



ACCESSIBLE DEPRESSION AND ANXIETY PERIPARTUM TREATMENT (ADAPT) INNOVATIONS-18

Final Report

COUNTY OF SAN DIEGO HEALTH AND HUMAN SERVICES AGENCY
BEHAVIORAL HEALTH SERVICES

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UC San Diego

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Introduction

The County of San Diego Health and Human Services Agency (HHSA), Behavioral Health Services (BHS) Accessible Depression and Anxiety Peripartum Treatment (ADAPT) program was funded through the Innovations (INN) component of the Mental Health Services Act (MHSA). The ADAPT program started providing services during fiscal year (FY) 2019-20 and was designed to address unmet treatment needs, improve access to treatment and reduce the negative health outcomes of perinatal mood and anxiety disorders with a focus on women and families from underserved communities. A key component of the ADAPT program was the collaboration with HHSA Nurse Family Partnership (NFP) and Maternal Child Health (MCH) Home Visiting programs, with the goal of providing mental health services to Public Health Nursing (PHN) participants. ADAPT provides therapeutic treatment, peer support and advocacy, resource linkage and navigation to community resources and support for the entire family. Due to the COVID-19 pandemic, in FY 2019-20, the ADAPT program transitioned from providing services primarily in-home and in-person to services via telephone and then ultimately to telehealth. The program has since re-introduced in-person services and continued to provide telehealth with reduced reliance on telephone-based services. ADAPT also substantially expanded their referral partners during FY 2021-22 to accept eligible referrals of persons experiencing peripartum depression and anxiety from anywhere in San Diego County.

Program Description

ADAPT program services are provided by behavioral health clinicians and peer support staff from Vista Hill Foundation, a community-based nonprofit organization. Based on the positive results achieved by the ADAPT program during the INN-funded pilot project phase, BHS determined that ADAPT services should be integrated into the overall BHS system of care with the specialized peripartum services to continue past the end of the INN-funded services on 12/31/2023.

ADAPT was originally designed to provide mental health services to participants of HHSA public health NFP and MCH home visiting programs who have, or are at risk of, perinatal mood or anxiety disorders. The NFP is a voluntary program that provides in-home nurse visitation services to qualifying first-time mothers from the 28th week of pregnancy through the child’s second birthday. NFP is free of cost, which is important as many of the mothers are low income. Through NFP, PHNs provide support, education and

counseling on health, behavioral, and self-sufficiency issues. MCH is also a free, voluntary prevention program that provides in-home nurse visitation to at-risk, pregnant, and postpartum women, and their children from birth to 5 years old. Similar to NFP, PHNs in the MCH program provide support, health and parenting education, and address bonding issues, medical, and mental health risks.

The ADAPT program was developed to address the high prevalence of unmet treatment needs for perinatal anxiety and depression among the women served by the MCH and NFP programs to prevent the negative consequences related to perinatal mood disorders including challenges to the family unit, difficult infant temperament, emotional and cognitive delays in children, and suicidal ideation. Depressive disorders, the most common peripartum complication, affect approximately 20-30% of pregnant and postpartum women with debilitating effects on the mother, her child, family, and society (Curry et al., 2019). Recent Center for Disease Control Maternity Mortality data demonstrated that mental health conditions were the leading cause of pregnancy-related deaths (22.7% of all maternal deaths), nearly twice that of the next most common causes, postpartum hemorrhage and cardiac disease (Trost et al., 2022). United States rates of maternal morbidity and mortality are increasing, with depressive disorders playing a major contributing role, especially in underserved populations (Delker et al., 2023; Wisner et al., 2024).

ADAPT provides therapeutic treatment, peer support and advocacy, family support, linkages and navigation to community resources, and other therapeutic interventions such as skill-building education, group skill-building, and case management. Services are evidence-informed and include care coordination and case consultation. While ADAPT was designed to primarily provide services in-home, the COVID-19 pandemic demanded flexibility. This turned out to be a valuable component of ADAPT that remains today: services are now provided in-home, via telehealth or via telephone when necessary.

From the beginning, a key innovative component of the ADAPT program was the close partnership between ADAPT mental health clinicians, PHNs, and the certified peer support partners. During FY 2021-22, this network expanded and ADAPT began accepting eligible referrals (i.e., on Medi-Cal/able to qualify for Medi-Cal) from anywhere in San Diego County.

The ADAPT program was designed to provide two tiers of services:

- **Level 1** participants met criteria for Title IX specialty mental health services and peripartum criteria, evidenced by significant functional impairments including, but not limited to, clinically significant depression and/or anxiety. The participants in Level 1 received ongoing therapy as well as other supportive services.
- **Level 2** participants did not meet full criteria for specialty mental health services and presented with less acute symptoms. However, they demonstrated impairments in functioning as well as risk of perinatal mood disorders and anxiety based on assessment of biological, psychological, and social factors.
 - Level 2 also included participants who met BHS eligibility for Level 1 services but were receiving services from another mental health provider or were not interested in receiving mental health services at the time of initial assessment.

- Since ADAPT attempted to enhance the role of fathers/partners in therapeutic interventions as a way to reduce symptoms of maternal and paternal mental health disorders, Level 2 could also include family members of Level 1 participants.

Impact of COVID-19 Pandemic on the ADAPT Program

The COVID-19 pandemic first affected the San Diego region in a substantial manner during March 2020. The County of San Diego issued a public health order effective 3/13/2020, limiting the size of public gatherings to less than 250 persons and restricting access to hospitals and long-term care facilities serving seniors. This was followed by a statewide public health order on 3/19/2020 that required all non-essential workers to stay at home. During this time period, County BHS programs, including ADAPT, had to quickly adjust to the new service delivery environment to protect both participants and staff safety while continuing to provide mental health services.

Referrals

The onset of the pandemic disrupted efforts at outreach and development of referral networks. Further, PHNs gained additional COVID-19-related responsibilities which limited their availability and consequently, the number of referrals to ADAPT. As a result, enrollment totals were lower than expected (see Table 1, page 9). In response, to reach more individuals and families in need of ADAPT services, the County approved an expansion of the program's referral base to include other community organizations serving peripartum populations (discussed in more detail below).

Service Delivery

During the public health emergency, the ADAPT program suspended the practice of providing in-home assessments and clinical sessions and transitioned to providing these services via telephone or telehealth where available. This created organizational challenges and strain for both the potential referral partners and for ADAPT staff as everyone adjusted to the new service delivery environment. However, ADAPT managed this transition while minimizing disruptions to services to maintain continuity of care. Additionally, to support their PHN partners, the ADAPT team conducted wellness check-ins with PHN participants who were experiencing extra stress during the challenging times even if they were not ADAPT participants.

ADAPT services initially transitioned to telephone, but then throughout FY 2020-21 most service contacts were shifted again to be completed via telehealth so that ADAPT participants and service providers could see each other. As conditions allowed, ADAPT reinstated efforts to meet in person when desired by the participant, with these visits typically occurring in outdoor settings conveniently accessible to the participant. Most COVID-19-related County official public health orders were ended as of June 15, 2021, however, some service provider agency protocols to promote safety continued. For many BHS programs, responding to and navigating changes brought about by COVID-19 substantially impacted how services were provided.

An unanticipated impact of the pandemic was the transformative change in attitudes regarding the provision of mental health care via telehealth. Throughout the pandemic, the collective learning experience led to a normative shift resulting in a more favorable perception of telehealth for behavioral health treatment by both clinicians and participants. For ADAPT, even when participants were again able

to choose to receive in-person visits, the majority of services continued to be provided via telehealth, with in-person visits provided based on participant preferences or clinical determinations.

Assessment of Primary Program Objectives

The main goals of the ADAPT project included the following:

1. *To learn if collaboration with the PHN Home Visiting programs is effective in engaging mothers and fathers in treatment for postpartum depression and anxiety.*

Despite some challenges, particularly those brought about by the COVID-19 pandemic, the results from the Innovations-funded phase of the ADAPT program indicated that collaboration with PHNs was an effective approach for 1) identifying mothers experiencing peripartum depression and anxiety throughout San Diego County and 2) connecting them to specialized treatment services provided by the ADAPT program. Partner PHN programs referred 772 individuals to ADAPT, resulting in 330 enrollees (78.6% of all ADAPT enrollees).

Notably, the number of PHN referrals and resulting ADAPT enrollees likely would have been substantially higher without the occurrence of the COVID-19 pandemic. The onset of the pandemic greatly influenced collaboration and coordination of the ADAPT program with PHNs. Further, it critically impacted program operations in the first year when inter-organizational relationships, outreach, educational processes, and referral protocols were still being established and refined. In the first months of the pandemic, safety precautions eliminated the ability to provide services in-person (notably, the primary method for delivering ADAPT services) or hold in-person meetings and trainings with PHNs. Further, the PHN workload and the type of interactions they could have with their participants changed significantly, with much of their attention directed toward addressing COVID-19-related community service needs. The immediate impact for ADAPT was a precipitous reduction in new referrals from PHNs to ADAPT and a substantial disruption to the efforts to fully integrate and coordinate ADAPT within PHN operations. For more information, see the “Impact of COVID-19 Pandemic on the ADAPT Program” section of this report.

With reduced referrals from PHNs due to COVID-19, the ADAPT program was approved by BHS to receive referrals from other relevant service providers throughout the San Diego County such as the Sharp Mary Birch Hospital for Women and Newborns and Best Start Birthing Center. These non-PHN sources resulted in 228 referrals and 90 ADAPT enrollees.

Feedback from both PHN and non-PHN referral partners suggested that the availability of a specialized program like ADAPT was viewed very positively and as an overall improvement in the local system of care available for women experiencing peripartum depression and anxiety. In general, ADAPT was perceived as providing an opportunity to get persons who were identified as having peripartum depression and/or anxiety concerns quickly into care that was tailored to their unique circumstances and needs.

2. *To identify how to best equip the PHNs in effectively connecting both parents/partners to services related to postpartum depression and anxiety.*

ADAPT staff reported that periodic face-to-face interactions with PHNs best facilitated the referral stream and coordination of activities; however, the COVID-19 pandemic and related safety practices

substantially limited or prevented these types of interactions. There were ongoing efforts by PHNs, PHN supervisors, and the ADAPT staff focused on increasing e-mail communication, establishing regularly scheduled virtual meetings, hosting periodic virtual “round-tables” to answer PHN questions, and continued education about ADAPT eligibility criteria to minimize ineligible referrals. These efforts helped to support effective collaboration between PHNs and the ADAPT program. ADAPT was also available for case consultation as needed to allow PHNs the opportunity to discuss whether certain participants were appropriate to refer, and/or to strategize about engagement and care coordination activities for individuals receiving services simultaneously from both programs.

An unavoidable challenge was the differing eligibility criteria between the respective programs with the more limited eligibility for ADAPT (i.e., Medi-Cal enrolled, Medi-Cal eligible, or below 200% of the federal poverty level). Because of the eligibility criteria differences, many individuals identified by PHNs as in need of services for peripartum mental health did not receive ADAPT services. A total of 71 PHN referrals were deemed ineligible for ADAPT, and other individuals who would benefit from peripartum mental health services were not referred by PHN because of Medi-Cal ineligibility.

3. *To learn if embedded behavioral health staff can provide effective, short-term treatment services that meet the needs of identified mothers and fathers/partners.*

Overall, the results from the Innovations-funded phase of the ADAPT program provided evidence of the effectiveness of a specialized program tailored to the unique needs of women experiencing peripartum depression and anxiety. As discussed in more detail in Goal #5 below, there were very few fathers/partners enrolled in ADAPT (i.e., less than 10), so the following discussion of effectiveness will only focus on outcomes and feedback from the mothers.

The Edinburgh Postnatal Depression Scale (EPDS; validated for both pregnancy- and post-natal depression) was the primary outcome tool used to assess for the presence of peripartum depression and anxiety. This tool was administered upon enrollment as well as monthly for the duration of enrollment, to assess for reductions in depressive symptoms or identify persistent depression. A total of 312 ADAPT participants completed a baseline EPDS and at least one follow-up EPDS. The average baseline score was 13.4, which research suggests is at the borderline between “mild” and “moderate” depression. At the conclusion of ADAPT services, the average EPDS score reduced to 8.3 (a 5.1-point reduction), which is considered close to the boundary between “no depression” and “mild depression”. These results suggest that women typically experienced a reduction in their depressive symptoms after enrolling in ADAPT with 42.6% demonstrating a treatment response of at least a 50% reduction from their baseline EPDS score. Additional analyses indicated that therapeutic benefits may occur relatively quickly for at least some women with the average EPDS scores decreasing from 13.4 to 10.9 (a 2.5-point reduction) within 30 days of enrolling in ADAPT.

Additional assessments by ADAPT clinicians identified meaningful improvements related to reductions in symptom distress, increased coping skills and knowledge about managing mental health, progress towards achieving personal goals, as well as an overall decrease in functional impairment due to peripartum depression and anxiety.

Both quantitative and qualitative feedback from ADAPT participants indicated high levels of perceived satisfaction with ADAPT services. In addition to reduced depression and anxiety, participants noted a wide range of benefits associated with their participation in ADAPT services including improvements

in sleep, satisfaction with social relationships, ability to manage daily roles and activities, and increased skills to help manage potential relationship stress. ADAPT participants also benefited from the direct support provided by ADAPT (e.g., diapers, clothing, and baby care items) as well as from the extensive referral network of community providers facilitated by the ADAPT team (e.g., housing, financial, educational and/or legal assistance).

4. *To identify barriers in parent and partner willingness to access treatment.*

With many potential barriers to treatment, engagement and retention efforts were necessary areas of emphasis throughout the Innovations-funded phase of the ADAPT program. Approximately 15% of referrals (13.2%) to ADAPT declined to enroll in services even after determined to be eligible. Additionally, 20% of those who enrolled in ADAPT were in services for less than 45 days, with many exiting the program prior to fully achieving program objectives. Feedback from ADAPT staff highlighted the fact that while ADAPT services were generally positively regarded, participants often experienced a range of substantial financial-, health-, legal-, relationship- and/or housing-related pressures and challenges that inhibited their engagement. With many responsibilities and time pressures, taking time to care for oneself by engaging in treatment may not be feasible or a priority. For some, stigma associated with participating in mental health treatment services was likely a contributing factor toward not engaging in treatment.

ADAPT team members worked to address these barriers by offering assistance with non-mental health-related needs either directly or through referrals to other community resources. ADAPT team members provided education in an attempt to “normalize” the experience of peripartum depression and anxiety, and emphasize how treatment can lead to improved well-being and ability to care for their child. From the start, ADAPT was designed to reduce logistical barriers to treatment such as transportation, time, and childcare. While the in-home approach was initially disrupted by the COVID-19 pandemic, the ADAPT program quickly shifted towards the provision of telephone and telehealth services to maintain convenient and accessible treatment services. By the conclusion of the Innovations-funded phase of the ADAPT program, ADAPT had shifted into a “hybrid” mode of in-person and telehealth-based service delivery, with the specific mix largely determined by the preference of the individual receiving services.

5. *To learn if fathers and partners are willing to participate in engagement efforts and to better understand the characteristics of paternal symptomatology.*

One goal of the ADAPT program was to enroll family members, particularly fathers and partners, into treatment services if mental health needs existed. The effort led to the development of Level 1 and Level 2 services to offer a range of engagement options to meet the needs of fathers/partners and other relevant family members. The ADAPT team made efforts to involve family members; however, this aspect of the ADAPT program did not develop as expected. The main reasons included:

- Fathers/partners or other family members can be a source of conflict
- Other family members may not be interested or willing to participate
- Participants may not be interested in including others because therapy is a rare opportunity to dedicate time to their own personal needs and concerns

There were very few male partners who enrolled in ADAPT services (i.e., less than 10) and while family therapy was offered, it represented only 1.1% of all therapy visits provided by the ADAPT team. One potential barrier to engaging more men in services could be the lack of male therapists; however, having very few men involved made it difficult to justify adding male therapists to the treatment team. Overall, the original objective of engaging fathers/partners directly into ADAPT services, for their own treatment and/or in support of the treatment for the mothers, was not achieved. Given these experiences, while offering family therapy remains an option to involve interested fathers/partners or other family members in the ongoing ADAPT program, the Level 2 component of the program was discontinued at the conclusion of the Innovations-funded phase of ADAPT.

6. *To evaluate the effectiveness of culturally competent referrals and the outcomes of engagement and efficacy of culturally appropriate referrals.*

The ADAPT program served a racially and ethnically diverse population. Two-thirds of enrollees identified as Hispanic (i.e., 66.2%), which is a substantially larger proportion than found among the population living in San Diego County (35%) or in the overall Adult and Older Adult (AOA) BHS service system (approximately 30%). This high proportion suggests the ADAPT program successfully utilized culturally competent strategies to engage with Hispanic populations such as having a diverse staff of therapists and peer partners that reflected the range of communities served. Similarly, 21% of ADAPT enrollees indicated Spanish as their preferred language, which substantially exceeds the 6% of Spanish-speaking participants among overall BHS AOA populations served.

The EPDS was the primary outcome measure for this evaluation. Average baseline EPDS scores for both White and Hispanic participants was 13.3, but by their last available follow-up, the score for Hispanic participants decreased 5.7 points to an average of 7.6 while scores for non-Hispanic White participants decreased 2.9 points to an average of 10.4. This suggests that peripartum depression and anxiety symptoms reduced more substantially for Hispanic participants. In a similar manner, a higher percentage of Hispanic participants (47.1%) demonstrated a treatment response of at least a 50% reduction in EPDS scores when compared to non-Hispanic White participants (26.7%). Of note, within the Hispanic population, there was no meaningful differences in EPDS score improvements or responsiveness to treatment between those who preferred to speak English compared to those who preferred to speak Spanish. Additionally, while there were relatively few participants who indicated their race as non-Hispanic, African American only (n=34), their EPDS scores and response rates were similar to that of Hispanics and in general (i.e., exhibited more improvement than non-Hispanic Whites). These results demonstrated that a behavioral health program can successfully create and implement strategies to effectively engage with and treat priority racial and ethnic populations that have been historically underserved.

7. *To learn what percentage are linked to existing resources and identify system gaps, if any.*

In addition to the therapy, education, and emotional support provided by ADAPT team members, the program attempted to address other needs of the mothers and their families either directly or through connections to other community resources. A total of 257 participants (61.2% of all ADAPT enrollees) had at least one referral for additional services recorded in the Linkage Tracker system. The most common referrals were for additional mental health-related services followed by referrals in the topical domains of social health (e.g., support groups, parenting classes, etc.), basic needs (e.g., food, clothing, etc.), and financial/legal assistance (e.g., legal counsel, food stamps, etc.). At least 85 ADAPT

enrollees (20.2%) successfully received one or more community benefits facilitated by ADAPT. Feedback from ADAPT staff highlighted the importance of linking families to needed resources to both: 1) improve family well-being, and 2) assist with participant retention and engagement by removing stressors and providing further opportunities to collaborate with the families to obtain these additional tangible benefits. Even for referrals who were ineligible for ADAPT services, ADAPT implemented a “no wrong door” policy and attempted to facilitate connections to an appropriate service provider.

However, staff reported challenges in keeping up-to-date on a rapidly evolving system of care in the community. Identifiable services and resources were limited, particularly related to housing and childcare. Additional barriers to moving participants from “referral” to “successfully connected” included eligibility requirements and waitlists at other organizations as well as hesitancy on the part of participants to initiate connections to another new organization, even with the support of the ADAPT team member.

Future Directions

The experiences and successes of the ADAPT program during the Innovations-funded phase led BHS to incorporate a modified version of ADAPT into the overall BHS System of Care as an ongoing service program. Following the conclusion of a competitive procurement process in which organizations throughout San Diego County could submit proposals offering to provide ongoing ADAPT program services, the contract was awarded to Vista Hill, the same organization and service provider team who operated the ADAPT program during the Innovations-funded phase.

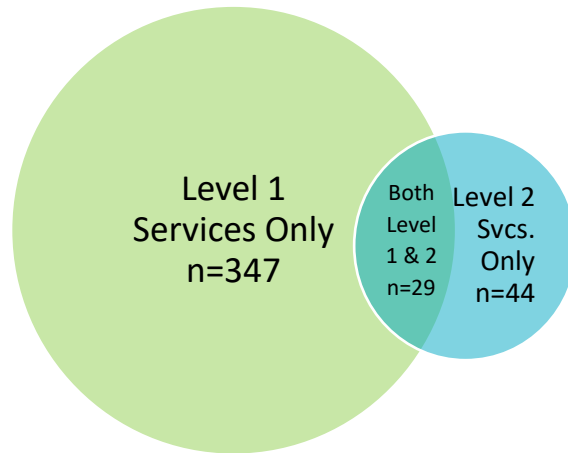
Level 1 services will continue but with modified enrollment targets. The enrollment goal of 200 per year in the Innovations-funded phase was not achieved, due in large part to the onset of the COVID-19 pandemic and the impacted ability of ADAPT to get fully established and connected with PHN program partners. Even after the pressures of the pandemic lessened, Level 1 enrollment increased but remained around 100 per year. As such, the enrollment goal of the next phase of ADAPT will be 100 participants per year.

Level 2 services, delivered primarily by peers and focused on education, skill building, emotional support, and connections to resources for those who were not interested in or demonstrated medical necessity for therapy but could still benefit from general support, was eliminated from future services. Enrollment into Level 2 was not as high as expected, with very few family members participating in such care. The limited demand for Level 2 services and the emphasis on long-term sustainability through billable services contributed to the decision to end this aspect of the original ADAPT program.

ADAPT Enrollment and Referrals

A total of 420 unduplicated participants enrolled in the ADAPT program during the Innovations-funded phase. As shown in Figure 1, 347 unduplicated individuals only participated in Level 1 services and 44 participants only utilized Level 2 services. There were 29 individuals who utilized both Level 1 and 2 services during their time with ADAPT with transitions occurring in both directions (i.e., participants who initially enrolled into Level 1 services but moved to Level 2 as symptoms improved, or participants who began with Level 2 services, but later exhibited a need for the more intensive Level 1 care) (see Figure 1).

Figure 1. Unduplicated Level 1 and Level 2 ADAPT Service Utilization



A total of 376 unduplicated individuals enrolled into ADAPT Level 1 services during the MHSIA Innovations-funded phase of the program. Table 1 lists the number of unduplicated ADAPT enrollees in each fiscal year. Please note that those who enrolled in Level 1 services in multiple years are listed only in the first year that they received those services. The impact of the COVID-19 pandemic on ADAPT enrollment was particularly evident in FY 2020-21 when only 48 participants enrolled; however, the pandemic likely reduced enrollment across other years as well as it diverted public health nursing time, energy and resources.

Table 1. ADAPT Program “First Time” Enrollment by Year for Level 1 Services

| Fiscal Year | n | % of Total |
|---|------------|------------|
| FY 2019-20 | 82 | 21.8 |
| FY 2020-21 | 48 | 12.8 |
| FY 2021-22 | 95 | 25.3 |
| FY 2022-23 | 101 | 26.8 |
| Partial FY 2023-2024 (i.e., 7/1/2023 to 12/31/2023, the end of Innovations funding) | 50 | 13.3 |
| Total unique ADAPT enrollees | 376 | 100 |

As shown in Table 2, the ADAPT program received almost 1,000 referrals from a range of community partners, with the majority (77.0%; n=762) originating from the two PHN programs. In FY 2021-22, the ADAPT program received approval to accept referrals from outside the PHN programs. At that time, ADAPT engaged in community outreach and education activities to develop additional referral partners within San Diego County. Sharp Mary Birch Hospital for Women and Newborns was the primary non-PHN referral source, followed by Best Start Birthing Center. As awareness of the ADAPT program increased, ADAPT even received a few “self” referrals where individuals contacted the program directly. It is expected that the network of community referrals will continue to expand with the ongoing ADAPT

program. The primary reasons for not enrolling in ADAPT included inability to initiate contact (n=139; 14.0% of all referrals), declined services (n=131; 13.2% of all referrals), lost contact after initial connection (n=101; 10.2% of all referrals), and ineligibility due to insurance restrictions (n=71; 7.3% of all referrals).

Table 2. ADAPT Referrals and Enrollment by Referral Source

| Fiscal Year | Referrals | | Enrolled | |
|--|------------|------------|------------|------------|
| | n | % | n | % |
| Public Health Nursing – Maternal Child Health | 506 | 51.1 | 204 | 48.6 |
| Public Health Nursing – Nurse Family Partnership | 256 | 25.9 | 126 | 30.0 |
| Sharp Mary Birch Hospital for Women and Newborns | 94 | 9.5 | 37 | 8.8 |
| Best Start Birthing Center | 53 | 5.4 | 16 | 3.8 |
| Rady Children’s Hospital | 20 | 2.0 | 8 | 1.9 |
| SIDS | 12 | 1.2 | 6 | 1.4 |
| Self | 7 | 0.7 | 5 | 1.2 |
| Other | 42 | 4.2 | 18 | 4.3 |
| Totals | 990 | 100 | 420 | 100 |

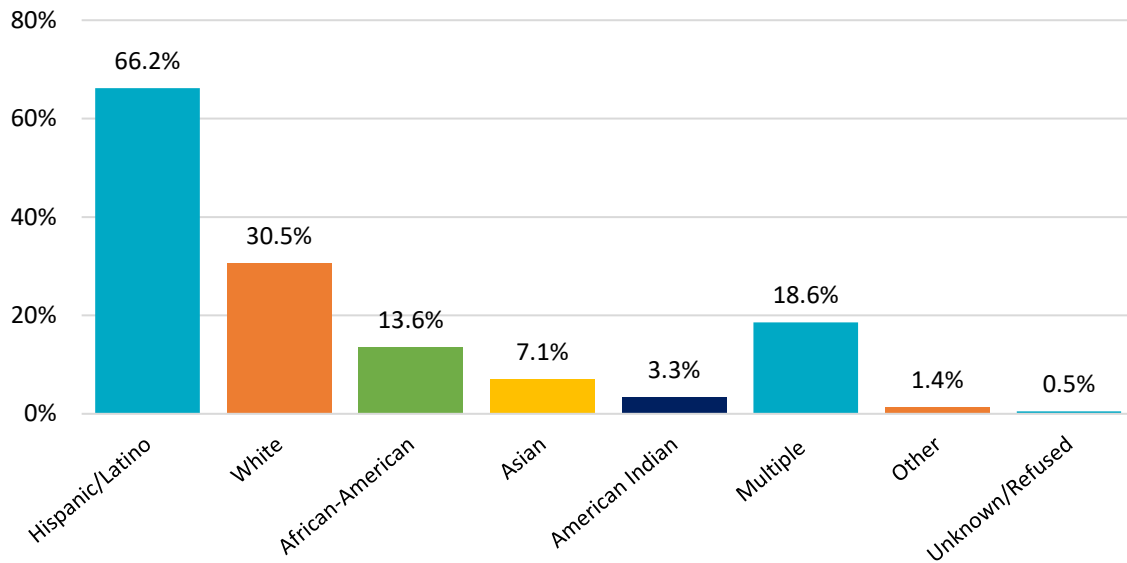
Participant Characteristics

A brief overview of the characteristics of the 420 unduplicated participants who enrolled in the ADAPT program (i.e., Level 1 + Level 2) during the Innovations-funded phase is presented here, with a more complete listing in the appendix.

Across both service levels, 97.6% of participants identified as female (n=410). Most participants (80.7%, n=339) were postpartum when they enrolled in the ADAPT program, while 19.3% (n=81) were still pregnant. The majority indicated English was their primary language (74.5%; n=313), while 20.7% (n=87) selected Spanish and were served by Spanish-speaking ADAPT staff. Most participants (89.3%; n=375) identified as heterosexual or straight. While the majority of ADAPT participants were aged 26 or older (62.9%; n=264), 37.1% were Transitional Age Youth (TAY) aged 18-25 (n=156). As shown in Figure 2, the ADAPT program served a racially and ethnically diverse population with the majority of ADAPT participants identifying as Hispanic/Latino (66.2%; n=278).

ADAPT participants completed the Adverse Childhood Experiences (ACE) questionnaire at program intake. The ACE seeks to quantify a participant's exposure to specific types of childhood trauma. Scores range from 0 to 10, with higher values signifying a higher number of traumatic experiences. A score of 4 or more is considered to be a risk factor for experiencing health and mental health problems as an adult. The average ACE score among ADAPT participants was 4.4, with close to half (47.2%) having an ACE score of 4.0 or greater, indicating that many of the participants served by ADAPT have experienced substantial levels of childhood trauma that may be affecting their current well-being.

Figure 2. Race/Ethnicity of ADAPT Participants (N=420)



Note: Total may exceed 100% since more than one race/ethnicity could be selected.

Utilization of Program Services

As shown in Table 3, the proportion of pregnant and postpartum participants was similar for Level 1 and Level 2 services.

Table 3. ADAPT Level Utilization by Pregnancy Status

| Pregnancy Status | Level 1 | | Level 2 | |
|------------------|------------|------------|-----------|------------|
| | n | % | n | % |
| Pregnant | 74 | 19.7 | 14 | 19.2 |
| Postpartum | 302 | 80.3 | 59 | 80.8 |
| Total | 376 | 100 | 73 | 100 |

Level 1 Services

Based on data from the BHS electronic health record system, Table 4 describes the number and type of services provided during an average 30-day period by licensed and license-eligible ADAPT clinicians during the life of the program.

For each 30-day period in ADAPT, participants received an average of 4.4 services with therapy representing half (2.2 services per month). While individual, group, and family therapy services were offered by ADAPT, almost all (98.7%; n=3,612 contacts) sessions were individual therapy. Generally, psychotherapy is recommended as the first-line approach for perinatal women with a depression episode (O'Connor et al, 2016). Mothers generally prefer psychotherapy due to concerns about the effects of medication on their infants (Dennis & Chung-Lee, 2006). A 2023 meta-analysis supported psychotherapy

as an effective treatment for peripartum depression, with effects that last at least 6–12 months (Cuijpers et al., 2023). Feedback from the ADAPT team indicated that female participants strongly preferred individual therapy, in large part because the women felt they had few opportunities to get focused attention on their needs and concerns.

Additional services were provided as needed including regular assessments, case management, and peer-provided rehabilitation support. Of note, ADAPT team members were available to respond to crisis events, but did so only on ten occasions during the life of the program. The rarity of such events suggests that the ADAPT team was generally able to provide support and services that prevented the need for crisis care for almost all participants, highlighting the importance of having a program like ADAPT connected with these persons to address potentially serious situations.

Table 4. ADAPT Level 1 Services during Life of Program

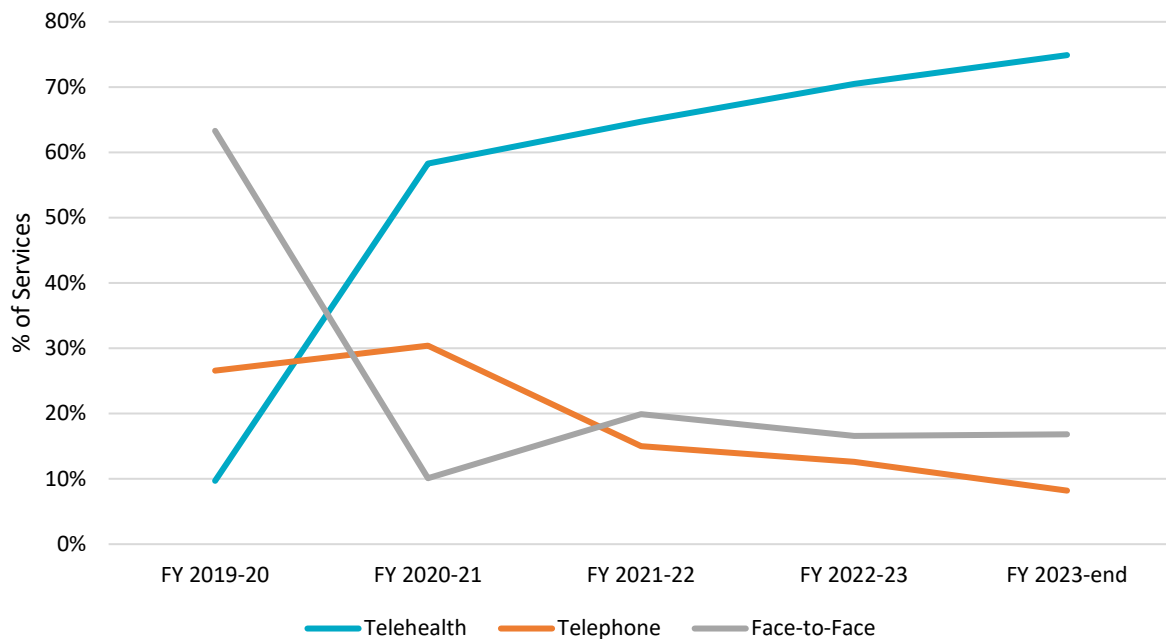
| ADAPT Service Type | Participants with at least one service | | Total ADAPT services provided | Average number of services per participant, per 30-day period |
|---|--|------|-------------------------------|---|
| | n | % | | |
| Any ADAPT service | 371 | 98.7 | 7,193 | 4.4 |
| Assessment/treatment plan development | 364 | 96.8 | 1,225 | 0.7 |
| Therapy (i.e., by licensed clinician) | 300 | 79.8 | 3,661 | 2.2 |
| Rehabilitation (i.e., by peer support or other professional) | 131 | 34.8 | 595 | 0.4 |
| Peer/self-help services | 37 | 9.8 | 110 | 0.1 |
| Crisis | 10 | 2.7 | 12 | <0.1 |
| Case management | 226 | 60.1 | 924 | 0.6 |
| Other services (e.g., collateral) | 216 | 57.4 | 666 | 0.4 |

Another method to analyze service utilization is by amount of time (i.e., hours) provided to each ADAPT participant. On average, ADAPT provided 14.9 hours of services to each participant while enrolled in the ADAPT program, with psychotherapy comprising 11.3 of those hours.

As shown in Figure 3, the majority of ADAPT services were provided face-to-face prior to the COVID-19 pandemic. During the initial months of the pandemic (i.e., the end of FY 2019-20), services shifted away from in-person interactions toward telephone and telehealth. Initially, telephone was utilized much more often than telehealth. However, utilization of telehealth has steadily increased over time (i.e., from 9.7% in FY 2019-20 to 74.9% in FY 2023-end) reflecting an increased capacity and comfort of both staff and participants engaging in this treatment modality. Over the past several years, in-person contacts have comprised approximately 15-20% of the interactions with ADAPT participants. It is anticipated that while having capacity to provide in-person visits remains an important characteristic of ADAPT services, telehealth will continue to be the primary mode of providing therapy and other supportive services for the majority of ADAPT participants for the foreseeable future.

For the 340 participants discharged from ADAPT Level 1 services by 12/31/2023, the average length of time enrolled in the ADAPT program was 136 days (with a median duration of 146.5 days). A closer examination of enrollment data indicated substantial variability such that 25% of participants were engaged with ADAPT for a relatively short period of time (i.e., 60 days or less), while another 25% stayed enrolled in ADAPT for more than 180 days (i.e., approximately 6 months).

Figure 3. Trends in ADAPT Service Types Over the Years



Level 2 Services

A total of 73 participants engaged in Level 2 services offered by ADAPT. These individuals received a total of 932 unique service contacts. Table 5 highlights the most common types of services provided in Level 2, which typically focused on educational/skill-building opportunities or assistance with basic needs. Both staff and participants noted the importance of being able to help address basic needs (e.g., food insecurity) as this can alleviate a major source of family distress. Additional types of supports provided to some Level 2 participants addressed a wide range of other issues including housing assistance, employment services, navigating public benefits or legal issues, or assistance with obtaining needed physical health care (see Table 5).

For the 73 participants who discharged from Level 2 ADAPT services, the average time in the ADAPT program was 110.9 days (median of 101.0 days). Level 2 participation was generally shorter than Level 1, however, 25% participated in services for least 174 days (i.e., approximately 5 months), which is a similar percentage to that of longer-term service utilizers found in Level 1.

Table 5. Most Common Types of FY 2022-23 ADAPT Level 2 Service Encounters

| Category | ADAPT Level 2 Service Encounters | | | |
|-------------------------|-------------------------------------|--------------------------------|------------------------|----------------------|
| | Total participants (n=73) | | Total services (n=932) | |
| | Number of participants with service | % of participants with service | Number of services | % of total services* |
| Goal Setting Skills | 49 | 67.1% | 167 | 17.9 |
| Basic Needs | 44 | 60.3% | 100 | 10.7 |
| Self-Regulation Skills | 42 | 57.5% | 272 | 29.2 |
| Mental Health Education | 42 | 57.5% | 119 | 12.8 |
| Mindfulness Skills | 35 | 47.9% | 192 | 20.6 |
| Parenting Skills | 26 | 35.6% | 70 | 7.5 |
| Social Health | 25 | 34.2% | 56 | 6.0 |
| Organization | 22 | 30.1% | 48 | 5.2 |

* Total may exceed 100% as multiple services could be provided during an encounter.

Behavioral Health Service Utilization Patterns

Utilization of Other BHS Services

Based on an examination of the BHS electronic health record, very few ADAPT participants had any interaction with the BHS system. Across all 420 ADAPT participants, during the 180 days prior to enrolling in ADAPT there were only a combined 11 instances that involved any of the following: inpatient hospitalizations, crisis stabilization, urgent outpatient, or mobile crisis response team visits. During ADAPT and in the following 180 days after discharging from ADAPT the total number of those crisis and acute care interactions decreased further to less than 5 (note: exact number suppressed; de-identification of data requires masking of very low numbers to prevent identification of participants). Similarly, while involvement with BHS outpatient care was also rare prior to enrolling in ADAPT (e.g., less than 5), a total of 13 participants were connected to outpatient care after discharging from ADAPT. Overall, the BHS service utilization data indicated that very few ADAPT participants had any connection to BHS services outside of the ADAPT program. The limited number of interactions that did occur suggests a decreasing need for crisis and acute care services during and after ADAPT with greater connections to outpatient treatment services after ADAPT. These outcomes are consistent with the overall goals of ADAPT and programs of similar nature.

Key Treatment Outcome Findings

Edinburgh Postnatal Depression Scale

The EPDS is a 10-item self-report scale developed to identify individuals who may have postpartum depression in outpatient, home-visit settings, or at the 6-8 week postpartum physician examination. The EPDS was administered upon entry into ADAPT and then regularly thereafter as part of clinical/safety assessment and treatment planning. The EPDS was re-administered more frequently than other evaluation measures due to its direct use as part of treatment and risk assessment/mitigation. Scores were analyzed for ADAPT enrollees with an initial and at least one follow-up EPDS assessment.

The EPDS asks participants to indicate, on a scale from 0 to 3, which response is closest to how they have felt over the previous seven days. Higher scores reflect more distress. The maximum score is 30, with a score of 10 or higher indicating a high likelihood of depression. At intake, 77.9% (n=243) scored a 10 or higher, with 37.5% (n=117) reporting scores in that range on their last available EPDS assessment. However, 77.2% (n=241) demonstrated at least some reduction in depression symptoms and 42.6% (n=133) demonstrated a clinically meaningful treatment response of at least a 50% reduction from their initial EPDS score. Average scores reduced from 13.4 to 8.3, a statistically significant improvement (see Table 6). Approximately 50% had final EPDS score of 7 or less, which is consistent with depression remission thresholds.

Table 6. Change in EPDS Scores from Initial Assessment to Last Follow-up Assessment (N=312)

| EPDS Item | Initial EPDS Mean | Last available EPDS Mean |
|---|--|--------------------------|
| | <i>Scale of 0 to 3 where higher value = more serious concern</i> | |
| I have been able to laugh and see the funny side of things | 0.7 | 0.4** |
| I have looked forward with enjoyment to things | 0.9 | 0.5** |
| I have blamed myself unnecessarily when things went wrong | 1.9 | 1.3** |
| I have been anxious or worried for no good reason | 2.1 | 1.4** |
| I have felt scared or panicky for no very good reason | 1.5 | 0.9** |
| Things have been getting on top of me | 1.8 | 1.2** |
| I have been so unhappy that I have had difficulty sleeping | 1.3 | 0.9** |
| I have felt sad or miserable | 1.5 | 0.9** |
| I have been so unhappy that I have been crying | 1.3 | 0.7** |
| The thought of harming myself has occurred to me | 0.2 | 0.1** |
| EPDS Total Score | 13.4 | 8.3** |
| Likely Depression (i.e., score >=10) | 77.9% | 37.5% |
| Treatment Response Rate (i.e., 50% or greater reduction in EPDS score) | 42.6% (n=133) | |

**statistical significance at $p < 0.01$

Analysis of EPDS patterns in the first 30 days of treatment (i.e., intake to 30-days post-intake) revealed a statistically significant reduction from an average of 13.4 to 10.9 (with median value decreasing similarly from 14 to 11). Almost two-thirds (62.5%; n=195) exhibited at least some reduction in depressive symptoms, and approximately 20% (19.6%; n=61) experienced a clinically meaningful 50% or more reduction from initial EPDS score. While the overall data showed that improvements occurred from intake to last EPDS assessment, these findings in particular indicate that many participants experienced a substantial reduction in depressive symptoms within the first 30 days of ADAPT enrollment.

The current standard of treatment for depression is typically psychotherapy combined with an antidepressant medication when necessary. A systematic review of the literature in 2020 (Shortis et al., 2020) identified five randomized controlled trials of cognitive behavioral therapy (CBT) interventions and their effect on peripartum (i.e., pregnancy through 1-year post-birth) depression. All of the trials reported large improvements in depression scores following the intervention compared to those observed in the control groups. Similarly, Pettman et al. (2023) conducted a systematic review of 31 randomized control trials and found that CBT-based interventions for peripartum depression were effective both during pregnancy and the postpartum period for symptoms of depression. Mothers who received CBT as part of their in-home nursing program (Ammerman et al., 2013), as a group-based intervention (Bittner et al., 2014; Alhusen et al., 2021), or even via an internet-based program (Pugh et al., 2016) also showed greater improvements in EPDS scores post-intervention than their counterparts assigned to a control or treatment as usual condition with no psychotherapy component. Burns et al. (2013) had similar results in a trial of CBT that was limited to pregnancy only: EPDS scores improved from 16.5 pre-treatment to 7.9 post-treatment. In comparison to these studies utilizing CBT as a primary treatment for peripartum depression, the ADAPT program achieved generally similar reductions in depressive symptoms.

While the EPDS total score is typically utilized as an overall indicator of the extent to which a person is experiencing depressive symptoms, an examination of the individual EPDS items presented in Table 6 can help identify the specific types of changes experienced. For people served by ADAPT, changes were evident across all dimensions. The items with the largest changes from intake were feelings of anxiety, scared/panic, sad/misery, crying, self-blame, and being overwhelmed (i.e., average EPDS differences of at least 0.6). While not a commonly endorsed item at intake, it is important to note that a critical risk item (“thoughts of self-harm”) decreased approximately 50% by follow-up (See Table 6). Overall, ADAPT participants generally reported experiencing fewer symptoms of depression and anxiety after participating in the ADAPT program.

Table 7 shows the average EPDS score at initial assessment and last available follow-up, the average reduction in EPDS score, and the treatment response rate (i.e., percentage of participants demonstrating at least a 50% reduction from their initial EPDS score at last available follow-up) for select comparison groups (as indicated in Table 7 by color groupings). Overall, statistically significant and clinically meaningful reductions were evident within all comparison groups. The treatment response rates were within a narrow range of 41% to 48% for all comparison groups except for participants who identified as White/Caucasian with a response rate of 26.7%. Participants who identified as Hispanic, a primary population group of emphasis for the ADAPT program, had the largest average reduction in EPDS scores (5.7 points) as compared to African Americans (4.4 points) and Whites/Caucasians (2.9 points). Of note, there was almost no difference in average reduction in EPDS scores and in treatment response rates between those whose preferred language was Spanish as compared to those who spoke English. Also, the

results indicated there were no overall differences in average outcomes based upon whether someone enrolled earlier in the program (i.e., before 1/1/2022, the period impacted most by COVID-19 pandemic) or later in the Innovations-funded phase of ADAPT (i.e., 1/1/2022 to 12/31/2023), as the average reduction in EPDS scores and response rates were nearly identical. These results suggest that the benefits of participating in the ADAPT program were experienced by many different population groups and reflect the successful efforts to particularly support Hispanics and those who speak Spanish as they generally exhibited the highest levels of improvement.

Table 7. Comparisons of EPDS Score Changes from Initial Assessment to Last Follow-up Assessment

| EPDS Comparison Groups | n | Initial EPDS Mean | Last available EPDS Mean | Average Reduction in EPDS Score | Treatment Response Rate % |
|---|-----|--|--------------------------|---------------------------------|---|
| | | <i>Scale of 0 to 3 where higher value = more serious concern</i> | | | <i>50% or greater reduction in EPDS score</i> |
| Pregnant | 62 | 12.0 | 6.7** | 5.2 | 48.4 |
| Postpartum | 250 | 13.7 | 8.7** | 5.1 | 41.2 |
| Hispanic (Preferred language English) | 139 | 13.7 | 8.0** | 5.7 | 48.2 |
| Hispanic (Preferred language Spanish) | 71 | 12.6 | 6.8** | 5.8 | 45.1 |
| Hispanic | 201 | 13.3 | 7.6** | 5.7 | 47.1 |
| African American | 34 | 13.0 | 8.6** | 4.4 | 44.1 |
| White/Caucasian | 60 | 13.3 | 10.4** | 2.9 | 26.7 |
| Transitional Age Youth (TAY; age 18-25) | 107 | 13.5 | 8.5** | 5.0 | 42.1 |
| Non-TAY (age 26+) | 204 | 13.3 | 8.2** | 5.1 | 42.9 |
| Enrolled before 1/1/2022 | 149 | 13.6 | 8.5** | 5.1 | 42.3 |
| Enrolled on or after 1/1/2022 | 163 | 13.2 | 8.1** | 5.1 | 42.9 |

***statistical significance at $p < 0.01$*

Illness Management and Recovery Scale-Reduced

To measure clinician perceptions of participant recovery and improved illness management, a shortened version of the Illness Management and Recovery-Reduced (IMR-R) scale was completed by ADAPT providers. Representatives from ADAPT, BHS, and the University of California San Diego (UCSD) team evaluating the ADAPT program reviewed and chose 9 of the 15 items from the full IMR that were most relevant to the ADAPT program services and the focal service population (see Table 8). Each item on the scale has a 5-point behaviorally-defined response option tailored to that specific domain, with higher values indicating less impairment/better functioning. The IMR-R was administered upon entry into ADAPT and then at 90-day follow-up intervals, documenting the amount of potential initial impairment and the extent to which changes may have occurred while receiving ADAPT services from the perspective of the ADAPT clinicians.

As shown in Table 8, the initial IMR-R ratings varied substantially across the individual items. Average baseline ratings for many items were between 2 and 3, generally indicative of moderate impairment. Symptom distress was the item rated with the most severe score upon entry to ADAPT (i.e., 2.0), indicative of fairly high levels of mental health-related distress. Conversely, alcohol and drug use were rated as areas that were generally not a concern (i.e., intake ratings of 5.0).

Table 8. Change in IMR-R Scores from Initial Assessment to Last Follow-up Assessment (N=236)

| IMR-R Item | n | Baseline Mean | Last Available Mean |
|--|------------|--|---------------------|
| | | <i>Scale of 1 to 5 where higher value = better functioning</i> | |
| Progress towards personal goals | 226 | 2.7 | 3.6** |
| Knowledge about symptoms, treatment, coping strategies, and medication | 235 | 2.8 | 3.7** |
| Involvement of family and friends in mental health treatment | 236 | 2.9 | 3.3** |
| Symptom distress | 236 | 2.0 | 3.2** |
| Impairment of functioning | 235 | 2.5 | 3.5** |
| Coping with mental or emotional illness from day to day | 236 | 2.7 | 3.7** |
| Effective use of psychotropic medication ¹ | 22 | 4.1 | 4.5 |
| Impairment of functioning through alcohol use | 229 | 5.0 | 5.0 |
| Impairment of functioning through drug use | 229 | 5.0 | 5.0 |
| Overall | 236 | 3.2 | 3.9** |

**statistical significance at $p < 0.01$

¹ This item was only completed for participants who were taking psychotropic medications at the time of the initial and last IMR-R assessment.

At the last available follow-up, the average overall IMR-R score increased from 3.2 to 3.9, indicating a statistically significant change and clinically meaningful improvements within the participant population. Among the individual items, medication management and substance use maintained their positive intake levels (i.e., high functioning/less impairment), and other items achieved a gain of 0.4 to 1.2. Particularly notable were the ratings of symptom distress improving from 2.0 to 3.2, indicating participants went from being bothered “quite a bit” by their symptoms at intake to only “somewhat” at follow-up. These IMR-R results indicated the achievement of important improvements in minimizing symptom distress and impairment while also increasing knowledge, coping skills, and progress towards personal goals, which help to maintain benefits and minimize risk of future symptom recurrence.

Wellness Survey

The ADAPT Wellness Survey is a self-report tool administered to participants upon enrollment into ADAPT and then every 90 days thereafter. Survey items were rated on a scale from 1 to 5, with higher values representing better reported wellness. Participants reported improvement in multiple dimensions, with

statistically significant changes in areas including but not limited to quality of life, physical health, mental health/mood, satisfaction with social activities/relationships, improved sleep, and ability to carry out everyday activities. Notably, ratings of hopefulness about the future also improved substantially as well as the belief that they have the skills and resources needed to manage stress related to interpersonal conflicts. See Table 9 for more detailed information.

Table 9. Change in Wellness Survey Scores from Initial to Last Follow-up Assessment (N=226)

| Select Wellness Survey Item | n | Baseline Mean | Latest Follow Up Mean |
|---|-----|--|-----------------------|
| | | <i>Scale of 1 to 5 where higher value = better condition</i> | |
| In general, would you say your quality of life is: | 225 | 3.2 | 3.5** |
| In general, how would you rate your physical health? | 225 | 2.8 | 3.0** |
| In general, how would you rate your mental health, including your mood and your ability to think? | 225 | 2.3 | 3.0** |
| In general, how would you rate your satisfaction with your social activities and relationships? | 224 | 2.5 | 3.1** |
| In general, please rate how well you carry out your usual social activities and roles. | 226 | 2.9 | 3.5** |
| To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair? | 226 | 3.9 | 4.4** |
| How often have you been bothered by emotional problems such as feeling anxious, depressed, or irritable? | 226 | 2.3 | 3.1** |
| My child(ren) had emotional and/or behavioral problems. | 166 | 4.2 | 4.1 |
| I felt hopeful about the future. | 216 | 3.6 | 4.0** |
| I felt spiritually connected. | 216 | 3.3 | 3.7** |
| I lived in a home that made me feel safe. | 216 | 4.6 | 4.7^ |
| I used substances (alcohol, illegal drugs, etc.) too much. | 216 | 4.9 | 4.9 |
| How would you rate your fatigue on average? | 226 | 3.4 | 2.4** |
| I get the emotional help and support I need from supportive others. | 144 | 3.4 | 3.8** |
| When I am in distress, I can identify supportive others and may use my supportive others. | 142 | 3.6 | 4.0** |
| Conflict with my partner or supportive others interferes with my ability to respond to everyday life challenges. | 143 | 3.6 | 3.7 |

Table 9. Change in Wellness Survey Scores from Initial to Last Follow-up Assessment (continued).

| Select Wellness Survey Item | n | Baseline Mean | Latest Follow Up Mean |
|---|-----|--|-----------------------|
| <i>Scale of 1 to 5 where higher value = better condition</i> | | | |
| I have the skills and resources needed to manage stress stemming from conflict with my partner or supportive other. | 144 | 3.2 | 4.0** |
| Select Wellness Survey Item | n | <i>Scale of 1 to 10 where higher value = worse condition</i> | |
| How would you rate your sleep? | 144 | 6.0 | 4.5** |
| How would you rate your sense of rest? | 144 | 6.3 | 4.7** |
| How would you rate your alertness? | 144 | 4.0 | 3.2** |
| How would you rate your pain on average? | 226 | 3.4 | 2.4** |

[^]statistical significance at $p < 0.10$; *statistical significance at $p < 0.05$; **statistical significance at $p < 0.01$

Linkages to Community Resources

In addition to the therapy, education, and emotional support provided by ADAPT team members, the program also emphasized trying to address other needs of the mothers and their families either directly or through connections to other community resources. A review of the Linkage Tracker system (a tool designed to facilitate documentation of participant referral needs and outcomes), showed that 257 participants (61.2% of all ADAPT enrollees) had at least one referral for additional services, for a total of almost 1,000 unduplicated referrals (n=976). The most common referrals were for additional mental health-related services (i.e., 161 participants with 280 referrals), followed by referrals in the area of social health (i.e., 107 participants with 204 referrals to services such as support groups and/or, parenting classes, etc.), basic needs (i.e., 74 participants with 152 referrals for food, clothing, etc.), and financial/legal assistance (i.e., 71 participants with 120 referrals for legal counsel, direct financial assistance and/or assistance obtaining public benefits such as food stamps). Considering that the Linkage Tracker system likely does not include every referral or linkage facilitated by ADAPT (i.e., some referrals and linkages that occurred in practice may have been omitted from the additional data entry steps required to log them into the Linkage Tracker system), the true total number of referrals and linkages is likely even higher. As such, at least 85 ADAPT enrollees (i.e., 20.2% of the 420 total enrollees) successfully received one or more community benefit(s) facilitated through ADAPT, with basic needs as the most commonly recorded successful linkage.

ADAPT staff mentioned in feedback surveys how these linkages primarily serve to improve family well-being. Additionally, the process facilitates participant retention and engagement by removing stressors and providing opportunities to collaborate with families to meet their needs, especially considering the challenges associated with a rapidly changing system of care in the community. Even for referrals who were ineligible for ADAPT services, ADAPT implemented a “no wrong door” policy and attempted to facilitate connections to an appropriate service provider.

Staff reported the difficulty of making these connections given eligibility requirements, waitlists, and the overall limited availability of many services and resources, particularly related to housing and childcare. Staff also noted that some participants may have hesitancy to initiate and/or access services at a new organization given the uncertainties involved in forming new relationships as well as time pressures and not feeling capable of navigating a new care system, even with support of ADAPT team members.

Table 10. Types of Referrals and Successful Linkages to Resources

| Linkage Tracker Dimensions of Wellness | Referrals | | Successful Connections to Resources | |
|--|------------|------------------------|-------------------------------------|-----------------------|
| | # Actions | # Participants | # Actions | # Participants |
| Physical Health (e.g., primary care doctors, health/fitness classes, etc.) | 66 | 43 | 12 | 8 |
| Social Health (e.g., support groups, parenting classes, community events/activities, etc.) | 204 | 107 | 31 | 16 |
| Mental Health (e.g., connections to therapists, self-help groups, etc.) | 280 | 161 | 27 | 22 |
| Substance Use (e.g., connections to counselors, self-help groups, etc.) | 21 | 7 | <5 ¹ | <5 ¹ |
| Housing (e.g., assistance to maintain current housing, housing vouchers, etc.) | 85 | 43 | 14 | 10 |
| Occupation/Education (e.g., job readiness programs, job training, etc.) | 29 | 23 | <5 ¹ | <5 ¹ |
| Financial Assistance/Benefits & Legal (e.g., financial aid, public assistance such as CalFresh and Medi-Cal) | 120 | 71 | 26 | 17 |
| Transportation/ Identification (e.g., support for public transportation, repair assistance, ID applications, etc.) | 19 | 17 | <5 ¹ | <5 ¹ |
| Basic Needs (e.g., food, hygiene, clothing, etc.) | 152 | 74 | 74 | 42 |
| Total Unduplicated Across All Domains | 976 | 257² | 189 | 85² |

¹ Values were suppressed due to small n size.

² Will not sum to this value as participants may have referrals in multiple domain areas.

Stakeholder Feedback

ADAPT Participant Feedback

Participant Feedback Survey

Every 90 days (and at discharge), ADAPT program participants were asked to complete a survey regarding their perceptions of the ADAPT program and the extent to which they thought participation in ADAPT resulted in achieving general objectives of knowing where to get help, increased comfort in seeking help (i.e., stigma reductions), and overall ability to handle things. Note, if multiple surveys were completed by a participant, the results from the last survey completed were included in the results reported below. Overall, ADAPT participants were very positive about their experiences. Nearly all participants (99.1%) felt staff were sensitive to their cultural background, and 98.2% reported they were satisfied with the services they received. More than 96% reported knowing where to get help when they needed it, that services were available at times that were good for them, and that they were able to get all the services they thought they needed. For more details, see Table 11. These findings, particularly as related to service availability and cultural support, indicate that the ADAPT program accomplished the goal of connecting with participants and meeting their needs in a manner which is convenient for and respectful of the participants.

Table 11. ADAPT Participant Feedback Survey (N=228)

| Participant Feedback Survey Item | n | % that Agree/ Strongly Agree |
|--|-----|------------------------------|
| <i>As a result of participating in ADAPT:</i> | | |
| I know where to get help when I need it. | 228 | 96.9% |
| I am more comfortable seeking help. | 228 | 94.3% |
| I am better able to access services in the community. | 226 | 88.9% |
| I am better able to handle things. | 228 | 90.8% |
| <i>Experiences with ADAPT services:</i> | | |
| Services were available at times that were good for me. | 228 | 96.5% |
| I was able to get all the services I thought I needed. | 227 | 96.9% |
| Staff were sensitive to my cultural background (race, religion, language, etc.). | 228 | 99.1% |
| Overall, I am satisfied with the services I received here. | 228 | 98.2% |

Additionally, open-ended questions were presented to gather participants' thoughts about the most important benefits or services received through ADAPT, as well as recommendations for improving services. A review of the responses from both English- and Spanish-speaking respondents indicated the following six primary types of benefits received while participating in ADAPT services.

Learning about mental health issues and the techniques to better manage/prevent symptoms.

- "Felt like I changed completely in a positive way as a result of therapy."
- "I was in such a bad place when we started, I've learned my triggers, how to cope and talking with you has helped a lot."
- "I have learned so much and I would still be depressed if it wasn't for your support. My first time in therapy and it was so helpful."

Learning and utilizing exercises that promoted self-care and compassion.

- "Learned how I can manage my issues and about self-care and positive self-talk."
- "Learning compassion exercises, how to be caring about myself and fight for my self-worth."
- [I was able to] "open my heart and be real" [instead of] "having to be strong."
- [I could] "look at myself from different perspectives" [using mindfulness] "and be more compassionate with myself."

Learning new (co-)parenting strategies and skills.

- "For me and my child, feel more secure with being a mom."
- "I realized I can't do everything alone, I need help...I can now ask my family/community for help."
- "I was able to see my partner's point of view from his own perspective. The activities, talk, skills we did and learned with our therapist has helped me to see things differently for better."
- "I learned so much. You taught me I'm my baby's advocate."

Receiving general emotional support/encouragement from therapists/peer support partners and always feeling "heard."

- "My therapist was always there to listen and never judged me for whatever I had going on."
- "Mis terapias, me es muy util e importante tener alguien con quien hablar y me ayude a plantear mejor mis ideas." (My therapy sessions, it is very useful and important for me to have someone who talks with me and helps me present my ideas better.)
- "Emotional support and guidance. Understanding life a little better. Love my therapist's passion and dedication to my individual needs."

Having positive social interactions and a sense of community/belonging.

- "I feel like I have a place, an identity since I've been in ADAPT. It's been very helpful. It helped me feel like I belonged."
- "The checking up on me in the beginning. I felt like I could pick up the phone at any time and someone will be there. It was so important! The feeling of not being alone."
- "Good connection with therapist."
- "Having someone else to talk to- social interaction."

Assistance with obtaining tangible community resources (e.g., food stamps).

- "It was great being given support with mental health and housing resources."
- "I liked everything about ADAPT. You listen to me, you helped me a lot, referred me to get clothes/diapers."
- "Just trying to get myself back on track physically. It's good to have someone to help me through going and getting my job and going through this in a pandemic."
- "All the local places that you guys direct me to."
- "Being referred to resources that can assist my family with basic needs."

Participants also identified two key factors that facilitated their engagement in the ADAPT services:

Positive and trusting relationships with ADAPT therapists and peer support partners.

- "I never saw myself doing therapy because I was scared to open up, but you made me feel safe and comfortable. I have grown so much, and I can't thank you enough for all your help."
- "The combo of therapy and peer support. I have someone who is listening to me and someone who grounds me."

Ease of participating in services via in-home visits or telehealth sessions at convenient times.

- "The resources, as there were so many and also the support and encouragement. So flexible and helpful to not leave [home]."
- "The most important benefit was having [the therapist] come into our home to provide therapy to the whole family. It really helped us connect with each other."
- "Being able to talk to someone and process life and know that having kids didn't limit me in my ability to do it because it was from home and I could make it around my schedule."

A "word cloud" was created to highlight the language commonly used by participants to describe the primary benefits received through ADAPT. The "word cloud" included all open-ended participant responses (i.e., over 400) and produced a graphic where words that were mentioned more frequently appeared larger than those that were less frequently mentioned. For ADAPT, the words most often used by participants included "therapy," "support," "coping," "learned," "helpful," and "resources" to describe the primary benefits of ADAPT. Given that these words accurately characterized key goals and components of ADAPT, it was a positive signal to see them reflected in the language of participants when describing their experiences with the program.

Figure 4. Participant “Word Cloud” of Words Commonly Utilized to Describe ADAPT Program Benefits



Respondents were asked about any issues they experienced connecting to services in the community after being referred by ADAPT program staff. The vast majority of respondents either did not respond or stated “no issues” when it came to accessing community service referrals. However, a few participants did share that they had longer than expected wait times for services or did not hear back after attempting to contact services.

When asked for recommendations to improve ADAPT program services, many indicated that they did not have recommendations since they were generally happy with the services they received. The most common feedback was the request to continue receiving ADAPT services for a longer period. Another request was to allow for additional forms of communication with the ADAPT team, such as texting and emailing. After the onset of the COVID-19 pandemic, some participants indicated that they wished they were able to have in-person meetings in addition to the remote contact options of telephone and video calls. As a whole, the feedback generally reflected an interest in extended and/or enhanced communication and interaction with ADAPT program team members.

Brief Participant Feedback Interview

At the end of FY 2021-22 and FY 2022-23, the UCSD evaluation team and ADAPT leadership developed a series of questions with BHS input to elicit additional feedback about the program from participants. A total of 38 individuals participated, sharing their perceptions of and experiences with the ADAPT program. From the collected data, the following themes emerged:

Positive Experiences with and Perceptions of the ADAPT Staff

Participants consistently identified the quality of the therapist and peer support staff as a factor that facilitated their engagement in ADAPT services. The positive and trusting relationships were highlighted as participants described:

- “I love my therapist's passion and dedication to my individual needs.”
- “My therapist was always there to listen and never judged me for whatever I had going on.”
- “I have had the best experience here. My therapist really cares and always advocates for me.”

Newfound Understanding of Depression and/or Anxiety

Participants mentioned that as a result of ADAPT, they have a new ability to understand their depression and/or anxiety and skills to help their day-to-day functioning and relationships. Participants shared:

- “I don't feel as crazy as I used to because now I have learned about [my disorder] and ways to deal with it. It helped me understand how my childhood impacted me so I can be a better mom than I had. Being part of the program, I was able to apply and enroll to college, find transitional housing for my baby and I, plus I know lots more resources.”
- “ADAPT helped me to improve and lessen anxiety and have been yelling less at others.”
- “I have learned so many helpful tools to manage the extreme emotions from postpartum. This has helped my marriage immensely and given my husband and I the tools to work through our stress and be better partners and parents.”
- “Being part of the program helped me understand myself better which has improved my relationships. I learned about my attachment style, how to show myself self-compassion, and I feel like I have better skills as a mom with multiple children.”

Program Flexibility/Accessibility

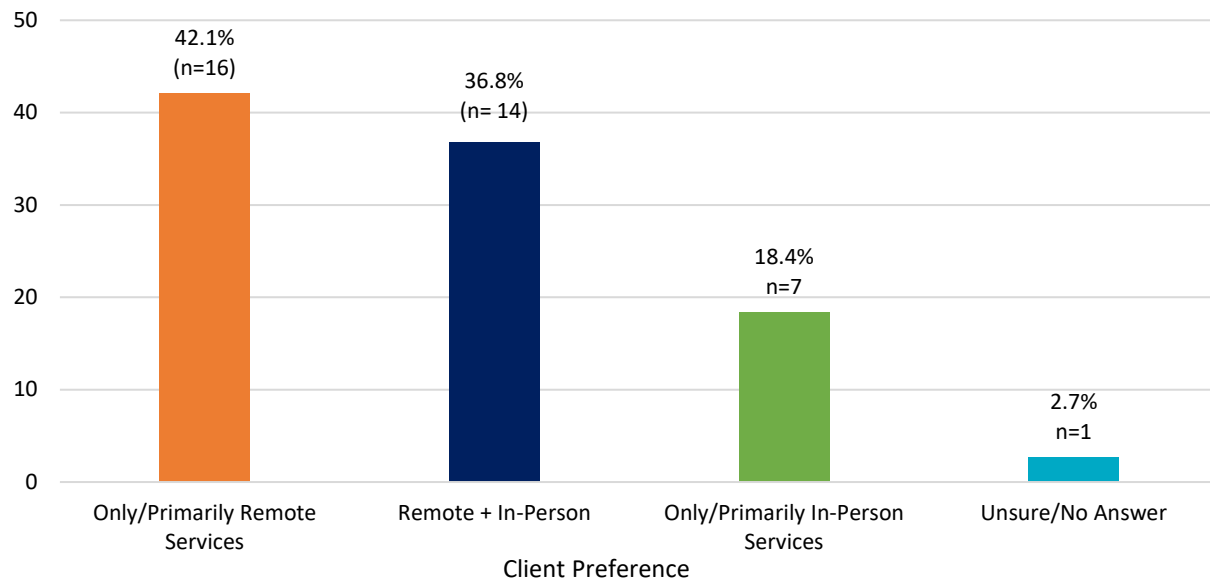
When ADAPT began in FY 2019-20, services were primarily provided in person. Participants appreciated the in-home option offered by ADAPT.

- “The most important benefit was having [the therapist] come into our home to provide therapy to the whole family. It really helped us connect with each other.”
- “The resources, as there were so many and also the support & encouragement. So flexible and helpful to not leave [home].”

Due to the onset of COVID-19, there was a rapid shift to remote services (i.e., telephone or telehealth). In the FY 2020-21 survey, some participants indicated that they wished they were able to have in-person meetings in addition to the remote contact options of telephone and video calls. As safety demands of the pandemic decreased, there became more opportunities for in-person visits when desired.

In the FY 2021-22 and FY 2022-23 surveys, participants were asked about their preference between the available options (i.e., in-person vs. remote), respondents answered as follows:

Figure 5. Participant Preference for Therapy Modality



Reasons for preferring remote services included social anxiety or considering themselves an “introvert.” Others preferred telehealth due to the flexibility and/or having other obligations (“I have 4 kids and it would be almost impossible for me to do it in person”). Participants who appreciated the choice between in-person and remote services shared that “in-person would be nice to go to but remotely allows me flexibility as a mom” and “video calls are convenient when I’m busy. It’s also nice seeing my peer support partner in person.”

In FY 2021-22, participants who preferred in-person services commented on technological difficulties and the quality of the interaction over video. In this regard, improved capacity to engage successfully in telehealth sessions was needed to increase the number of participants who preferred telehealth as an option to receive ADAPT services. It seems that some of these hurdles resolved with time and experience, as in FY 2022-23 any preference for in-person services was attributed to the ability to be more attentive and engaged: “I find meeting with someone in person more personable and it’s also easier for me not to get distracted.”

The ADAPT Program was Different from Prior Treatment Experiences

Participants consistently shared feedback that ADAPT was different than experiences they had in other treatment programs. A selection of comments are as follows:

- “ADAPT has more quality treatment and I feel more comfortable with ADAPT providers.”
- “[ADAPT is] more intensive and tailored to my needs.”
- “The consistency of meeting with someone weekly was super helpful. Also, I would not have been able to afford care like this on my own. I am so grateful to have gotten this counseling at no cost!”
- “ADAPT staff cares. My therapist went above and beyond. The support felt different.”
- “The postpartum specialization is different, and I’ve never had the option for the peer support aspect. I also like the ability to call my therapist if I needed to.”

Given that only approximately 10% of ADAPT participants participated in the more detailed feedback discussion, a potential limitation of the findings presented is that they may not reflect the perceptions of the entire ADAPT program participant population. Additionally, it should be noted that the interviews were conducted by ADAPT program staff and therefore could be positively biased. However, many of the findings were similar in both years and consistent with data collected via other feedback mechanisms such as the Participant Feedback Survey administered throughout the year, which increases confidence in their generalizability to the overall ADAPT program. The consistently positive feedback and the resounding emphasis on the quality of care and positive impact of services is highly encouraging that ADAPT was successful in their goals of assisting participants with peripartum struggles. While many participants shared the progress they made with ADAPT, one respondent's statement about ADAPT stood out in its significance: "ADAPT helped me get out of the dark deep hole I felt at start of postpartum. Thanks to this program I am no longer there."

Referral Partner Feedback

At the end of each fiscal year, PHNs and other referral partners were asked to complete a brief online survey to obtain feedback regarding their experiences with the ADAPT program. The UCSD evaluation team, in collaboration with ADAPT leadership and BHS, developed a series of questions exploring referral partners' understanding of the ADAPT program and recommendations for program improvement. Participants were given a short script explaining the qualitative data collection process and instructed that providing feedback was voluntary.

A total of 242 referral partners (e.g., PHNs and representatives from seven other service providers) completed the online survey. While the response rate for individuals may warrant some caution when interpreting the results, the core themes were consistent with feedback received in prior years and from other feedback mechanisms such as PHN consultations and roundtable discussions. While the sample sizes were too small for detailed comparisons and conclusions, in general, the feedback was similar between the types of referral partners. Of note, some referral partners use the term "clients" when describing the persons served by their program and/or those referred to ADAPT. In this manner, the words "clients" and "participants" can be viewed interchangeable in the following referral partner quotes. Several themes emerged from the referral partners' feedback.

Bilingual services are important.

Referral partners highlighted the importance of Spanish-speaking clinicians. One referral partner indicated that when ADAPT staff turnover inhibited access to a bilingual clinician for their region for a period of time, they did not refer as many participants.

- "ADAPT has been able to assist with my Spanish speaking participants by having bilingual therapists. This is so important and I am so happy to finally have this needed support in my region. Speaking the language is so crucial when you need mental health services."

Electronic communication is beneficial.

Coordination and communication activities between ADAPT and the PHNs evolved throughout the years of the program, with a particular emphasis on improving the initial referral process. In FY 2019-20, initial referral efforts by PHNs were reported to be challenging. Substantial effort was made by PHNs, ADAPT

staff, and San Diego County BHS to build a sustainable partnership. Recommendations from PHNs included additional options for submitting referrals, such as via secure email. This effort paid off; by FY 2021-22 survey, over half of the respondents (60%) described the ease and efficiency of referring participants to ADAPT.

- “BHS ADAPT has been extremely fast to follow up with a referral, which is something that is really lacking in the mental health field. I also like the fact that they will come to the facility and meet with the [patient], instead of waiting for the [patient] to come to them.”

In FY 2020-21, referral partners requested additional communication methods with participants. At the time, ADAPT clinicians did not have the ability to text with participants or email referral partners regarding participant treatment. Referral partners felt the ADAPT team would benefit from “having the ability to text participants regarding their upcoming appointments or if they need to reschedule.” Additional recommendations included the creation of a signed participant consent that would allow for electronic communication to address ADAPT’s liability. Where feasible, these types of efficiency improvements have been incorporated into the ongoing ADAPT program operations.

Referral partners desired expanded eligibility criteria.

In FY 2020-21, many referral partners expressed a desire to have wider eligibility requirements for the program. Often referral partners see participants who would benefit from ADAPT-style services from other community partners. One referral partner remarked:

- “Many clients were just referred back to their provider not qualifying for clinician visits. These clients are really needing a clinician in the home. When a mom is depressed, it is very difficult to get her out of the home with a newborn.”

In FY 2021-22 and FY 2022-23, this theme emerged again with at least a third of survey respondents each year mentioning private insurance as a barrier to services. One referral partner remarked:

- “Having only Medi-Cal patients qualify for services is limiting. There are underinsured and insured patients that would benefit from this program.”

Participants benefit from ADAPT.

Through the years, referral partners reported overwhelmingly positive outcomes for participants who engaged in ADAPT services. In the FY 2019-20 survey, PHNs indicated they often observed participant improvements such as increased confidence and hope, better decision-making and overall mental well-being, and additional connections to needed community resources. In later years, positive feedback was plentiful:

- “The ADAPT program has been a tremendous help to each of my clients that I have referred. The ADAPT services have allowed my clients to have focused, in-home mental health services that they truly need. Each of my clients that have completed the program have nothing but positive things to say about their experiences.”
- “Every single client who has participated in the program has reported to me how helpful the program has been to them. I have had clients with suicidal ideation who have become more stable

using coping skills provided by the ADAPT clinician, and will hopefully use the resources provided at closing of the program to continue mental health services.”

The positive feedback continued in the FY 2022-23 survey. The majority of referral partners highlighted “care coordination” (71.4%; n=30) followed by “communication with ADAPT providers,” (52.4%; n=22) and “the referral pathway” (52.3%; n=22) as aspects of the ADAPT program that were working particularly well. Referral partners shared that their participants have had positive feedback about ADAPT. One stated, “My clients who stick with the program find it very helpful with managing symptoms of anxiety and depression.”

ADAPT has improved the system of care in the community.

Referral partners have consistently reported how the ADAPT program benefits the system of care, both directly by providing necessary services and indirectly by making the jobs of the PHNs easier.

The ADAPT program has reduced the waitlist for services in the community.

- “Whereas many outpatient programs in the community have a waitlist ranging from 3 months to 18 months, [ADAPT] has done such a great job of meeting the needs of client and families and not having a waitlist. [ADAPT] has been able to successfully link with clients referred to them and we are so grateful to have a program like this in the community.”

Further, referral partners mentioned that the ADAPT program has helped to ensure that their patients are connected to appropriate mental health services. Respondents described how “ADAPT has made it easy to refer participants who need peripartum mental health services” and “without this program there isn't much concrete I can do to get them help.”

Referral partners also shared what they perceived as potential negative impacts of **not** having a program like ADAPT available:

- “Negative impact on clients, some may be able to get care through their medical provider, but the ability to offer a resource specific to their needs in relation to maternal-child health and interactions is a comfort on its own. If their provider isn't able to assist, having ADAPT is an additional safety net for them and gives them some comfort just knowing its available to them.”
- “If ADAPT services were no longer available, it would be very difficult to find an accessible resource for our clients. It is challenging to find and contact other local resources in a timely manner regarding service availability and eligibility, the partnership that ADAPT has with our programs has been such a big help.”

Notably, over the years the PHNs mentioned how ADAPT has helped to make their job duties more manageable.

- “I have not had a lot of available time during COVID-19 to be available for my clients. ADAPT has really helped by caring for their mental health needs when I'm not consistently able to take a phone call.”
- “It helps me so much to be able to provide a mental health option that is available rather than to meet multiple dead ends and long waits for services through other organizations.”

ADAPT Staff Feedback

Findings reported in this section were derived from two primary data sources: 1) stakeholder meetings and 2) the Annual ADAPT Staff Survey. The stakeholder meetings were held throughout the years with representatives from BHS, ADAPT, and the UCSD evaluation team. Primary objectives for these meetings were to review program operations, evaluation approaches, and outcome data. The Annual ADAPT Staff Survey was conducted at the end of each fiscal year. Staff were asked to participate in a brief online survey about their experiences with, perceptions about, and recommendations for the program.

Over the years, 52 staff survey invitations were distributed (note: staff could participate in multiple years) with a total of 46 completed surveys for an overall response rate of 88.5%. Open-ended survey question responses were coded by a member of the UCSD evaluation team and reviewed by at least one other evaluator to identify the following emergent themes.

Staff Experiences with Using Telehealth Services as Primary Treatment Modality

With the onset of the COVID-19 pandemic, ADAPT was required to shift from providing services primarily in-person to interacting only via telehealth. Initially, there were some issues with being able to consistently utilize telehealth due to problems with internet connectivity and/or other technical challenges managing video calls. Additionally, participant preference was a factor: even when video calls were possible, staff estimated that approximately 10-20% of participants preferred telephone (i.e., no video) sessions.

However, staff reports of these issues generally diminished by the end of FY 2019-20 as comfort and expertise on the part of both participants and providers increased. In FY 2020-21, staff reported an increase in participant engagement in services with telehealth (as compared to in-person sessions), a reduction in no-show rates, and an increase in participant willingness to schedule services. Providers indicated telehealth was an effective and quality communication method, and reported a high level of confidence in their ability to provide services via this modality. A key benefit of the telehealth system was the substantial amount of time saved when staff travel was eliminated. Additionally, the switch to telehealth services facilitated a more efficient allocation of staffing resources to meet participant needs throughout San Diego County rather than maintaining primarily region-based service teams, as was in the original design of the program. Staff highlighted the importance of setting clear expectations about how to conduct telehealth sessions and establishing a pre-arranged plan with the participant for if and when a connection was lost (i.e., telephone follow-up). By FY 2022-23, staff were reporting numerous benefits of providing telehealth service options to participants; for instance, one staff member shared that delivering “services via telehealth has allowed the participants to meet more consistently with their therapist for sessions.”

Program Strengths

Team and Leadership

When reflecting on program strengths, staff members consistently mentioned the quality of the team at ADAPT. In the FY 2020-21 survey, a staff member highlighted “the communication, perseverance, diligence, passion, intelligence, desire to serve others, dedication [of ADAPT staff] to the support of mental health as a whole and serving an underrepresented population in San Diego County.” In the FY 2021-22

survey, nearly every staff member mentioned the team as a primary strength of the program. The team was described as “highly committed, passionate and empathetic” and the “collaboration, coordination, compassion, and camaraderie among the team members” was credited for the success of the program. Similarly, in FY 2022-23 the staff member responses focused on the characteristics of the team. Staff described the team as “dedicated” and highlighted the team’s willingness to “adapt to the individual and nuanced needs of our participants.”

Leadership was also consistently emphasized and credited as a primary strength of ADAPT. Staff surveys in FY 2020-21 mentioned “our supervisor is very supportive and transparent” and the following year the “commitment and clinical integrity of program leadership” was highlighted. This theme continued into FY 2022-23, where staff noted that “the ADAPT program has great supervision provided to the clinicians and the team is very supportive of personal growth and learning. The team also supports participants and ensures continuity of care.”

Referral Processing

A crucial aspect of ADAPT program coordination involved the process of receiving and processing referrals of PHN participants identified as potential ADAPT candidates. Key steps in the referral process included the development of referral documents that met the needs of both ADAPT staff and PHNs as well as protocols to guide the process of submitting and tracking status of referrals. As a result of ongoing discussions, the referral documents and process were revised multiple times during FY 2019-20, which facilitated more efficient and effective communication. In January 2020, ADAPT implemented a shared referral tracker that provided the disposition of referrals to each public health region. ADAPT staff designed training to increase PHN awareness and understanding of mental health issues. Coupled with ongoing review and feedback, this helped to substantially improve the fit between PHN referrals and ADAPT program eligibility criteria. By June 2020, 75% of PHNs reported that they felt confident they could identify appropriate referrals for ADAPT. ADAPT staff attempted to assist each referral received by trying to find alternative community resources and referrals even if the person ultimately was not eligible for ADAPT or otherwise did not enroll.

Flexibility and Accessibility

Over the years of staff surveys, staff recognized the unique way in which ADAPT is tailored to meet individual participant needs. During the most critical times of the COVID-19 pandemic, ADAPT staff found unique ways to meet with participants while also ensuring safety of all parties. Appointments were set up via telehealth, outdoors with social distancing, or via the phone. ADAPT staff arranged times to drop off tangible items such as diapers, formula, and other necessities without face-to-face contact.

Even once pandemic restrictions were lessened, ADAPT staff worked to meet participant needs including “requests about meeting in-person or face-to-face, offering various times to schedule appointments, letting participants know about expectations for example how long appointments will be and the length of treatment.” Offering both telehealth and in-person services has been beneficial to both staff and participants. Staff credited this accessibility as a key component of program success and a contributing factor in their ability to reach more participants. Staff mentioned the uniqueness of ADAPT in this respect; the flexibility offered is not typically characteristic of mental health service agencies. The culture of going “above and beyond” for participants is something ADAPT staff consistently recognized and appreciated.

At the inception of ADAPT, referrals had to come from a select set of approved referral partners. In FY 2021-22, eligibility criteria was expanded such that anyone who met criteria throughout San Diego County (i.e., Medi-Cal/Medi-Cal eligible with evidence of experiencing peripartum depression or anxiety) could be referred to ADAPT. This allowed ADAPT to receive the non-PHN originating referrals and enrollees discussed in earlier sections of the report.

An additional key component of successful recruitment and retention was the bilingual services offered by ADAPT, both from clinicians and peer partners. As one survey respondent remarked, “Flexibility and availability to meet participant needs including but not limited to efforts to hire and recruit Spanish-speaking clinicians, and advocating for both internal forms and partnerships to include Spanish-speaking participants.”

Program Challenges

Collaboration with PHNs

As with many new initiatives, especially those with multiple organizational partners, mutual learning between the ADAPT program and the PHNs was required in order to develop, implement, and refine the coordination of information and services. Two components of the relationship between PHNs and ADAPT that were of particular importance during the life of the program were: 1) the identification of potential ADAPT referrals and 2) communication of referrals from PHNs to the ADAPT program.

In the early years of the program, staff indicated some communication and coordination challenges between ADAPT and PHNs. Staff reported that periodic face-to-face interactions with PHNs best facilitated the referral stream and coordination of activities. When the COVID-19 pandemic and related safety practices emerged, this became challenging to accomplish if not explicitly prohibited. However, due to ongoing efforts by both groups including increased e-mail communication, regularly scheduled meetings, involvement of PHN leadership, and increased education about ADAPT to reduce ineligible referrals, staff characterized the collaboration between themselves and PHN as positive and helpful in participant engagement.

Engagement of Family Members

A goal of the ADAPT program was to involve family and/or key support persons (i.e., close friend, co-parent, partner) to participant services. Staff highlighted the importance of including family members in “a variety of case management and counseling avenues” and explaining to key support persons the “many facets of pregnancy and motherhood physically and emotionally.” This model has the potential to bring benefits to the broader family unit, including improved communication skills, and so efforts of the ADAPT team to involve family members in services were substantial. However, it was a challenging goal to accomplish. Family members can be a source of conflict for participants, and not all participants have family members willing to participate. Even when family is willing, the participants may not be interested in including them in therapy either due to strained relationships or because they want the time to focus on themselves. Staff mentioned Motivational Interviewing was useful in helping participants to identify which family members would be most helpful to engage. Also, explaining “the importance of having family support ... when we talk to them about their participant plan.” In terms of engaging the identified family members, staff suggested offering family or couples’ therapy, employment assistance, and the option of a male therapist to increase motivation to participate.

Resource Awareness

Each survey, staff mentioned the challenge of keeping up-to-date on a rapidly evolving system of care in the community. When ineligible referrals were received, ADAPT implemented a “no wrong door” policy where those referrals would be connected with an appropriate service provider. To do this effectively, staff members emphasized the challenges of keeping current on available community programs.

- “We need more resources and more up to date resources and programs happening in San Diego. I feel like there has to be hundreds of more programs or resources for participants regarding childcare and housing, but it feels like we can't connect to them or find them.”

Although the team did their best to “[pull] from one another's knowledge regarding resources in San Diego” it was not always sufficient. Staff reported that “connection with housing, childcare, and employment/school resources,” was a major challenge in providing and continuing services. In the FY 2022-23 survey, one staff member shared:

- “San Diego County programs are impacted heavily so it is very difficult for people to get the resources that they need. Housing is impacted. Childcare is impacted or costs too much and financial assistance is very difficult to maneuver and obtain. Low-income housing is still too expensive for mothers who don't have jobs and don't have anyone to watch their children to get jobs.”

Changes from Initial Program Design

COVID-19-Related Changes

In FY 2019-20 and FY 2020-21, the ADAPT program needed to make changes related to the COVID-19 pandemic. As discussed earlier in the report, the program was primarily designed to provide services in person but the onset of the pandemic forced a transition to primarily telehealth and/or telephone services. When the pandemic became more manageable for the health care system in general, and safety concerns lessened, ADAPT re-introduced in-person services while continuing to provide telehealth and some telephone-based services. When an ADAPT clinician thought that an in-person visit would be beneficial, and such a visit was feasible and appropriate, efforts were made to identify a safe location such as outdoors or another location convenient for the participant. The greater flexibility associated with telehealth led it to be not only sufficient, but potentially a superior way to support participants throughout all San Diego County regions, rather than having region-specific clinicians and staff. Participants became generally more comfortable with telehealth and many even came to prefer it over in-person services.

Allowing Eligible Referrals from Throughout San Diego County

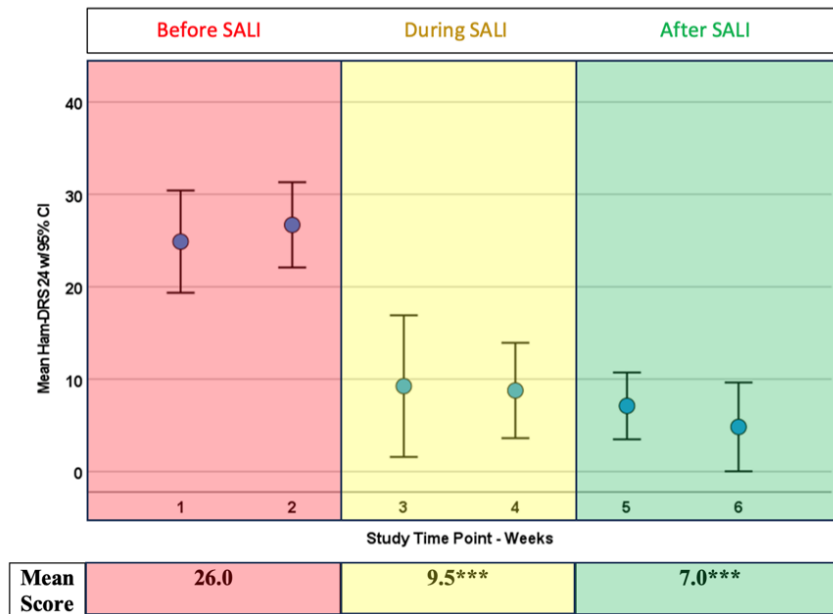
Initially, only PHN programs could send referrals to ADAPT. During FY 2020-21, additional referral partners were added including Sharp Mary Birch, Best Start Birth Center, and the Sudden Infant Death Syndrome (SIDS) program. In FY 2021-22, the options were expanded further to allow referrals from throughout San Diego County. Anyone can refer participants directly to ADAPT, and self-referrals are also accepted. This brought two issues to light: 1) the need for additional community outreach to increase awareness about ADAPT, and 2) the need for effectively communicating eligibility criteria (i.e., Medi-Cal/Medi-Cal eligible with evidence of experiencing peripartum depression or anxiety) in order to encourage appropriate

referrals. In FY 2022-23, the ADAPT program continued to engage in community outreach activities to expand the number of potential community referral partners and increase the network of organizations that can provide additional supplemental resources for ADAPT participants.

Sleep and Light Intervention Study (SALI)

SALI is a brief, non-pharmacological, in-home intervention for perinatal depression. Participants engage in a one-night sleep timing and duration adjustment, coupled with two weeks of 30-minute per day lightbox exposure at a specific time based upon whether pregnant or postpartum. This protocol is meant to reset the individual’s circadian rhythm, and has demonstrated high levels of fast-acting and durable effectiveness at treating perinatal depression in research settings. As part of an effort to move SALI into community settings, a pilot research study led by Drs. Barbara Parry and David Sommerfeld from the UCSD Department of Psychiatry was designed to test the feasibility, acceptability, and effectiveness of training community providers to deliver SALI. The pilot study was reviewed and approved by the UCSD Institutional Review Board (IRB) and the BHS Research Committee.

Figure 6. Average Hamilton Depression Score Ratings Before, During, and After SALI



*** statistical significance at $p < 0.001$.

The primary outcome measure for assessing depression in the SALI pilot study was the Hamilton Depression Rating Scale with Atypical Depression Supplement (HAMDRS), which was administered weekly during: 1) the two weeks preceding, 2) the two weeks during, and 3) at least two weeks after completing SALI.

HAMDRS scores of 0-7 are considered “normal” with no depression, 8-16 suggest “mild depression,” 17-23 “moderate depression” and scores over 24 are evidence of “severe depression”. Figure 6 presents the average HAMDRS scores across the six primary study time points for the ADAPT participants (n=9) that enrolled and completed the 2-week SALI intervention. Paired sample t-tests comparing average scores before and during SALI, as well as before and after SALI, were both statistically significant at $p < .001$. The results demonstrated clinically meaningful reductions in depressive symptoms as the average HAMDRS

scores improved from 26 (severe depression) before SALI to 7 (no depression) in the two weeks after SALI. While caution is warranted given the small sample size, the results suggesting rapid and substantial reductions in depression symptoms by those completing SALI is consistent with prior research (Parry et al., 2023).

Figure 7. First Page of the SALI “Mom’s Night In!” Handout of Potential Pleasant Activities



Feedback from participants indicated some concerns with the first night of SALI, which requires an expectant or new mother to adjust and restrict sleep during a specific time of the night. While most indicated that this was not as challenging as initially expected, to help minimize uncertainty and unease about the night with the sleep adjustments, we created a “Mom’s Night In” handout (see Figure 7) with a wide range of potential activities that focused on self-care and pleasant things that could be done during the night either by themselves or together with someone else.

ADAPT team members generally reported SALI as feasible to integrate into services, due to its appropriateness for populations served by ADAPT and appeal to the clinicians. Even with general positive

perceptions, enrollment into the SALI study was less than originally anticipated, which indicates that implementation barriers to utilizing SALI within “real world” treatment environments persist. Identifying and attempting to reduce those barriers continues to be an emphasis of the ongoing SALI pilot study.

Conclusion

Based on the experiences of the ADAPT program and outcomes achieved, primarily that of reduced depression and anxiety among peripartum populations, the ADAPT program will be incorporated as an ongoing program into the overall BHS system of care. During the Innovations-funded phase of ADAPT, a total of 420 participants enrolled into the program. Most participants (89.5%; n=376) were involved in Level 1 services, which included therapy from licensed clinicians as well as general support, education, and linkages to other care services provided by peer support partners and other ADAPT team members. Initially, ADAPT was designed to accept only referrals from select County PHN programs; however, due in large part to the onset of the COVID-19 pandemic, the number of eligible referrals originating from these PHNs was substantially less than expected. This contributed to the BHS decision to allow ADAPT to accept both referrals from other community organizations who provided services to peripartum populations as well as self-referrals from mothers who initiated contact with ADAPT to seek assistance. PHNs remained the largest single source of referrals throughout the Innovations-funded pilot phase and will continue to

be a primary referral partner as ADAPT transitions to become a specialized ongoing service provider within the overall BHS system. Even with the expanded network of referral partners, enrollment into the ADAPT program was about 100 participants per year—lower than anticipated (i.e., original plans called for 300 participants served each year, 200 in Level 1 and 100 in Level 2). To better reflect actual enrollment levels, the ongoing ADAPT program aims to serve 100 participants each year.

Overall, clinician and participant assessments indicated that after participating in ADAPT, individuals experienced substantial reductions in depression and anxiety-related symptoms and improved their ability to manage their emotional well-being. Scores on the EPDS demonstrated substantial improvements from baseline values, with 42.6% exhibiting a clinically meaningful treatment response rate of at least a 50% reduction between their baseline and follow-up EPDS scores. This type of treatment response is consistent with other psychosocial and/or pharmacological evidence-based treatments for peripartum depression and anxiety. With a few exceptions, the average reductions in EPDS scores and treatment response rates were similar across several different population groups defined by race/ethnicity, language, age, or ADAPT enrollment period. Those who were pregnant when they enrolled into ADAPT appeared to have slightly better outcomes than those who enrolled postpartum, with treatment response rates of 52.7% and 42.2%, respectively. Additionally, both Spanish-speaking and non-Spanish-speaking Hispanics showed nearly identical outcomes with treatment response rates above 45%, which were similar to those of African Americans (44%), but substantially higher than those who identified as White/Caucasian (26.7%). These results indicate that ADAPT was successfully able to achieve desired treatment outcomes with many who enrolled into the ADAPT program, particularly with populations of emphasis such as participants identifying as Hispanic and/or those who speak Spanish.

Additional feedback from participants suggested that ADAPT contributed to improvements in sleep, better ability to interact with family members and handle social responsibilities, improved capacity to manage symptoms, as well as other beneficial outcomes. Participants also highlighted the importance of connections to additional community resources that allowed families to better care for their children and address basic needs related to food, clothing, shelter, and employment. High levels of satisfaction were reported by participants and echoed by PHNs, who reported substantial benefits for their ADAPT-enrolled participants such as improvements in their mental health and enhanced ability to manage life challenges.

Both participants, PHNs, and other referral partners highlighted the importance of having a community program like ADAPT that specializes in the unique needs of pregnant and postpartum women experiencing depression. Due to the positive outcomes achieved by the ADAPT program, BHS decided to incorporate these specialized services into the overall system of care as an ongoing program. However, based on the program's lower-than-anticipated enrollment, it was decided to discontinue Level 2 services as well as adjust the overall enrollment goal to 100 participants per year. Core features that will continue to be emphasized in the ongoing ADAPT program include the provision of culturally and linguistically appropriate services, facilitating connections to additional community resources, and reduction of barriers to treatment engagement by offering accessible at-home services in-person or via telehealth.

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References

- Alhusen, J. L., Hayat, M. J., & Borg, L. (2021). A pilot study of a group-based perinatal depression intervention on reducing depressive symptoms and improving maternal-fetal attachment and maternal sensitivity. *Archives of Women's Mental Health, 24*(1), 145-154. <https://doi.org/10.1007/s00737-020-01032-0>
- Ammerman, R. T., Putnam, F. W., Altaye, M., Stevens, J., Teeters, A. R., & Van Ginkel, J. B. (2013). A clinical trial of in-home CBT for depressed mothers in home visitation. *Behavior Therapy, 44*(3), 359-372. <https://doi.org/10.1016/j.beth.2013.01.002>
- Bittner, A., Peukert, J., Zimmermann, C., Junge-Hoffmeister, J., Parker, L. S., Stöbel-Richter, Y., & Weidner, K. (2014). Early intervention in pregnant women with elevated anxiety and depressive symptoms: Efficacy of a cognitive-behavioral group program. *Journal of Perinatal & Neonatal Nursing, 28*(3), 185-195. <https://doi.org/10.1097/jpn.0000000000000027>
- Burns, A., O'Mahen, H., Baxter, H., Bennert, K., Wiles, N., Ramchandani, P., Turner, K., Sharp, D., Thorn, J., Noble, S., & Evans, J. (2013). A pilot randomised controlled trial of cognitive behavioural therapy for antenatal depression. *BMC Psychiatry, 13*(1), 33. <https://doi.org/10.1186/1471-244x-13-33>
- Cuijpers, P., Franco, P., Ciharova, M., Miguel, C., Segre, L., Quero, S., & Karyotaki, E. (2023). Psychological treatment of perinatal depression: A meta-analysis. *Psychological Medicine, 53*(6), 2596-2608. <https://doi.org/10.1017/S0033291721004529>
- Curry, S. J., Krist, A. H., Owens, D. K., Barry, M. J., Caughey, A. B., Davidson, K. W., Doubeni, C. A., Epling, J. W., Jr., Grossman, D. C., Kemper, A. R., Kubik, M., Landefeld, C. S., Mangione, C. M., Silverstein, M., Simon, M. A., Tseng, C. W., & Wong, J. B. (2019). Interventions to prevent perinatal depression: US preventive services task force recommendation statement. *JAMA, 321*(6), 580-587. <https://doi.org/10.1001/jama.2019.0007>
- Delker, E., Marienfeld, C., Baer, R. J., Parry, B., Kiernan, E., Jelliffe-Pawlowski, L., Chambers, C., & Bandoli, G. (2023). Adverse perinatal outcomes and postpartum suicidal behavior in California, 2013-2018. *Journal of Women's Health, 32*(5), 608-615. <https://doi.org/10.1089/jwh.2022.0255>
- Dennis, C. L., & Chung-Lee, L. (2006). Postpartum depression help-seeking barriers and maternal treatment preferences: A qualitative systematic review. *Birth, 33*(4), 323-331. <https://doi.org/10.1111/j.1523-536X.2006.00130.x>
- O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary care screening for and treatment of depression in pregnant and postpartum women; Evidence report and systematic review for the US preventive services task force. *JAMA, 315*(4), 388-406. <https://doi.org/10.1001/jama.2015.18948>
- Parry, B. L., Meliska, C. J., Sorenson, D. L., Martinez, L. F., Lopez, A. M., Dawes, S. E., Elliott, J. A., & Hauger, R. L. (2023). Critically-timed sleep+light interventions differentially improve mood in pregnancy vs. postpartum depression by shifting melatonin rhythms. *Journal of Affective Disorders, 324*, 250-258. <https://doi.org/10.1016/j.jad.2022.12.079>

- Pettman, D., O'Mahen, H., Blomberg, O., Svanberg, A. S., von Essen, L., & Woodford, J. (2023). Effectiveness of cognitive behavioural therapy-based interventions for maternal perinatal depression: A systematic review and meta-analysis. *BMC Psychiatry*, *23*(1), 208. <https://doi.org/10.1186/s12888-023-04547-9>
- Pugh, N. E., Hadjistavropoulos, H. D., & Dirkse, D. (2016). A randomised controlled trial of therapist-assisted, internet-delivered cognitive behavior therapy for women with maternal depression. *PLoS One*, *11*(3). <https://doi.org/10.1371/journal.pone.0149186>
- Shortis, E., Warrington, D., & Whittaker, P. (2020). The efficacy of cognitive behavioral therapy for the treatment of antenatal depression: A systematic review. *Journal of Affective Disorders*, *272*, 485-495. <https://doi.org/10.1016/j.jad.2020.03.067>
- Trost, S., Beauregard, J., Chandra, G., Njie, F., Berry, J., Harvey, A., & Goodman, D. A. (2022). *Pregnancy-related deaths: Data from maternal mortality review committees in 36 US states, 2017-2019*. Centers for Disease Control and Prevention, US Department of Health and Human Services. <https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html>
- Wisner, K. L., Murphy, C., & Thomas, M. M. (2024). Prioritizing maternal mental health in addressing morbidity and mortality. *JAMA Psychiatry*. <https://doi.org/10.1001/jamapsychiatry.2023.5648>

Appendix A

Characteristics of ADAPT Participants

| Characteristic | Participants (N=420) | |
|---|----------------------|------------|
| | n | % |
| Pregnancy Status | | |
| Pregnant | 81 | 19.3 |
| Postpartum | 339 | 80.7 |
| Total | 420 | 100 |
| Age | | |
| 18 – 25 | 156 | 37.1 |
| 26 – 35 | 206 | 49.1 |
| 36 or Older | 58 | 13.8 |
| Total | 420 | 100 |
| Gender | | |
| Male | 7 | 1.7 |
| Female | 410 | 97.6 |
| Another gender identity | 2 | 0.5 |
| Unknown/Missing | 1 | 0.2 |
| Total | 420 | 100 |
| Primary Language | | |
| English | 313 | 74.5 |
| Spanish | 87 | 20.7 |
| Other (i.e., Arabic, Cambodian, Mandarin, Portuguese, Tagalog, Other) | 20 | 4.8 |
| Total | 420 | 100 |
| Race/Ethnicity¹ | | |
| African American | 57 | 13.6 |
| American Indian | 14 | 3.3 |
| Asian | 30 | 7.1 |
| Hispanic/Latino | 278 | 66.2 |
| White | 128 | 30.5 |
| Multiple | 78 | 18.6 |
| Other | 6 | 1.4 |
| Missing/Unknown | 2 | 0.5 |
| Total¹ | - | - |

Appendix (continued).

| Characteristic | Participants (N=420) | |
|---|----------------------|-------------------|
| Mental Health Diagnosis | n | % |
| Depressive Disorders | 139 | 37.0 |
| Bipolar Disorders | 24 | 6.4 |
| Anxiety Disorders | 63 | 16.8 |
| Stressor and Adjustment Disorders | 111 | 29.5 |
| Other/Missing | 39 | 10.3 |
| Total² | 376 | 100 |
| Substance Use Disorder (SUD) Diagnosis | n | % |
| Yes, has SUD Diagnosis | 40 | 10.6 |
| No, does not have SUD Diagnosis | 336 | 89.4 |
| Total² | 376 | 100 |
| Sexual Orientation | n | % |
| Heterosexual or straight | 375 | 89.3 |
| Bisexual/Pansexual/Sexually Fluid | 32 | 7.6 |
| Another sexual orientation | <5 ³ | <1.2 ³ |
| Missing/Prefer not to answer | <5 ³ | <1.2 ³ |
| Total | 420 | 100 |
| Disability | n | % |
| Has a disability | 73 | 17.4 |
| Does not have a disability | 343 | 81.7 |
| Declined/Prefer not to answer | 4 | 0.9 |
| Total | 420 | 100 |
| Type of Disability⁴ | n | % |
| Communication (i.e., seeing, hearing) | 17 | 4.1 |
| Learning or other Mental Disability | 24 | 5.7 |
| Physical Disability | 9 | 12.3 |
| Chronic Health | 24 | 5.7 |
| Other Disability | 26 | 6.2 |
| Total | - | - |

¹ Total may exceed 100% since participants could select more than one response.

² Diagnosis related information is only available for participant who enrolled in Level-1 ADAPT services.

³ Values were suppressed due to small n size.

⁴ Total may exceed the number of participants with a disability since participants could select more than one response.



BHCONNECT INNOVATIONS-19

Final Report

COUNTY OF SAN DIEGO HEALTH AND HUMAN SERVICES AGENCY
BEHAVIORAL HEALTH SERVICES

v.4.30.2024



UC San Diego

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Introduction

The County of San Diego Health and Human Services Agency’s (HHSA), Behavioral Health Services (BHS) Telemental Health program (commonly known as BHConnect) was funded as a pilot study through the Innovations (INN) component of the Mental Health Services Act (MHSA). BHConnect focused on persons who have received crisis-oriented psychiatric care services, but were otherwise unconnected to behavioral health treatment services and identified as likely having barriers to accessing traditional outpatient services. The goal was to reduce the recurrence rate for psychiatric crisis services among these individuals by offering an alternative method of care that relied primarily on telehealth treatment. BHConnect provided clients with the technology necessary to maintain contact with telehealth professionals, such as a tablet or phone equipped with built-in internet access. The BHConnect service provider team was comprised of 1) licensed and associate clinicians who provided therapeutic care services, and 2) health navigators who supported the clinical team by maintaining engagement and communication with clients and providing other care management and supports to clients as needed. BHConnect provided services to children, youth and families (CYF), and adults/older adults (AOA).

While recognizing the positive benefits of the treatment services provided to BHConnect clients with the many competing demands for funding, BHS decided the BHConnect program would not continue past the conclusion of the MHSA Innovations (INN)-funded pilot study phase on 10/31/2023. Primary reasons for not continuing BHConnect included 1) lower than expected enrollment, particularly for AOA clients, and 2) the overall increased availability of telehealth services throughout the network of other BHS-funded treatment service providers, which lessened the uniqueness of the BHConnect program compared to when it started (i.e., before the pandemic).

This report highlights the successes and challenges of the BHConnect program during the INN-funded pilot study. Despite difficulties with initial uptake of BHConnect services, as evidenced by low enrollment of AOA clients, the results from the pilot study generally provided “proof of concept” for the original objectives by demonstrating that a telehealth-based service delivery model could successfully engage with and provide behavioral health treatment to youth and adults who recently received crisis services but were otherwise unconnected to ongoing treatment. This connection to treatment was associated with a reduced utilization of emergency/acute care services, particularly for those who had a prior psychiatric hospitalization. Key benefits of the telehealth service delivery model identified by participants, referral partners, and staff focused on the convenience and flexibility of participating in services that did not

require in-person/in-clinic interactions. The ability to offer treatment services without requiring any in-clinic sessions was particularly beneficial for engaging certain populations including persons with mental health conditions such as agoraphobia and depressive symptoms that contributed to significant self-isolation tendencies.

Program Description

The County BHS BHConnect program was funded through the INN component of the MHSa. Services were provided through the Vista Hill community-based organization. BHConnect was developed to increase access and connection to follow-up behavioral health services after a San Diego County resident utilized a psychiatric hospital, emergency screening, and/or crisis response services but was otherwise unconnected to behavioral health treatment. The aim was to overcome barriers to follow-up care with the goal of reducing recurrence rates of psychiatric crises. As such, specialized supports were provided almost exclusively via telehealth to reduce barriers to accessing ongoing care. San Diego County residents of all ages were eligible for BHConnect, and services were tailored to be culturally and developmentally appropriate. The BHConnect service provider team was comprised of licensed and associate clinicians who provided therapeutic care services. The team also included health navigators who supported the clinical team by maintaining engagement and communication with clients and providing other care management and supports as needed. After an initial evaluation by a case manager, services were offered on a telehealth platform. To facilitate better access to care services, BHConnect provided clients with the technology necessary to maintain contact with telehealth professionals. Clients could either install a telehealth app on an existing personal device, or the program provided a phone/tablet that was equipped with built-in internet access and the telehealth app to use while receiving BHConnect services. Clients received a full tutorial on how to use the technology, as well as assistance with in-home setup prior to being connected with a behavioral health professional.

Assessment of Primary Program Objectives

The main goals of the BHConnect project included the following:

- 1. To learn if telehealth will lead to increased engagement in outpatient behavioral health services for clients who access emergency services yet are not connected to outpatient care and are therefore at risk for a secondary emergency service.***

The MHSa INN-funded BHConnect pilot study was designed to expand opportunities for engaging in treatment by offering telehealth services for persons who recently utilized behavioral health-related emergency services but were otherwise unconnected to outpatient care. As discussed in more detail in this report, the results were somewhat mixed in that enrollment into BHConnect, particularly for AOA populations, did not meet expectations. Low AOA enrollment was especially pronounced during the early years of the BHConnect program, which coincided with and was likely negatively impacted (at least initially) by the onset of the COVID pandemic in 2020. The pandemic created challenges throughout the BHS system and disrupted efforts to develop referral partners. In more recent years, the network of referral partners expanded substantially with a corresponding increase in enrollment among AOA participants (approximately 20% more during Fiscal Year (FY) 2022-23 as compared to the prior year), but the initial goal of serving 175 AOA clients annually was not achieved.

Results generally indicated that BHConnect was able to retain the majority of clients in treatment services using a telehealth-based model of service provision and engagement. Approximately half of both CYF and AOA clients received services for at least four months, with around 10% receiving services for more than a year. For each month (i.e., 30 days) enrolled in BHConnect, CYF and AOA clients received an average of 3.5 and 4.2 respective services with therapy as the majority of those contacts. In the last full year of program operations (FY 2022-23) CYF and AOA clients, respectively, received on average a total of 9.4 and 12.5 total hours of therapy.

BHConnect also facilitated linkages to other treatment providers if BHConnect services were not preferred or were not the best fit for client needs. Approximately 20% of clients transitioned to other care providers, with less than 5% needing to transition to a higher level of care. In this regard, BHConnect prioritized quickly engaging with clients, and if a different treatment option was needed, facilitated a connection to another provider.

Both CYF and AOA clients who participated in BHConnect demonstrated a reduced need for emergency and crisis-oriented care services after 90 days of program involvement. Based on available data from the BHS service system, the number of CYF clients and AOA clients experiencing an inpatient hospitalization decreased 76.9% (from 39 to 9) and 82.1% (from 67 to 12), respectively. The data was based on available data from the BHS service system, comparing clients who were enrolled 90 days before and 90 days after enrolling in BHConnect. Crisis stabilization visits also reduced substantially for CYF and AOA clients. Where baseline and follow-up data were available (i.e., Child and Adolescent Needs and Strengths and Pediatric Symptoms Checklist for CYF clients, and Illness Management and Recovery and Recovery Markers Questionnaire for AOA clients), the results were generally consistent with the level of improvements identified in the overall BHS system of care.

In support of the basic concept motivating the creation of BHConnect, qualitative feedback from participants, referral partners, and staff highlighted the benefits of the telehealth-based service model to reduce barriers to accessing care and providing flexible and rapid scheduling of services to meet the needs of interested participants. Overall, telehealth-based mental health treatment services may not be preferred by or work for everyone, but the results of the BHConnect pilot study suggest that with the identification and development of sufficient numbers of referral partners, a telehealth only/telehealth primary model represents a viable strategy to engage a portion of the population who may not otherwise enroll in care.

2. *To learn if telehealth decreases the utilization of crisis/hospital services within 30 days of discharging from psychiatric hospitalization.*

For CYF and AOA clients who had a BHS psychiatric hospitalization within 30 days prior to BHConnect, hospitalization readmission rates were calculated and compared to the overall BHS 30-day readmission rates as reported in Appendix A of the FY 2021-22 CYF and AOA BHS Systemwide Annual Report. For those BHConnect CYF clients who had a psychiatric hospitalization within 30 days prior to enrolling into BHConnect, only 10.7% (3 out of 28) were readmitted within 30 days of discharge. This was slightly lower than the BHS CYF systemwide average of 14.0%. For BHConnect AOA clients, only 1.9% (1 out of 52) had a readmission within 30 days as compared to a BHS AOA systemwide average of 22.3%. While the total number of BHConnect participants included in these analyses was relatively small, the results suggest that engagement with outpatient care services such as BHConnect shortly

after discharge from a psychiatric hospitalization contributed to lower readmission rates, particularly among adults.

3. To determine how telehealth meets specific needs or diminishes barriers to treatment for clients.

As reflected in Figure 3 (pg. 24; Implementation Findings) and in the stakeholder staff feedback, telehealth services were generally viewed as an effective strategy for delivering mental health treatment services. Telehealth expanded access to care by eliminating specific barriers such as transportation, and by reducing others such as child care and the overall amount of time needed to participate in services as compared to in-person/in-clinic treatment. Telehealth also allowed for more flexible scheduling/rescheduling of appointment times, increasing convenience and feasibility for both clients and treatment providers. Additionally, stakeholders identified an unanticipated benefit of telehealth in that it allowed persons with certain mental health conditions such as agoraphobia or depression-related self-isolating tendencies the opportunity to access treatment services without requiring any in-office appointments. Near the end of the INN-funded pilot study, BHConnect began to strategically integrate some in-person visits if needed for client engagement, achieving treatment goals, and/or client safety. In this manner, treatment was further customized to address the needs and preferences of the client.

While telehealth eliminated or reduced many barriers to accessing care, it was important to address the following key telehealth requirements/needs: ensuring the client had an acceptable and operational device, ensuring they were comfortable using the device, verifying they had access to sufficient internet strength, and identifying a private space to conduct their treatment sessions. BHConnect staff would specifically attend to these essential components (e.g., providing them with a WIFI-enabled device and/or setting up an existing personal device to access telehealth services based on client preference) when enrolling someone into BHConnect. If challenges persisted that BHConnect could not address, BHConnect would explore transitioning the client to another care option.

Similar to in-person/in-clinic treatment, barriers affecting therapeutic engagement also needed to be addressed in the telehealth service delivery context. Examples include treatment ambivalence/lack of motivation, difficulty focusing, presence of other co-morbidities including substance use disorder, as well as the potential for mental health treatment stigmas. In addition to utilizing strategies applicable to both in-person and telehealth services, such as training staff in Motivational Interviewing techniques and encouraging “warm hand-offs” with the previously involved emergency service providers, BHConnect staff dedicated time to finding and incorporating technology-enabled tools such as online art therapy, educational videos, therapeutic games, and psychoeducational applications to engage with their clients. Also, the existing technology-based relationship between clients and BHConnect staff facilitated more frequent contact through messaging and other forms of brief virtual check-ins.

As discussed in more detail below, at the start of the BHConnect program there was another barrier that affected the utilization of BHConnect services, particularly for AOA clients. Prior to the onset of the COVID pandemic in March of 2020, use of telehealth to provide mental health treatment services was not commonly practiced throughout the BHS service system. Telehealth was a novelty, particularly among organizations providing crisis and emergency mental health care services to the AOA population. Based on provider feedback, there appeared to be some hesitancy to refer clients to BHConnect as it relied exclusively on telehealth to treat patients. As such, initial AOA referral numbers

were very low. Through the experience of responding to the pandemic, telehealth services became much more widespread and incorporated as a regular service option in many different mental health programs, which likely contributed to the growth in AOA referrals to BHConnect in more recent years.

4. To determine which subpopulations respond best to technology-driven services.

The experiences of BHConnect suggest that as long as the core technological requirements are addressed, telehealth services can be utilized by participants with a wide range of personal characteristics spanning age, gender, race/ethnicity, etc. However, BHConnect participants exhibited some variability from typical BHS outpatient participants. This trend was likely due, at least in part, to the focal population of BHConnect (i.e., those recently receiving behavioral health crisis/emergency services) and the telehealth orientation of their service delivery strategy. There were enrollment and utilization patterns that suggested some tendencies regarding who may be most interested in receiving mental health care exclusively/primarily via telehealth services. In particular, BHConnect participants tended to be “older” youth and “younger” adults, with approximately half (49.9%) aged between 15 and 30 years old. This trend suggests that the telehealth approach to providing treatment services may be most appealing to persons who were “old enough” to manage treatment services on their own via a telehealth device, and “young enough” to be familiar with and comfortable with interacting primarily via technology (i.e., video and phone). Feedback from staff supported this interpretation with some suggesting that a primarily telehealth-based treatment program might be most appropriate and feasible with older teens and younger adults (and not younger children).

Females also appeared to be somewhat more receptive to the BHConnect service delivery approach as they comprised approximately 60% of CYF and AOA enrollees, which is a larger percentage than found in the overall BHS CYF (52%) and AOA (43%) service system. BHConnect successfully served a racially and ethnically diverse client population; however, a lower percentage of BHConnect CYF clients identified as Hispanic (51%) as compared to other BHS CYF outpatient (67%) and emergency services (60%). These findings suggest that potentially a larger proportion of Hispanic families may have been hesitant to utilize a technology-based approach for mental health service delivery and/or were not offered it as consistently as a treatment option. This would need to be explored further in any future investigations into potential differences in utilization of telehealth treatment approaches by population groups. Similarly, although BHConnect provided treatment services to persons with a wide range of mental health diagnoses, depression was the most common for both CYF and AOA clients. This finding, combined with BHConnect team member feedback, highlights the fact that a technology-based approach to providing treatment services may be particularly appealing to persons for whom an in-person/on-site session may be a significant barrier to engaging in needed care to not only to logistical concerns, but those for whom their mental health symptoms inhibit interpersonal interactions.

Future Directions

With many competing demands for funding, BHS discontinued the BHConnect program on 10/31/2023, at the end of the MHSA INN-funded pilot study phase. The program stopped enrolling new clients as of 6/30/2023 and then either successfully concluded treatment or transitioned persons needing ongoing care to alternative treatment options throughout the BHS system by 10/31/2023. While recognizing the

benefits of the treatment services provided by BHConnect, the main reasons for not continuing the program included lower-than-expected enrollment (particularly for AOA clients) and the increased availability of telehealth services throughout the network of other BHS-funded treatment service providers.

Based on the experiences of the BHConnect program it appears there is a portion of the population, albeit of unknown size, receiving crisis and acute care behavioral health services who would benefit from having the opportunity to engage in treatment primarily or exclusively via telehealth. While most outpatient behavioral health treatment providers now regularly offer telehealth treatment services, BHConnect was unique in that it combined an outpatient treatment program with licensed clinicians who provide ongoing therapy with an outreach/linkage program (such as the BHS-funded In-Home Outreach Team [IHOT] or PeerLINKS programs) that meets with individuals at their preferred location (i.e., home or crisis/inpatient facility) to form connections and facilitate interactions.

This outreach orientation of BHConnect removed significant barriers to accessing treatment by enabling prompt and low burden initiation of services to literally and figuratively, “meet the client where they are at.” The telehealth approach of BHConnect then helped to keep people in treatment by offering a convenient and relatively barrier-free option to participate in therapy, which other outpatient treatment programs are now generally able to replicate given the proliferation of telehealth services that occurred during the COVID pandemic. While BHConnect is no longer a standalone program, there are aspects of BHConnect that could be incorporated into existing outpatient programs. The following is a list of suggestions focused on minimizing barriers to starting treatment services and expanding opportunities for engaging “unconnected to care” populations who have recently received crisis-oriented behavioral health services:

- Establish referral partnerships/relationships with crisis/acute care behavioral health service providers and/or BHS-funded outreach and linkage organizations.
- Enhance pathways to initiating treatment services without needing any in-clinic, in-person visits to remove that as a potential barrier to engaging in care.
- Utilize peers, health navigators, community health workers/promotoras, and/or other trained professionals at the outpatient clinics to engage in virtual and/or in-person outreach with persons identified as having barriers to connecting to traditional outpatient treatment services. Examples include utilizing a “warm-handoff” process while client is still located at a crisis/acute care provider and/or meet with the person at home/another convenient location to establish telehealth service delivery capabilities).
- Ensure that all persons interested in receiving telehealth services have the technological capability and knowledge to do so successfully. For example, provide phones (or tablets for those who would benefit from a larger visual format) along with training/practice, if needed, for how to successfully access and engage in telehealth sessions.
- Encourage development of outpatient clinician expertise and utilization of online resources and tools to incorporate into telehealth treatment sessions.
- Future standalone programs like BHConnect should emphasize younger adults and/or specifically TAY.
- Incorporate psychiatric care directly into the program or develop a specific partnership to provide needed medication management services.

BHConnect Enrollment and Referrals

As shown in Table 1, a total of 391 unique persons were enrolled into the BHConnect program throughout the MHSA INN-funded phase of the program that ended on 10/31/2023. Of the enrollees, 58.1% (n=227) were enrolled as CYF clients and 41.9% (n=164) were enrolled as AOA clients. Enrollment was not uniform across the years, particularly among AOA clients. More AOA clients enrolled during the final two years of BHConnect operations (78.6%; n=129) than the first two years (21.4%; n=35).

Table 1. BHConnect Enrollment and Total Served by Year

| | Youth (N=227) | | | Adult (N=164) | | | Combined Total Served ³ |
|-------------------|------------------|-----------------------------|---------------------------|------------------|-----------------------------|---------------------------|------------------------------------|
| | First Enrollment | Total Enrolled ¹ | Total Served ² | First Enrollment | Total Enrolled ¹ | Total Served ² | |
| FY 2019-20 | 37 | 37 | 37 | 17 | 17 | 17 | 54 |
| FY 2020-21 | 69 | 71 | 98 | 18 | 18 | 31 | 129 |
| FY 2021-22 | 51 | 54 | 81 | 59 | 60 | 67 | 148 |
| FY 2022-23 | 70 | 73 | 105 | 70 | 73 | 101 | 206 |
| Total | 227 | 235 | 321 | 164 | 168 | 216 | 537 |

¹Includes persons re-enrolled from a prior year.

²Include persons receiving services during the year who enrolled in the previous year.

³Includes all CYF and AOA persons served in the respective FY.

Total enrollment into BHConnect did not meet original expectations, particularly among AOA clients. It was estimated that 250 persons (75 youth and 175 adults) would be served annually. While this goal was consistently met or exceeded for CYF clients in all but the first year, for AOA clients this threshold was not achieved. As discussed in more detail below, additional outreach efforts focused on AOA referral sources during recent years produced substantial growth in total AOA clients enrolled and served. Although still not meeting expectations, the increased number of AOA clients served during FY 2022-23 suggests that a sufficient level of systemwide interest in a BHConnect-type program may exist. However, to fully identify and engage this population, extensive referral networks must be established among service providers.

In the last full year of BHConnect operations (FY 2022-23) a total of 13 different organizations referred CYF clients to BHConnect. Consistent with prior years, Rady Children's Hospital was the primary referral source with 77 referrals coming from either the emergency department or behavioral health urgent care. Other prominent CYF referral sources included the SmartCare and Child and Adolescent Psychiatry Services with 27 and 18 referrals, respectively. Similarly, a total of 20 organizations referred AOA clients to BHConnect with over 35% (37.2%; n=74) originating from Sharp Mesa Vista. Additional sources with at least 10 referrals included Adult Protective Services, SmartCare, Paradise Valley Hospital/Bayview, and Strength Based Case Management-Central/North.

Typically, if enrollment was unsuccessful, the primary reason was that BHConnect staff were not able to locate/contact the person based on the referral information. This was true for 25.6% of CYF and 42.7% of AOA referrals. Further, during FY 2022-23, an additional 21.9% of CYF and 11.1% AOA referrals declined

to enroll, indicating that barriers to participating in recommended treatment services remained even if burdens associated with accessing care were minimized by offering telehealth services.

Participant Characteristics

An overview of key BHConnect participant characteristics is presented here with a complete listing in Appendix A. In the descriptions below, comparison data comes from the BHS CYF and AOA Systemwide Annual Reports or the BHS Databook from FY 2021-22, the most recent published versions.

The BHConnect program provided mental health outpatient treatment to clients of all ages. As the focal service population was persons with a recent crisis behavioral health contact, BHConnect clients tended to be “older” youth and “younger” adults than those found in other BHS outpatient treatment programs. For example, 12-15 year old youth comprised 49.3% of BHConnect clients but only 34% of other BHS outpatient programs. Clients aged 16-18 were 33.1% of those served by BHConnect, as compared to 22% of the larger BHS outpatient system. The BHConnect AOA group also differed substantially from the larger BHS outpatient population: in BHConnect, TAY (i.e., aged 18-25) comprised a larger share of the service population (28.7%) than was served in BHS outpatient programs (17%). However, when we focus on emergency behavioral health services (i.e., crisis stabilization), the BHConnect client age distribution was much more similar to the larger BHS outpatient system. A closer examination of the age distribution indicated that the majority (51.1%) of CYF BHConnect clients were age 15-18 and approximately half (48.2%) of AOA BHConnect clients were age 18-30.

Figure 1. Age Distribution of CYF Clients

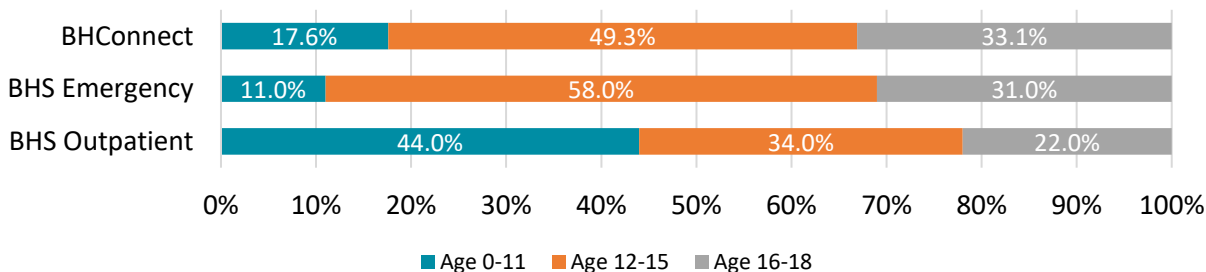
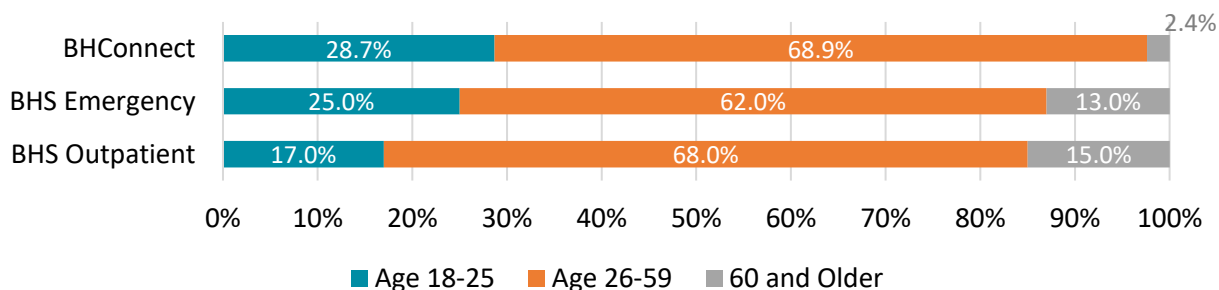


Figure 2. Age Distribution of AOA Clients



As shown in Table 2, for both the BHConnect CYF and AOA service populations, approximately 60% of participants identified as female (59.9% and 60.4%, respectively). For CYF clients, this is slightly more than

in BHS outpatient programs (53%), but slightly less than found in BHS emergency services (66%). Among AOA clients, the proportion of females served exceeded that found in BHS outpatient programs (53%) and even more so than BHS emergency services (43%).

English was the primary language for over 90% of CYF and AOA BHConnect clients, with approximately 5% of CYF and AOA BHConnect clients reporting Spanish as their primary language. While the majority of CYF BHConnect clients identified as Hispanic (51.1%), this was less than found in both BHS outpatient programs (67%) and emergency services (60%). Among AOA BHConnect clients, approximately one-third identified as Hispanic (32.3%), which is similar to that found in BHS outpatient programs (36%) and BHS emergency services (31%).

Table 2. BHConnect Participant Characteristics

| Characteristic | Youth (N=227) | | Adult (N=164) | |
|-------------------------------------|---------------|------------|---------------|------------|
| | n | % | n | % |
| Gender | | | | |
| Male | 72 | 31.7 | 61 | 37.2 |
| Female | 136 | 59.9 | 99 | 60.4 |
| Transgender male/Trans man | 5 | 2.2 | - | - |
| Another gender identity/Questioning | 10 | 4.4 | 4 | 2.4 |
| Prefer not to answer | 4 | 1.8 | - | - |
| Total | 227 | 100 | 164 | 100 |
| Primary Language | | | | |
| English | 208 | 91.6 | 153 | 93.3 |
| Spanish | 13 | 5.7 | 8 | 4.9 |
| Other | 6 | 2.7 | 3 | 1.8 |
| Total | 227 | 100 | 164 | 100 |
| Race/Ethnicity¹ | | | | |
| African American | 39 | 17.2 | 36 | 22.0 |
| American Indian | 5 | 2.2 | 5 | 3.0 |
| Asian | 17 | 7.5 | 13 | 7.9 |
| Hispanic/Latino | 116 | 51.1 | 53 | 32.3 |
| Pacific Islander | 4 | 1.8 | - | - |
| White | 91 | 40.1 | 68 | 41.5 |
| Multiple | 46 | 20.3 | 18 | 11.0 |
| Other | 3 | 1.3 | 1 | 0.6 |
| Missing/Unknown | 5 | 2.2 | 8 | 4.9 |
| Total¹ | - | - | - | - |

¹Total may exceed 100% since participants could select more than one response.

As shown in Table 3, for both CYF and AOA BHConnect clients, depressive disorder was the most common mental health diagnosis (47.6% and 39.6%, respectively). The next most common diagnoses for CYF clients

were anxiety (19.4%) and stressor/adjustment disorders (16.3%). For AOA clients, it was bipolar disorder (23.8%) and schizophrenia/other psychotic disorders (20.1%).

Table 3. BHConnect Participant Behavioral Health Diagnostic Characteristics

| Characteristic | Youth (N=227) | | Adult (N=164) | |
|---|---------------|------------|-----------------|------------|
| | n | % | n | % |
| Mental Health Diagnosis | | | | |
| ADHD | 7 | 3.1 | <5 ¹ | <3.0 |
| Oppositional/Conduct Disorders | 5 | 2.2 | N/A | N/A |
| Depressive Disorders | 108 | 47.6 | 65 | 39.6 |
| Bipolar Disorders | 8 | 3.5 | 39 | 23.8 |
| Anxiety Disorders | 44 | 19.4 | 11 | 6.7 |
| Stressor and Adjustment Disorders | 37 | 16.3 | 9 | 5.5 |
| Schizophrenia and Other Psychotic Disorders | 5 | 2.2 | 33 | 20.1 |
| Other/Missing | 13 | 5.7 | <5 ¹ | <3.0 |
| Total | 227 | 100 | 164 | 100 |
| Substance Use Disorder (SUD) Diagnosis | n | % | n | % |
| Yes, has SUD Diagnosis | 22 | 9.7 | 66 | 40.2 |
| No, does not have SUD Diagnosis | 205 | 90.3 | 98 | 59.8 |
| Total | 227 | 100 | 164 | 100 |

¹Values were suppressed due to small n size.

For the CYF population, the prevalence of depressive disorders among BHConnect clients (47.6%) was more similar to BHS emergency services (50%) than the BHS outpatient programs (30%). In the AOA population, BHConnect clients reported higher rates of depressive disorders (39.6%) than BHS emergency services (15%) and outpatient programs (22%), but lower rates of schizophrenia/other psychotic disorders (20.1%) than BHS emergency (49%) and outpatient populations (47%).

BHConnect staff indicated that the emphasis on telehealth and remote delivery of services was particularly appealing to persons with mental health challenges such as agoraphobia and some depressions that inhibit in-person participation in treatment.

For CYF populations, the prevalence of substance use diagnoses was similar for BHConnect clients (9.7%), emergency services (11%) and outpatient programs (8%). The prevalence of substance use disorder was higher for BHConnect AOA clients (40.2%) than CYF clients, but less than BHS outpatient programs (50%).

Overall, the characteristics of BHConnect participants exhibited some differences from typical BHS outpatient participants, likely due to the focal population of BHConnect (i.e., those recently receiving behavioral health crisis/emergency services) and the telehealth orientation of their service delivery strategy. As mentioned earlier, BHConnect participants tended to be “older” youth and “younger” adults, with the majority aged between 15 and 30 years old. This trend suggests that the telehealth approach to providing treatment services may be most appealing to persons “old enough” to manage treatment services on their own via a telehealth device, and “young enough” to be familiar with and comfortable with interacting primarily via technology (i.e., video and phone).

Females also appeared to be somewhat more receptive to the BHConnect service delivery approach as they comprised approximately 60% of enrollees. While BHConnect successfully served a racially and ethnically diverse client population, a lower percentage of CYF BHConnect clients identified as Hispanic as compared to other BHS CYF outpatient and emergency services, which suggests that at least some proportion of Hispanic families were hesitant to utilize a technology-based approach for mental health service delivery. Similarly, although BHConnect provided treatment services to persons with a wide range of mental health diagnoses, depression was the most common for both CYF and AOA BHConnect clients. This finding, combined with BHConnect team member feedback, highlights the fact that a technology-based approach to providing treatment services that can be initiated without needing to attend any in-person onsite sessions may be particularly appealing to persons for whom such an interaction may pose a significant barrier to engaging in needed care.

Utilization of Program Services

BHConnect Services – Duration and Discharge Status

Table 4. BHConnect Program Participation Duration

| | Youth (N=227) | Adult (N=164) |
|-------------------------------------|---------------|---------------|
| Mean (days) | 177.2 | 160.9 |
| Median (days) | 123.0 | 109.5 |
| Treatment longer than 1 year | 11.5% (n=26) | 13.4% (n=22) |

Both CYF and AOA clients receiving BHConnect services were typically enrolled for approximately four months (i.e., median duration of 123.0 and 109.5 days, respectively). Approximately 10-15% of CYF and AOA clients were engaged in longer-term therapeutic relationships with BHConnect clinicians and received services for more than a year, influencing the mean duration of BHConnect program to be substantially higher than the median (177.2 for CYF and 160.9 for AOA clients) (see Table 4).

BHConnect Services – Type and Amount

In an average month (defined as 30 days), BHConnect CYF clients received an average of 3.5 services while AOA clients received 4.2 (see Table 5). For both groups, therapeutic sessions were the primary type of service. For CYF clients, psychotherapy represented 60.2% of contacts with an average of 2.1 sessions per month. For AOA clients, psychotherapy was 62.4% of contacts averaging 2.6 sessions per month. Conducting assessments and providing case management services were the other primary forms of interactions.

Table 5. Mean Number of BHConnect Services Provided Per Month during Life of Program

| | Youth (N=227) | Adults (N=164) |
|--|--|----------------|
| Type of BHConnect Service | Average Number of Services per 30 Days | |
| Any BHConnect service | 3.5 | 4.2 |
| Psychosocial assessment | 0.5 | 0.5 |
| Therapy | 2.1 | 2.6 |
| Rehabilitation | <0.1 | 0.2 |
| Case management | 0.4 | 0.7 |
| Other services (e.g., collateral) | 0.5 | 0.2 |

An additional examination of service utilization patterns revealed that CYF and AOA clients averaged 9.4 and 12.5 hours, respectively, of therapy during FY 2022-23. For CYF clients, this was nearly identical to the average of 9.5 hours of therapy reported in the BHS CYF Systemwide FY 2021-22 Annual Report. No comparable value has been published for AOA clients. BHConnect services were flexible and customizable to meet the clinical needs of their clients, such as by providing services that would last longer than the typical 45-minute therapy session if needed and/or offering therapy or rehabilitation services multiple times per week.

Behavioral Health Service Utilization Patterns

Utilization of BHS Crisis and Acute Oriented Services

As evidenced by a review of BHS electronic health records, individuals utilized BHS-funded crisis and acute care services less often after enrolling in BHConnect than prior to enrollment. This improvement was particularly evident for AOA clients, as 40.9% had at least one inpatient psychiatric hospitalization in the 90 days prior to enrolling in BHConnect while only 7.3% utilized these services during the 90 days afterward. Reductions in hospitalizations, crisis stabilization visits, and PERT/MCRT contacts were also evident for youth participating in BHConnect.

Table 6. Utilization of BHS Crisis and Acute Oriented Services Before and After Enrolling in BHConnect

| | Youth (N=227) | | | | Adult (N=164) | | | |
|--|---------------------------------------|------|--------------------------------------|------|---------------------------------------|------|--------------------------------------|------|
| | 90 days before enrolling in BHConnect | | 90 days after enrolling in BHConnect | | 90 days before enrolling in BHConnect | | 90 days after enrolling in BHConnect | |
| | n | % | n | % | n | % | n | % |
| Inpatient Psychiatric Hospitalization | 39 | 17.2 | 9 | 4.0 | 67 | 40.9 | 12 | 7.3 |
| Crisis Residential | 0 | - | 0 | - | 6 | 3.7 | <5 ¹ | <3.0 |
| Crisis Stabilization | 50 | 22.0 | 17 | 7.5 | 22 | 13.4 | 13 | 7.9 |
| Urgent Outpatient | 0 | - | <5 ¹ | <2.2 | 23 | 14.0 | 15 | 9.1 |
| PERT/MCRT² | 25 | 11.0 | 10 | 4.4 | 13 | 7.9 | 12 | 7.3 |

¹Due to the small number of persons experiencing this service the exact number is masked.

²PERT = Psychiatric Emergency Response Teams; MCRT = Mobile Crisis Response Team

Of note, a limitation of these analyses is that they only include BHS-funded services, so any crisis services received outside the BHS system are not reflected. As such, the results presented in Table 6 should be interpreted cautiously as they do not reflect all services received, particularly for the youth population given that many received behavioral health-related care at Rady Children’s Hospital Urgent Care which would not be reflected in BHS electronic health records.

Additional analyses focused on psychiatric hospitalization readmission rates for the CYF and AOA clients who had an occurrence within 30 days prior to enrolling into BHConnect. These rates (see Table 7), were compared to the 30-day psychiatric hospitalization readmission rates for CYF and AOA populations in the broader BHS system, as reported in the CYF and AOA BHS Systemwide Annual Report FY 2021-22, Appendix A.

Table 7. Comparison of 30-day Psychiatric Hospitalization Readmission Rates

| Characteristic | Youth | | Adult | |
|--|-------|-----------|-------|-----------|
| | % | n | % | n |
| Enrolled in BHConnect within 30 days of discharge | 10.7 | (3 of 28) | 1.9 | (1 of 52) |
| Average BHS systemwide 30-day psychiatric hospital readmission rate FY 2019-20 to FY 2021-22 | 14.0 | | 22.3 | |

For the 28 CYF clients who had a hospitalization within 30 days pre-BHConnect, 10.7% (n=3) were readmitted within 30 days post-enrollment. This was lower than the BHS CYF systemwide average of 14.0%. For AOA clients, only 1.9% (1 out of 52) had a psychiatric hospital readmission post-enrollment as compared to the BHS systemwide average of 22.3%. Notably, the total number of BHConnect participants included in these analyses was relatively small and may not be representative of all BHConnect clients served. Further, analyses include BHS services only and may not reflect all crisis services received. However, the results suggest that engagement with outpatient treatment services shortly after a psychiatric hospitalization contributed to lower recurrence of hospitalization, particularly among adults.

Linkages to Other Treatment Programs

While providing direct treatment and support services to clients, the BHConnect team also continually evaluated client needs and preferences to determine if other treatment approaches and/or levels of care may be appropriate. Approximately 20% of both youth and adult BHConnect clients were linked to other treatment programs (see Table 8). Most were connected to programs offering a similar intensity or level of care. Less than 5% needed to be referred to a program that could provide a higher level of care to address more serious concerns.

Table 8. Linkages to Other Treatment Programs

| Characteristic | Youth (N=227) | | Adult (N=164) | |
|--------------------------|---------------|------|---------------|------|
| | n | % | n | % |
| Equivalent Level of Care | 44 | 19.4 | 29 | 17.7 |
| Higher Level of Care | 9 | 4.0 | 4 | 2.4 |

BHConnect Treatment Outcomes

Child/Youth Assessments

Child and Adolescent Needs and Strengths (CANS)

The CANS assessment is a structured tool used for identifying actionable needs and useful strengths among youth aged 6 to 21. It provides a framework for developing and communicating a shared vision by using assessment and interview information generated from both the youth and family members to inform planning, support decisions, and monitor outcomes. In BHConnect, the CANS is completed by providers at initial intake, six-month reassessment, and discharge. A total of 146 clients were enrolled at least six months and had a follow-up or discharge CANS completed to allow for an assessment of change.

The CANS assessment includes a variety of domains to identify the strengths and needs of each youth. Each domain contains a certain number of questions that are rated 0 to 3, with a “2” or “3” indicating a specific area that could potentially be addressed in the particular service or treatment plan. Table 9 shows the mean number of needs at initial and last available assessments for the following domains: child behavioral and emotional needs, life functioning, and risk behaviors. Overall, the findings indicated statistically significant improvement in all three domains.

Table 9. CANS Average Change from Initial Assessment (N=146)

| Key CANS Domain | Initial Mean Number of Needs | Follow-up Mean Number of Needs |
|----------------------|------------------------------|--------------------------------|
| Behavioral/Emotional | 2.2 | 1.4* |
| Life Functioning | 2.1 | 1.8* |
| Risk Behaviors | 0.7 | 0.5* |

[^]statistical significance at $p < 0.1$; *statistical significance at $p < 0.05$

An alternative approach to assess for CANS improvements is to identify the percent of persons who had a reduction of at least one need within a CANS domain (i.e., moving from a “2” or “3” at initial assessment to a “0” or “1” on the same item at the discharge assessment). For each CANS domain, approximately 65% of the children and youth served by BHConnect experienced at least one reduction in a need item identified during the initial assessment (see Table 10).

Table 10. Persons with CANS Improvement at Follow-up (N=50)

| Key CANS Domain | Persons with at Least One Need at Initial Assessment | Persons with any Item Improved to not be a Need at Follow-up | % of Persons with an Improvement at Follow-up |
|----------------------|--|--|---|
| Behavioral/Emotional | 134 | 91 | 67.9 |
| Life Functioning | 100 | 63 | 63.0 |
| Risk Behaviors | 68 | 44 | 64.7 |

This is slightly lower than the overall County CYF BHS system, where it is reported in the FY 2021-22 CYF BHS Systemwide Annual Report that 75% of discharged clients reported at least one reduction in a need item. This difference is likely due, at least in part, to the nature of the population served by BHConnect: youth who have had difficulty engaging in traditional outpatient treatment programs and have recently experienced a crisis event.

Overall, client improvement on the CANS suggests that the BHConnect team was generally successful at engaging children, youth, and their families and achieving improvements in well-being at rates almost as high as those observed across the broader CYF service system.

Pediatric Symptoms Checklist (PSC)

The PSC is a screening tool designed to support the identification of emotional and behavioral needs. Caregivers complete the PSC-Parent version on behalf of children and youth ages 3 to 18, and youth ages 11 to 18 complete the self-report PSC-Youth version. Clinical cutoff values indicating impairment for the total PSC score and the three subscales are located below in Table 11.

The PSC was administered at initial entry into BHConnect, six-month reassessment, and discharge. However, as a voluntary self-report tool, the completion rate at follow-up or discharge was lower than clinician-completed tools such as the CANS. A total of 89 caregivers and 86 youth completed both a baseline and follow-up assessment.

Table 11. PSC Average Change from Baseline

| Subscales | Parent/Caregiver Report (N=89) | | | | | Youth Report (N=86) | | | | |
|----------------------|-----------------------------------|--|---|------------------------|-------------------------|------------------------|--|---|------------------------|-------------------------|
| | N | % above clinical cutoff ¹ at baseline | % above clinical cutoff ¹ at follow-up | Mean Score at Baseline | Mean Score at Follow-up | N | % above clinical cutoff ¹ at baseline | % above clinical cutoff ¹ at follow-up | Mean Score at Baseline | Mean Score at Follow-up |
| Attention | 89 | 21.3 | 20.2 | 4.8 | 4.4* | 86 | 41.9 | 23.3 | 5.8 | 4.8** |
| Internalizing | 89 | 70.8 | 41.6 | 6.0 | 4.4** | 86 | 82.6 | 47.7 | 6.7 | 4.3** |
| Externalizing | 89 | 25.8 | 25.8 | 4.4 | 4.1 | 86 | 11.6 | 4.7 | 3.0 | 2.2** |
| Total Score | 89 | 61.8 | 37.1 | 30.8 | 25.7** | 86 | 70.9 | 34.9 | 31.7 | 22.7** |

¹Statistical significance at $p < 0.10$; *statistical significance at $p < 0.05$; **statistical significance at $p < 0.01$

¹Score above clinical cutoff. Note: PSC clinical cutoff scores by subscale (higher scores indicate worse condition): Attention: ≥ 7 , Internalizing: ≥ 5 , Externalizing: ≥ 7 , Total: ≥ 28

To better understand the extent to which PSC scores changed within the BHConnect client population and to facilitate comparisons with the overall CYF BHS system, analyses were also conducted that examined the level of change from initial PSC assessment, which is consistent reporting from the CYF BHS Systemwide Annual Report.

Table 12. Distribution of Change Scores from Initial PSC Assessment

| Amount of Change | Parent/Caregiver Report (N=89) | | Youth Report (N=86) | |
|---|-----------------------------------|------|------------------------|------|
| | n | % | n | % |
| Increased impairment (i.e., 1+ point increase) | 24 | 27.0 | 17 | 19.8 |
| No improvement (i.e., 0-1 point reduction) | 7 | 7.9 | 9 | 10.5 |
| Small improvement (i.e., 2-4 point reduction) | 18 | 20.2 | 5 | 5.8 |
| Medium improvement (i.e., 5-8 point reduction) | 11 | 12.4 | 13 | 15.1 |
| Large improvement (i.e., 9+ point reduction) | 29 | 32.6 | 42 | 48.8 |

There was substantial variability among BHConnect clients and their self-reported experiences of behavioral health changes. As shown in Table 12, while a third of parents/caregivers (32.6%) and half of children/youth (48.8%) in BHConnect reported large improvements from their initial PSC assessment, 27.0% of caregivers and 19.8% of children reported increased impairment. Similar variability and distribution patterns in PSC change score analyses were also evident in the overall CYF BHS system as reported in the FY 2021-22 CYF BHS Systemwide Annual Report where 41% and 45% of caregivers and children/youth, respectively, reported improvements while 23% and 22%, respectively, reported increased impairment from initial PSC assessment.

When comparing BHConnect clients to the overall BHS system, BHConnect caregivers were less likely to report large improvements (i.e., 32.6% compared to 41%); however, BHConnect youth reported large

improvements at approximately the same rate as the overall BHS system of care (i.e., 48.8% compared to 45%). Of note, since approximately only 40% of clients had both a baseline and follow-up PSC completed, the results reported above may not reflect the experiences of the overall population served by BHConnect.

Adult Assessments

Recovery Markers Questionnaire (RMQ)

The RMQ is a 26-item questionnaire that assesses elements of recovery from the client's perspective. It was developed to provide the mental health field with a multifaceted measure that collects information on personal recovery. The RMQ is administered at initial entry into BHConnect, at six-month reassessment, and at discharge. The results listed below have been rescaled to the following: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; and 5 = Strongly Agree, with higher values corresponding to higher levels of well-being. The RMQ asks respondents to answer questions as it is "true for you now."

The total mean score for the 65 adult participants who completed the RMQ at intake and at a follow-up assessment during was 3.4 at baseline and 3.7 at follow-up. This change was in the desired direction and was statistically significant. An important individual item from the RMQ was "My symptoms are bothering me less since starting services here," for which mean scores increased from 3.1 (i.e., neutral) to 4.0 (i.e., agree) - also statistically significant and clinically meaningful.

As reported in the Mental Health Outcomes Management System (mHOMS) Annual Outcomes Report for FY 2021-22 (the most recent version available for comparison), the average RMQ at intake for other BHS treatment programs (e.g., outpatient, Assertive Community Treatment (ACT), case management, and TAY residential programs) was 3.3 with a follow-up score of 3.7. It appears that BHConnect participants self-report generally similar assessments of their recovery status and outlook on life as do clients in other BHS programs. Of note, since approximately only 40% of clients had both a baseline and follow-up RMQ completed, the results reported above may not reflect the experiences of the overall population served by BHConnect.

Illness Management and Recovery (IMR)

To measure clinician perception of client recovery, the IMR scale was completed by BHConnect staff at initial program entry, at six-month reassessment, and at discharge. The IMR scale has 15 items, each addressing a different aspect of illness management and recovery. Each item can function as a domain of improvement. Additionally, there are three subscales known as Recovery, Management, and Substance Abuse. IMR scores range from 1 to 5, with 5 representing the highest level of recovery.

Table 13. IMR Assessments for BHConnect Adult Clients (N=82)

| | | Intake | Follow-Up |
|---|----|---|-------------------|
| Individual Assessment Items | n | Mean ¹ | Mean ¹ |
| | | Scale of 1 to 5 where higher value = better functioning | |
| Involvement of family and friends in his/her mental health treatment: How much are family members, friends, boyfriends or girlfriends, and other people who are important to him/her (outside the mental health agency) involved in his or her health treatment? | 82 | 2.9 | 3.0 |
| Time in structured roles: How much time does s/he spend working, volunteering, being a student, being a parent, taking care of someone else or someone else's house or apartment? | 79 | 2.5 | 3.2** |
| Psychiatric hospitalizations: When is the last time s/he has been hospitalized for mental health or substance abuse reasons? | 82 | 3.0 | 3.9*** |
| Using medication effectively: How often does s/he take his/her medication as prescribed? | 48 | 4.1 | 4.4 |
| IMR Subscales | n | Mean ¹ | Mean ¹ |
| Recovery | 82 | 2.8 | 3.5*** |
| Management | 81 | 2.1 | 3.0*** |
| Substance Abuse | 71 | 4.2 | 4.5** |
| Overall IMR | 82 | 2.9 | 3.5*** |

statistically significant at $p < 0.01$; *statistically significant at $p < 0.001$;

¹IMR scores range from 1 to 5, where 5 = highest level of recovery

A total of 82 participants completed an intake and a follow-up assessment (see Table 13). The mean overall IMR score significantly improved from intake (2.9) to last available follow-up (3.5). Improvements were observed in terms of greater recovery (i.e., reduced impairment due to symptoms), better management of their illness, and reduced substance abuse. Clinicians reported a substantial decrease in psychiatric hospitalizations, as the value for this item increased from 3.0 to 3.9 with the average last psychiatric hospitalization occurring more than six months ago (i.e., not while enrolled in BHConnect).

As reported in the mHOMS Annual Outcomes Report for FY 2021-22, the average overall IMR intake score for other outpatient programs was 2.8, which increased to 3.4 at most recent follow-up. This pattern indicates that BHConnect adult clients have similar levels of impairment and recovery/management skills at program intake as other BHS programs and can achieve similar or greater improvements at follow-up.

BHConnect Stakeholder Feedback

BHConnect Participant Feedback

At the end of FY 2020-21, FY 2021-22, and FY 2022-23, BHConnect providers asked participants to engage in a short qualitative interview to elicit feedback on the program. Clients were asked a series of questions, which had been developed by the University of California San Diego (UCSD) evaluation team in collaboration with BHConnect leadership and BHS input. Providers were given a short script explaining the qualitative data collection process, and explained that providing feedback was voluntary and would not impact participation in the program. A total of 61 participants (24 adults, 22 youth, and 15 parents/caregivers) volunteered to complete the brief qualitative interview. From the collected data, the following themes emerged across all years:

BHConnect clients appreciated the emphasis on telehealth to reduce burdens

“Easier to access, via in person would be more of a challenge to make it to sessions.”

“This has been so much better for me because I don't have to figure out how to get there [sessions]. I don't have to figure out who is going to take care of the kids.”

“I like that I can go minutes before the session and don't have to ask mom to give me a ride or go on the bus to make it to session.”

Respondents in FY 2021-22 and FY 2022-23 noted that youth clients may struggle more than adults with telehealth. The potential for lack of privacy and distractions can pose a barrier to engagement in sessions. Special considerations should be made in the future to accommodate youth clients who may struggle with telehealth services.

The BHConnect program model improved service flexibility

“It's more flexible for me to be able to connect with my therapist when needed. I had to miss a few appointments with my therapist but luckily they were able to be flexible with my schedule so I could make up the missed sessions.”

“We were desperate to enroll him in therapy and it seemed that you guys could get him in quickly.”

The BHConnect experience differed, in a positive way, from prior treatment experiences

“Since starting services, my trust level with mental health workers has improved.”

“More experienced people working there.”

“It's a more personal connection.”

“I like that my privacy is kept private with [BHConnect], I didn't really feel the same way with my previous program.”

“I feel like I am getting better care than I have from past providers.”

Given that only approximately 12% (n=46) of the 391 unduplicated BHConnect clients participated in a feedback survey, a potential limitation of the findings presented is that they may not reflect the perceptions of the entire BHConnect program participant population. Additionally, it should be noted that the interviews were conducted by BHConnect program staff and therefore could be positively biased. However, the core theme of telehealth improving the ability to engage in treatment is consistent with expectations and the reduced barriers to treatment participation that telehealth services offer.

BHConnect Referral Partner Feedback

At the end of FY 2021-22 and FY 2022-23, BHConnect providers asked referral partners to engage in a short survey to elicit feedback on the program. Referral partners were asked a series of questions which had been developed by the UCSD evaluation team in collaboration with BHConnect leadership and BHS input. Referral partners were given a short script explaining the qualitative data collection process, and explained that providing feedback was voluntary and would be used only to inform recommendations for program improvements. Combining both years, 124 invitations were issued and 54 surveys were completed for a response rate of 43.5%. Given the response rate, a limitation of the findings presented is that they may not fully reflect the perceptions of the BHConnect referral partner population. From the collected data, the following themes emerged from the qualitative data feedback across both years:

BHConnect offered timely services to clients in need

“I love how responsive the team has been when referrals are submitted. The partnership we have with BHConnect is phenomenal.”

“The expediency in getting clients serviced has been of great value.”

“... there is minimal waitlist, they are responsive, and they are a good lifeline for patients that are coming out of a crisis.”

BHConnect reduced barriers to therapy

“There are other referral options, but they come with longer waitlists and other barriers (transportation, not set up to treat severe concerns).”

“Clients that are interested in receiving therapy but are impacted by different barriers that make it difficult for them to receive traditional therapy. I often refer clients that self-isolate or are agoraphobic, due to their difficulty in public settings.”

“For patients with [serious mental illness], psychotic disorder, it would be extremely difficult to find other referral options.”

BHConnect filled a gap in services in the community

“[BHConnect] fills a gap in services and overcomes barriers that already exist in which services delivery is compromised. For all the reasons listed in previous answers... transportation, waiting lists...”

“We believe that it has improved the quality of care for patients transitioning from the hospital and are hoping that it would prevent patients needing to return to the hospital.”

BHConnect Staff Feedback

Findings reported in this section were derived from two primary data sources: 1) stakeholder meetings and 2) annual BHConnect staff surveys. The stakeholder meetings were held throughout the year with representatives from BHS, BHConnect, and the UCSD evaluation team. Primary objectives for these meetings were to review program operations, evaluation approaches, and outcome data. The Annual BHConnect staff survey was conducted at the end of each FY. BHConnect program staff were asked to participate in a brief online survey about their experiences with, perceptions about, and recommendations for the program. The response rate was 100% for all but one year (i.e., FY 2022-23) when it was 92.3%. Open-ended survey question responses were coded by a member of the UCSD evaluation team and reviewed by at least one other evaluator to identify the following emergent themes.

Staff Experiences with Using Telehealth Services as Primary Treatment Modality

Over the years, when BHConnect staff were asked about the most common difficulties they encountered when providing telehealth, the primary answers were regarding the technology: internet connectivity issues (in both rural and urban settings), problems with devices, and user error in accessing the telehealth system. BHConnect had success addressing many telehealth access issues by providing clients the choice between setting up telehealth on their own personal device or utilizing a device provided by the program. Additionally, BHConnect provided training on session preparation for clients: practice using their device to access services, identification of a quiet, private location and ensure an alternate contact method (i.e., a telephone) in case of issues.

Notably, by FY 2022-23 the feedback shifted from focus on challenges to the relative ease and convenience of providing telehealth services.

“Telehealth/Virtual Sessions have been an instrumental opportunity for use in assisting the population we serve, which has various challenges in obtaining services. The populations that we serve include, but are not limited to those with physical health challenges whom are unable to leave the home, those with multiple children whom are unable to attend in person appointments due to lack of childcare resources, and those with agoraphobia, and have extreme fear of leaving the home.”

There were some clients for whom a telehealth-based approach was not the most appropriate strategy given ongoing difficulty utilizing the device (e.g., frequently forgetting to charge device or not having regular capability to do so) or challenges maintaining focus and developing rapport via the device. BHConnect worked to innovate and adapt in their effort to meet the needs of as many persons as possible and then facilitate connection to other forms of treatment services if it was determined that telehealth was not the optimal modality for providing care.

Program Strengths

Program Flexibility

Staff emphasized program flexibility in FY 2021-22 and FY 2022-23 in their survey responses. BHConnect staff described their ability to accommodate clients in terms of therapy modality (i.e., offering telehealth when in-person sessions are not possible), scheduling, and location. Staff members captured the lengths to which the BHConnect team went to meet the needs of clients:

“...the option to receive services remotely anywhere and anytime for the most part and provides the device that they might not otherwise have to participate in other remote services.”

“BHConnect is a program that meets them where they are at, during a time of significant crisis and an option to get the support they might not otherwise receive in traditional programs and traditional settings.”

“Therapists and health navigators are flexible in scheduling and providing clients with session times that work for them. Therapists make several attempts to engage and re-engage clients who have disconnected from therapy.”

Engagement and Retention

Program successes were attributed to the capability of BHConnect to reduce treatment burden via easy-to-access telehealth services and 24/7 availability, but still subject to client motivation and interest to participate in services. In this regard, the telehealth approach of BHConnect may represent a necessary, but not entirely sufficient, condition to keep some persons in treatment. Notably, as a program designed to work with clients who have experienced a mental health-related crisis but were otherwise unconnected to outpatient services, ambivalence or resistance to treatment among some clients was anticipated.

Over the years, staff recognized the need for regular contact with clients. However, the frequency of communication and outreach must be client-centered and personalized to individual needs and/or life circumstances.

“When clients are affected by stressors such as pandemic, inflation, and life stressors we notice the change in their engagement with services.”

Health navigator visits, reminder calls and care packages were mentioned as helpful methods to maintain contact between appointments.

Through the years, BHConnect staff also recognized the need to effectively address co-occurring substance abuse issues with BHConnect participants. Efforts to support participants included providing additional trainings, completing the Compass-EZ assessment (i.e., an organizational assessment of capacity to provide integrated recovery oriented co-occurring treatment services), and inviting substance use disorder (SUD) programs and strengths-based case management programs to present to BHConnect staff.

Health Navigator Role

In the early stages of the program, Welcome Home Health (WHH) organization provided health navigation support services to BHConnect clients including device management, crisis intervention/safety planning,

appointment scheduling, and reminders/follow-up. During FY 2021-22, the role of field health navigator (FHN) was added to the BHConnect service provider team. This change allowed for greater coordination and integration of health navigation and service engagement activities with the rest of the BHConnect care team.

Program Challenges

Establishing a Referral Network

Establishing a strong referral network was not without challenges, as noted in the staff surveys. In the first staff survey, respondents mentioned that organizations expressed interest in having BHConnect as a new outpatient resource to offer clients following crisis episodes. However, the number of resulting referrals was substantially less than anticipated. Feedback from program leaders indicated that prior to the onset of the COVID pandemic, there appeared to be some reluctance to send referrals to programs that primarily utilized telehealth to deliver treatment services. Referrals increased over the past two years, which was due to both the ongoing efforts of the BHConnect team as well as the increased interest in telehealth-based mental health services more generally.

Engagement and Retention

Even once referrals are made, establishing services with referred individuals remained a challenge through the life of the BHConnect program.

“Some are homeless and lose contact due to moving around or they lose or damage their devices. Also, with the high-needs population, many have severe mental health issues or they are addicts and have difficulty with follow through and consistency in meeting with their provider. Some lose track of the day of the week, or the time that their appointment was scheduled for.”

Staff Turnover and Role Changes

Particularly in the early years of the BHConnect program, staff identified turnover as one of the biggest challenges to reaching program goals. Clinician burnout was a significant factor in turnover. Staff mentioned various ways in which client disengagement reduces morale and enthusiasm among staff.

“Morale is always a work in progress at BHConnect because our population is chronically unconnected and difficult to engage. Our clients tend to no-show frequently, and this can contribute to clinician burnout or feeling like they are not doing a good job.”

During the FY 2021-22 transition from the WHH platform to health navigators, many respondents noted the “learning curve” and increased need for training with new staff.

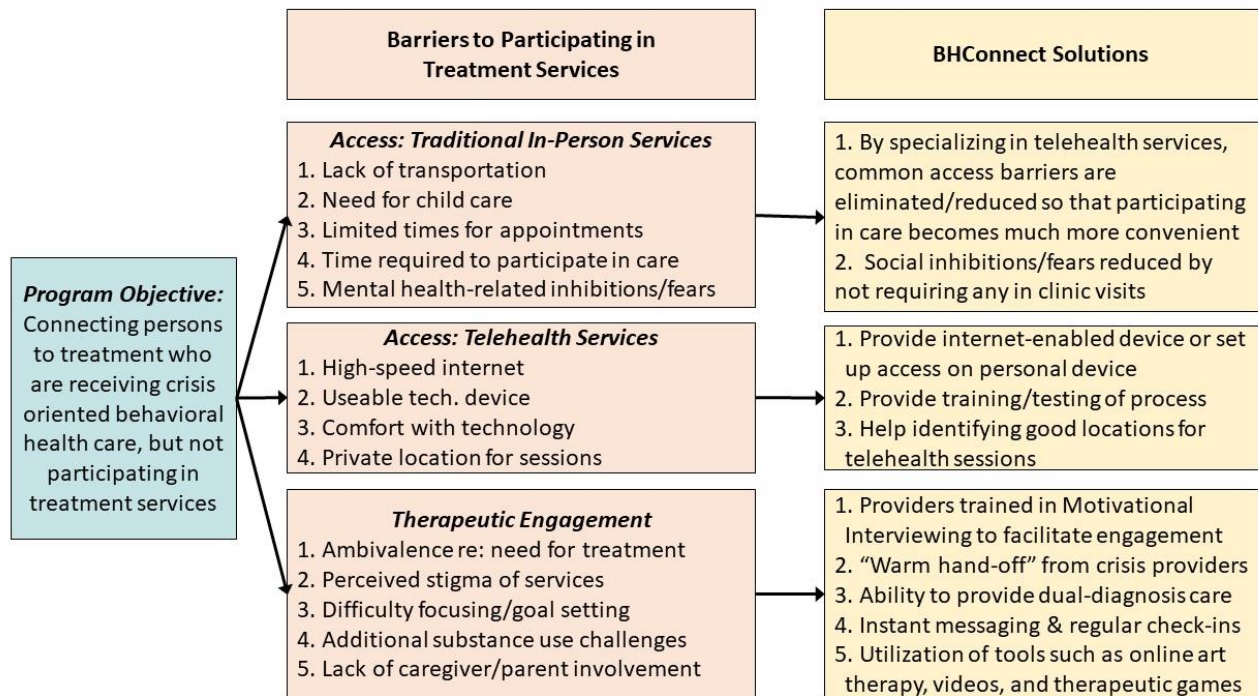
“The transition from WHH to FHNs providing support to clients has been a difficult transition. The FHNs required a great deal more training than clinicians on service delivery and how to capture, bill and document the services being delivered under their role. In addition, we had to train the clinicians to consider more case management and rehab.”

Primary BHConnect Implementation Findings

The BHConnect Approach to Connecting Persons to Telehealth Care

Based on feedback from BHConnect staff, participants and referral partners, the following model was developed to summarize and illustrate both the common barriers experienced when attempting to connect people to needed behavioral health treatment services and the strategies that BHConnect was able to successfully implement to facilitate connection to ongoing care (see Figure 3).

Figure 3. Summary of BHConnect Strategies to Connect Persons to Ongoing Telehealth Care



Barriers to treatment were conceptually split into two domains, as they represent related but distinct aspects of maintaining participation in treatment services: 1) treatment access and 2) treatment engagement.

Treatment access was further separated into in-person services and telehealth services to distinguish the unique challenges relevant to each type of treatment modality. Key barriers included transportation, need for child care, difficulty finding a time to match availability of a service provider, and the overall time commitment needed to attend an in-person treatment session on a regular basis. In addition, for persons with certain mental health disorders (i.e., agoraphobia and some forms of depression) requiring in-person sessions can lead to substantial hesitancy or even refusal on the part of the individual to engage in treatment. The telehealth platform of BHConnect substantially reduced or even eliminated many of these barriers. The flexibility of telehealth allows for sessions to occur at a time and location that is most comfortable and convenient for the individual, removing the need for transportation or child care and the social demands of in-person interactions.

However, participating in telehealth services has its own unique access barriers. Telehealth requires a sufficient quality internet connection, a device that is capable of managing the platform, user comfort and knowledge in utilizing the device, as well as an appropriate space that allows for private and focused conversations. BHConnect had success addressing these barriers by offering clients the option to use their own personal device or providing an internet-enabled device for the client to use while enrolled in BHConnect. Additionally, BHConnect provided training and support to clients so they could practice using their device to access services and prepare for sessions by finding an appropriate location that was quiet and private (e.g., an empty bedroom, their vehicle, or an outside location).

A second barrier faced by BHConnect clients was accessing needed medication management (i.e., psychiatric) services. This barrier became apparent during the pilot study, and to address it BHConnect formed a partnership with another BHS-funded program, the Center for Child and Youth Psychiatry (CCYP; another primarily telehealth program), to ensure that CYF clients had access to needed care. For AOA clients with medication needs that could not be addressed by a primary care doctor, the issue remained. In this case, BHConnect staff worked to connect the client with another behavioral health treatment provider who could also provide psychiatric services.

An additional barrier domain was treatment engagement, which affected ongoing connection to and thereby the potential benefit of participating in services. Common engagement barriers included ambivalence, resistance to services due to perceived stigma of engaging in behavioral health care, and difficulty focusing on treatment objectives, particularly if mental health was substantially impaired or if there were substance use issues present. For youth clients, the extent to which parents/caregivers were invested in supporting the process was critical, as was the ability to coordinate and communicate with other collateral providers (e.g., primary care doctors, social service providers). BHConnect staff attempted to quickly build a positive rapport with clients and were trained in Motivational Interviewing techniques, an evidence-based practice to encourage treatment engagement. The flexibility of the telehealth platform allowed clinicians and team members to engage with clients at convenient times when they were more open to receiving care. The telehealth approach also opened up alternative communication methods such as “messaging” in order to maintain frequent interactions and send reminders for upcoming appointments. To further promote service engagement and retention, the BHConnect team incorporated creative ways to connect with participants such as online art therapy, watching and sharing informational and discussion videos, engaging in therapeutic online games, and mental health apps (e.g., ACT coach, CBT-I Coach, Mindfulness Coach, and PTSD Coach).

Overall, the BHConnect program demonstrated that it was possible to eliminate or greatly reduce barriers for accessing behavioral health treatment by providing services in a convenient, telehealth-based approach, as long as specific attention is devoted to addressing access barriers unique to this form of treatment modality. Additionally, BHConnect developed strategies to promote ongoing engagement in treatment services once the initial access barriers had been addressed. However, a telehealth-based approach is not an appropriate treatment strategy for everyone given ongoing difficulty utilizing the device (e.g., frequently forgetting to charge device or not having regular capability to do so) or challenges maintaining focus and developing a therapeutic relationship via the device. If it was determined that telehealth was not the optimal modality for providing care, BHConnect facilitated connection to other forms of treatment. As reported above, approximately 20% of BHConnect CYF and AOA clients were linked to other treatment services. In this regard, BHConnect was able to act as a “rapid-response” treatment

provider and then facilitate connections for persons who needed alternative treatment options for ongoing care.

Impact of COVID Pandemic on the BHConnect Program

The COVID pandemic affected the San Diego area in a substantial manner from March 2020 through the suspension of the State of California state of Emergency on February 28, 2023. BHS programs, including BHConnect, were impacted by various State and County public health orders as to whether and how organizations were allowed to maintain in-person staffing as well as the extent to which in-person services were feasible. These official guidelines, coupled with overall concerns for the safety of staff and community members, resulted in a substantial reliance upon remote work and interactions with service recipients via telehealth or telephone. Most COVID-related County of San Diego official public health orders were ended as of June 15, 2021, however, some service provider agency protocols continued to promote safety. For many BHS programs, responding to and navigating changes brought about by COVID substantially impacted how services were provided.

The initial design of BHConnect, which already relied exclusively on the provision of mental health treatment services via telehealth, allowed BHConnect to adjust to the new practice realities with essentially no disruption to ongoing treatment services. The main pandemic-related changes for BHConnect were staff and client safety-related practices such as social distancing, use of personal protective equipment, and implementing new cleaning protocols for the initial recruitment interactions and/or when providing the telehealth device to the client (which often occurred at the client's home). Client recruitment and engagement practices were also revised as BHConnect staff were no longer physically co-located at crisis sites and therefore unable to conduct "warm handoffs" where BHConnect staff met with potential clients in person to facilitate transition to BHConnect. In addition, the onset of the pandemic disrupted efforts to engage in outreach with community partners to develop new referral networks during the time that BHConnect was getting started. This created organizational challenges and strain on staff for both the potential referral partners and for BHConnect as everyone adapted to the new service delivery environment.

An unanticipated impact of the pandemic on BHConnect was the transformative change in attitudes regarding the provision of mental health care via telehealth. Prior to the pandemic, BHConnect experienced difficulty convincing potential partners to refer clients to a service provider who exclusively utilized telehealth for treatment delivery. However, the collective learning experience throughout the pandemic created a normative shift resulting in a more favorable perception of using telehealth to provide behavioral health treatment. While the more favorable attitudes toward telehealth contributed to an expansion of the BHConnect referral partner network during the final two years of the program, the expanded availability of telehealth services throughout the entire BHS system eroded some of the perceived uniqueness of the BHConnect program. Initially, BHConnect was perceived as "too novel" by some and struggled to develop referral partners, particularly for adult clients, but by the end of the INN-funded phase of the pilot study, BHConnect was perceived as "not novel enough" to continue as a separate, ongoing outpatient program given that other BHS outpatient programs had also added telehealth services to their treatment options.

Changes from Initial Program Design

A substantial programmatic change that occurred during FY 2021-22 was the transition to phase out the subcontract with WHH. WHH had been providing client scheduling and engagement support, and those outreach, engagement, and scheduling responsibilities were shifted to the FHNs on the BHConnect staff. This decision was made to facilitate communication and coordination between all members of the BHConnect team, and to minimize potential for client confusion with having a separate entity (i.e., WHH) also involved in their care services. To promote engagement and maintain the 24/7 availability previously provided by WHH, the BHConnect program established an Access Line that was pre-programmed into client phones and monitored 24/7. After-hours calls were answered by specially trained medical answering service personnel who could either triage for immediate crisis care or deliver messages to the BHConnect team for less urgent matters. Additionally, the health navigator and therapists offered services on evenings and weekends to better match the availability of clients and reduce overall burdens for engaging in BHConnect services.

During FY 2021-22, BHConnect also expanded the options that clients could utilize to connect with BHConnect services. Originally, all clients were issued an electronic device that they would utilize solely for communicating with BHConnect and/or WHH team members. BHConnect began to allow clients the option to choose whether they would like to utilize their personal smartphone to receive BHConnect services or if they would rather receive a device from BHConnect to use for interacting with the care team. When provided the option, approximately 40% of CYF clients and 50% of AOA clients chose to have an application installed on an existing personal device to participate in BHConnect telehealth services instead of receiving a separate device from BHConnect.

BHConnect was not designed to include psychiatric care needed to provide medication management services. To address this emergent limitation among CYF clients, BHConnect formed a partnership with the Center for Child and Youth Psychiatry (CCYP), which also operates using a primarily telehealth model of service provision. CYF clients were able to stay in BHConnect and receive supplementary medication management from CCYP. Unfortunately, for AOA clients, there is no comparable program to CCYP. For adult clients with complex medication needs that could not be addressed in primary care, BHConnect worked to transition care to another behavioral health treatment provider that also offered psychiatric services.

While the BHConnect program was initially designed to provide treatment services exclusively via telehealth, it was determined that for some clients, strategic use of a limited number of in-person treatment services was useful to support engagement, accomplish goals, and/or promote client safety. Clients needing or preferring ongoing in-person treatment were transitioned to other service providers.

Conclusion

A total of 391 unduplicated persons enrolled in BHConnect (227 CYF and 164 AOA clients) during the life of the program. BHConnect efforts to expand their referral partner network contributed to increased enrollment, particularly among AOA clients, during the past two years. Despite recent increases in enrollment, the number of persons served remained below the initial program goal of 250 persons each year. Given many competing demands for resources, the lower-than-expected enrollment, coupled with increased availability of telehealth services throughout the BHS System of Care, contributed to a

determination by BHS to not continue the BHConnect program after the end of the INN-funded phase of the pilot program, which concluded on 10/31/2023.

For those enrolled in BHConnect, most CYF and AOA clients typically engaged with the program for at least four months, with approximately 10-15% receiving treatment services for more than a year. Based on self- and clinician-report assessment tools, many BHConnect youth and adult clients exhibited improvements in well-being and symptom management. However, the focal population served by BHConnect (i.e., those with treatment needs but not engaged in treatment) remained a challenging population to serve with many demonstrating a need for further behavioral health improvements. Common challenges included homelessness, symptom complexity, and co-morbid substance use. An examination of BHS service utilization patterns indicated that participation in BHConnect services was associated with a reduction in the need for crisis and acute care services with both youth and adults experiencing fewer inpatient psychiatric hospitalizations. Youth also exhibited substantially fewer crisis stabilization visits and PERT/MCRT contacts after enrolling in BHConnect.

Overall, the telehealth-based approach to providing behavioral health services was perceived by participants, referral partners and staff to have successfully reduced barriers to engaging in treatment services. While the BHConnect program will not be incorporated into the BHS System of Care as an ongoing service, it is expected that the lessons learned during the INN-funded phase of the pilot project will help inform other BHS efforts to ensure continuity of care and the provision of appropriate and accessible treatment options for persons receiving crisis and acute care services but who are not connected to treatment services. In particular, the experiences from BHConnect highlighted the benefits of including more of an outreach component within outpatient treatment programs to help promote connections to ongoing care after receiving crisis and acute care services. This outreach orientation of BHConnect removed significant barriers to accessing treatment by literally and figuratively “meeting the client where they are at” and initiating treatment services with minimal burden.

The following are potential strategies, where feasible, for how aspects of the BHConnect program could be integrated into existing outpatient programs to minimize barriers to starting treatment services and expand opportunities for engaging persons who have recently received crisis-oriented behavioral health services, but are not connected to treatment:

- Establish referral partnerships/relationships with crisis/acute care behavioral health service providers and/or BHS-funded outreach and linkage organizations.
- Enhance pathways to initiating treatment services without needing any in-clinic, in-person visits to remove that as a potential barrier to engaging in care.
- Utilize peers, health navigators, community health workers/promotoras, and/or other trained professionals at the outpatient clinics to engage in virtual and/or in-person outreach with individuals identified as having barriers to connecting to traditional outpatient treatment services. Examples include utilizing a “warm-handoff” process while client is still located at a crisis/acute care provider, or meeting with them at their home or another convenient to establish telehealth service delivery capabilities.
- Ensure that all persons interested in receiving telehealth services have the technological capability and knowledge to do so successfully. For example, provide phones (or tablets for those who would benefit from a larger visual format) along with training/practice, if needed, for how to successfully access and engage in telehealth sessions.

- Encourage development of outpatient clinician expertise and utilization of online resources and tools to incorporate into telehealth treatment sessions.
- Future standalone programs like BHConnect should emphasize younger adults and/or specifically TAY.
- Future programs should incorporate psychiatric care directly into the program or develop a specific partnership to provide needed medication management services.

Based on the experiences of the BHConnect program, implementing the strategies listed above would address some of the existing “gaps” that occur when persons are exiting crisis and acute care behavioral health services but have difficulty transitioning to additional needed treatment services. Such increased connections to treatment are then expected to contribute to improved personal well-being and reduced need for further crisis and acute care services.

For more information about this Innovations program and/or the report please contact:

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Appendix A

Characteristics of BHConnect Participants

| Characteristic | Child/Youth (N=227) | | Characteristic | Adult (N=164) | |
|----------------|---------------------|------------|----------------|---------------|------------|
| Age Group | n | % | Age Group | n | % |
| 0 to 11 | 40 | 17.6 | 18 to 25 | 47 | 28.7 |
| 12 to 15 | 112 | 49.3 | 26 to 64 | 113 | 68.9 |
| 16 to 18 | 75 | 33.1 | 65+ | 4 | 2.4 |
| Total | 227 | 100 | Total | 164 | 100 |

| Characteristic | Child/Youth (N=227) | | Adult (N=164) | |
|-------------------------------------|---------------------|------------|---------------|------------|
| Gender | n | % | n | % |
| Male | 72 | 31.7 | 61 | 37.2 |
| Female | 136 | 59.9 | 99 | 60.4 |
| Transgender male/Trans man | 5 | 2.2 | - | - |
| Another gender identity/Questioning | 10 | 4.4 | 4 | 2.4 |
| Prefer not to answer | 4 | 1.8 | - | - |
| Total | 227 | 100 | 164 | 100 |

| Characteristic | Child/Youth (N=227) | | Adult (N=164) | |
|------------------|---------------------|------------|---------------|------------|
| Primary Language | n | % | n | % |
| English | 208 | 91.6 | 153 | 93.3 |
| Spanish | 13 | 5.7 | 8 | 4.9 |
| Other | 6 | 2.7 | 3 | 1.8 |
| Total | 227 | 100 | 164 | 100 |

| Characteristic | Child/Youth (N=227) | | Adult (N=164) | |
|-----------------------------|---------------------|----------|---------------|----------|
| Race/Ethnicity ¹ | n | % | n | % |
| African American | 39 | 17.2 | 36 | 22.0 |
| American Indian | 5 | 2.2 | 5 | 3.0 |
| Asian | 17 | 7.5 | 13 | 7.9 |
| Hispanic/Latino | 116 | 51.1 | 53 | 32.3 |
| Pacific Islander | 4 | 1.8 | - | - |
| White | 91 | 40.1 | 68 | 41.5 |
| Multiple | 46 | 20.3 | 18 | 11.0 |
| Other | 3 | 1.3 | 1 | 0.6 |
| Missing/Unknown | 5 | 2.2 | 8 | 4.9 |
| Total¹ | - | - | - | - |

¹Total may exceed 100% since participants could select more than one response.

Appendix A (continued).

| Characteristic | Youth (N=227) | | Adult (N=164) | |
|---|---------------|------------|-----------------|------------|
| | n | % | n | % |
| Mental Health Diagnosis | | | | |
| ADHD | 7 | 3.1 | <5 ² | <3.0 |
| Oppositional/Conduct Disorders | 5 | 2.2 | N/A | N/A |
| Depressive Disorders | 108 | 47.6 | 65 | 39.6 |
| Bipolar Disorders | 8 | 3.5 | 39 | 23.8 |
| Anxiety Disorders | 44 | 19.4 | 11 | 6.7 |
| Stressor and Adjustment Disorders | 37 | 16.3 | 9 | 5.5 |
| Schizophrenia and Other Psychotic Disorders | 5 | 2.2 | 33 | 20.1 |
| Other/Missing | 13 | 5.7 | <5 ² | <3.0 |
| Total | 227 | 100 | 164 | 100 |
| Substance Use Disorder (SUD) Diagnosis | | | | |
| Yes, has SUD Diagnosis | 22 | 9.7 | 66 | 40.2 |
| No, does not have SUD Diagnosis | 205 | 90.3 | 98 | 59.8 |
| Total | 227 | 100 | 164 | 100 |
| Sexual Orientation | | | | |
| Heterosexual or straight | 139 | 61.2 | 107 | 65.2 |
| Gay or Lesbian | 5 | 2.2 | 6 | 3.7 |
| Bisexual/Pansexual/Sexually Fluid | 19 | 8.4 | 18 | 11.0 |
| Queer/Questioning/Unsure | 7 | 3.1 | 5 | 3.0 |
| Missing/Prefer not to answer | 57 | 25.1 | 28 | 17.1 |
| Total | 227 | 100 | 164 | 100 |
| Disability | | | | |
| Has a disability | 50 | 22.0 | 58 | 35.4 |
| Does not have a disability | 146 | 64.3 | 86 | 52.4 |
| Declined/Prefer not to answer | 31 | 13.7 | 20 | 12.2 |
| Total | 227 | 100 | 164 | 100 |
| Type of Disability² | | | | |
| Communication (i.e., seeing, hearing) | 11 | 4.8 | 10 | 6.1 |
| Learning Disability | 18 | 7.9 | 18 | 11.0 |
| Physical Disability/Chronic Health | 8 | 3.5 | 32 | 19.5 |
| Other Mental Disability | 25 | 11.0 | 9 | 5.5 |
| Other | - | - | - | - |

²Values were suppressed due to small n size.

³Sum of disabilities may exceed the number of persons who indicated having a disability since participants could select more than one response.