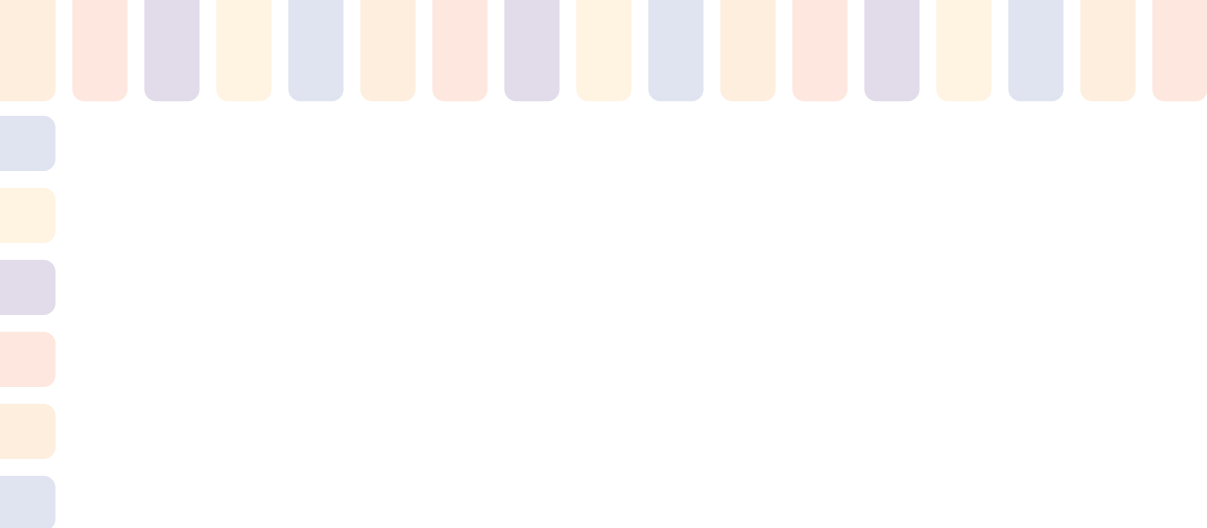


Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems

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CONNECTICUT'S MATCH COORDINATING CENTER





Connecticut MATCH Coordinating Center

Child Health and Development Institute

30 Batterson Park Road, Suite 110

Farmington, CT 06032

www.CHDI.org

This report was developed for the Connecticut Department of Children and Families (DCF) by the Child Health and Development Institute (CHDI). For more information, contact **Arielle Wagoner** at awagoner@chdi.org.

The authors retain full responsibility for all opinions and content.

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EXECUTIVE SUMMARY

Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems (MATCH) is an evidence-based treatment for four common behavioral health concerns among children: anxiety, depression, posttraumatic stress, and behavior problems. The MATCH Coordinating Center (“Coordinating Center”) is funded by the Connecticut (CT) Department of Children and Families (DCF) and located at the Child Health and Development Institute (CHDI). The Coordinating Center works to ensure equitable access to MATCH and high-quality treatment resulting in positive outcomes for children and families. The Coordinating Center supports a network of 23 MATCH providers throughout Connecticut and provides training, credentialing, implementation support, site-based consultation, data collection and reporting, and ongoing quality improvement.

This report summarizes the work of the Coordinating Center and MATCH provider network during state fiscal year 2025 (July 1, 2024 through June 30, 2025).

HIGHLIGHTS OF FY 25:

663 children received MATCH, a similar number compared to last year (**687**). This maintains the growth demonstrated since FY2023.



Children receiving MATCH generally had similar rates of completing treatment and improvement on any measure, regardless of race, ethnicity, and sex.



Anxiety continued to be the most common treatment protocol used in FY25 (**38.3%**) with rates similar to last year (**40%**). This trend is a significant increase compared to FY21 when anxiety accounted for only **29%** of episodes. **Conduct** increased by 56% in FY25 from 12.5% of episodes to **20.2%** of episodes.

85.3% of children had improvement on at least one assessment measure. Clinicians reported improvement on the Clinical Global Impressions (CGI) scale for **83.2%** of children completing MATCH.



For the first year, the proportion of **Black youth** in MATCH-ADTC was not significantly lower than the proportion of Black youth in the general OPCC population (**15.8%** vs. **16.7%**), demonstrating continued progress in access equity since FY22 (where Black youth were only **9.9%** of children in MATCH-ADTC). MATCH-ADTC continues to serve a greater proportion of Hispanic youth compared to OPCC and state populations.



KEY RECOMMENDATIONS:

- Address disparities in service delivery to Spanish-speaking youth by increasing bilingual team capacity and strengthening the existing network of bilingual clinicians *by offering dedicated MATCH office hours for Spanish-speaking clinicians and sharing quarterly consultation data on the bilingual workforce delivering MATCH.*
- Continue to invest in supporting Associate Consultants by enhancing training content in the MATCH Associate Consultant Booster Training and developing more consistent strategies to support newly trained clinicians throughout the consultation process.
- Promote training in culturally responsive practices to enhance leadership capacity and improve support for teams working with diverse families *by providing culturally responsive cognitive behavioral treatment (CBT) training for both clinicians and supervisors that align with MATCH treatment.*

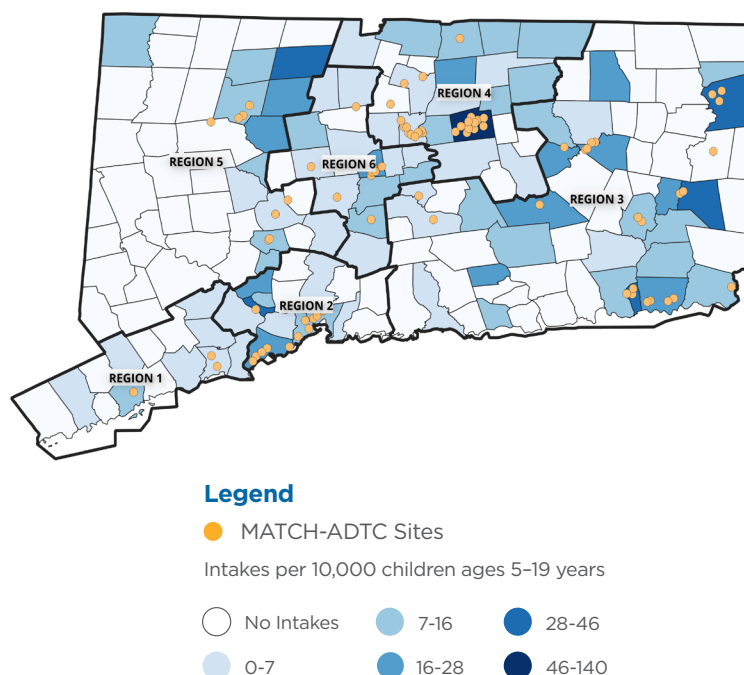
INTRODUCTION

What is MATCH?

Children and adolescents seeking treatment often experience co-occurring problems, but most treatments address one problem area at a time. Modular Approach to Therapy with Children with Anxiety, Depression, Trauma, or Conduct problems (**MATCH**) is an evidence-based treatment designed to flexibly address multiple problem areas and allow for changing clinical needs over the course of treatment. MATCH treats four common behavioral health concerns among children: anxiety, depression, posttraumatic stress, and behavior problems. Appropriate for children 6-15 years of age, MATCH is comprised of 33 modules (e.g., praise, rewards, etc.) representing treatment components that are frequently included in cognitive behavioral therapy (CBT) protocols for depression, anxiety (including post-traumatic stress), and behavioral parent training for disruptive behavior.

In CT, 75% of youth served in Outpatient Psychiatric Clinics for Children (OPCCs) have diagnoses of anxiety, depression, or trauma, making MATCH an effective treatment option for the state. Dissemination of MATCH in CT started in 2013 through a series of Learning Collaboratives. **Today, there is a network of 23 providers and more than 4,100 children have received the treatment.** Over this time, we have consistently seen positive outcomes with 82% of children experiencing improvement on assessment measures and 79% of children with critical symptoms showing remission. The map in Figure 1 shows how widespread MATCH is across the state.

Figure 1. Map of MATCH-ADTC sites and FY25 Intakes per 10,000 children.

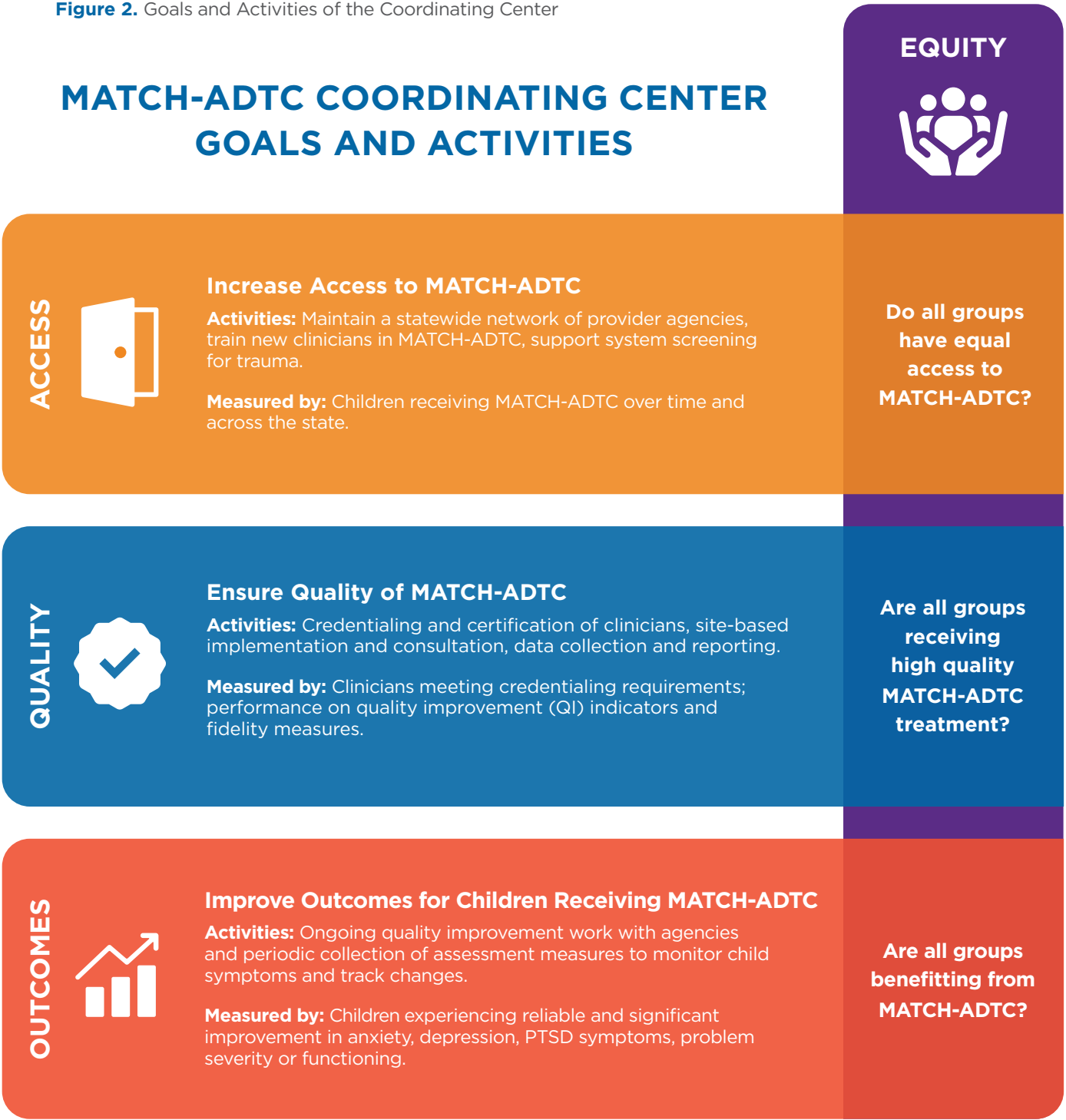


What are the goals and activities of the MATCH Coordinating Center?

The MATCH Coordinating Center (“Coordinating Center”) is funded by the Connecticut Department of Children and Families (DCF) and located at the Child Health and Development Institute (CHDI) of Connecticut. The Coordinating Center provides centralized support for the statewide network of 23 MATCH providers. The goals of the Coordinating Center are to provide **equitable access** to MATCH and ensure children and families experience **high quality treatment** and **positive outcomes**.

Throughout this report, indicators of access, quality, and outcomes are reported by demographic groups. Social and community context is highly related to service receipt and outcomes. Racism is part of that context that research has shown leads to inequities. Recognizing this, special consideration is given in this report to comparisons across racial and ethnic groups (Figure 2).

Figure 2. Goals and Activities of the Coordinating Center



Last year's annual report identified specific recommendations across these areas to focus on in FY25.



ACCESS:

Equitable access and utilization of effective treatments is the first goal of the Coordinating Center. Last year, recommendations were made to improve in this area and an overview of progress is given below.

- **Invest in supporting Associate Consultants:** During FY25, three MATCH supervisors were certified as MATCH ACs in order to offer agency-specific MATCH consultation, and four MATCH ACs participated in MATCH booster training to continue providing high quality supervision. A workshop at the EBP Conference focused on improving supervisory knowledge and practices in providing culturally sensitive supervision. Specific strategies for providing culturally sensitive supervision that acknowledges and addresses the intersectionality of supervisees' identities were provided to 40 attendees.
- **Learn from Agencies Doing it Well:** Through characters and stories that children know and love, one of the MATCH providers hosted a conference workshop on MATCH engagement that empowers children to overcome their challenges with strength and resilience. Continuing to strive for equitable access and utilization of treatment services, one MATCH provider presented at an OPCC meeting a decision tree created to guide internal staff on EBP referrals and placements using the open access model. Clients are thoughtfully matched with a provider during intake to ensure a strong clinical fit, considering factors such as demographic, language or stylistic preferences.
- **Incentivize bilingual clinicians:** Sustainability funding stipends for MATCH teams with active bilingual clinicians continued through FY25. During the FY, fourteen MATCH providers received a total of \$11,000 for having active bilingual clinicians on their teams.





QUALITY:

The Coordinating Center helps ensure quality of MATCH treatment through training opportunities and site-based consultation. There was one area of focus this year to enhance quality.

- **Monitor and support the quality of race data collection:** Race data collection continues to be reported quarterly in provider reports and is discussed during quarterly consultation with providers. This FY, there was slight improvement in the percentage of children in MATCH-ADTC with race or ethnicity data reported (87.2% vs. 86.2% in FY24). In FY24 REL (race, ethnicity, and language) changes were implemented in CT Provider Information Exchange (PIE) to align with the current state standards at the time (federal standards prior to the federal updates in May 2024). In FY25, we began to see providers make changes to the EHRs and report updated CT PIE categories, however, we continue to see missingness as some providers have updated their categories to the newer federal standards for federal reporting purposes.



OUTCOMES:

MATCH consistently demonstrates strong outcomes, but the Coordinating Center is continually looking for ways to improve the process. This year there were two recommendations that were addressed:

- **Offer training on assessments:** A two-hour advanced clinical training was conducted in March 2025 led by two state trainers. The training was open to all MATCH providers including clinicians, supervisors, and MATCH Associate Consultants. The training covered the six key MATCH measures: the Top Problems Assessment, CPSS-5, Ohio Scales, YCPC, PROMIS and SMFQ. Objectives of the training were to help clinicians increase their knowledge in tracking progress, identifying treatment goals, and making informed clinical decisions.
- **Conduct multi-year equity analyses:** We conducted two equity analyses, one on all children in MATCH over a 5-year period, and one on children in the conduct protocol area over a 10-year period. These analyses did not show any significant differences by age, race, sex, or race by sex suggesting that MATCH treatment yields equitable results for children based on demographics.

The rest of this report presents FY25 progress on advancing access, quality, outcomes, and equity in MATCH using the Results-Based Accountability (RBA) framework.

WHO DID WE SERVE?

Since 2013, more than 4,100 youth have received MATCH. The following section summarizes characteristics of the population of youth who received MATCH this fiscal year and how it compares to the overall general Connecticut population. Analyzing these demographics is imperative to understanding if disparities exist and how to increase access to all youth across Connecticut.

Who are the children and families that received MATCH? How do they compare to the overall and outpatient populations?

Children receiving MATCH in FY25 were primarily female (67.6%). They were most likely (48.1%) to be between 12 and 17 years old. Most youth were White (56.3%); 44.6% were Hispanic or Latino. Most were not involved with the child welfare or juvenile justice systems. Table 1 provides detailed information on the characteristics of children served in MATCH. An important caution is that **race and Hispanic origin data were missing for 12.8% of children**; efforts continue in consultation to increase collection of accurate demographic data.

Table 1 also contains comparisons to those served in OPCC and to the general CT population. Similar to previous years, the first notable difference is in sex, with males making up 32.4% of MATCH-served youth while the general and OPCC populations are much closer to 50/50 between males and females. Also, compared to OPCC, MATCH continues to be less likely to serve youth under 6 (3.5% vs. 10.4%) and more likely to serve adolescents (48.1% vs 45.6%).

This FY we continue to see improvement from FY22 (9.9%) in the percentage of Black youth served in MATCH-ADTC with no significant difference between OPCC and MATCH-ADTC (16.7% vs. 15.8%). MATCH continues to serve a larger percentage of Hispanic/Latino children (44.6%) than overall OPCC (32.6%) or general population (28.0%). However, like the previous three fiscal years, a lower percentage of



Spanish-speaking youth were served in MATCH (2.7%) compared to OPCC (10.1%) and the overall state population (14.3%).

Caution should be used in interpreting trends on race and ethnicity. We continue to see similar rates of children missing race data in FY25 (12.8% vs. 13.8% FY24). Additionally, the large portion of the general child population classified as another race, multiracial, or multiethnic, makes comparisons to OPCC and MATCH difficult likely due to differences in data collection standards. Towards the end of FY24, CT DCF's Provider Information Exchange (PIE) data system updated race, ethnicity, and language categories to align with the current state standards at the time, right before the federal standards updated in May 2024. There are plans to update categories again in FY26 to align with the federal standards, however, until those changes are in full effect we may continue to see misalignment between federal, state, and program-specific race/ethnicity reporting.

Table 1. Characteristics of children receiving MATCH, with comparisons (n=663)

	MATCH	OPCC	CT pop ¹
	%	%	%
Sex (Male)	32.4	49.0	51.2
Race			
American Indian or Alaska Native	0.5	0.5	0.4
Asian	0.2	1.2	5.1
Black or African American	15.8	16.7	12.2
Native Hawaiian or Pacific Islander	0	0.2	0.1
White	56.3	58.1	53.2
Another Race (Includes Multiracial/Ethnic)	5.1	2.8	29.0
Did Not Disclose/Missing	22.2	20.8	N/A
Hispanic, Latino, or Spanish (Any Race)	44.6	32.6	28.0
Age (Years)			
Under 6 Years	3.5	10.4	30.2
6–11 Years	47.5	44.4	32.6
12–17 Years	48.1	45.6	37.2
Child Welfare Involvement During Treatment²	12.2	13.4	2.3
JJ Involvement During Treatment	0.2	1.1	N/A
Child Primary Language			
Spanish	2.7	10.1	14.3
Neither Spanish nor English	0.6	2.8	8.5

1. ACS 2023 1-year estimates. Tables S0101, S0901, and S1601.

2. Based on 2023 National Child Abuse and Neglect Data System (NCANDS) data for children subject of an investigated report alleging child maltreatment.



Children and caregivers identify the major issues they wish to work on during MATCH treatment in their own words. The word clouds below show the general topic areas of top problem areas for children and caregivers. Anxiety, anger, feelings and school are prominent in both.

[illegible]

A word cloud of emotions and concepts. The most prominent words are 'SCHOOL', 'ANXIETY', 'FEELINGS', 'EMOTIONS', 'OTHERS', 'GETS', 'TIME', 'DIRECTIONS', 'WANT', 'SELF', 'ANGER', 'TALK', 'HOME', 'FAMILY', 'STOP', 'GRIEF', 'SAFE', 'DAD', 'FIGHTING', 'YOUNGER', 'HURT', 'LOSING', 'MOMENT', 'PROBLEM', 'JUST TAKING', 'LIES', 'WAY', 'SISTER', 'NEED', 'LIKE', 'SMILE', 'COPE', 'THINK', 'DEAD', 'AVOID', 'USE', 'RUDE', 'SIT', 'TOLD', 'BEEN', 'ONE', 'OBS', 'GO', 'ONES', 'PER', 'HES', 'LIES', 'EATS', 'GSA'.

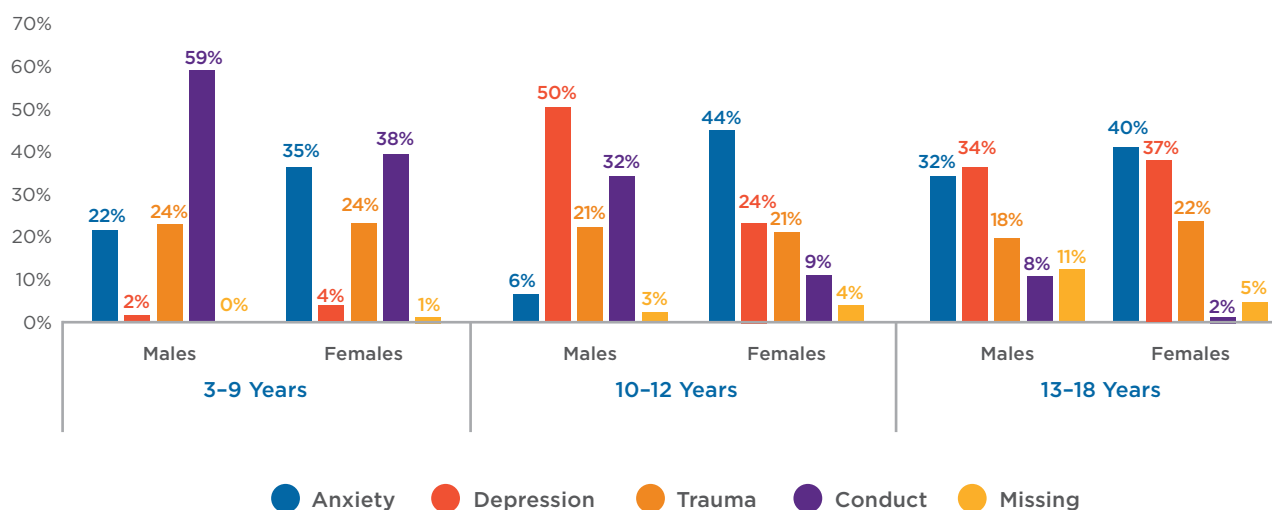
Which MATCH protocol areas were used?

Anxiety was the primary protocol area for 38.3% episodes. This made it the top overall protocol, which has been a consistent trend. Depression and trauma tied for second most common PPA overall (21.2%). Trauma increased by 18.3%, reflecting a broader outpatient trend from this FY where trauma is more commonly reported as a presenting problem. Conduct increased by 56.0% this fiscal year from 12.5% in FY24 to 20.2%.

Figure 5 shows primary protocol area by age and sex. A notable trend is that in younger years, males are most likely to be in the conduct primary protocol area. By adolescence though, there is a more even distribution of primary protocol areas with high rates of anxiety and depression areas.



Figure 5. Primary Protocol Area (PPA) by age and sex (n= 386)



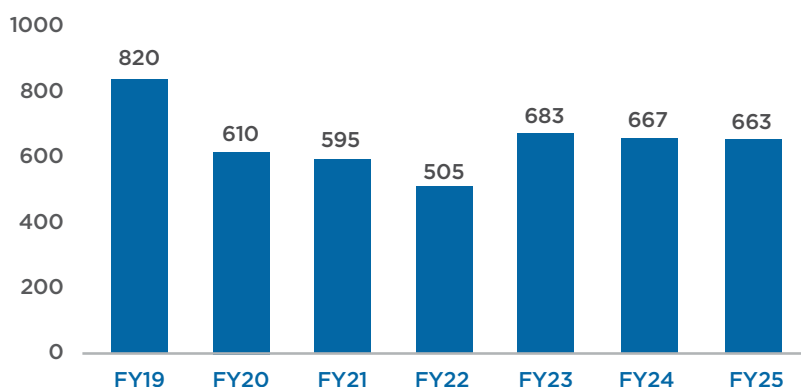
Note: 3.8% of children completing MATCH treatment in FY25 (n=386) did not have an identified primary problem area.

HOW MUCH DID WE DO?

In FY25, 663 children received MATCH. Compared to last fiscal year, this was a slight decrease (0.6%) in children served. Since 2014, 4,178 children have received MATCH.

For children discharged from MATCH in FY25, **the mean number of visits was 16.54** (SD=14.33) and the **average length of stay was 8.00 months** (SD=5.96), which is a greater number of visits (16.54 vs. 12.78) in a shorter time frame (8.00 vs. 8.44) compared to last fiscal year. We continue to see a trend from last year with **clinicians spending more time with children alone (68.0% vs. 65.2% in FY24), and less time with children and caregivers together (17.6% vs. 24.1%)**. Only 9.7% of time in treatment with spent with caregivers alone.

Figure 6. MATCH Implementation Over Time



HOW WELL DID WE DO IT?

Once children begin a MATCH episode, it is important they receive high-quality care that adheres to best practices and is associated with improved outcomes. The Coordinating Center monitors and reports on quality indicators that are used in site-based consultation with providers and to inform technical assistance efforts. Below are state-level results for key indicators of quality; they are calculated on the 386 children that had a MATCH episode that ended this year. For this report, each indicator was analyzed for difference between racial/ethnic groups and no differences were found.

Did children/families engage in treatment?

Engagement is defined as attending four or more sessions. Treatment completion literature identifies a need to distinguish between children who end treatment early (1-2 sessions) and those who end treatment before full completion, but after 3-4 or more sessions.^{1,2,3} The latter group tends to have positive outcomes in treatment even if they end treatment early, compared to the early termination group. In FY25 89% of children who started MATCH engaged in treatment. This is slightly above the benchmark of 85%. Each of the indicators in the next section are calculated out of the total episodes that engaged with treatment.



Was MATCH delivered with high quality?

Were children and families seen consistently?

For MATCH quality indicators, consistent care is defined as averaging two or more sessions per month. In FY25, 55% of episodes met this definition of consistent care, which falls short of the benchmark of 65%, however, is an increase from the previous FY (48%).

Were measures routinely used?

Most children (97%) receiving MATCH in the fiscal year had a measure of baseline symptoms, an improvement from last FY (89%). 66% of children ending MATCH-ADTC treatment had data at two timepoints. This is below the established benchmark of 70%.

¹Pekarik, G. (1986). The use of termination status and treatment duration patterns as an indicator of clinical improvement. *Evaluation and Program Planning*, (9), 25-30. Doi: 10.1016/0149-7189(86)90004-2

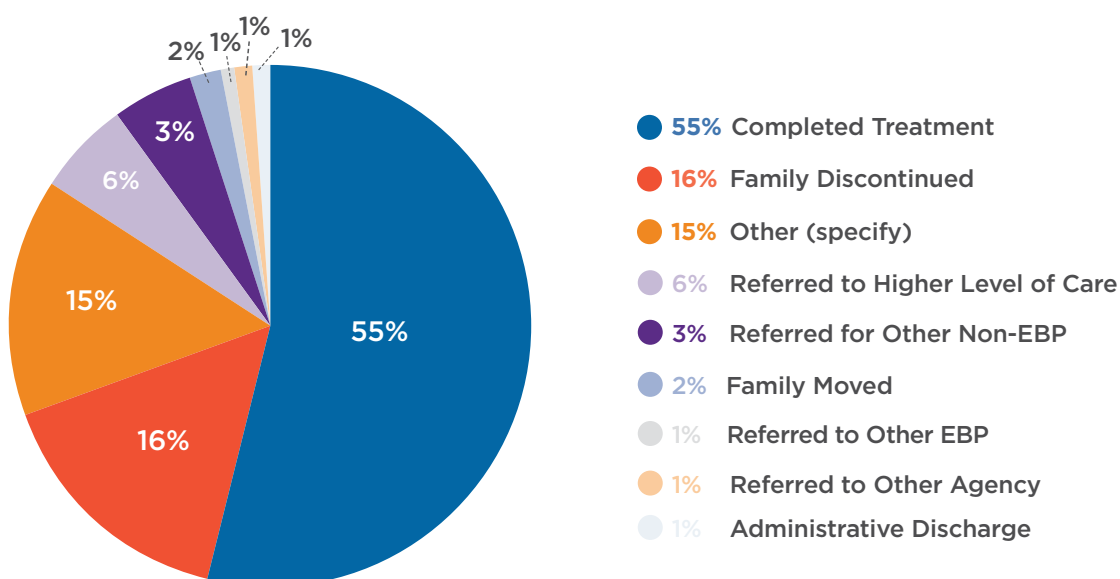
²De Haan, A. M. et al. (2013). A meta-analytic review of treatment dropout in child and adolescent outpatient mental health care Doi: 10.1016/j.cpr.2013.04.005

³Wierzbicki, M. & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology, Research, and Practice*. Doi: 10.1037/0735-7028.24.2.190

How do families end their MATCH episode?

Most families (55%) ended MATCH because they completed all requirements according to clinician report. As a modular treatment, MATCH-ADTC does not have prescriptive treatment components. Instead, completion is determined by a reduction in the top problems, which is determined by the clinician and family over the course of treatment. Children who did not complete all EBP requirements were most likely to not complete due to 'other' reasons or family discontinuing treatment (see Figure 7). **No differences were found across demographic groups (age, sex, or race/ethnicity) in rates of treatment completion.** There were differences in treatment completion by primary protocol area where children in conduct were 50% less likely and children in trauma were 33% less likely to complete treatment compared to children in anxiety (see appendix B for details).

Figure 7. Reasons for Discharge in FY25



Were families satisfied with MATCH treatment?

Yes; **99% of children and 100% of caregivers reported satisfaction with MATCH treatment.** It should be noted that satisfaction data were collected from 36.8% of children and 45.9% of caregivers. **There were no significant differences in treatment satisfaction by race/ethnicity or sex.**



IS ANYONE BETTER OFF?

Did clinicians report improvement?

Yes, 83.2% of MATCH clients were rated by their clinicians as experiencing improvement. The Clinical Global Impressions (CGI) Improvement scale is a single item, answered at the end of an episode, of the clinician's rating of overall improvement.

Clinicians respond on a scale from 'very much improved' to 'very much worse.' The average score was 2.4 corresponding to "moderately improved."

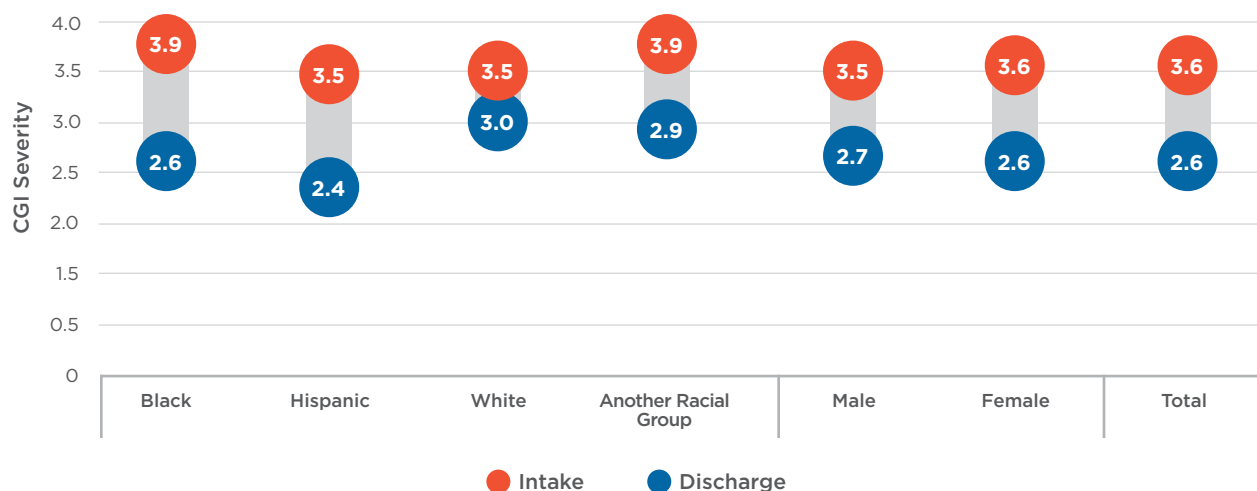
There were no differences by sex or race.

The CGI also has a Severity scale; 63.1% of children had a reduction in severity from intake to discharge. The scale asks the clinician to rate severity on a scale from 'normal, no symptoms present in the past 7 days' to 'among the most severe symptoms a child can experience'. At intake the average scores was 3.6 corresponding to "somewhat /moderately severe" but at discharge was nearly a full point lower at 2.6, corresponding to "slightly/somewhat severe". In addition to the overall reduction in severity, most subgroups also experienced reductions. Figure 8 below shows the change in scores broken out by race/ethnicity groups and sex.

There were no significant differences in severity improvement by sex or race.



Figure 8. CGI Severity at Intake and Discharge



Did children and families report improvements in problems and symptoms?

Yes. On child and parent completed measures there were also high rates of improvement. Overall, **85.4% of children with measures (n=226) experienced reliable change on at least one measure.** Children receiving MATCH are assessed initially on problem severity, functioning, and one other symptom category (e.g., anxiety, depression), each with available child and caregiver report versions. When children were assessed at two or more time points, change scores were calculated.

Children completing MATCH demonstrated significant reductions in anxiety, post-traumatic stress, and problem severity symptoms, and improvements in functioning. Table 2 shows the details on the change scores, effect sizes, and rates of remission for all measures. **All measures except the SMFQ caregiver had significant change; trauma and problem severity symptom measures had at minimum a medium effect.**



Did improvement levels vary across demographic groups?

In addition to documenting the overall rates of symptom reduction and functional improvement, it is important to monitor if any subgroups are experiencing disproportionate outcomes. An analysis was done to look at the effect of demographics (age, race/ethnicity, sex) and protocol area on any reliable symptom improvement across all measures, controlling for trauma history. We included children served over a five year period in this analysis in order to get a more robust dataset. Results show that **for overall symptom improvement, there were no significant differences across demographic subgroups.** (See Appendix B for more detail).

Additional regression analyses were done on the Ohio Functioning and Severity scales to look at the magnitude of change (not just if there was improvement but how much) by race/ethnicity and sex, controlling for age, trauma exposure, and session dosage. **There was no significant difference across demographic subgroups in functional improvement or problem severity symptom reduction.** Children in the depression protocol area reported greater functional improvement and problem severity reduction compared to children in other protocol areas. (See Appendix B for more detail).



Figure 9. Reliable Change Across Measures by Subgroup

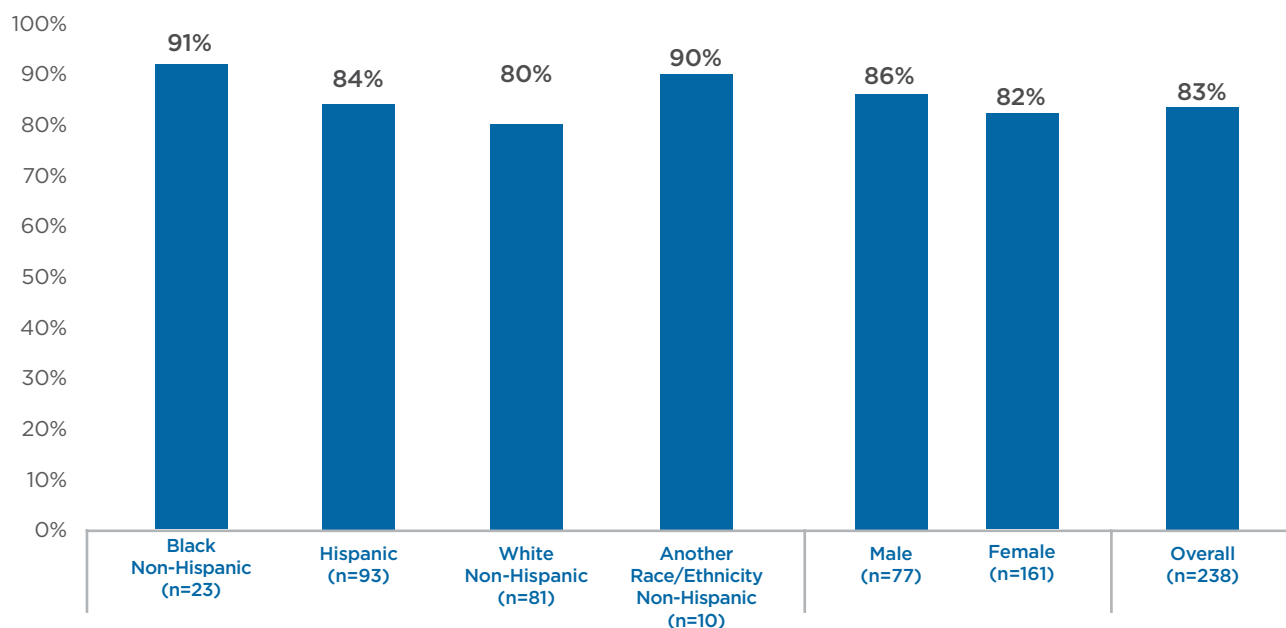


Table 2. Descriptives and Change Scores for All Measures

Assessment Name	Construct	Above Cutoff	Intake Mean (S.D.)	Last Mean (S.D.)	Change Score	t-Score	Effect Size (Cohen's d)	Remission
CPSS V Child	Trauma symptoms	43	23.34	13.99	-9.08***	-6.88	Medium	35/43
(n=132)		32.6%	(15.72)	(11.08)			.59	81.4%
CPSS V Caregiver		12	17.34	11.29	-5.34***	-5.31	Medium	9/12
(n=101)		11.9%	(11.96)	(9.37)			.53	75.0%
PROMIS Child	Anxiety Symptoms	5	19.51	15.94	-3.69**	-3.69	Medium	-
(n=32)		15.6%	(5.98)	(6.10)			0.48	-
PROMIS Caregiver		-	18.13	15.35	-2.77*	-2.17	Small	-
(n=31)		-	(5.74)	(6.36)			.39	-
SMFQ Child	Depressive symptoms	25	11.06	5.47	-5.47***	-5.26	Large	22/25
(n=34)		74%	(5.09)	(3.17)			.90	88.0%
SMFQ Caregiver		11	6.86	5.83	-2.70	-0.82	-	-
(n=22)		50.0%	(4.34)	(3.91)			.17	-
Ohio Problem Severity Child	Severity of internalizing/externalizing behaviors	43	22.82	13.77	-9.25***	-7.83	Medium	33/43
(n=117)		36.8%	(13.31)	(10.07)			0.72	76.7%
Ohio Problem Severity Caregiver		53	19.54	13.77	-5.74***	-7.56	Medium	35/53
(n=191)		27.7%	(10.83)	(10.07)			0.55	66.0%
Ohio Functioning Child	Child's adjustment and functioning	23	54.47	61.14	6.59***	6.08	Medium	17/23
(n=118)		19.5%	(12.23)	(10.38)			0.56	73.9%
Ohio Functioning Caregiver		41	53.35	58.23	4.80***	5.58	Small	30/41
(n=197)		20.8%	(11.95)	(11.99)			0.39	73.2%

***p < .001, **p < .01, *p < .05

Effect sizes were derived using Cohen's d as follows: .2 = small, .5 = medium, .8 = large

Some PROMIS Child and Caregiver and SMFQ Caregiver statistics suppressed due to low n

Outliers were found and corrected for the following first scores: CPSS (child), PROMIS (child), Ohio PS (child and caregiver), Ohio Functioning (caregiver)

Outliers were found and corrected for the following last scores: CPSS 5 (child and caregiver), PROMIS (child), SMFQ (child and caregiver), Problem Severity (child and caregiver), Ohio Functioning (caregiver)

Outliers were found and corrected for the following change scores: CPSS 5 (child and caregiver), SMFQ (child), Ohio PS (child and caregiver), Ohio Functioning (child and caregiver)

THE MATCH NETWORK & WORKFORCE

In FY25, Connecticut's MATCH network consisted of 22 provider agencies and one private practice. This number has remained relatively consistent over the years. In terms of individual clinicians at these agencies, there were 216 clinicians on MATCH teams during the year. Table 3 provides demographics on the MATCH clinicians.

Table 3. MATCH Clinician Demographics (n=216)

	%
Sex (Male)	6.9
Race	
Black or African American	14.8
Hispanic, Latino, or Spanish (Any Race)	18.5
White	57.4
Other Race/Ethnicity	4.2
Missing	5.1
Languages Spoken	
Spanish	9.7

To promote access to MATCH, the Coordinating Center works to train new clinicians and ensure clinicians are actively using the model. Monitoring MATCH caseloads and clinician attrition informs training and consultation efforts and are important factors in high-quality delivery of MATCH leading to improved outcomes. Below are key data points on the MATCH clinical workforce in FY25:

- Of the 216 clinicians on a MATCH team, 20.4% (n=44) left in the fiscal year; this is a similar attrition rate compared to FY24 which was 20.3%
- 114 MATCH clinicians (52.8%) had at least one intake in the fiscal year; a decrease from FY24 (67.6%). Additionally, 36.1% of clinicians trained in MATCH were not actively delivering the model and/or reporting data into the PIE system a slight increase from last year (32.3%).
- There were 60 new MATCH clinicians in FY25 (all were newly trained)
- 14 clinical staff attended booster training
- 7 staff completed MATCH Associate Consultant training to be able to provide in-house consultation to newly trained MATCH clinicians

SUMMARY AND RECOMMENDATIONS

During FY25, the MATCH model remains effective in Connecticut, delivering high-quality services to children and achieving strong outcomes. The key highlights and recommendations below are organized around access, quality, and outcomes, with a focus on advancing equity across these domains.



ACCESS

Access to MATCH in Connecticut remains strong, with services available at 23 providers across the state. In FY25, 663 children received services through the MATCH model, consistent with the previous fiscal year (667 FY24) and exceeding the number of children served in MATCH from FY20 to FY22. A total of 216 clinicians were on the MATCH team this year. Compared to FY24, there was a slight increase in the number of clinicians not actively delivering MATCH services (36.1% vs 32.3% FY24); however, the attrition rate remained stable (20.4% vs 20.3% in FY24). A decrease was also found with the number of clinicians having at least one intake this year (52.8% of MATCH clinicians in FY25 vs. 67.6% of clinicians in FY24). Demographics of children who received MATCH remained largely consistent with FY24. Females continued to represent the majority of youth served (67.6% in FY25 vs 64.2% in FY24), and 48.1% of participants were between 12 and 17 years old. While missing race data persists (12.8% in FY25 vs 13.8% in FY24), and differences in data collection standards between OPCC and MATCH remain, improvements continue to be seen since FY22 (9.9%) in the percentage of Black youth served in MATCH, which increased to 15.8% in FY25. MATCH also continues to serve a higher



percentage of Hispanic/Latino children (44.6%) compared to both OPCC overall (32.6%) and the state's general population (28.0%). However, as in the previous three fiscal years, the percentage of Spanish-speaking youth served in MATCH (2.7%) remains lower than in OPCC (10.1%) and the overall state population (14.3%). FY25 will continue to focus on supporting MATCH teams to promote team growth, strengthen retention, and increase engagement and youth access to MATCH.

Recommended Actions to Turn the Curve:

- **Address Disparities in Service to Spanish-Speaking Youth:** With Spanish-speaking youth being served at lower rates in MATCH compared to OPCC and the broader state population, it is critical to collaborate with provider teams to review available workforce data and increase bilingual capacity for delivering MATCH. Additionally, strategies should be explored such as offering dedicated MATCH office hours for Spanish-speaking clinicians to explore and refine interventions with Spanish-speaking youth, to strengthen and support the existing network of bilingual clinicians.
- **Expand Sustainability Funding:** Expand performance-based sustainability funds to include compensation for new intakes opened throughout the fiscal year. This will help incentivize ongoing engagement and support youth access to MATCH.
- **Support Staff Retention:** To address challenges related to staff retention, implement targeted training focused on self-care and burnout prevention. This will provide support to clinicians to maintain their well-being, reduce turnover, and sustain high quality care delivery, ultimately promoting a healthier, more resilient workforce as well as continuing to increase the number of active clinicians.

Trends in protocol usage this year show anxiety continuing as the most commonly used protocol, followed by depression and trauma. Notably, trauma protocol usage increased by 18.3%, reflecting a broader outpatient trend in which trauma is more frequently reported as a presenting issue. The use of the conduct protocol rose significantly – by 56.0% – from 12.5% in FY24 to 20.2% in FY25, with a high proportion of male youth receiving services under this protocol. Given the growing trend of externalizing behaviors among youth, it is increasingly important to address the needs of the network and equip clinicians to ensure that youth with such challenges receive appropriate, effective care.

Recommended Actions to Turn the Curve:

- **Enhance Clinician Support with Conduct Protocol Implementation:** In response to the increased utilization of the Conduct protocol, targeted network training will focus on the application of Cognitive Behavioral Therapy (CBT) strategies for children displaying irritability and aggression.





QUALITY

The quality of MATCH treatment remains high. This year, 89% of children who began MATCH engaged in treatment – an increase from FY24 (87.5%) and rising above the benchmark of 85%. Key quality indicators, including symptom improvement and treatment completion, also continued to meet benchmarks. While consistent care remains below the target (55% vs. 85% benchmark), it improved from FY24 (48%). Additionally, 97% of children had a baseline symptom measure documented, which is up from 89% last fiscal year. Child and caregiver satisfaction remains high and continues to be equitable across race/ethnicity and sex. In FY25, efforts will concentrate on enhancing MATCH implementation support and quality of care, with a particular emphasis on strengthening leadership capacity.

Recommended Actions to Turn the Curve:

- **Enhance MATCH Associate Consultant Booster Training:** To support team quality, access to MATCH, and enhance case completion among new clinicians following the New Clinician training, it is recommended that the booster training for MATCH Associate Consultants (ACs) be strengthened. This includes reconfiguring training content to align with current provider challenges and needs and implementing consistent strategies for ACs to monitor and support clinicians during the post training consultation process.
- **Promote Training in Culturally Responsive Evidence-Based Treatments (CBT):** Offer culturally responsive CBT training across the network, with a strong emphasis on encouraging ACs and MATCH clinicians to participate. This will help enhance leadership capacity and improve support for teams working with diverse families.





OUTCOMES

Both clinicians and families reported positive outcomes with MATCH. Clinicians rated 83.2% of MATCH clients as showing improvement, and 63.1% of children demonstrated a reduction in symptom severity from intake to discharge. Among children with available measures, 85.4% showed partial or full reliable change on at least one measure, highlighting significant reductions in anxiety, post-traumatic stress, and overall symptom severity, as well as improvements in functioning. Analysis of children served over a five-year period indicates that MATCH continues to provide equitable access across demographic groups (age, race/ethnicity, and sex). All groups demonstrated similar rates of functional improvement and symptom reduction, reaffirming MATCH's effectiveness across populations. Children receiving the depression protocol reported greater gains in both functioning and symptom reduction compared to those in other protocol areas. Ongoing analysis over multiple years will be important for maintaining a clear understanding of how MATCH impacts specific groups.

Recommended Actions to Turn the Curve:

- **Maintain Ongoing Trend Analysis:** Continue conducting trend analyses by reviewing assessment data across demographic groups to identify emerging patterns and inform refinements to recommendations and supports, ensuring that MATCH remains effective and responsive for all populations.

Overall, MATCH continues to deliver strong, equitable, and effective care across Connecticut. With sustained access, high quality implementation, and positive outcomes across demographic groups, the model remains well positioned to address evolving needs and continue advancing services statewide.



APPENDIX A: ACTIVITIES, TRAININGS AND DELIVERABLES

The Coordinating Center has worked to support the MATCH implementation goals through the following activities carried out in FY25.

1. Training, Consultation, & Credentialing

- Connecticut Associate Trainers provided two MATCH trainings (10 days total) in FY25 (51 new clinicians trained).
- Held two half-day MATCH Booster Trainings in March 2025 for previously trained clinicians and 14 clinicians attended.
- In October 2024, 2 virtual sessions were provided to three (3) MATCH supervisors to be trained as an in-house MATCH Associate consultant. MATCH Associate Consultant Consultation started in November 2024 and (8) consultation meetings were conducted; consultation is scheduled to complete in the summer of FY25.
- Held a MATCH Associate Consultant Booster Training (2 half-day virtual sessions) for previously trained MATCH Associates and four (4) attended.
- Held a MATCH Advanced Training (2-hour virtual training) for MATCH clinicians and supervisors that focused on increasing comfortability and knowledge of MATCH assessments.
- MATCH (9) consultation calls were led by MATCH Associate Trainers to newly trained MATCH clinicians
- The Connecticut Associate Trainers conducted both the new MATCH trainings in the Fall and Spring of FY25.
- Coordinated registration, attendance, and CEUs for MATCH and OPCC trainings

- Maintained a statewide MATCH clinician credentialing process and requirements to increase the number of clinicians that complete all training and case requirements; 4 active clinicians were Connecticut credentialed by the end of FY 25
- Maintained a training record database to track training and consultation attendance of all MATCH staff, as well as other credentialing requirements for all MATCH clinicians; in FY 25 there were 216 MATCH clinicians.
- Convened the seventeenth annual statewide EBP Conference for 398 unique attendees from community providers, DCF, CSSD staff, and other partners in the initiative.

2. Implementation Support, Quality Improvement, & Technical Assistance

- Produced reports for two QI performance periods based on developed MATCH QI Indicators and Benchmarks
- Utilized a QI process for implementation consultation based on the emerging field of implementation science and needs of agencies
- Developed agency-specific QI plans using SMARTIE Goals focused on agency performance on QI benchmarks and strategies to improve access, quality and service delivery
- Provided 74 implementation consultation support meetings with providers to ensure sustainment of high-quality services
- Implemented and convened 3 Coordinator meetings focusing on sharing implementation and successful meeting strategies

- Provided updates to all MATCH participants through a monthly Data Dashboard
- Distributed additional MATCH books, materials, and resources to all MATCH teams



3. Data Systems

- Provided enrollment assistance to providers when MATCH clinicians registered for the new clinician training
- Continued improvements to the PIE system have been made based upon agency feedback and as possible with available funding
- Maintained a public directory site that provides a searchable, public listing of MATCH providers through EBP Tracker (<https://ebp.dcf.ct.gov/ebpsearch/>)
- Maintained a map, public listing of MATCH providers on CHDI's website
- Monitored, maintained, and provided technical assistance for online data entry for all MATCH providers in PIE
- Provided site-based data assistance and reports as requested

4. Agency Sustainment Funds

- Administered and distributed \$275,917 in performance-based sustainment funds to agencies to improve capacity, access and quality care.
- While these financial incentives are intended to partially offset the increased agency costs of providing an evidence-based practice, agency leadership reports that they do not adequately cover the costs of providing MATCH
- Developed, executed, and managed contracts with each of the 23 MATCH providers eligible for financial incentives to detail implementation expectations, data sharing, and financial incentive detail

APPENDIX B: MATCH-ADTC DEMOGRAPHIC DISPARITY AD HOC

Historically, analyses in MATCH annual reports pertaining to disparities in completion and symptom changes have yielded differing results from year to year. These results did not illuminate any meaningful patterns in disparities by race or sex (see past annual reports for more details). Moreover, although annual sample sizes were robust enough for valid regression analyses, it is still comparatively small for this type of analysis with an overall n at or below 200 children discharged with outcome measures and complete demographic data each FY for the past three fiscal years. The aim of this ad hoc was to examine potential disparities in MATCH-ADTC completion and outcomes with a more robust, 5-year dataset.

The dataset includes children discharged from MATCH-ADTC treatment between January 2, 2020 and December 31, 2024 with at least one session of treatment and a discharge reason available. The total sample included 1,688 children. Cases were deleted from the analyses listwise, so the number of children included varied by analysis.

Six regression analyses were completed. Two were logistic regressions examining the effect of demographics, protocol area, and session dosage on completion and reliable change in any symptom measure. Additionally, four linear regression analyses were completed examining the effect of those characteristics on child and caregiver reported Ohio change scores (Problem Severity and Functioning). Regression analyses were completed hierarchically, in five steps as follows:

1. Demographics (age, race, sex)
2. Sex and race interaction^{4*}
3. Trauma history (score on caregiver reported Trauma History Screen (THS))
4. Primary Protocol Area (including multiple PPA as a category)
5. Session dosage (number of sessions)

For all six regressions, female, white children of the average age (11.55 years) in the anxiety protocol area alone with no reported traumas were the comparison group. In all six models, the last model (step 5) explained the greatest variance in the dependent variable. Therefore, results are displayed for those regression analyses.

Highlighted Findings

- **Across all regressions, children demographics (age, race, or sex) were not found to be significantly associated with children's completion of MATCH-ADTC or symptom improvement.**
- Session dosage was significantly associated with completion and overall symptom change where children with more visits had greater odds of completion and symptom improvement.
- Greater trauma exposure was associated with having any symptom change, and reduction in caregiver-reported problem severity.
- Protocol area was associated with completion of MATCH-ADTC, and Ohio change scores with mixed results across outcomes (see results below for details).

⁴Children of another race/ethnicity needed to be removed from the analyses due to small n's (below 20) when disaggregating by sex and race.

Treatment model completion

For clinician-rated treatment model completion (n=976), the final regression model explained between 18.1% and 24.2% of the variance in model completion. Only primary problem area (depression and conduct areas) and session dosage were found to be significant. **Compared to children in the anxiety protocol area, children in the conduct ($\beta=-0.701$, $p=.001$) protocol area were 50% less likely to complete MATCH-ADTC according to clinician report; children in the trauma ($\beta=-0.436$, $p=.037$) protocol area were 35% less likely to complete MATCH-ADTC. Children with more sessions ($\beta=2.176$, $p<.001$) were more likely to complete MATCH-ADTC according to clinician report. Further analyses using other protocol areas (depression, trauma, and conduct) as the comparison groups revealed no additional differences between protocol areas.**

Table 1. Logistic regression analyses for predicting treatment completion from selected background characteristics.

Variable	N	β	SE	Wald	e^{β} (95% CI)
Age	976	-0.020	0.026	0.600	0.980 (0.931, 1.031)
Black	111	0.071	0.291	0.060	1.074 (0.607, 1.900)
Hispanic	365	0.381	0.199	3.675	1.464 (0.991, 2.161)
Male	392	-0.205	0.212	0.934	0.815 (0.538, 1.234)
Male*Black	52	-0.312	0.491	0.404	0.732 (0.280, 1.915)
Male*Hispanic	210	-0.265	0.316	0.703	0.767 (0.413, 1.426)
Caregiver THS	702	-0.052	0.029	3.124	0.949 (0.896, 1.006)
Depression Primary Problem Area	434	-0.237	0.196	1.469	0.789 (0.538, 1.158)
Conduct Primary Problem Area***	333	-0.701	0.217	10.488	0.496 (0.324, 0.758)
Trauma Primary Problem Area*	315	-0.436	0.209	4.364	0.647 (0.430, 0.973)
Multiple Primary Problem Areas	70	0.174	0.37	0.222	1.190 (0.577, 2.456)
Session Dosage***	976	2.176	0.191	129.35	8.812 (6.056, 12.821)
Constant		-1.085	0.488	4.95	0.338

* $p<.05$ As compared to White female children age 11.55 years in the anxiety protocol area

** $p<.01$ Another race/ethnicity Non-Hispanic was removed due to low n

*** $p<.001$ Outliers were found and corrected for Caregiver THS

Reliable change on any measure

For reliable change on any measure (n=702), the final model explained between 5.7% and 10.7% of the variance in achieving any reliable change. The only significant associations were greater **trauma exposure ($\beta=0.177$, $p=.002$)** and a **higher number of sessions ($\beta=1.289$, $p < .001$)**, which were associated with **greater odds of having reliable change on any measure**. Additional analyses with other protocol areas as the comparison group (depression, trauma, conduct) yielded no significant findings

Table 2. Logistic Regression analyses for predicting any child symptom RCI from selected background characteristics.

Predictors	N	β	SE	Wald	e^{β} (95% CI)
Age	702	0.068	0.045	2.237	1.07 (0.979, 1.169)
Black	75	-0.069	0.496	0.019	0.933 (0.353, 2.466)
Hispanic	262	-0.107	0.318	0.112	0.899 (0.482, 1.676)
Male	282	-0.424	0.342	1.535	0.654 (0.335, 1.28)
Male*Black	33	-0.696	0.77	0.816	0.499 (0.11, 2.256)
Male*Hispanic	128	-0.074	0.533	0.019	0.929 (0.327, 2.642)
Caregiver THS**	702	0.177	0.058	9.182	1.193 (1.064, 1.338)
Depression Primary Problem Area	299	0.452	0.35	1.673	1.572 (0.792, 3.118)
Conduct Primary Problem Area	215	-0.23	0.334	0.473	0.794 (0.412, 1.53)
Trauma Primary Problem Area	212	-0.214	0.358	0.357	0.807 (0.4, 1.629)
Multiple Primary Problem Areas	56	0.717	0.771	0.864	2.048 (0.452, 9.29)
Session Dosage***	702	1.289	0.295	19.037	3.628 (2.033, 6.471)
Constant		0.627	0.807	0.602	1.871

* $p < .05$ As compared to White female children age 11.55 years in the anxiety protocol area

** $p < .01$ Outliers were found and corrected for Caregiver THS

*** $p < .001$ Another race/ethnicity non-Hispanic group removed due to low n

Ohio Functioning Change Scores

For Ohio Functioning change scores, there were **no significant findings for the caregiver-reported version** (n=788) and the final model explained 1.5% of the variance in Functioning change. Analyses utilizing other protocol areas as the comparison group yielded no significant findings.

For the child-reported version (n=469), the final model explained 4.3% of the variance in child-reported functioning change. It should be noted that the Ohio child version only includes children 12 and older (compared to 7 and older for the caregiver version), and the findings above may be related to differences in age groups. Compared to children in the anxiety protocol area, children in the **depression primary protocol area saw greater improvement in functioning ($\beta=3.633$, $p=.012$, small effect)** and children in the **conduct protocol area saw less improvement in functioning ($\beta=-3.328$, $p=.048$, small effect)**. Compared to children in the depression protocol area, children in anxiety ($\beta = -5.741$, $p < .001$, medium effect), trauma

($\beta = -6.081$, $p < .001$, medium effect), and conduct ($\beta = -8.420$, $p < .001$, medium effect) protocol areas had less functional improvement. Additionally, children in the conduct protocol areas had greater functional improvement ($\beta = -3.980$, $p = .044$, small effect) compared to children in the trauma protocol, and children in the depression protocol area had greater functional improvement ($\beta = 4.722$, $p = .014$, small effect) compared to children in the conduct protocol area.

Table 3. Multiple regression analyses of selected demographic variables on change in outcome scores.

Predictors	Change in Ohio Child Functioning			Change in Ohio Caregiver Functioning		
	β	SE	95% CI	β	SE	95% CI
Constant	4.276	1.741		4.216	1.325	
Age	-0.273	0.203	(-0.672, 0.127)	0.172	0.150	(-0.123, 0.467)
Black	3.673	2.276	(-0.8, 8.147)	-2.321	1.75	(-5.756, 1.114)
Hispanic	1.794	1.496	(-1.145, 4.733)	0.239	1.151	(-2.02, 2.498)
Male	1.369	1.602	(-1.78, 4.518)	-0.361	1.231	(-2.777, 2.056)
Male*Black	-3.518	3.794	(-10.973, 3.937)	1.676	2.916	(-4.049, 7.401)
Male*Hispanic	-1.913	2.366	(-6.563, 2.736)	2.165	1.814	(-1.396, 5.727)
Trauma History	0.14	0.192	(-0.236, 0.517)	0.111	0.171	(-0.224, 0.446)
Depression Primary Problem Area	3.633*	1.435	(0.813, 6.453)	1.572	1.102	(-0.592, 3.736)
Conduct Primary Problem Area	-3.328*	1.679	(-6.627, -0.029)	1.214	1.288	(-1.315, 3.743)
Trauma Primary Problem Area	-1.277	1.64	(-4.5, 1.945)	-0.352	1.265	(-2.835, 2.13)
Multiple Primary Problem Areas	2.694	2.836	(-2.88, 8.268)	0.977	2.179	(-3.3, 5.255)
Session Dosage	-0.302	1.231	(-2.722, 2.118)	0.554	0.947	(-1.305, 2.412)
R^2	0.043			0.015		
F	1.695			0.98		

* $p < .05$ As compared to White female children age 11.55 years in the anxiety protocol area

** $p < .01$ Another race/ethnicity non-Hispanic group removed due to low n

*** $p < .001$ Outliers were found and corrected for child and caregiver-reported trauma exposure and Ohio Functioning scores

Ohio Problem Severity Change Scores

For problem severity scores, there were significant findings for both caregiver-reported (n=757) and child-reported (n=458) versions. The final model for the caregiver-reported version explained 2.1% of the variance in problem severity change. Children in the **trauma protocol area experienced less caregiver-reported problem severity change ($\beta=2.738$, $p=.033$, small effect) compared to those in the anxiety protocol area**. Compared to children in the depression protocol area, children in the trauma protocol had less improvement in problem severity ($\beta=3.197$, $p=.005$, small effect). And compared to children in the trauma protocol area, children in the anxiety ($\beta=-2.718$, $p=.035$, small effect) and depression ($\beta=-3.889$, $p=.005$, small effect) areas had greater improvement. There were no significant results by protocol area when using children in the conduct protocol area as the comparison group. Those with **more traumas reported by their caregiver experienced greater improvement in problem severity ($\beta=-.415$, $p=.017$, small effect)**.

The final model for the child-reported version explained 4.3% of the variance in problem severity change. It should be noted that the Ohio child version only includes children 12 and older (compared to 7 and older for the caregiver version), and the findings above may be related to differences in age groups. Children in the depression protocol area had greater problem severity improvement compared to children in the anxiety protocol area alone ($\beta=-4.607$, $p=.001$, medium effect). Compared to children in the depression protocol area, children in anxiety ($\beta=4.149$, $p=.003$, medium effect) and trauma ($\beta=4.141$, $p=.016$, small effect) protocol areas had less problem severity improvement. Compared to children in the trauma protocol area, children in the depression protocol area had greater problem severity improvement ($\beta=-4.945$, $p=.005$, medium effect).



Table 4. Multiple regression analyses of selected demographic variables on change in outcome scores

Predictors	Change in Ohio PS Child			Change in Ohio PS Caregiver		
	β	SE	95% CI	β	SE	95% CI
Constant	-3.668	1.697		-4.983	1.34	
Age	0.384	0.198	(-0.006, 0.773)	0.194	0.152	(-0.105, 0.492)
Black	-2.737	2.219	(-7.098, 1.624)	0.533	1.769	(-2.939, 4.006)
Hispanic	-0.23	1.458	(-3.095, 2.635)	-0.009	1.163	(-2.292, 2.275)
Male	-1.332	1.562	(-4.402, 1.737)	-1.217	1.244	(-3.66, 1.226)
Male*Black	4.946	3.698	(-2.321, 12.214)	-1.011	2.948	(-6.798, 4.776)
Male*Hispanic	0.983	2.306	(-3.55, 5.515)	1.851	1.834	(-1.75, 5.451)
Trauma History	-0.336	0.187	(-0.703, 0.031)	-0.415*	0.173	(-0.754, -0.076)
<i>Depression Primary Problem Area</i>	-4.607***	1.399	(-7.356, -1.858)	-1.175	1.114	(-3.363, 1.012)
<i>Conduct Primary Problem Area</i>	-1.574	1.636	(-4.79, 1.643)	0.445	1.303	(-2.112, 3.002)
<i>Trauma Primary Problem Area</i>	-0.107	1.598	(-3.248, 3.035)	2.738*	1.279	(0.228, 5.248)
<i>Multiple Primary Problem Areas</i>	0.071	2.765	(-5.363, 5.504)	-2.843	2.203	(-7.167, 1.481)
<i>Session Dosage</i>	0.698	1.2	(-1.661, 3.057)	-0.124	0.957	(-2.003, 1.754)
R^2	0.043			0.021		
F	0.662			1.34		

* $p < .05$ As compared to White female children age 11.55 years in the anxiety protocol area

** $p < .01$ Another race/ethnicity non-Hispanic group removed due to low n

*** $p < .001$ Outliers were found and corrected for child and caregiver-reported trauma exposure and Ohio Problem Severity scores

Key Findings

Below is a summary of key findings from the regression analyses:

- Across all regressions, children's demographics (age, race, or sex) were not found to be significantly associated with children's completion of MATCH-ADTC or symptom improvement.
- Compared to children in the anxiety protocol area, children in conduct were 50% less likely to complete MATCH-ADTC and children in trauma were 35% less likely to complete MATCH-ADTC; however, protocol area had no effect on overall symptom improvement.
- Session dosage was significantly associated with completion and overall symptom change where children with more visits had greater odds of completion and symptom improvement.
- Greater trauma exposure was associated with having any symptom improvement, and reduction in caregiver-reported problem severity.
- Children in the depression protocol area generally experienced greater gains in functioning and reductions in problem severity symptoms compared to children in other protocol areas according to child-report.



APPENDIX B2: MATCH-ADTC CONDUCT AD HOC

Prepared by: Caleb Owen

MATCH-ADTC providers report having greater difficulty with treatment completion for children in the Conduct protocol compared to other protocols. Based on this input, we completed analyses to identify background characteristics associated with symptom improvement and treatment success among youth receiving MATCH for Conduct problems with comorbid concerns. Analyses included data from children discharged from MATCH-ADTC between December 2015 and January 2025 for whom Conduct was the primary protocol area and who attended at least one session of MATCH-ADTC (n=788).

For the analysis, three regression models were completed: Logistic regression analyses predicting reliable change (RCI) in symptoms on any measure and treatment completion, and linear regression analysis predicting continuous change scores in child symptoms. Across all outcomes predictors included demographic characteristics, clinical severity at intake, and module co-morbidity.

Key Findings

Below is a summary of key findings from the regression analyses:

- Across all regressions, children's demographics (age, race, or sex) were not found to be significantly associated with children's completion of MATCH-ADTC or symptom improvement.
- Children with elevated first problem severity scores (caregiver reported version) were more likely to experience overall symptom reduction, and significantly less likely to complete MATCH according to clinician report.
- Children with IEP's at intake were less likely to complete MATCH according to clinician report.
- Children with co-morbid depression primary protocol area had elevated last Ohio Problem Severity scores (caregiver reported version) compared to children in the conduct protocol area alone.

The following pages present detailed findings of these analyses.

Reliable Change on Any Child Symptom Measure

A logistic regression model was conducted to identify any reliable change in child symptoms during MATCH Conduct treatment. Among all background characteristics tested, only caregiver-reported severity at intake (Ohio Problem Severity Scale) was a significant predictor of symptom change ($\beta=0.047$, $p<.001$). **Higher severity ratings were associated with a greater likelihood of reliable change (OR = 1.049, 95% CI [1.026, 1.072]). Remaining variables, including race/ethnicity and sex, were not significantly associated with symptom improvement.** Interaction terms for gender by race were also not significant. Outliers were corrected for caregiver and child trauma reports, and cases from smaller racial/ethnic subgroups were not included due to low sample size.

Table 1. Logistic Regression analyses for predicting any child symptom RCI from selected background characteristics.

Predictors	N	β	SE	Wald	e^{β} (95% CI)
Age at intake	478	0.047	0.048	0.967	1.048 (0.954, 1.152)
Female	163	-0.262	0.379	0.477	0.770 (0.366, 1.618)
Hispanic	173	0.504	0.350	2.080	1.655 (0.834, 3.284)
Black	56	-0.615	0.431	2.036	0.540 (0.232, 1.258)
Caregiver reported first problem severity score	478	0.047***	0.011	18.082	1.049 (1.026, 1.072)
IEP at Intake	160	-0.014	0.278	0.002	0.986 (0.572, 1.700)
MATCH Primary Problem Area - Anxiety	19	1.182	1.053	1.259	3.260 (0.414, 25.684)
MATCH Primary Problem Area - Trauma	16	1.262	1.065	1.405	3.534 (0.438, 28.499)
MATCH Primary Problem Area - Depression	22	0.066	0.670	0.010	1.068 (0.287, 3.972)
Black Female	20	-1.384	0.938	2.173	0.251 (0.040, 1.577)
Hispanic Female	65	0.921	0.565	2.653	2.511 (0.829, 7.600)
Constant		0.871	1.094	0.633	2.388

* $p<.05$ As compared to White males age 8.4 years with no IEP at intake in the conduct protocol alone

** $p<.01$ Outliers were found and corrected for caregiver problem severity

*** $p<.001$ Another race/ethnicity non-Hispanic group removed due to low n

Treatment Completion

Another logistic regression was conducted to identify factors associated with treatment completion among youth receiving MATCH for Conduct. Two variables were statistically significant predictors: caregiver-reported problem severity at intake, where higher severity was linked to lower odds of completing treatment ($\beta = -0.018$, $p = .005$, $OR = 0.982$). This suggests that youth perceived as more impaired by caregivers may be more likely to discontinue treatment. The other was having an IEP at intake, which was linked to reduced likelihood of completion ($\beta = -0.343$, $p = 0.05$). No other predictors, including age, gender, race/ethnicity, or comorbid problems like trauma, anxiety, or depression were significantly associated with treatment completion. Outliers were corrected for caregiver and child trauma reports, and cases from smaller racial/ethnic subgroups were not included due to low sample size.

Table 2. Logistic Regression analyses for predicting any child symptom RCI from selected background characteristics.

Predictors	N	β	SE	Wald	e^{β} (95% CI)
Age at intake	656	-0.019	0.03	0.392	0.981 (0.925, 1.041)
Female	217	0.078	0.249	0.099	1.082 (0.663, 1.763)
Hispanic	247	-0.172	0.213	0.655	0.842 (0.554, 1.278)
Black	88	-0.354	0.3	1.39	0.702 (0.39, 1.264)
Caregiver reported first problem severity score	656	-0.018**	0.006	7.927	0.982 (0.97, 0.995)
IEP at intake	224	-0.343*	0.175	3.839	0.71 (0.503, 1)
MATCH Primary Problem Area - Anxiety	21	0.177	0.459	0.148	1.193 (0.485, 2.935)
MATCH Primary Problem Area - Trauma	18	0.642	0.502	1.634	1.9 (0.71, 5.08)
MATCH Primary Problem Area - Depression	24	0.703	0.455	2.39	2.02 (0.828, 4.923)
Black Female	29	0.265	0.534	0.245	1.303 (0.457, 3.715)
Hispanic Female	91	0.187	0.366	0.26	1.205 (0.588, 2.469)
Constant		0.153	0.657	0.54	1.166

* $p < .05$ As compared to White males age 8.4 years with no IEP at intake in the conduct protocol alone

** $p < .01$ Outliers were found and corrected for caregiver problem severity

*** $p < .001$ Another race/ethnicity non-Hispanic group removed due to low n

Ohio Problem Severity Last Available Score

A linear regression was conducted to examine associations between child demographic and clinical characteristics and last caregiver-reported problem severity symptom scores among youth receiving MATCH for Conduct problems. Higher caregiver-reported problem severity at intake was a significant predictor of higher last caregiver-rated symptom scores ($\beta = 0.397$, $SE = 0.039$, $t = 10.23$, $p < .001$), with a large effect size (0.431). This suggests that **youth whom caregivers perceived to have more severe behavioral or emotional problems at intake continue to have more severe behavioral and emotional problems later in treatment**. Second, having depression as a comorbid presenting problem was significantly associated with higher last caregiver problem severity scores ($\beta=8.016$, $SE = 2.934$, $p=.007$), with a medium effect size (0.115). **Youth with both conduct and depression showed higher caregiver rated problem severity later in treatment**. No significant associations were found for age, gender, race/ethnicity (Black or Hispanic), IEP status, and additional comorbid problem areas (trauma or anxiety). Outliers were addressed in the model and cases with small racial/ethnic group representation were removed to ensure model stability.

Table 3. Logistic Regression analyses for predicting any child symptom RCI from selected background characteristics.

Predictors	β	SE	e^{β} (95% CI)
(Constant)	8.128	1.369	(5.438, 10.818)
Age at Intake	-0.205	0.182	(-0.564, 0.153)
Female	0.174	1.564	(-2.901, 3.249)
Hispanic	0.241	1.322	(-2.357, 2.838)
Black	-0.524	1.858	(-4.175, 3.128)
Caregiver reported first problem severity score	0.397***	0.039	(0.321, 0.473)
IEP at Intake	-0.015	1.096	(-2.169, 2.14)
MATCH Primary Problem Area - Anxiety	1.18	2.971	(-4.659, 7.02)
MATCH Primary Problem Area - Trauma	1.846	3.244	(-4.53, 8.221)
MATCH Primary Problem Area - Depression	8.016**	2.934	(2.25, 13.783)
Black Female	-2.023	3.247	(-8.405, 4.36)
Hispanic Female	-2.207	2.27	(-6.669, 2.254)
R^2	0.229		
F	11.779		

* $p < .05$ As compared to White males age 8.4 years in the conduct protocol area only

** $p < .01$ Outliers were found and corrected for caregiver problem severity

*** $p < .001$ Another race/ethnicity non-Hispanic group removed due to low n

APPENDIX C: RELIABLE CHANGE INDEX

Reliable change index (RCI) values were proposed by Jacobson and Traux (1991) as a way to identify when a change in scores is likely not due to chance. The value for a given instrument is calculated based on the standard deviation and reliability of the measure. Change scores are then calculated and when the change exceeds the RCI value, it is considered to be reliable and significant. When values exceed half of the RCI value, but do not meet the RCI value, that is considered partial RCI.

A review of available literature was conducted for the assessments included in this manual, which are used in EBP Tracker and PIE. If articles did not include an explicit RCI value, one was calculated using the equation proposed by Jacobson and Traux (1991) with the appropriate values indicated in the research. Values used in the calculation were drawn from literature on the assessment unless noted otherwise. The following table includes a summary of the appropriate RCI values for the assessments.

	Measure	Full RCI	Partial RCI
Child Assessments	CPSS IV (retired)	11	6
	CPSS V	15	8
	PROMIS	6	3
	SMFQ	7	4
	UCLA	16	9
Ohio Scales	Ohio Problem Severity* (Child, Caregiver, & Worker versions)	10	5
	Ohio Functioning (Child, Caregiver, & Worker versions)	8	4
Caregiver Assessments	CESD-R	9	5
	CPSS IV (retired)	10	5
	CPSS V	15	8
	PCL-5	10	5
	PROMIS	6	3
	PSS	11	6
	SMFQ	6	3
	UCLA	11	6
	YCPC	18	9

APPENDIX D: QI OVERVIEW

A complete list of the current QI indicators, benchmarks, and definitions is included below.

QI Indicators	Benchmark	QI Description
Engagement	85% of closed episodes	Percentage of closed episodes with four or more clinical sessions attended. Starting SFY21 the benchmark for this indicator changed from 55% to 85%.
Outcome Data Available/ Measures	70% of closed and engaged episodes	Percentage of closed and engaged treatment episodes with at least one measure available at two different time points for any measure of child or caregiver symptoms.
Symptom Improvement/ Improved Outcomes	75% of closed and engaged episodes with measures available	Percentage of closed and engaged treatment episodes with measures available with at least partial reliable change (symptom improvement only) on any measure. Includes any measure of child or caregiver symptoms.
Consistent Care	65% of closed and engaged episodes	Percentage of closed and engaged treatment episodes with an average of two or more treatment episodes per month. Calculated by dividing the LOS by number of visits.
All Components/ Model Completion *TF-CBT Only	30% of closed and engaged episodes	Percentage of closed and engaged treatment episodes that fully complete the model. Model completion definitions are: • TF-CBT: completion of all required child treatment components and 8 or more sessions



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