

# Colorado START Demonstration Project: Outcomes

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# Overview

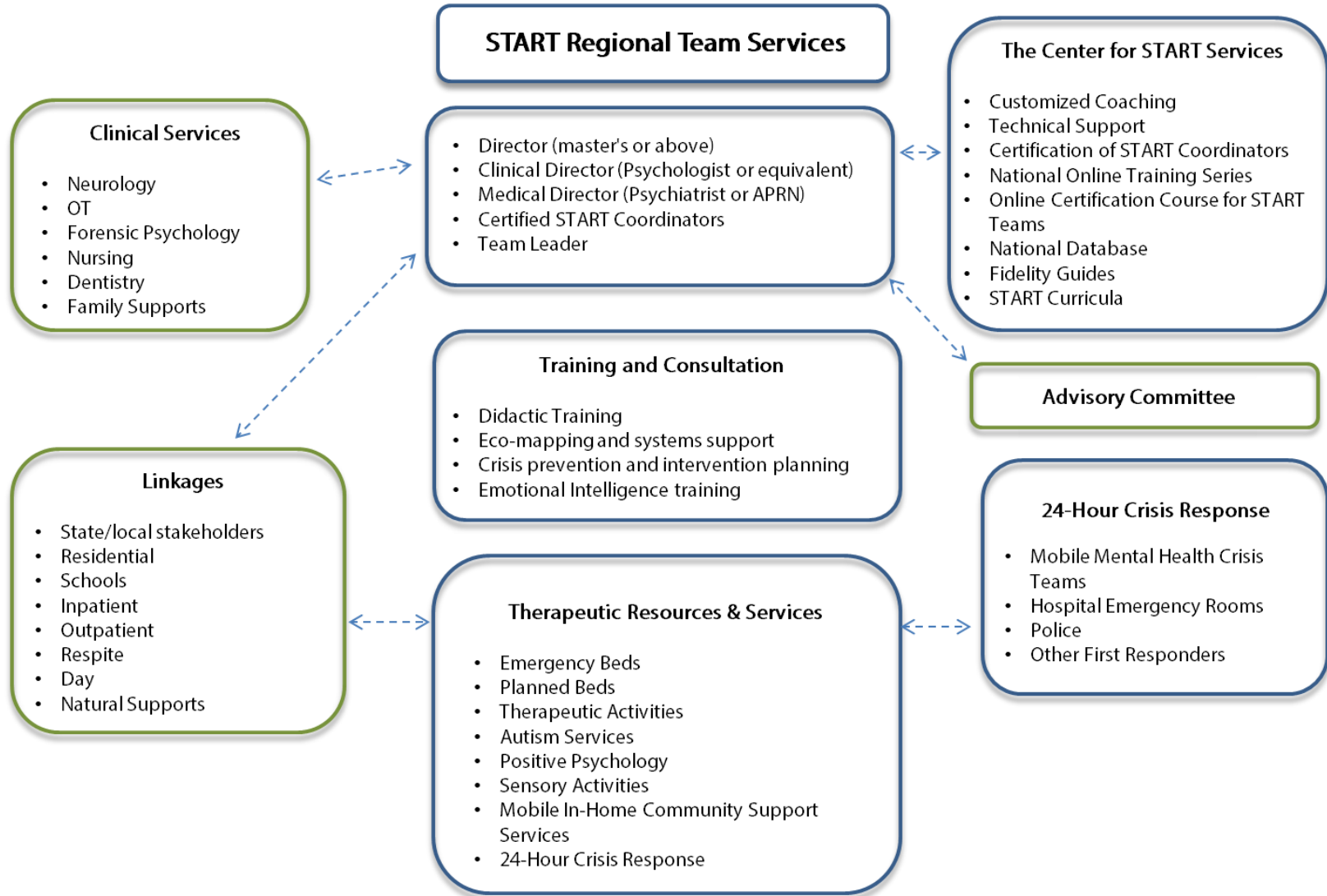
1. The START model overview
2. Background of Colorado START Pilot project
3. Who was served
4. Outcomes
5. Next Steps



# The "START" model: Systems Linkage Approach

A national initiative that strengthens efficiencies and service outcomes for individuals with intellectual/developmental disabilities and behavioral health needs in the community.

- Interdisciplinary cross systems collaborative approach to information sharing that enriches community capacity
- Enrich the system (avoid strain), the use of a linkage coordinators
- Resources allocated to fill in service gaps provided across systems
- Expertise improves capacity, training, certification, fidelity to best practice
- Outreach is key
- Cultural and linguistic competency



# Project Background

- In 2014, JFK Partners completed a statewide study that identified gaps in services for individuals with an intellectual or developmental disability (I/DD) who experience a behavioral health issue (Gap Analysis).<sup>1</sup>
- House Bill (HB) 15-1368 was passed into law, per section of the Colorado Revised Statutes (C.R.S.) 25.5-6-412, which established the Cross-System Response for Behavioral Health Crises Pilot Program (CSCR Pilot) to help address the gaps in services identified in the Gap Analysis and serve people with an I/DD and a mental health disorder experiencing a behavioral health crisis

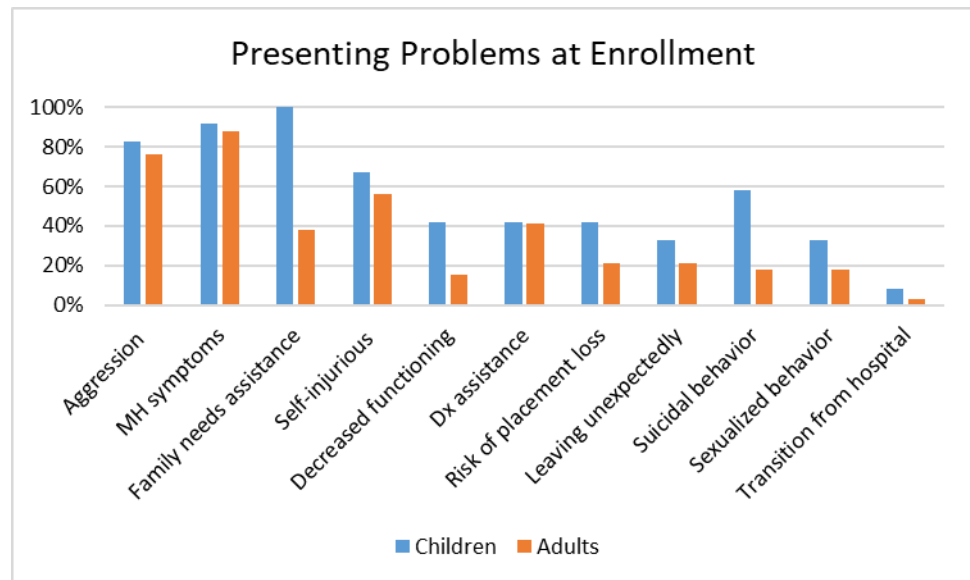
# Project Background

- Strive and Foothills Gateway were chosen to complete pilot to provide crisis response and build community capacity
  - 1 Coordinator at Foothills Gateway, Colorado Springs
  - 1 PT Coordinator, 1 PT team leader, 1 PT clinical director, 1 PT director, 1 PT medical director at Strive, Grand Junction
- Limited funding
- Goal to report after at least 1 year (October 2017 and April 2019), examining changes in emergency service expenditures

# Individuals Supported (descriptive data)

## N=35

- 5 children
- 30 adults
- 66% referred by case manager
- Average of 4.3 concerns at time of enrollment
- 89% referred for MH sx
- 80% for aggression



**Colorado START**

<b>Variable</b>	<b>Children</b>	<b>Adults</b>
<b>N</b>	5	30
<b>Mean Age (Range)</b>	15 (14-16)	31 (18-71)
<b>Gender (n=male)</b>	4	19
<b>Race</b>		
White/Caucasian	5	27
African American	-	1
Asian	-	2
Other	-	-
<b>Level of Intellectual Disability (%)</b>		
No ID/Borderline	-	4
Mild	-	10
Moderate	4	9
Severe-Profound	1	7
Not specified in records	-	-
<b>Living Situation (%)</b>		
Family	5	9
Alternative family/host home	-	12
Group Home and Community ICF/DD	-	6
Independent/Supervised	-	3
Psych. Hospital/IDD Center	-	-
Other (Jail, Homeless, "Other")	-	-



# Mental Health and Medical Concerns

Variable	Children	Adults
N	5	30
Mental Health Conditions (%)		
At least 1 diagnosis	100%	97%
Mean Diagnoses	3	2.8
Most Common Mental Health Conditions (%)		
Anxiety Disorders	40%	37%
ADHD	20%	17%
ASD	20%	17%
Bipolar Disorders	0%	20%
Depressive Disorders	100%	70%
Disruptive Disorders	60%	40%
OCD	20%	13%
Personality Disorders	0%	7%
Schizophrenia Spectrum Disorders	20%	23%
Trauma/Stressor Disorders	0%	10%

Variable	Children	Adults
N	5	30
Medical Diagnosis (%)		
At least 1 diagnosis	83%	89%
Mean Diagnoses	1.3	2.5
Most Common Medical Conditions (%)		
Cardiovascular	0%	17%
Endocrine	0%	20%
Gastro/Intestinal	0%	30%
Genitourinary	0%	10%
Hematology/Oncology	0	13%
Immunology/Allergy	0	10%
Musculoskeletal disorders	0	10%
Neurologic	80%	47%
Obesity	0	17%
Pulmonary disorders	20%	13%

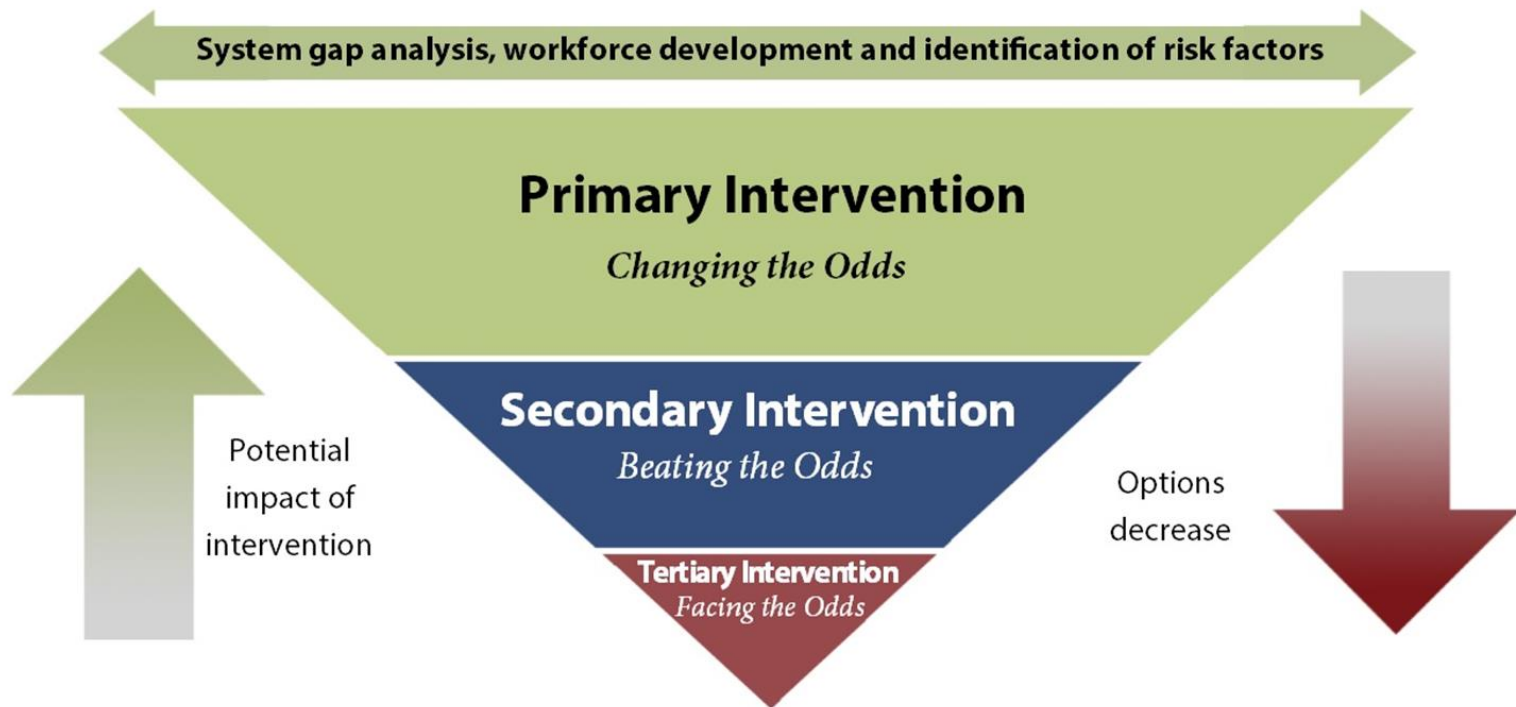
# Tertiary Care Approach

Based on a tertiary care approach to crisis intervention, START services fall into three crisis intervention modalities:

- **Primary:** Improve system capacity
- **Secondary:** Specialized clinical and support services to people at risk of crisis
- **Tertiary:** Emergency intervention services for people in crisis

# Tertiary Care Model

## Public Health Model & START: Numbers Benefiting from Intervention



# Primary Services

*Building system capacity to support individuals  
in their homes and communities.*

Over 40 hours of community training and outreach to the community including:

- Schools
- Community providers (day and residential)
- Mental health providers
- Hospitals
- Families

# Secondary Services

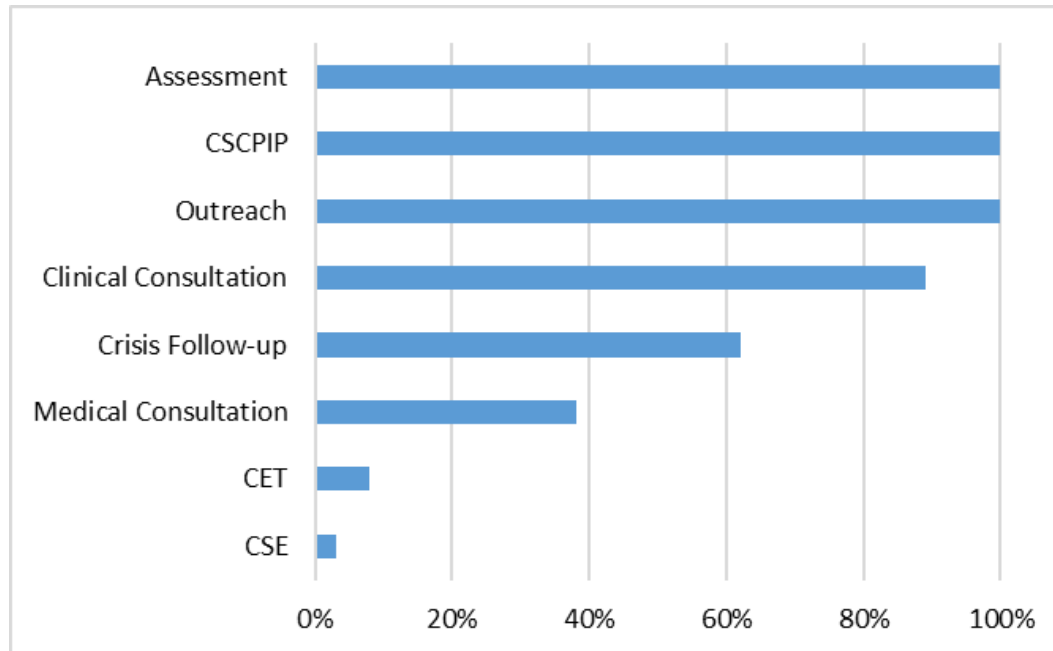
*Specialized direct services to people at risk of emergency service use.*

START secondary services help to ensure that individuals are getting the supports they need to intervene effectively in times of stress and avoid costly and restrictive emergency services. Services include:

- Intake/Assessment
- Outreach
- Clinical Consultation
- Medical Consultation
- Cross System Crisis Planning
- Crisis Follow-Up
- Clinical Education Team (CET)
- Comprehensive Service Evaluation (CSE)

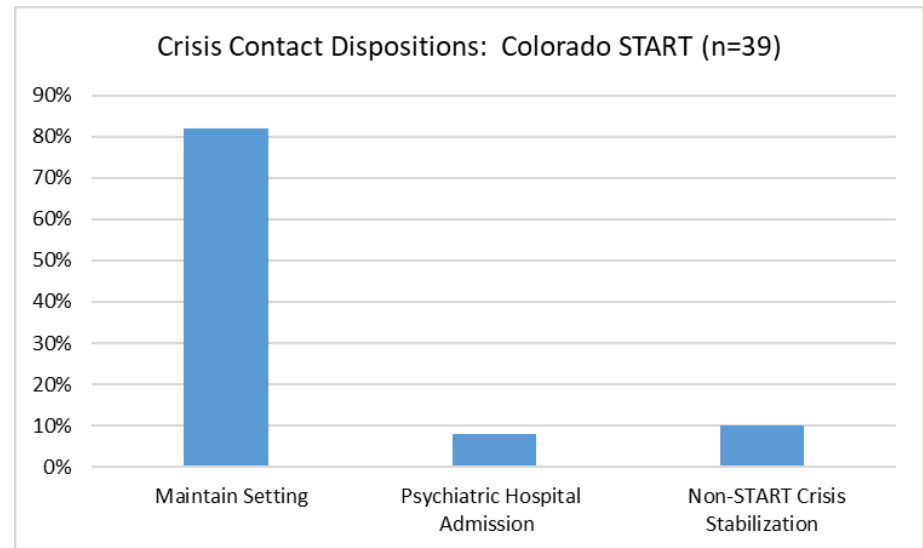
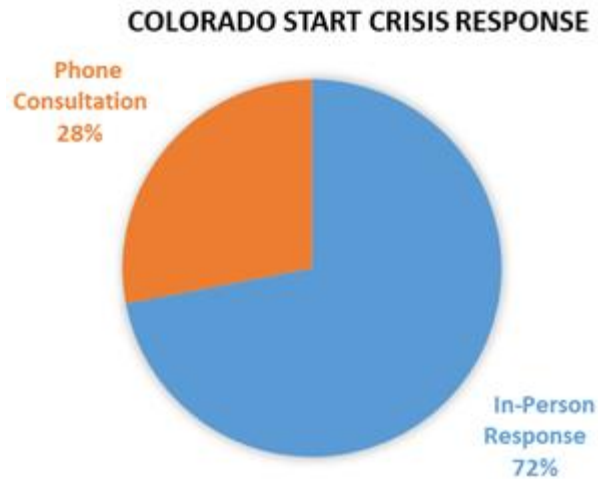
# Secondary Services Provided

Over 2600 hours of planned secondary services



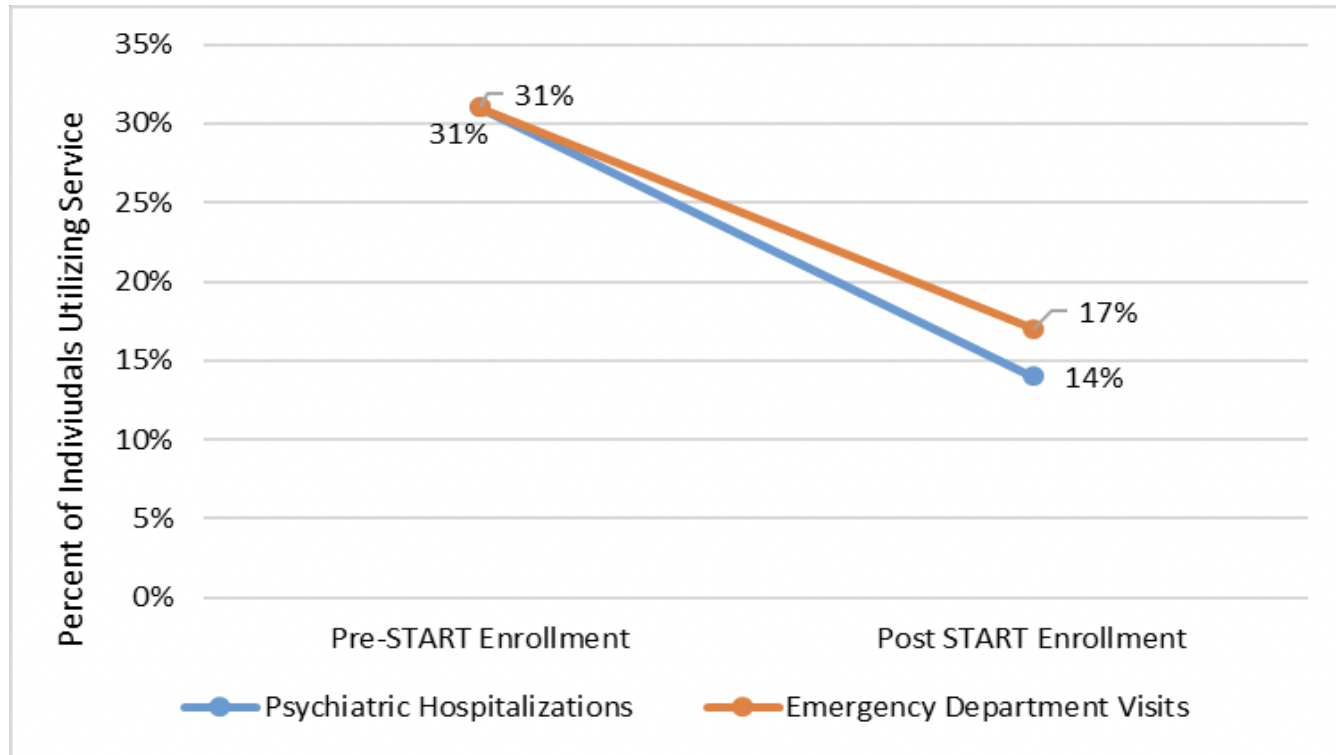
# Tertiary Services

*Emergency interventions provided during a crisis (n=35)*



# Clinical Outcomes

## Decreased Emergency Service Use





# Clinical Outcomes

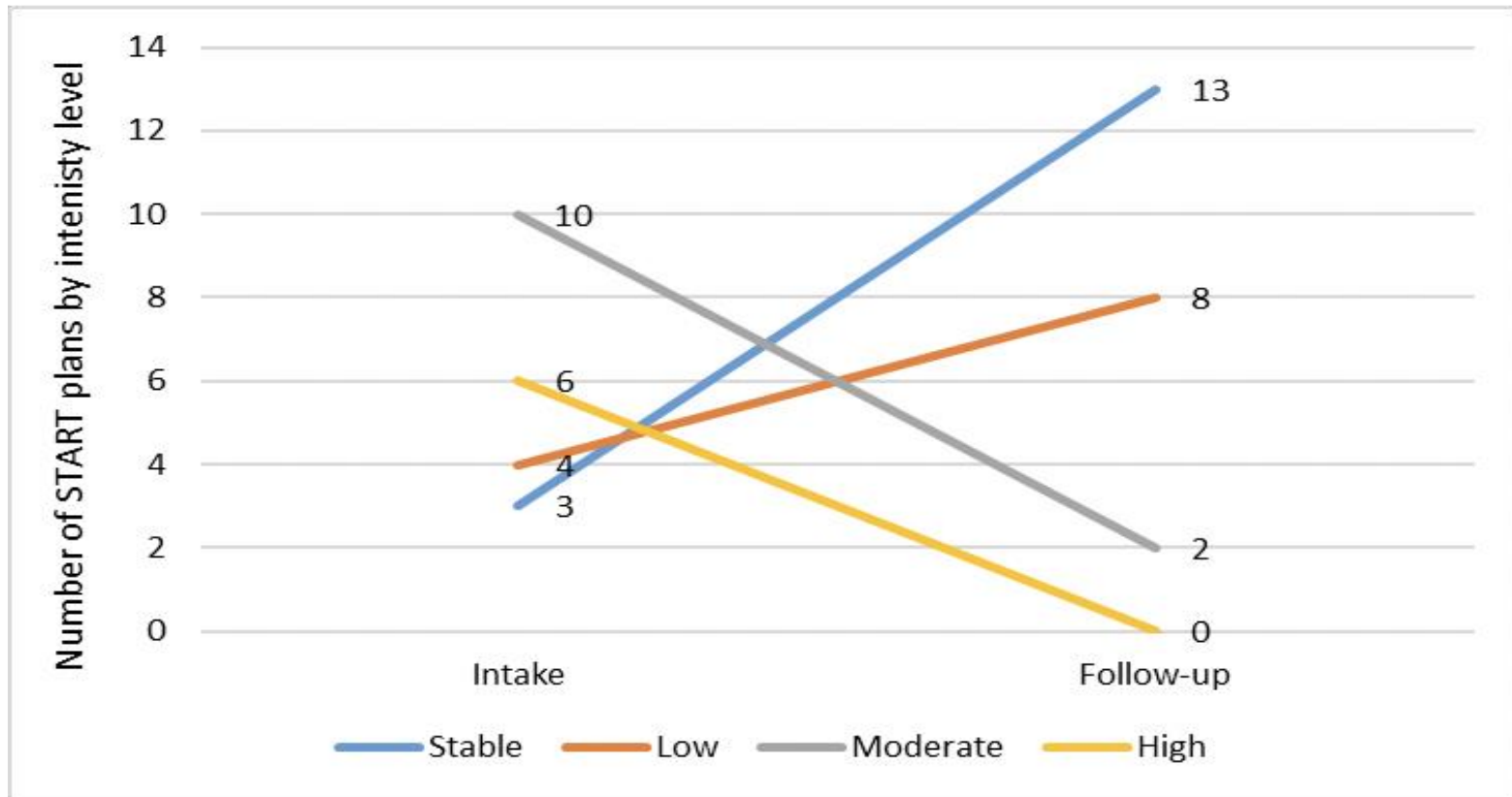
## Improved ABC Scores

Subscale	Mean T1	Mean T2	t Stat	P(T<=t) one-tail
<i>Irritability/Agitation</i>	17.87	13.22	3.27	0.00
<i>Lethargy/Social Withdrawal</i>	9.57	6.13	1.64	0.06
<i>Hyperactivity/Noncompliance</i>	17.57	12.00	3.32	0.00

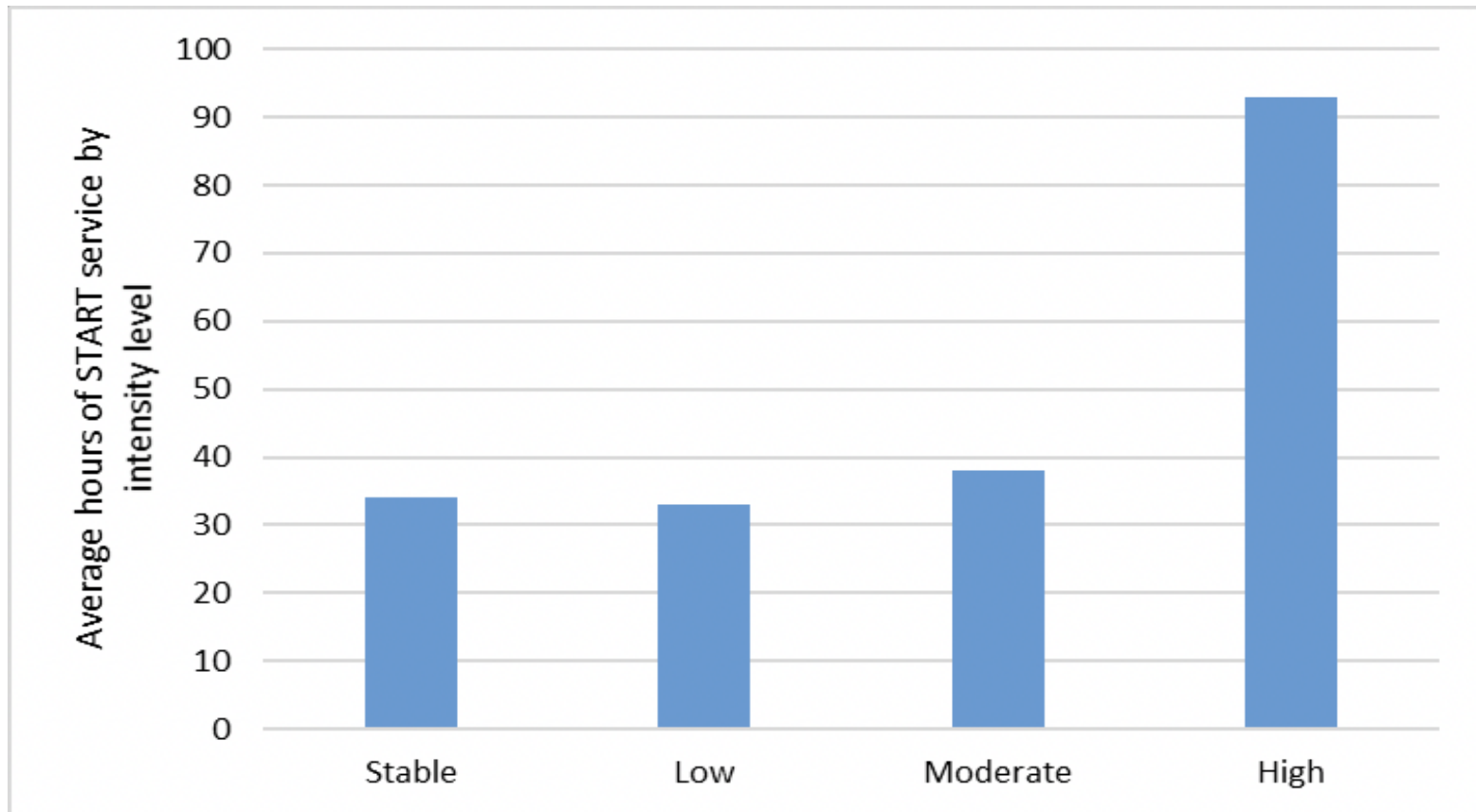
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*The Aberrant Behavior Checklist (Aman, Burrow, Wolford, 1997) is a 58-item psychopathology rating tool that has been widely used in the assessment of people with intellectual disabilities.*

# Case Intensity: Intake & 6 months later



# Time spent by case intensity



# Pre-post Medicaid Claims for Hospitalization/Emergency Department Use By Reason for Service (N=23)

		Medical		IDD/Psychiatric	
		Pre	Post	Pre	Post
Unique Claims		78	87	63	46
Total Dollars Billed		\$112,315	\$104,575	\$99,420	\$34,192

# Cost of not providing support

- Lack of productivity
- Health care
- Institutional care
- Medications
- Humanity

# Case Study: Sam

- Reasons for referral:
  - High frequency of verbal aggression
  - Repeated mental health holds
  - Regular emergency department visits
  - Suicidal ideation/attempts
  - Aggression resulting in police involvement

# Sam: Biopsychosocial Impacts

- Biological conditions: Tuberous sclerosis, resulting seizures and mental health challenges, intellectual disability, resulting in difficulty expressing himself, regulating mood, behavior, and emotion
- Psychological conditions: anxiety, depression
- Social factors: difficulty with family members, support staff, community members

# Crisis

- Sam would become verbally aggressive when stressed, using profanity and descriptive threats
- When tried to control him or stop him, he would escalate and either become aggressive to self, others and property, or go to the store and try to buy a gun to kill himself
- At other times, Sam would feel anxiety or fear and not be able to articulate this; he would then request a visit to ED for safety and reassurance
- Staff, family, entire system went into crisis with Sam





# Colorado START

- Outreach
- Intake and assessments
- Comprehensive service evaluation and Clinical Education Team
- Crisis response
- Systems linkages
- Education around TS and promoting a different understanding of Sam and his challenges

# Results

- Team came to rely on START and trust their recommendations
- Sam began to build skills for managing his emotions and behavior and learned to vent without physical aggression and escalation
- Team learned to let Sam vent and decrease attempts to control in efforts to keep him safe; realized he was safe
- Sam came to trust his team and uses coping strategies responsibly

# Outcomes

- Sam's independence has increased
- Sam has the same job for one year and goals for learning more skills for promotion!
- Calling police or mobile crisis decreased for 4-6x/week to none (now sometimes call crisis center to talk)
- Hospitalizations went from monthly to one time in 13 months
- Emergency department visits decreased from several per month to once when he thought he was having a seizure
- Sam's family and team are thrilled with his progress and view him in light of his strengths

# Next Steps

- Replicate with larger sample
- Use control group
- Small team with components of START model make significant impact
- What's next for Colorado?