' and/or 'neutral'.

#### Assumptions:

• These recommendations are appropriate for focus group participants whose exposure to the product ranges from at least a half day demo to longer extensive use of the product. They should have sufficient familiarity



with the product such that they would be able to evaluate it, both in terms of its features and overall experience with the product. In order for participants to have sufficient exposure with the app, we recommend they have enough time to download and use the app individually before being part of a focus group.

- People in the focus group should be representative of the target audiences for the counties.
- In focus groups, the goal should be to have homogeneity (e.g., teens experiencing depression, socially isolated adults). We recommend conducting multiple focus groups with similar participants. Counties should think carefully about which categories of users they wish to learn about.

#### II. Constructs & Questions

#### 1. User needs

By asking individuals to share what type of support they are interested in, we can help draw connections between the product and the target audience's goals. This will assist in identifying whether the potential user's needs will be met by using the product.

- Mental health and wellness / well-being needs
  - If participants do not feel comfortable discussing their mental health needs even broadly speaking, then we recommend offering one-on-one interviews.
- o Users' motivations, needs, goals
- Users' perceptions of the products' ability to meet these needs

<u>Cambria:</u> You may want to tailor terminology used based on target audience (e.g., well-being / wellness vs. mental health).

#### Questions:

- Thinking about people you know who have mental health concerns: do you think this product would meet their needs or not?
- o How well do you feel that this product can support your wellness / mental health?
- o How well do you feel this product might meet your needs?

#### 2. Usability

It is important to assess whether the product is easy or difficult to navigate. If the product is difficult to use, it is likely that users will discontinue use of the product.

Ease of use of the product

<u>Cambria:</u> You may want to add questions about specific features of the product (if the app is known in advance).

#### Questions:

- O How easy was it to download and set up the app?
- How easy was it to learn how to use the app?
- o Are there particular features that you find difficult to use? Explain.
- Think about others who you know. How long do you think they would need to be able to set up and learn how to use the app?

#### 3. Lifestyle fit

The tools that individuals currently use to support their mental health and well-being (both digital and non-digital) can influence adoption of new products. It is important to ask potential users about tools and



strategies that they currently use to manage mental health and wellness, and how this new product would fit into their everyday life and activities.

 How the product fits into their everyday life and activities, including other tools (both non-digital and digital that they use to manage mental health and/or well-being)

#### Questions:

- Would you use this product every day? Why or why not?
- o In which contexts do you envision using this product? (e.g., at home, at work, on the bus)
- When do you envision using this product? (e.g., before falling asleep, at night if you're feeling lonely, first thing in the morning starting your day, before social events, during/after mental health crisis or concern)
- How well does this product fit with other techniques and tools (apps and non-apps) that you use to manage your mental health or well-being? (e.g., in conjunction with therapy, alongside other practices such as drawing, with other apps or websites)

#### 4. Product safety

Product safety is about the extent individuals feel protected from harm or risk when engaging with the product. By asking individuals about their perceptions of how safe the product is, we can glean insights about concerns that may prevent future adoption or use.

o Perceptions of their safety and others' safety when engaging with the product

#### Questions:

- Do you have any concerns that using this product may lead you to experience negative consequences related to your mental health? Explain.
- Are there any other types of negative consequences that you, or others, envision may experience as a result of using this product?

#### 5. Security and privacy

Security and privacy are related yet distinct concepts that both can impact individuals' willingness to use a product. Security refers to protective measures in place to prevent unauthorized access to data and systems, and privacy is about the regulations and policies that dictate the use of an individual's data, as well as the individual's perceptions of the confidentiality of their information (e.g., app data, disclosure of mental health just by downloading or using an app) and when/how it can or cannot be shared. Data security is usually enacted through companies and vendors that own the product, whereas privacy is usually dictated by users. The key is that companies and vendors need to ensure the level of privacy their users want is / can be implemented.

- Perceptions of data security
- o How they feel about sharing mental health data and other data in the product

#### Questions:

- In thinking about using apps, do you worry whether the app vendor has sufficient protections in place to prevent unauthorized access to your data? Would you trust that your data is secure when you use this product?
- Are you concerned that your data may not be private when you use this product, e.g., that others may see your data?



 How could the vendor or product instill confidence that your information is secure? (May result in a configuration/change request to the vendor)

#### 6. Satisfaction

The degree to which users are satisfied with a technology may influence their choice to use the product in the future.

What they like / dislike about the product

#### Questions:

- Overall, how satisfied or unsatisfied are you with this product? Why?
- o What particular features do you like or dislike about this product? Explain.

#### 7. Other barriers and/or facilitators

It is important to ask participants about other potential barriers or challenges to using product more generally, as well as resources or support they might need to use it. This will allow for emergent themes and give participants a space to share their insights in their own words.

- Possible constructs to explore:
  - Stigma
  - Trust
  - Cost
  - Accessibility
  - Other barriers/challenges

Cambria: You may want to tailor some questions based on target audience.

#### Questions:

- o What challenges might you experience in trying to use this product?
- Did you encounter any unanticipated issues when using/viewing the product? If so, what were they?
- O What might prevent you from using this product?
- What resources or support would you need to use this product?
- Would you be comfortable to tell your friends and family that you are using this product?
- What challenges might people with (vision impairments / hearing impairments) experience in using this product?
- O Do you trust this product? Why or why not?

#### III. Recommendations for Best Practices for Conducting Focus Groups

#### Recruiting participants for focus groups

- Identify target audience for product
- Define characteristics for selection of individuals
- Recruit representative sample of target audience, ensuring diverse backgrounds and lived experiences are represented
  - o Ideal focus group size: 5-8 participants, a maximum of 10 participants
- Document who you contact and how you recruited people
- Document how many people were offered to participate
- Document how many and who opted to participate in the focus group (as well as who opted not to participate)



#### Conducting focus groups

- Ensure participants that their responses will be confidential and their data secure
- Notify participants who has access to their data and how long data will be stored
- Focus group should be done in a private, comfortable, and guiet room
- Light snacks and drinks should be offered
- Allot approximately 2 hours to go through protocol depending on resources and number of focus groups expected
- We recommend a short 5-minute break approximately half way through the focus group.
- Assign each participant a distinct number and provide them a notecard with that number
- Document demographic information about the participants
- We recommend using the demographic survey (with the corresponding participant ID numbers) we created to collect this information. This survey should take approximately 10 minutes to fill out. Please allow time outside of the focus group time for participants to complete this.
- Audio record focus group sessions
- Have a dedicated note taker (someone different from the person who facilitates the focus group questions) to track participant numbers and conversation topics/themes
- Ensure sufficient incentives are offered to participants, especially as some will have to pay travel expenses or childcare

#### Documentation for the Purposes of the Evaluation

- Document the script used and provide to UCI
- Document who conducted the focus group and provide to UCI
- Document which questions were asked/which ones weren't and the order of the questions and provide to
- Document the date focus group is conducted, length of focus group, location of focus group and provide to
- Provide transcript of the focus group data to UCI

#### Storing and Making Sense of Focus Group Data

• Digital data should be stored in a secure, password-protected computer. Other data should be stored in a locked cabinet with limited access. Document who has access to the focus group data and notes.



Appendix A: Sample Demographic Survey for Focus Groups in Cambria's Analysis Phase of Help@Hand Pilot Process

[TO BE ADDED BY CAMBRIA/COUNTY: Information about the Demographic Survey / Focus Group]
Q2 Enter your participant ID.  If you have not been given an ID, please skip this question.
Q3 How did you hear about this TO BE SELECTED BY CAMBRIA/COUNTY: focus group / demoing the [app product]?
Q4 How long have you used [TO BE ADDED BY CAMBRIA/COUNTY: app product name]?
The next set of questions are about your experience with and interest in technology.
Q5 Which of the following do you use? (Please select all that apply.)
Desktop or laptop computer
Smartphone
Mobile phone or cell phone but not a smartphone
I don't use any of these.
Q6 Do you have a mobile data plan? (Please select only one option.)
○ Yes
○ No
O I'm not sure.



Q7 Where are you able to get access	the internet?	(Please select	all that apply.)		
At home					
In public places, such as the I	ibrary				
At work					
Other (Please explain)					
Q8 Please rate the extent to which yo the following statements.	ou agree on a	scale from <b>1-S</b>	trongly disagre	e to 5-Strong	ly agree for
	Strongly disagree-1	Somewhat disagree-2	Neither agree nor disagree-3	Somewhat agree-4	Strongly agree-5
I am <b>interested</b> in using <b>mobile apps</b> to manage my mental health.	0	0	0	0	0
I am <u>interested</u> in using <b>websites</b> to manage my mental health.	0	$\circ$	$\circ$	0	0
I feel <b>comfortable</b> using <b>mobile apps</b> to manage my mental health.	0	$\circ$	$\circ$	$\circ$	$\circ$
I feel <b>comfortable</b> using <b>websites</b> to manage my mental health.	0	$\circ$	0	$\circ$	0
The next set of questions will ask	about your <b>w</b>	vell-being a	nd mental hea	alth experier	nces.
Q10 What kind of support would you	like to see fro	om well-being o	or wellness manag	gement apps?	



Q11 Please rate how well you have been doing in the following areas of your life, on a scale from **1-Extremely** bad to **5-Extremely good**.

	1-Extremely bad	2-Somewhat bad	3-Neither good nor bad	4-Somewhat good	5-Extremely good
Overall: General sense of well-being	0	$\circ$	$\circ$	$\circ$	$\circ$
Individually: Personal well-being	0	$\circ$	$\circ$	$\circ$	$\circ$
Interpersonally: Family, close relationships	0	$\circ$	$\circ$	$\circ$	$\circ$
Socially: Work, school, friendships	0	$\circ$	$\circ$	$\circ$	$\circ$
Q12 Are you currently experiencing any me  Yes  No  I'm not sure.  I prefer not to answer.  If you answered Yes to Q12, please Q13 What mental health concerns are you blank.	answer Q13.				nis



Q14 Have you ever been diagnosed with a mental health condition? (Please select only one option.)
○ Yes
○ No
O I prefer not to answer.
Q15 Are you currently seeking professional treatment for your mental health? (Please select only one option.)
○ Yes
○ No
O I prefer not to answer
The remainder of the survey is to collect data about <b>your background</b> .
This information is being collected to make sure we are representing different people as part of the focus groups in order to best serve the community.
Q16 What <b>city</b> in California do you live in?
Q17 Are you a Peer hired by the county as part of the Help@Hand project? (Please select only one option.)
○ Yes
○ No
Other (Please explain)



Q18 How old are you? (Please select only one option.) O Under 18 years old 0 18 - 24 25 - 34 35 - 44 0 45 - 54 55 - 64 0 65 - 74 75 - 84 85 or older Q19 What is your gender? Q20 What language(s) are you most comfortable speaking? (Please select only one option.) Q21 Are you a veteran or an active military personnel? (Please select only one option.) O Yes I prefer not to answer.



Q22 What is your current living situation? (Please select only one option.)
O I live alone.
I live with a spouse or partner.
○ I live with roommate(s).
I live with family.
Other (Please explain)
Q23 Are you currently experiencing homelessness? (Please select only one option.)
○ Yes
○ No
O I prefer not to answer.
Q24 [TO BE ADDED BY CAMBRIA/COUNTY: questions related to any other target audience here (e.g., deaf or hard of hearing)]
Отва
Отва
O тва



Հ2։	5 Please select the option that best describes your employment status. (Please select only one option.)
	Employed full time
	Employed part time
	O Unemployed looking for work
	O Unemployed not looking for work
	○ Retired
	○ Student
	Opisabled
	Other (Please explain)
Q2(	6 Which categories best describe you? (Please select all that apply.)
	Black or African American
	DIACK OF AFFICALITY
	Hispanic, Latinx, or of Spanish origin
	Hispanic, Latinx, or of Spanish origin
	Hispanic, Latinx, or of Spanish origin  Middle Eastern or North African
	Hispanic, Latinx, or of Spanish origin  Middle Eastern or North African  Native American, American Indian, or Alaskan Native
	Hispanic, Latinx, or of Spanish origin  Middle Eastern or North African  Native American, American Indian, or Alaskan Native  Asian
	Hispanic, Latinx, or of Spanish origin  Middle Eastern or North African  Native American, American Indian, or Alaskan Native  Asian  Native Hawaiian or Pacific Islander



Q27 Please select the category that best describes you. (Please select only one option.)	
O Gay or Lesbian	
Queer	
O Bisexual	
Straight or Heterosexual	
O Pansexual	
○ Asexual	
Questioning	
Other (Please explain)	
O I prefer not to answer.	
Q28 What is your highest level of education completed? (Please select only one option.)	
Q28 What is your highest level of education completed? (Please select only one option.)	
Q28 What is your highest level of education completed? (Please select only one option.)  Less than high school	
Q28 What is your highest level of education completed? (Please select only one option.)  Less than high school  High school graduate or GED equivalent	
Q28 What is your highest level of education completed? (Please select only one option.)  Less than high school  High school graduate or GED equivalent  Some college	
Q28 What is your highest level of education completed? (Please select only one option.)  Less than high school  High school graduate or GED equivalent  Some college  2 year degree	
Q28 What is your highest level of education completed? (Please select only one option.)  Less than high school  High school graduate or GED equivalent  Some college  2 year degree  4 year degree	



29 Please select the option that best describes your current marital status. (Please select only one option.)	
	○ Single
	O In a committed relationship or partnership but unmarried
	O Married
	O Widowed
	Opivorced
	○ Separated
	Other (Please explain)



Q30 What is your annual household income? O Under \$10,000 \$10,000-\$19,999 \$20,000-\$29,999 \$30,000-\$39,999 \$40,000-\$49,999 \$50,000-\$59,999 \$60,000-\$69,999 \$70,000-\$79,999 \$80,000-\$89,999 \$90,000-\$99,999 \$100,000-\$149,999 \$150,000 or above Q31 Is there anything else you would like to share?

You have reached the **end of the survey**. Thank you so much for your participation!

#### Information Sheet

### Focus Groups and Demographic Survey to Understand Potential Users' Perspectives of Help@Hand Products (Analysis Phase)

Contact Information
Name:

Telephone: E-mail Address:

Please read the information below and ask questions about anything that you do not understand. The person listed above will be available to answer your questions.

You are being asked to participate in a study. Participation in this study is voluntary. You may choose to skip a question or a study procedure. You may refuse to participate or discontinue your involvement at any time without penalty or loss of benefits. You are free to withdraw from this study at any time. There are no alternative procedures available. However, you may choose not to participate in this study. If you decide to withdraw from this study, you should notify the person above immediately.

#### WHY IS THIS STUDY BEING CONDUCTED?

The purpose of this study is to get feedback from individuals who could be potential users of the Help@Hand apps. We'd like to understand your opinion of these apps. Your feedback is important to us. We will use your feedback to help decide which apps to test further.

You are eligible to participate in this study if you:

- Have sufficient experience with the app / product in order to explain your opinions of it
- [add any other criteria here e.g., 18 years old or older, English speaking, experience X mental health concerns]

### WHAT PROCEDURES ARE INVOLVED WITH THIS STUDY AND HOW LONG WILL THEY TAKE?

As part of this study, you will participate in a 1) Demographic Survey and 2) Focus Group.

#### 1) Demographic Survey

The demographic survey will ask you questions related to your background, such as your gender, age, race, mental health, technology use, etc. We are collecting this information to understand who is represented in this study. This survey will also give you an opportunity to share additional comments privately. This survey should take 5-10 minutes to complete.

#### 2) Focus Group

The goal of the focus group is to understand your feelings about app(s). Focus groups will be audio recorded. During the focus group, you will be asked questions about:

- your own mental health and wellness needs,
- how easy or difficult the app is to use,
- how the app fits with your current lifestyle,
- your thoughts on how safe the app is to use,
- your thoughts about the security and privacy of your data,
- satisfaction of the app, and
- other possible barriers, such as stigma, cost, resources, accessibility, etc.

Focus groups should take 1.5 to 2 hours to complete.

#### POSSIBLE RISKS/DISCOMFORTS ASSOCIATED WITH THIS STUDY

Possible risks and/or discomforts associated with this procedure include:

- Uneasy feelings related to the discussion of sensitive topics, particularly those related to mental health
- Feelings of discomfort around sharing your personal experiences in a small group of people

Although we take precaution to protect your confidentiality and privacy, loss of confidentiality is a possible risk. In the event that loss of confidentiality occurs, your thoughts may be revealed and add psychological stress.

#### ARE THERE BENEFITS TO TAKING PART IN THIS STUDY?

While there are no direct benefits to you, your participation will help us to understand which apps meet the community's needs and decide which apps we should move forward with.

#### WILL I BE PAID FOR TAKING PART IN THIS STUDY?

#### Compensation

You will receive [add compensation, if applicable].

#### Reimbursement

You [will / will not] be reimbursed for any out of pocket expenses, such as parking or transportation fees.

- There is no cost to you for participation in this study. However, there may be out-of-pocket expenses such as parking and transportation fees.
- If you have any comments, concerns, or questions regarding the conduct of this study please contact the personnel listed at the top of this form.

#### HOW WILL MY PERSONAL INFORMATION BE KEPT?

[How will information about me and my participation in this study be kept confidential?] [Where will my information (audio files, data, etc.) be stored?]

[How will information about the person and their participation in this study be kept confidential at the County?]

Sample language: Only authorized individuals will have access to it. All data will be stored electronically on a secure computer and network with encryption and/or password protection.

#### WHO WILL HAVE ACCESS TO MY STUDY DATA?

[Who will have access to my study data? – County to fill this in from their side]

In addition, the University of California, Irvine has been contracted to serve as the evaluators of this program. As such, authorized UCI personnel may have access to your data. Any information derived from this project that personally identifies you will not be voluntarily released or disclosed by these entities without your separate consent, except as specifically required by law. Records provided to authorized, non-UCI entities will not contain identifiable information about you. Publications and/or presentations that result from this study will not include identifiable information about you.

#### RESOURCES

If you are struggling, feeling low, or have concerns about your mental health, please know you are not alone. There are free resources are available to you.

[can tailor this to specific counties' resources]

#### The Suicide Prevention Lifeline

They connect callers to trained counselors 24/7. They also provide a chat function on their website.

Phone: 1-800-273-8255

Website: https://suicidepreventionlifeline.org/

#### Crisis Text Line

It is free, 24/7 support for those who are feeling low.

Text 741741 from anywhere in the US to text with a trained Crisis Counselor.

Website: https://www.crisistextline.org/

