

TCOM

Tennessee: Adjudicating Risk Pools

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CENTER OF EXCELLENCE

FOR CHILDREN IN STATE CUSTODY

is part of a statewide network dedicated **to improving services for children in or at-risk of entering the Tennessee child welfare or juvenile justice systems.** The Vanderbilt COE provides **clinical and consultation services, disseminates evidence based and other best practices and implements quality improvement projects** with the goal of better outcomes for children and families.

BRIAN A

LAW SUIT

ALL CHILDREN SHALL

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RECEIVE ASSESMENT USING STANDARDIZED PROTOCOL

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ALL CHILDREN SHALL

BRIAN A

RECEIVE **ASSESSMENT** USING STANDARDIZED PROTOCOL
BE PLACED IN ACCORDANCE WITH THEIR **INDIVIDUAL NEEDS**

LAW SUIT

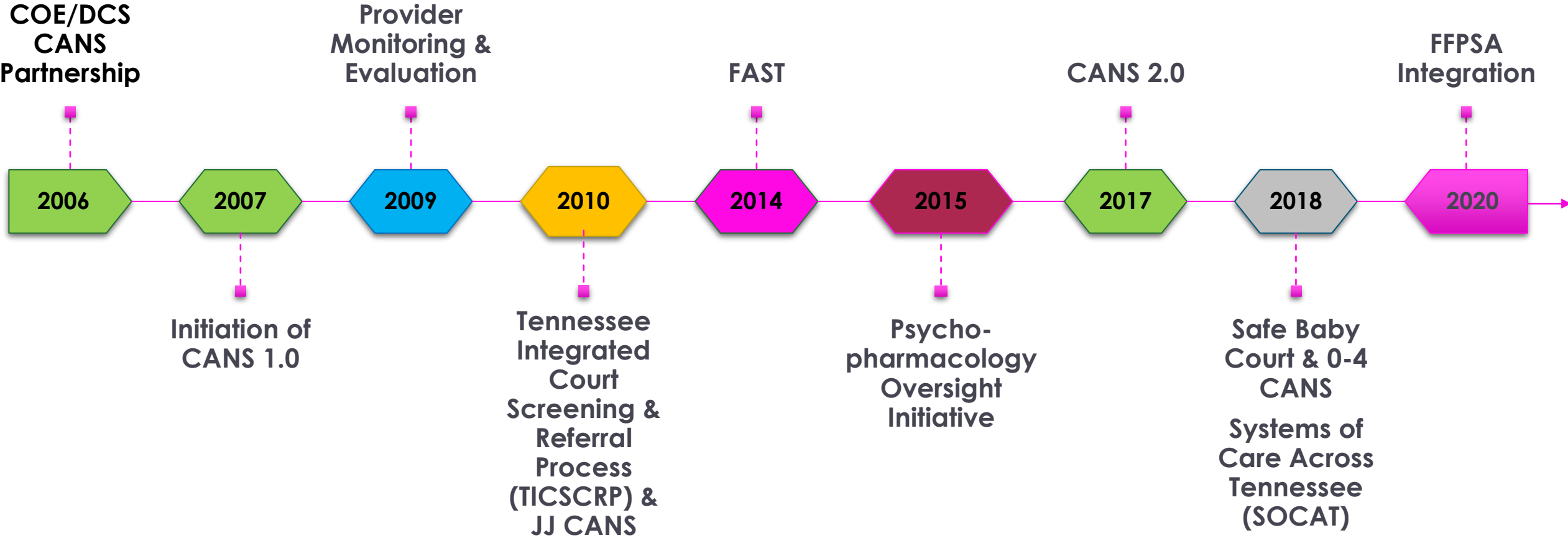
ALL CHILDREN SHALL

BRIAN A

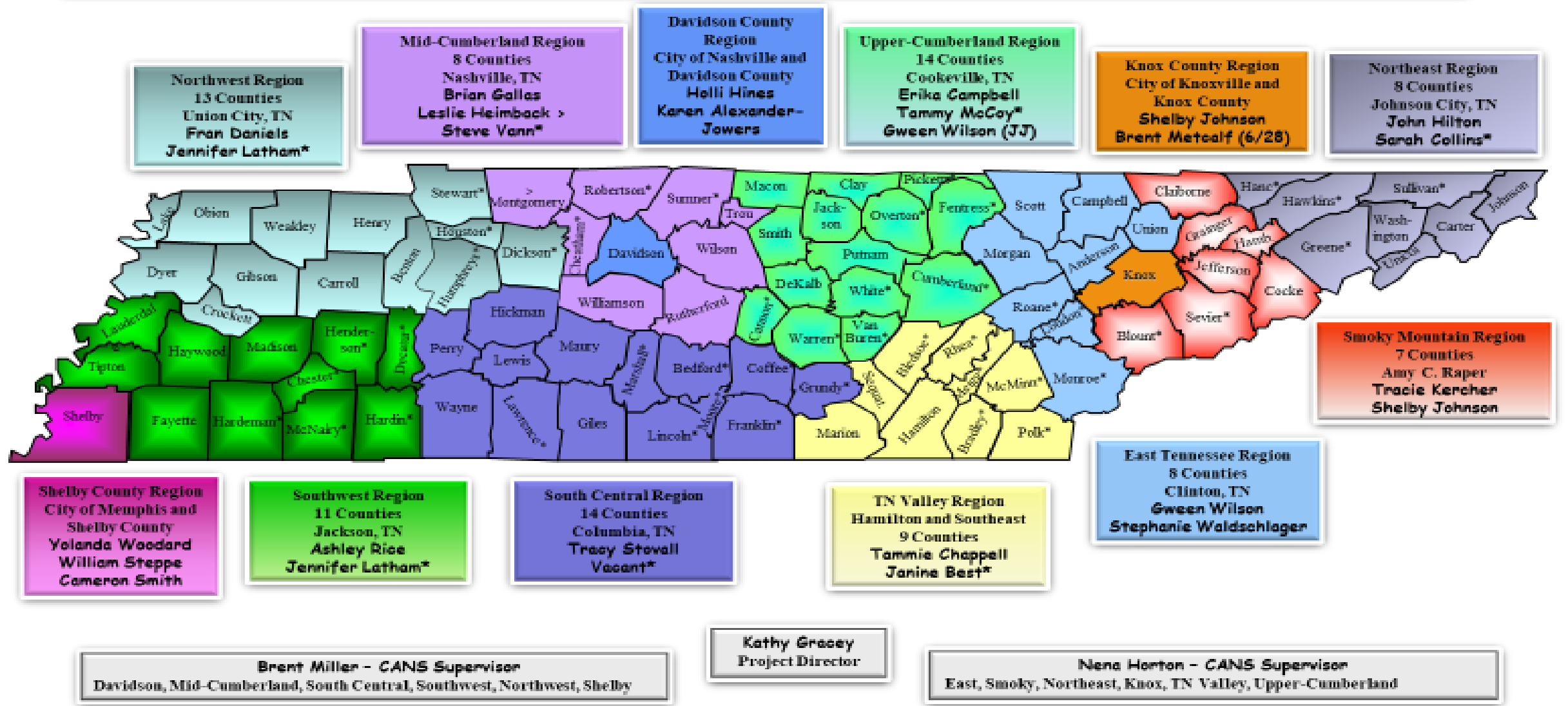
RECEIVE **ASSESSMENT** USING STANDARDIZED PROTOCOL
BE PLACED IN ACCORDANCE WITH THEIR **INDIVIDUAL NEEDS**
RECEIVE **PLACEMENT RE-EVALUATION** TO ENSURE NEEDS ARE MET

L A W S U I T

THE TIMELINE OF TCOM IN TENNESSEE



Department of Children's Services Regional Structure





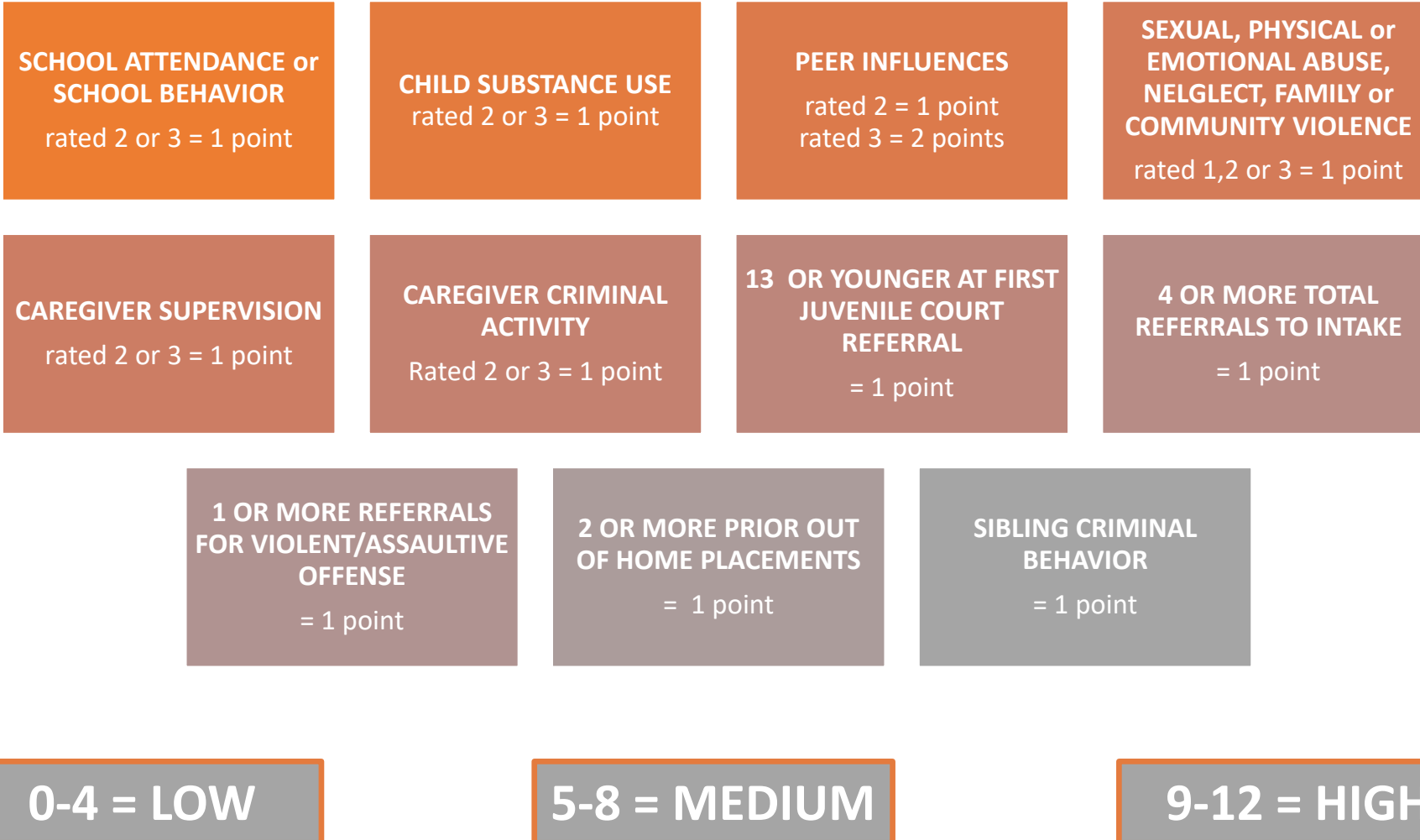
JUVENILE JUSTICE

USING CANS SCORES
IN COMMUNITY RISK
RESULT
(CRR)

CRR PURPOSE

- Juvenile Justice Reform Act of 2018 mandated a validated risk and needs assessment for making decisions and recommendations for programming/treatment
- Examine the predictive validity of the risk and needs assessment tool for youth re-arrest within 90 days of initial arrest
- Utilize the Juvenile Justice Child and Adolescent Needs and Strengths (JJ CANS) to inform service recommendations

COMMUNITY RISK RESULT (CRR) ALGORITHM



CRR ANALYSIS

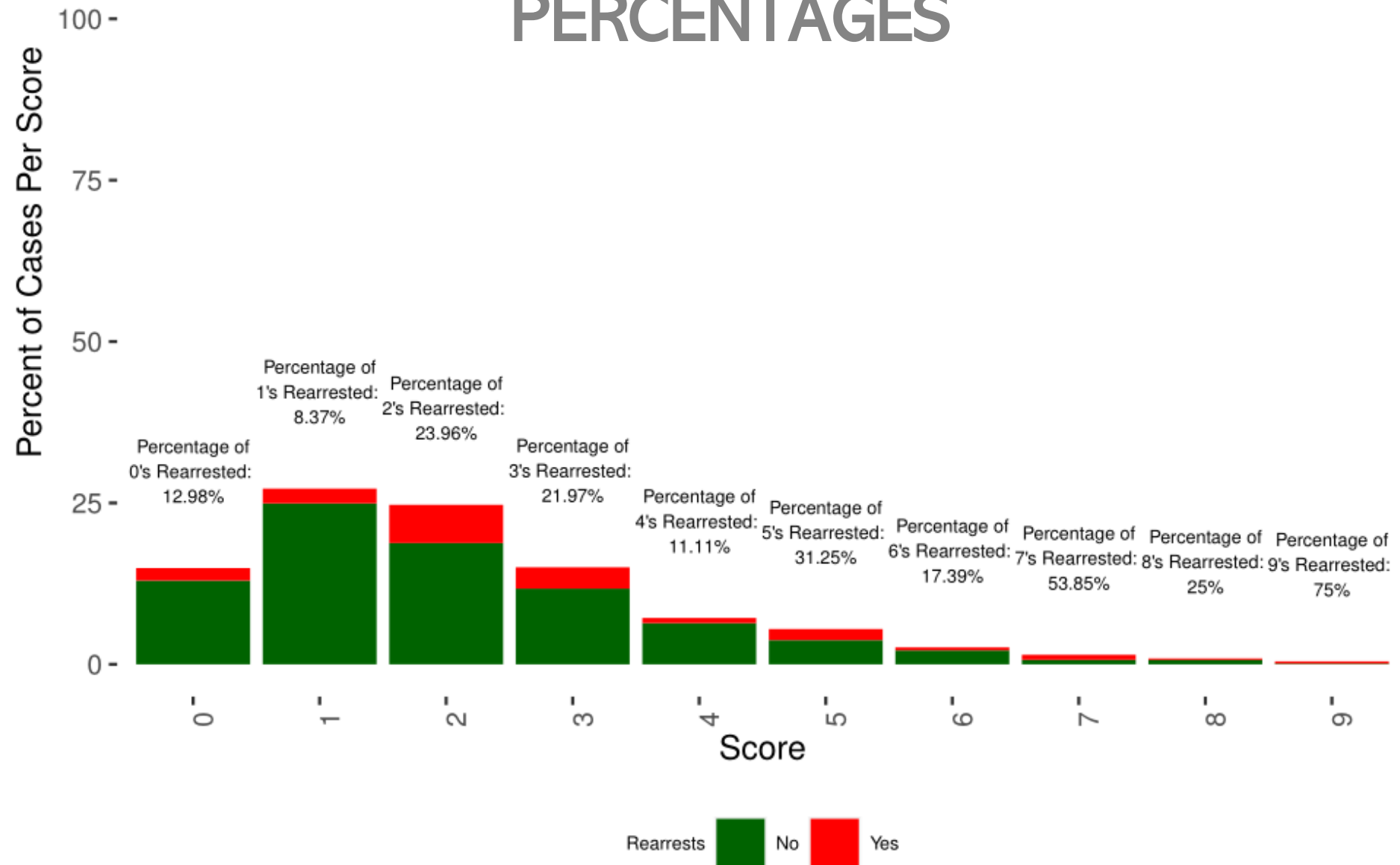
Descriptive Statistics

- Distribution of CRR Scores
- Distribution of CRR Scores by Re-arrest Status (Yes/No)
- Algorithm Breakdown by CRR Score
- Demographics breakdowns for youths with CANS assessments
- Statutes and severity by whether or not an assessment was present

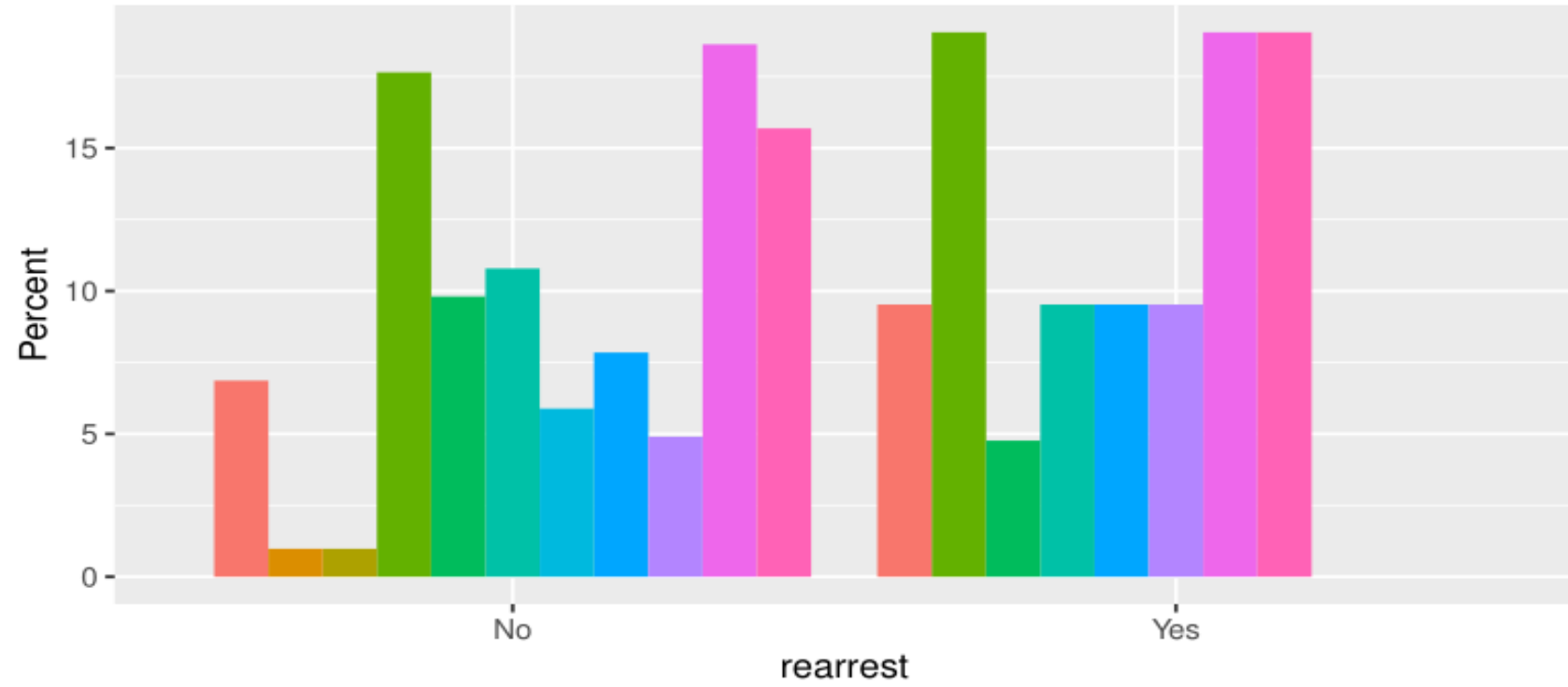
Factor analysis on the items in the CRR algorithm

Regression (in progress) of re-arrest status on algorithm items

CRR SCORES WITH REARREST PERCENTAGES



DISTRIBUTION OF CRR SCORES BY REARREST STATUS



- items
- 4 Referrals
 - Age
 - Caregiver Crime
 - Peers
 - Placements
 - School
 - Sibling
 - Substances
 - Supervision
 - Trauma
 - Violent Referral

CRR ALGORITHM ITEM FACTOR ANALYSIS

	Factor1	Factor2	Factor3	Factor4
Trauma_Sexual_Abuse	0.49	-0.02	0.13	0.09
Trauma_Physical_Abuse	0.81	0.05	0.05	0.11
Trauma_Emotional_Abuse	0.82	0.07	0.14	0.07
Trauma_Neglect	0.60	0.06	0.28	-0.01
Trauma_Witness_Family_Violence	0.60	-0.03	0.14	0.04
Trauma_Witness_Community_SchoolViolence	0.27	0.13	0.51	0.10
Four_Referrals_Intake	0.10	0.07	0.22	0.35
Violent_Assault_Referral	0.17	0.08	0.02	-0.11
Out_Of_Home_Placements	0.39	0.11	0.19	0.07
Youth_Siblings_Exhibit_Criminal_Behavior	0.12	0.06	0.31	-0.01
school_attend	0.08	0.83	0.20	0.16
school_behavior	0.08	0.97	0.22	0.03
substance	0.05	0.08	0.27	0.73
peer	0.03	0.12	0.57	0.43
Supervision	0.13	0.10	0.68	0.18
parental	0.20	0.10	0.27	-0.04
age.in.days.at.case.start	0.03	0.02	-0.08	0.50

EXPANDING TCOM: Psychopharmacology Oversight Initiative



2015

Across the country, psychotropic prescription rates are as **high as 37-52% among youth in custody** with **Tennessee rates at 32%** compared to **4% in general population.**

NAME: _____

ADDRESS: _____

Rx

Psychopharmacology

“Red Flags”



2015

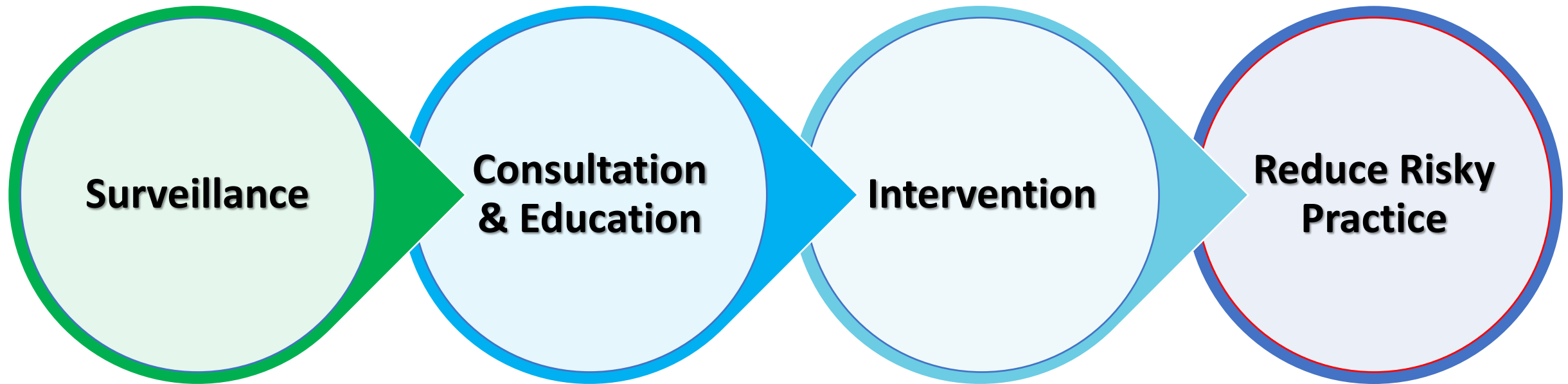
- Any psychotropic medication given to children < 5 years
- Exceeding the maximum recommended dose for any medication
- 2 or more concomitant medications of the same class
- 4 or more concomitant medications of any class

NAME: _____

ADDRESS: _____

Rx

PSYCHOPHARMACOLOGY OVERSIGHT INITIATIVE



RISK-STANDARDIZATION MODEL

- CANS Complexity Score and Level of Care recommendations inform the multi-level logistic regression model, in addition to other youth population data.
- 240,297 prescriptions from 5/18/18 to 1/10/21, 10,109 youth, 1,301 prescribers
- Calculates quantity: “how many times higher is prescriber X’s rate of red flags than what would be expected if the average prescriber had seen the same patients as prescriber X?”

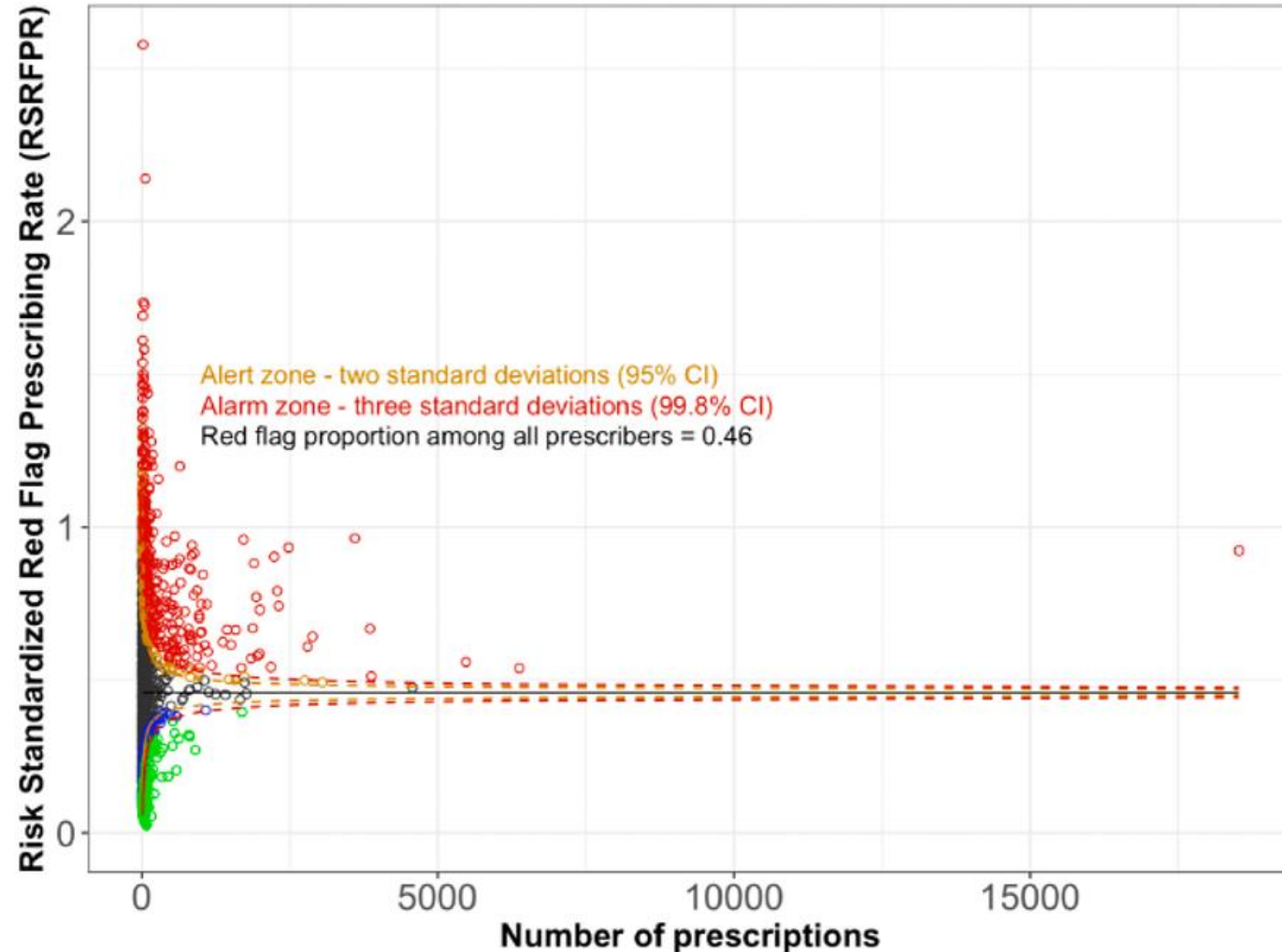
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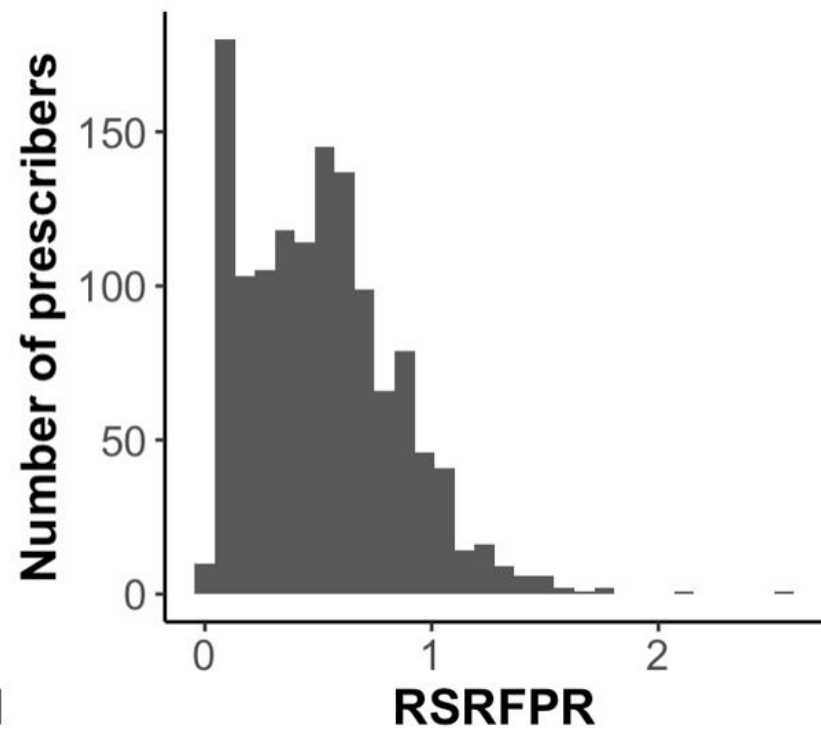
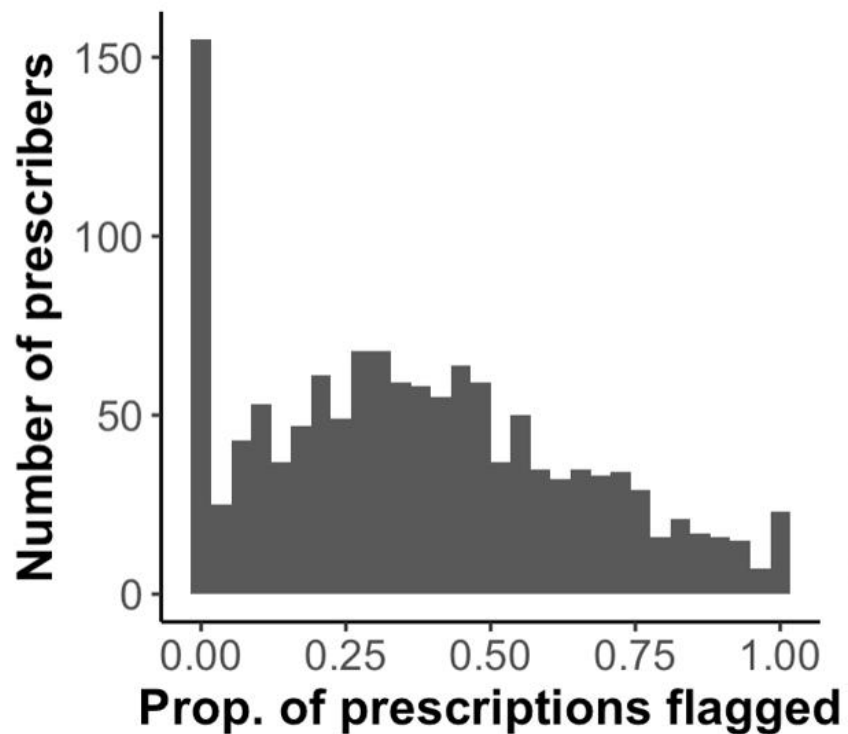
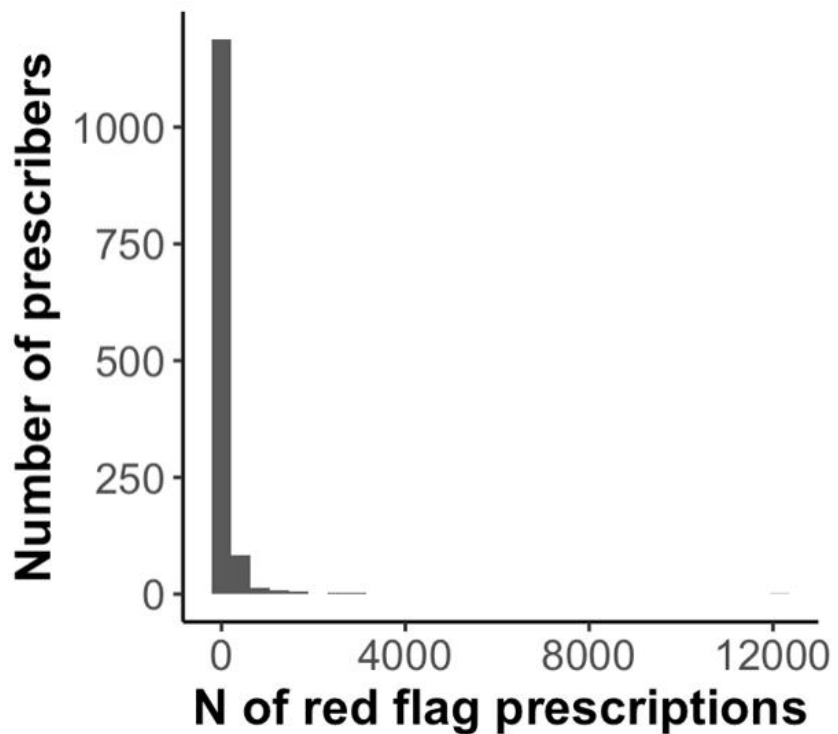
Rx

FUNNEL PLOT OF PRESCRIBERS

- 114 (8.8%) were between two and three standard deviations above the benchmark
- 258 prescribers (19.8%) were more than three standard deviations above it



HISTOGRAMS OF RESULTS



METHODS

Youth-Level Covariates

1. Age at prescription
2. Gender
3. Race
4. Commitment region
5. Days in custody until prescription
6. Child census tract-level poverty
7. Adjudication status
8. Level of care
9. Child and Adolescent Needs and Strengths (CANS) complexity score

Statistical Analysis

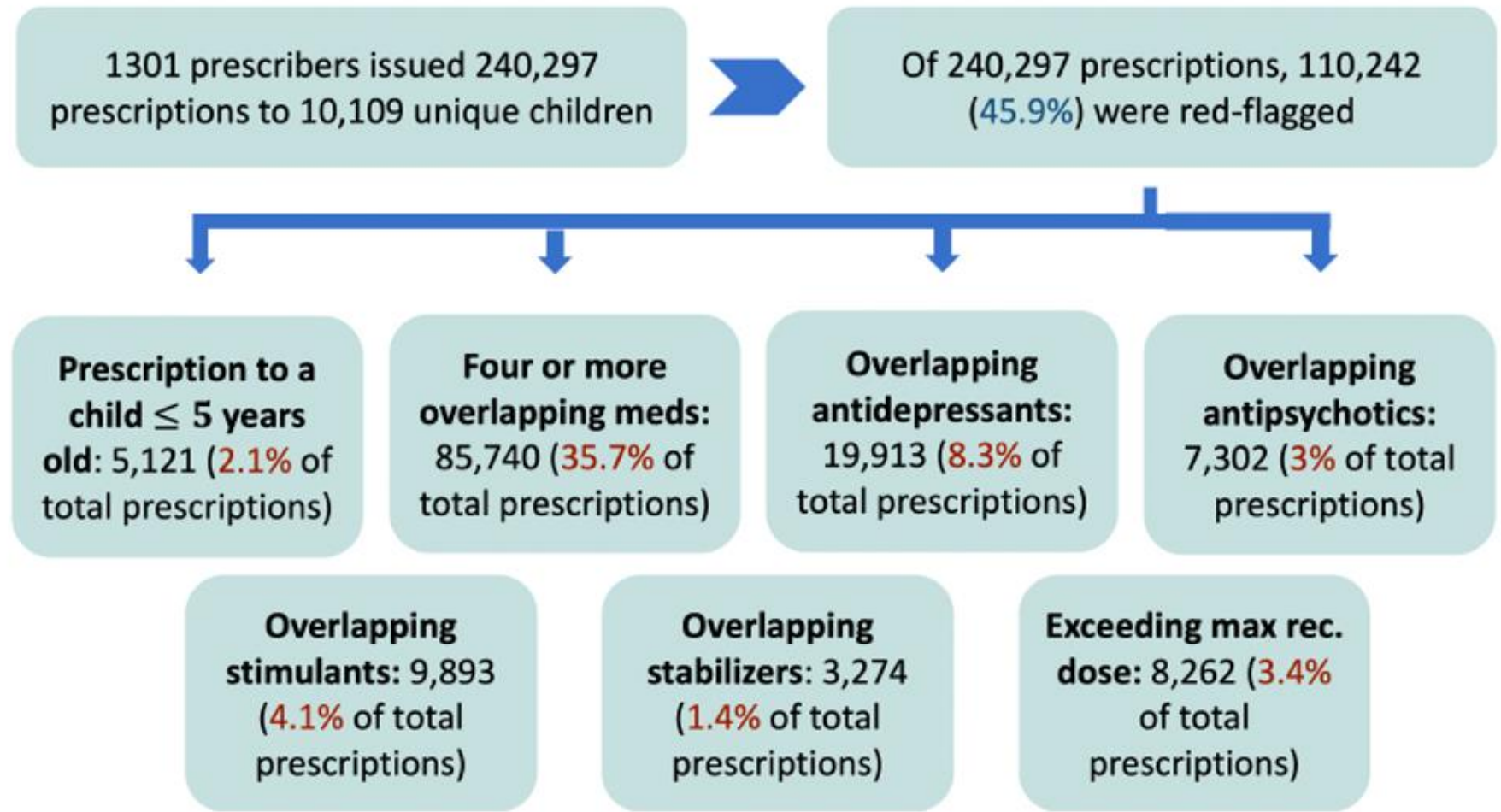
Fit a **GLMM** adjusting for covariates with logit link and normally distributed random effects to account for within-prescriber correlation

Use model to **estimate the probability of a prescription being red-flagged** with and without random effect

Calculate Risk-Standardized Red Flag Prescription Rate:

$$RSRFPR_i = \left(\frac{\text{Predicted \# red flags for prescriber } i}{\text{Expected \# red flags for prescriber } i} \right) \times \left(\frac{\text{Total \# red flags for all prescribers}}{\text{Total \# prescriptions for all prescribers}} \right)$$

RESULTS



- 1,098 (84%) prescribers issued ≥ 1 one r.f. prescription
- 4,371 (43.2%) children received at least one red-flagged prescription
- Of these, # of r.f. prescriptions right skewed, with median of 11 (IQR:4 to 30)

CONNECTING FAMILIES
FAMILY ADVOCACY AND SUPPORT TOOL
(FAST)



FAST SAFETY ALGORITHM

At least one rating of '3' on ANY of the following:

PHYSICAL CONDITION OF HOME
HOME MAINTENANCE
FAMILY CONFLICT
FAMILY SAFETY
CAREGIVER DISCIPLINE

At least one rating of '3' for any assessed caregiver on ANY of the following:

CAREGIVER DEVELOPMENT
CAREGIVER MENTAL HEALTH
CAREGIVER SUBSTANCE USE
CAREGIVER SUPERVISION

At least one rating of '3' for EVERY assessed caregiver on ANY of the following:

CAREGIVER INVOLVEMENT IN CAREGIVING
CAREGIVER KNOWLEDGE OF CHILD/FAM NEEDS
CAREGIVER CRIMINAL BEHAVIOR

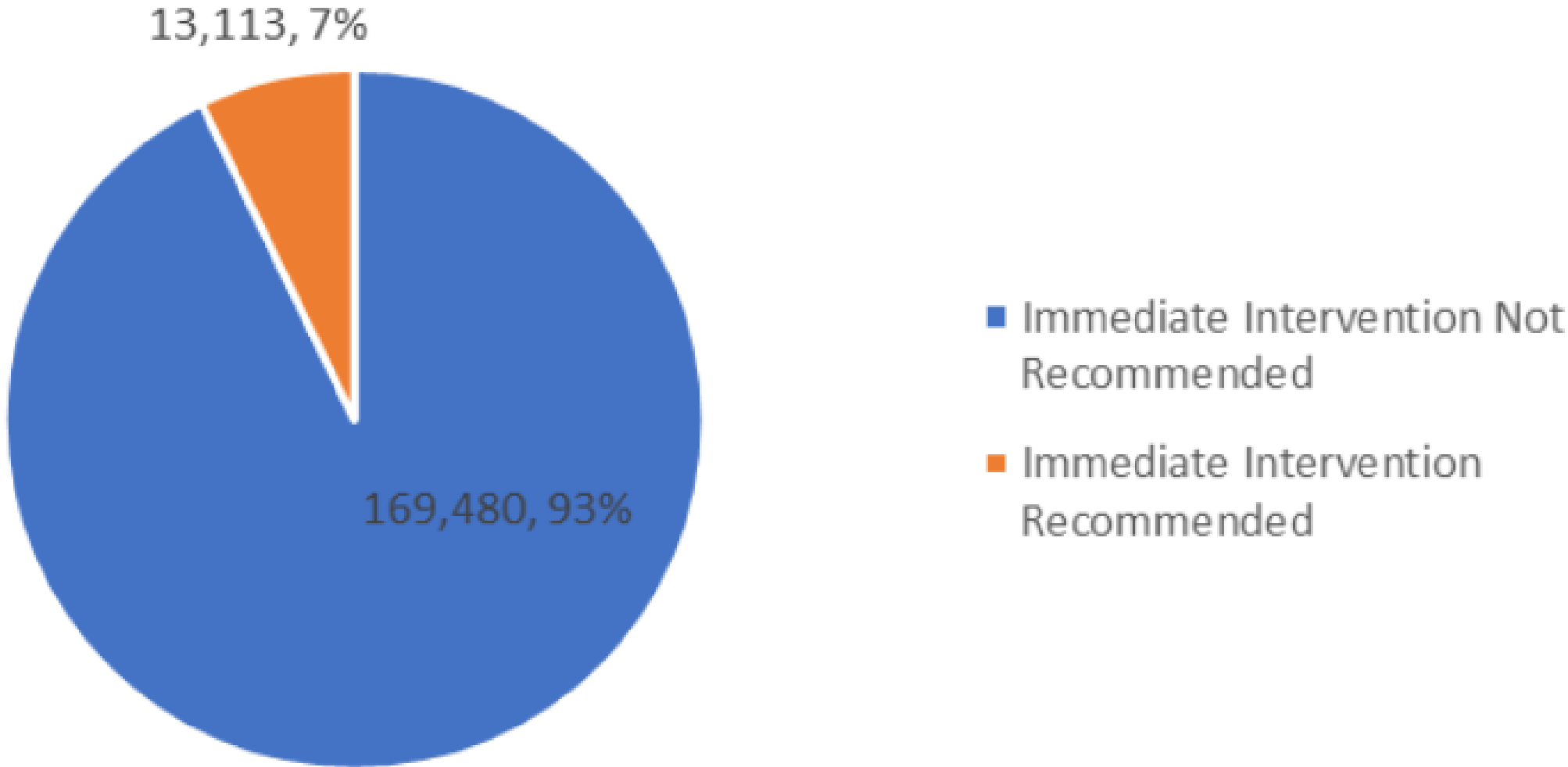
At least one rating of '3' on ANY assessed children on ANY of the following:

PHYSICAL ABUSE
EMOTIONAL ABUSE
NEGLECT

A rating of '2' OR '3' for ANY assessed children on:

SEXUAL ABUSE

FAST ASSESSMENT: SAFETY RESULTS



FAST RISK RESULTS ALGORITHM

HIGH INTENSITY

(3.1 OR 3.2)
and
(3.3 OR 3.4 OR 3.5)
and
(3.6 OR 3.7 OR 3.8)

3.1 Two or more
Family Together
items rated '3'

3.2 Three or more
Family Together
items rated
'2' or '3'

3.3 One
caregiver with
two or more
items rated '3'

3.4 Two or more
caregivers with at
least one item
rated '3'

3.5 One **caregiver**
with three or
more items rated
'2' or '3'

3.6 One **child**
with two or more
items rated '3'

3.7 One **child**
with three or
more items rated
'2' or '3'

3.8 Two or more
children with at
least one item
rated '3'

MODERATE INTENSITY

(2.1)
and
(2.2 OR 2.3)
and
(2.4 OR 2.5)

2.1 Two or more
Family Together
items rated
'2' or '3'

2.2 One **caregiver**
with two or more
items rated
'2' or '3'

2.3 Two
caregivers with at
least one item
rated '2' or '3'

2.4 One **child**
with two or more
items rated
'2' or '3'

2.5 Two or more
children with one
item rated
'2' or '3'

LOW INTENSITY

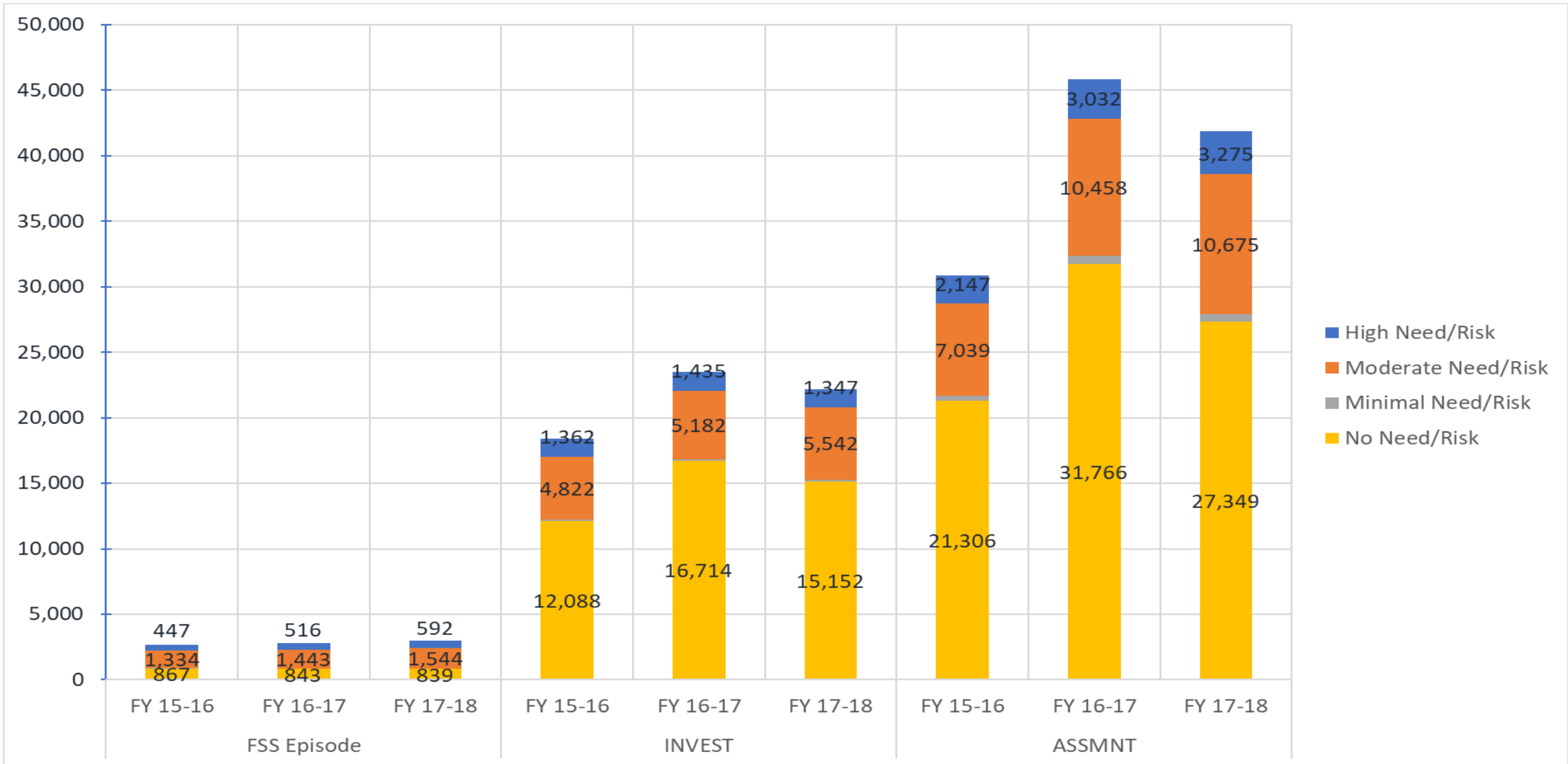
(1.1)
and
(1.2 OR 1.3)

1.1 At least one
Family Together
items rated
'2' or '3'

1.2 At least one
caregiver item
rated '2' or '3'

1.2 At least one
child item rated
'2' or '3'

FAST ASSESSMENT: RISK RESULTS

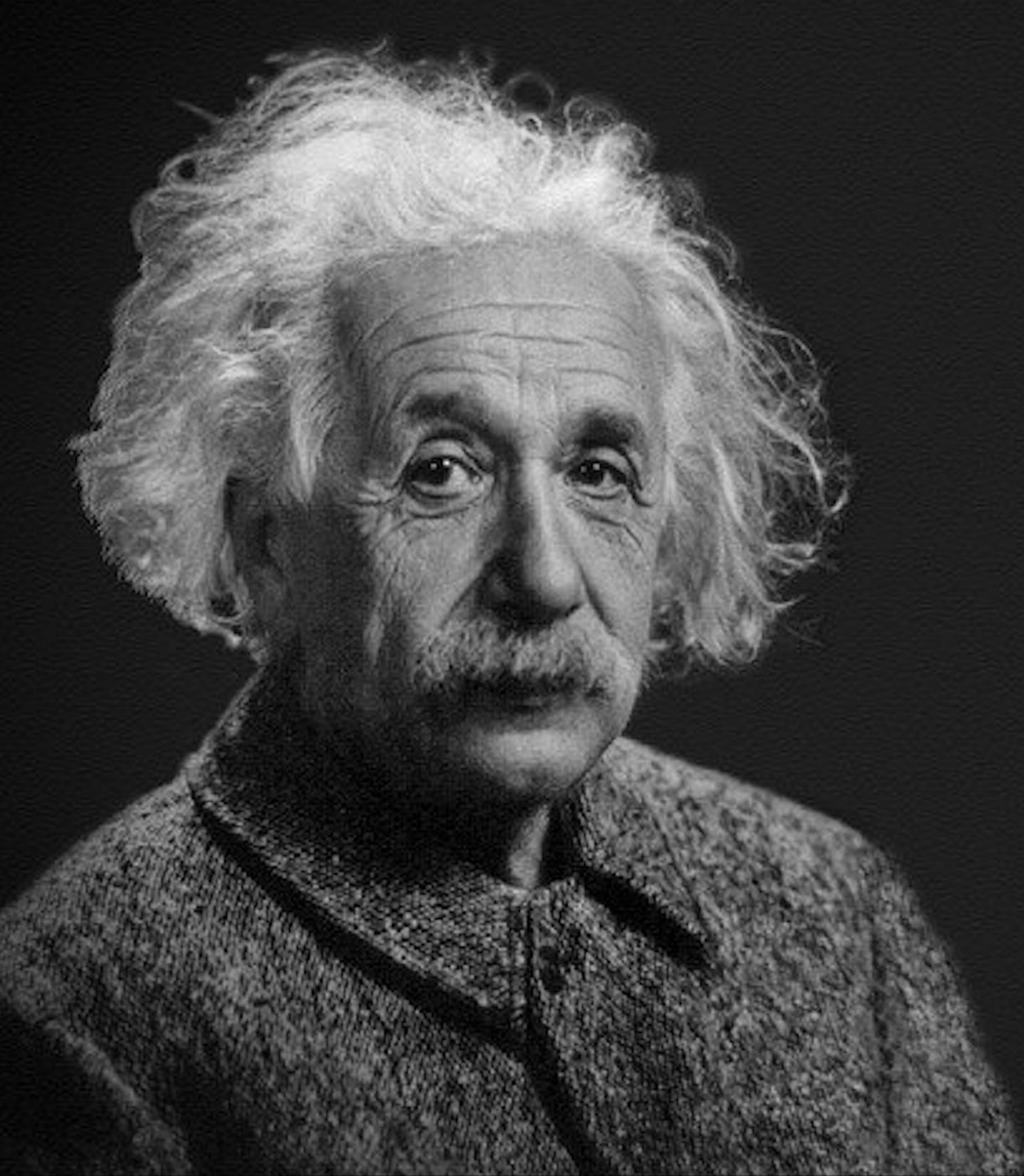




Family First Prevention Services Act

FAST is an integral component of Tennessee's plan

- Used to identify children at imminent risk of entering foster care
- Assessment integration within TFACTS creates automatically generated need record that feeds to Family Permanency Plan and marks case as meeting criteria for FFPSA candidacy.
- Technology enhancement allows necessary data tracking and monitoring from a systems level.



***“The significant problems
we face cannot be solved
at the same level of
thinking we were at when
we created them.”***

-Albert Einstein

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