An Evaluation of Young Adults' Access to Program of Assertive Community Treatment (PACT) Services in Washington State

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This report was produced in collaboration with the Washington State Health Care Authority (HCA) Enterprise Analytics, Research & Reporting (EARR) and Clinical Quality and Care Transformation (CQCT) Research Data Management Team

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Supporting Psychosis Innovation through Research, Implementation & Training

Washington State Health Care Authority

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Background and Introduction

This report summarizes the findings from an evaluation conducted to examine transition age youth (TAY) and young adult (ages 18-24) access to Program of Assertive Community Treatment (PACT) services in Washington State as specified in Engrossed Substitute Senate Bill 5950 (pp. 359-360).[1] Specifically, ESSB 5950 Proviso 5 directs the University of Washington, in collaboration with the Washington State Health Care Authority (HCA) to identify the following: (1) the number and percentage of young adults receiving services through PACT teams; (2) barriers and strategies for increasing access to PACT team services for young adults; and (3) evidence-based alternative models for providing high intensity wraparound services that may be more appropriate for some young adult populations.

What is ACT?

Washington State PACT is based on the assertive community treatment (ACT) model, an evidence-based, multidisciplinary team-based program that provides outreach-oriented services intended to meet the broad needs of individuals who experience the most severe and persistent mental illnesses.[2] Most services are delivered in individuals' homes and communities, with the capacity to provide such services at high intensity and frequency based on individual needs, and ACT provides access to crisis services during afterhours and on weekends.

The population for whom ACT has been most broadly studied includes adults ages 18 and above who experience: (1) a schizophrenia spectrum disorder, bipolar I, or major depression with psychotic features, along with (2) challenges with daily living skills and other areas of role functioning, and (3) continuous high service needs such as repeated acute inpatient hospitalizations, crisis services, incarceration, or extended hospitalization. These challenges may include housing instability or houselessness, co-occurring substance abuse and dependence, and trauma. Exclusion criteria include an IQ below 70, or a sole diagnosis of bipolar II disorder, other affective disorders without psychosis, or anxiety, personality, or autism-spectrum disorders.

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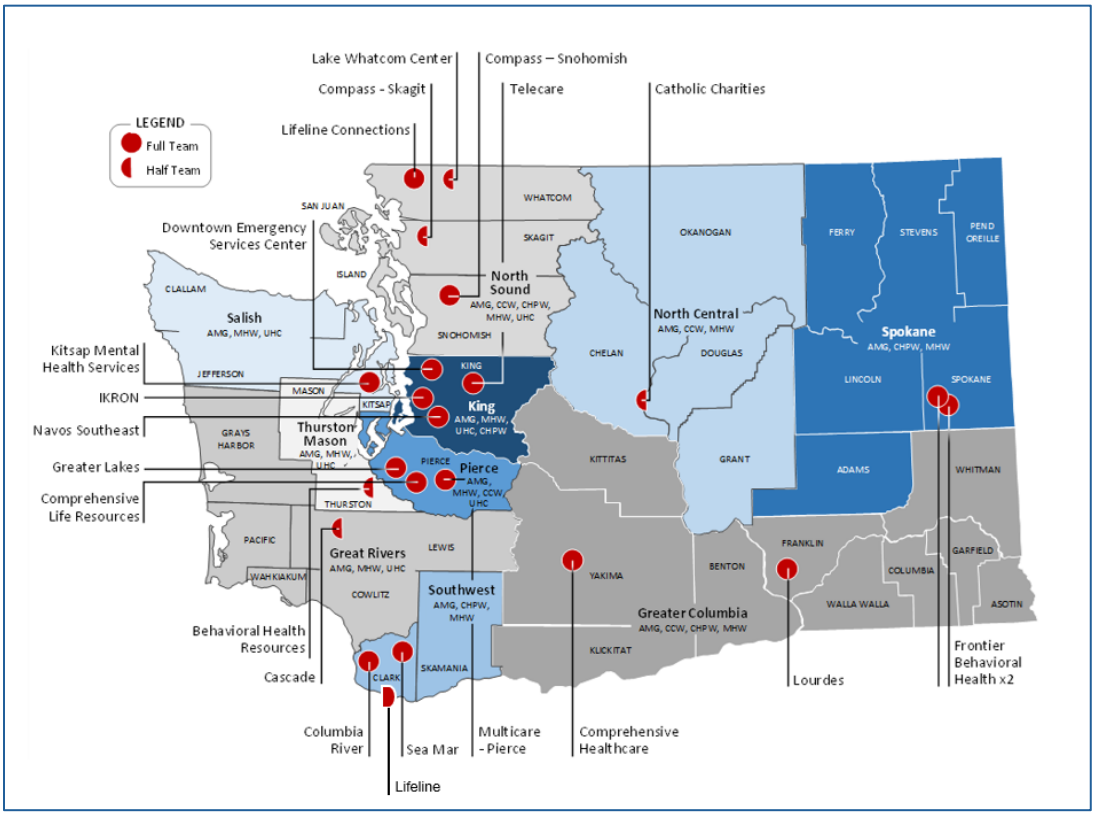
[1] Washington State Legislature. (2024). *Substitute Senate Bill 5950: Concerning state budget proposals*. https://fiscal.wa.gov/statebudgets/2024proposals/Documents/co/5950-S.SL.pdf

[2] Monroe-DeVita, M., Moser, L.L. & Teague, G.B. (2013). The tool for measurement of assertive community treatment (TMACT). In M. P. McGovern, G. J. McHugo, R. E. Drake, G. R. Bond, & M. R. Merrens. (Eds.), Implementing evidence-based practices in behavioral health. Center City, MN: Hazelden.

Washington State PACT

PACT teams were first implemented in Washington in 2006 with funding from the Legislature that included $2.2 million for development and training, and $10.4 million per year to implement 10 new PACT teams statewide. Of the 10 teams, 6 were designated as "full" teams (serving 80-100) and 4 "half" teams (serving 42-50); seven were based in Western WA and the other three in Eastern WA. The impetus at the time was in response to long wait lists for state hospital admissions and the need to provide community alternatives to inpatient care.[3] Since 2007, 12 additional PACT teams have been implemented, bringing the number of teams up to 22 statewide (see Figure 1).

Figure 1. Washington State PACT Teams (*n* = 22)



[3] Bjorklund, R., Monroe-DeVita, M., Reed, D., Toulon, A., & Morse, G. (2009). Washington state's initiative to disseminate and implement high-fidelity ACT teams. *Psychiatric Services, 60(1)*, 24-27. doi:10.1176/ps.2009.60.1.24.

Charge #1: Identification of the number and percentage of young adults receiving services through PACT teams

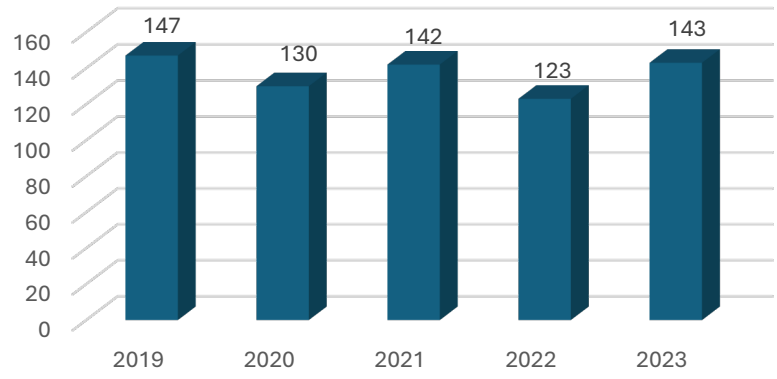
Methods

To examine this question, the UW SPIRIT Center collaborated with the HCA Research Data Management team in Enterprise Analytics, Research & Reporting (EARR) and Clinical Quality and Care Transformation (CQCT). HCA data managers extracted administrative data from the HCA Behavioral Health Data System (BHDS)[4]/Behavioral Health Service Summary (BHSS) tables. Code/Modifier/Place of Service configurations are outlined in the 2024 Service Encounter Reporting Instructions (SERI) Guide.[5] Specific data and analyses in response to Charge #1 were planned and reviewed within the HCA PACT TAY workgroup between June and September 2024. For the purposes of this evaluation, this group identified ages 18-24 as the population of interest for these analyses. Appendix 1 includes the technical notes for these analyses and raw data tables.

Results

Figure 2 is reported in response to Charge #1 in ESSB 5950, Proviso 5: *the number and percentage of young adults receiving services through PACT teams*. Figure 2 shows that while counts for this younger population (18-24) are relatively low, PACT teams served an average of 137 TAY individuals in each year between 2019 and 2023.

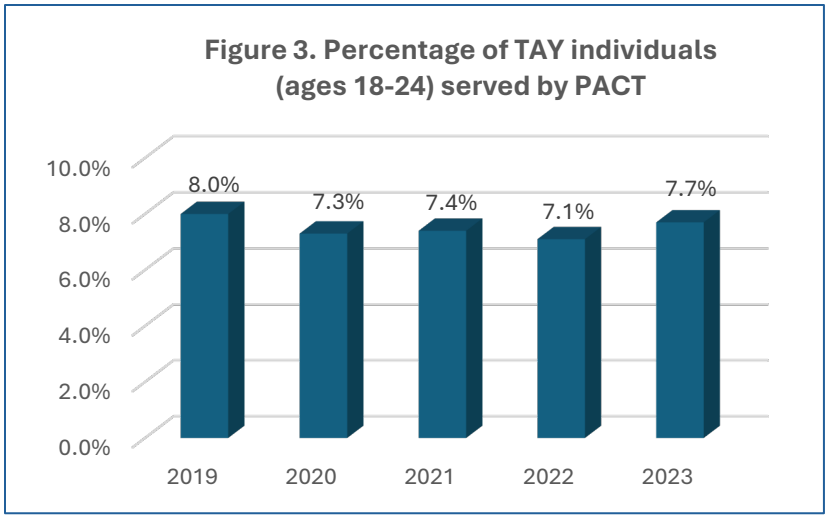
Figure 2. Number of TAY individuals (ages 18-24) served by PACT



[4] Washington State Health Care Authority. (2024, July 19). *Behavioral health data guide*. https://www.hca.wa.gov/assets/billers-and-providers/Behavioral-Health-Data-Guide.pdf

[5] Washington State Health Care Authority. (2024). *Service encounter reporting instructions (SERI)*. https://www.hca.wa.gov/billers-providers-partners/program-information-providers/service-encounter-reporting-instructions-seri

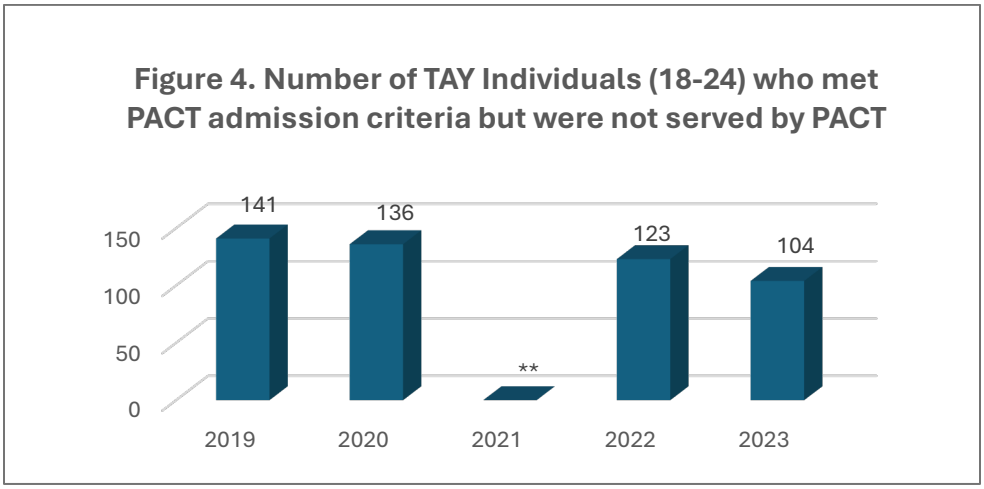
Figure 3 shows the percentage of individuals aged 18-24 served by PACT teams across these same five years, averaging 7.5% of the overall PACT population (18-65 years old). It should be noted that each year may reflect a duplicated count of individuals served over time.



In addition to identifying the number and percentage of TAY who received PACT services in recent years, the SPIRIT Center project team and the HCA PACT TAY workgroup collaboratively decided to expand the scope of Charge #1 and pursue the question regarding how many TAY met PACT admission criteria, but did not receive PACT services during the same five-year period. Since these individuals could not be independently screened to ensure that they truly met admission criteria, the HCA Research Data Management team created a flag for "PACT admission criteria." Individuals were counted as meeting PACT admission criteria if they: (1) carried a diagnosis of a schizophrenia-spectrum or other psychotic disorder, bipolar I disorder, or major depression with psychotic features (see the full list of ICD-9 and ICD-10 diagnostic codes in Appendix 1); and experienced three or more psychiatric hospitalizations (defined as served in a community hospital, Evaluation and Treatment (E&T) facility, or Children's Long-term Inpatient Program (CLIP) facility at any time during the year previous to the reporting Calendar Year); or were hospitalized one or more times in a state hospital (defined as served at Western State Hospital, Eastern State Hospital, or Child Study and Treatment Center [CSTC] at any time during the year previous to the reporting Calendar Year). PACT has a third admission criterion related to demonstration of significant functional impairments; however, this criterion could not be applied with this dataset. As a result, the numbers represented are likely an overestimate of the number of TAY individuals who met criteria for PACT but did not receive PACT services.

Figure 4 displays the count of young people aged 18-24 who met PACT admission criteria but were not served by PACT programs in the years 2019-2023. Data were suppressed for 2021 per

HCA data suppression rules.[6] Excluding this outlier, the average number of young people who met PACT admission criteria but were not served by PACT in 2019, 2020, 2022, and 2023 was 126 individuals. This count may include individuals served by Wrapround with Intensive Supports (WISe), Intensive Residential Treatment (IRT), and New Journeys Coordinated Specialty Care (CSC) as reported in the next section below.



**2021 data are suppressed per DSHS data suppressing rules. Any data point containing a value of <11, where the total remaining data points in a group/subgroup can be used to calculate a sum (i.e., of a column or row) or percentage (i.e., of a row); or where more than one data point contains a value of <11, and an adjacent data point or set of data points could be used to impute the values of <11 to a number, was revised via (1) the labeling of the data point(s) with the value of < 11 with a double asterisk (**); and, where applicable, (2) the redaction of a random, corresponding data point(s) in the group/subgroup with a double asterisk.

In addition to identifying the number of individuals ages 18 through 24 served by WA PACT teams, SPIRIT Center investigators, in collaboration with the HCA PACT TAY workgroup, also identified the number of TAY individuals who met PACT admission criteria but were served by "PACT-like services" that provide higher intensity services and supports in a team-based care model. These include WISe, IRT, and New Journeys CSC programs as identified in the 2024 SERI Guide. The purpose of expanding Charge #1 was to assess the extent to which TAY individuals (ages 18-24) who met PACT admission criteria were being served in other more intensive service programs across the system instead of within PACT teams. While there are other service programs that may have some overlap with PACT for this population, including Multisystemic Therapy (MST),

[6] Washington HCA data suppression rules go into effect for any data point containing a value less than 11, where the total remaining data points in a group/subgroup can be used to calculate a sum (i.e., of a column or row) or percentage (i.e., of a row); or where more than one data point contains a value less than 11, and an adjacent data point or set of data points could be used to impute the values less than 11 to a number.

Telecare Community Alternatives Teams (T-CAT), and Youth and Young Adult Housing Response Teams (YYAHRT), the evidence-based practice (EBP) code was not present for MST in BHDS database, and data were unavailable for YYAHRT. The HCA PACT TAY workgroup collaboratively decided not to pursue T-CAT data since the counts were anticipated to be exceedingly small given that this is a service program limited to only people served through the behavioral healthcare agency Telecare.

In 2019, 2020, and 2022, the number of TAY individuals who met the admission criteria for PACT and were served by WISe programs was less than 11, resulting in data suppression for each year. No TAY individuals who met PACT admission criteria were served by WISe in 2021 and 2023. Part of the reason for these small numbers may be due to the fact that WISe only serves those up to age 20.

A similar pattern was observed for IRT programs, as no TAY individuals who met PACT admission criteria were served within IRT in 2019 and 2020. Fewer than 11 were served in 2021, 2022, and 2023. This may be due to the fact that there are few IRT programs, and they serve a relatively small caseload.

Data for New Journeys programs were only available for 2022 and 2023. No TAY individuals who met PACT admission criteria received services from New Journeys in 2022 and fewer than 11 TAY individuals did so in 2023, the latter of which resulted in data suppression. This may also be due to a smaller caseload within New Journeys teams and the fact that these programs specifically focus on identifying young people earlier in their course of mental illness, typically before they would experience multiple hospitalizations and challenges with functioning, both requirements for admission to PACT.

Charge #2: Barriers and strategies for increasing access to PACT team services for transition age youth (TAY)/young adults

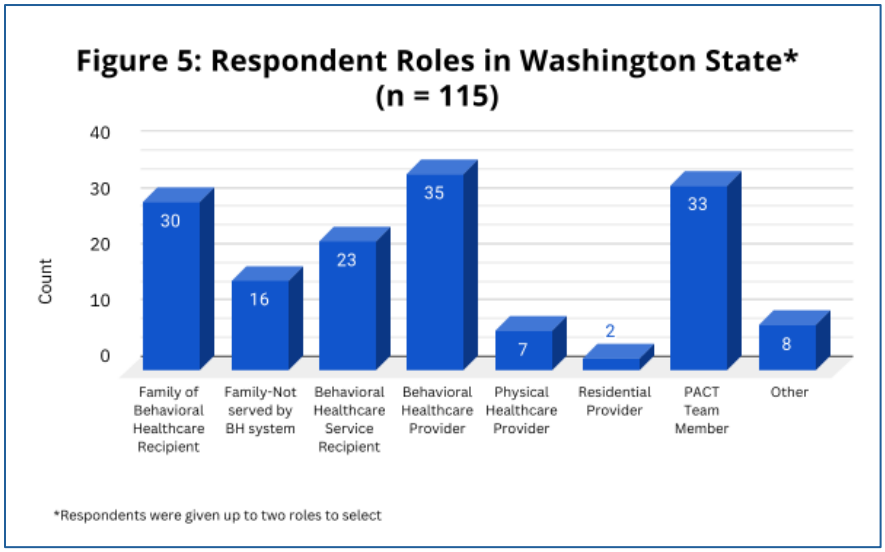
Methods

To address barriers and strategies for increasing TAY individuals' access to PACT, this project team developed a brief survey (see Appendix 2). The survey was distributed to the following email distribution lists: WA PACT teams, New Journeys teams, Youth and Young Adult Continuum of Care (YYACC) members, Children and Youth Behavioral Health Work Group (CYBHWG) members, Family Youth System Partner Round Tables (FYSPRTs), Crisis Response Improvement

Strategy (CRIS) Lived Experience Subcommittee, and Washington Thriving prenatal-25 behavioral health strategic plan partners. Respondents were provided the option to request a $15 gift card for their survey completion.

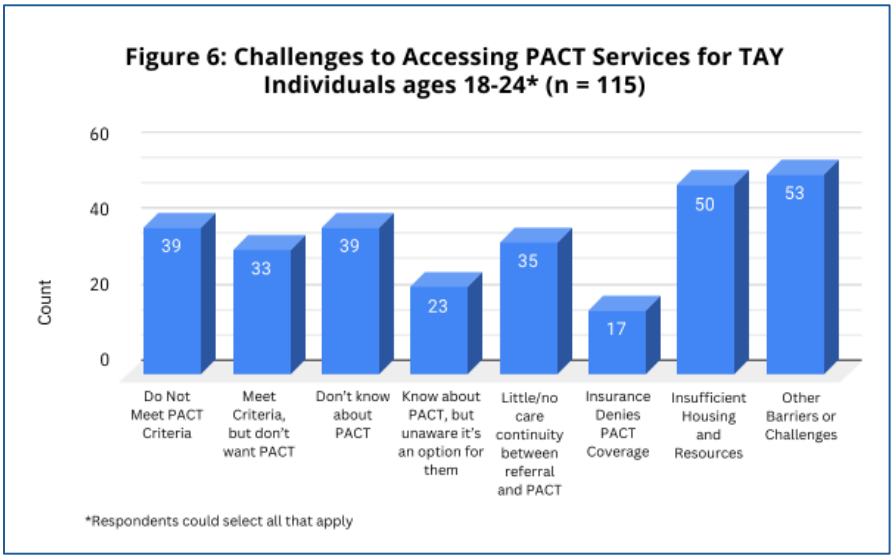
Results

Survey administration resulted in 115 individual responses. Respondents were provided up to two choices to self-identify their role in the Washington State behavioral health system. Thirty percent (30%; 35/115) reported to be behavioral health providers and 28% (33/115) were PACT team staff. Twenty-six percent (26%; 30/115) were family members with a loved one who experiences behavioral health challenges and 20% (23/115) were behavioral healthcare service recipients.



<u>Challenges to Accessing PACT for TAY Individuals</u>

Figure 6 displays the various challenges and barriers to PACT for TAY individuals that survey respondents endorsed. Forty-three percent (43%; 50/115) indicated that insufficient housing and other resources pose significant challenges to accessing PACT. Nearly 40% (39/115) reported challenges with access due to not meeting PACT admission criteria, whereas 29% (33/115) indicated that the



challenge was not wanting PACT services even when meeting PACT admission criteria. Nearly 40% (39/115) report that being unaware of PACT is a challenge to access. Thirty percent (35/115) report that the biggest challenge is little to no continuity between referral sources and PACT admission. Appendix 3 depicts challenges to accessing PACT services for TAY, broken down by respondent types.

Forty-six percent (46%; 53/115) of respondents reported additional barriers and challenges, the most common of which are reported in Table 1.

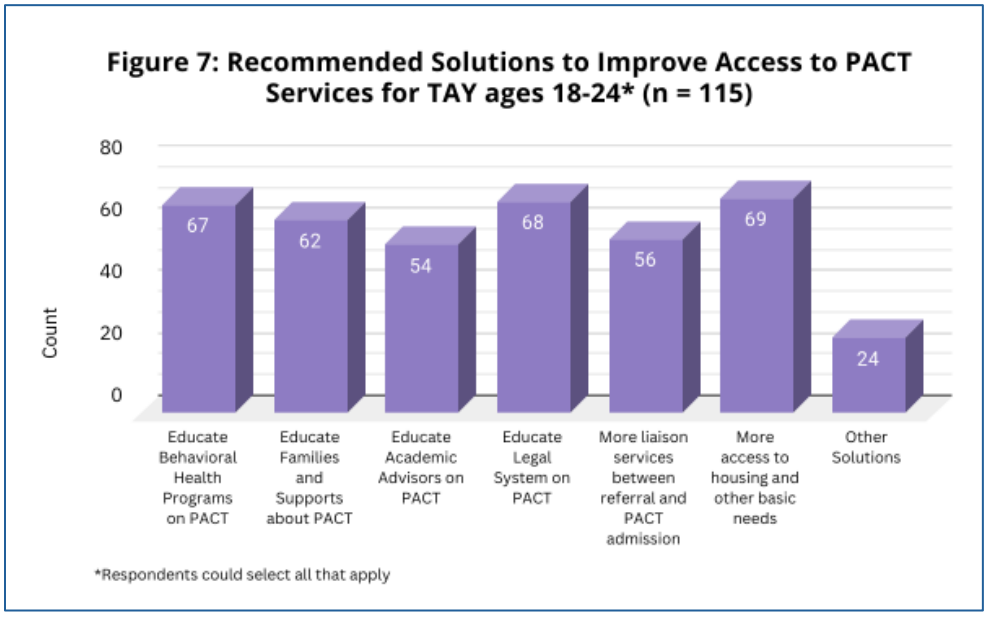
Table 1. Other Most Commonly Cited Challenges to Accessing PACT for TAY

Larger Theme	Specific Example(s) Cited
Limited awareness of available services, who they serve, how to access (n = 13)	• Complicated referral processes and access points • Uncertainty of how to access and utilize PACT services • Limited knowledge about appropriate services for this population within educational institutions • Difficulty with system navigation
Mental health stigma (n = 11)	• Less of a hopeful message compared to early intervention programs like New Journeys • Young adults afraid of disclosure of their mental health status • Fear of being judged or labeled as weak does prevent an adult like me from seeking help • Limited public awareness of mental health needs and treatment • Cultural differences affecting perceptions of mental health
Misalignment between PACT and TAY/young adult needs (n = 7)	• TAY are more focused on housing, employment, job skills, relationships. We see this in our physical health areas as well with low PCP engagement and preventative services. • Difficulty balancing school, work, and mental health needs. • Younger clients often exhibit resistance towards the 3-appointment-a-week standard. PACT fidelity may be too strict for someone in a developmental stage requiring identity development and independence. • PACT can be aggressive about taking medications and can be too controlling, making it less appealing for young people.
More challenging substance abuse needs that prevent access (n = 2)	• Symptoms are more attributed to substance use than mental health. • Inadequate support for co-occurring substance use disorders.

Table 1. Other Most Commonly Cited Challenges to Accessing PACT for TAY	
Larger Theme	**Specific Example(s) Cited**
PACT admission criteria too rigid (n = 2)	• Symptoms may not be perceived as severe and persistent enough • PACT only takes extremely acute patients, the 'sickest of the sick,' which makes it difficult for others who are also struggling, but perhaps a little less acute to access these services.
Little insight among young people who may not think they need PACT (n = 2)	• Little insight and believe they can manage on their own or their family will continue to support them monetarily, housing, etc.
Poor staff retention/turnover in PACT (n = 2)	• PACT programs are poorly staffed • Can't keep enough staff to run programs

Solutions and Strategies to Improve TAY Access to PACT

As depicted in Figure 7, the top three recommended solutions to improving TAY access to PACT include: (1) increasing access to housing and other basic needs (60%; 69/115); (2) increasing education regarding PACT to the legal system (59%; 68/115); and (3) educating behavioral health programs such as hospitals and other common referral sources about PACT (e.g., who PACT typically serves, services provided, how to refer) (58% 67/115).



Other recommendations include educating families and natural supports about PACT (54%; 62/115); more liaison services to ensure continuity of care between referring providers and PACT teams (48%; 56/115); and educating academic advisors about PACT (46%; 54/115).

Other proposed solutions and strategies are included in Table 2 below, including many that echo responses related to improving and providing more outreach and education to this population about available services and resources. While there were only two respondents who reported that the currently narrow PACT admission criteria was a challenge to access, 8 responses specifically mentioned adapting PACT to this population as a proposed solution. These responses are still low compared to the total number of responses.

Table 2. Other Most Commonly Cited Solutions for Improving Access to PACT for TAY

Larger Theme	Specific Example(s) Cited
Improve outreach and education to TAY individuals and young adults about available services (n = 13)	• Develop a mentorship program connecting youth with resources • Create informational brochures tailored for young adults • Utilize social media campaigns to spread awareness • Develop engaging educational materials (e.g., videos, podcasts, blogs) • Create a resource directory for mental health services • Develop partnerships with public libraries for outreach • Host open houses to familiarize youth with services • Create partnerships with athletic organizations for outreach • Establish collaborations with local media for awareness • Develop relationships with local mental health advocates and services • Conduct workshops on understanding mental health terminology
Develop or adapt a service model tailored for TAY individuals (n = 6)	• PACT was developed to be an adult program, WISe a youth program… what is truly needed for the TAY population (e.g., more job training, skill development, employment support, etc.)? • Engage youth and young adults in program development and feedback to serve their unique needs • Provide more resources on coping strategies and life skills tailored to this population
Implement or raise awareness about services that provide more immediate support to this population (n = 5)	• Implement mobile outreach units for more direct access • Implement a hotline for more immediate support • Create emergency resource cards for young adults • Reduce wait times for services • Create a safe online space for youth to share experiences
More training for PACT teams to serve the unique needs of TAY individuals (n = 4)	• More training to PACT staff on how to engage with this population • Funding quarterly Psychosis REACH trainings for PACT teams across the state (directed towards family members and loved

Table 2. Other Most Commonly Cited Solutions for Improving Access to PACT for TAY	
Larger Theme	**Specific Example(s) Cited**
	ones) so they can learn about how to support their loved one while creating an access point for referrals • Emphasis on patient- or person-centered care; less emphasis on medication
Expanding PACT admission criteria to serve TAY (n = 4)	• Fewer hospitalizations per year as a requirement for admission • Develop a separate PACT team that serves TAY/young adults • Develop an alternative fidelity model to cater to the needs of a younger client base
Invest in the behavioral health workforce and staff retention (n = 2)	• Higher pay for clinicians working in these programs to retain them longer in these roles
More funding options for those on private insurance (n = 3)	• Many young people are on their parents' insurance yet need to get on Medicaid to receive many of these services

Charge #3: Identification of evidence-based alternative models for providing high-intensity wraparound services that may be more appropriate for some young adult populations

Methods

This literature search focused on finding research articles on high-intensity, team-based or wraparound services for TAY and young adults. Priority was given to systematic reviews and meta-analyses that included rigorous methods of compiling data from numerous, high-quality studies.

Results

This literature search yielded articles related to the following high-intensity team-based service models for TAY and young adults: (1) Youth Assertive Community Treatment (ACT; one systematic review of 13 studies); (2) Flexible ACT for TAY (one study); and (3) Wraparound (one systematic review and meta-analysis of 17 studies).

Youth Assertive Community Treatment (ACT)

While relatively few studies have been conducted on youth ACT in comparison to studies on ACT for adults, there has been a recent systematic review of 13 studies on the effectiveness of

youth ACT.[7] Of the 13 studies, four were the same randomized clinical trial (RCT) conducted between 1999 and 2008 with a focus on youth ages 12-18 presenting with substance abuse or dependence. While that specific youth ACT program included some elements of ACT for adults including community-based services and a low staff-to-client ratio, the primary staff person is a case manager with a multidisciplinary team unspecified. The other nine studies included a quasi-experimental or pre-post design and did not have a control or comparison group. Studies examined youth between the ages 6 and 18 presenting with a range of behavioral health conditions, including psychosis, substance abuse/dependence, self-harm behaviors, presenting for crisis. Results found youth ACT to be most effective at decreasing frequency and duration of psychiatric hospital admissions, decreasing severity of psychiatric symptoms, and improving functional outcomes. However, given the limited number of rigorous studies, results are considered limited but promising.

Flexible ACT for TAY

A recent observational study examined the effectiveness of an adapted ACT model called Flexible ACT (FACT) further modified for TAY and evaluated across 16 youth FACT teams in the Netherlands.[8] FACT teams have been implemented widely in the Netherlands and Scandinavian countries to address some of the challenges with economies of scale needed to implement a full-size ACT model in areas with less population density. While including "ACT" in the name, FACT is a hybrid model whereby an outreach-oriented, multidisciplinary team provides higher intensity services to approximately 20% of the caseload at any given time and lower intensity services to the other 80%, with the capacity to change the frequency and duration of services to any individual with higher or lower service needs as those needs change.

The 199 youth in this study were between the ages of 18-24 (mean age = 18.57) and they presented with a range of mental health disorders, mostly anxiety and depression, trauma and other related disorders, autism-spectrum disorders, and attention-deficit/hyperactivity disorder (ADHD), most of whom had experienced challenges with family and peer relationships and in school and work. Few experienced psychosis or substance use disorders. Over 18 months, this

[7] Vijverberg, R., Ferdinand, R., Beekman, A., & van Meijel, B. (2017). The effect of youth assertive community treatment: A systematic PRISMA review. *BMC Psychiatry, 17* (284). doi: 10.1186/s12888-017-1446-4.

[8] Broersen, M., Creemers, D. H. M., Frieswijk, A. A., Vermulst, A. A., & Kroon, H. (2022). Effects of youth flexible assertive community treatment: Outcomes of an 18-month observational study. *Social Psychiatry and Psychiatric Epidemiology, 59*, 745-758.

study found statistically significant improvements in symptoms of subclinical psychosis and depression, social recovery including fewer contacts with the legal system, and personal recovery outcomes, including quality of life and feelings of empowerment. There were no significant changes in substance abuse, aggressive or disruptive behavior, independent living and self-care skills, self-harm, school or employment participation, or personal finances. While promising, the main limitation of this study is that it did not employ a control or comparison group. More studies are needed to test this potentially promising model before it can be more widely disseminated.

Wraparound

Wraparound is the model of care emulated within the WISe program in Washington State. Wraparound is a care management approach for youth, typically between the ages of 6 and 19, with complex behavioral health needs and has been used within multiple service systems, including juvenile justice, child welfare, and education. Most services are delivered in the young person's home and community by a team co-created with the youth, their family, and their Wraparound facilitator, who works with a small caseload of families at any given time. The team typically consists of a mix of behavioral health clinicians and other service providers, family, and other natural supports. Services and holistic and individualized, and focus on building on family strengths, while addressing their needs.

A 2021 systematic review and meta-analysis included 17 studies evaluating the effectiveness of Wraparound.[9] Eight studies included randomized controlled trials and 9 used a quasi-experimental design. This examination found statistically significant, medium-sized effects favoring the Wraparound condition in the areas of more stable/less restrictive residential settings, school functioning, and costs. Statistically significant small effects for those enrolled in Wraparound were found for mental health symptoms and functional outcomes. Results were non-significant for juvenile justice outcomes.

These results appear to be consistent with the theory of change for Wraparound, with a focus on preserving placement in home and community settings vs. a focus on targeting symptoms and functioning for categorical diagnoses or specific behaviors. The authors suggest that while future research should focus more on measuring and reporting level of fidelity to Wraparound and

[9] Olson, J. R., Benjamin, P. H., Azman, A. A., Kellogg, M. A., Pullmann, M. D., Suter, J. C., & Bruns, E. J. (2021). Systematic review and meta-analysis: Effectiveness of wraparound care coordination for children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 60* (11). 1353-1366.

other methodological issues, these results suggest that Wraparound is effective for a range of psychosocial outcomes, applicable to a wide range of populations and service settings, and that it may be a less expensive alternative model than treatment as usual. The authors conclude that these findings may be useful for policymakers in particular, given the combination of effectiveness on outcomes and cost for a wide range of service recipients and application to multiple service sectors.

Evidence-Based Models to Support TAY Individuals: Summary & Discussion

After review of the existing literature, the service model with the most robust empirical support that has overlap with the population of interest appears to be Wraparound. While evidence is promising for Youth ACT, more study is needed before wider dissemination. Further youth ACT programs have been adapted in multiple ways that bear little resemblance to one another or to standard ACT, resulting in challenges regarding replication and fidelity measurement. Further, youth ACT team members require the necessary education and training to serve younger people and interventions need to be tailored to address the different population served (e.g., not psychosis and other SMI). In states like Washington where there is already robust implementation and dissemination of Wraparound (i.e., WISe), minor adaptations to address the needs of transition age youth appear to be a more seamless process than the major adaptations necessary for adapting PACT as a transition age youth ACT program.

Conclusion & Next Steps

This evaluation sought to bring a better understanding of how many transition age youth and young adults access PACT services in Washington as well as unmet need for this population. We identified challenges and solutions for accessing PACT services and identified other evidence-based practices to serve the needs of this population, which all too often falls through the cracks between the child/youth and adult behavioral health service systems.

Analysis of administrative claims data suggest that an average of 137 TAY individuals were served in each year between 2019 and 2023. While those numbers are small, they indicate that some TAY individuals are successful in accessing care in PACT teams and make up approximately 7.5% of individuals 18-65 who access PACT. Relatively the same number of TAY individuals (an average of 126 in the same years) did <u>not</u> receive PACT services even though they met PACT admission criteria. These include the small numbers of young people who were served by WISe,

IRT, and New Journeys programs. Due to data suppression, we do not know the actual number of those who were served by other programs or may be receiving services from a combination of programs. This confirms there is unmet need, but that those numbers are relatively low based on the number served by these other high-intensity, team-based care models. Since these counts are based on Medicaid claims data, what these numbers cannot tell us is how many young people ages 18-24 who meet PACT criteria are not being served by any behavioral health program at all.

Survey data revealed several challenges to TAY individuals' access to PACT services, as well as potential solutions to address these barriers. The biggest challenge identified was insufficient housing and other resources, the remediation of which was also rated highly as a potential solution. This points to the need to ensure that if behavioral health programs are expanded, there needs to be a more comprehensive investment in the system at-large, including safe, affordable, and quality housing and resources to address other basic needs.

More public education about PACT would address the challenges related to many TAY who are unaware of PACT but meet PACT admission criteria. Community education is within the purview of PACT teams and is a fidelity standard; however, such education is typically provided to common referral sources such as hospital and emergency services staff. A more comprehensive public education campaign should address needs across the system and educate the community about where they can receive appropriate services, whether it be PACT or other more appropriate services for a younger population. A public education campaign should also focus on mental health stigma reduction tailored to this target demographic, as many young people experience challenges with accessing services due to stigmatization of behavioral health issues. This was indicated by nearly 30% of respondents who endorsed the challenge related to young people who do meet PACT admission criteria, but do not want to be admitted to PACT for services. Further, survey respondents recommended a plethora of approaches to improve outreach and education to TAY about available services (e.g., created partnerships with athletic organizations to outreach; establish collaborations with local media for awareness; utilize social media campaigns, podcasts, videos targeting outreach and education to youth and young adults).

The reported challenge related to the TAY population not meeting PACT admission criteria is a complex one and ties to the last charge for this study to identify other evidence-based alternative models for providing higher intensity wraparound services that may be more appropriate for some young adult populations. While several respondents recommended

expansion of the PACT admission criteria to serve TAY individuals and more training to PACT staff on how to engage this population, Washington State already has one program that serves youth and young adults with complex, transdiagnostic behavioral health needs: WISe. While adapting WISe to TAY would mean expanding the age range up to age 24, this approach appears to be more seamless than fully adapting the PACT model, including the admission criteria and services delivered within it, to address the needs of TAY individuals. Further, an evidence-informed model of Wraparound designed specifically for TAY at greatest risk of school dropout and alternative placement — RENEW (Rehabilitation, Empowerment, Natural Supports, Education, and Work)[10] — has already been developed and is in use in many other states' education and public behavioral health systems.[11]

Next steps should incorporate the report recommendations identified in the discovery sprint conducted by Bloom Works between August and October 2024.[12] This approach will best leverage results from this broader examination of TAY needs with this more specific examination of TAY access to PACT services, as outlined in Engrossed Substitute Senate Bill 5950.

[10] Malloy, JoAnne and Manisco-Chapo, Sara (2024) "Moving Beyond Trauma: Activating Resilience to Support Our Most Vulnerable Youth," International Journal of School Social Work: Vol. 9: Iss. 2. https://doi.org/10.4148/2161-4148.1078
[11] Center for RENEW Implementation. University of New Hampshire & New Hampshire Institute on Disability. Retrieved from https://iod.unh.edu/renew
[12] Bloom Works (2024). Transition-Age Youth and Complex Behavioral Health: Research and Recommendations. Retrieved from https://www.hca.wa.gov/assets/program/transition-age-bh-report-20241021.pdf

Appendix 1: Technical Notes and Raw Data

Counts of Individuals Served in PACT by Service Age Groups ([a] 18-24 [Target Population], [b] 18-75 [Overall PACT Service Population], including percentages of group [a] divided by group [b]) and Calendar Year 2019 through 2023

Data Source: BHDS/BHSS (Data on CH/ET/CLIP/SH [monthly arrays of] services and encounter [for PACT, WISe, IRT, and NJ-CSC] services, and individual diagnostic data updated on 9/26/2024).

Analyst: Ted Lamb

Date of Report Completion: 10/15/2024; reviewed and finalized 10/16/2024

Analytics Code: PACT_BHDS_092324_test

 # Targeted Services (Services are, where applicable, based on Procedure Code/Modifier/Place of Service configurations outlined in the 2024 Service Encounter Reporting Instructions [SERI] Guide.):

PACT: Program of Assertive Community Treatment

Data Notes:

"For the PACT Served Columns: These columns illustrate (1) counts of individuals ages 18-24 having received a PACT service in any month within the Calendar Year; (2) counts of individuals ages 18-75 having received a PACT service in any month within the Calendar Year; and (3) the percentage of individuals in subgroup (1) as compared to the overall PACT service population (2), by Calendar Year. The data points may serve as numerators for calculating percentages."

Table 1 (a) Individuals ages 18-24 who received PACT services, by Calendar Year (CY); (b) Individuals ages 18-75 who Received PACT Services by CY); (c) Individuals ages 18-24 who Received PACT Services as Percentage of PACT Service Population, by CY. A value of "1" means that an individual received PACT services in a given Calendar Year.

Calendar Year	PACT	Individuals 18-24 who Received PACT Services	Individuals 18-75 who Received PACT Services	Individuals 18-24, as Percentage of Individuals 18-75
2019	1	147	1,836	8.0%
2020	1	130	1,776	7.3%
2021	1	142	1,927	7.4%
2022	1	123	1,742	7.1%
2023	1	143	1,846	7.7%

Counts of Individuals Ages 18-24 Served in PACT, WISe, IRT, and New Journeys CSC by PACT Criteria Flag and Calendar Year by Various Groupers (Overall, Calendar Age, and PACT Criteria Flag) 2019 through 2023

Data Source: BHDS/BHSS (Data on CH/ET/CLIP/SH [monthly arrays of] services and encounter [for PACT, WISe, IRT, and NJ-CSC] services, and individual diagnostic data updated on 9/26/2024).

Analyst: Ted Lamb

Date of Report Completion: 9/27/2024; finalized on 9/30/2024

Analytics Code: PACT_BHDS_092324_test

Targeted Services (Services are, where applicable, based on Procedure Code/Modifier/Place of Service configurations outlined in the 2024 Service Encounter Reporting Instructions [SERI] Guide.):

PACT: Program of Assertive Community Treatment

WISe: Wraparound with Intensive Services

IRT: Intensive Residential Treatment

New Journeys CSC: New Journeys Coordinated Specialty Care

Data on community hospitals (CH), evaluation and treatment (ET) facilities, Children's Long-term Inpatient Program (CLIP) facilities, and state hospitals (SH) [monthly arrays of] services and encounters for PACT, Wraparound with Intensive Services (WISe), Intensive Residential Treatment (IRT), and New Journeys Coordinated Specialty Care (CSC) services, and individual diagnostic data updated on 9/26/2024.

Description of Selection Criteria:

An individual is counted as "PACT_Crit_Met" if the diagnostic criterion and Mental Health (MH) Hospitalization (CH/ET/CLIP)/State Hospital (SH) criterion (with the latter being counted in the year previous to the reporting Calendar Year) each have a value of "1" in any month of service within a Calendar Year. If a person does not meet criteria in said Calendar Year, then that person is counted with a "0" in that Calendar Year.

For the N_Alt Column (by targeted service): This column illustrates counts of individuals having received a targeted service in any month within the Calendar Year. In this case, the Alt service flag was created to avert double counting services specific to an individual (This flag has a value of ""1"" if the individual received a targeted service at any time within a given calendar year, and is applied to the entirety of that calendar year; else, the flag value defaults to ""0."").

The set of data points apply only to the targeted services. These counts will sum to the overall total distinct counts of individuals by calendar year.

The data points may serve as numerators for calculating percentages."

The Calendar Age is based on the difference in years between the month of service and the individual's birthdate. An individual may be counted more than once in a Calendar Year by Calendar Age breakouts but will be counted once within a given Calendar Year for the overall unduplicated count. As such, counts by Calendar Age will not sum to the unduplicated count of individuals by Calendar Year.

The Calendar Year is synonymous with the Reporting Year, except in instances where reporting on Mental Health hospitalizations and State Hospital hospitalizations are retroactively lagged by one calendar year.

On Data Suppression: Any data point containing a value of <11, where the total remaining data points in a group/subgroup can be used to calculate a sum (i.e., of a column or row) or percentage (i.e., of a row); or where more than one data point contains a value of <11, and an adjacent data point or set of data points could be used to impute the values of <11 to a number, was revised via (1) the labeling of the data point(s) with the value of < 11 with a double asterisk (**); and, where applicable, (2) the redaction of a random, corresponding data point(s) in the group/subgroup with a double asterisk.

Individuals are considered to meet PACT criteria based on:

(a) A primary diagnosis on an encounter record at any time within the Reporting Year, containing any of the following values:

Psychosis: ICD-9 and ICD-10 Codes

295 – 295.99	Schizophrenia-spectrum disorders (including schizoaffective disorder)
297 – 297.99	Delusional disorders
298 – 298.99	Other nonorganic psychoses
F20.0 - F20.9	Schizophrenia
F22	Delusional disorder
F25.0 - F25.9	Schizoaffective disorder
F28	Other psychotic disorder not due to a substance or known physiological condition
F29	Unspecified psychosis not due to a substance or known physiological condition

Bipolar Disorder: ICD-9 and ICD-10 Codes

296	Bipolar I Disorder, Single Manic Episode
296.1	Manic Disorder, Recurrent Episode
296.4	Bipolar I Disorder, Most Recent Episode (or Current) Manic
296.5	Bipolar I Disorder, Most Recent Episode (or Current) Depressed
296.6	Bipolar I Disorder, Most Recent Episode (or Current) Mixed
296.7	Bipolar I Disorder, Most Recent Episode (or Current) Unspecified
296.8	Bipolar Disorder, Unspecified
296.82	Atypical Bipolar Disorder
296.89	Other Bipolar Disorders

Bipolar Disorder: ICD-9/10 Codes (cont.)

F31.0 Bipolar Affective Disorder, Current Episode Hypomanic

F31.1 Bipolar Affective Disorder, Current Episode Manic Without Psychotic Symptoms

F31.2 Bipolar Affective Disorder, Current Episode Manic With Psychotic Symptoms

F31.3 Bipolar Affective Disorder, Current Episode Mild or Moderate Depression

F31.4 Bipolar Affective Disorder, Current Episode Severe Depression Without Psychotic Symptoms

F31.5 Bipolar Affective Disorder, Current Episode Severe Depression With Psychotic Symptoms

F31.6 Bipolar Affective Disorder, Current Episode Mixed

F31.8 Other Bipolar Affective Disorders

F31.9 Bipolar Affective Disorder, Unspecified

Major Depression ICD-9/10 Codes:

296.24 Major depressive disorder, single episode – severe, with psychotic features

296.34 Major Depressive Disorder, Recurrent, Severe, With Psychotic Features

F32.3 Major Depressive Disorder, Single Episode, Severe With Psychotic Symptoms

F33.3 Major Depressive Disorder, Recurrent, Severe With Psychotic Symptoms

AND

(b1) Three or more mental health (MH) hospitalizations (defined as served in a community hospital, E&T, or CLIP facility at any time during the year previous to the reporting Calendar Year)

OR

(b2) One or more state hospital (SH) hospitalizations (defined as served at Western State Hospital, Eastern State Hospital, or Child Study and Treatment Center at any time during the year previous to the reporting Calendar Year).

Table 6. Individuals meeting "PACT Criteria", and who received WISe services, by Calendar Year.

A value of "0" means that an individual did not receive WISe services in a given Calendar Year. A null value means that there were no individuals served in WISe in a given Calendar Year.

The receipt of WISe services is based on any service date noted within a given calendar year. Given the decision rule referenced above,[13] the counts in the N_Alt column will sum to the unduplicated total.

Calendar Year	PACT Criteria Met	Received WISe Services	N_Alt
2019	0	0	**
	0	1	**
	1	0	**
	1	1	**
2020	0	0	**
	0	1	**
	1	0	**
	1	1	**
2021	0	0	64,074
	0	1	406
	1	0	134
	1	1	.
2022	0	0	**
	0	1	**
	1	0	**
	1	1	**
2023	0	0	66,828
	0	1	404
	1	0	115
	1	1	.

[13] For the N_Alt Column (by targeted service): This column illustrates counts of individuals having received a targeted service in any month within the Calendar Year. In this case, the Alt service flag was created to avert double counting services specific to an individual (This flag has a value of "1" if the individual received a targeted service at any time within a given calendar year and is applied to the entirety of that calendar year; else, the flag value defaults to "0."). The set of data points apply only to the targeted services. These counts will sum to the overall total distinct counts of individuals by calendar year. The data points may serve as numerators for calculating percentages.

Table 7. Individuals meeting "PACT Criteria", and who received IRT services, by Calendar Year. A value of "0" means that an individual did not receive IRT services in a given Calendar Year. A null value means that there were no individuals served in IRT in a given Calendar Year. The receipt of IRT services is based on any service date noted within a given calendar year. Given the decision rule referenced above, the counts in the N_Alt column will sum to the unduplicated total.

Calendar Year	PACT Criteria Met	Received IRT Services	N_Alt
2019	0	0	**
	0	1	**
	1	0	157
	1	1	.
2020	0	0	**
	0	1	**
	1	0	153
	1	1	.
2021	0	0	**
	0	1	**
	1	0	**
	1	1	**
2022	0	0	**
	0	1	**
	1	0	**
	1	1	**
2023	0	0	**
	0	1	**
	1	0	**
	1	1	**

Table 8. Individuals meeting "PACT Criteria", and who received New Journeys CSC (NJ-CSC) services, by Calendar Year.

"A value of ""0"" means that an individual did not receive NJ-CSC services in a given Calendar Year. A null value means that there were no individuals served in NJ-CSC in a given Calendar Year. The receipt of NJ-CSC services is based on any service date noted within a given calendar year. Given the decision rule referenced above, the counts in the N_Alt column will sum to the unduplicated total."

Calendar Year	PACT Criteria Met	Received NJ-CSC Services	N_Alt
2019	0	0	50,428
	0	1	.
	1	0	157
	1	1	.
2020	0	0	56,820
	0	1	.
	1	0	153
	1	1	.
2021	0	0	64,480
	0	1	.
	1	0	134
	1	1	.
2022	0	0	66,202
	0	1	294
	1	0	138
	1	1	.
2023	0	0	**
	0	1	**
	1	0	**
	1	1	**

Appendix 2: PACT TAY Survey

We would like to learn from you about your experience regarding access to Program of Assertive Community Treatment (PACT) team services for transition age youth ages 18-24. This survey will take no more than 5 minutes to complete. We appreciate your time!

1. Which role best describes yours as it relates to behavioral health services in Washington State? (Select up to two.)
    a. Family member of someone who currently receives or has previously received behavioral healthcare services
    b. Family member of someone who has behavioral health challenges but has NOT received any behavioral health services
    c. Person who directly receives behavioral healthcare services
    d. Behavioral health care provider
    e. Physical health care provider
    f. Residential provider
    g. PACT team member
    h. Other (please specify): _____

2. What are the greatest challenges or barriers to receiving PACT services for someone between the ages of 18 and 24? (Select all that apply.)
    a. I/they do not meet PACT admission criteria.
    b. I/they meet admission criteria, but don't want PACT services.
    c. I/they do not know about PACT.
    d. I/they know about PACT, but do not know that PACT may be an option for them.
    e. There is little to no continuity of care or a warm handoff between the referring service program and PACT.
    f. Insurance doesn't pay for PACT services.
    g. Not enough housing and other resources to support people who meet PACT admission criteria but have other larger basic needs that need to be met.
    h. Other challenges/barriers (please describe): _____

3. What would help to ensure better access to PACT services for someone between the ages of 18 and 24? (Select all that apply.)
    a. Educating other behavioral health programs such as hospitals and other common sources of referral about PACT (who PACT typically serves, services provided, how to refer, etc.).
    b. Educating families and natural supports about PACT (who PACT typically serves, services provided, and how to refer, etc.).
    c. Educating academic advisors about PACT (who PACT typically serves, services provided, and how to refer, etc.).

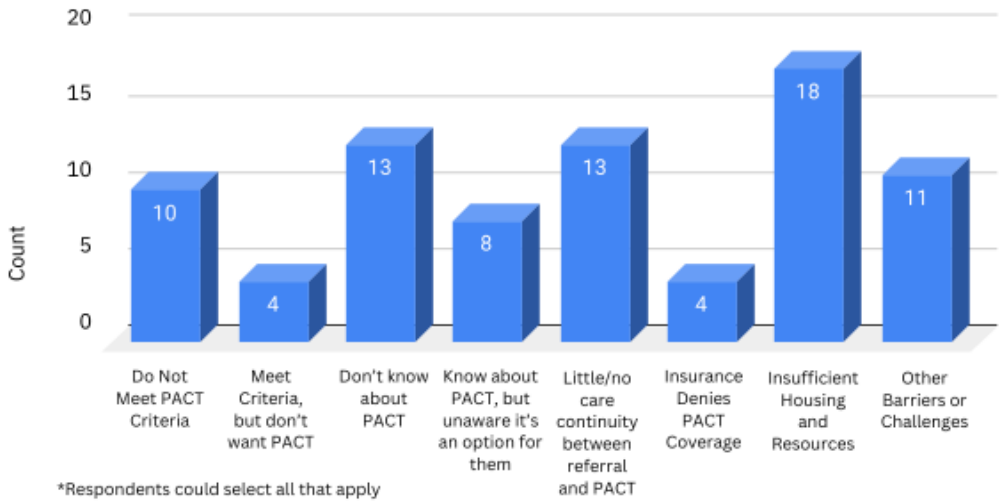
d. Educating those in local legal systems such parole/probation officers and law enforcement about PACT (who PACT typically serves, services provided, and how to refer, etc.).
e. More liaison services that provide continuity of care and a warm handoff between the referring service program and PACT.
f. More access to housing and other basic needs in the system.
g. Other solutions (please describe): _____

Thank you for taking the time to complete this survey. If you would like redeem your gift card, please indicate the best email address for us to send it to: _____

Appendix 3: Challenges for TAY Access to PACT

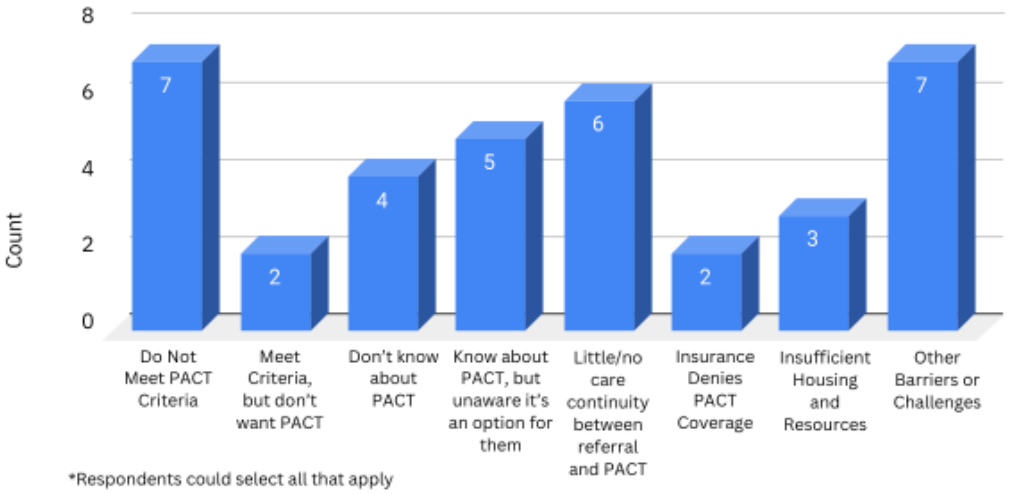
Responses Broken Down by Respondent Type

Figure 1: Challenges to Accessing PACT for TAY
Family Members of Healthcare Recipients Responses* **(n = 30)**



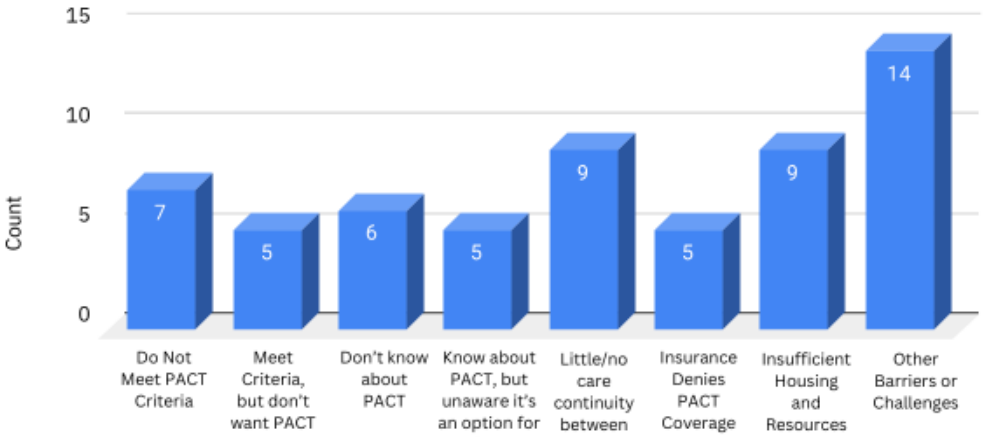
*Respondents could select all that apply

Figure 2: Challenges to Accessing PACT for TAY
Family Member Unserved by BH System Responses* **(n = 16)**



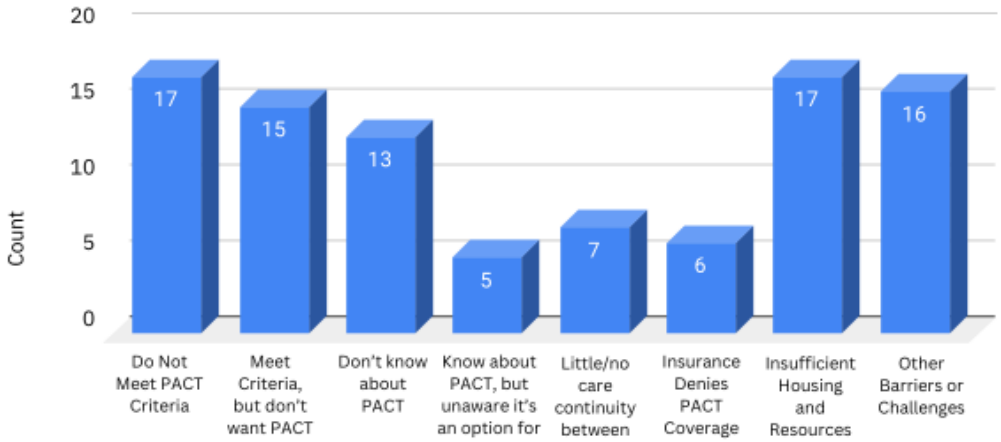
*Respondents could select all that apply

Figure 3: Challenges to Accessing PACT for TAY
Behavioral Healthcare Service Recipient Responses* **(n = 23)**



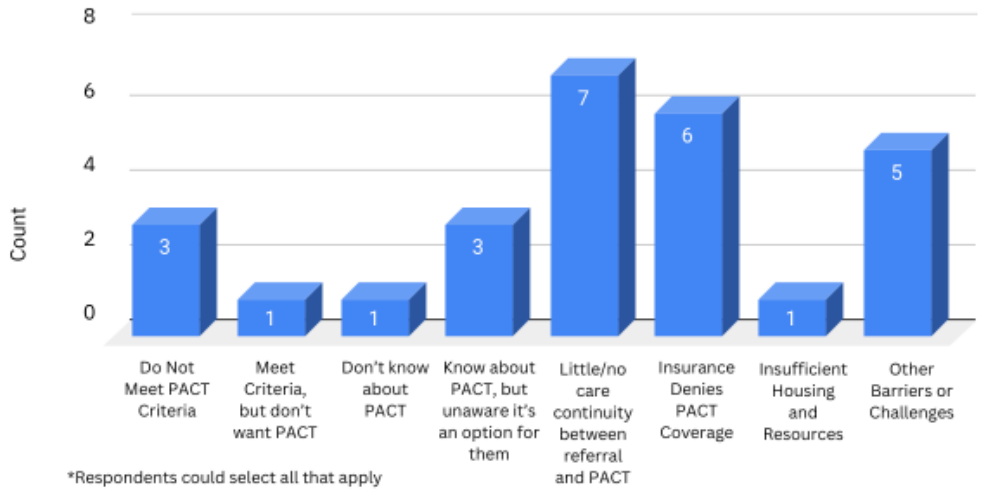
*Respondents could select all that apply

Figure 4: Challenges to Accessing PACT for TAY
Behavioral Health Care Provider Responses* **(n = 35)**



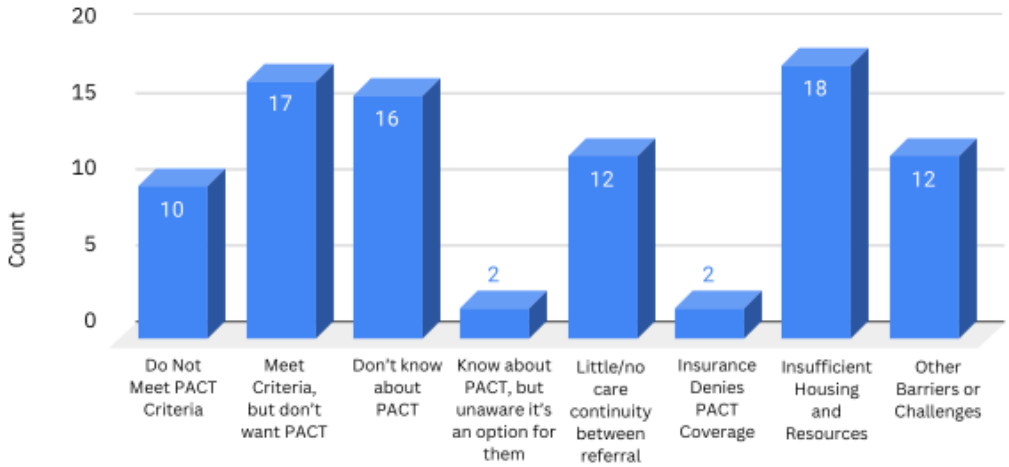
*Respondents could select all that apply

Figure 5: Challenges to Accessing PACT for TAY
Physical Health Care Provider Responses **(n = 7)**



*Respondents could select all that apply

Figure 6: Challenges to Accessing PACT for TAY
PACT Team Member Responses **(n = 33)**

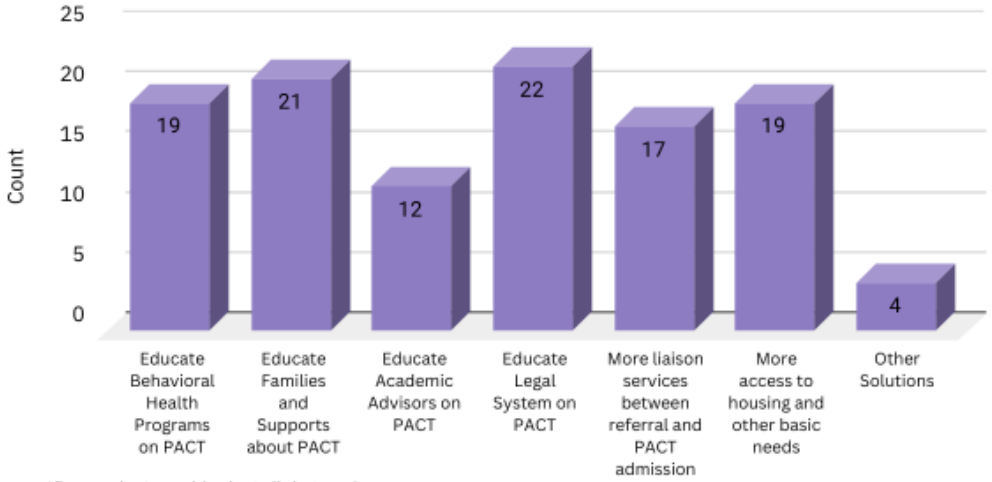


*Respondents could select all that apply

Appendix 4: Solutions for TAY Access to PACT

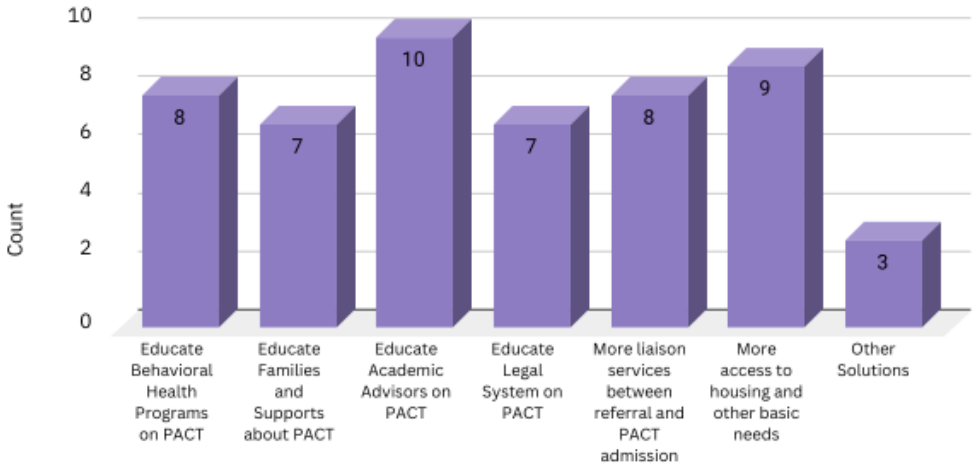
Responses Broken Down by Respondent Type

Figure 1: Recommended Solutions to Improve Access to PACT Services for TAY
Family Members of Healthcare Recipients Responses **(n = 30)**



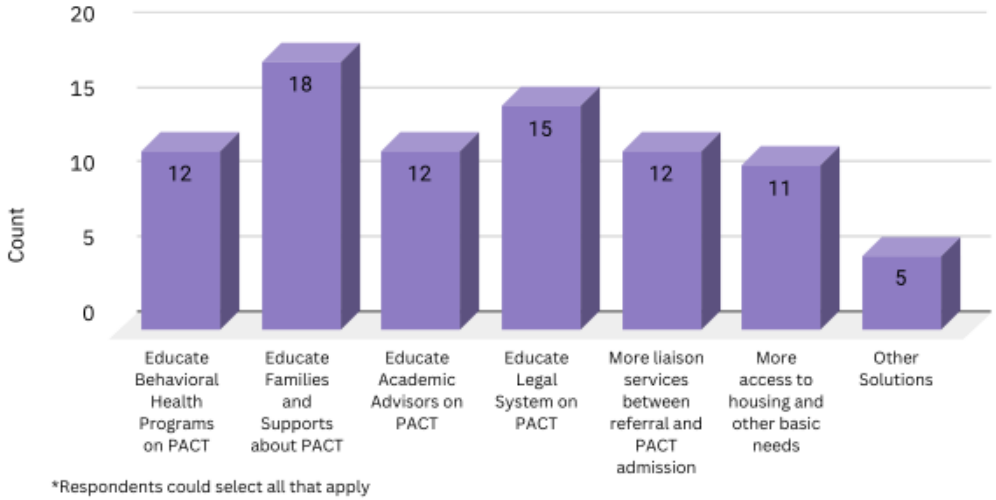
*Respondents could select all that apply

Figure 2: Recommended Solutions to Improve Access to PACT Services for TAY
Family Member Unserved by BH System Responses **(n = 16)**



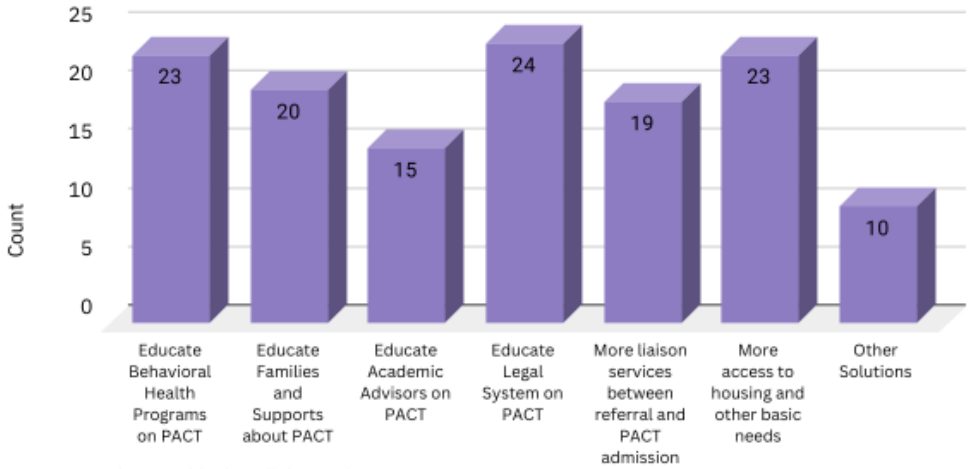
*Respondents could select all that apply

Figure 3: Recommended Solutions to Improve Access to PACT Services for TAY
Behavioral Healthcare Service Recipient Responses* **(n = 23)**



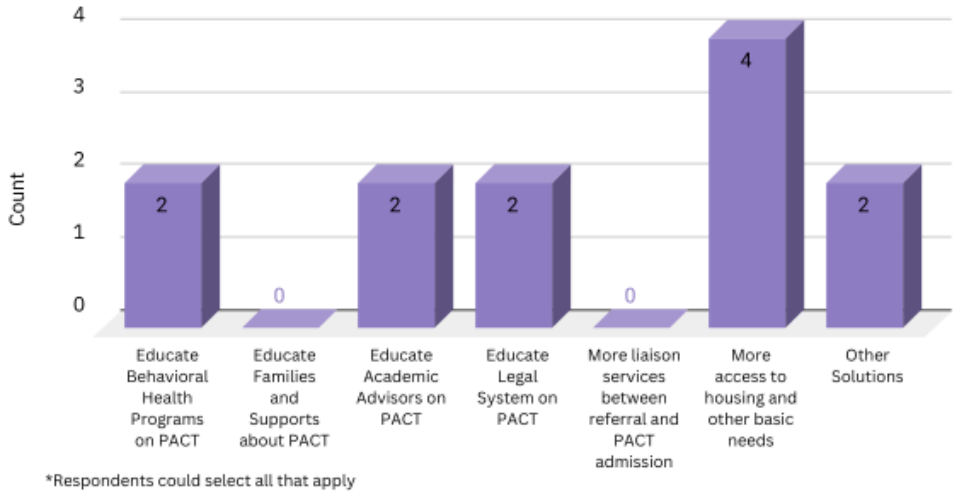
*Respondents could select all that apply

Figure 4: Recommended Solutions to Improve Access to PACT Services for TAY
Behavioral Healthcare Provider Responses* **(n = 35)**



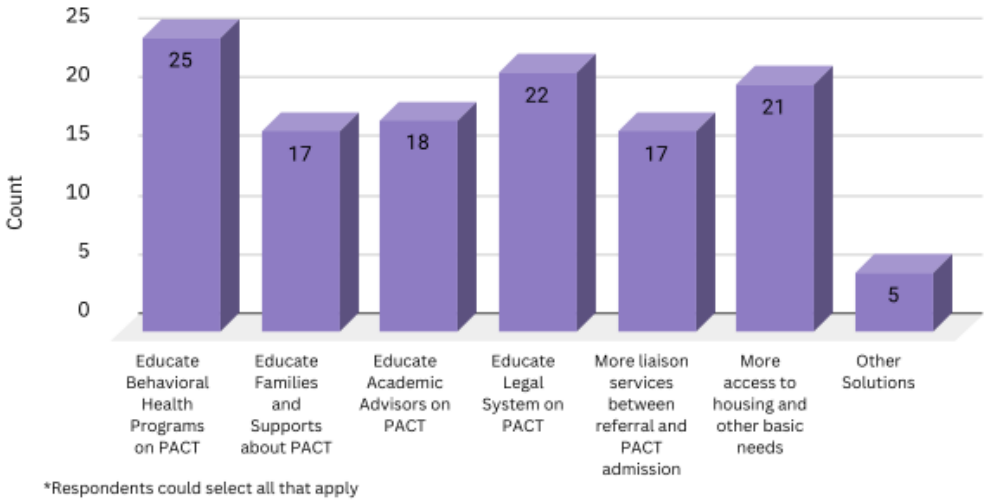
*Respondents could select all that apply

Figure 5: Recommended Solutions to Improve Access to PACT Services for TAY
Physical Healthcare Provider Responses* **(n = 7)**



*Respondents could select all that apply

Figure 6: Recommended Solutions to Improve Access to PACT Services for TAY
PACT Team Member Responses* **(n = 33)**



*Respondents could select all that apply