INNOVATIVE PROJECT PLAN DESCRIPTION

County:	**Alameda** **Date Submitted: Feb. 2019**
Project Name:	**Mental Health Technology 2.0**
Total Amount Requested:	**$2,040,120**
Duration of Project:	**2.5 years (FY 19/20-21/22)**
Posting Date for Public Comment:	**2/8/19**

Background Information:

Alameda County previously had an Innovation (INN) Project called the Innovative Grant Program that had multiple rounds of short term grant projects with different themes per round based on various community planning processes (CPPs). Under this INN Project, in FY 16/17, Alameda developed a grant round for the development and implementation of mental health technology applications. The overview of this round of grants was included in Alameda's FY 16/17 Plan Update and their MHSA Three Year Plan Update 17/18-19/20. Only an overview was provided since Alameda understood this grant round was under the umbrella of their approved original Innovative Grant Program. Unfortunately, due to an administrative error on Alameda's end this grant round couldn't be included under their original INN project due to the regulatory time limitations of an INN project.

There has been an outpouring of ongoing public support for this INN project around mental health technology and therefore Alameda is reviving this project idea of mental health technology through a new Innovation proposal which is included below.

Project Summary:

The primary purpose of this INN Project is to utilize a technology based approach in order to increase access to mental health care and support for individuals in Alameda County who are experiencing situational induced trauma. Local community-based organizations (CBOs) will collaborate with web developers to create an innovative web-based mental health technology application to support the wellness of consumers and/or family members who are experiencing situational induced trauma.

Alameda County will conduct a request for proposal (RFP) process to identify a maximum of eight (8) grantees for a 24 month period to develop, test, launch, host and evaluate the benefit of the application on an individual and system level.

Innovations Opportunity

Technology is on the forefront of innovation for health monitoring, be it physical or mental health. Alameda County is fortunate to be located on these front lines of technology. The County's unique

location in the Bay Area provides residents close proximity to not only Silicon Valley, but numerous other technology companies, big, small, and emerging. This parity provides the County with a community that tends to embrace new technology with enthusiasm. The newest innovative technology of mobile apps brings prospective access to persons who may otherwise be isolated because of stigmatization, culture, and language barriers; and for those groups in society that are extremely difficult to locate – such as patients with comorbid mental health and substance abuse conditions, HIV/AIDS patients, victims of sex trafficking, and homeless individuals.[1]

Even when these individuals are located, effective communication may be lacking or they may be unwilling. In this regard, technology, or more specifically, mobile apps, can be creatively used to engage the hard-to-reach populations.

Mobile apps that focus on mental health can be used for a variety of purposes. They show great promise in promoting healthy behavior changes, increasing adherence to treatment programs, providing immediate psychological support, facilitating self-monitoring and reducing the demand for clinician time.[2] As mobile applications grow in popularity among the general public, so does the potential to increase the quality of care and access to evidence-based treatments through this technology.

Technology also brings with it a source of anonymity. Anyone with a smartphone is able to access technology, and in most instances, able to maintain their anonymity due to encryption methods. This can give the user a feeling of less loneliness, isolation, or the feeling of being judged; a sense of empowerment; and reduction in distress, anxiety or fatigue. These are all benefits of being in a support group according to the Mayo Clinic.[3]

This project intends to provide a platform for individuals who reside in isolation, anonymity, or feel they have no place to go because of their situation. This project offers new opportunities for outreach, and engagement, and support to these communities by testing a technology based delivery system for mental health solutions.

PROPOSED PROJECT and TARGETED POPULATIONS

The primary purpose of this INN Project is to utilize a technology based approach in order to increase access to mental health care and support for individuals in Alameda County who are experiencing situational induced trauma. Community based providers will collaborate with web developers to create an innovative web-based mental health technology application to support the wellness of consumers and/or family members who are experiencing situational induced trauma. Here, the County is defining trauma as having been induced by a recent situation rather than a long-term trauma.

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[1] Miller R, Lammas N. Social media and its implications for viral marketing. Asia Pacific Public Relations Journal. 2010; 11(1):1-9

[2] Spurgeon JA, Wright JH. Computer-assisted cognitive-behavioral therapy. Current Psychiatry Reports. 2010;12:547–552

[3] https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/support-groups/art-20044655

Trauma is a deeply distressing or disturbing experience. Many traumas arise from a brief encounter/experience, or it can last for months, even years because of an individual's set of circumstances. The County is interested in the trauma created by a number of specific factors that are currently affecting its residents. These factors are: 1) the role of caregivers due to a result of an increasing shift of psychiatric care to the community supplemented by an ever aging population; 2) physical violence and gun violence; 2) the rising rate of suicide especially in youth, transitional age youth, and older men; and 4) the influx of immigrants, asylees, and refugees into the County. Furthermore, each of these factors overlap with each other: caregivers slipping into major depression may feel suicidal ideation or become violent towards the person they are caring for; or suicide among refugees and asylee youth because of feelings of there's no way out.[4]

The County's targeted populations and primary goal(s) will be:

Target Population	Primary Goal
• Caregivers of family members who suffer from a Serious Mental Illness (SMI) or a Serious Emotional Disturbance (SED).	Outreach, engagement, and education to provide emotional support
• Youth/Transition Age Youth (TAY) who are victims of Trauma induced by multiple forms of violence (particularly gun violence).	Early intervention after the trauma has occurred to prevent further trauma and promote mental health wellness among youth and TAY
• Attempted Suicide Survivors. • Immigrants, Asylees, and Refugees.	Alternate modes of engagement, support and intervention to reduce isolation; and/or stigma in accessing traditionally presented mental health services.

There are over 200,000 health apps on the market today. However, the majority of these apps are targeted for a general population. The County's research for each of the target population shows:

1. Caregivers of Seriously Mentally Ill and SED Family Members –

Identified Problem/Need:

Rosalyn Carter is often quoted for her observation that "there are only four types of people in the world: 1) those who have been caregivers, 2) whose who currently are caregivers, 3) those who will be caregivers, and 4) those who will need caregivers."[5] Caregivers* are a unique group of people who are generally unskilled, unpaid, family members, who easily become isolated, and experience compassion fatigue or more colloquially, "burn out", quickly because they are commonly on call 24

[4] https://www.msf.org/child-refugees-lesbos-are-increasingly-self-harming-and-attempting-suicide
[5] https://www.ncbi.nlm.nih.gov/books/NBK210056/pdf/Bookshelf_NBK210056.pdf
*The term caregiver is often separated into two camps, informal and formal. Some caregivers prefer the term family caregiver to informal caregiver. For the purposes of this proposal, caregiver will mean informal caregiver and/or family caregiver.

hours a day. The impact of caregiving casts a serious toll on the caregiver physically, mentally, and financially. Support for a caregiver's own health is integral because the caregiver is often the only source of help for their family member. Between 40 and 70% of family caregivers caring for aging adults have clinically significant symptoms of depression. Among them, 25 to 50% meet the diagnostic criteria for major depression. Nearly 70% of caregivers are female. The majority of these female caregivers are also working caregivers.[6]

One of the issues the County is facing is obtaining current, succinct data because there is no specific research for this population in the County. The majority of information is anecdotal. Translating national data for Alameda's population indicates an approximation of 50,000 people are caregivers for a family member within the County at any given time.[7]

Caregiving can also be substantially underreported because a parent of a child who has been diagnosed with an SMI or SED may not view themselves as a caregiver. For them, they are the parent, and maintain the point of view of "this is my duty", and they're just doing the sorts of things that "anyone" would do for a parent, spouse, child, or friend who needs help.[8] The same can be said of siblings or other family members who have taken on the duties of caregiver for another family member. The County aims to reach out to these individuals along with all types of caregivers of SMI and SED family members.

Current Assessment of Tools/Apps:

One-half of caregivers say a health care provider, such as a doctor, nurse, or social work, has asked the caregiver about what was needed to care for themselves. In the more complex care situations, caregivers, are more likely to report having these kinds of conversation. However, these conversations still are not occurring for a majority of caregivers, even among those groups likely to discuss these things with health care providers.[9] Studies show that simply giving voice to your frustrations and fears dials down tension and eases the isolation that shadows caregivers.[10]

- Out of over 200,000 mobile health-related apps, only 44 of the available apps are for caregivers.[11]
- None of the 44 apps use an evidence-based practice approach.[12] (Our intention for Alameda is that some of the applications will utilize evidence-based or promising practices in their apps.)
- No specific surveys of caregivers themselves have been done to see how this technology can best suit their needs and preferences.[13]

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[6] https://blog.caregiverhomes.com/stateofcaregiving

[7] https://www.aarp.org/content/dam/aarp/ppi/2015/caregiving-in-the-united-states-2015-report-revised.pdf This 2015 report's statistics were used to approximate Alameda County's caregiver population in 2018.

[8] http://www.caregiving.org/wp-content/uploads/2010/01/Catalyzing-Technology-to-Support-Family-Caregiving_FINAL.pdf

[9] https://www.aarp.org/content/dam/aarp/ppi/2015/caregiving-in-the-united-states-2015-report-revised.pdf

[10] https://www.aarp.org/caregiving/answers/info-2017/coping-with-caregiver-stress-burnout.html

[11] https://www.ncbi.nlm.nih.gov/pubmed/30061093

[12] *Ibid.*

[13] *Ibid.*

How Proposed Technology App Will Improve the Identified Issue(s): Through technology this project hopes to:

- **Outreach** – provide emotional support to reduce burdens of caregiving and improve health outcomes.
- **Engagement –** provide respite resources, and just in time information for problem solving.
- **Education** – promote self-care, and stress reduction strategies.

One of the County's goals is to collect extensive data about the prevalence, burden, and impact of caregiving, and the role of technology. This goal follows recommendations from the National Alliance of Caregiving's (NAC) convening with experts from Silicon Valley, government agencies, and the non-profit sector, in April 2014.

This recommendation, captured in NAC's *Catalyzing Technology to Support Family Caregiving*, supports the need of more current, thorough and accurate data about the diversity of caregiver roles and responsibilities, about what caregiving involves day-to-day and the nature of the burden it represents, and how much it impacts those around the caregiver. Such data is necessary to develop plans and to evaluate the impact of solutions.[14]

2. Youth/Transition Age Youth (TAY) Victims of Trauma Induced by Multiple Forms of Violence –

Identified Problem/Need:

Although Alameda County's violent crime rate has gone down since 2013, it continues to be twice as high as that for both the nation and California. Although violence affects all of our communities, the City of Oakland continues to account for the disproportionate amount of the County's total violent crime at 69%.[15] The most recent data reports show that Alameda County has the fourth highest youth homicide victimization rate of all California counties at 20.86 per 100,00.[16]

The County's youth are inordinately affected by this violence. According to the Alameda County Public Health Department, Hayward Unified School District reports a 17% dropout rate for high school students, and the vast majority of all school suspensions are reported to be due to violence or drug use.[17] Moreover, the Adverse Childhood Experience (ACES) data show that in looking retrospectively 44.5% of all households in Alameda County have experienced between 1-3 ACES and an additional 12.5% have experienced 4 or more ACES.[18]

[14] http://www.caregiving.org/wp-content/uploads/2010/01/Catalyzing-Technology-to-Support-Family-Caregiving_FINAL.pdf
[15] http://www.acgov.org/board/bos_calendar/documents/DocsAgendaReg_5_14_15/PUBLIC%20PROTECTION/Regular%20Calendar/Alameda_County_Violent_Crime_Data_2013_PP_5_14_15.pdf
[16] http://www.vpc.org/studies/cayouth2014.pdf
[17] https://www.acgov.org/board/district2/youth.htm
[18] https://www.acesconnection.com/g/alameda-county-aces/blog/alameda-county-data-dashboard-child-adversity-and-well-being

When violence occurs, it affects everyone in its path. Violence crosses all demographics. Within youth and TAY communities, violence is particularly harmful as these individuals' brains are still developing. Research shows that traumatic events can severely impact a child's developing brain which puts them at major risk of lifelong health issues and early death.[19]

Most survivors of physical violence or gun violence show resilience. However, there are many who believe their lives or those of their loved ones were in danger or who lack social support, experience ongoing mental health problems, including post-traumatic stress, depression, anxiety and substance abuse. Studies have shown, for example, in the aftermath of a shooting, people typically go through three stages of healing, according to a 2017 research bulletin compiled by the Substance Abuse and Mental Health Services Administration (SAMHSA): the acute phase immediately after the event, the intermediate phase several days to weeks afterward and the long-term phase. In the acute phase—often characterized by denial, shock and disbelief—mental health professionals can best help survivors by providing them with resources and information.[20]

Alameda County is seeking an *alternative method of outreach* to connect with individuals in this acute phase of trauma. A mobile app may serve as the most prudent alternative because of its *immediate availability to anyone*.

Current Assessment of Tools/Apps:

According to Pew Internet, reliance on smartphones for online access is especially common among younger adults, non-whites and lower-income Americans.[21] Between 2013 and 2018, smartphone reliance among younger adults, rose 16%.[22]

- There are no mental health apps for this targeted population.
    - However, the mobile app *Shot Spot* is an app that displays gun violence in one's neighborhood.
- There is an app for bullying called Know Bullying developed by SAMHSA. However the app is designed for parents, caregivers, and educators not youth or TAY.
- Help Kids Cope is an app developed by the National Child Traumatic Stress Network and is again, designed only for parents in talking to their children about different disasters they may have experienced.
- PTSD Coach is an app created by the U.S. Department of Veterans Affairs. It was developed to learn about and manage symptoms that often occur after trauma. However, this app, although possibly useful to youth and TAY, was developed for veterans specifically.
- An app designed for a specific location is AVIATOR (A Victim Information APP to Ohio Resources). This app allows users in southwest Ohio to quickly connect with community resources, justice information, law enforcement, medical services, counselors, and other professional and organizations that can provide support to a victim after a crime.

[19] https://www.kvc.org/blog/exposure-to-violence-changes-a-childs-brain/
[20] https://www.apa.org/monitor/2018/09/survivors.aspx
[21] http://www.pewinternet.org/fact-sheet/mobile/
[22] *Ibid.*

How Proposed Technology App Will Improve the Identified Issue(s): Through technology this project hopes to:

- **Early Intervention** – Early intervention after the trauma has occurred to ***prevent*** further trauma; and
- **Promotion** – promotion of mental health and wellness in youth and TAY.

Although there are ACES curriculum as well as other trauma related curriculums in existence, Alameda believes developing a local technology-based platform would be more useful for TAY who are especially tech savvy and tech connected.

3. Attempted Suicide Survivors –

Identified Problem/Need:

Suicide rates have increased from 1999-2016 and the trend is not halting. The Centers for Disease Control and Prevention data shows suicide is now the 10th leading cause of death in the United States and the 7th leading cause of death for men. According to the California Department of Public Health's County Health Status Profiles 2018, Alameda County averaged 158 suicides per year between the years 2014 – 2016 which is a rate of 9.0 per 100,000. A majority of these deaths were males between the ages of 45-64. Suicide has been in the top 20 for leading causes of death in Alameda County since 2000. It currently ranks 19th.[23]

Current Assessment of Tools/Apps:

Although there are many suicide prevention centers, and hotlines to assist those who are thinking of committing suicide, there is a need for prevention of additional attempts. History of suicide attempt is one of the highest risk factors for suicide. Approximately 40% of those dying by suicide had previously attempted.[24]

- No apps are specifically directed to those who have *attempted* suicide:
    - However, a 15 year old created Anxiety Helper for those thinking about suicide. She has survived 7 suicide attempts and believes this type of technology, and working on this type of technology saved her life.[25]
- There are quite a few apps for anxiety, depression, panic attacks, stress, or suicide prevention/ideation (i.e. Stay Alive, from the UK, is an app that provides suicide prevention resources and tools to help users stay safe during a crisis, a safety plan, customized reasons to live, a "LifeBox" where users can store photos that are important to them, along with a user created own interactive Wellness Plan.)

[23] http://www.acphd.org/media/482811/mofm.pdf
[24] https://www.hsph.harvard.edu/means-matter/means-matter/survival/
[25] https://mashable.com/2017/06/04/amanda-aouthworth-wwdc-profile/#RtkcAwbA0aq0

How Proposed Technology App Will Improve the Identified Issue(s): Through technology this project hopes to:

- **Reduce Isolation –** creating a safe space for suicide survivors to locate resources; treatments; and signs of mental illness.
- **Reduce Stigmatization surrounding suicidal thoughts** – reduce stigmas of disgrace, blame, and possible disfigurements that may have occurred during the attempt.
- **Prevention** – reduce pain, stress, anxiety, and depression; discreet panic attack guidance, and create a toolkit to cope with day to day life including safety plans.

Alameda County has robust suicide prevention programming which includes a long standing crisis line, a teen text line, school and community gatekeeper training, crisis debrief services and counseling services. However, nothing currently is offered for suicide attempters so Alameda is hoping that through the testing of a technology-based strategy it will move the county towards a more comprehensive set of suicide prevention services and supports.

4. Immigrants, Asylees, and Refugees –

Identified Problem/Need: Alameda County is the most diverse county in the Bay Area and the fourth most diverse county in the United States.[26] Its home to over 1.6 million people of varying racial, ethnic, national, cultural, and linguistic backgrounds. Nearly 1 in 3 Alameda County residents (32% or 525,000) is an immigrant.[27]

Immigrants, refugees and asylees come to Alameda County from all over the world (largely from Asia followed by Latin America)[28] Most of these individuals seek a better life for themselves and/or families, including increased safety, freedom, and opportunity. In recent years, increased violence and other pressures in Central America has led to an unprecedented increase in the number of unaccompanied immigrant youth (UIY) coming to the U.S. without a parent or guardian[29]. Alameda County is home to the second highest number of UIY released to sponsors in California (after Los Angeles County).

Immigrants, refugees and asylees often experience multiple, compounding sources of stress and trauma before, during, and after migration to this country. The dire conditions that drive immigrants, refugees and asylees to leave their home countries; dangers they encounter while in transit; difficult processes of acculturation, language barriers, discrimination, and "othering" they can experience; as well as substandard living or working conditions all leave these populations at increased risk of physical and psychological distress.[30]

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[26] Hayes, J. & Hill, L. (2017, March). Undocumented Immigrants in California. Retrieved from http://www.ppic.org/main/publication_show.asp?i=818

[27] http://www.acphd.org/media/470384/immigration.pdf

[28] *Ibid.*

[29] Wolgin, P. E. & Kelley, A. M. (2014, June 18). 5 Things You Need to Know About Unaccompanied Children. Center for American Progress. Retrieved from https://www.americanprogress.org/issues/immigration/news/2014/06/18/92056/5-things-you-need-to-knowabout-the-unaccompanied-minors-crisis/

[30] http://www.acphd.org/media/470384/immigration.pdf

Alameda County also has a very low penetration rate of mental health services for Asian identified Medi-Cal beneficiaries (1.63% compared to 8% African American, 5% Latino and 6.6% Pacific Islander) due to multiple factors including stigma, language barriers and lack of workforce.

The availability of mental health providers in Alameda County is not adequate to cover the over 39 languages and six threshold languages spoken here. For the incoming populations from other countries, there are few or no providers available in their primary language. The lack of linguistically accessible services creates a barrier, and is likely to increase mental health distress for many immigrants, asylees, and refugees with mental health needs.

Current Assessment of Technology Tools/Apps: The Syrian conflict with its startling images prompted an outpouring of humanitarian aid which included mobile apps from the tech sector. The resulting technologies that are helping refugees, and migrating populations in general, reconnect lost relatives, establish a legal identity in new countries, allows them access to Google Translate, Google Maps, WhatsApp, and even Facebook. Smartphones also have GPS which, in case of an emergency, saves lives by providing one's location.[31]

Smartphones have become indispensable for not only refugees, but for immigrants and asylees because of its connectivity value to resources and social media. For many, this metal device has become their whole world as it may be the last connection they have to a loved one.

- There are a handful of apps for refugees.[32] Only one is a mental health app for refugees:
    - ALMHAR is in English, Farsi, and Arabic and is directed to the mental health of refugees who had to flee their homes and/or may be living in exile;
- The only apps for immigrants were for emergency support (i.e. notify family, lawyers, others of ICE raid etc.) not for mental health supports; and
- No mental health apps for those seeking asylum. Apps to assist them about asylum process (the US does have an app for the USCIS) exist or how to navigate their new countries (Netherlands, Germany, Israel to name a few, but not the US).[33]

Through MHSA Prevention and Early Intervention (PEI) funding Alameda has a strong focus on un and underserved populations, but similar to our suicide prevention work there are no technology-based strategies being used. It's the goal with this request for procurement (RFP) process that existing local providers will be able to bid and be awarded a technology grant so as to build onto their existing programs a technology-based strategy that will help support and increase resources to these very vulnerable communities.

[31] https://phys.org/news/2018-05-mobile-refugees.html
[32] https://diary.thesyriacampaign.org/refugee-in-turkey-theres-an-app-for-that/
[33] https://www.theatlantic.com/magazine/archive/2017/05/apps-for-refugees/521466/

How Proposed Technology App Will Improve the Identified Issue(s): Through technology this project hopes to:

- **Reducing Stigma** – creating anonymity/confidentiality; breaking the mental health stigma barriers.
- **Increasing Access** – reduce barriers such as *lack of health insurance* due to lower income, change in laws, or undocumented individuals afraid to obtain available resources for health insurance; *lack of transportation* especially for adults and older adults whose ability to move easily on their own has been comprised or they are afraid of the stigma.
- **Reducing isolation and fear**- creating a safe space for immigrants, refugees, and asylees to learn more about trauma and its effects, mental health wellness, etc.

Alameda believes there other additional benefits to all of these target populations which will be further explored using a participatory evaluation process with the CBO grantees and their clients during the project evaluation phase.

WHAT HAS BEEN DONE ELSEWHERE

There is a state wide program called Innovation Technology Suite Project. It is being administered by CalMHSA on behalf of participating counties. This collaborative of county partners seeks to bring interactive innovative technology tools into the public mental health system through its primary purpose of "increasing access to mental health care and support and to promote early detection of mental health symptoms or even predict the onset of mental illness. Through the utilization of multiform-factor devices, such as smart phones, tablets and laptops, as a mode of connection and treatment to reach people who are likely to go either unserved or underserved by traditional mental health care, project services will focus on prevention, early intervention, family and social support to decrease the need for psychiatric hospital and emergency care service". (See https://calmhsa.org/programs/innovation/) The technology suite also creates new roles for peers within the delivery of engagement and service delivery through the app selection process and launch readiness activities.

The following chart outlines the variances that exist between CalMHSA's Technology Suite and Alameda County's proposed Mental Health Technology Application:

Alameda's Targeted Population	Identified Issues to Resolve	Technology Suite Overlap
Caregivers of SMI and SED Family Members	Outreach Engagement and Education for emotional support	***No populations of caregivers identified in suite.***
Youth/TAY Victims of Trauma by Multiple Forms of Violence	Early intervention after trauma Prevention of further trauma Promote mental health wellness in youth and TAY	Youth/TAY are identified as identified demographics, ***trauma induced by violence is not a topic in the suite.***
Attempted Suicide Survivors	Reduce Isolation and Stigmatization surrounding suicidal thoughts; Prevention	Suicide prevention is identified by Riverside, Santa Barbara and Tehama county as a targeted demographic. ***Alameda's is specifically targeting survivors of suicide attempts.***
Immigrants, Asylees, and Refugees	Reduce Stigma Increase Access Reduce Isolation and Fear	Only Tehama County specifies an immigrant population: migrant workers. ***Alameda is the only county targeting immigrants, asylees, and refugees***.

There are also thousands of apps that are currently on the market for therapy, anxiety and panic, depression, mindfulness, meditation, assessment of mood, PTSD, information on psychology, and the list goes on and on. Refer to https://eecs.wsu.edu/~cook/gt1/hw/luxton.pdf for a partial example list compiled in 2011 which describes what was in existence eight years ago. Since then, thousands more have been placed on the market through the two main platforms of Google Play and Apple iTunes.

ALAMEDA COUNTY'S PROJECT FOCUS

Although in a generalized manner some of Alameda County's innovative approach overlaps with some of the Technology Suite's objectives, Alameda's target populations are groups in which no mobile apps exist or there are very few apps directed to these groups and the Tech Suite projects are not addressing these specific target populations.

Furthermore, the County is interested in several critical activities, including:

- **Usability and Acceptance** – ease of use and efficiency; usability includes anything that prevents task completion, takes someone off course, causes frustration or creates confusion. Poor usability is a primary cause for failed adoption of health technologies[34];

[34] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3926903/pdf/nihms518462.pdf

- **Reducing Stigma** – creating anonymity/confidentiality; break parental barriers for youth and transitional age youth;

- **Increase Access** – reduce barriers such as *lack of health insurance* due to lower income, change in laws, or undocumented individuals afraid to obtain available resources for health insurance; *lack of transportation* especially for adults and older adults whose ability to move easily on their own has been comprised or they are afraid of the stigma and for youth and TAY who may also have no means of transportation;

- **Quality Standards and Safety** – quality control is a significant concern because there is no oversight or standards for behavioral health apps. The County is seeking at the end of the innovative project, recommendations for technology based mental health quality standards and safety; and

- **Data Security and Privacy** – most common threat is from unauthorized access or physical loss of the mobile device and the County is seeking innovative methods to prevent these threats.

The most challenging aspect of these critical aspects is data security and privacy complying with HIPAA (Health Insurance Portability and Accountability Act). However, it is not how to comply with HIPAA, but when the HIPAA Privacy and Security Rules apply.

All grantees will be required to address the following questions in the RFP to assist bid evaluators in deciding whether the bidder understands if their app proposal is subject to HIPAA:

1. Who will use the app?
2. What information will it include?
3. Is there a need for a contract with a covered entity?

The app is subject to HIPAA if there is a covered entity; contains protected health information (PHI); and if the app tracks and downloads PHI. The app does not fall under HIPAA if they're built to collect consumer health information (CHI) that won't be necessarily shared with a covered entity.[35]

Efforts around evaluating these activities will be included in the design of the Request for Proposal (RFP) template that Alameda will develop for the competitive bidding process and will be expected to be included in each agency's bid proposal, e.g. the mobile apps will not be permitted to have texting or email features.

[35] https://www.hitechanswers.net/hipaa-and-mhealth-is-your-app-covered/

LEARNING GOALS/PROJECT AIMS

The primary learning goals of the County's technology based innovative project are to assess the following items at two different levels:

Individual/Client Level Questions

1. Can a mobile app that's tailored to recent trauma victims improve mental, and functional outcomes?
2. Can a mobile app assist in reducing barriers to accessing mental health treatment?
3. Can a mobile app have an effect on a person feeling "less alone"?
4. What virtual strategies contribute most significantly to increasing an individual's capacity/willingness to reach out for in-person support?
5. What is the level of user engagement by target population and understanding the reasons for engagement or lack of it?

CBO/Agency Level

1. What type of difference does it make to develop and implement an app at the local level as compared to adopting a ready-made app off of Google Play and/or Apple iTunes?
2. What changes occur at the CBO level for the awarded CBO in terms of new or different practices/policies, outreach efforts, activities, etc.?
3. How are these new practices/policies being employed as a result of receiving and implementing this Mental Health Technology grant?

OVERALL APPROACH TO EVALUATION

These project aims will be more defined and operationalized as evaluators are hired by each grantee. However, the questions above will set the framework for a multi-level evaluation design.

The evaluators and grantees will need to collect (or utilize existing) baseline data for the target populations in order to show positive change in mental health or functional outcomes. This will most likely be through "active" or explicit data collection as compared to passive data collection where the user's data is inexplicitly gathered without any overt consumer interaction.

A way to gather baseline and ongoing data in an *active* manner could be through the user completing a health quiz or basic assessment when the app is down loaded and then updated on a regular basis through pop-up or notifications to the user. An additional example would be for the user to self-report their MH status using a mood scale that could be used on a regular basis for personal tracking and/or could be shared with the user's friends/family/clinician to track mood/mental health history, similar to other apps used for physical health tracking.

Local community-based organizations that apply to be an INN Tech grantee will need to describe their data collection strategies (passive data collection, surveys, focus groups, key informant interviews, etc.) in their RFP bid.

Once the evaluations are complete, if they're deemed successful, there may be an opportunity for

these local applications to be expanded and linked with the Tech Suite Project for Statewide learning and or continued on a local level through the MHSA Capital Facilities & Technological Needs (CFTN) component.

CONTRACTING

The implementation of this project will be led by ACBH staff. The funding will be distributed to a maximum of eight (8) local non-profit organizations who partner with an app/software developer and are awarded a 24 month grant through a request for proposal (RFP) competitive bidding process.

STAKEHOLDERS & COMMUNITY PROGRAM PLANNING

Community planning process for the MHSA Three Year Plan was conducted from June – October 2017. During that process, ACBH staff provided updates and information on current MHSA programs and community members provided input on mental health needs and services. There were three modes for providing input:

- Five large community forums (one in each Supervisorial District);
- Eighteen focus groups were conducted throughout the County: Chinese speaking family members; African American family members; refugee, LGBTQ community, transitional age youth, Afghan immigrants, older adults, Asian and Pacific Islanders providers and advocates; individuals with developmental and mental illness providers; and Pool of Consumer Champions; and
- Community Input Surveys in all threshold languages: a submission by 50 unique individuals. Fifty percent of respondents were from Oakland, while they make up only 30% of the County's population. Survey respondents included:

    - Mental health consumers – 25%
    - Family members – 17%
    - Community members – 15%
    - Education agency – 2%
    - Community mental health providers – 14%
    - Homeless/housing services – 6%
    - ACBH staff – 1%
    - Faith-based organization – 2%
    - Substance abuse service provider <1%
    - Hospital/provider care 4%
    - Law enforcement – 1%
    - NAMI – 1%
    - Veteran/veteran services – 1%
    - Other community (non-mental health) service providers – 5%
    - Other/decline to state – 9%

Details of the process are provided in the MHSA Three Year Plan www.ACMHSA.org.

Suicide prevention, specifically for youth, was identified as the first priority. Community violence and trauma was identified as the second top priority. For Innovation specifically, there were multiple suggestions to address behavioral issues and trauma. In addition to these themes of community violence/trauma and suicide prevention, community members gave suggestions on how to expand services and/or other comments related to technology and the usage of mobile apps, e.g. a respondent suggested tracking mental health symptoms via a mobile app and creating a connection link to a crisis button on Facebook; and ACBH should offer a therapy mobile app.

There has also been further community input through the public comment process at the County and state level when Alameda's original Mental Health Technology round of their Innovative Grant Program had to be cancelled due to an administrative error in not having this INN round approved first by the MHSOAC, see community input below in the public comment section for details.

The County also recently released a survey regarding mental health technology usage. The survey's responses will be presented under community input and will assist with the design of the County's this INN Technology RFP.

PUBLIC COMMENT

The County's MHSA Plan Update FY 16/17 and the MHSA Three Year Plan Update FY 17/18-19/20 included Mental Health Technology as one of the County's Innovative Grant Projects. Both of these Plans have already gone through public comment periods and have been approved by Alameda's Board of Supervisors. No comments on the Innovative grant round of Mental Health Technology were received. Alameda will include in this section any public comments that are received during the 30 day public comment period for the FY 18/19 Plan Update.

However, it's important to note that when Alameda had to cancel its Mental Health Technology Grant Round in July/August 2018, there was an outpouring of public support for this project including calls and emails to ACBH's MHSA Division Director; public comments presented at the MHSOAC October 2018 Commission Meeting; and letters sent to the MHSOAC. Moreover, as of January 2019 emails and calls continue to come in to the County from local stakeholders requesting information and updates about when this project will be presented to the MHSOAC.
Due to the public's continued interest in this Technology Project the County has decided to seek MHSOAC approval for this project, Mental Health Technology 2.0. This proposal is the redesign of the original project.

Public Comment Information

The 30 day public comment period ran from February 8- March 11, 2019 and the County received one public comment for this proposal, see below.

Public Comment from Mr. Anupam Khandelwal: Thanks for sharing this information. Glad to see things are moving on Mental Health Technology Innovation Project. Really appreciate the County's advocacy around this.

At first glance I feel money allocated for the consultant/ software vendor to develop the app and support it ($90K or so) for 24 months may be little less for building a comprehensive user friendly app. Was wondering is there any opportunity to increase that funding allocation?

ACBH Response: Thank you for your comment Mr. Khandelwal. ACBH has increased the consultant line item in the budget to $110,000 as compared to the initial consultant cost of $90,000. Based on research and budget data from the previous, now voided, RFP on technology, ACBH feels this is a relatively adequate amount for the consultant costs. When the RFP is released the bidders will be able to shift line item costs as they relate to their specific bid, but bids will not be able to exceed $230,000 for the 24 month grant period.

ACBH also has an open survey regarding technology and its use in the mental health field. Data from this survey will be used as part of the Technology RFP. Below are a few of the responses to several of the open-end survey questions:

Q1: In your experience, how can mobile technology improve outreach and engagement with consumers who are isolated, underserved, and/ or inappropriately served?

- Connect un/underserved communities to a provider who are from their culture and speaks their language. A mobile technology can be used both by "consumers", family members, and providers.

- It can improve in many ways. Most importantly those who are suffering from mental health feels isolated. They think they have to face their ordeal alone. Mobile technology can help to alleviate this. Also, it can help in finding support groups, county resources, medication/ appointment reminders, and overall education on mental health. In short, it will empower them to be independent.

- It can give hope in moments when patients feel like giving up.

Q2: Is there anything else you would like to share about how mobile technology can support mental health?

- Mobile access can also support language access and utilize already existing mobile technologies to enhance and support mobile interventions (Ex: auto translate features to translate resources into other languages, artificial intelligence to customize mental health tools, directional mapping to get folks to their MH provider or support, online MH support forums and social connection for those isolated. The list goes on...)

- There are many teens and young adults who are suffering from mental health primarily created by mobile technology. This is here to stay and they can not get out of their addiction to social media. To them, technology can never be wrong and can never be convinced otherwise. Hence, using the same mobile technology to help will be more effective.

- We need to figure a way to make it more personable. Some patients are actually getting mad at the software because it is too logistical and not taking into account human feelings.

MHSA GENERAL STANDARDS

Our Innovations Project reflects and is consistent with all potentially applicable MHSA General Standards set forth in Title 9 California Code of Regulations, Section 3320.

a) Community Collaboration: The County's Mental Health Technology based project will seek to work with organizations serving children, youth, transitional age youth, adults, older adults, and those serving unserved, and underserved populations (Asian Pacific Islanders, Latinos, LGBTQ, and African Americans to name a few) who would benefit from technology based mental health services and supports.

b) Cultural Competency: The support communities, which will be built into the technology based apps, will have the capability to address and engage with youth, adults, and older adults as well as potentially other languages and other cultural nuances.

c) Client-Driven/ Family-Driven: This project will allow not only clients to access technology based mental health support, but also family members of children and adults with mental illness. Consumer's and family members will provide input during the RFP development phase as well as the MH app testing phase in order to assist the County in a comprehensive process and effective mental health tool.

d) Wellness, Recovery, and Resilience-Focused: The County's Mental Health Technology based project tools are designed to provide services that are recovery-oriented. It will promote hope, personal empowerment, respect, social connections, self-responsibility, and self-determination.

e) Integrated Service Experience for Clients and Families: This project focuses on increasing access to mental health resources for isolated, underserved, and unserved communities throughout Alameda County by integrating new technology interventions throughout the existing County mental health system.

CULTURAL COMPETENCE & STAKEHOLDER EVALUATION INVOLVEMENT

This project is open to address the needs associated with multiple age and cultural populations including youth, transitional age youth, adults, and older adults. The project will be further conducted with sensitivity and awareness of the County's diverse population related to age, disabilities, as well as culture, language, ethnic, sexual and gender identities. Additionally, each grantee will engage with their target population to test and provide guidance on what works and doesn't work during the beta phase.

The County seeks to produce relevant and useful evaluation results to increase access to mental health services to unserved, and underserved populations. The evaluation process includes routine contact with members of these diverse populations for feedback. Feedback from clinicians,

consumers, stakeholder focus groups, family members, etc. will all be included into the evaluation of the plan.

Alameda has identified funding within its budget for each grantee to hire an evaluator who will work with their various stakeholder groups to engage and involve consumer and family members in the evaluation process.

SUSTAINABILITY PLAN

The Grantees will provide program evaluation data to determine the success of the program based on the analytics of the technology-based mental health solution. The evaluators will determine the continued need of the application beyond its two year innovative period. All created mobile applications will be uploaded for a free download on both Google Play and Apple iTunes. If the results are favorable and are met with stakeholder support, ACBH will investigate MHSA funds (CFTN) or other available funding to extend and/or expand this unique project.

COMMUNICATION AND DISSEMINATION PLAN

In order to make sure that the results of our Innovations project are communicated to our community, the County will be holding a Mental Health Technology Learning Conference, which will coincide with the launch of the applications. During this conference all awarded grantees will present their applications. Grantees will highlight their applications usability, features and what they hope to learn during the project tenure. ACBH will subsequently post information regarding all of its Innovation projects online for dissemination at Alameda's MHSA website: www.acmhsa.org

TIMELINE & MILESTONES

This timeline is a reasonable estimate of the project's life. It's dependent on multiple external factors such as RFP dates, Board of Supervisor dates etc. which is why Alameda is requesting a 2.5 year project. However, the INN Tech project period will be 24 months (years). Alameda requires the additional six months for start-up time to develop/release the RFP, and set up the grantee contracts.

Timeline	Activities/Milestones	Responsible
FY 18/19		
May 2019	Present MH Technology Project to MHSOAC	ACBH Staff
FY 19/20		
July-November 2019	Release Request for Proposal (RFP) for MH Technology grants. The community–based organizations will need to identify their App developer partner in their RFP Application.	ACBH Staff
December-January 2020	Awarded Grantees are approved by the Alameda County Board of Supervisors and Service Agreements are signed, so as work can begin.	ACBH Staff
February - July 2020	Awarded Grantees design and build their MH application.	Awarded Grantees
FY 20/21		
July-December 2020	Awarded Grantees test and revise their MH application. Evaluators are hired to develop evaluation plans and begin evaluation phase.	Awarded Grantees
January 2021	Public launch of MH applications through an INN conference and hosting of the application begins.	ACBH Staff in collaboration with Awarded Grantees and local MHSA Stakeholder
February-June 2021	MH application is hosted by awarded grantee with "helpdesk" capacity and an internal quality improvement process-which will be aided by the evaluation consultant.	Awarded Grantees
FY 21/22		
July-Sept 2021	MH application continues to be hosted with help desk capacity	Awarded Grantees
Oct 2021	Final Program and Evaluation Reports are completed by each Grantee and delivered to the County.	Awarded Grantees
January 2021	Final Program and Evaluation Reports are completed by each Grantee and delivered to the County.	Awarded Grantees

BUDGET NARRATIVE, BUDGET and SOURCE OF EXPENDITURES

This INN Plan will utilize any remaining AB114 funds that were deemed reverted and returned to the County for use until June 30, 2020. These funds will include funding from FY 10/11 funds as well as non-AB114 funds from FY 16/17 and FY 17/18.

Salaries

FY 19/20:

Alameda County Staff Salary and Benefits (benefits are calculated at 50%)

ACBH MHSA Innovation Coordinator: .25 FTE ($96,616 + 48,308-benefits) x .25 FTE = **$36,231** (Program Specialist classification). This staff will provide ongoing MHSA technical assistance and support so that the project is set up correctly and Innovation Regulations are followed.

ACBH Procurement Staff: 4 months at .33 FTE ($105,040 + $52,520-benefits) x .33 = $51,995/12 = $4,333/mo x 4 mo = **$17,332** (Supervising Program Specialist classification). This staff will work with the INN Coordinator to develop and release the RFP and submit the results to the Board of Supervisors.

CBO Grantee Salary Information
A maximum of eight (8) grantees will be awarded 24 month contracts at a maximum grant amount of $231,000 (total INN amount for grants = $1,840,000). It's estimated that approximately 24% of a $230,000 grant ($55,200) will be allocated to personnel over the 24 month period, including staff benefits at approximately 30%.

Grantee Personnel: Of the grantee personnel funds ($55,200) $11,500 will be used for the first five (5) months of FY 19/20: $55,200/24 months = $2,300/mo x 5 mo = $11,500 x 8 grantees = **$92,000.**

The grantee personnel will engage with the developer in multiple areas including: coordinating the application development process, identifying target population needs, recruiting individuals to test the application, engaging with the evaluation consultant, and other activities in alignment with the implementation, launch and evaluation of the INN Tech grant.

Total FY 19/20: All Salaries and Benefits = $145,562

FY 20/21

ACBH MHSA Innovation Coordinator: .25 FTE ($96,616 + 48,308-benefits) x .25 FTE = **$36,231**

Grantee Personnel: Approximately $55,200, per grantee for 12 months of FY 20/21:
$55,200/24 months = $2,300/mo x 12 mo = $27,600 x 8 grantees = **$220,800**

Total FY 20/21: All Salaries and Benefits = $257,031

FY 21/22

ACBH MHSA Innovation Coordinator: .25 FTE ($96,616 + 48,308-benefits) x .25 FTE = **$36,231**

Grantee Personnel: Approximately $58,050, per grantee for 7 months of FY 21/22:
$55,200/24 months = $2,300/mo x 7 mo = $16,100 x 8 grantees = **$128,800**

Total FY 20/21: All Salaries and Benefits = $ 165,031

TOTAL Personnel Costs by FY:

Total FY 19/20: All Salaries and Benefits = $145,562
Total FY 20/21: All Salaries and Benefits = $257,031
Total FY 20/21: All Salaries and Benefits = $165,031

OVERALL TOTAL Personnel Costs: $567,624

Operating Costs

Operating costs will vary widely by grantee, however Alameda County will use its standard County budgeting process where the total personnel costs are multiplied by 30% to closely estimate the operating costs of a new program.

Once the project is up and running the operating costs may be adjusted, but funds will not exceed the budgeted request that the MHSOAC approves. Operational costs will include, but not limited to: rent, utilities, communications/phone service, stipends for application testers, and community outreach about the application, technology maintenance, printing material, postage, insurance, travel and transportation/mileage, accounting/payroll.

FY 19/20: Total CBO personnel costs = $ 92,000 x 30% = **$27,600** (5 months)
FY 20/21: Total CBO personnel costs = $220,800 x 30% = **$66,240** (12 months)
FY 21/22: Total CBO personnel costs = $128,800 x 30**%** = **$38,640** (7 months)

TOTAL Operating Costs (not including 15% indirect costs): $132,480

Consultants/Contractors

This project will entail contracting with multiple consultants including a software development agency or developer (application design/build/test/launch/support), an evaluation agency or evaluator, and any other consultants the grantee may need such as a graphic designer, etc.

Consultation costs (excluding the evaluation) will initially be budgeted at a total of $110,000 per grantee for a total amount of $880,000 over 24 months at $36,667/mo.

FY 19/20: 5 months at $36,667/mo (for 8 grantees) = **$183,333**
FY 20/21: 12 months at $36,667/mo (for 8 grantees) = **$440,000**
FY 21/22: 7 months at $36,667/mo (for 8 grantees) = **$256,667**

It should be noted that once the project starts the consultant costs may be adjusted, but funds will not exceed the budgeted request that the MHSOAC approves.

The evaluation costs will be budgeted at $35,000 per grantee for a total of **$280,000** ($35,000 x 8 grantees).

Total Consultant costs (including evaluator costs) per FY:

FY 19/20: 5 months at $183,333 + $58,333= **$241,666**
FY 20/21: 12 months at $440,000 + $140,000= **$580,000**
FY 21/22: 7 months at $256,667 + 81,666= **$338,333**

TOTAL Consultant Costs = $1,160,000

Other Expenditures:

As part of this project Alameda will host an INN Technology Learning Conference to launch and showcase each of the mental health applications. This will be a half day event where communities can come together and engage in a dialog about the new applications, i.e. how they work, what's their purpose, where does any collected data go, etc. Alameda has hosted these types of learning conferences for their past INN grant rounds and they have always been very successful in terms of community engagement and participation.

TOTAL Cost: $75,000

Indirect

15% for county administration of the project. Applies to Personnel, Operating and Contract expenditures to provide Human Resources, Accounting, Budgeting, Information Technology, Business Services Office, and Legal management of staff and contract positions; rent, utilities, insurance; and other expenses necessary to administer the project.

TOTAL Indirect Costs = $105,016

B. New Innovative Project Budget By FISCAL YEAR (FY)*					
EXPENDITURES					
PERSONNEL COSTS (salaries, wages, benefits)		**FY 2019-20**	**FY 2020-21**	**FY 2021-22**	**Total**
1	Salaries	$ 145,562	$ 257,031	$ 165,031	**$ 567,624**
2	Direct Costs				**$ -**
3	Indirect Costs	$ 21,834	$ 38,555	$ 24,755	**$ 85,144**
4	Total Personnel Costs	**$ 167,396**	**$ 295,586**	**$ 189,786**	**$ 652,768**
OPERATING COSTS					**Total**
5	Direct Costs	$ 27,600	$ 66,240	$ 38,640	**$ 132,480**
6	Indirect Costs	$ 4,140	$ 9,936	$ 5,796	**$ 19,872**
7	Total Operating Costs	**$ 31,740**	**$ 76,176**	**$ 44,436**	**$ 152,352**
NON RECURRING COSTS (equipment, technology)					**Total**
8					**$ -**
9					**$ -**
10	Total Non-recurring costs				**$ -**
CONSULTANT COSTS/CONTRACTS (clinical, training, facilitator, evaluation)					**Total**
11	Direct Costs	$ 241,667	$ 580,000	$ 338,333	**$ 1,160,000**
12	Indirect Costs				
13	Total Consultant Costs	**$ 241,667**	**$ 580,000**	**$ 338,333**	**$ 1,160,000**
OTHER EXPENDITURES (please explain in budget narrative)					**Total**
14	INN Technology Conference		**$75,000**		**$ 75,000**
15					**$ -**
16	Total Other expenditures				**$ -**
BUDGET TOTALS					
Personnel (line 1)		**$ 145,562**	**$ 257,031**	**$ 165,031**	**$ 567,624**
Direct Costs (add lines 2, 5 and 11 from above)		**$ 269,267**	**$ 646,240**	**$ 376,973**	**$ 1,292,480**
Indirect Costs (add lines 3, 6 and 12 from above)		**$ 25,974**	**$ 48,491**	**$ 30,551**	**$ 105,016**
Non-recurring costs (line 10)		**$ -**	**$ -**		**$ -**
Other Expenditures (line 16)		**$ -**	**$ -**		**$ -**
TOTAL INNOVATION BUDGET		**$ 440,803**	**$ 1,026,762**	**$ 572,555**	**$ 2,040,120**