



**Care Coordination Services in
Connecticut
Presentation to the Child/Adolescent
Quality, Access, and Policy Subcommittee**

*Presented by CONNECT Leadership and
partners from Beacon Health Options
March 17th, 2020*

Today's Agenda

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1.) Welcome

Tim Marshall, LCSW – CT Department of Children and Families

2.) Connecticut's Care Coordination Landscape

Aleece Kelly, MPP – Child Health and Development Institute

3.) Wraparound Care Coordination

Mary Cummins, MSW – CT DCF

4.) Care Coordination Outcome Data

Joy Kaufman, PhD – The Consultation Center at Yale

5.) Medicaid Cost Savings Analysis for Care Coordination

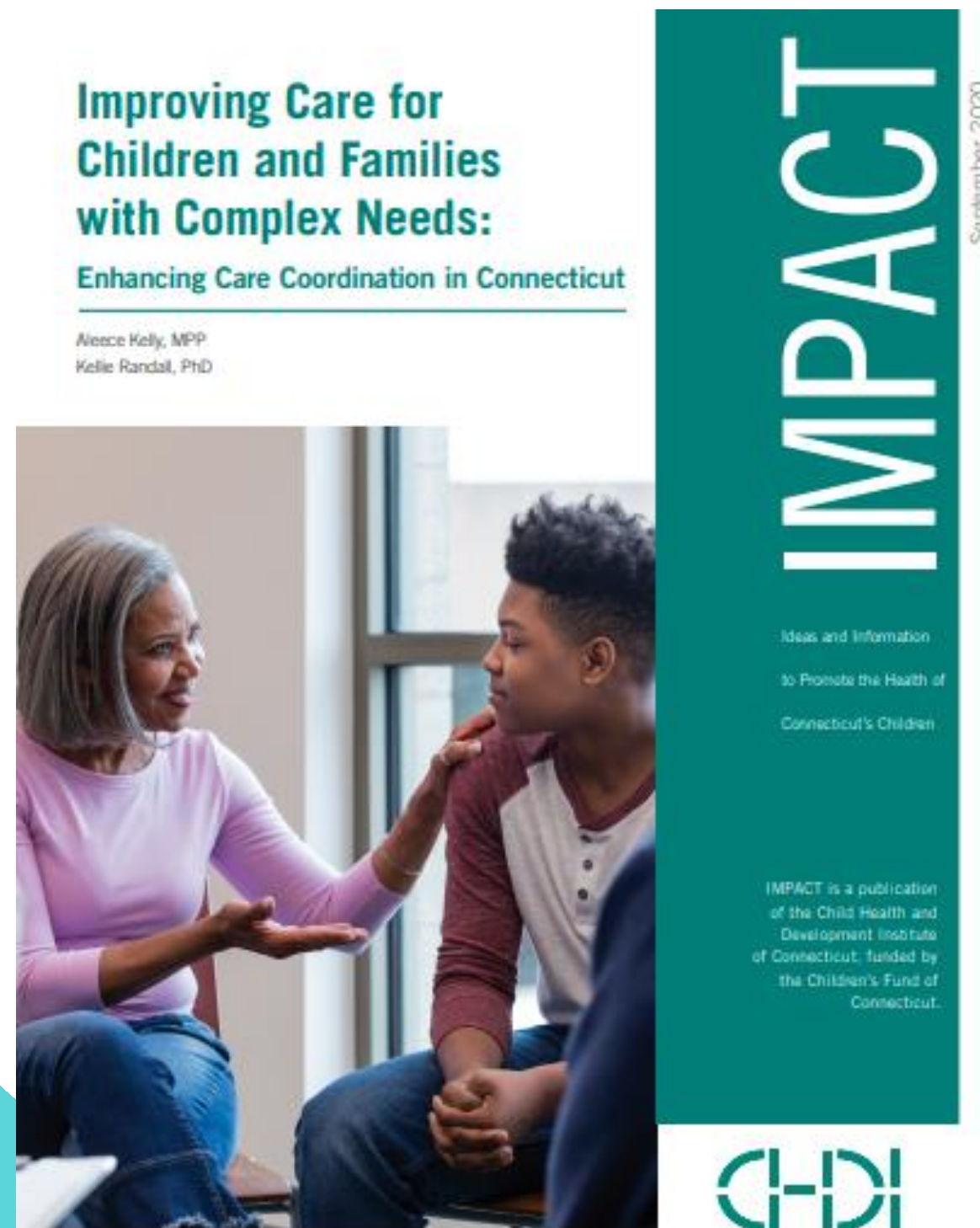
Kris Noam, PhD – Beacon Health Options

6.) Key Takeaways / Q&A

Tim Marshall, LCSW – CT DCF

Connecticut's Care Coordination Landscape

What Is Care Coordination?



Working Definition

Care coordination refers to intentional efforts to support communication and organization across health, behavioral health, and social service providers as needed in collaboration with the child and family, to facilitate the delivery of integrated services

The Need for Care Coordination



Families

140,000 children in Connecticut have complex physical, behavioral, or developmental needs requiring frequent and intensive care

Care Coordination can centralize communication, connect the family to a broad range of services, and improve outcomes

The Need for Care Coordination



Providers

Care coordination can increase knowledge across specialties, improve engagement with families, help ensure follow up on referrals, and facilitate integrated care for complex or co-occurring needs, increasing efficiency within and across practices

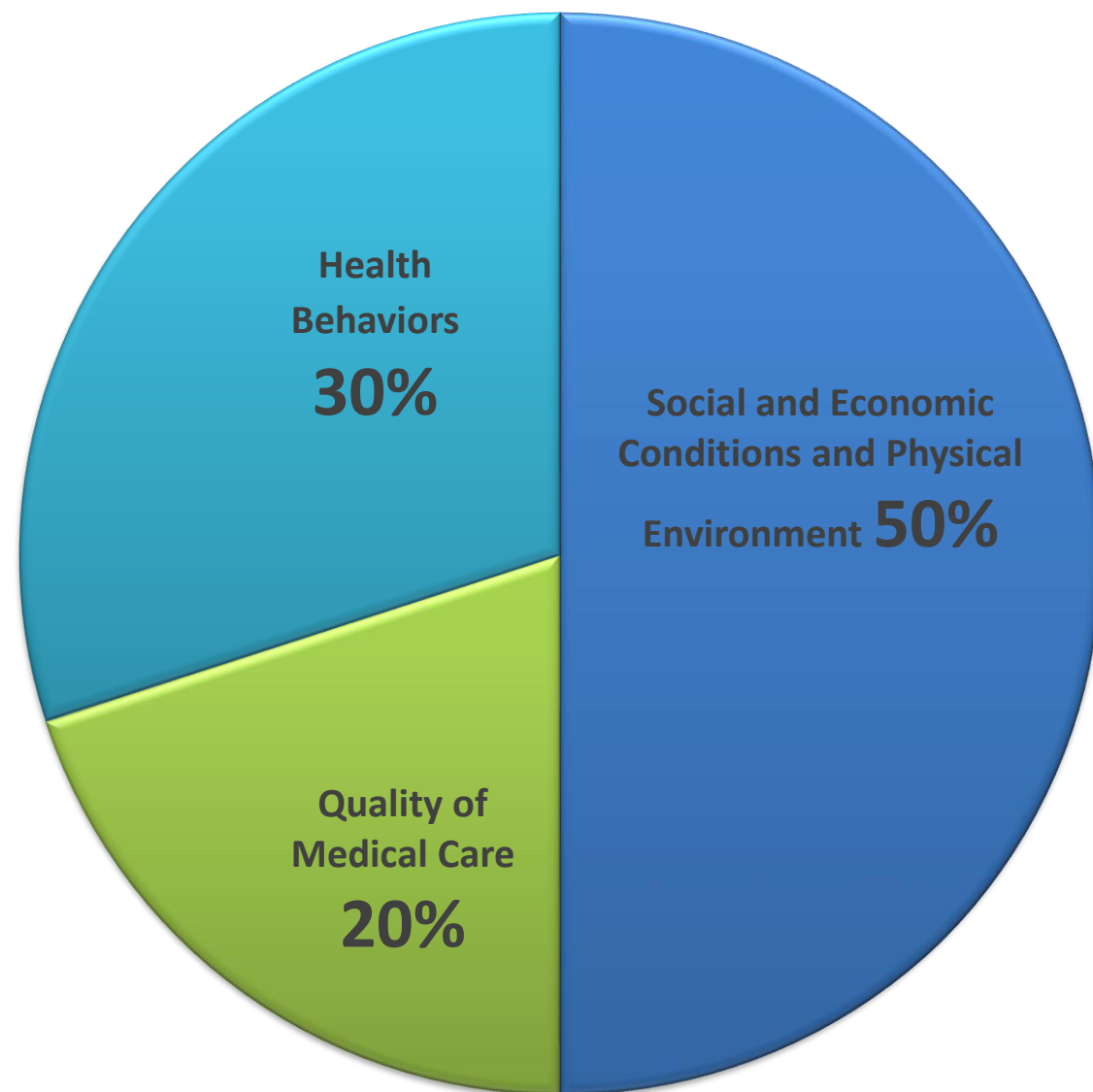
The Need for Care Coordination



Systems

Care coordination can support the integration and coordination across multiple service sectors improving efficiency, reducing costs, and supporting a family-focused and holistic approach to children's health and well-being

Broadening the View of Health



Social Determinants of Health

Care coordination is well-positioned to address the social, economic, and environmental factors that influence a child and family's health

Care Coordination in Connecticut



Connecticut has multiple strong examples of care coordination programs both within and across the primary and behavioral health care systems

These are supported by Connecticut's robust system of care in comparison to other states

Policy/System Development Recommendations

1. Promote policies that directly address conditions that lead to health disparities, particularly racial and ethnic disparities
2. Expand reimbursement for care coordination activities through a braided funding model
3. Streamline access to behavioral health through a care management entity that includes access to care coordination services
4. Remove barriers to integrating primary and behavioral health care
5. Enhance statewide collaboration: One Family, One Plan
6. Invest in a collaborative-ready workforce across systems of care
7. Support research to fill gaps in understanding of care coordination best practices

Practice Recommendations

1. Use Wraparound principles to implement a family-driven approach to care coordination across all child-serving systems
2. Cross-train between and across sectors
3. Address social determinants of health through care coordination efforts

Wraparound Care Coordination

Care Coordination Service Type Overview

What is Wraparound Care Coordination?

- **Care Coordination** is a homebased intervention that uses high fidelity "Wraparound" through the use of the monthly **Child and Family Team** process. The Child and Family Team meeting is facilitated by the Care Coordinator and is defined as an intensive, individualized care planning and management process.
- The Child and Family Team assists in the development of a **Plan of Care** that it **culturally competent, strengths based** and helps guide the family toward meeting their needs.

Care Coordination Service Type Overview

- Learning the **Family Story** brings the Care Coordinator to **Strengths, Needs, and Family Vision**.
- It is important that the **Wraparound Crisis/Safety Plan** is developed during the initial visits with the family to address any current or potential safety needs.
- One of the key components of Care Coordination is the use of a strength-based approach. The **Strengths Discovery** is completed with the family prior to the first Child and Family Team (CFT) Meeting.
- Identifying underlying needs is another component of the Wraparound process
- Unmet needs are barriers to families moving toward their vision.
- A thorough **Needs Discovery** provides the groundwork for appropriate Needs Statements for the **Plan of Care**.

Care Coordination Service Type Overview

- **Intensive Care Coordination:** (for DCF involved)
- Beacon Health provides statewide coverage with 6 DCF Regional ICCs paired with 6 Family Peer Support Specialists. Referrals are received from DCF Gatekeepers who are most often ARG. There is also an additional 1 statewide ICC
- ICCs and FPSS are part of the Care Management Entities Contract between DCF and Beacon Health Options.

Care Coordination Service Type Overview

Target Population:

For Care Coordination is Seriously Emotionally Disturbed or SED, children and youth through age 18 who are not involved in either Protective Services or Juvenile Justice, and are at risk from removal from home or community.

For Intensive Care Coordination same except it serves primarily DCF involved children.

Referrals Received:

For CC: the community.

For ICC: DCF, PRTF and other higher levels of care

Average length of Stay is: 6 months.

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Cost to Family: There is no fee and currently not covered by insurances.

Areas/Regions Served:

For CC: All 169 towns and cities

For ICC: All DCF regions

Care Coordination Service Type Overview

Providers:

- Bridges Healthcare
- Child and Family Guidance Center
- Child Guidance Clinic South
- Clifford W. Beers Guidance Clinic
- Community Health Resources
- Rushford
- United Community and Family Services
- Wellmore Behavioral Health
- Wheeler Clinic

Care Coordination Service Type Overview

Model Fidelity and Workforce Development

- WrapCT: Monthly meetings with supervisors and managers with a training component.
- Coach/Trainer position at each agency to provide in-service and statewide trainings. This plan included a system for providing and tracking trainings and coaching as part of staff development.
- This includes the orientation and training of new staff and ongoing staff development through offering a curriculum of various Wraparound training modules that include:

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Introduction to Wraparound	Team Facilitation Skills	Strength Based Documentation
Wraparound Practice Model(2 days)	Conflict Resolution	Crisis/Safety Planning
Family Engagement	Needs and Benchmarks	Transition Planning

Outcome Data

Overview

Data is collected from Connecticut families receiving Wraparound care coordination services within the children's behavioral health network of care.

- A summary of the demographic characteristics of the youth receiving care coordination
- An examination of outcomes showing changes from intake to 6-month follow-up/discharge
- An examination of racial/ethnic disparities in outcomes at intake and at 6-month follow-up/discharge

Methods

- Data is collected by **Care Coordination staff** at entry into services, 6-months later and at discharge, all data is entered into DCF's PIE
- Caregivers respond to **standardized measures** as do youth age 11 and older
 - Care coordinators also complete staff version of OHIO scales
- Data collection began in November of 2016, took about 6-months to be fully integrated into workflow
 - Through October 2020, outcome data has been collected from 1,209 families

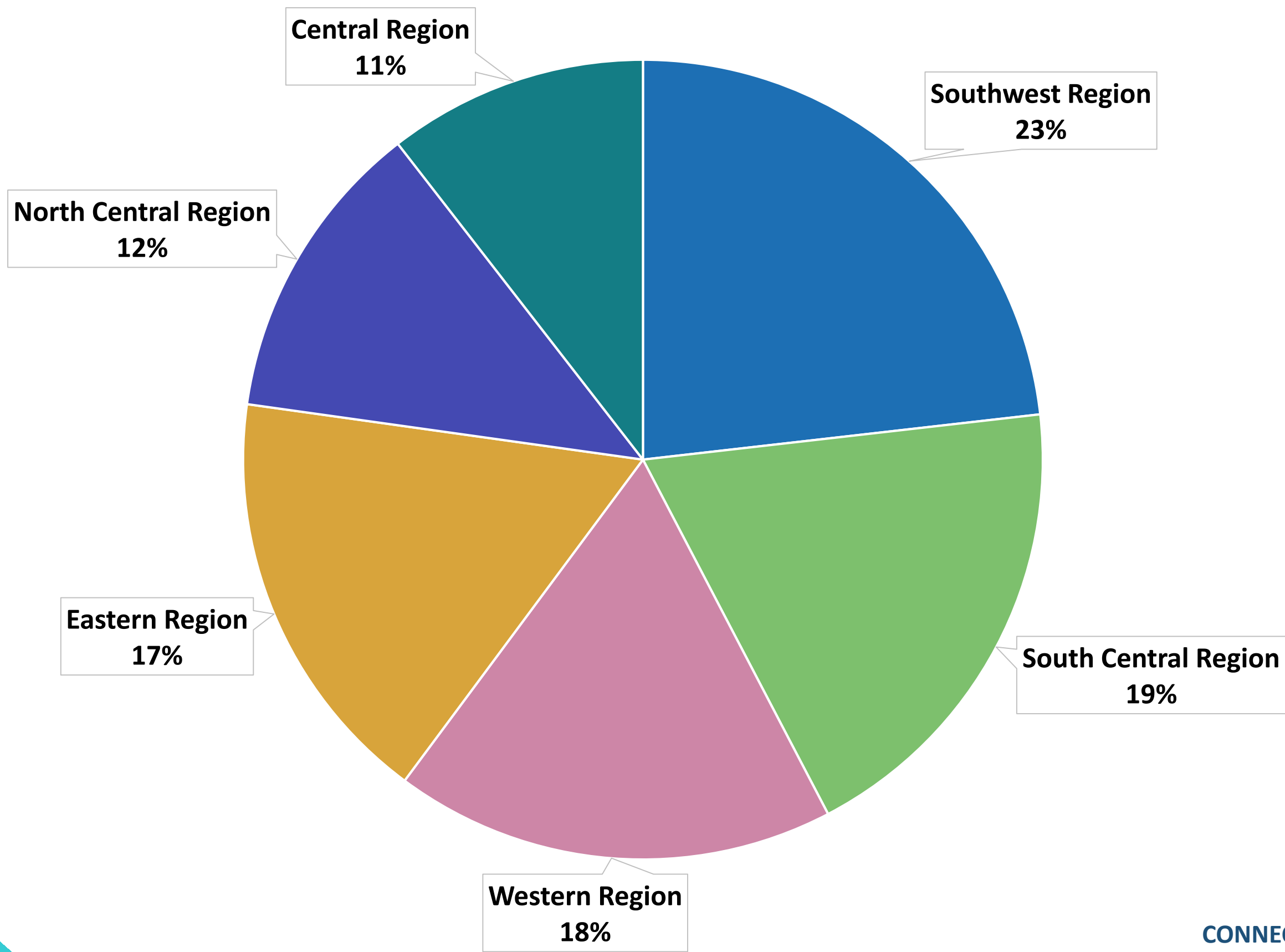
Methods: Screeners

- **National Outcome Measures (NOMS).** Developed by SAMHSA to gather demographics, functioning, stability in housing, youth education, perception of care, services received (caregiver report)
- **CRAFFT.** Standardized screener that assesses problems related to substance abuse (youth report)
- **Child Trauma Screen.** Standardized screener that assesses exposure to trauma and PTSD symptoms (youth and caregiver report)

Methods: Outcome Measures

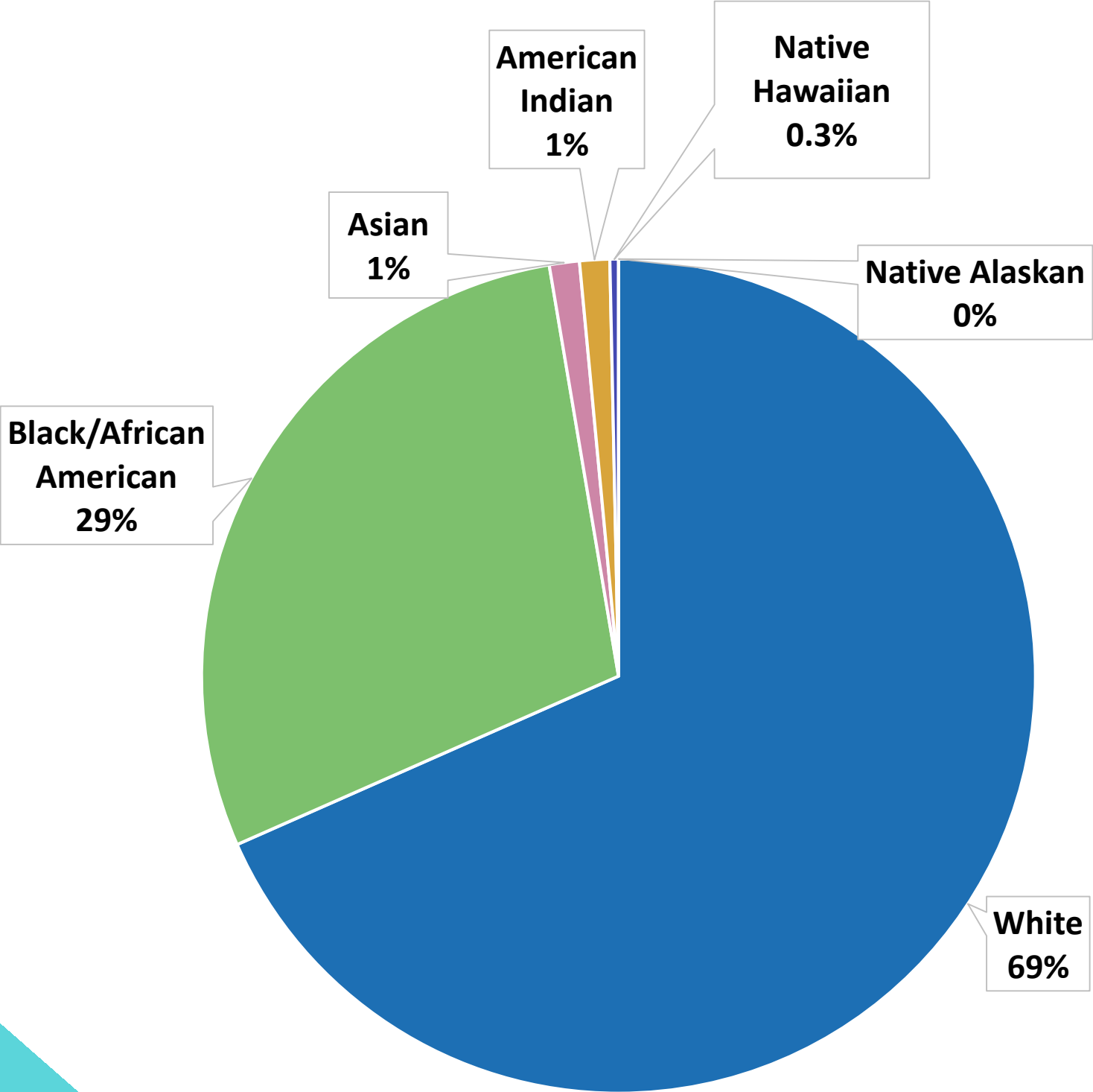
- **Pediatric Symptom Checklist.** Standardized measure that assesses youth behaviors and emotions (youth & caregiver report)
- **Caregiver Strain Questionnaire.** Standardized measure that assesses strain associated with caring for a children with severe emotional or behavioral difficulties (caregiver report)
- **Columbia Impairment Scale.** Standardized measure that assesses youth functioning across 4 domains: interpersonal, school/work, leisure, broad psychopathological (youth and caregiver report)
- **Ohio Scales.** Standardized measure that assesses problem behaviors, functioning and satisfaction with services (youth, caregiver & worker report)

Number Served by Region (n=2,200)

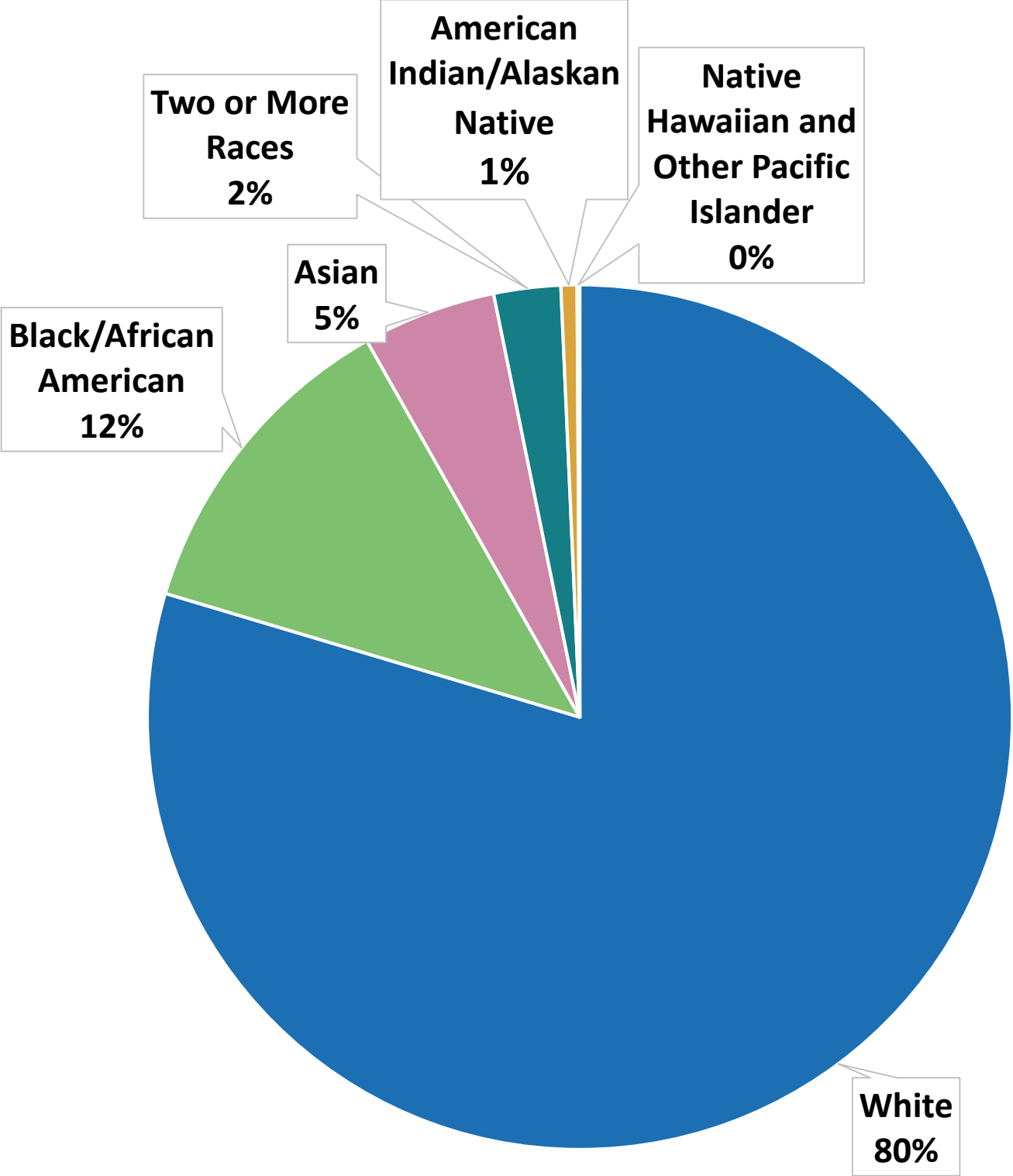


Race (n=2,200)

Youth in Care Coordination

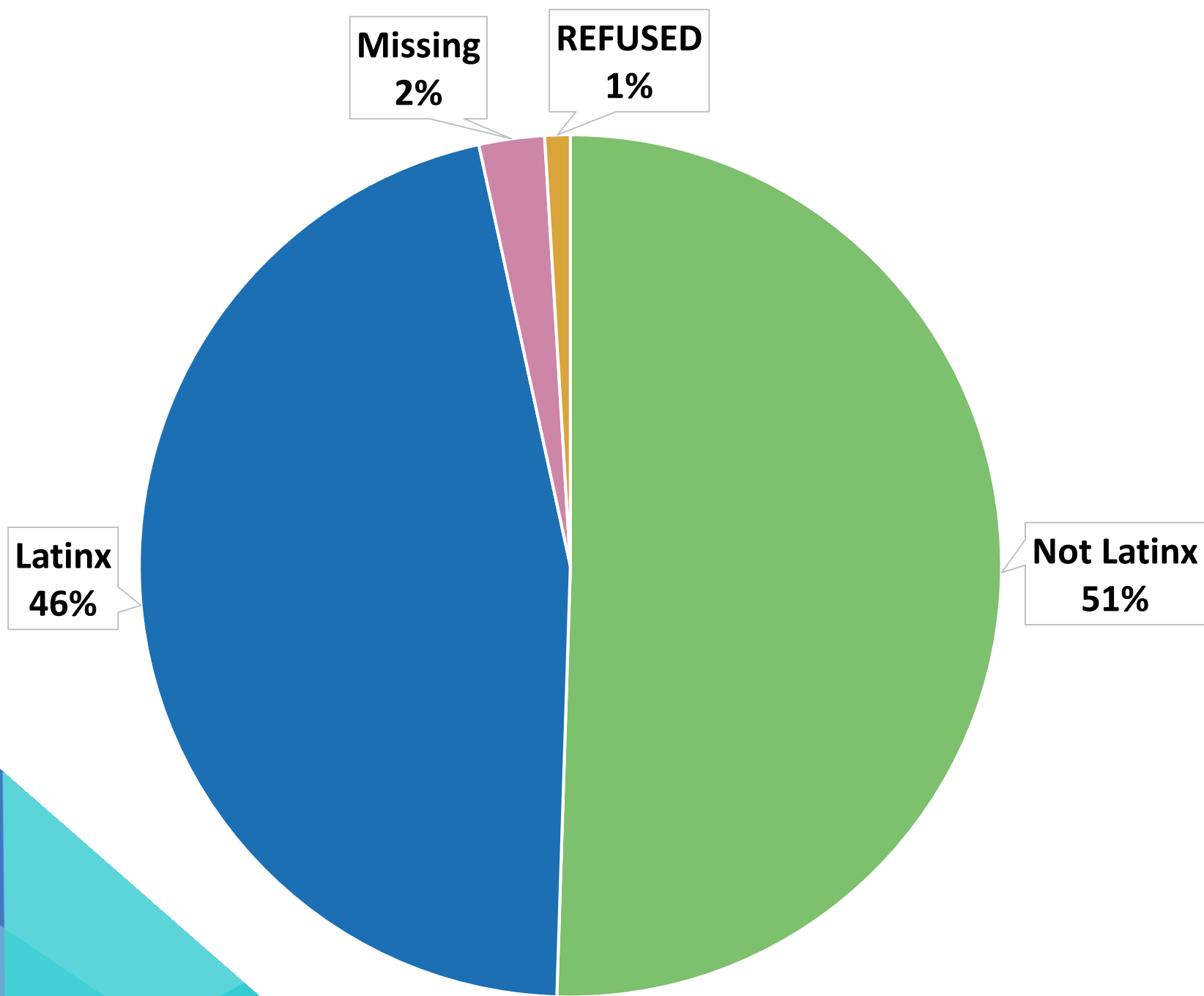


CT Census Data

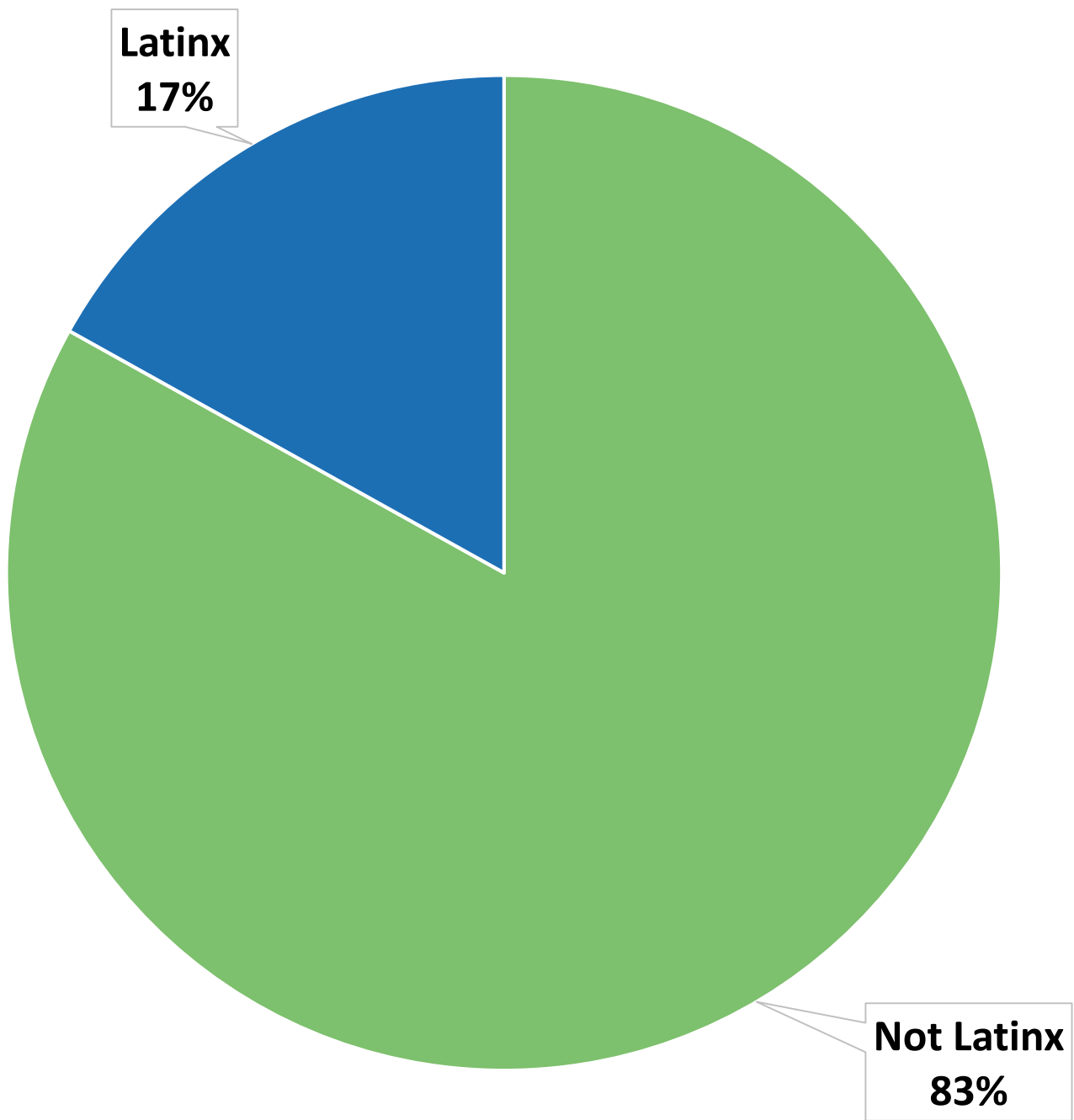


Ethnicity (n=2,200)

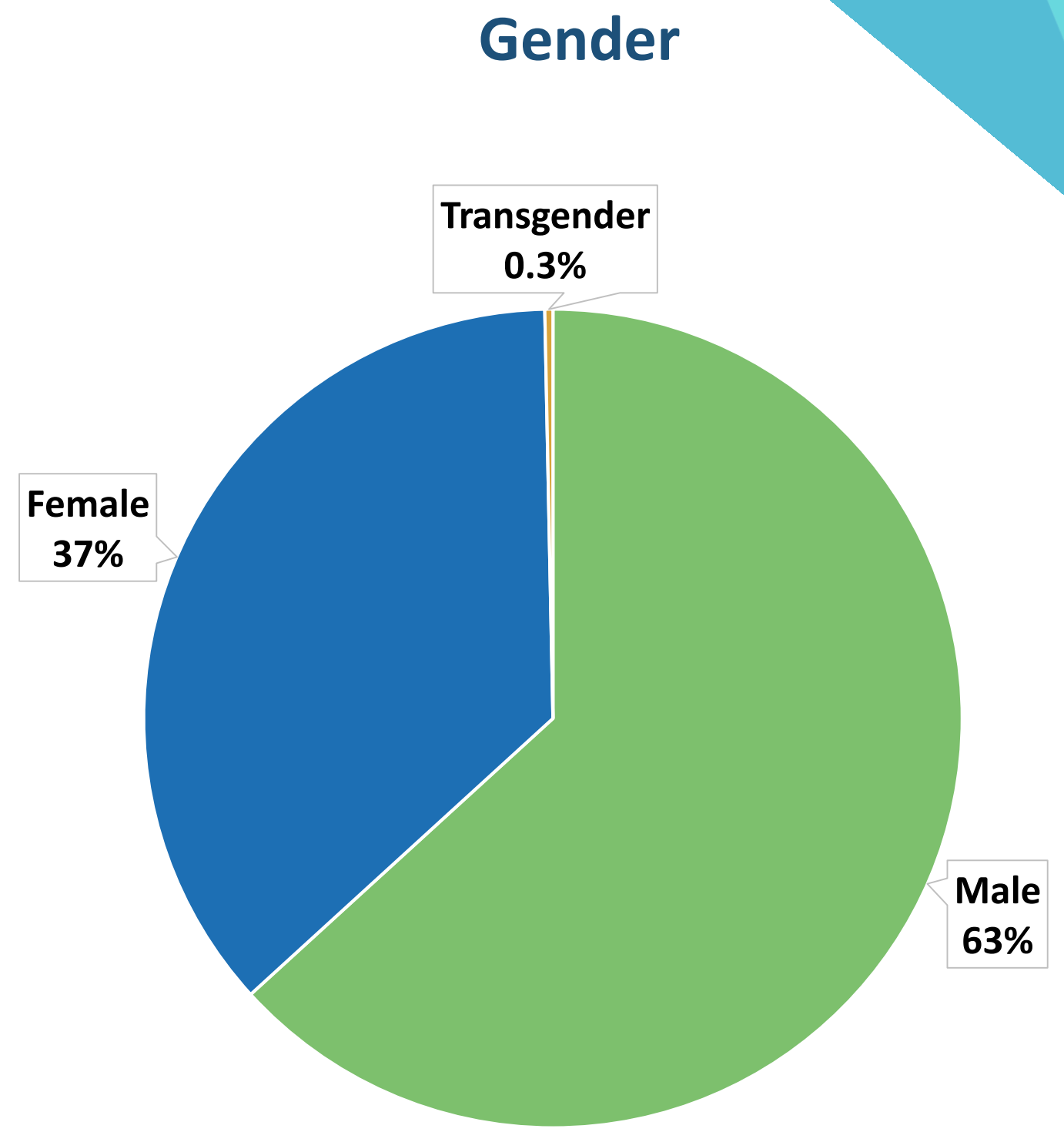
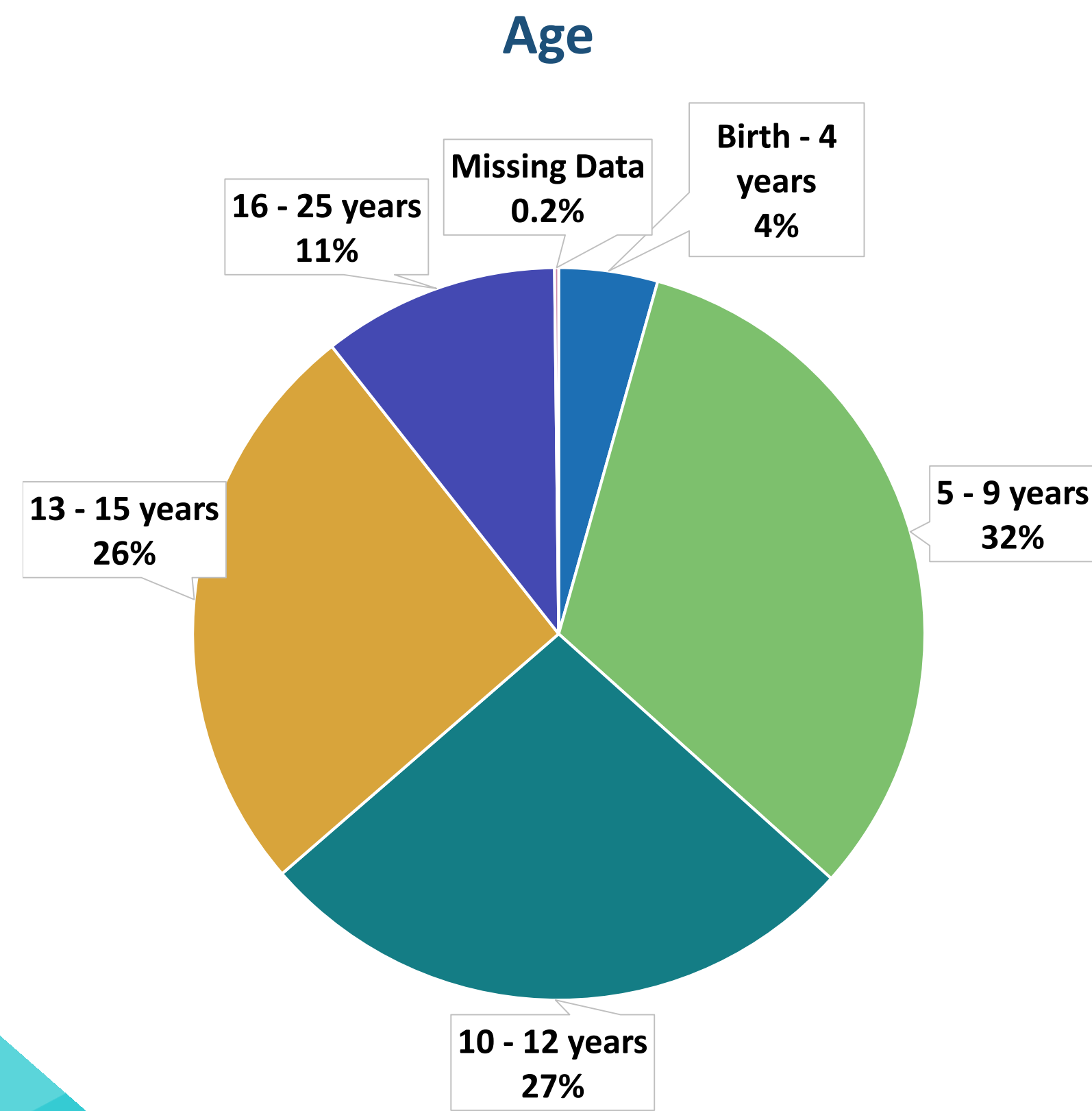
Care Coordination



CT Census Data

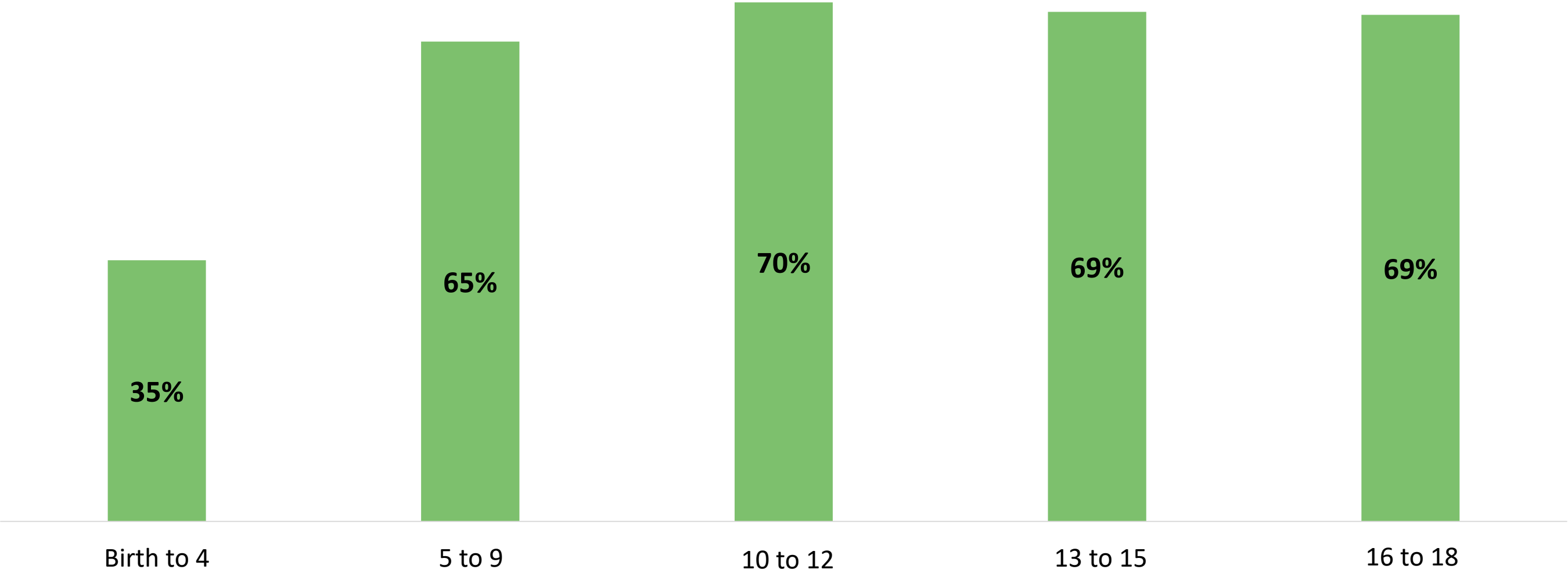


Age and Gender of Youth in Care Coordination (n=2,200)



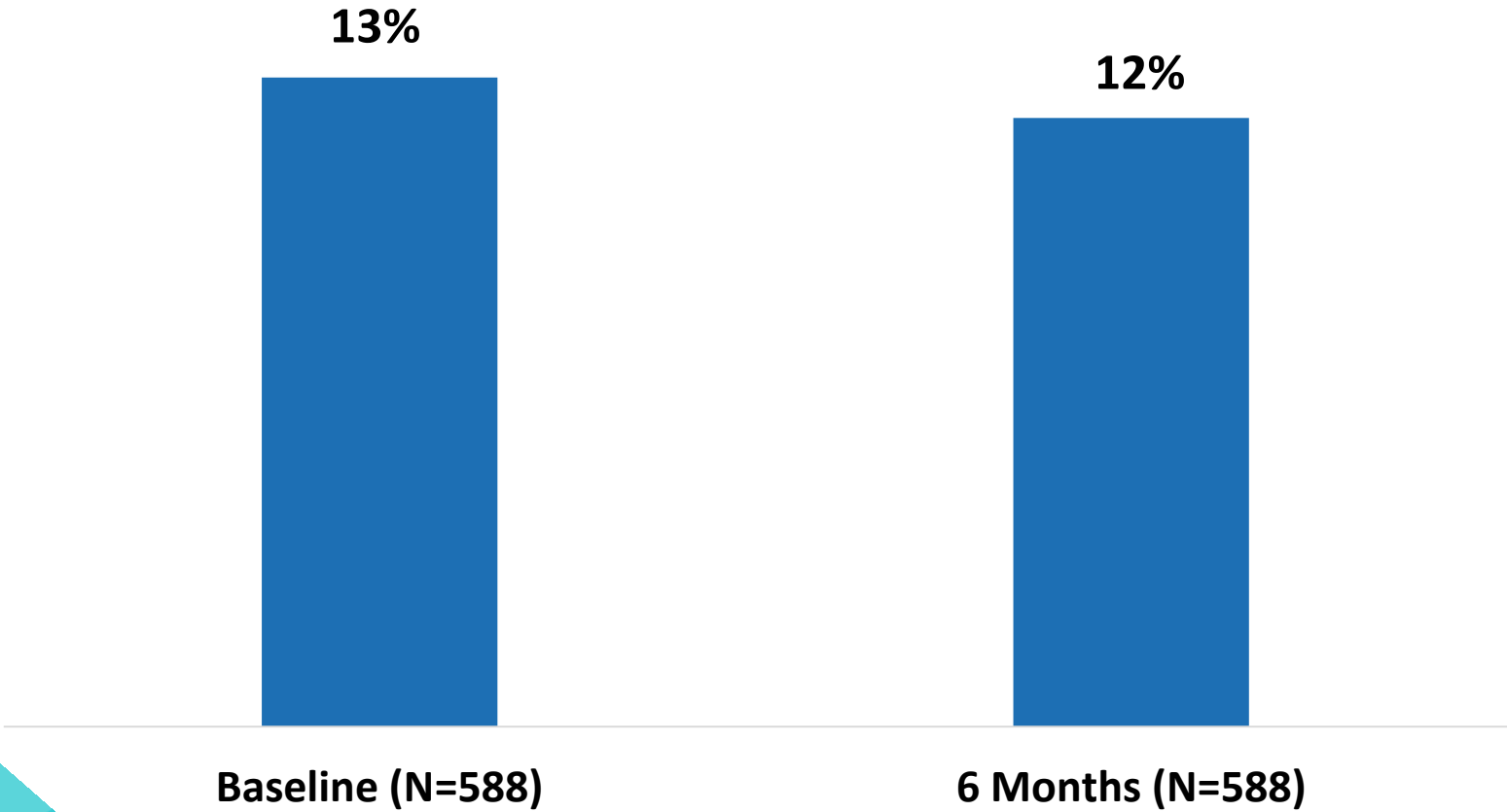
Child Trauma Screen: Trauma History by Age

Percent of Youth/Children who have Experienced Trauma by Age Group (N=2,200)

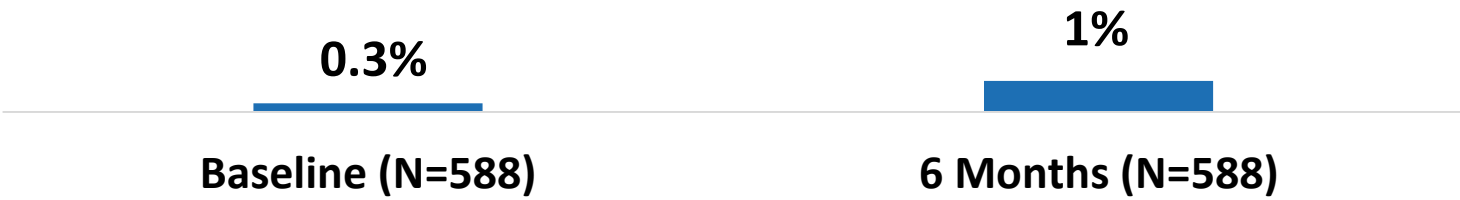


CRAFFT: Rate of Substance Use & at Risk for Substance Abuse (n=588)

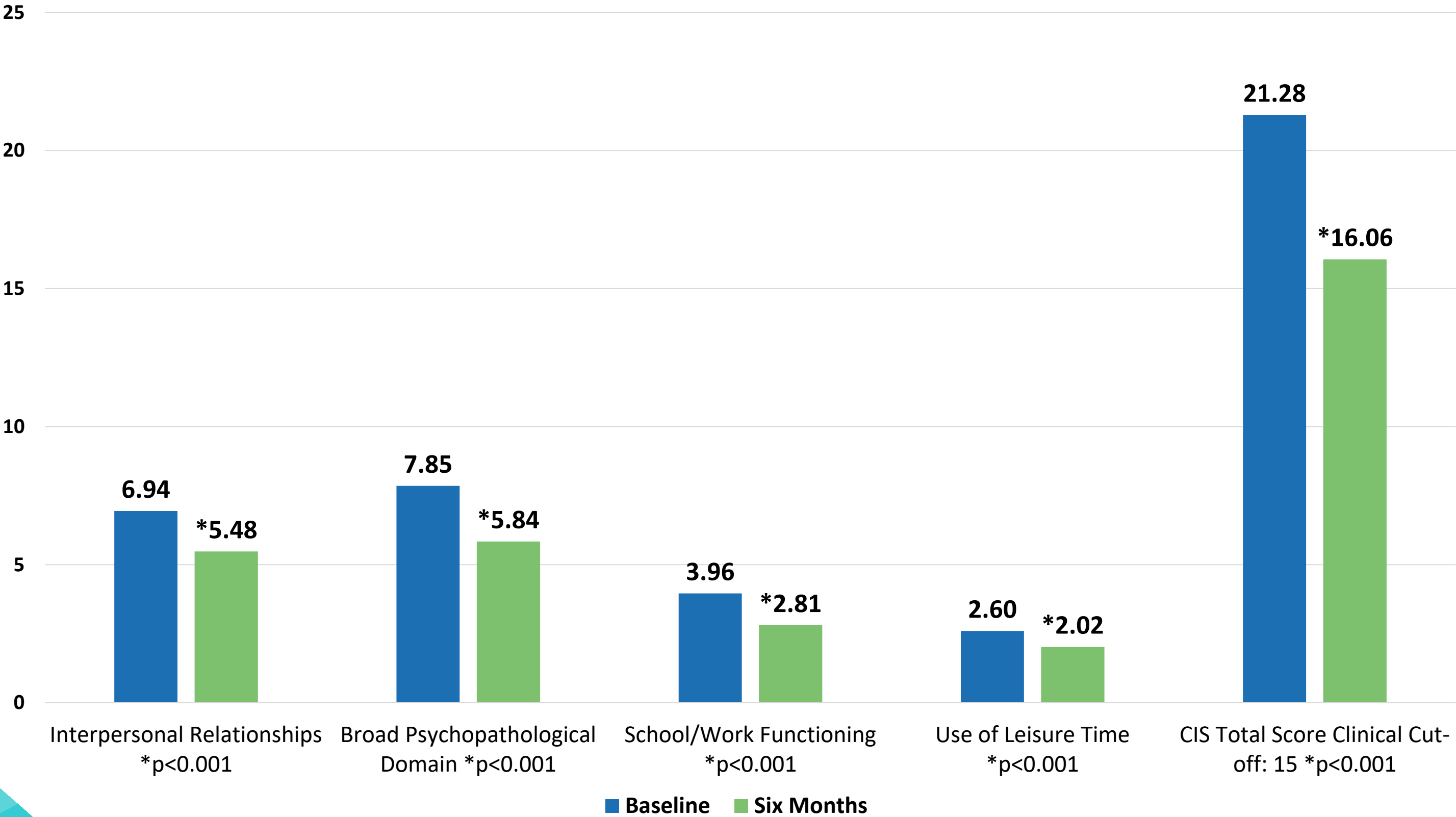
Rate of Substance Use



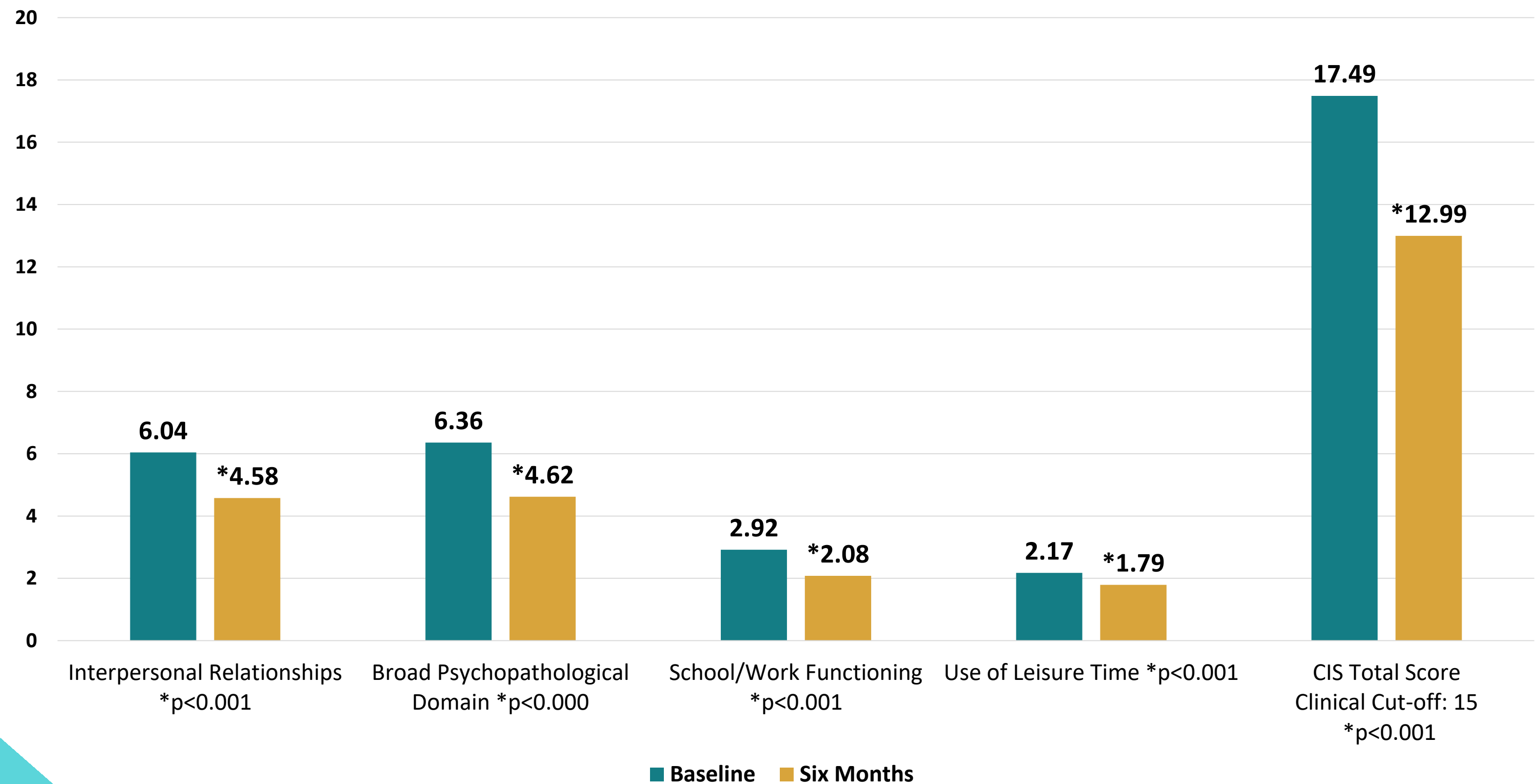
At Risk for Substance Abuse



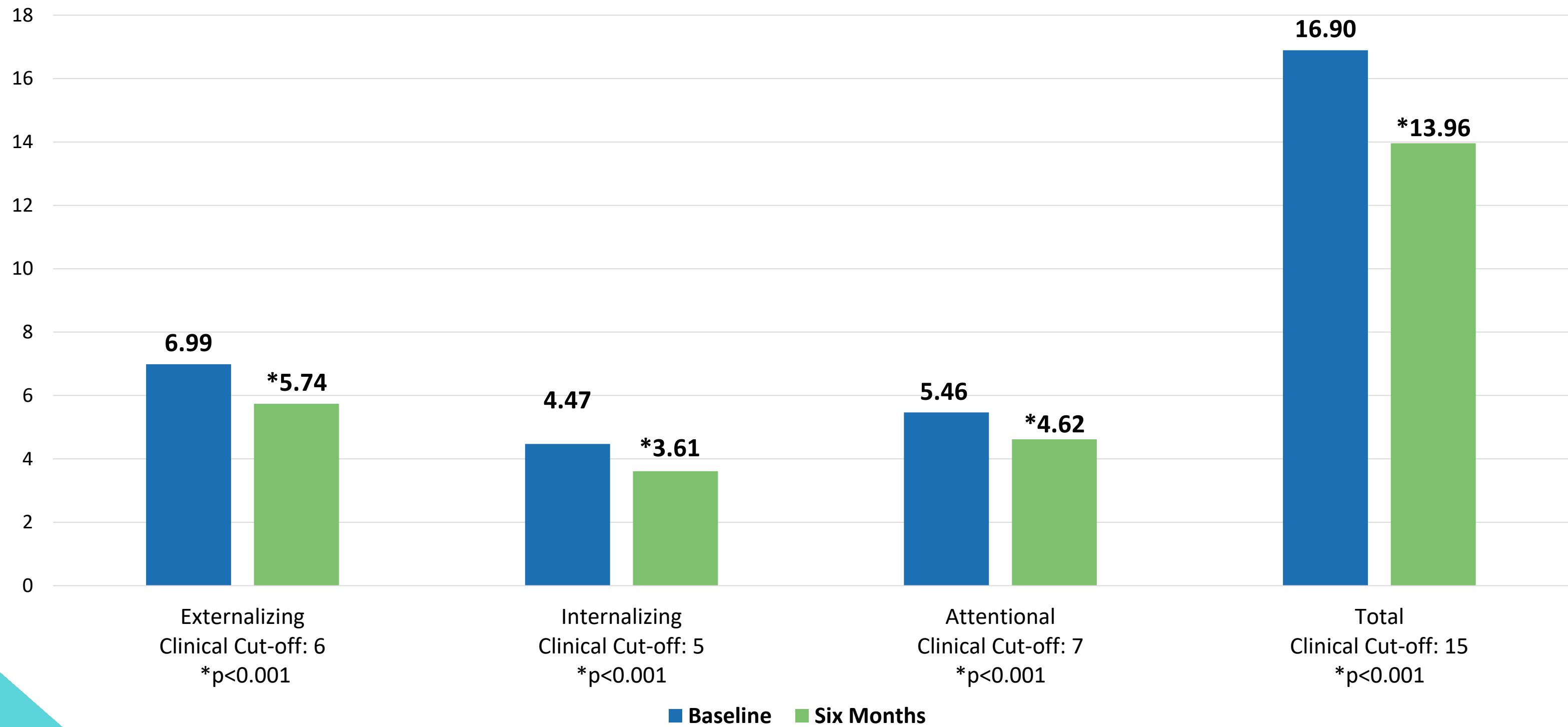
Columbia Impairment Scale: Caregiver Report (n=1,266)



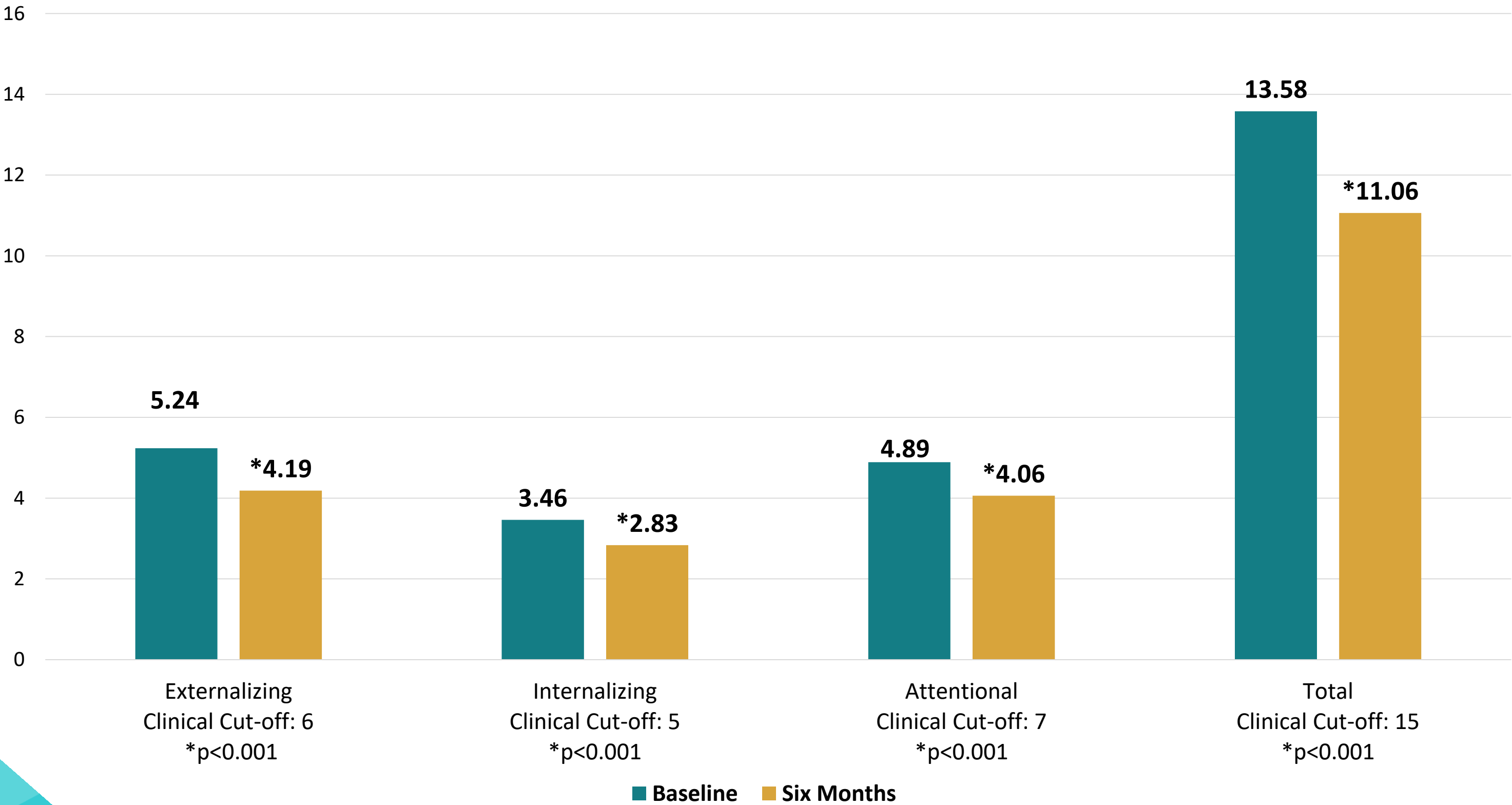
Columbia Impairment Scale: Youth Report (n=509)



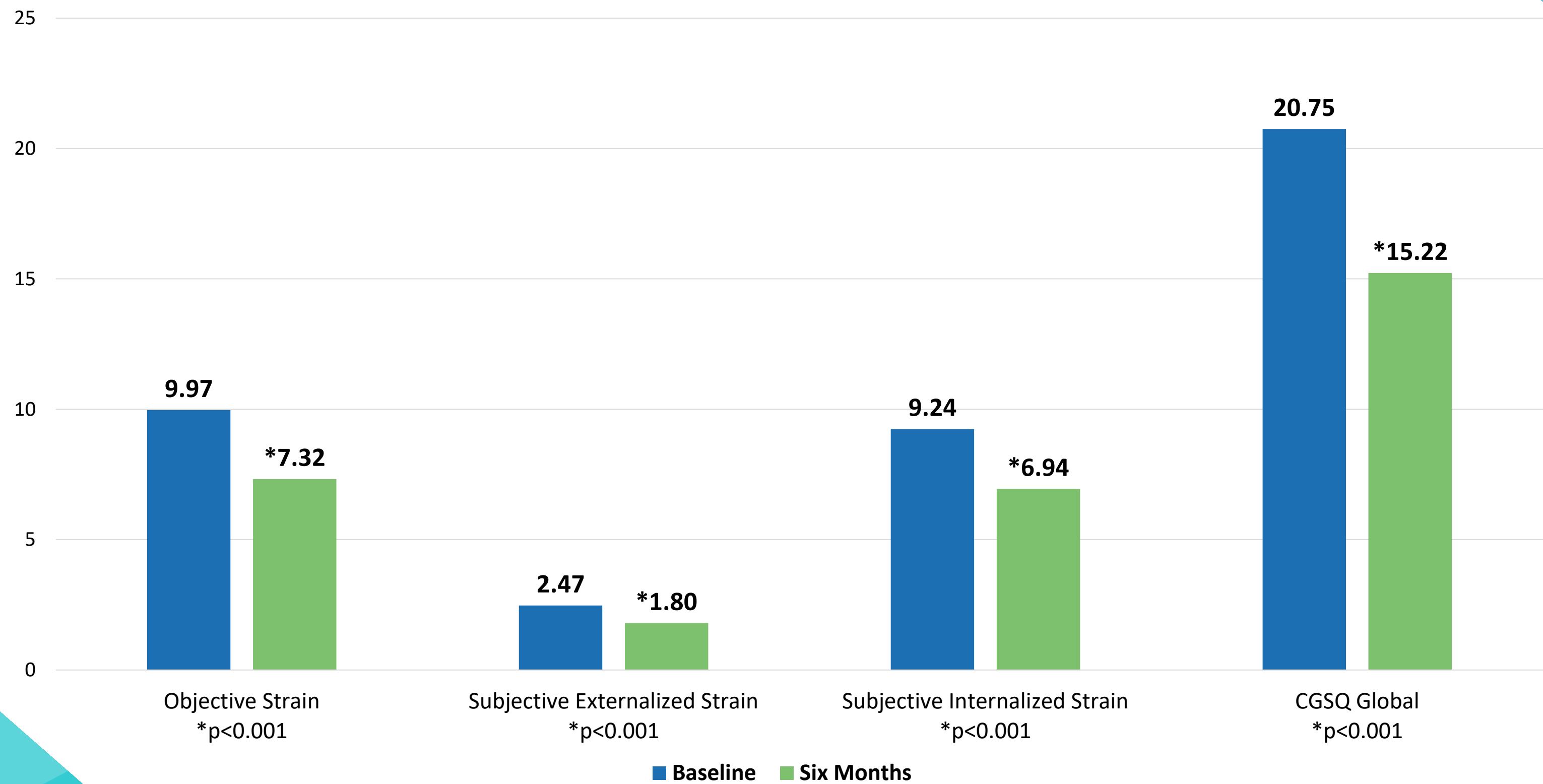
Pediatric Symptom Checklist: Caregiver Report (n=1,212)



Pediatric Symptom Checklist: Youth Report (n=499)

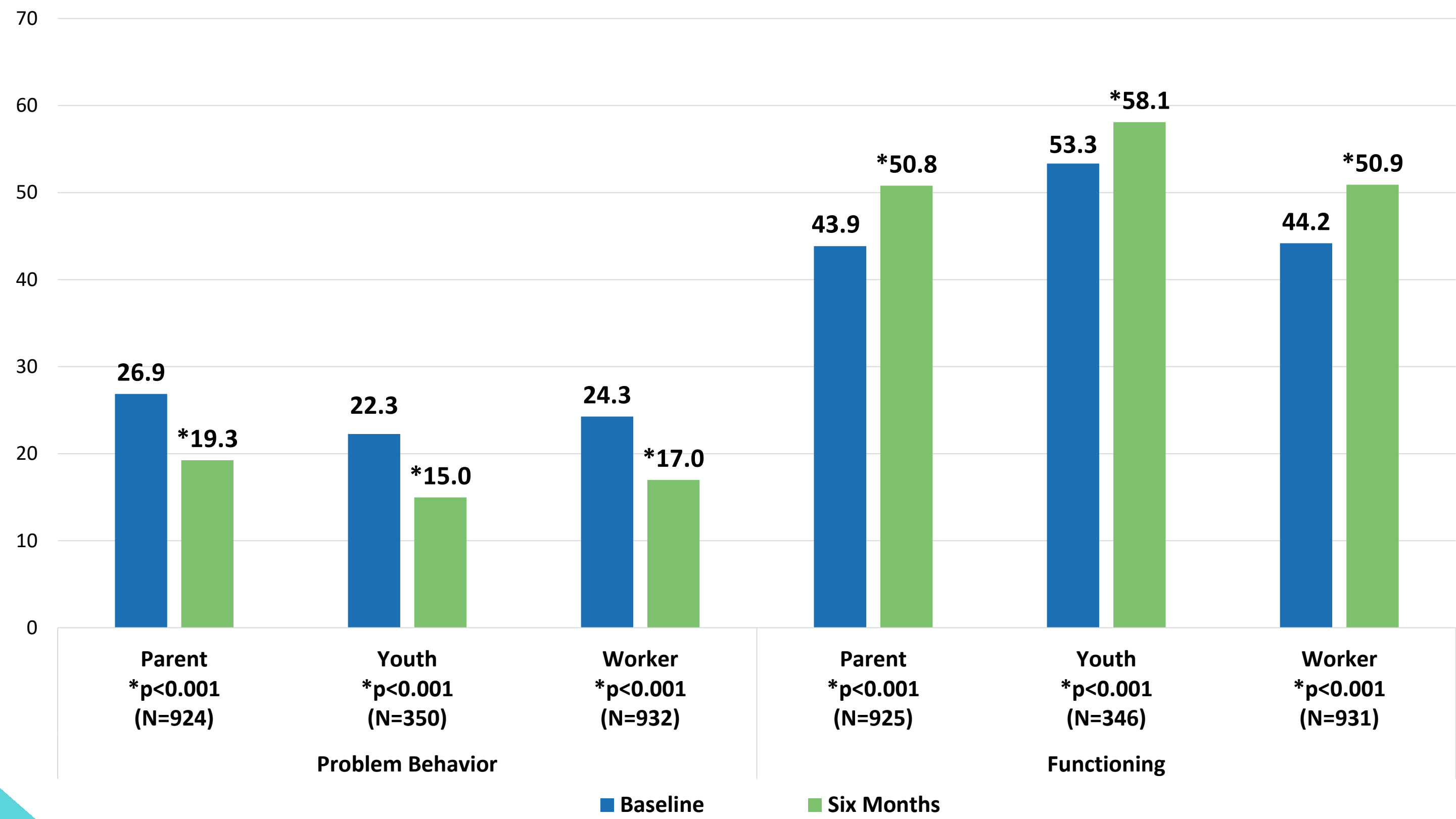


Caregiver Strain Questionnaire (n=1,209)



Ohio Scales

Parent (n=1,106), Youth (n=383) & Worker (n=1,123)



Racial/Ethnic Disparities in Care Coordination Outcomes

Methods

Utilized the same data set to examine differences by racial and ethnic groups

Identified families where the child/youth was reported to be:

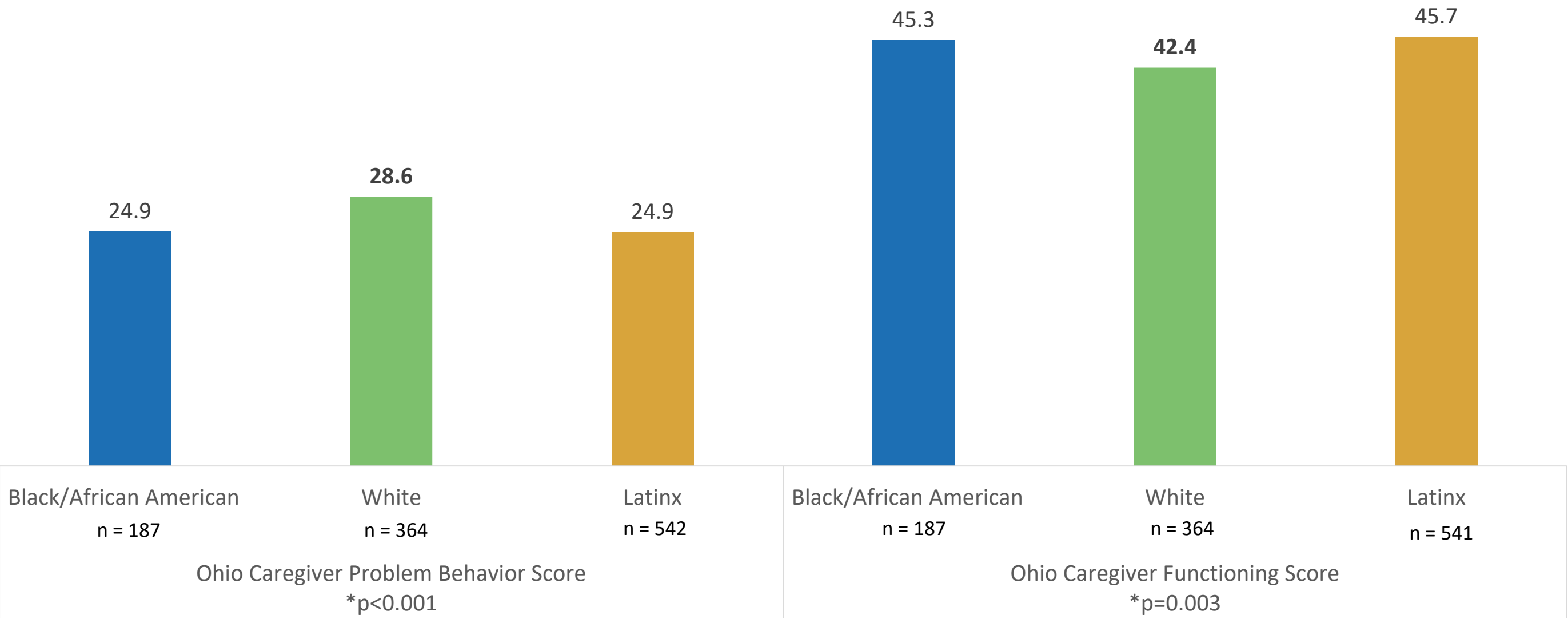
Latinx (n=571; 49.4%)

Non-Latinx Black/African American (n=199; 17.2%)

Non-Latinx White (n=387; 33.4%)

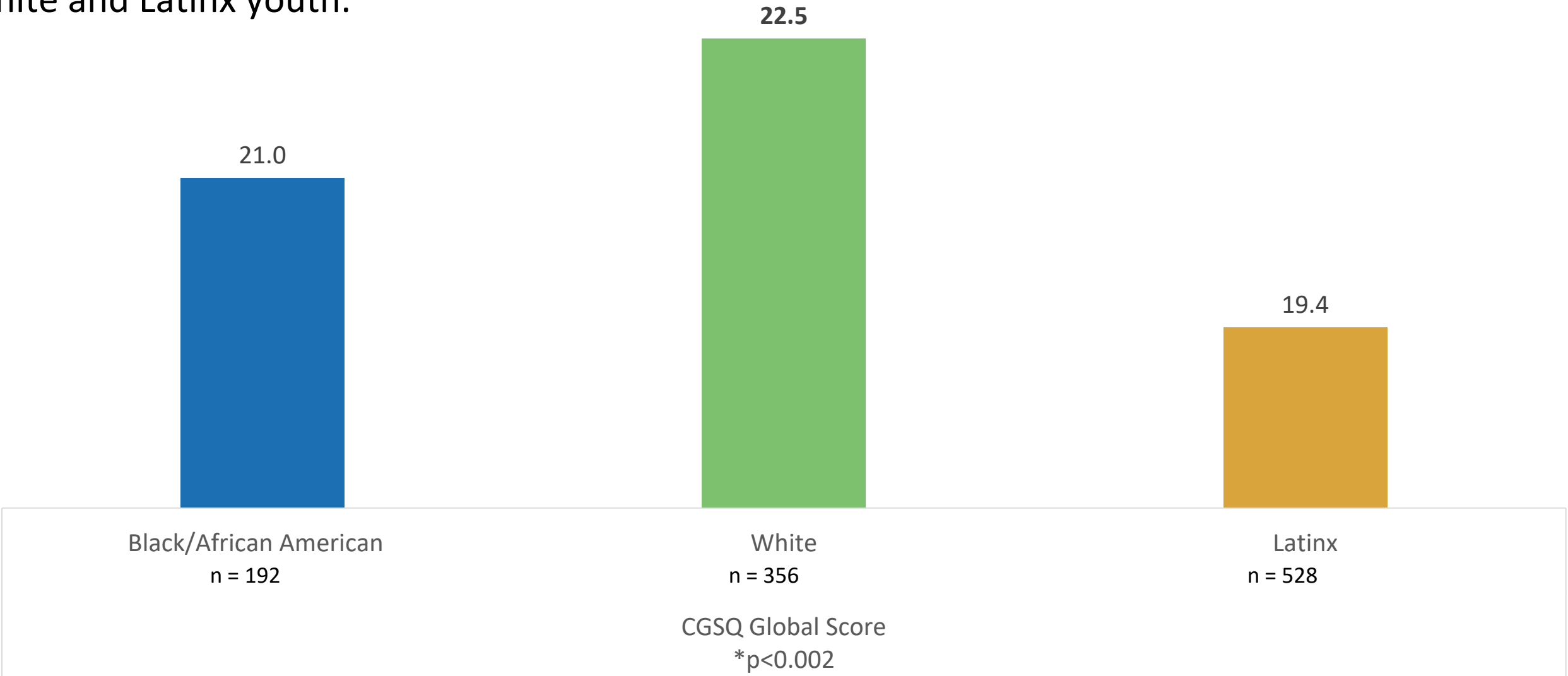
Ohio Scales: Caregiver Report at Intake (n=1029)

At intake, caregivers of white youth report more problem behaviors and lower functioning for their children report of caregivers of non-Latinx Black/African American or Latinx youth.



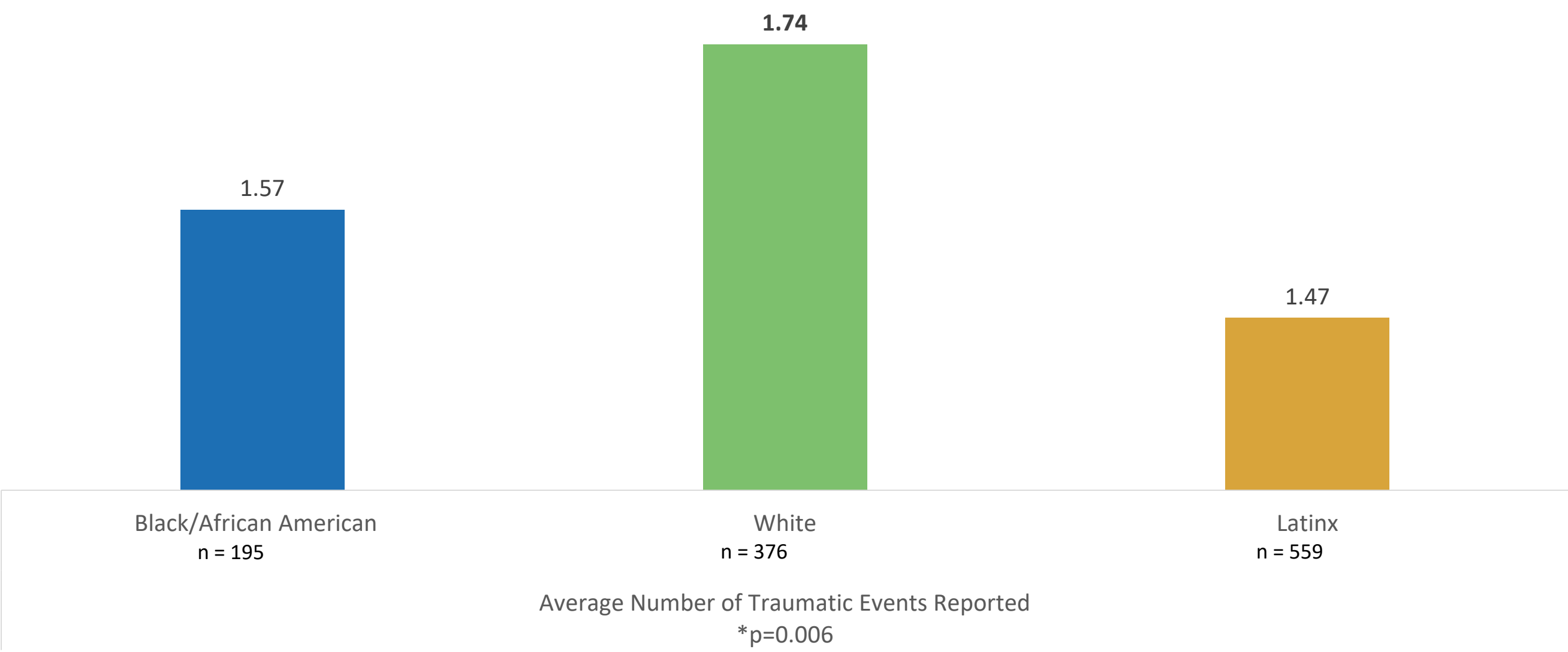
Caregiver Strain Questionnaire: Global Strain Score at Intake (n=1135)

Caregivers of non-Latinx White youth report they have higher levels of caregiver strain when compared to Latinx caregivers. There are no statistically significant differences between reports of strain between caregivers of non-Latinx Black/African American youth and caregivers of non-Latinx White and Latinx youth.



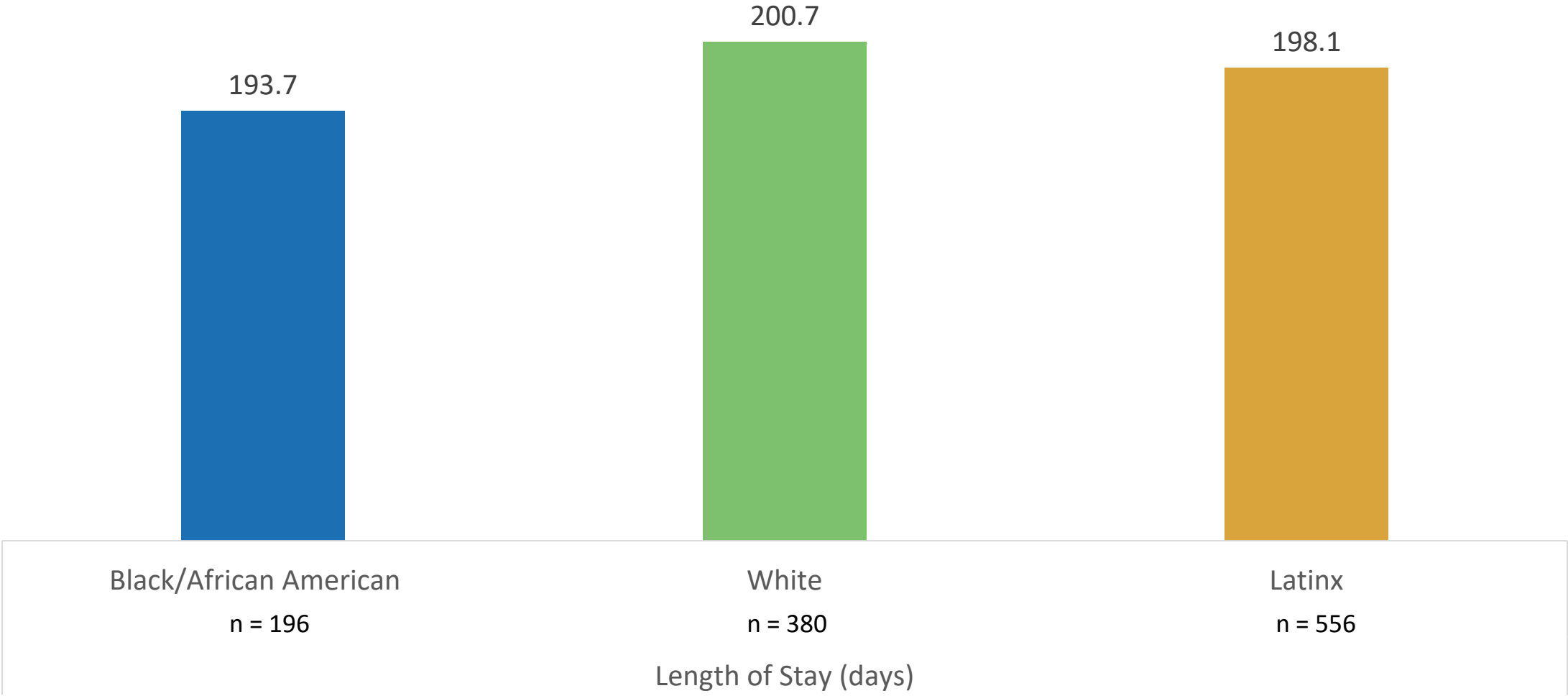
Child Trauma Screen: Exposure to Traumatic Events at Intake (n=1130)

Caregivers of non-Latinx White youth report their child had a higher level of exposure to traumatic events at intake when compared the reports from caregivers of Latinx youth.



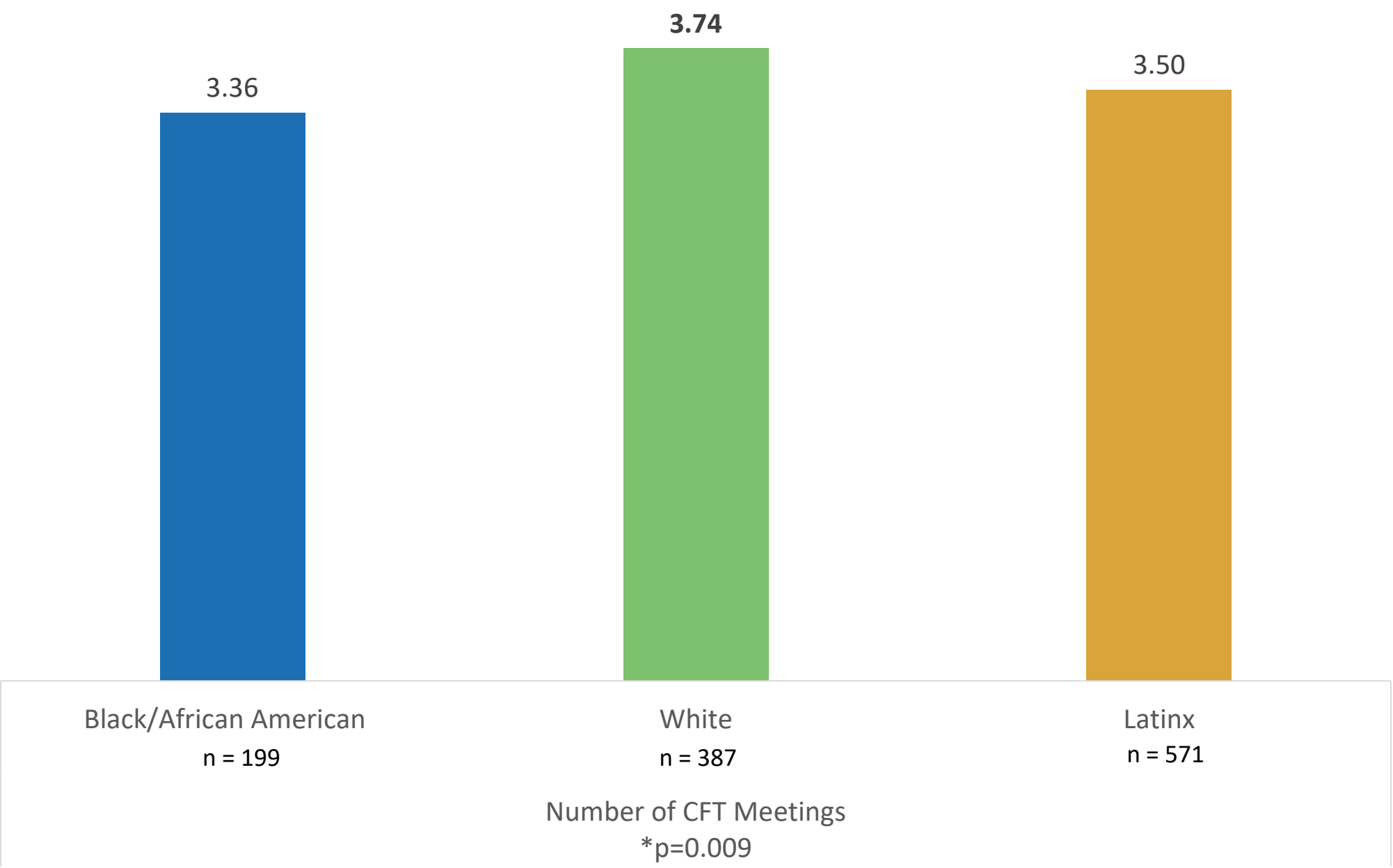
Length of Stay in Care Coordination (n=1132)

There were no differences in the total length of stay in care coordination between Non-Latinx Black/African American, non-Latinx White and Latinx youth.



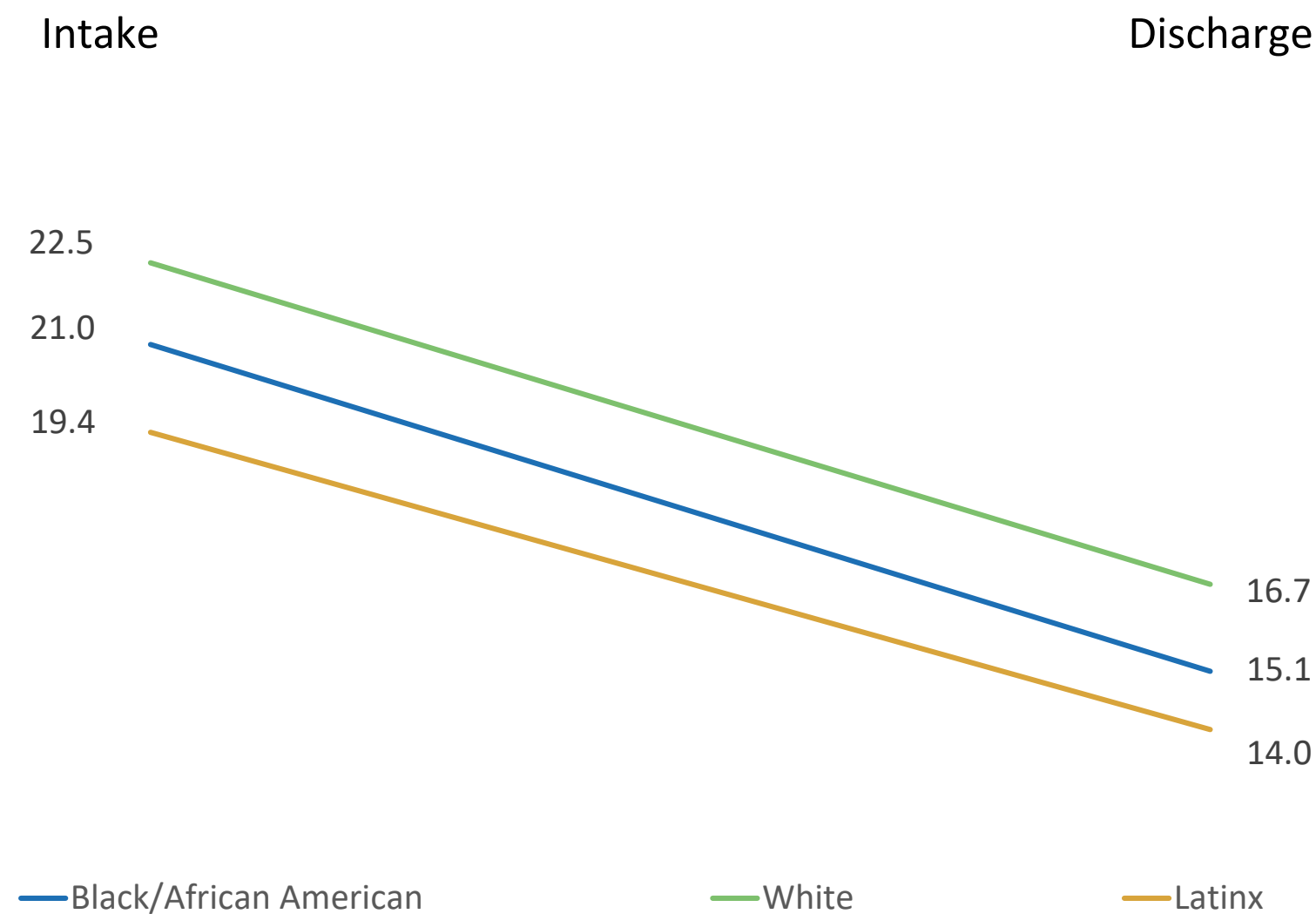
Average Number of Child and Family Team (CFT) Meetings (n=1157)

Non-Latinx White youth had more CFT meetings than non-Latinx Black/African American or Latinx youth.



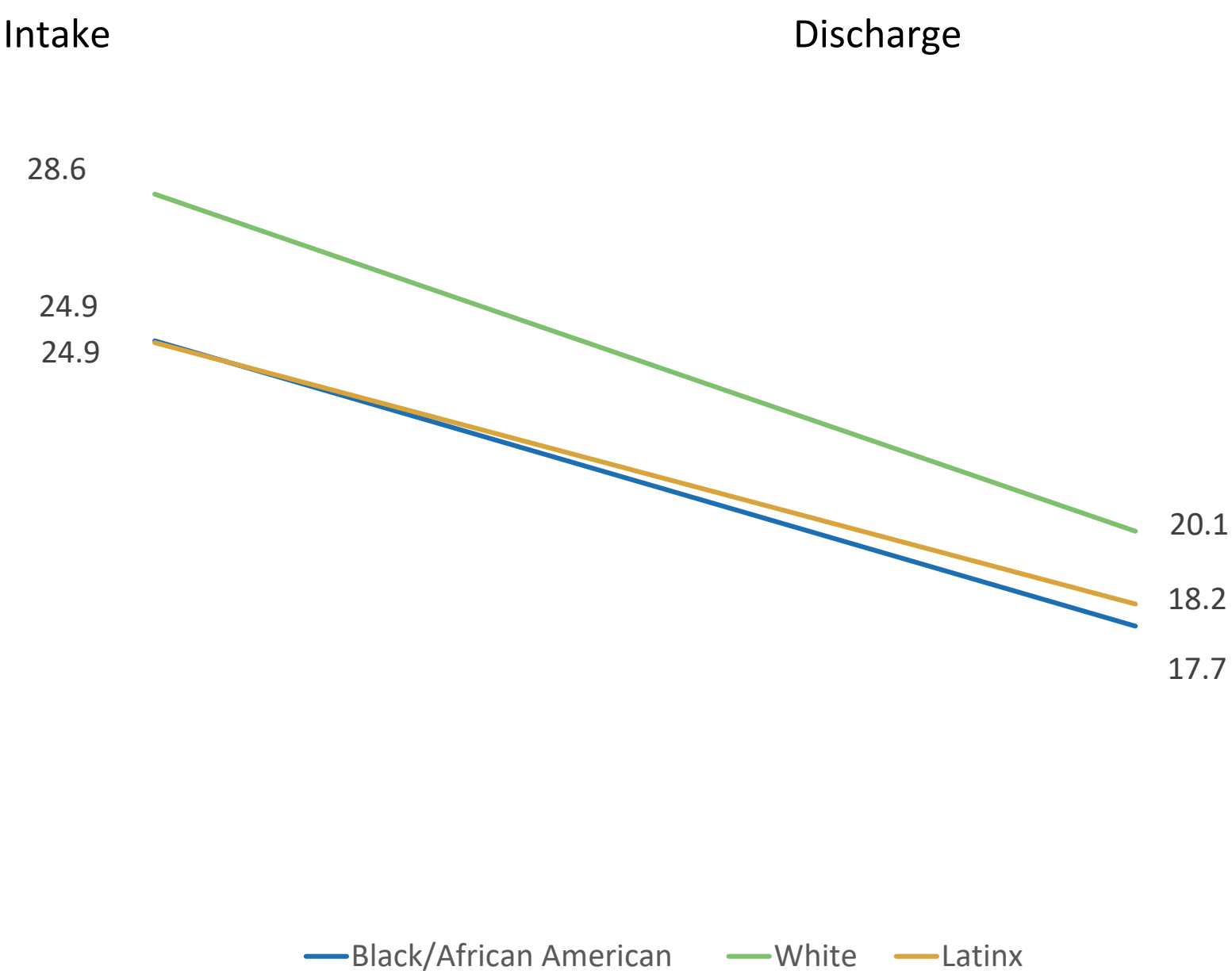
Caregiver Strain Questionnaire Global Scale Change Scores (n=1135)

Caregivers from all groups reported improvements in Caregiver Strain from Intake to Discharge/6-month follow-up , there were no differences in the level of improvement between caregivers of non-Latinx Black/African American, Latinx and non-Latinx White youth.



Ohio Scale Problem Behavior Caregiver Report Change Scores (n=1093)

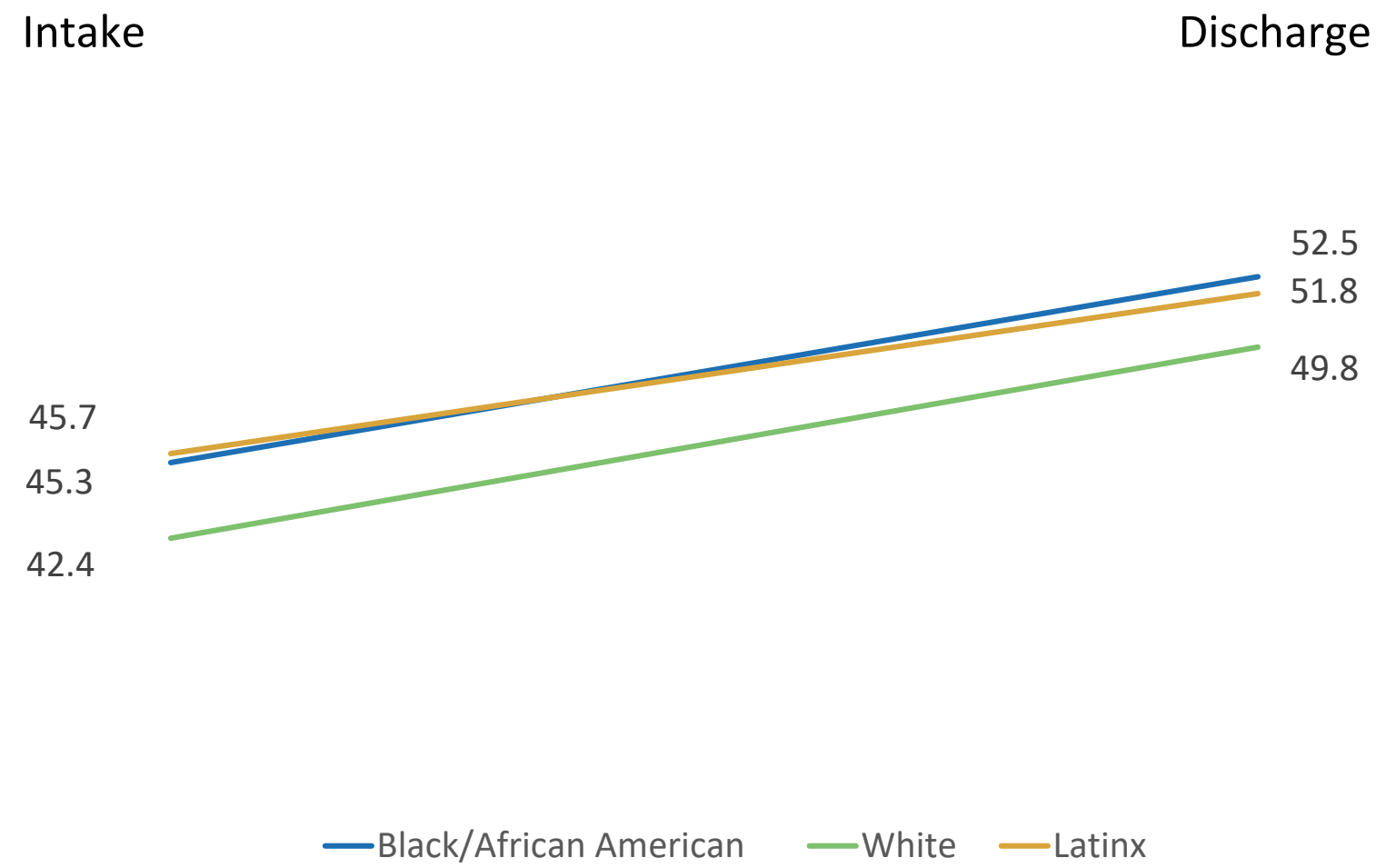
All groups had improvements in Problem Behaviors, there were no differences in caregiver reported level of improvement between non-Latinx Black/African American, Latinx and non-Latinx White youth.



Ohio Scale Functioning Caregiver Report

(n=1092)

All groups had improvements in Functioning, there were no differences in caregiver reported level of improvement between non-Latinx Black/African American, Latinx and non-Latinx White youth.



Perception of Care Questions (n=1058)

All groups reported a high level of satisfaction with services (scale of 1 to 5), there were no statistically significant differences in satisfaction between groups.

However, in examining the data, Black/African American caregivers tend to have slightly lower average satisfaction scores, though this difference is not statistically significance.



In summary

Across every measure there are statistically significant improvements in outcomes for children, youth and families who receive Wraparound care coordination services.

While there are some differences between racial/ethnic groups at intake, there are no disparities in rate of improvement (problem behaviors, functioning or caregiver strain) between racial/ethnic groups.

Caregivers report high levels of satisfaction with care. There are some differences in perceptions of care with non-Latinx Black/African American caregivers reporting lower levels of satisfaction however these differences are not statistically significant.

The individualized approach of Wraparound, where services are based on the family's strengths and choices, provide supports that benefit all families in Connecticut.

Cost Savings Data

Medicaid Cost Savings Analysis for Connecticut's Statewide Care Coordination Program

QAP Meeting
Kris Noam, PhD

In collaboration with: Christopher Bory, PsyD ~ Robert Plant, PhD ~ Gabrielle Hall, MS ~ Tim Marshall, LCSW

March 17, 2021

Agenda

01 Background & Objectives

02 Methods

03 Results

04 Conclusion



1. Background: Care Coordination in Connecticut

History & Context of Statewide Care Coordination

- Wraparound Model
- Care coordination started in CT in 2001
- There are currently 10 providers serving 169 towns and cities
- There is a strong emphasis on data driven processes since 2009 and in 2016 several new measures were added

Families served

- Typically, ~1100 families are served each year across Connecticut
- The program is targeted towards youth with serious emotional and behavioral difficulties and their families, who are not involved in either Protective Services or Juvenile Justice, and who are at risk from removal from home or community
- The average length of stay is 5.9 months

Objectives

Medicaid Cost Savings Analysis

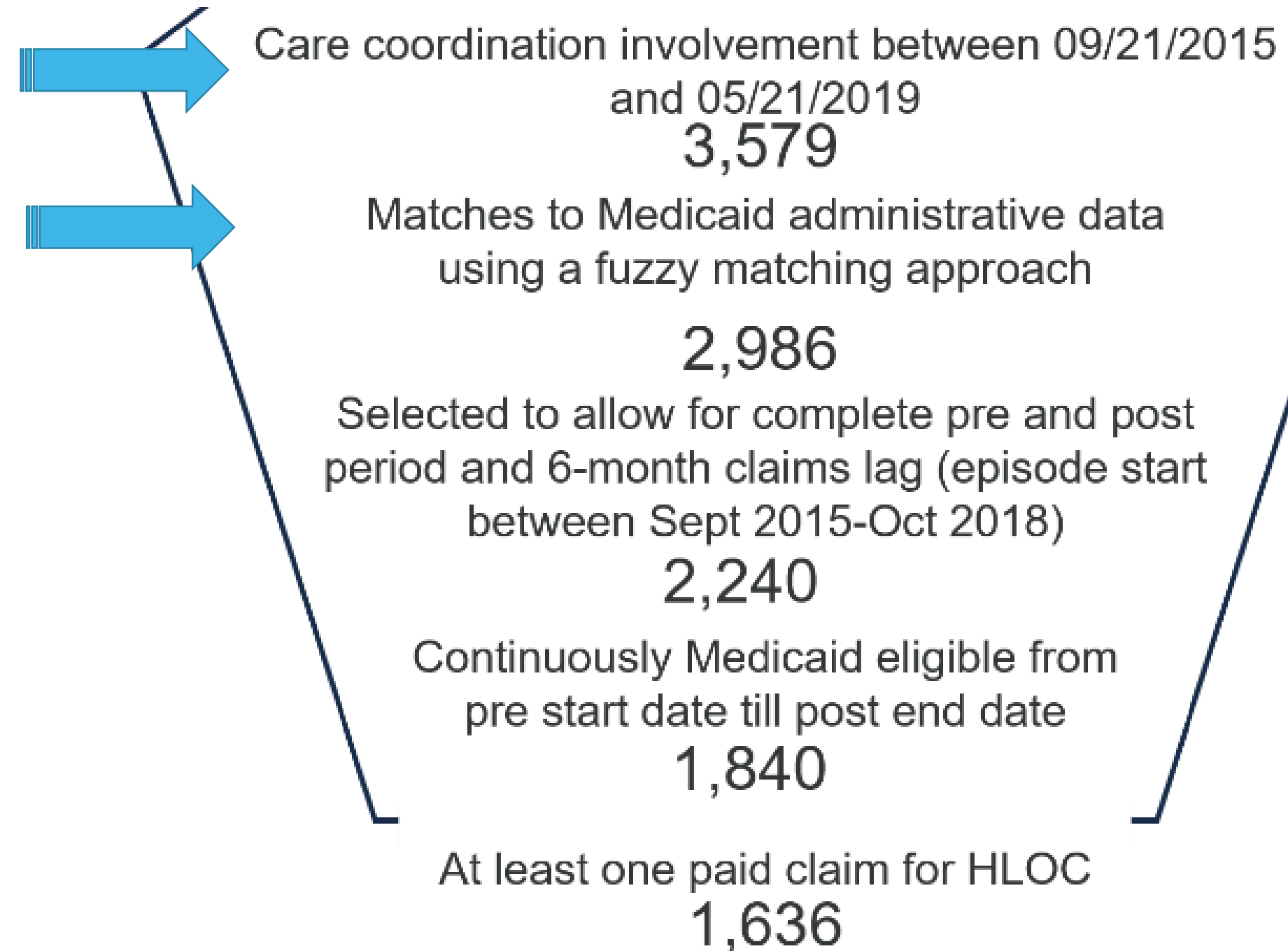
1. Conduct a fuzzy match between State datasets: Medicaid and DCF's Provider Information Exchange (PIE) data
2. Select the right sample: establish episodes of care and inclusion/exclusion criteria
3. Examine behavioral health Medicaid service utilization and expenditures



Selecting the right sample



Selected Youth



3. Methods

Conduct a fuzzy match

- Matched the episode list from DCF to Medicaid data
 - Matched on name, DOB, Medicaid ID
 - Combination of exact matches and SOUNDEX matches
- Started with an exact match for everything
- Limited sample to only those that matched exact in order to minimize incorrect matches

Rank 1		Rank 2		Rank 2.5	
Field	Match	Field	Match	Field	Match
MEMBNO	Exact			MEMBNO	Exact
LSTNAME	Exact	LSTNAME	Exact	LSTNAME	
FSTNAME	Exact	FSTNAME	Exact	FSTNAME	
DOB	Exact	DOB	Exact	DOB	Exact
Frequency	1484	Frequency	1244	Frequency	258
% (of unique episodes)	41.5%	% (of unique episodes)	34.8%	% (of unique episodes)	7.2%
Cumulative Frequency	1484	Cumulative Frequency	2728	Cumulative Frequency	2986
Cumulative Percent	41.5%	Cumulative Percent	76.2%	Cumulative Percent	83.4%
Rank 3		Rank 4		Rank 5	
Field	Match	Field	Match	Field	Match
LSTNAME	Exact	LSTNAME	Exact	LSTNAME	Soundex
FSTNAME	Soundex	FSTNAME	Exact	FSTNAME	Soundex
DOB	Exact	DOB	Month/Year	DOB	Exact
Frequency	75	Frequency	41	Frequency	104
% (of unique episodes)	2.1%	% (of unique episodes)	1.1%	% (of unique episodes)	2.9%
Cumulative Frequency	3061	Cumulative Frequency	3102	Cumulative Frequency	3206
Cumulative Percent	85.5%	Cumulative Percent	86.7%	Cumulative Percent	89.6%
BLANK (rank 6)		Original Cohort		3579	
Field	Match	Duplicates		227	
Frequency	373	Total Unique Episodes		3579	
% (of unique episodes)	10.4%				
Cumulative Frequency	3579				
Cumulative Percent	100.0%				

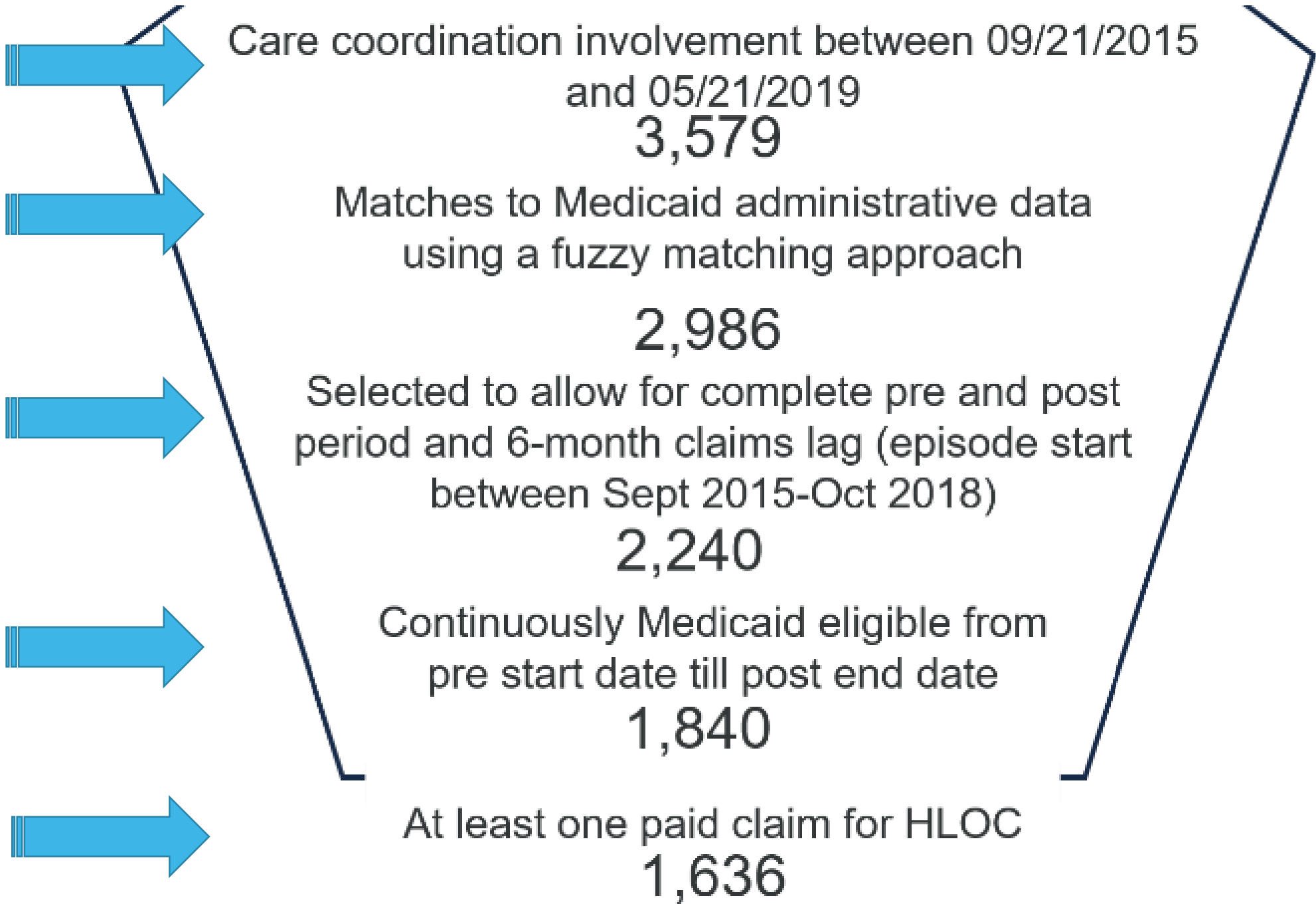
Cumulative percentages are based on unique episodes. Members could have had more than one episode.

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Selecting the right sample



Selected Youth



Methods (*cont.*)

Time period: episode start date between September 2015 – October 2018

Establish Episodes for claims

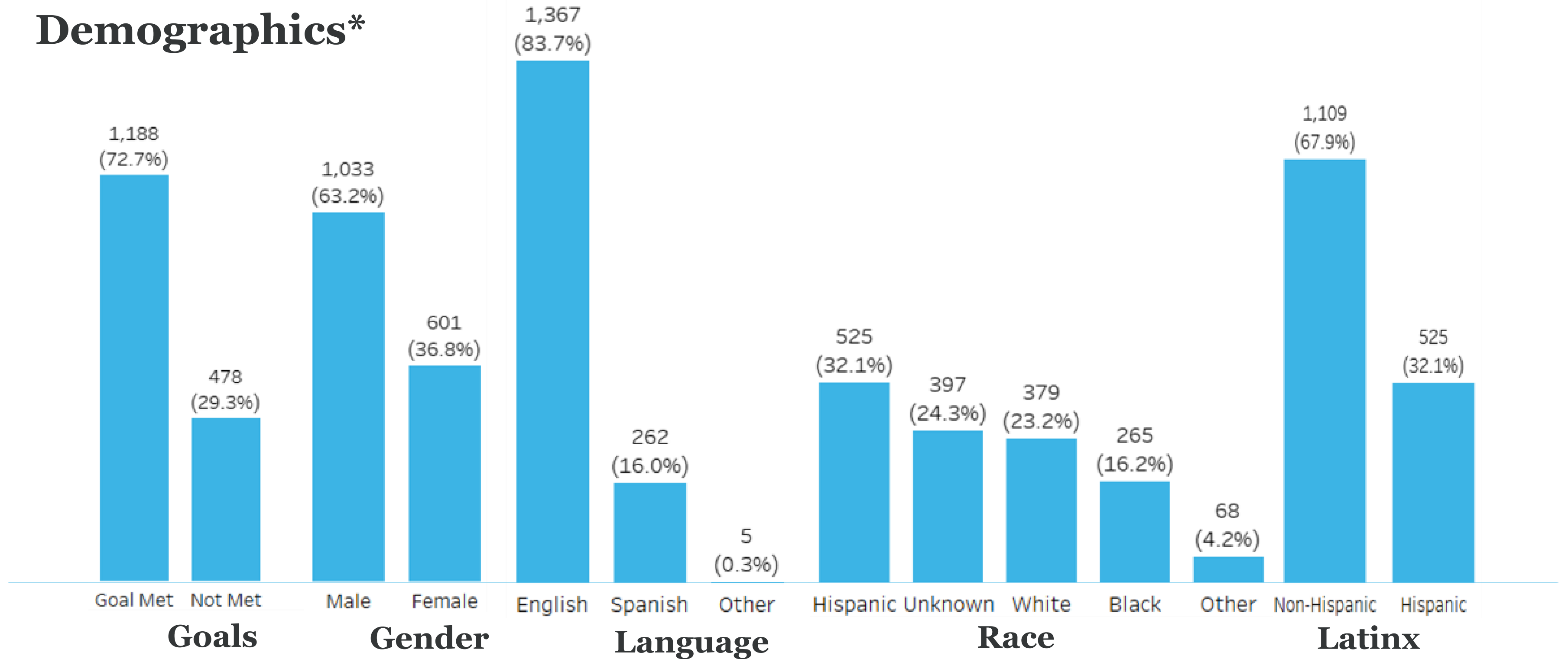
- 180-days prior to episode start date as PRE-period
- 180-days after the episode end date as POST-period
- At least one paid claim for HLOC
- Final sample size: **1,636**

Examine Medicaid behavioral health utilization PRE vs. POST

- Results by...
 - *higher vs. lower levels of care (i.e., inpatient services vs. outpatient/community-based)*
 - *specific level of care (established through claims coding process)*
 - *count of unique episodes & expenditures*
 - key demographic characteristics (not reviewed here)
 - diagnostic categories (not reviewed here)
 - met treatment goal vs. not met treatment goal (not reviewed here)

4. Results

Demographics*



Results: Service Utilization – before and after CC

	Pre-period	Post-period	Difference	Percent Difference
Total ***	1,528	1,395	-133	(-8.70%)
Higher ***	379	242	-137	(-36.15%)
Lower ***	1,511	1,383	-128	(-8.47%)



There can be the same and/or different people in the pre and post groups

*** a statistically significant difference with a paired t-test (p<.001)

Results: Service Utilization – paired data

65% of youth utilizing **higher** level of care before CC did not utilize it after CC.
There were **significantly fewer youths in the post period** ($X^2 (1, N=1,636)= 13.9 p < .0001$)

17% of youth utilizing **lower** level of care before CC did not utilize it after CC. There were **significantly fewer youths in the post period** ($X^2 (1, N=1,636)= 169.4 p < .0001$)



All the people of the post group are the same as the people in pre group

*** a statistically significant difference with a paired t-test ($p<.001$)

Results: Service Utilization of Specific Services

		Pre-period (n=1,528)	Post-period (n=1,395)	Difference	Percent Difference
Higher	ED Non-BH Services	328	209	-119	(-36.3%)
	Inpatient Psychiatric Acute	157	84	-73	(-46.5%)
	Inpatient Medical Non-BH Services	124	61	-63	(-50.8%)
	ED BH Services	34	32	-2	(-5.9%)
	Observation	29	25	-4	(-13.8%)
	PRTF Community	29	20	-9	(-31.0%)
	Inpatient Medical BH Services	26	16	-10	(-38.5%)
	PNMI	11	8	-3	(-27.3%)
	Residential Rehab	1	2	1	(100.0%)
	Assisted Living Facility	1	1	0	(0.0%)
Lower	Outpatient BH Services	1,410	1,242	-168	(-11.9%)
	School Based BH Services	322	385	63	(19.6%)
	IICAPS	327	235	-92	(-28.1%)
	PHP EDT	132	90	-42	(-31.8%)
	Other Home Based Services	107	102	-5	(-4.7%)
	IOP	114	56	-58	(-50.9%)
	Autism Services	64	88	24	(37.5%)
	Home Health	28	22	-6	(-21.4%)
	Birth to Three Services	2		-2	(-100.0%)

Results: Expenditures, total combined services

		Pre-period	Post-period	Difference	Percent Difference
Total	***	\$10,900,591	\$7,967,443	-\$2,933,148	(-26.9%)
Higher	***	<div><div></div></div> \$4,781,001.8	<div><div></div></div> \$2,963,078.3	(\$1,817,923.4)	(-38.0%)
Lower	***	<div><div></div></div> \$6,119,589.5	<div><div></div></div> \$5,004,364.7	(\$1,115,224.9)	(-18.2%)

*** a statistically significant difference with a paired t-test (p<.001)

Results: Expenditures– paired data

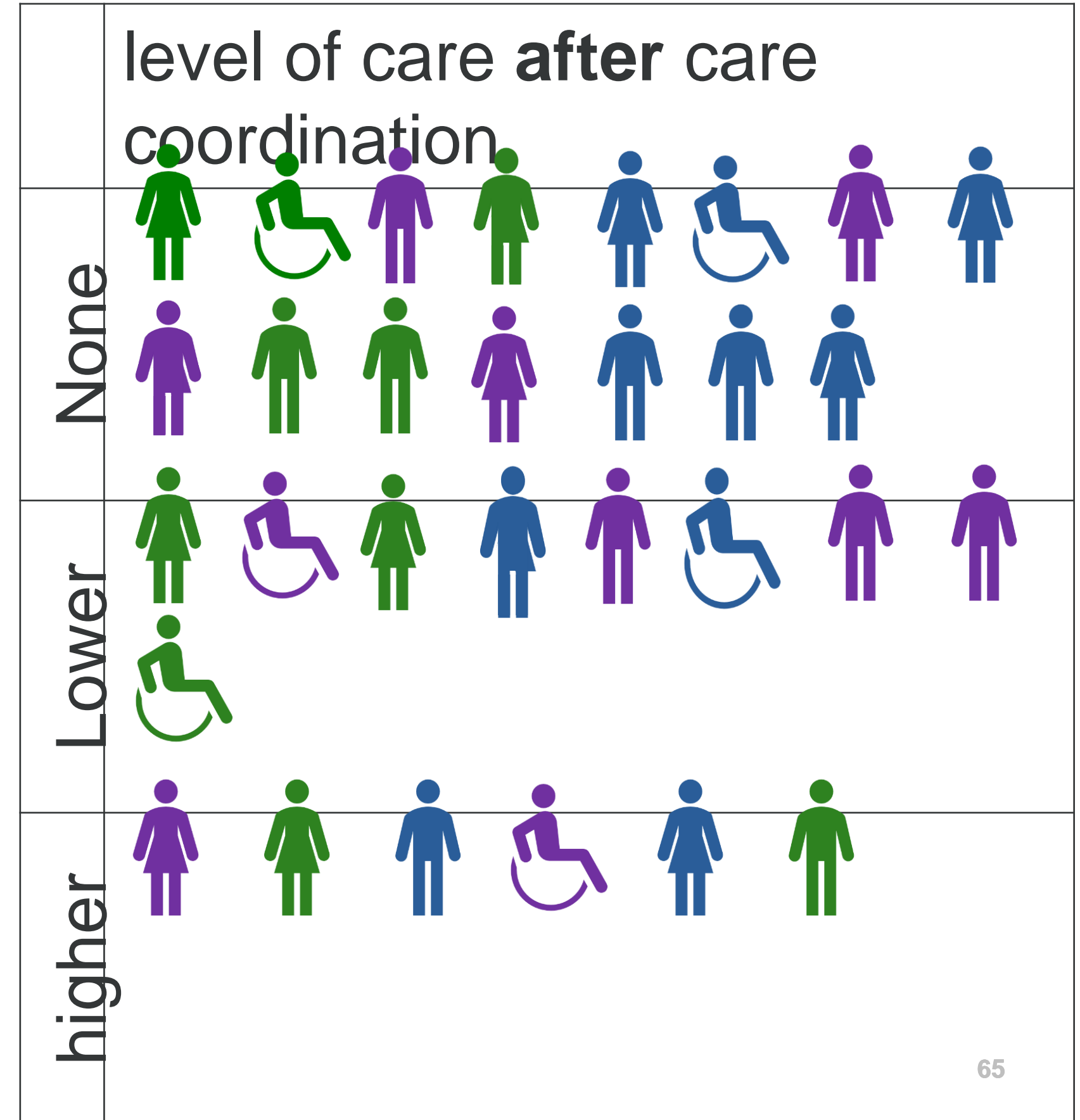
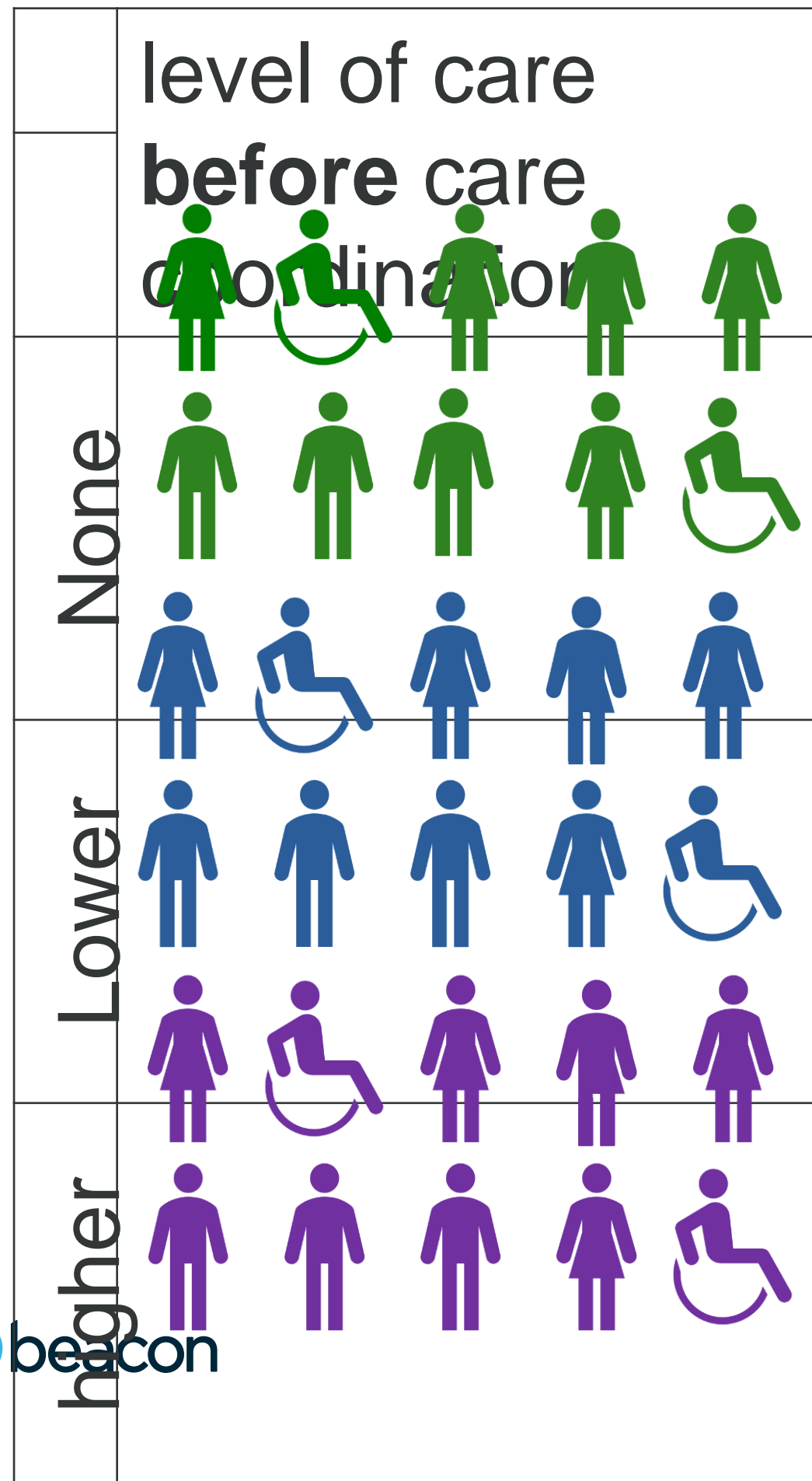
There was a **significant difference** in the expenditures on **higher levels of care** before (M=\$9,223 SD=\$19,350) and after (M=\$5,635, SD=\$15,422) care coordination; $t(475) = -3.71, p < .001$

There was a **significant difference** in the expenditures on **lower levels of care** before (M=\$3,481, SD=\$4,523) and after (M=\$2,808 SD=\$4,556) care coordination; $t(1,630) = -4.86, p < .0001$

Results: Total Expenditures, specific services

		Pre-period (n=1,528)	Post-period (n=1,395)	Difference (Paid Claims)	Percent Difference
Higher	Inpatient Psychiatric Acute	\$2,651,251.6	\$1,483,895.0	(\$1,167,356.6)	(-44.0%)
	PRTF Community	\$1,594,020.0	\$1,046,250.0	(\$547,770.0)	(-34.4%)
	ED Non-BH Services	\$226,285.9	\$226,222.0	(\$63.9)	(0.0%)
	PNMI	\$158,444.0	\$80,124.0	(\$78,320.0)	(-49.4%)
	Inpatient Medical Non-BH Services	\$69,992.6	\$52,433.6	(\$17,559.0)	(-25.1%)
	Inpatient Medical BH Services	\$56,444.0	\$51,264.1	(\$5,179.9)	(-9.2%)
	Observation	\$10,490.3	\$6,214.7	(\$4,275.6)	(-40.8%)
	Residential Rehab	\$7,800.0	\$12,300.0	\$4,500.0	(57.7%)
	ED BH Services	\$5,800.2	\$3,136.1	(\$2,664.2)	(-45.9%)
	Assisted Living Facility	\$473.2	\$1,238.8	\$765.7	(161.8%)
Lower	IICAPS	\$2,664,844.9	\$1,473,443.1	(\$1,191,401.8)	(-44.7%)
	Outpatient BH Services	\$1,871,337.3	\$1,775,553.2	(\$95,784.1)	(-5.1%)
	PHP EDT	\$373,921.9	\$244,407.8	(\$129,514.0)	(-34.6%)
	IOP	\$319,707.6	\$148,028.8	(\$171,678.8)	(-53.7%)
	Autism Services	\$279,714.0	\$780,257.4	\$500,543.3	(178.9%)
	School Based BH Services	\$248,363.7	\$273,489.6	\$25,125.9	(10.1%)
	Other Home Based Services	\$196,374.9	\$168,925.5	(\$27,449.4)	(-14.0%)
	Home Health	\$141,855.3	\$140,259.2	(\$1,596.1)	(-1.1%)
	Birth to Three Services	\$23,470.0		(\$23,470.0)	(-100.0%)

Movement between levels of care



Limitations

- State operated inpatient hospitalization and psychiatric residential treatment facility (PRTF) claims data excluded from the current analysis
 - Coding anomalies in 2016 that would severely skew the data
 - Future iterations could remove episodes that overlap or had State expend during time period
- Time period limited to 180-days in the pre and post
 - Is that a sufficient measurement period?
 - Including the “during” period?
- No control group
 - Recent study by State University of New York compared outcomes for youth in health homes vs. youth in health homes + High fidelity wraparound
 - Latter group showed the largest decrease in expenditures in during period but still decrease in post period

Conclusion

- Successful demonstration of matching between Medicaid data and DCF program data
- Decrease in total spending on lower and higher LOC
- Decrease in expenditures of most specific LOC services
- Decrease in total number of youth utilizing lower and higher LOC
- Decrease in total number of youth utilizing most specific LOC services

Key Takeaways / Q & A

Key Takeaways

- Multiple examples of care coordination in CT exist to help centralize communication and connect the family to a broad range of services
- Our state can improve policies, systems, and practices that expand care coordination and address: health equity, social determinants of health, and an integrated system of care
- Wraparound care coordination:
 - Utilizes a **family-driven** and youth-guided approach
 - Improves child **outcomes regardless of race/ethnicity**
 - Demonstrates cost savings and a **decrease in spending** for both higher- and lower-levels of care

Questions?



Thank You

For questions and additional follow up, don't hesitate to reach out the
CONNECT Coordinating Center by contacting
Stephanie Luczak at sluczak@uchc.edu