



Data Analytics Fellowship Academy (DAFA)

***CPMT Quantitative Report Out:
Ensuring an Effective Foster
Care Prevention System for
Families of Children with
Behavioral Health Care Needs***



Fairfax County

Department of Family Services

June 26, 2020

DAFA Class of 2020!



- ❖ What are the characteristics of children and youth receiving CSA foster care prevention (FCP) services?
- ❖ What are the needs of children and parents receiving FCP services and what services are they receiving?
- ❖ Which FCP services are effective in addressing which needs?
- ❖ Are there combinations of FCP services that produce better outcomes?
- ❖ Is there a relationship between cost of services or length of services and outcomes? Does it vary by need addressed or by type of service?



The Fellows' program starts with a charge from leadership

Ensuring an effective foster care prevention system for families of children with behavioral health care needs



CSA Cohort (n=1368)

- **Children who were served in CSA with a Foster Care Prevention Service**
 - Foster Care Abuse/Neglect Prevention
 - Child in Need of Services (CHINS) Prevention
 - CSA Parental Agreement
 - Wrap-Around Services for Students with Disabilities
 - Non-Mandated Services
- **Those who first received CSA services from FY 16 through FY 18**



Preliminary Data Analysis Findings:

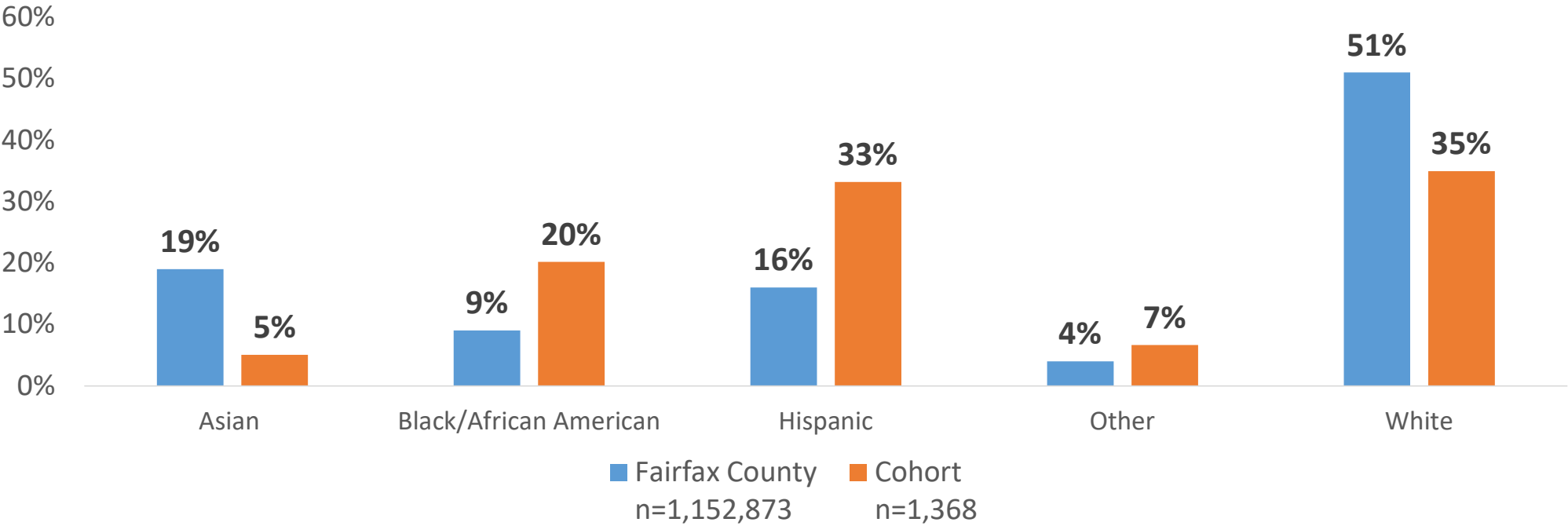
What did the Quantitative Data tell us?

There is an overrepresentation of Hispanic children and Black or African American Non-Hispanic children

Identity Group Distribution

2018 (FFX); FY16-19 (Cohort)

Source: U.S. Census American Community Survey (FFX); DAFA CSA Cohort

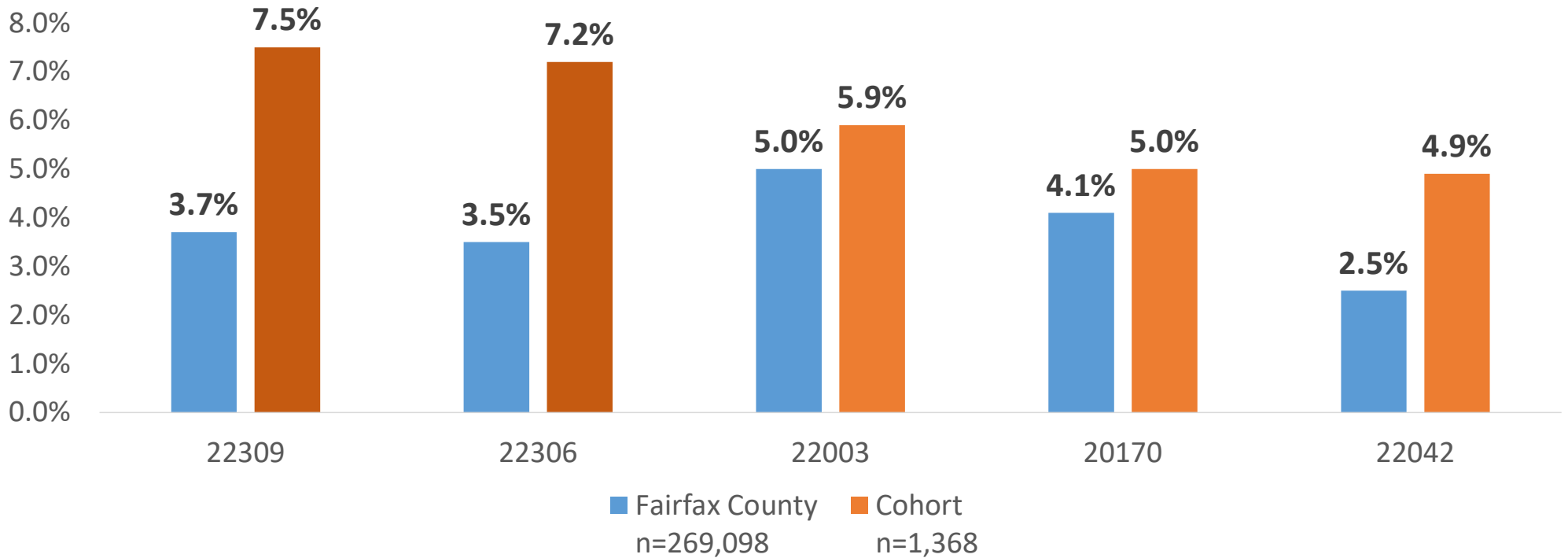


The largest concentration of children in the cohort live in 22306 and 22309.

Top 5 Zip Codes by proportion in Cohort and Fairfax County

2018 (FFX); FY1-19 (Cohort)

Source: U.S. Census (FFX); DAFA CSA Cohort



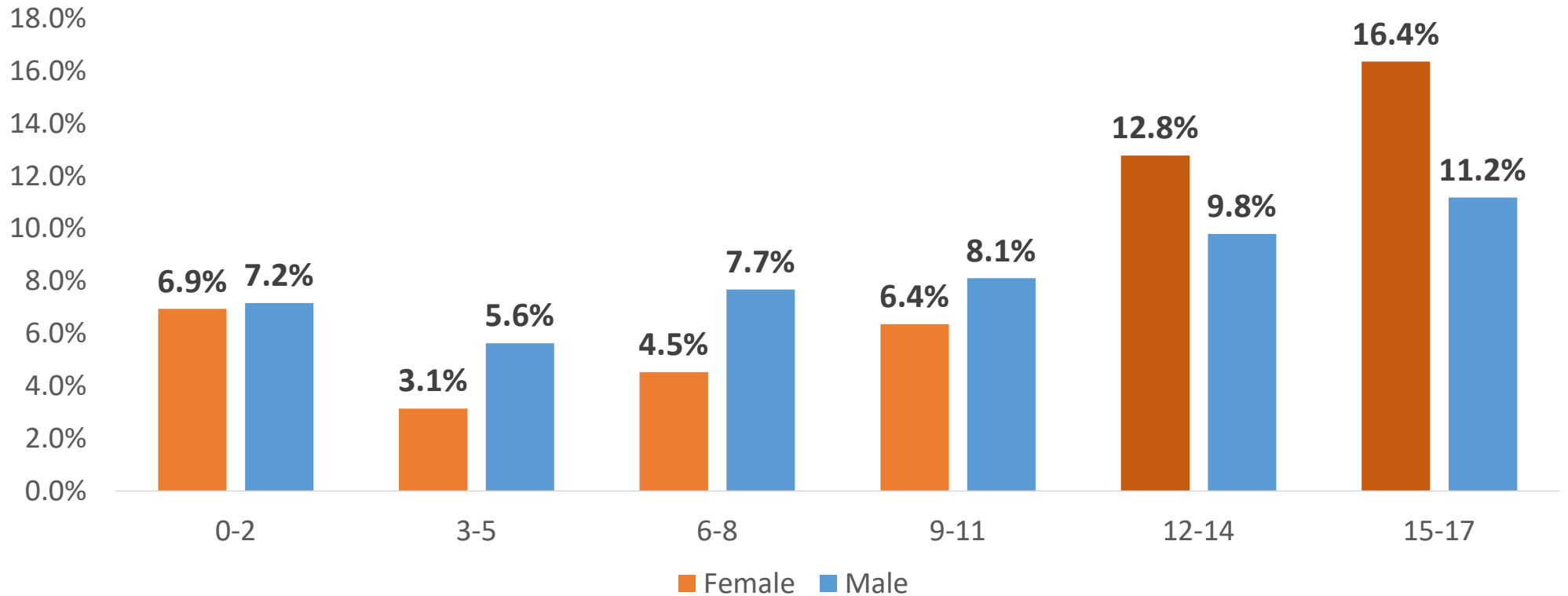
We see higher rates of teenage girls in the cohort

Sex Distribution by Age Grouping

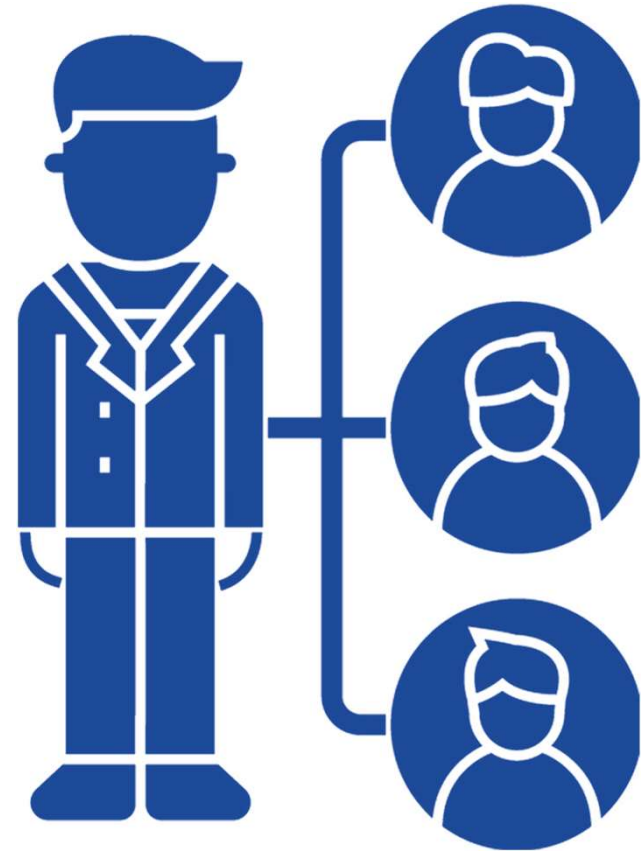
FY16-19

n=1368

Source: DAFA CSA Cohort



The Importance of Referral Source



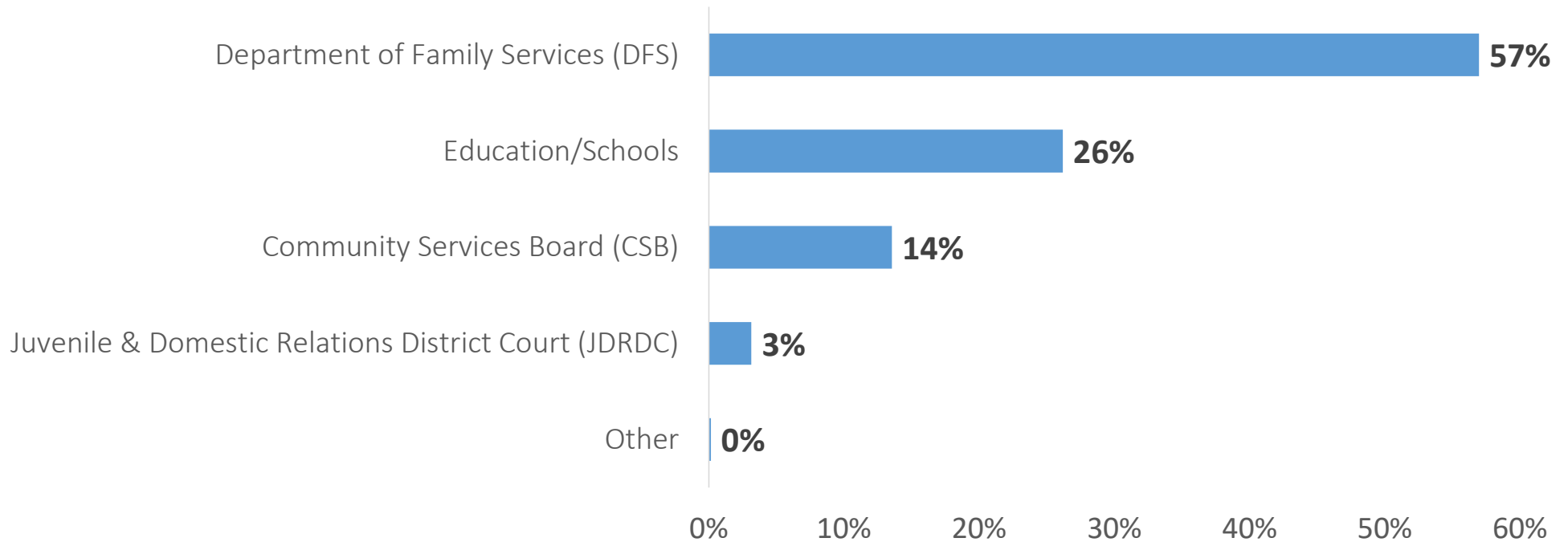
Most referrals are received from DFS

Referral Source Percentages

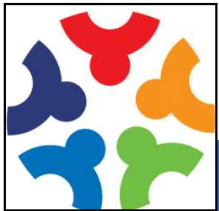
FY16 - FY18

n=1368

Source: DAFA CSA Cohort



Demographic Findings by Referral Source:



Community Services Board (CSB)

- Identity Group: 11% Black/AA
- Age: 95% teenagers
- Sex: 71% female



Department of Family Services (DFS)

- Identity Group: 76% Non-White
- Age: 25% age 0-2
- Sex: 50% female/male

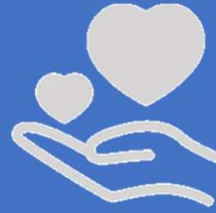


Fairfax County Schools

- Identity Group: 54% White
- Age: 64% teenagers
- Sex: 59% male

CANS Scores by Domain

Assessing Needs and Outcomes



- **Child Behavioral/Emotional Needs (CN)**
- **Child Risk Behaviors (RB)**
- **Caregiver Needs and Strengths (CG)**

CANS Scoring: Actionable/Non-Actionable

Non-Actionable

0

- No evidence of need
- No reason to address

1

- Watchful/ waiting
- Prevention

Actionable

2

- Interfering with family life
- Need to address issue

3

- Dangerous level of need
- Immediate attention



Challenges in Measuring Need

- At minimum, the CANS has 5 domains and 50 different items, where do we even start?
- How do we measure both need and outcomes using the CANS?



There are multiple ways to analyze CANS scores

Identified: Domains of interest

- Child Behavioral/Emotional Need
- Child Risk Behaviors
- Caregiver Strengths and Needs

Measured: Percent of children actionable per item

- Characterizes the level of need per item.

Measured: Total number of actionable Items (TAI)

- Shows the scale of actionable items.
- The median TAI identifies the number of actionable items for the “average” child/caregiver.



CANS: Child Behavioral/Emotional Needs (CN)

CHILD BEHAVIORAL / EMOTIONAL NEEDS

- 0 = No evidence of problems
- 1 = History, Watch/Prevent
- 2 = Causing problems, consistent with diagnosable disorder
- 3 = Causing severe / dangerous problems

	0	1	2	3
Psychosis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impulse / Hyper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anxiety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Oppositional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduct	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adjustment to Trauma (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anger Control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Substance Use (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eating Disturbance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

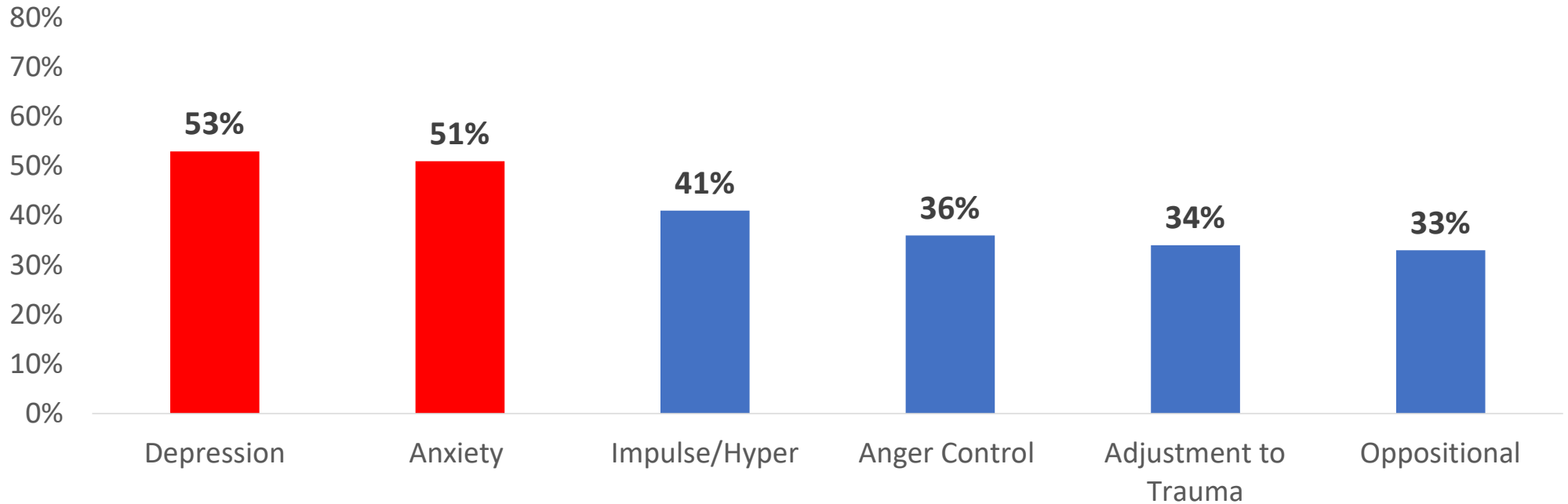
Depression and Anxiety were the most frequently assessed initial Child Needs

Percentage of Children with an actionable item in Child Needs

FY16 to 19

n=542

Source: DAFA CSA Cohort

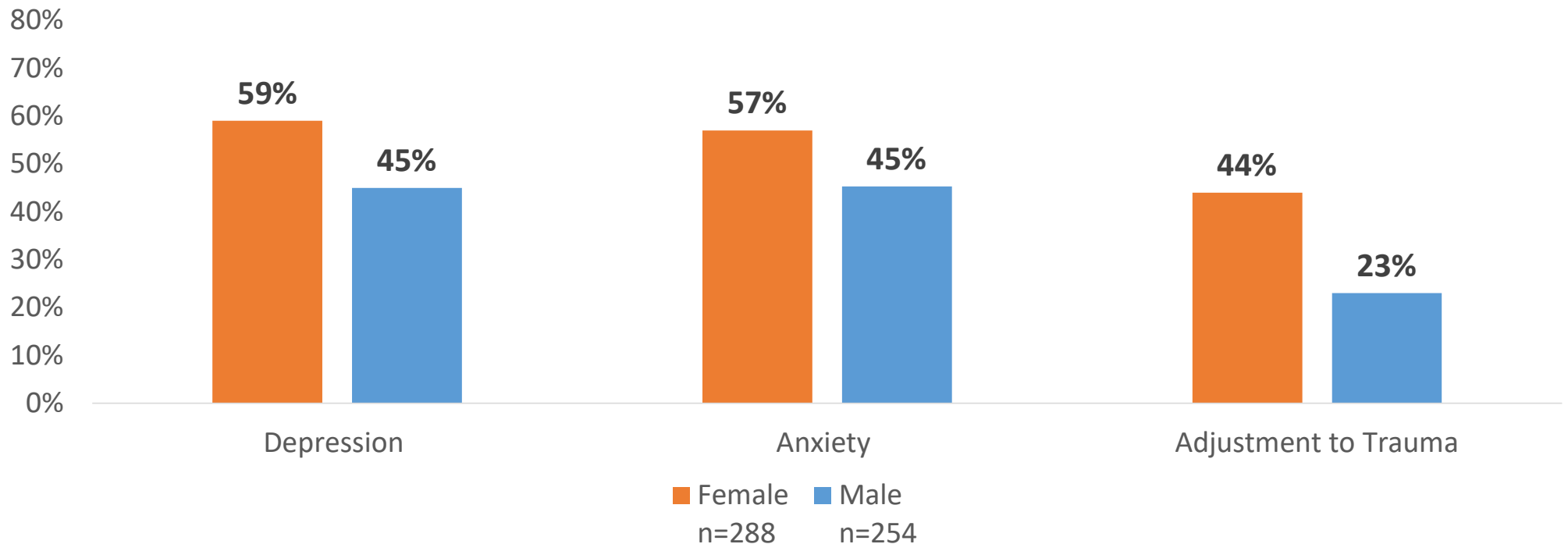


Females are more likely to have Depression, Anxiety, and Adjustment to Trauma as actionable

1st CANS: Percentage of Child Behavioral/Emotional Needs by Sex

FY16-18

Source: DAFA CSA Cohort

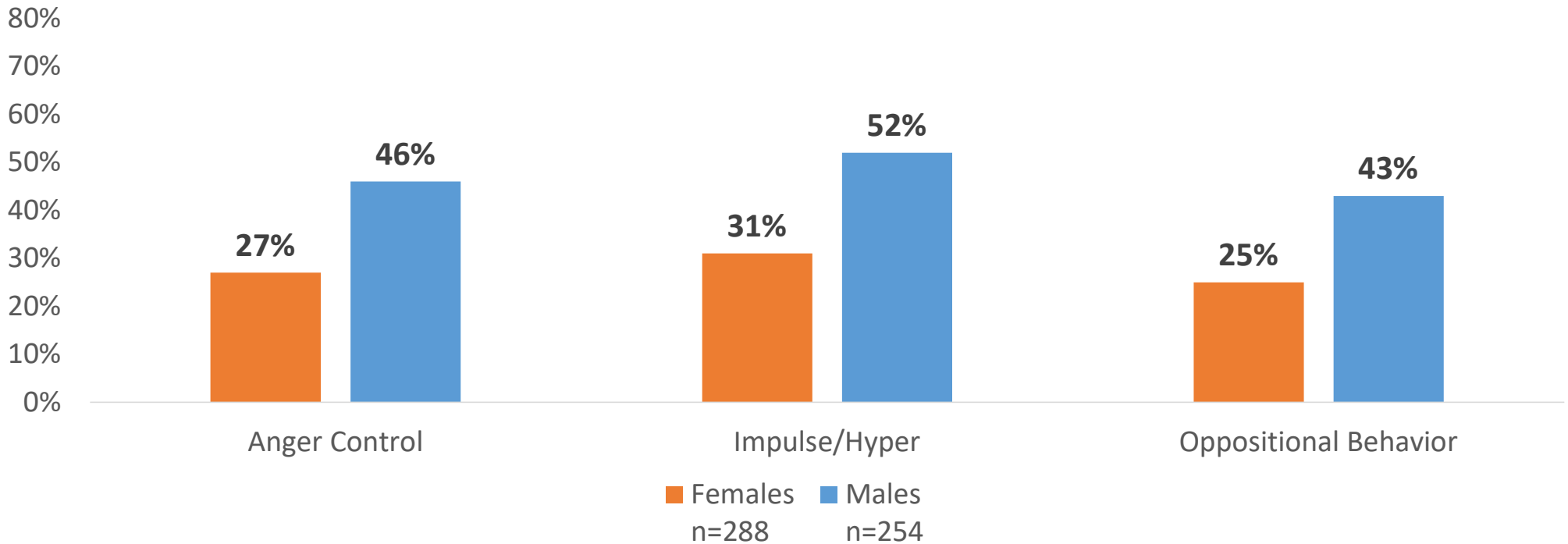


Males are more likely to have Anger, Impulse/ Hyper, and Oppositional Behavior as actionable

Percentage of Child Behavioral/Emotional Needs by Sex

FY16-18

Source: DAFA CSA Cohort

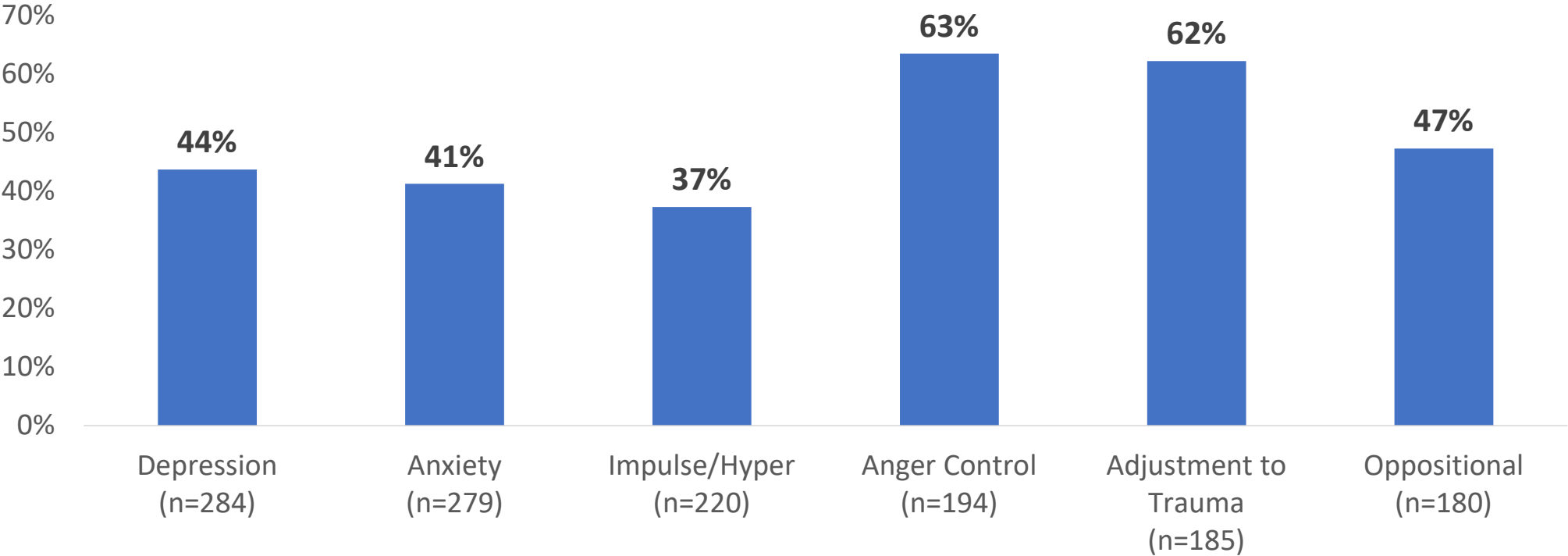


Child needs decreased after receiving services, We still worry about depression, anxiety, and Impulse/Hyper.

Improvement Rates (Actionable to Non-Actionable) for Child Behavioral/Emotional Need

FY16-FY19

Source: DAFA CSA Cohort



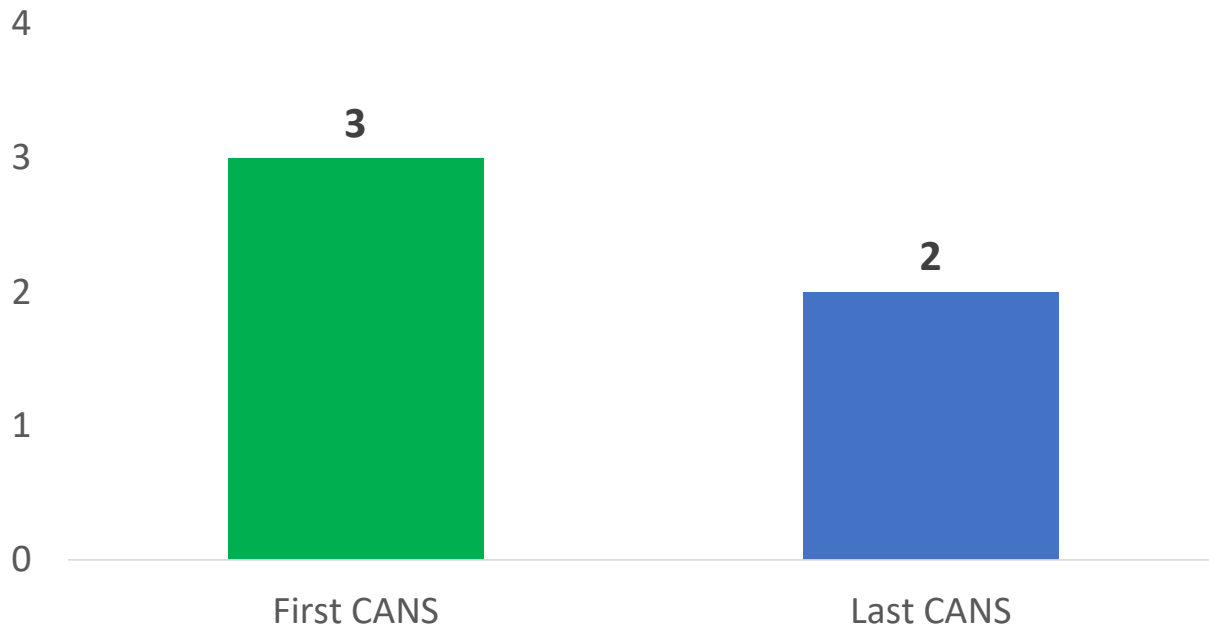
After receiving services, the median number of actionable items dropped for CN

Median CN Total Actionable Items for First and Last CANS

FY16-18

n=542

Source: DAFA Cohort 2020



CANS:
Child Risk
Behaviors
(RB)

CHILD RISK BEHAVIORS				
0 = No evidence of problems	2 = Recent, Act			
1 = History, Watch/Prevent	3 = Acute, Act Immediately			
	0	1	2	3
Suicide Risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Mutilation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Self-Harm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Danger to Others (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sexual Aggression (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Runaway (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delinquent Behavior (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire Setting (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intentional Misbehavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sexually Reactive Behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bullying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

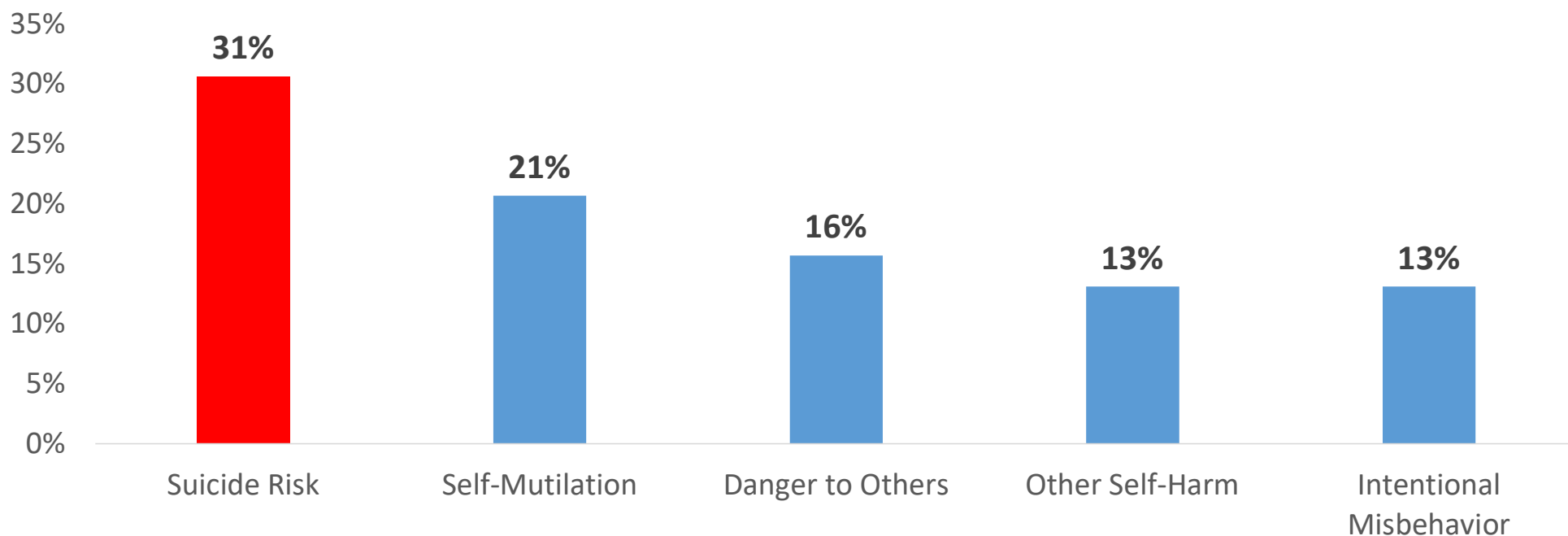
Suicide Risk is the most frequent actionable item for Child Risk Behaviors

1st CANS: Percentage of Children with Actionable Score by Top RB Items

FY16-19

n=542

Source: DAFA CSA Cohort

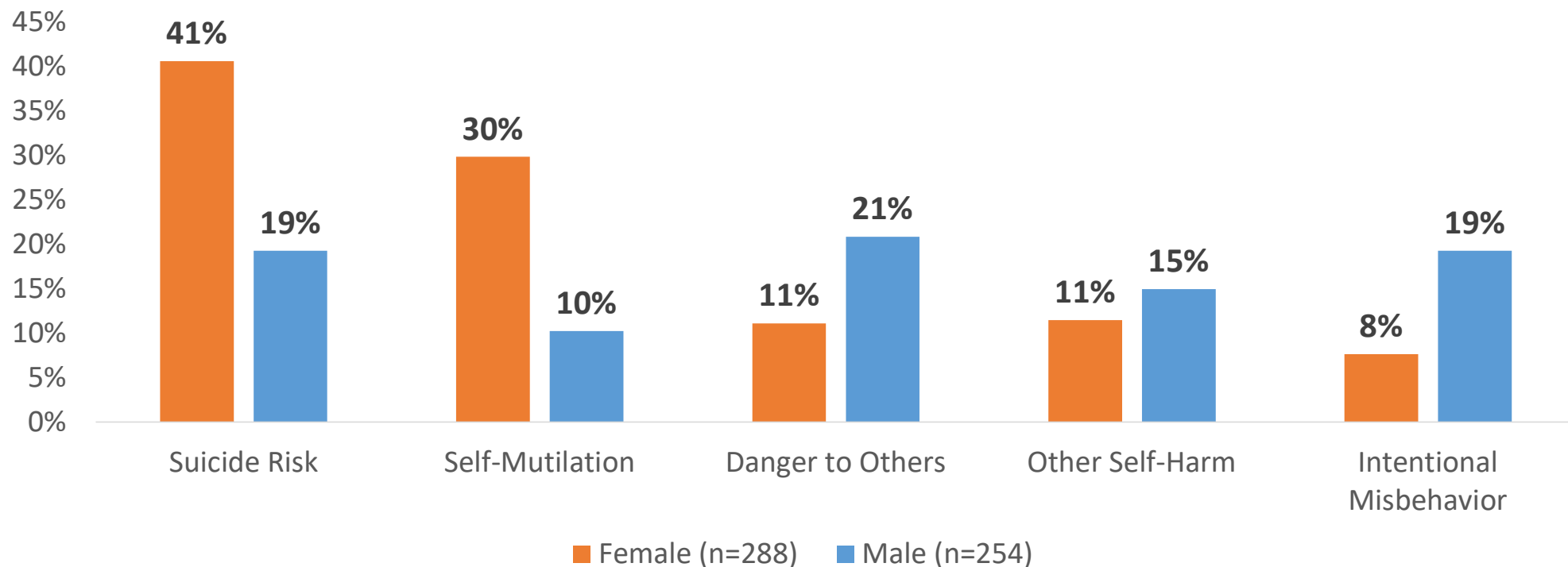


Typically, Females are more likely to harm themselves; Males more likely to harm others

1st CANS: Percentage of Each Sex with Actionable Score by Top RB Items

FY16-19

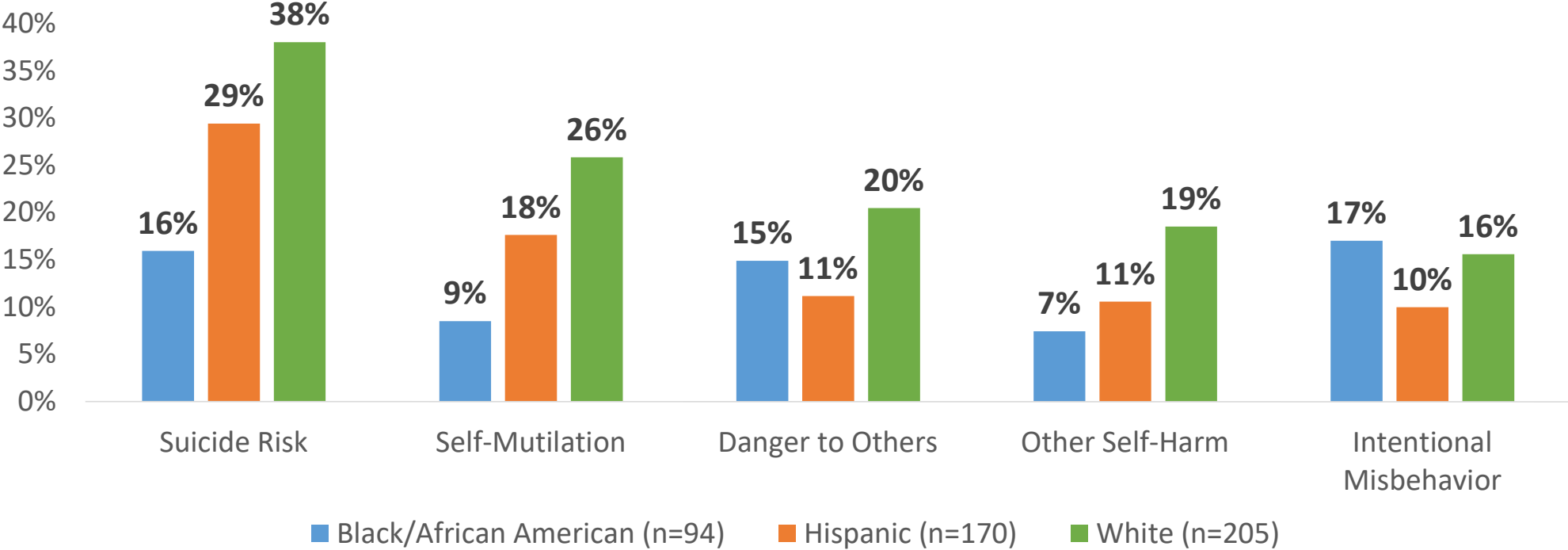
Source: DAFA CSA Cohort



White children are more likely to present with all these risk behaviors except for Intentional Misbehavior

1st CANS: Percentage of Each Identity Group with Actionable Score by RB Item
FY16-19

Source: DAFA CSA Cohort



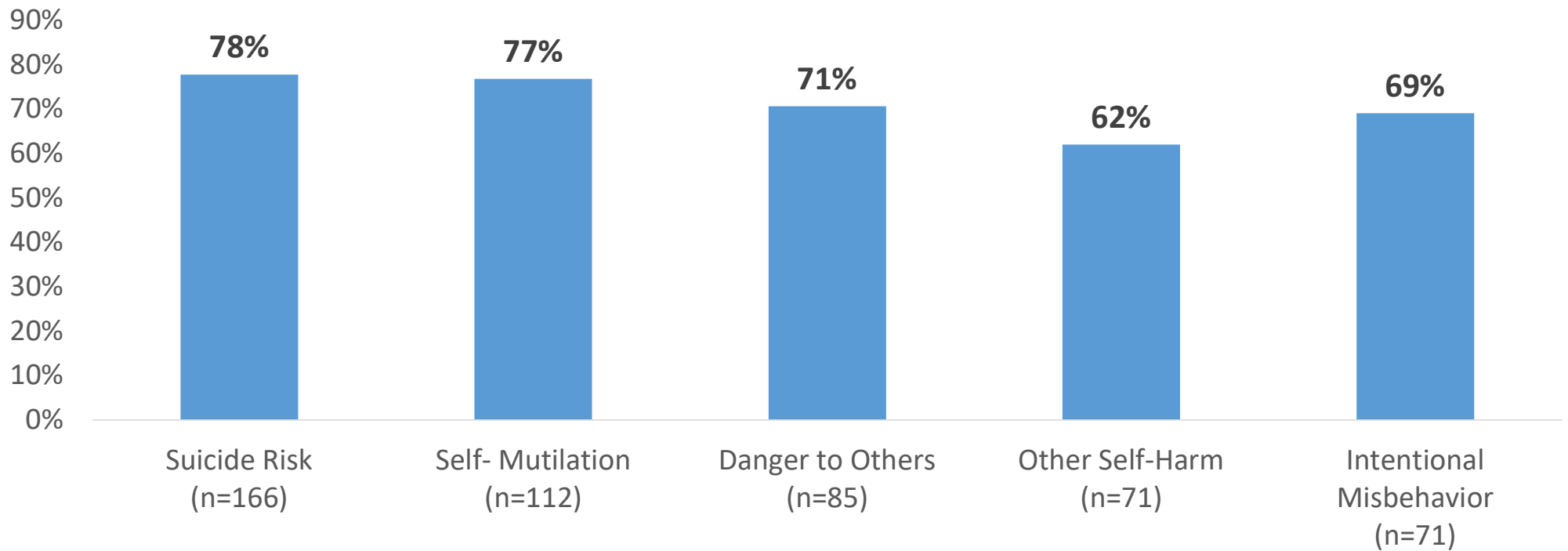
Risk behaviors decreased in all items.

We're glad to see the level of reduction in Suicide Risk.

Improvement Rates (Actionable to Non-Actionable) for Child Risk Behaviors

FY16-FY19

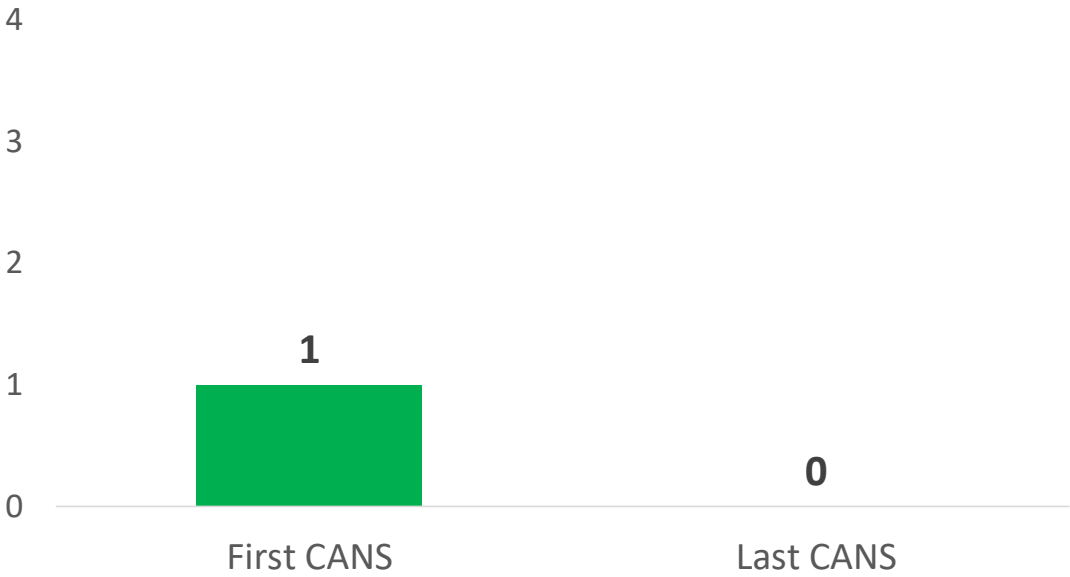
Source: DAFA CSA Cohort



After receiving services, the “average” number of actionable items was reduced for Risk Behaviors.



Median Total RB Actionable Items for First and Last CANS
FY16-18
n=542
Source: DAFA Cohort 2020



**CANS:
Caregiver
Strengths
and Needs
(CG)**

PARENT/GUARDIAN/CAREGIVER#				
STRENGTHS AND NEEDS				
○ Not applicable – No Caregiver Identified				
0 = No evidence of problems	2 = Moderate Needs			
1 = Minimal Needs	3 = Severe Needs			
	0	1	2	3
Supervision	○	○	○	○
Involvement with Care	○	○	○	○
Knowledge	○	○	○	○
Organization	○	○	○	○
Social Resources	○	○	○	○
Residential Stability	○	○	○	○
Physical Health	○	○	○	○
Mental Health	○	○	○	○
Substance Use	○	○	○	○
Developmental	○	○	○	○
Accessibility to Care	○	○	○	○
Family Stress	○	○	○	○
Self Care/Daily Living	○	○	○	○
Employment	○	○	○	○
Education	○	○	○	○
Legal	○	○	○	○
Financial Resources	○	○	○	○
Transportation	○	○	○	○
Safety	○	○	○	○

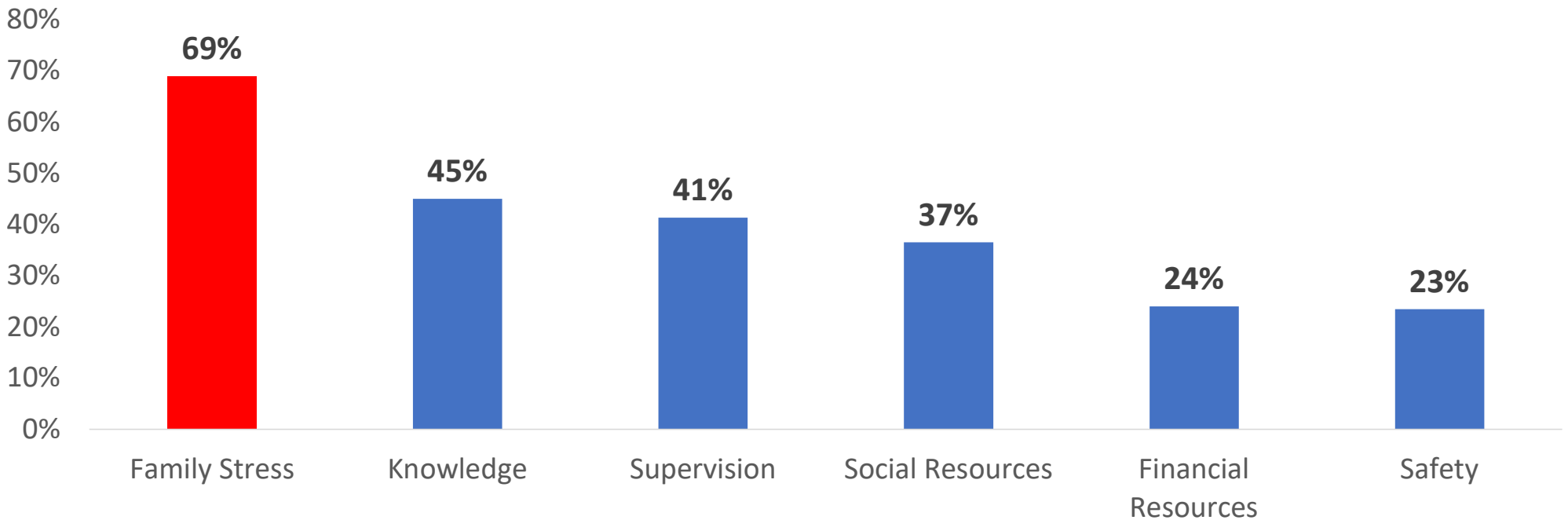
Family Stress is the most frequent caregiver need, occurring initially in 69% of children

1st CANS: Percentage of Children with Actionable Score by Top CG Items

FY16-18

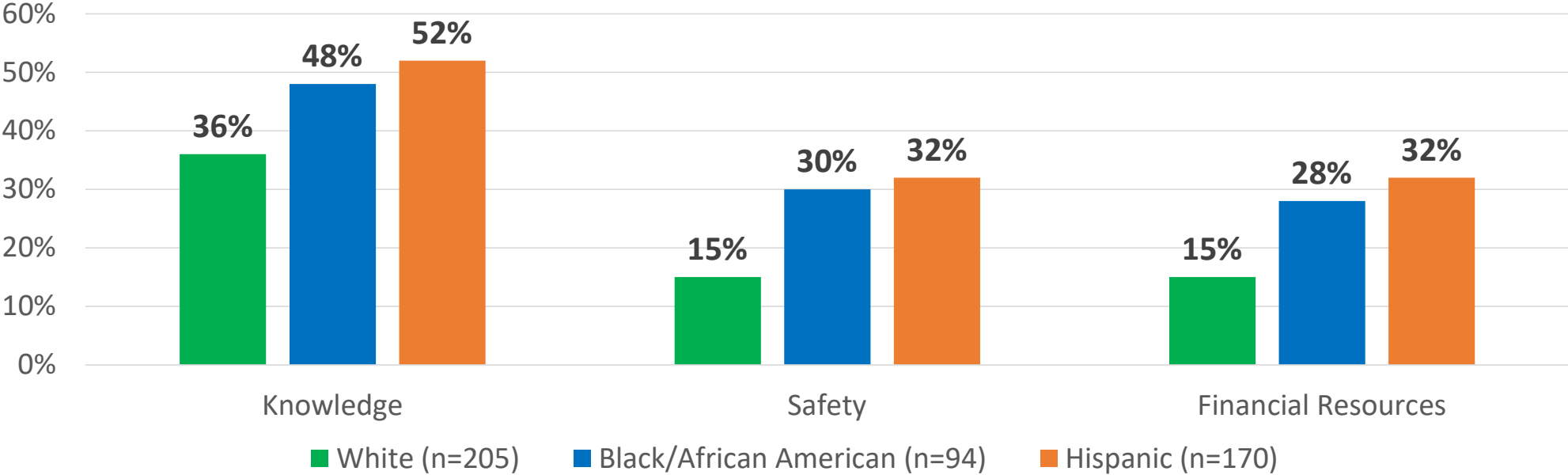
n=542

Source: DAFA CSA Cohort



White caregivers are more less likely to present with these Caregiver Needs

1st CANS: Percentage of Each Identity Group with Actionable Score by CG Item
FY16-19
Source: DAFA CSA Cohort



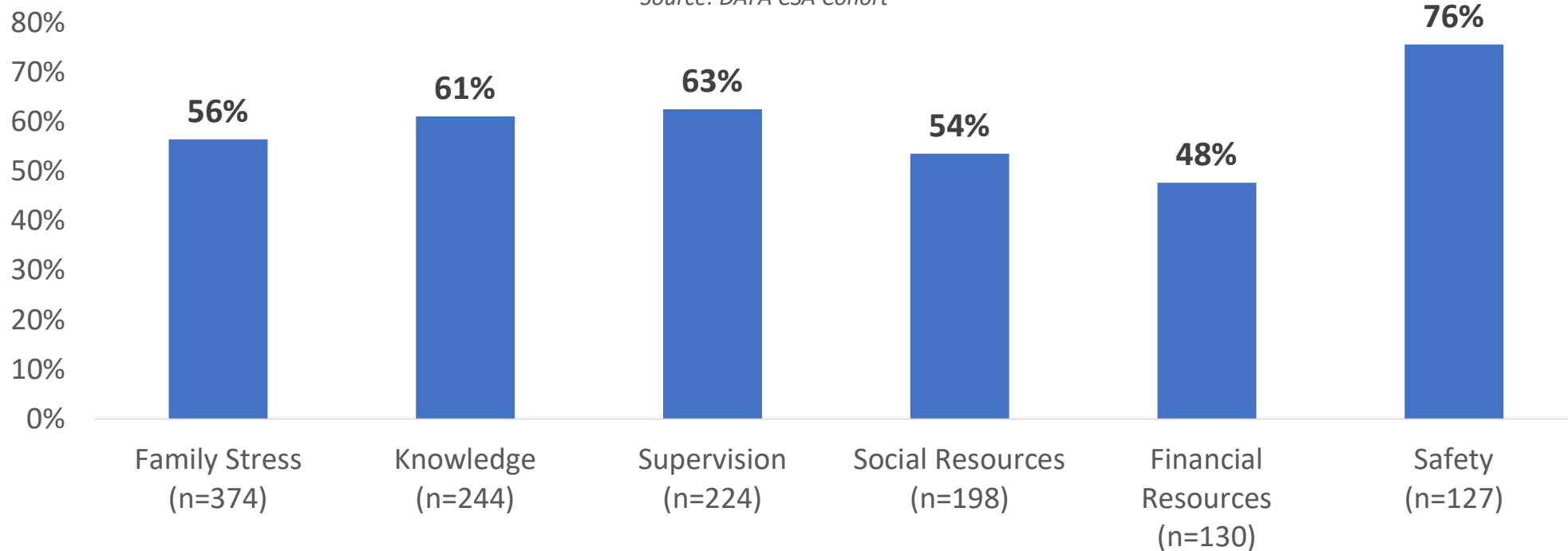
Rates for actionable CG decreased in all items.

We still worry about Family Stress.

Improvement Rates (Actionable to Non-Actionable) for Caregiver Strengths and Needs

FY16-FY19

Source: DAFA CSA Cohort



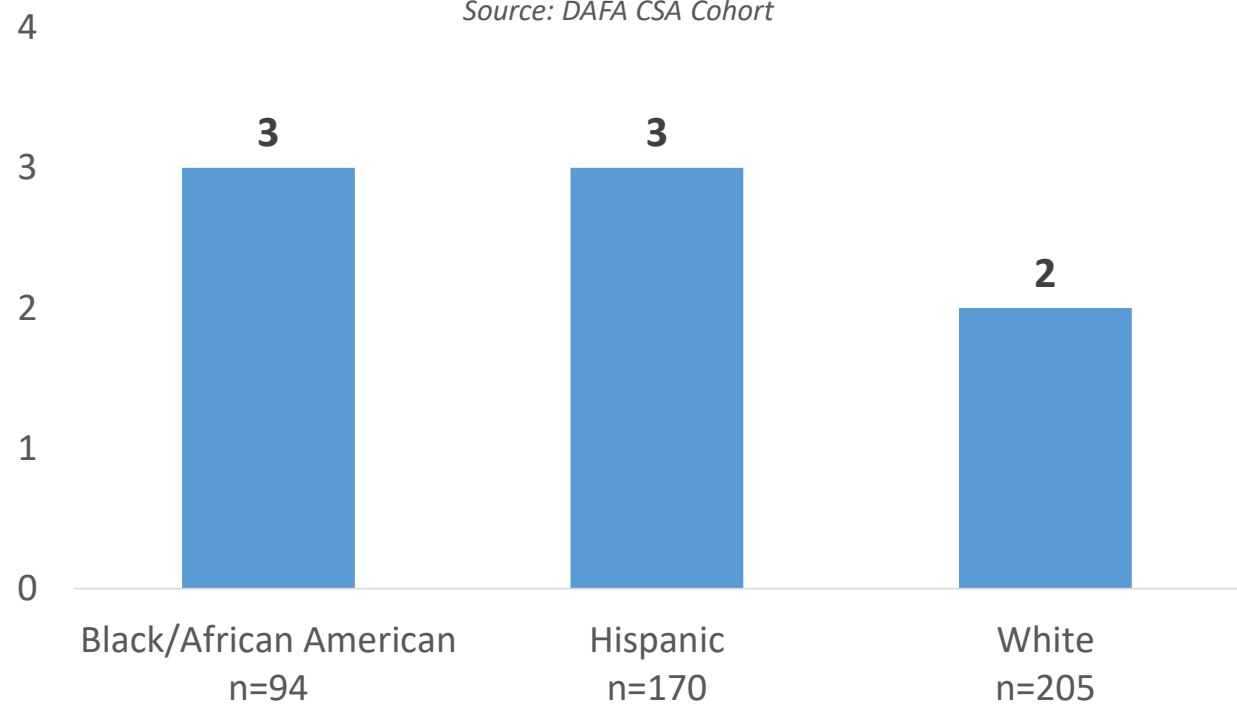
White families had fewer median TAIs for CG compared to Black or African American and Hispanic families.



1st CANS: Median Actionable Items for CG Domain by Top 3 Identity Groups

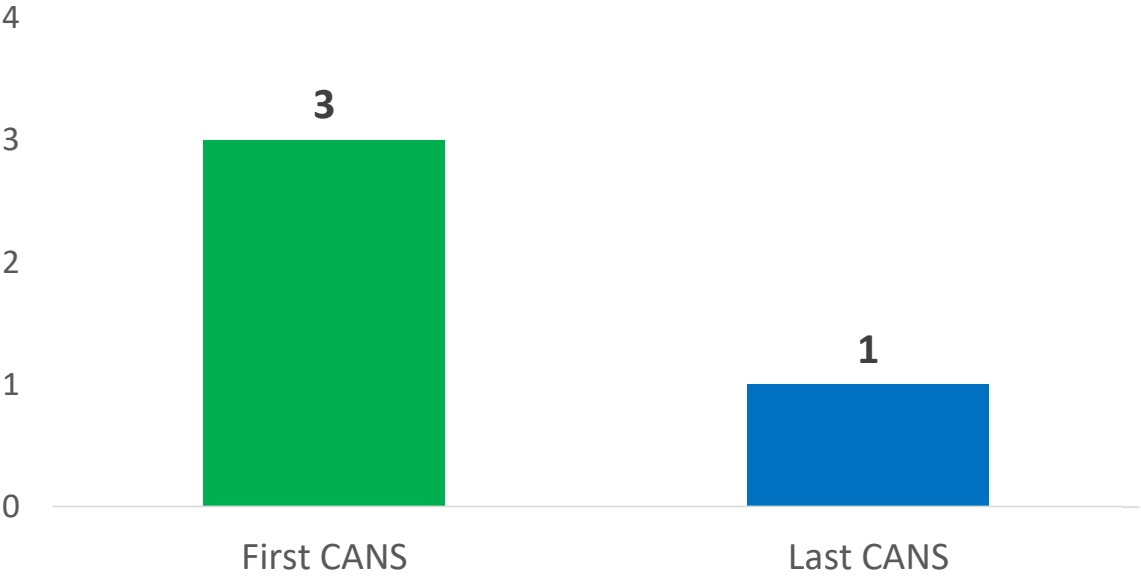
FY16-19

Source: DAFA CSA Cohort



After receiving services, the “average” number of actionable items was reduced for CG

Median CG Total Actionable Items for First and Last
CANS
FY16-18
n=542
Source: DAFA Cohort 2020



CANS SCORES BY REFERRAL SOURCE



First CANS Findings by Referral Source: CSB

CSB

n=120

CN: Extremely high rates of Depression and Anxiety

RB: Extremely high Suicide Risk and highest Self-Mutilation

CG: Lowest rates for Supervision and Social Resources



88%
Depression

76%
Anxiety

73%
Suicide Risk

47%
Self-Mutilation

33%
Supervision

28%
Social Resources

Summarized CANS Median TAIs for DFS

Change in the “Average” number of Actionable Items

CSB First CANS

n=120

CN: 3

RB: 2

CG: 2

CSB Last CANS

n=120

CN: 3

RB: 0

CG: 1

First CANS Findings by Referral Source: DFS

DFS



CN: ***Lower on all*** except Adjustment to Trauma – ***highest*** at 40%

RB: ***Lowest by far*** for Suicide Risk and Self-Mutilation

CG: ***10x more likely*** to have AI on Safety. ***Highest*** % on Knowledge

40%

Adjustment to Trauma

13%

Suicide Risk

5%

Self-Mutilation

53%

Safety

51%

Knowledge

Summarized CANS Median TAIs for DFS

Change in the “Average” number of Actionable Items

DFS First CANS

n=207

CN: 1

RB: 0

CG: 4

DFS Last CANS

n=207

CN: 0

RB: 0

CG: 2

First CANS Findings by Referral Source: Schools

Schools



CN: *Highest* % on Impulse/Hyper, Anger, and Oppositional

61%
Impulse/Hyper

55%
Anger Control

51%
Oppositional

RB: *Highest* % of Danger to Others and Other Self-Harm

27%
Danger to Others

20%
Other Self-Harm

CG: *Highest rate* for Family Stress and Social Resources

74%
Family Stress

43%
Social Resources

Summarized CANS Median TAIs for the Schools

Change in the “Average” number of Actionable Items

Schools First CANS

n=199

CN: 3

RB: 1

CG: 3

Schools Last CANS

n=199

CN: 2

RB: 0

CG: 1

CSA SERVICES AND COST

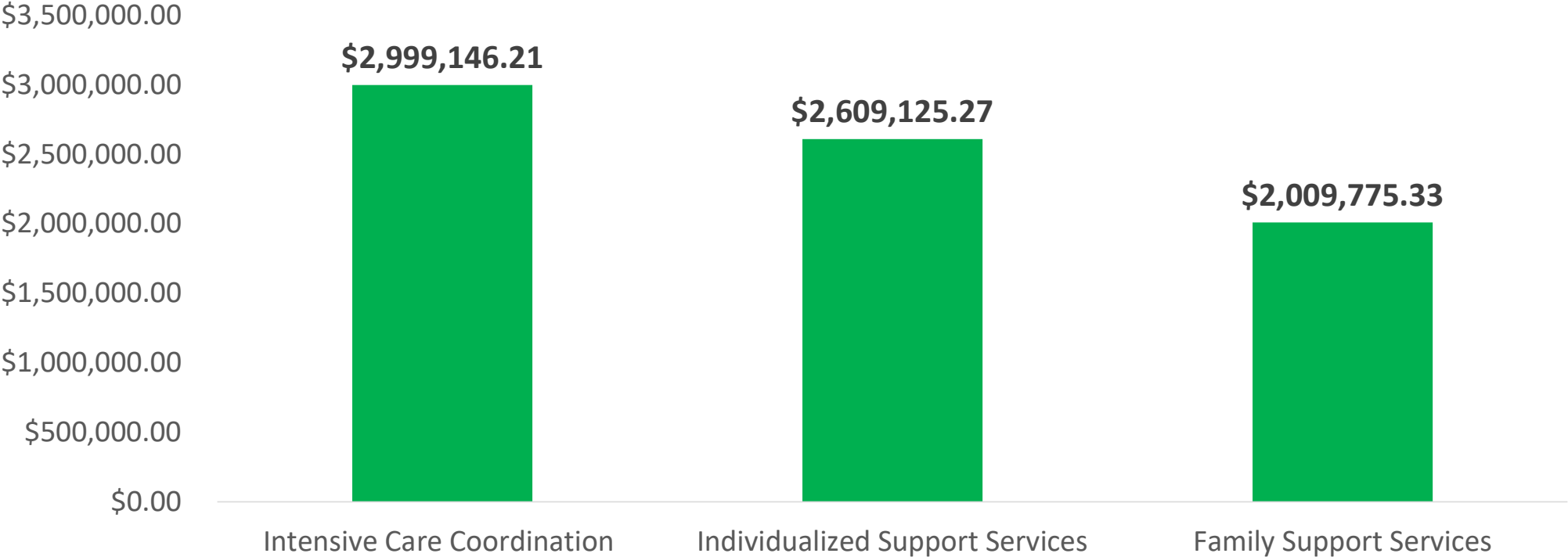


These three services make up 51% of the total amount of funds spent on FCP

CSA Services That Are Over 1 Million In Total Service Cost

FY16-19

Source: CSA DAFA Cohort



High Utilizers



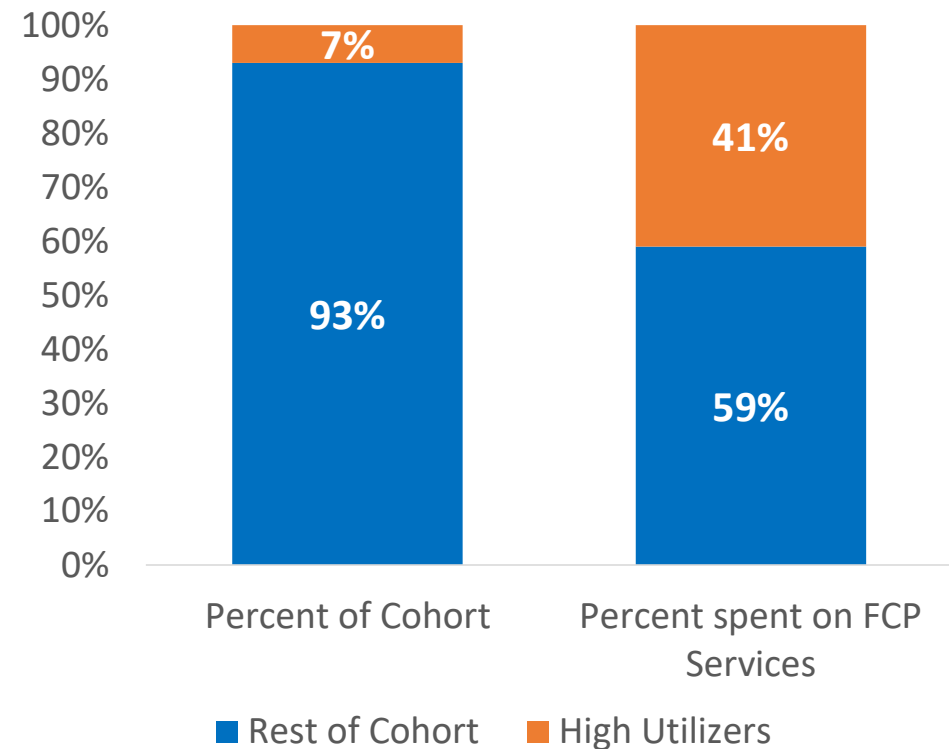
- The **top 7%** of clients account for **41%** of the overall cost spent on foster care prevention services.
- **Range** of money spent per child: **\$37,184 to \$166,352**
- **Median** amount spent per child: **\$49,992**

High Utilizers by Percent of Cohort and Percent of Expenditures

FY16-19

n=1368

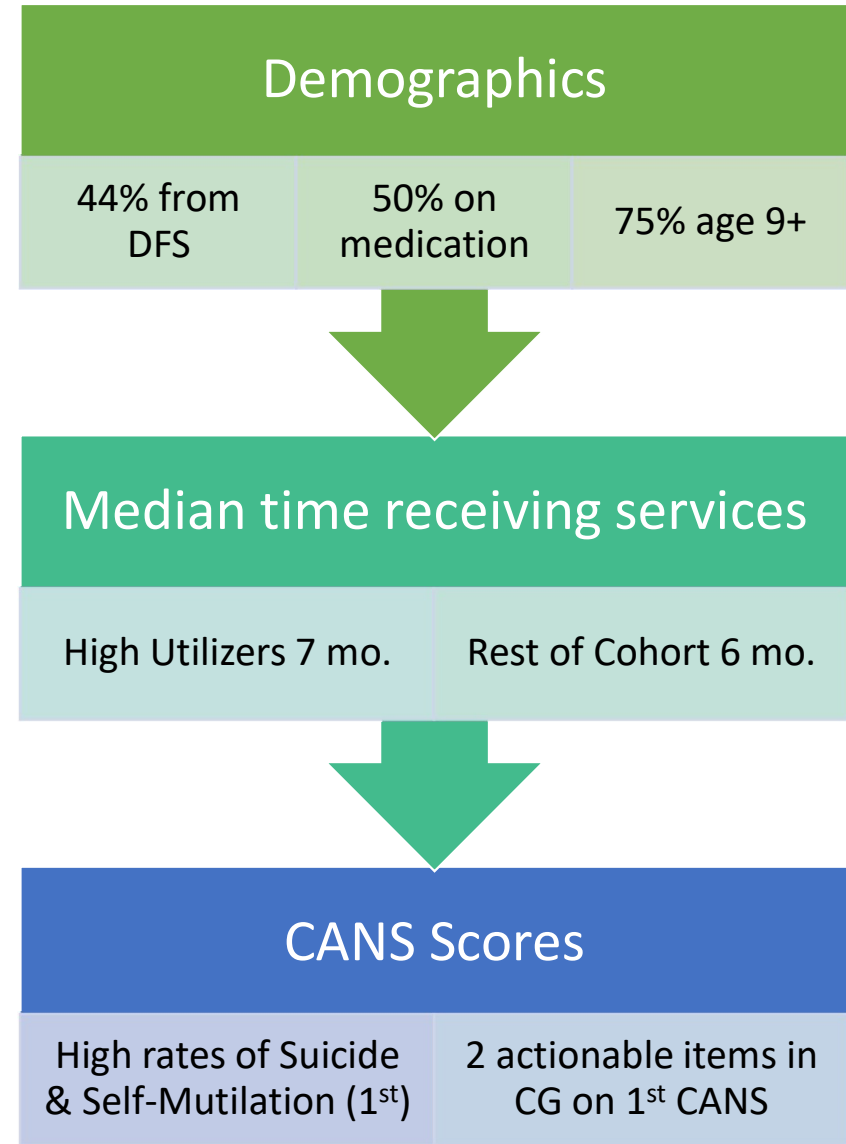
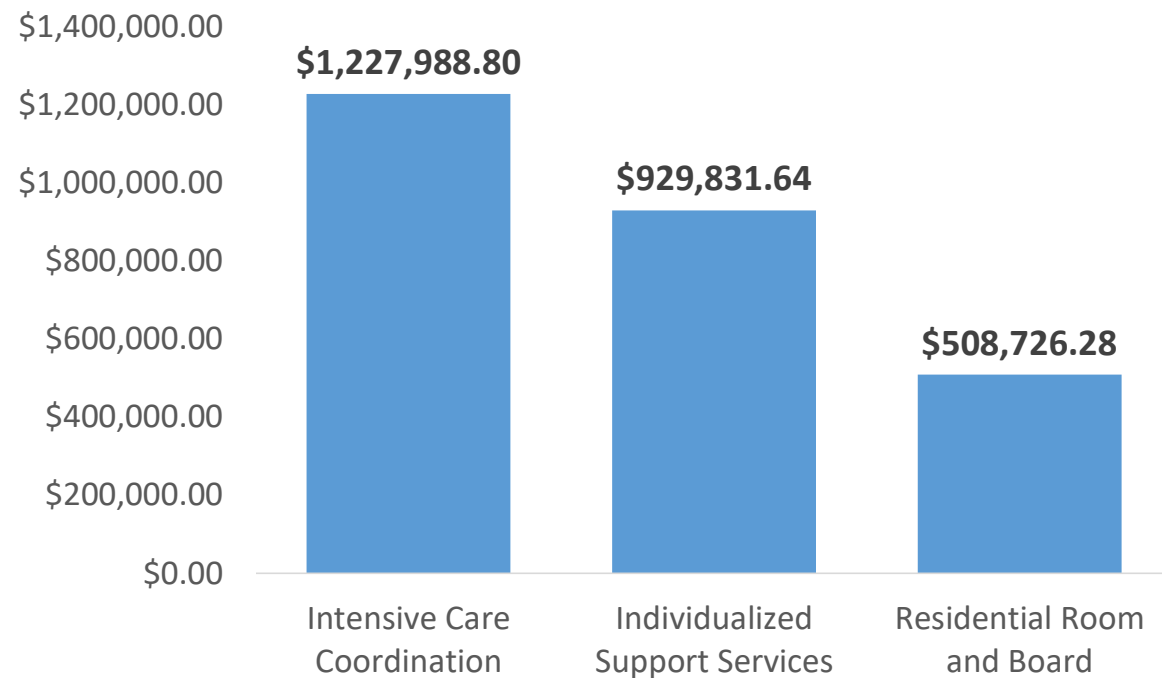
Source: CSA DAFA Cohort



Key Findings on High Utilizers:

Top 3 Services Spent by High Utilizers
FY16-FY18
n=95

Source: High Utilizers – Services and Cost



Services and CANS Scores



Child Behavioral Needs Outcomes by Services

Improvement Rates (Actionable to Non-Actionable)



Depression

ISS (n=167)

44%

ICC (n=138)

39%

Residential (n=94)

35%

Anxiety

ISS (n=158)

39%

ICC (n=129)

38%

Residential (n=83)

36%

Impulse/ Hyper

ISS (n=113)

42%

ICC (n=82)

40%

FSS (n=48)

33%

Child Risk Behavior Outcomes by Services

Improvement Rates (Actionable to Non-Actionable)



Suicide Risk

ISS (n=108)

81%

ICC (n=106)

75%

Residential (n=78)

73%

Self-Mutilation

ISS (n=71)

86%

ICC (n=70)

79%

Residential (n=52)

69%

Danger to Others

ISS (n=40)

65%

ICC (n=33)

67%

ICC-FSP (n=21)

76%

Caregiver Needs Outcomes by Services

Improvement Rates (Actionable to Non-Actionable)



Family Stress	ISS (n=162)	59%
	ICC (n=128)	55%
	FSS (n=113)	59%
Knowledge	FSS (n=87)	56%
	ISS (n=87)	64%
	ICC (n=69)	59%
Supervision	ISS (n=82)	62%
	FSS (n=74)	65%
	ICC (n=61)	61%

Children with Subsequent CPS/Foster Care Involvement



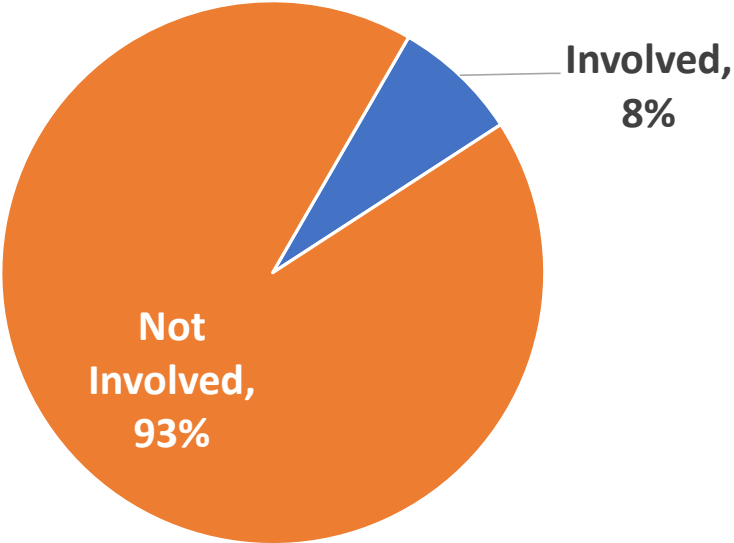
This photo by Unknown author is licensed under kve.org

A small percentage of our cohort has subsequent involvement with CPS or Foster Care.

Subsequent CPS Involvement

FY 16-19
n=1368

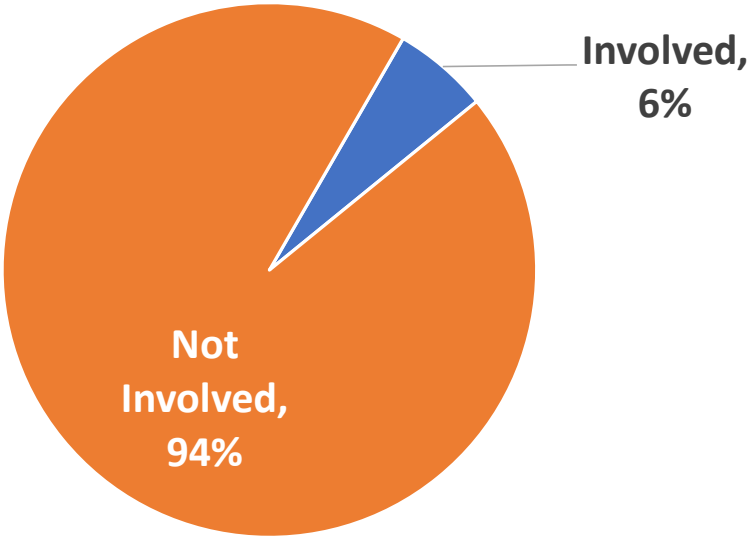
Source: DAFA CSA Cohort



Subsequent Foster Care Involvement

FY16-19
n=1368

Source: DAFA CSA Cohort

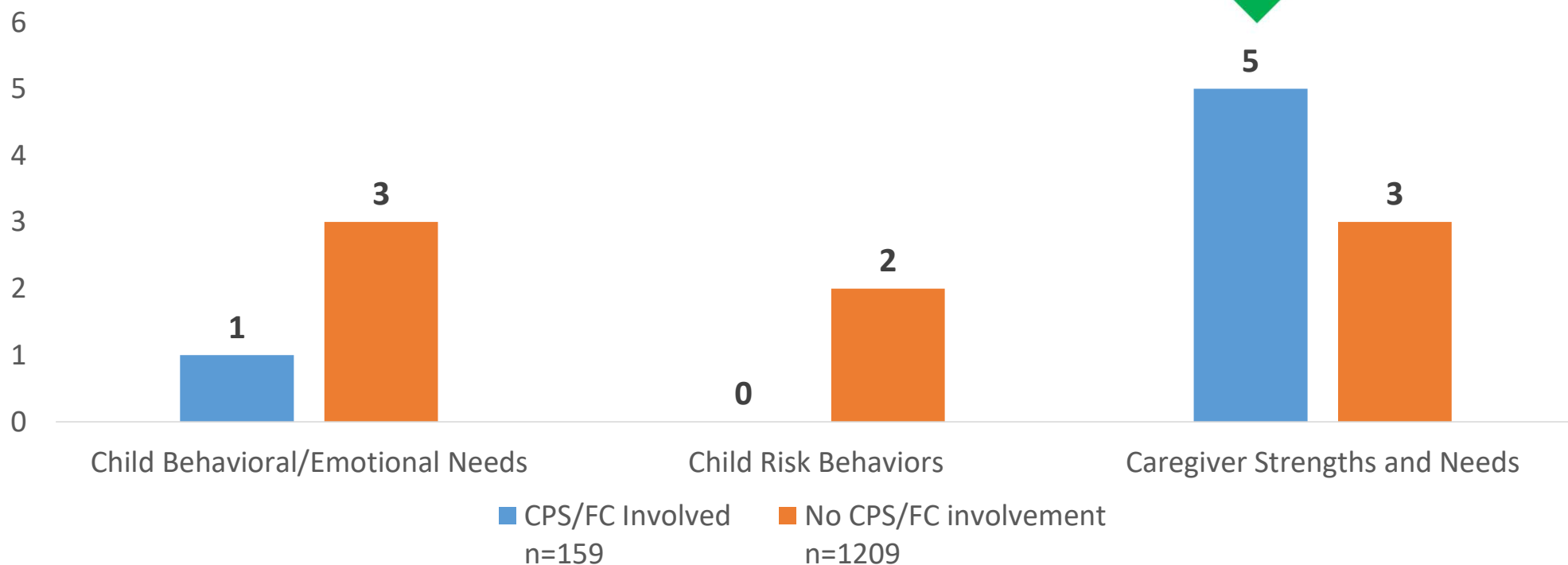


CPS/Foster Care involved children have few actionable CN/RB but many actionable CG items

Median Total Actionable Items at first CANS for CPS/FC Involved Youth

FY16-19

Source: DAFA CSA Cohort

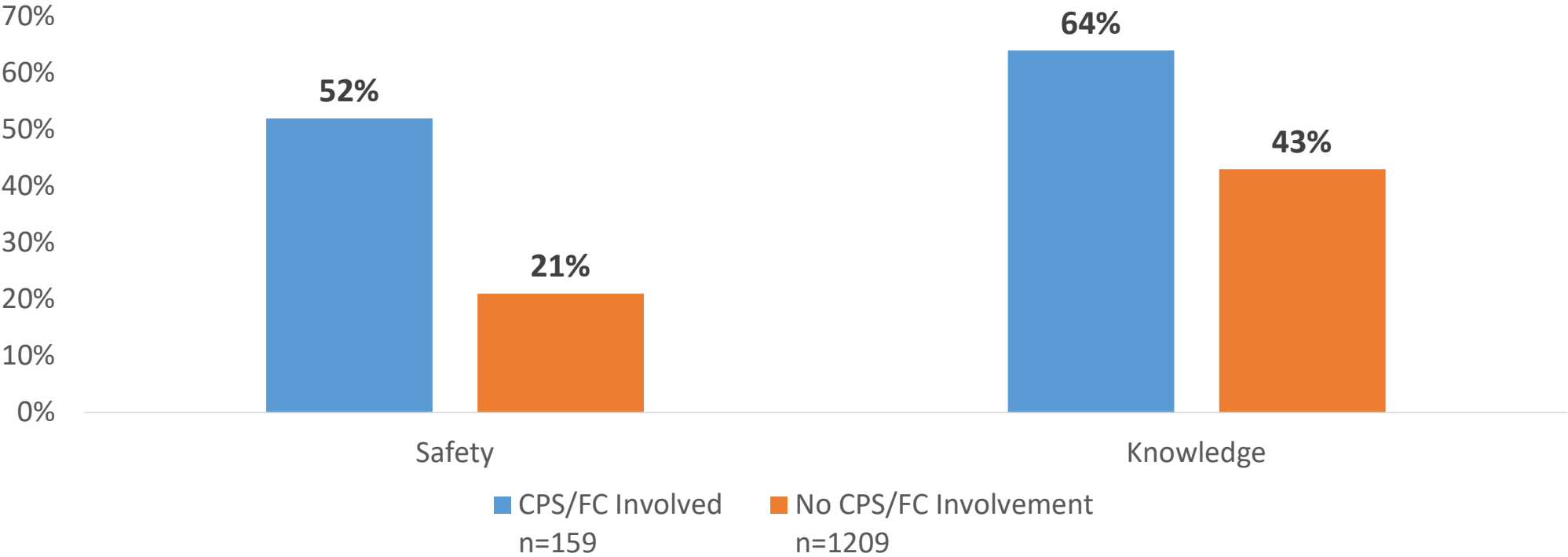


Actionable rates of Knowledge and Safety are higher for children with subsequent CPS/FC involvement

Percent of actionable safety and knowledge items for CPS/FC involved youth

FY16-19

Source: DAFA CSA Cohort

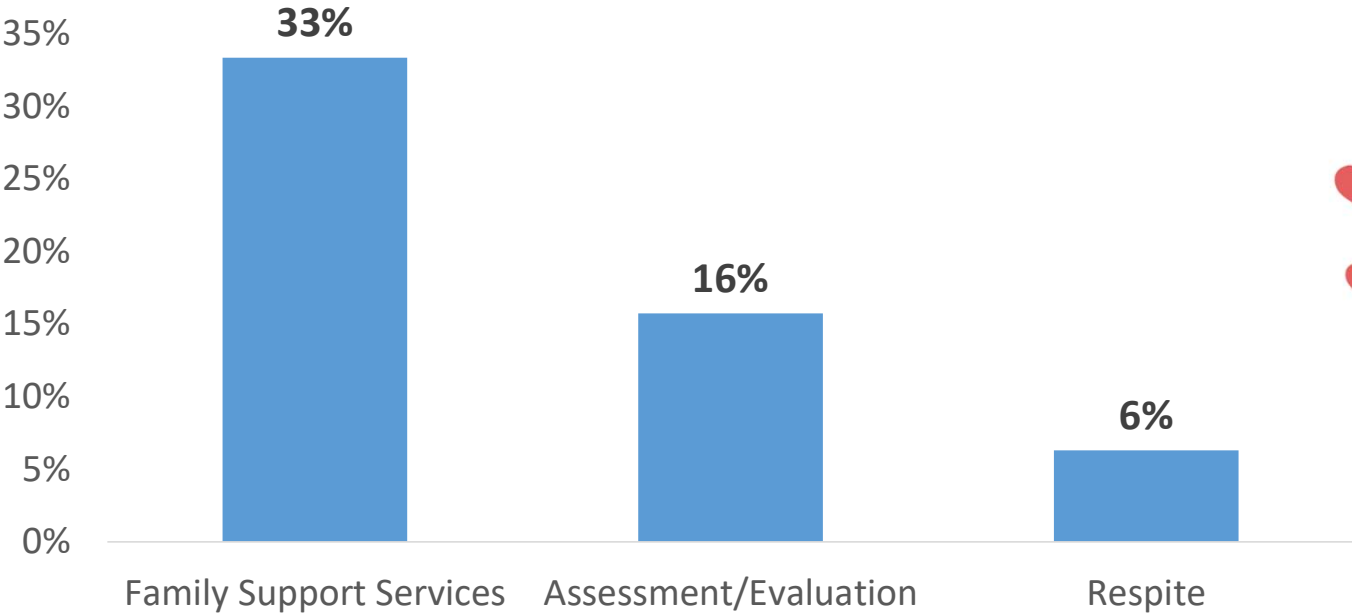


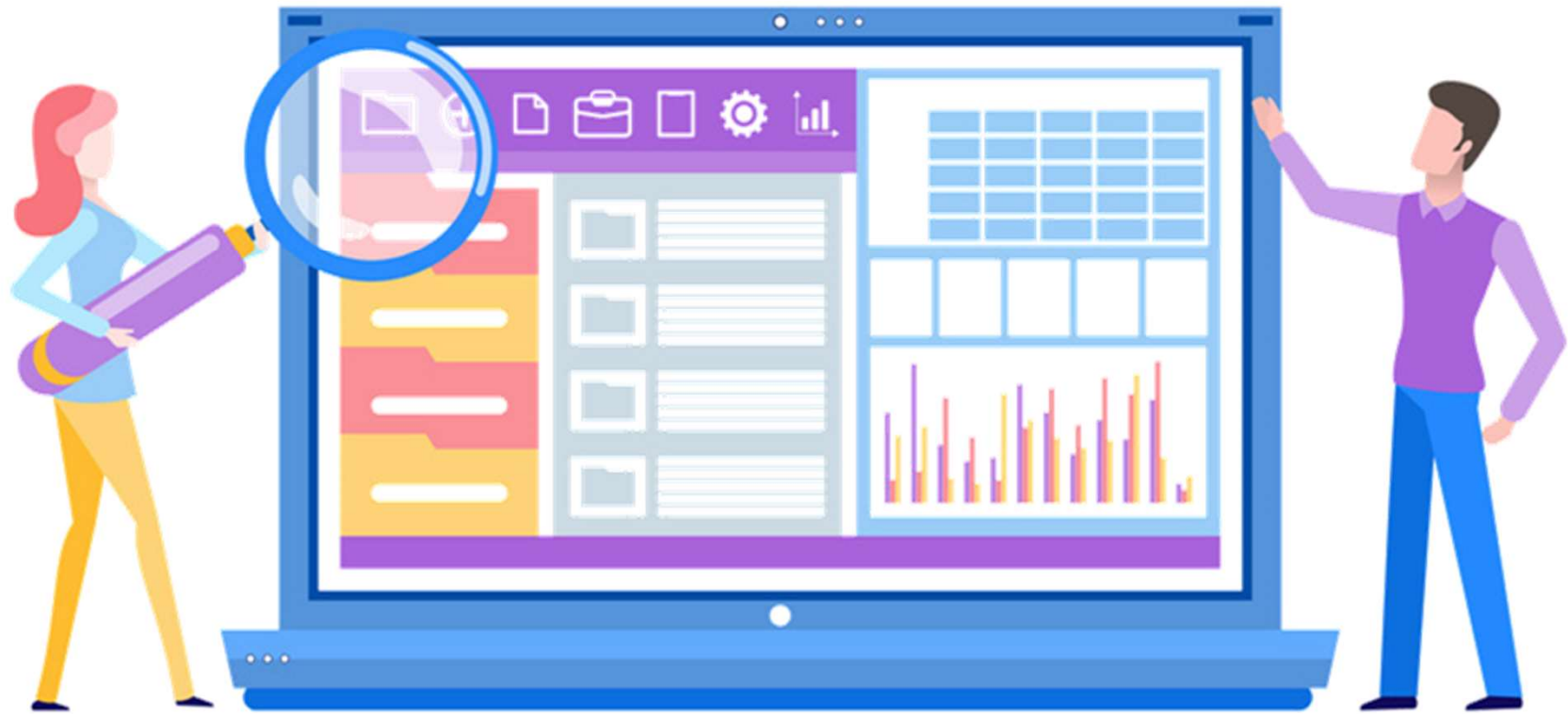
The most widely used service is Family Support Services

Top 3 services used by children with subsequent CYF/FC involvement

FY16-19
n=159

Source: DAFA CSA Cohort





Topics for Further Analysis

Medications and Diagnoses

- Medications/diagnosis info used for referrals?
- Collection of autism and medication data

Subsequent CPS/Foster Care Involvement

- Why do children enter Foster Care or CPS?
- Explore non-CSA services used.

High Utilizers

- How do high utilizers initially present/diagnoses?
- Screening for high utilizers at intake?

Referral Source and Process

- Referral process differences by referral sources?
- Need for case management training?

Other Topics

- Utilization Rate
- Implicit Bias

Final Thoughts to Consider

- Data/Memo Sharing
- Data Systems

