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

CONNECTICUT'S MATCH-ADTC
COORDINATING CENTER

Child Health and Development Institute

CONNECTICUT Children & Families

FISCAL YEAR 2024
ANNUAL REPORT

Connecticut MATCH-ADTC Coordinating Center

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This report was developed for the Connecticut Department of Children and Families (DCF) by the Child Health and Development Institute (CHDI).

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CONTENTS

I.	Executive Summary	04
II.	Introduction	06
III.	Who Did We Serve?	10
IV.	How Much Did We Do?	14
V.	How Well Did We Do It?	15
VI.	Is Anyone Better Off?	17
VII.	The MATCH Network & Workforce	21
VIII.	Summary and Recommendations	22
IX.	Appendix A: Activities and Deliverables	26
X.	Appendix B: Regression Tables	28

I. EXECUTIVE SUMMARY

Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, and 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 21 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 2024 (July 1, 2023 through June 30, 2024).

HIGHLIGHTS FY24:

667 children received MATCH, a similar number compared to last year **(683)**. This maintains the increase we saw last year, the first year with an increase in the number of children served since the start of the pandemic in FY20.

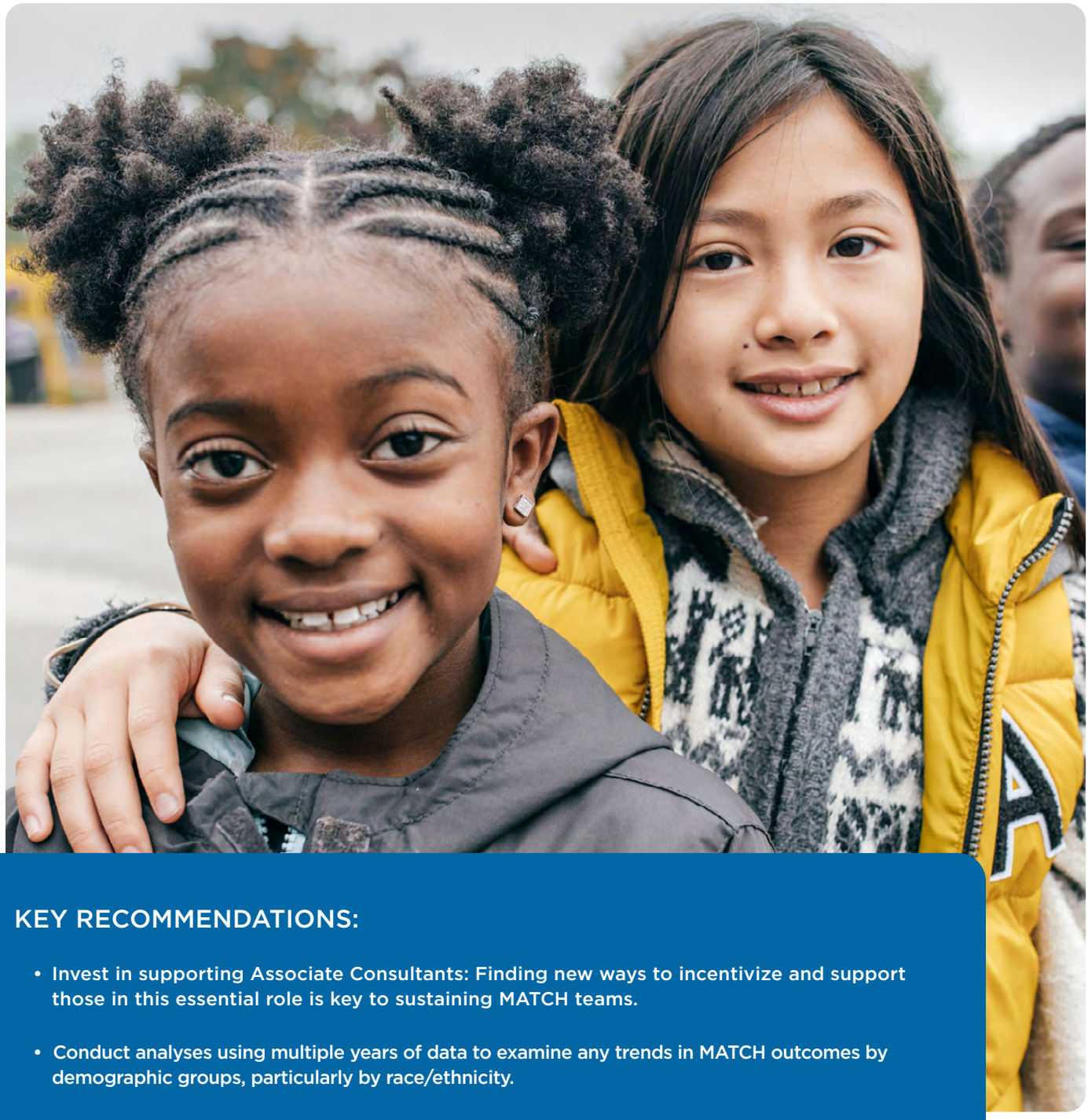
Children receiving MATCH generally had similar rates of completing treatment and improvement on any measure regardless of race, ethnicity, and sex.

Anxiety continued to be the most common treatment protocol used in FY24 **(40%)** with rates similar to last year **(36%)**. This trend is a significant increase compared to FY21 when anxiety accounted for only **29%** of episodes.

86.1% of children had improvement on at least one assessment measure. Clinicians reported improvement on the Clinical Global Impressions (CGI) scale for **90.1%** of children completing MATCH.

Black youth accounted for **13.3%** of children receiving MATCH, an increase from previous fiscal years (FY22 **9.9%**, FY23 **12.6%**), but still short of their representation in the overall OPCC population **(16.4%)**.

99% of children and **98%** of caregivers reported satisfaction with MATCH treatment.



KEY RECOMMENDATIONS:

- Invest in supporting Associate Consultants: Finding new ways to incentivize and support those in this essential role is key to sustaining MATCH teams.
- Conduct analyses using multiple years of data to examine any trends in MATCH outcomes by demographic groups, particularly by race/ethnicity.
- Develop and offer specific training on administering and using EBP assessments to strengthen the data and improve clinician confidence and family experience.

II. 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 21 providers and more than 3,700 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 to the right shows how widespread MATCH is across the state.

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 21 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 1. Map of MATCH-ADTC Sites Intakes per 10,000 Children SFY 2024.

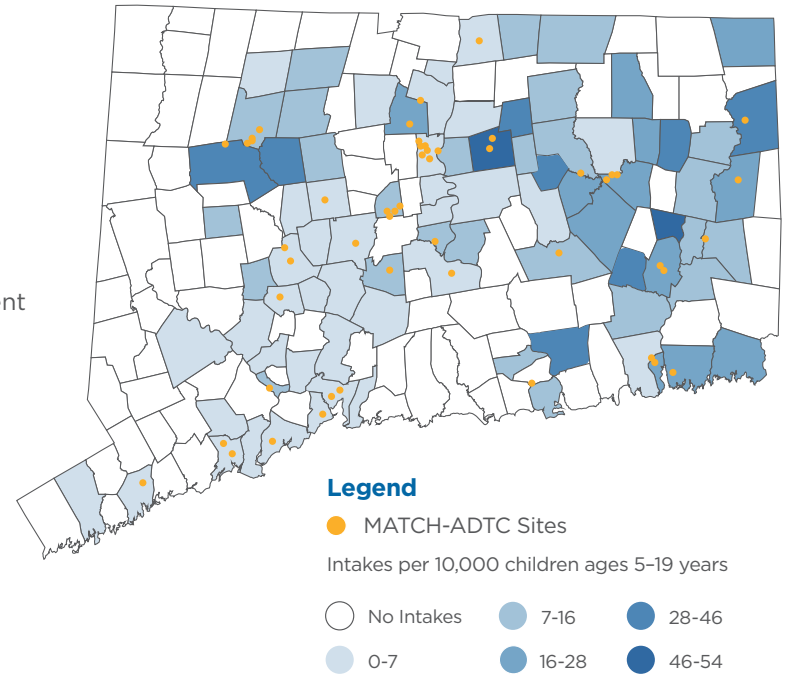
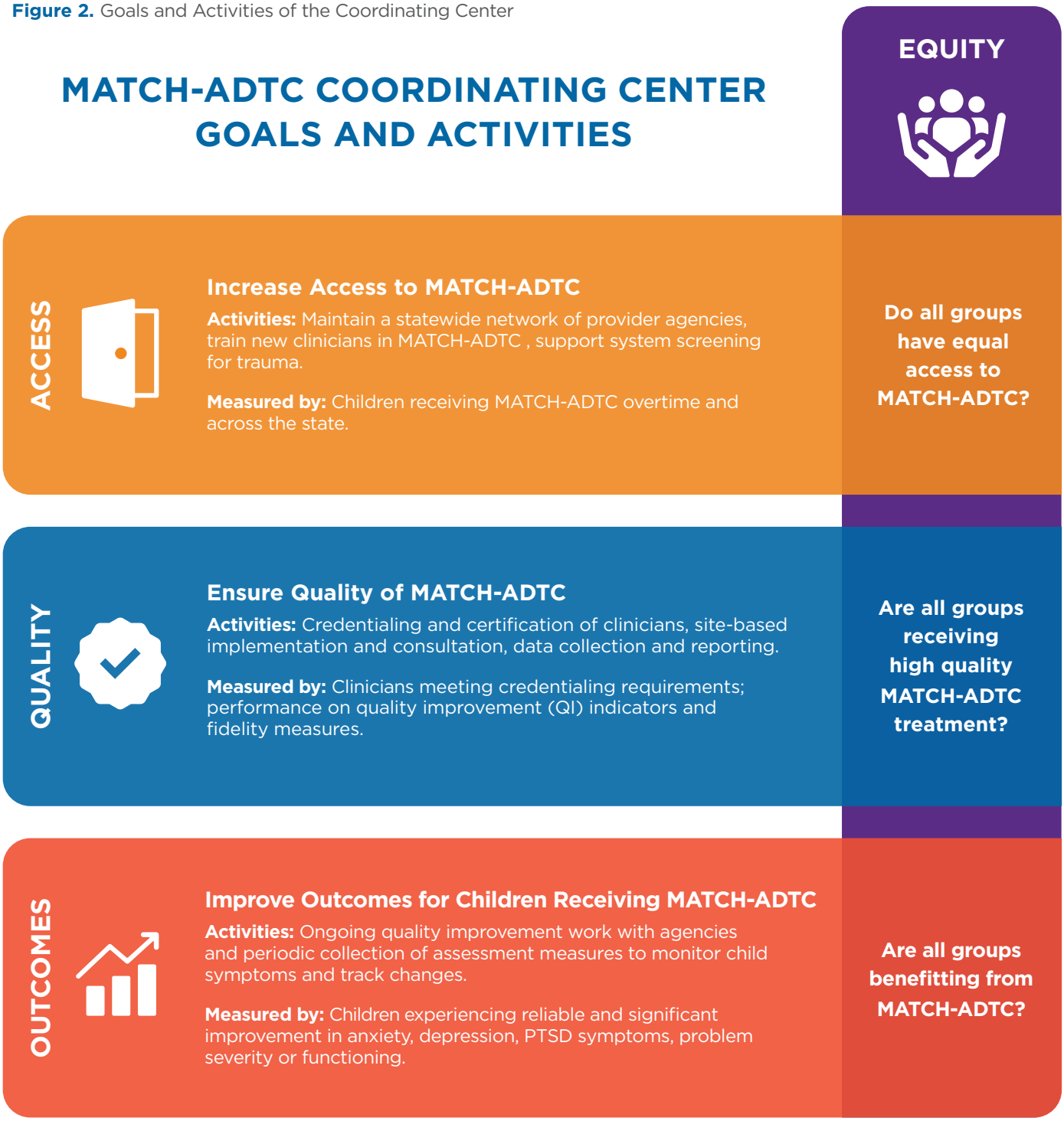


Figure 2. Goals and Activities of the Coordinating Center



Last year's annual report identified specific recommendations across these areas to focus on in FY24. Below is a brief overview of the progress made:

ACCESS:

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

- **Add MATCH penetration rates by race/ethnicity to quarterly reports:** This change was made to routinely provide information to each provider on what percentage of their overall children received MATCH and how that breaks down by race/ethnicity. MATCH has often seen Black youth underserved compared to the overall OPCC population. This report change was made in FY24 Q1 and data was discussed in site visits with agencies.
- **Introduce brief interventions:** EBPs like MATCH are resource-intensive and require a time commitment for both providers and families. Not all children will need a full EBP intervention to benefit from treatment. And many children that would benefit from an EBP might not stay in treatment long enough to begin one. The limited capacity in EBPs combined with high early dropout rates in OPCC led to a pilot of Single Session Consultation (SSC) this year. This model provides a framework to follow for a single session that ensures children and families leave with concrete solutions to try. The pilot participants primarily used SSC for families on a waitlist or in early sessions with the intention to improve hopefulness, engagement, and motivation, which could allow families to stay in treatment long enough to engage with MATCH or another EBP if needed. Twenty-one clinicians from four providers were trained and received consultation in SSC, serving 52 youth over five months. Clinicians rated SSC as highly feasible and appropriate, and reported finding SSC helpful for improving youth and family engagement with therapy, for addressing "crises of the week", and for improving their own sense of self-efficacy when working with families on a waitlist.

QUALITY:

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

- **Incorporating equity and inclusion by using the SMARTIE framework:** The SMARTIE framework facilitated conversations around equity and inclusion within site-based consultation visits to ensure children's access to services across Connecticut. Specifically, agencies developed goals that strived to identify and/or address disparities as well as bring underrepresented and undervalued perspectives into the process.
- **Develop advanced training opportunities:** The MATCH Associate Consultant position was established in 2017 to assist in long-term sustainability of the MATCH treatment model. To support the network's MATCH Associate Consultants, a MATCH AC Booster Training was developed and introduced this fiscal year. Goals of the training focused on supporting MATCH AC's in their supervisory skills, including discussion of more challenging modules, and how to adapt protocols to specific needs of clients.

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 followed-up on:

- **Consultation to encourage use of symptom-specific measures:** Most children are in MATCH for anxiety or depression, but they do not receive the symptom-specific assessments for these conditions. The PROMIS for anxiety and SMFQ for depression often show the largest amount of improvement, but they are used with only a small number of children limiting the demonstration of MATCH effectiveness. In FY23, there were only 26 child-report PROMIS assessments and 25 child-report SMFQs. This year saw a 35% increase in use of the child-reported PROMIS and a 64% increase in the SMFQ. Overall these measures are still under-used and increasing their use remains an area of focus.
- **Furthering the use of Clinical Global Impression (CGI) scales:** The CGI provides a brief clinician report of improvement and change in severity from the start to the end of an EBP episode. The CGI was introduced to have a short measure that could easily capture improvement as well as potentially be used across levels of care beyond MATCH. Results in MATCH continue to be strong with 90.1% of children experiencing symptom improvement according to the CGI Improvement scale. The CGI is also used in outpatient and, new in FY24, in the state's Urgent Crisis Centers. Continuing to collect and use this information will allow for a better understanding of severity and improvement across the children's behavioral health system.

The rest of this report presents FY24 progress on advancing access, quality, outcomes, and equity in MATCH using the Results-Based Accountability (RBA) framework.

III. WHO DID WE SERVE?

Since 2013, more than 3,700 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 FY24 were primarily female (64.2%). They were most likely (54.6%) to be between 12 and 17 years old. Most youth were White (58.6%); 41.4% 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 data was missing for 23.1% 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. The first notable difference is in sex, with males making up 35.8% 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 was less likely to serve youth under 6 (3.6% vs. 10.0%) and more likely to serve adolescents (51.9% vs 45.6%)

Comparing OPCC and MATCH demographics, we see that overall OPCCs serve a higher percentage of Black youth (16.4%) than those who receive MATCH (13.3%). However, there has been steady improvement in this area compared to previous years (12.6% in FY23, 9.9% in FY22). MATCH continues to serve a larger percentage of Hispanic/Latino children (41.4%) than overall OPCC (34.8%) or general population (27.5%).

However, like the previous two fiscal years, a lower percentage of Spanish-speaking youth were served in MATCH (3.2%) compared to OPCC (10.0%) and the overall state population (13.4%).

Caution should be used in interpreting trends on race and ethnicity. As mentioned previously, there are high rates of missing data, though the rates were slightly lower for MATCH (23.1%) compared to overall OPCC (27.9%). 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. As DCF's Provider Information Exchange (PIE) data system updates categories to align with state standards, these comparisons will be enhanced.

Table 1. Characteristics of children receiving MATCH, with comparisons (n=667)			
	MATCH	OPCC	CT pop[4]
	%	%	%
Sex (Male)	35.8	49.0	51.2
Race			
American Indian or Alaska Native	0.3	0.5	0.3
Asian	0.1	1.2	4.8
Black or African American	13.3	16.4	11.9
Native Hawaiian or Pacific Islander	0	0.2	0.1
White	58.5	50.8	53.4
Another Race (Includes Multiracial/Ethnic)	4.6	3.0	29.6
Did Not Disclose/Missing	23.1	27.9	N/A
Hispanic, Latino, or Spanish (Any Race)	41.4	34.8	27.5
Age (Years)			
Under 6 Years	3.6	10.0	29.9
6–11 Years	43.9	44.4	32.9
12–17 Years	51.9	45.6	37.2
Child Welfare Involvement During Treatment	12.1	13.4	N/A
JJ involvement During Treatment	0.3	1.1	N/A
Child Primary Language [4]			
Spanish	3.9	10.0	13.4
Neither Spanish nor English	0.0	1.7	8.7

What problems do children and families want to address in MATCH?

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, depression, and school are prominent in both.

Figure 3. Child Reported Top Problems

Figure 4. Caregiver Reported Top Problems

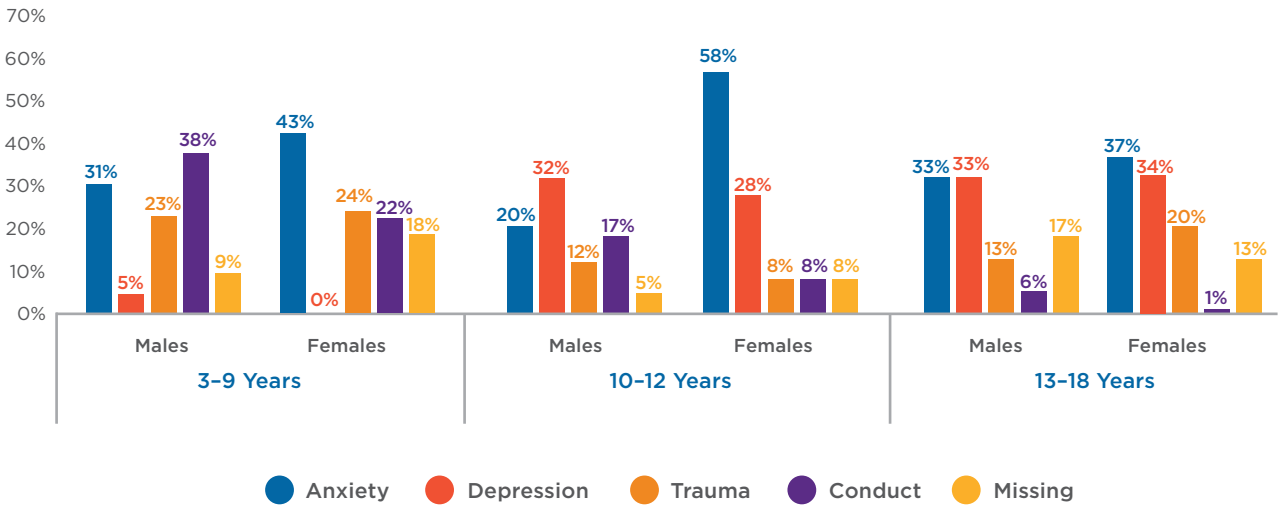
Note: Of the 667 MATCH treatment episodes open in FY24, 16.9% of children receiving treatment did not have a caregiver or child top problem identified.

Which MATCH protocol areas were used?

Anxiety was the primary protocol area of 40.4% episodes. This made it the top overall protocol, which has been a consistent trend. In FY22, there was a 31% increase in use of the Anxiety protocol, and it has continued to be used at similar rates. Prior to FY22 it was often the top protocol but was much closer overall to Depression. Depression remains second overall (22.4%) but continues to decline compared to Anxiety. Trauma (17.7%) and Conduct are less common (12.5%).

Figure 5 shows primary protocol are by age and sex. A notable trend is that in younger years, males are most likely to be in the conduct primary protocol area and females are most likely to be in the anxiety 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= 401)



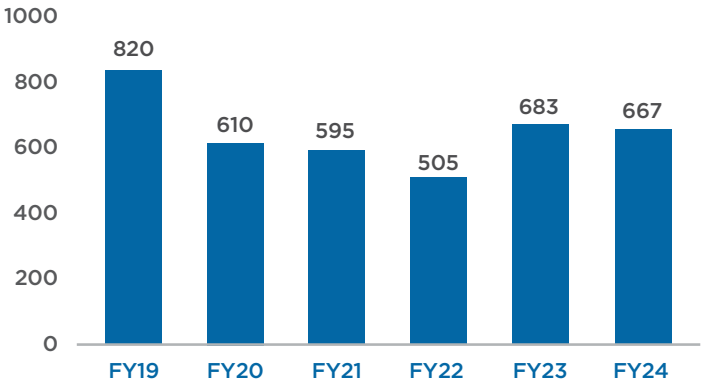
Note: 12.5% of children completing MATCH treatment in FY24 (n=401) did not have an identified primary problem area.

IV. HOW MUCH DID WE DO?

In FY24, 667 children received MATCH. Compared to last fiscal year, this was a slight decrease (2.3%) in children served. However, this exceeds all other years since FY20, which was the first to be affected by the COVID pandemic. Since 2014, 3,769 children have received MATCH.

For children discharged from MATCH in FY24, **the mean number of visits was 12.78 (SD=10.59) and the average length of stay was 8.44 months** (SD=6.59). On average**, clinicians spent 65.2% of time with children alone**, 10.6% of time with caregivers alone, and 24.1% of time with children and caregivers together.

Figure 6. MATCH Implementation Over Time



V. 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 support technical assistance efforts. Below are state-level results for key indicators of quality; they are calculated on the 401 children who 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 FY24, 83% of children who started MATCH engaged in treatment. This is slightly below 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 FY24, 48% of episodes met this definition of consistent care, which falls short of the benchmark of 65%. This mirrors findings from previous years.

Were measures routinely used?

Most children (89%) receiving MATCH in the fiscal year had a measure of baseline symptoms, and 70% had data at two timepoints. This meets the established benchmark of 70%.

[1]Pekarik, 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

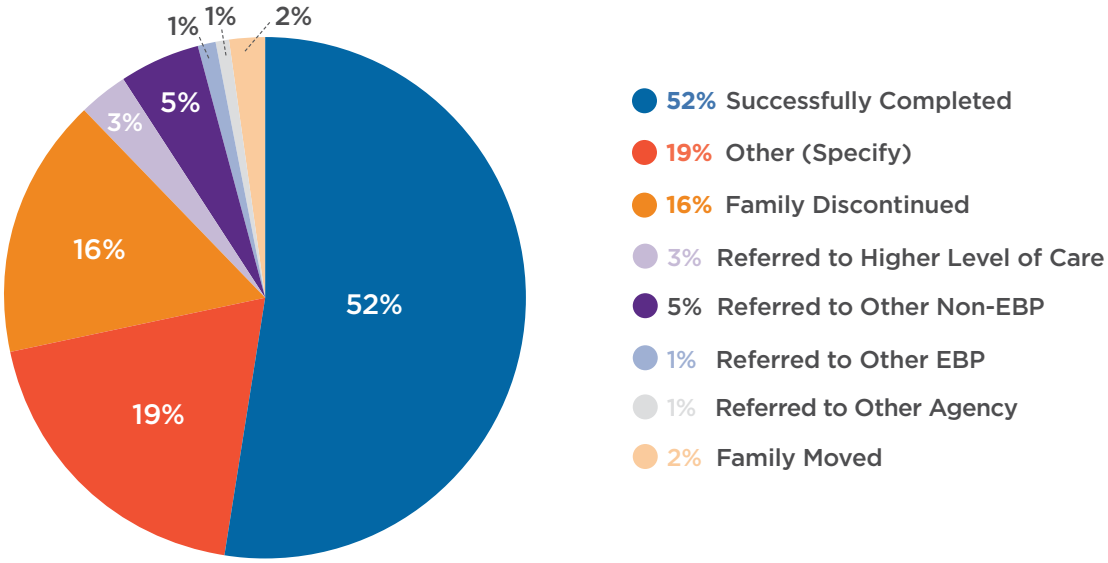
[2]De Haan, A. M. et al. (2013). A meta-analytic review of treatment dropout in child and adolescent outpatient mental health care Doi: 10.1016/j.cpr.2013.04.005

[3]Wierzbicki, 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 (52%) ended MATCH because they had successfully "completed all requirements". 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 successful completion.**

Figure 7. Reasons for Discharge in FY24



Were families satisfied with MATCH treatment?

Yes; **99% of children and 98% of caregivers reported satisfaction with MATCH** treatment. It should be noted that satisfaction data were collected from 33.9% of children and 42.9% of caregivers. **There were no significant differences in treatment satisfaction by race/ethnicity or sex.**

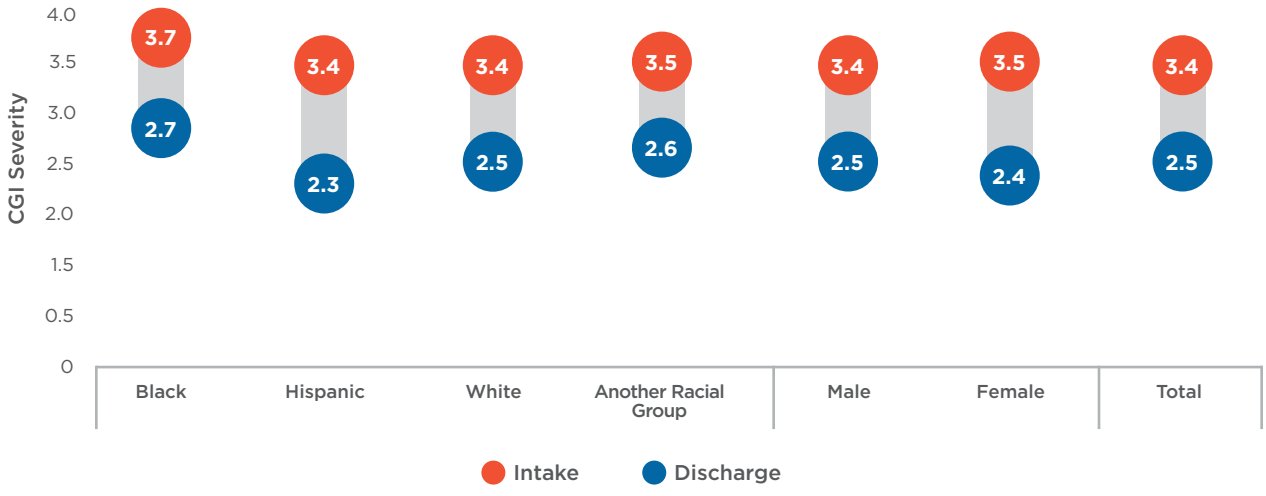
VI. IS ANYONE BETTER OFF?

Did clinicians report improvement?

Yes, 90.1% 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; 65.9% of children had a reduction in severity from intake to discharge. It 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 3.4 corresponding to "somewhat /moderately severe" but at discharge was nearly a full point lower at 2.5, 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, **86.1% of children with measures** (n=238) 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 had at minimum a significant, medium effect.** There were a few notable patterns comparing across measures:

- **In general, child-reported measures showed larger effect sizes than caregiver-reported ones; this was particularly true for the symptom-specific measures (CPSS V, PROMIS, and SMFQ)**
- **The largest effect size by caregiver report was on the Ohio Problem Severity Scale**
- **The overall largest effect (0.81) was on the PROMIS child report, a measure of anxiety symptoms; however, only 35 children completed this measure**
- **Use of the PROMIS and SMFQ remains low despite high rates of children receiving the Anxiety and Depression protocols**

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) on any reliable symptom improvement across all measures. This is shown in Figure 9. **Consistent with the previous three fiscal years, for overall symptom improvement, there were no significant differences across subgroups.** 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, controlling for age, trauma exposure, and discharge reason. No consistent pattern was detected. Specific findings can be viewed in the appendix.

Figure 9. Reliable Change Across Measures by Subgroup

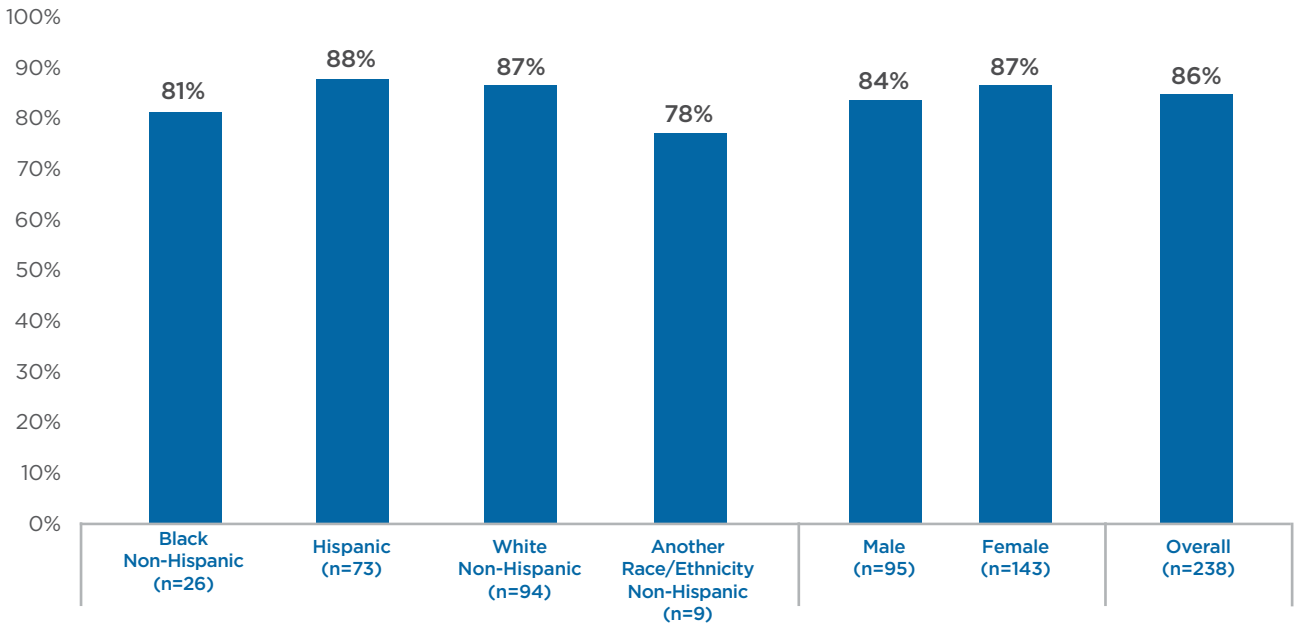


Table 2. Descriptives and Change Scores for All Assessment Measures

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	36	26.22	15.19	**-9.76*** **	-7.11	Medium	24/36
(n=96)		37.5%	(16.44)	(13.03)			0.73	66.7%
CPSS V Caregiver		12	17.54	10.81	**-6.37** **	-5.36	Medium	12/12
(n=91)		13.2%	(11.00)	(7.94)			0.56	100.0%
PROMIS Child	Anxiety Symptoms	9	22.23	17.23	**-5.00*** **	-4.76	Large	–
(n=35)		25.7%	(7.28)	(8.38)			0.81	–
PROMIS Caregiver		8	19.61	15.89	**-3.71** **	-2.69	Medium	–
(n=28)		28.6%	(6.56)	(7.58)			.51	–
SMFQ Child	Depressive Symptoms	29	12.29	8.34	**-4.32*** **	-4.54	Medium	16/29
(n=41)		71%	(6.92)	(6.82)			0.71	55.2%
SMFQ Caregiver		16	7.57	4.71	**-2.70***	-2.34	Medium	8/16
(n=21)		76.2%	(4.17)	(4.56)			0.51	50.0%
Ohio Problem Severity Child	Severity of Internalizing/ Externalizing Behaviors	44	21.87	14.00	**-7.62*** **	-7.96	Medium	26/44
(n=119)		37.0%	(12.77)	(10.53)			0.73	59.1%
Ohio Problem Severity Caregiver		63	21.14	13.84	**-7.40*** **	-8.74	Medium	43/63
(n=191)		33.0%	(13.86)	(10.84)			0.63	68.3%
Ohio Functioning Child	Child's Adjustment and Functioning	25	54.35	61.08	**6.73*** **	6.08	Medium	19/25
(n=124)		20.2%	(12.20)	(11.46)			0.55	76.0%
Ohio Functioning Caregiver		62	51.72	58.16	**6.41*** **	8.17	Medium	46/62
(n=202)		30.7%	(13.32)	(12.87)			0.58	74.2%

***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 SMFQ Caregiver statistics suppressed due to low n

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

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

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

VII. THE MATCH NETWORK & WORKFORCE

In FY24, Connecticut's MATCH network consisted of 21 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 201 clinicians on MATCH team during the year. Table 3 provides demographics on the MATCH clinicians.

Table 3. MATCH Clinician Demographics (n=199)

	%
Sex (Male)	8.0
Race	
Black or African American	14.6
Hispanic, Latino, or Spanish (Any Race)	18.1
White	58.3
Other Race/Ethnicity	2.5
Missing	6.5
Languages Spoken	
Spanish	12.1

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 inform 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 FY24:

- Of the 201 clinicians on a MATCH team, 20.3% (n=41) left in the fiscal year; this is an improved attrition rate compared to FY23 which was 29.2%.
- 136 MATCH clinicians (67.6%) had one intake in the fiscal year; while this an increase from FY23 (63.7%), 1 in 3 clinicians trained in MATCH were not actively delivering the model and/or reporting data into the PIE system.
- There were 50 new MATCH clinicians in FY24 (49 newly trained, one returning clinician).
- 14 clinical staff attended booster training.
- 2 staff completed MATCH Associate Consultant training to be able to provide in-house consultation to newly trained MATCH clinicians.

VIII. SUMMARY AND RECOMMENDATIONS

ACCESS

Access to MATCH in CT remains strong. Available at 21 providers across the state, FY 24 had 667 children receiving services in the model. After significant dips during the years most affected by the pandemic, the past two years (FY 23 had 683 served) have seen a significant recovery in numbers. While volume is recovering, 68% of children and families were seen at 5 of the 21 providers. A similar trend is seen at the clinician level where one in three did not see any children in the model during the year. Many teams do not have Associate Consultants (ACs), a key role for internal training and sustainability, and it has been a challenge to identify candidates. FY 25 will focus on building teams, providing opportunities to increase MATCH competencies among existing clinicians, ensuring rates of participation. A strong and robust network is needed for MATCH to sustainably expand.

Recommended Actions to Turn the Curve:

- ***Invest in Supporting Associate Consultants –*** This role is essential to sustaining MATCH teams and in FY25 new ways to incentivize and support ACs, at the agency and individual level, are needed. Potential ideas are encouraging cross-agency peer support, targeted sessions as the EBP conference for this role, and additional consultation calls for potential ACs.

- ***Learn from Agencies Doing it Well -*** Currently, nearly 70% of children receiving MATCH are seen by only 5 agencies. Understanding the factors that are allowing these agencies to succeed and identifying strategies that can be used with other agencies can help strengthen the network.

In addition to building the capacity of the MATCH provider network, efforts need to focus on understanding who could benefit from MATCH but isn't currently accessing. This year we continued progress in access equity for Black children (13.3% FY24 vs. 12.6% FY23 and 9.9% FY22). Agency-level reports now regularly provide information on MATCH rates, by race/ethnicity, compared to overall outpatient and equitable access is a consistent topic in site visits. But there is still work to be done as Black youth and Spanish-speaking youth receive MATCH in lower rates compared to general outpatient care. Developing a deeper understanding of the specific needs and cultural values to engage and sustain diverse families in treatment should remain a focus for engaging across cultures. Additional analyses tying together outpatient and MATCH episode data are needed to understand the reasons. It is possible factors like diagnosis type and family preference drive this, but until it is better understood how children within outpatient are identified for MATCH there is the potential for disparities to exist.

Recommended Actions to Turn the Curve:

- ***Incentivize Bilingual Clinicians* – Continue using sustainability funds in this category.**
- ***Examine OPCC and MATCH Data Together* –** Examine multiple years' worth of outpatient level data to see what factors, including race/ethnicity, are most associated with receiving MATCH.

If children and families are choosing not to receive MATCH, it is important to understand what services they desire and how the system can best meet their needs. Anxiety, depression, and trauma disorders make up the bulk of cases within outpatient. MATCH is key to addressing these concerns but other models, potentially briefer or adapted in other important ways, might complement MATCH to provide a range of effective options. SSC this year was a good example of a briefer, less intensive model that can increase initial engagement and potentially pair well with MATCH. Evaluation of the SSC pilot will inform FY25 efforts to continue to find the best ways to support children and families.

Recommended Actions to Turn the Curve:

- ***Follow-up SSC Pilot* -** Once the evaluation is complete and the impact of SSC on engagement is examined, if successful, next steps should be to see how the framework can be used to increase MATCH participation.

QUALITY

High rates of missing race/ethnicity data is a significant data quality issue. While this affects MATCH, it is a result of missing data at the OPCC-level. It is anticipated in FY25 that further updates to these fields in PIE will bring the system in line with both state and federal reporting standards. Clear communication on collection details and timeline for implementation will help providers comply with the new data fields. Quality improvement efforts at the outpatient level around race, ethnicity, and language status data will benefit MATCH and other EBPs that use PIE outpatient data, like TF-CBT.

Recommended Actions to Turn the Curve:

- ***Monitor and Support the Quality of Race Data Collection –*** This can be done by developing plans to communicate changes to the REL data as well as continued discussions on how to best support data systems in aligning with federal requirements.

OUTCOMES

MATCH demonstrated strong outcomes with 86.1% of children with measures experiencing partial or full reliable change. Children with critically high symptoms at baseline experienced high levels of remission for caregiver (74%) and child (76%) reported functioning. On every symptom measure there was significant improvement with at least medium effect sizes. The largest effect was seen on the child-report PROMIS, an anxiety measure, but only 35% of children had outcome data on that measure. Despite 40% of children in the Anxiety protocol and 22% in Depression, those symptom-specific measures are infrequently used. It is understandable that the Ohios are used more frequently as they are required in outpatient, but the low rates relative to the CPSS V (trauma measure) suggest there is an opportunity to increase use of the anxiety and depression scales. Child reports on these measures are particularly important as they tend to have stronger effects. These are the measures that best capture the targets of treatment and can best demonstrate the effectiveness of MATCH.

Recommended Actions to Turn the Curve:

- ***Offer Training on Assessments –*** Specific training on EBP assessments could strengthen the data overall as well as improve clinician confidence and family experience. Developing a short training, to be delivered live or on demand, would provide another strategy to improve use of measures.

Once children are enrolled in MATCH treatment, analyses reveal MATCH completion and change on any child symptom measure overall is consistent across sex and race. This is promising and demonstrates the potential of MATCH to be effective with all groups. These analyses use an overall indicator of if a child experienced significant improvement, not necessarily looking at the magnitude of improvement. It is possible that everyone improves but some groups improve more than others. To address this, each year we look at the Ohio scales change scores by race/ethnicity and include other factors that might be related to change such as trauma history and age. These analyses are presented in detail in the appendix. Each year there are a few significant findings, one group doing better on one particular subscale, but they are inconsistent from year to year. There does not appear to be a pattern of any one group outperforming another. However, using only one year's worth of data limits the ability to detect any significant patterns. A broader look across multiple years would increase the sample size and allow a more accurate understanding of if any group does better or worse than another, and under which circumstances. This information could inform training, consultation, and implementation activities and make MATCH services more equitable overall.

Recommended Actions to Turn the Curve:

- ***Conduct Multi-year Equity Analyses –*** In partnership with DCF, develop a report that looks at a minimum of three years' worth of assessment data to examine trends between demographic groups.

IX. APPENDIX A: ACTIVITIES AND DELIVERABLES

The Coordinating Center has worked to support the MATCH implementation goals through the following activities carried out in FY24.

1. Training, Consultation, & Credentialing

- Connecticut Associate Trainers provided two MATCH trainings (10 days) in FY24 (49 new clinicians trained).
- Held a one day MATCH Booster Training for previously trained clinicians and 14 clinicians attended In October 2023, 2 virtual sessions were provided to (2) MATCH supervisors to be trained as an in-house MATCH Associate consultants.
- Held a MATCH Associate Consultant Booster Training (2 half-day virtual sessions) for previously trained MATCH Associates and (5) attended. MATCH Associate Consultant Consultation started in November 2023 and (8) consultation meetings were conducted; consultation is scheduled to complete in the summer of FY24.
- MATCH (7) 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 FY24.
- 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; 40 active clinicians were Connecticut credentialed by the end of FY24.
- 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 FY24 there were 158 active clinicians.
- Convened sixteenth annual statewide EBP Conference for 410 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 of implementation consultation based on emerging implementation science field and needs of agencies.
- Developed agency-specific QI plans using SMARTER Goals focused on agency performance on QI benchmarks and strategies to improve access, quality and service delivery.
- Provided 80 implementation consultation support meetings with providers to ensure sustainment of high-quality services.
- Implemented and convened 2 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 (tinyurl.com/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 $339,674 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 21 MATCH providers eligible for financial incentives to detail implementation expectations, data sharing, and financial incentive details.

X. APPENDIX B: REGRESSION TABLES

Table B1. Logistic regression analyses for predicting successful discharge from selected background characteristics.

Variable	*N*	β	*SE*	*Wald*	e^{B}*(95% CI)*
Hispanic	66	-0.433	0.344	1.589	0.648 (0.331,1.272)
Black Non-Hispanic	25	-0.666	0.47	2.014	0.514 (0.205,1.289)
Sex (Male)	67	0.246	0.331	0.554	1.279 (0.669,2.445)
Child Age	171	0.016	0.052	0.094	1.016 (0.918,1.125)
Trauma Exposure-Ths Child	171	-0.038	0.06	0.401	0.963 (0.855,1.083)
Trauma Exposure-THS CG	171	-0.037	0.068	0.296	0.964 (0.843,1.102)
Constant	–	0.683	0.693	0.97	1.979

*p<.05 As compared to White Non-Hispanic Females
**p<.01 Another race/ethnicity Non-Hispanic was removed due to low n
Outliers were found and corrected for caregiver and child reported trauma exposure

Table B2. 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	8.934	5.339	(-1.67, 19.539)	1.821	4.217	(-6.516, 10.158)
Trauma Exposure	-0.582	0.405	(-1.388, 0.223)	0.333	0.336	(-0.331, 0.997)
Hispanic	**5.371***	2.612	(0.183, 10.559)	-0.393	1.973	(-4.294, 3.508)
Black Non-Hispanic	**10.322****	3.836	(2.703, 17.941)	**-5.951***	2.906	(-11.696, -0.206)
Sex (Male)	-3.841	2.581	(-8.968, 1.286)	0.494	1.946	(-3.353, 4.34)
Child Age	-0.027	0.376	(-0.774, 0.72)	0.251	0.278	(-0.298, 0.8)
Child Discharged As "Successful"	-1.348	2.441	(-6.198, 3.501)	1.772	1.85	(-1.886, 5.43)
R^2	0.123			0.047		
F	2.135			1.168		

*p<.05 As compared to White Non-Hispanic females
**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

Table B3. 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	-7.27	4.652	(-16.516, 1.975)	-5.377	4.576	(-14.427, 3.673)
Trauma Exposure	0.526	0.353	(-0.176, 1.227)	-0.319	0.365	(-1.04, 0.402)
Hispanic	-3.343	2.276	(-7.866, 1.18)	3.79	2.141	(-0.446, 8.025)
Black Non-Hispanic	**-6.972***	3.342	(-13.614, -0.329)	2.474	3.153	(-3.763, 8.712)
Sex (Male)	0.274	2.249	(-4.195, 4.744)	-1.729	2.111	(-5.905, 2.447)
Child Age	0.002	0.328	(-0.649, 0.654)	-0.081	0.301	(-0.677, 0.515)
Child Discharged As "Successful"	-1.87	2.127	(-6.098, 2.358)	-1.557	2.008	(-5.528, 2.414)
R^2	0.085			0.037		
F	1.359			0.854		

*p<.05 As compared to White Non-Hispanic females
**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 PS change scores

Table B4. Logistic Regression analyses for predicting any child symptom RCI from selected background characteristics.

Predictors	*N*	β	*SE*	*Wald*	e^B*(95% CI)*
Hispanic	66	-0.203	0.386	0.277	0.816 (0.383, 1.738)
Black Non-Hispanic	25	-0.559	0.527	1.123	0.572 (0.203, 1.608)
Sex (Male)	67	-0.232	0.37	0.392	0.793 (0.384, 1.639)
Child Age	171	-0.02	0.058	0.12	0.98 (0.874, 1.099)
Trauma Exposure-THS Child	171	-0.032	0.068	0.224	0.968 (0.847, 1.107)
Trauma Exposure-THS Caregiver	171	0.145	0.079	3.405	1.156 (0.991, 1.348)
Child Discharged as "Unsuccessful"	71	**-1.766*****	0.362	23.869	0.171 (0.084, 0.347)
Constant		1.467	0.793	3.421	4.335

*p<.05 As compared to White Non-Hispanic females
**p<.01 Outliers were found and corrected for caregiver and child reported trauma exposure
***p<.001 Another race/ethnicity non-Hispanic group removed due to low n

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