

Using a Data Support System to Build an Empirically-Based Culture

Or, continuously striving to improve services to children & families by using data as a guide for decision making

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Tampa, February 24, 2006




State Mental Health University EMU

LEVEL OF FUNCTIONING PROJECT

Providers Parent Advocates ACMH

The "System" for Parents



Provider Resistance to Collecting Data




Welcome to Data Warehouse ASU

HR Database Financial Database Student Database

DATA

Effective Systems of Care: A Summary of Implementation Factors



Provider Accountability Family Choice
Provider Network Collaboration
Performance Measurement Systems
Range of Effective Services and Supports
Pathways to Care
Value & Population Principles
Subsidiaries

Implementation Plan
Collaborative Leadership
Governance
Sustainability

Research and Training Center for Children's Mental Health,
Department of Child and Family Services, Louis de la Parte Florida
Mental Health Institute, University of South Florida

**Performance Measurement System
 Used in Michigan for Children
 and Families Served by Public
 Mental Health**

**Reflections on Our Journey:
 A Distillation of Core Principles
 Based on Hindsight**

**LEADING TO SYSTEM
 TRANSFORMATION**

**Evidence-Based Culture:
 Everyone Asks "Where's the data!?"**

Where's the Data?
 Where's the Data?
 Where's the Data?
 Where's the Data?
 Where's the Data?

WHERE'S THE DATA?

Cornerstone Measure

- CAFAS – Child and Adolescent Functional Assessment Scale
- Livingston County began using in 1994 to assess outcome
- Spread to rest of state

**CAFAS Assesses Day-to-Day
 Functioning Across 8 Domains**

- School/Work
- Moods/Emotions
- Home
- Self-Harmful Behavior
- Community
- Substance Use
- Behavior Toward Others
- Thinking

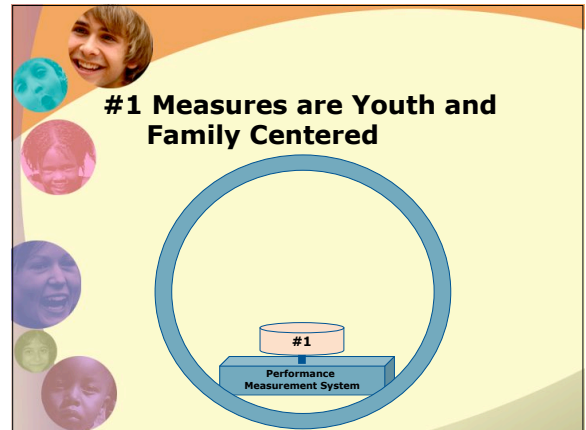
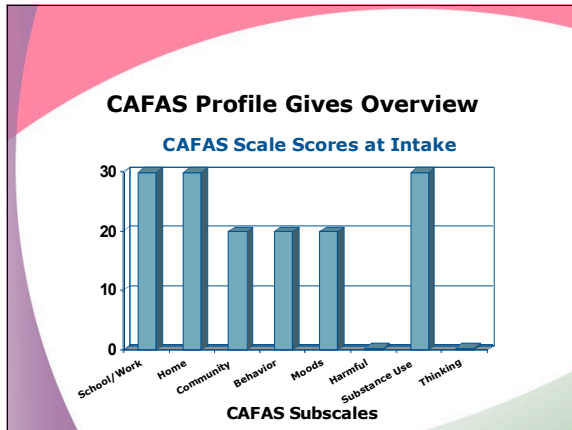
CAFAS: The Essentials

Each of the 8 subscales has problems, strengths and goals.

For each Subscale, problems are divided into 4 levels of impairment:

| Severe | Moderate | Mild | Minimal/None |
|--------|----------|------|--------------|
| 30 | 20 | 10 | 0 |

For problems, raters select behavioral descriptors that describe child's severest functioning in the last 3 months.



Outcomes Valued by Families

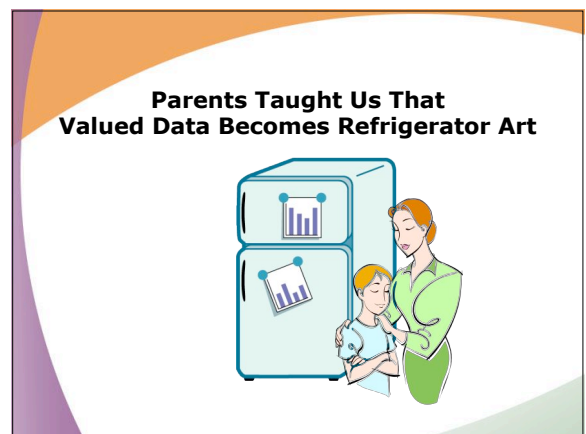
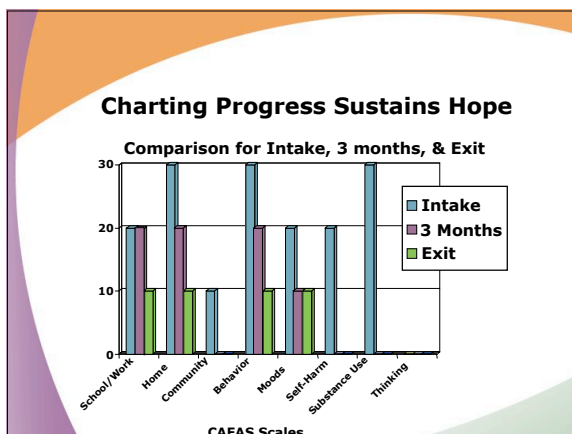
"Families want their children to get better. Expressed in functional terms, this means we want our children to be able to live at home, to go to school and get good grades, to enjoy friends and activities in the community, and become responsible adults living independently."

Trina Osher: Federation of Families for Children's Mental Health (1998, p. 230)


CAFAS Used for Treatment Planning

Example for Home Scale

| | Item | Description |
|------------------|------------|---|
| Problems | 043 | Deliberate and serious threats of physical harm to household members |
| Goals | G31 G33 | Behavior at home is devoid of aggressive acts or threats Reacts non-impulsively over disagreements |
| Strengths | S53 | Takes pride in being able to do some actions independently |
| Plan | | |




The CAFAS is simple to rate and read once trained on its use. Families and professionals alike can use it.



It is a tool with the ability to meet multiple needs


The family may use the CAFAS Score to remind them of their achievements. Home down from 30 to 10. HOORAY!!




Life is getting better at home.

The family may also use the CAFAS Score to help them set the next goal.

Home is down. GREAT!



School is still at 20.



Let's work on that next.

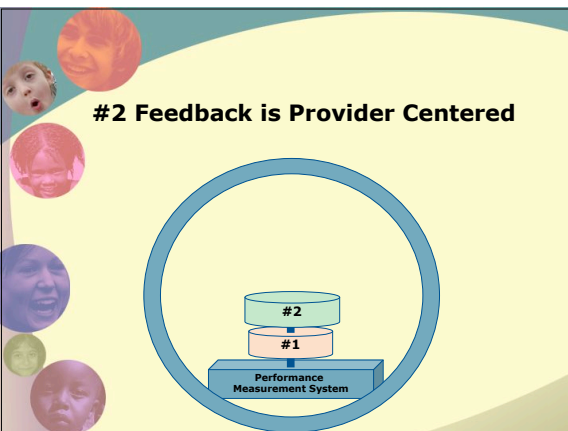
Summary:

#1 Measures are Youth and Family Centered

Measure outcomes that are:

- Valued by families
- Useful in prioritizing goals with families
- Useful in developing a plan of care with families
- Helpful to families in monitoring effectiveness of services

#2 Feedback is Provider Centered




Agreement with Providers

Send:
Monthly export of data

- CAFAS ratings at intake, 3 months, and exit
- Item level data collected with CAFAS software
- Other information on services and risk factors


Receive:
Provider-specific data monthly
Provider-specific data compared to state-wide benchmarks at data parties held at University (2 to 4 per year)

- Data privacy: Providers compared only to statewide averages (not to each other)



Generating Meaningful Feedback

- Outcome indicators for individual clients
- Aggregated averages by provider
- Aggregated averages for state



Outcome Indicators

For each youth,

- Track progress during treatment
- Select most appropriate indicator
- Move to a more ambitious indicator if target goal achieved

For aggregated data,


- Calculate the proportion improved

Outcome Indicators

Goal: Reduction in overall impairment
 Criteria: Reduce total score by 20 points or more

| Total Score | |
|-------------|-----|
| Intake | 150 |
| Exit | 80 |

70 point improvement




Outcome Indicators

Goal: Reduce behaviors that jeopardize the youth being in a "normal" environment
 Criteria: No severe ratings on any subscales

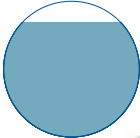
| Severe Impairments | |
|--------------------|---|
| Intake | 3 |
| Exit | 0 |

No severe impairments



Generating Meaningful Feedback

- Designation of "client type" for individual clients
- Outcome indicators for individual clients
- Aggregated averages by provider
- Aggregated averages for state



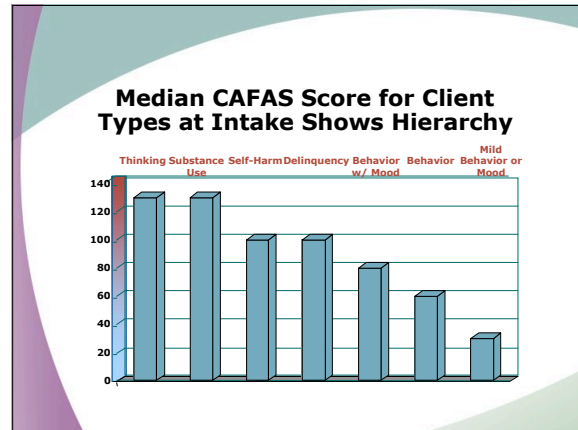
Client Types

- Purpose
Simplify data to make more meaningful
- Method for Determining
"Glance" at CAFAS profile
Which subscales are rated as severe or moderate?
Assign to first client type youth qualifies for (i.e., hierarchically arranged)

Client Types

- Thinking Problems (irrationality)
- Maladaptive Substance Use
- Self-Harmful Potential (includes severe depression)
- Delinquency
- Behavior Problems *with* Moderate Mood Disturbance (School, Home, or Behavior Toward Others)
- Behavior Problems *without* Moderate Mood Disturbance
- Moderate Mood
- Mild Behavioral or Mood Problems

Adolescent Specialties



Example 3: Outcome Indicator

Goal: Reduce problems with more pervasive effects
Criteria: Progress to client type lower in the hierarchy

Intake

- Thinking
- Substance Use
- Self-Harmful Potential
- Delinquency
- Behavior Problems with Moderate Mood Disturbance

Exit

- Behavioral Problems without Mood Disturbance
- Moderate Mood/Mild Behavioral

Generating Meaningful Feedback

- Outcome by client type for each provider
- Designation of “client type” for individual clients
- Outcome indicators for individual clients
- Aggregated averages by provider
- Aggregated averages for state

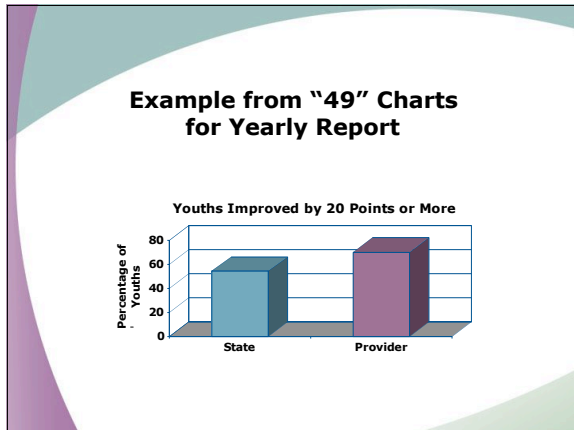
Feedback: Graphic & Frequent

- 49 charts that compare provider’s yearly aggregated data to state benchmarks

IMPACT: Local providers influence state guidelines by collaboratively interpreting data with university and state administrators

“49” Charts for Yearly Report Answers...

- Who do we serve?**
- What are the types & extent of youths’ impairments at intake?**
- Is the agency serving targeted youths?**
- What are the outcomes for youths?**
Breakdown by outcome indicator and by client type
- Are services appropriate?**
- Who drops out?**

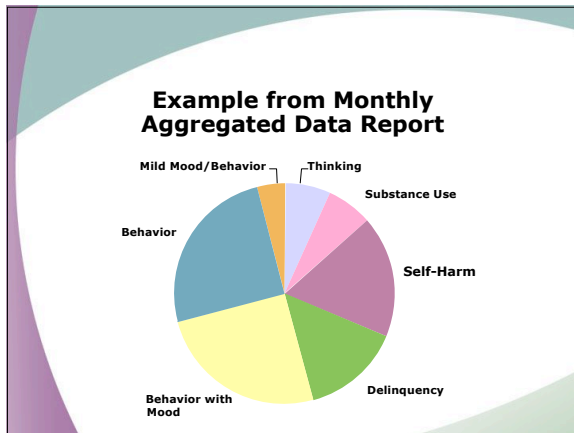


Feedback: Graphic & Frequent

- Monthly charts of aggregated data

IMPACT: *Encouraging local continuous quality improvement efforts*

- 49 charts that compare provider's yearly aggregated data to state benchmarks



Feedback: Graphic & Frequent

- Monthly charts of individual client level data

IMPACT: *Preventing poor outcome for individual clients by monitoring progress during treatment*

- 49 monthly charts of aggregated data
- 49 charts that compare provider's yearly aggregated data to state benchmarks

Example from Monthly Charts of Client Level Data

Identifies youths making poor progress during treatment

| Client Research ID | Client Type | Intake CAFAS | Most Recent CAFAS |
|--------------------|-------------|--------------|-------------------|
| 01 | Substance | 120 | 170 |
| 02 | Self-harm | 120 | 120 |
| 03 | Delinquent | 80 | 120 |
| 04 | Beh/Mood | 60 | 80 |

Youth (Substance use client type) is getting worse (120 to 170)

Provider-Centered Feedback

Providers submit outcome data monthly

University sends feedback monthly

Impact: *Data used for local continuous quality improvement (CQI)*

Summary:

#2 Feedback is Provider Centered

Assures that local providers:

- Participate in generating type of data feedback
- Get timely data feedback
- Get meaningful data for continually improving services to:

Develop programs
Determine training needs
Avoid poor outcomes with feedback during treatment

#3 Community Programs are Supported

Recognizing Community Programs Which Have Exemplary Outcomes

Hear All About It!!

Propensity Analysis Shows Family Guidance Home-Based Program Performs better than other Michigan Programs Serving Similar Children

Hodges, K., & Grunwald, H. (2005). The use of propensity scores to evaluate outcome for community clinics: Identification of an exceptional home-based program. Journal of Behavioral Services & Research, 32, 292-303.

Propensity Analysis

Propensity analysis can be used to estimate treatment effects in community settings, where randomly assigning clients to treatment and control groups is not feasible

Propensity scores method permits:

- Determining that a treatment program does as well as or better than programs at comparison sites (i.e., local customary care), controlling for the severity of the client population
- Controlling for many covariates by reducing the total collection of pretreatment covariates to a single composite

Propensity Study

This study compared Family Guidance with clients at comparison sites to determine if there were differences in 3 outcomes, after controlling for length of treatment and the following covariates:

- age,
- sex,
- race,
- family income,
- parental education,
- year entered, and
- number of severe impairments at intake

For clients treated at Family Guidance, the odds of having...

A 20-point reduction in Total CAFAS score are 2.19 times higher than at comparison sites

No severe impairments at exit are 1.69 times higher

A total score of 40 or lower at exit are 1.60 times higher

Based on Logit model where the outcome is log odds of the subject being located at Family Guidance.

Identify Provider Strengths

Why:
Good news is important. Providers usually have good outcomes for some client types.

Supportive Action:
Help providers evaluate programmatic changes
Provide a forum for providers to share successes

Goal:
Each provider strives towards personal best for each client type

Model:
Golden Rule - Treat providers as you want them to treat families

Summary:

3 Community Programs Are Supported

Identifies & Supports

- Exemplary programs developed within the community
- Strengths of other providers

Monitors

- Effectiveness of new interventions as they are introduced

#4 Statewide Policies and Planning are Data Informed

Data Answers Questions

Hodges, K., & Grunwald, H. (2005). The use of propensity scores to evaluate outcome for community clinics: Identification of an exceptional home-based program. *Journal of Behavioral Health Services & Research*, 32, 292-303.

Wotrung, J., Hodges, K., Xue, Y., & Forgatch, M. (2005). Critical ingredients for improving mental health services: Use of outcome, data, stakeholder involvement, and evidence-based practices. *The Behavior Therapist*, 28, 150-158.

Hodges, K., & Wotrung, J. (2004). Role of monitoring outcomes in initiating implementation of evidence-based treatments at the state level. *Psychiatric Services*, 55, 396-400.

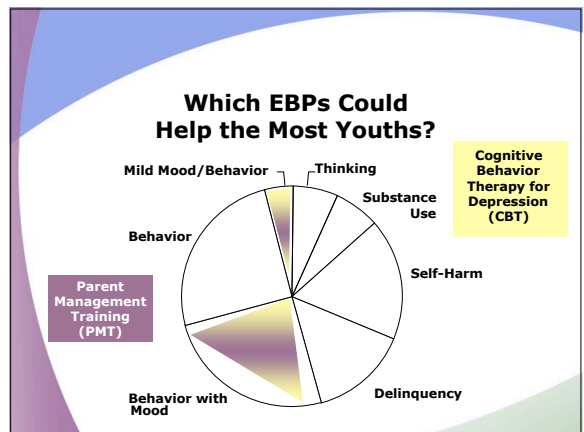
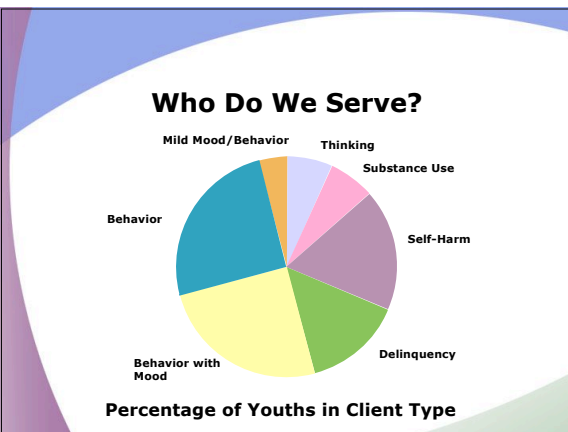
Hodges, K., Xue, Y., & Wotrung, J. (2004). Uses of the CAFAS to evaluate outcome for youths with SED served by public mental health. *Journal of Child and Family Studies*, 13, 325-339.

Xue, Y., Hodges, K., & Wotrung, J. (2004). Predictors of outcome for children with behavior problems served in public mental health. *Journal of Clinical Child & Adolescent Psychology*, 33, 516-522.

Hodges, K., Xue, Y., & Wotrung, J. (2004). Outcomes for children with problematic behavior in school and at home served by public mental health. *Journal of Emotional and Behavioral Disorders*, 12, 109-119.

Hodges, K. (2004). Using assessment in everyday practice for the benefit of families and practitioners. *Professional Psychology: Research and Practice*, 35(5), 449-456.

Hodges, K., & Wotrung, J. (2004). Client typology based on functioning across domains using the CAFAS: Implications for service planning. *Journal of Behavioral Health Services & Research*, 27, 257-270.



Who is less likely to improve with treatment-as-usual?

At intake, significant predictors of poor outcome are:

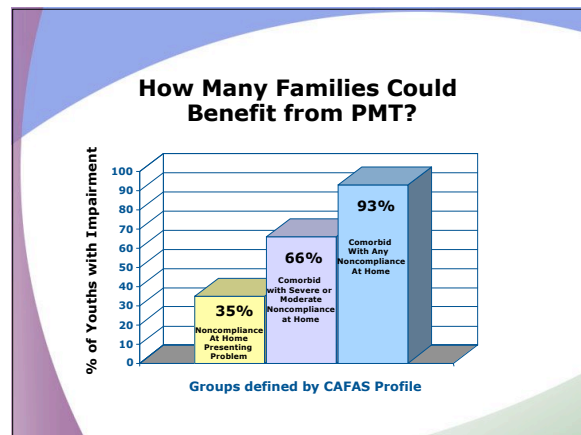
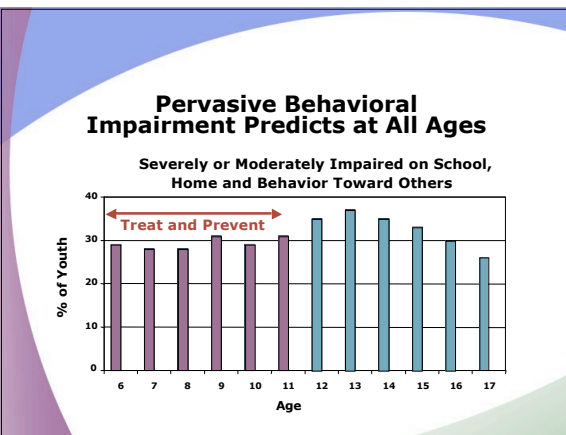
- Prior psychiatric hospitalization
- Comorbid delinquency
- Prior juvenile justice involvement
- Severely or moderately impaired caregiving environment (CAFAS Caregiver scale)

So, what's new?

What is a Stronger Predictor?

Pervasive Behavioral Impairment
Defined as moderate or severe impairment on three CAFAS subscales:

- School
- Home
- Behavior Toward Others



Leading System Change

- Data is used to help lead system change/system transformation.
- Data is used to shape people's behavior. It is the change in behavior that leads to system change.
- Systems don't change; people do.
- Client level outcome data is now changing what we do and how we do it.
- Data support system is at the heart of our efforts to improve mental health services for children and families.


Shared Data Broadly

- Disseminated these data and information on linking client types to EBPs*
- Stakeholders, including parent advocates, developed logic model for state implementation of trainings
- Parent advocates wrote Guide to EBPs for Parents

IMPACT: Introducing EBPs within our empirically-based culture has met with enthusiasm by providers and parent advocates

*Reference: Evidence-based Treatments for Children And Adolescents: Matching CAFAS Profiles to Treatment Types. Hodges, 2004

**Data for the people,
Data by the people, Data with the people**



**Performance
Measurement
System**


Leading with Data

70% facts, figures, and experience
30% working in the dark

Data makes
Less time operating in the dark

Operating in the dark much
easier!!

Data helps me see the light before I
feel the heat




**Data Facilitates Broad
Participatory Planning with
Large Groups**

- Data is a loud voice
 - It levels the playing field for everyone
- Data focuses discussion
 - People are willing to follow rational decisions made with data
- Group discussion
 - Facilitates collaboration
 - Elicits the best ideas from partners

**Performance Management
System is a Powerful Tool**

- Minimizes conflict based on unfounded fears
- Can lead to system change
- Shows our partners in child welfare, juvenile justice, & education that we can make a difference




**Dashboard Indicators
Developed with Stakeholders**

Community-based services if CAFAS > 100

No severe impairments at exit

Decrease of 20 points or more on the overall CAFAS

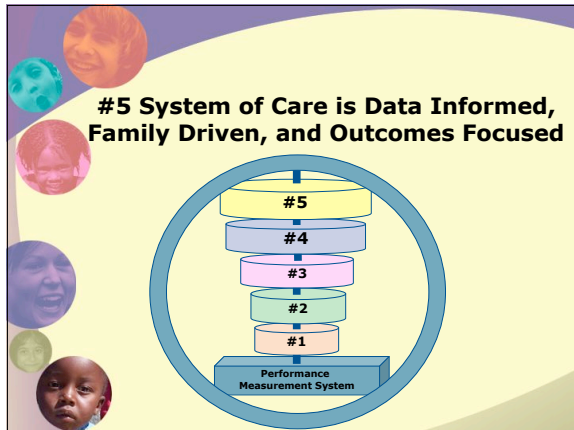


Summary:

#4 State Policies and Planning Are Data Informed

Assists policymakers and administrators who use the data to:

- Know about their consumers, by having outcome data at the level of the individual client
- Collaborate with all stakeholders, including families
- Continually evaluate the impact of change
- Motivate providers to strive for excellence by actively engaging in continuous quality improvement
 - Raise the bar and look at results of services



#5 System of Care is Data Informed, Family Driven, and Outcomes Focused

Collaboration to Establish Criteria for Specific Interventions

- Statewide blended funding project using 1915(c) waiver and county funding for services
 - Eligibility criteria for the waiver includes the CAFAS
 - 90 if 12 or younger
 - 120 if 13 or older
- Detroit/Wayne County blended funding project between mental health and juvenile justice will target youths for more intensive services who have
 - Pervasive behavioral impairment (severely or moderately impaired on School, Home, & Behavior Toward Others)

Collaboration to Monitor Client Outcomes Across Agencies

Outcome monitoring follows the youth across agency boundaries

Example initiative

- Blended funding project for children who are adopted
 - CAFAS will be our outcome measure

Summary:

#5 System of Care is Data Informed, Family Driven, & Outcomes Focused

Help partners in the system of care to:

- Identify services youths and families need, regardless of entry agency
- Track outcomes for youth and families, regardless of entry agency
- Study relationship between services, cost, and outcomes to promote effective services which are family driven and outcomes focused

LEADING TO SYSTEM TRANSFORMATION

Continue Search for Quality



"If you accept the expectations of others, especially negative ones, then you never will change the outcome." **Michael Jordan**



"Who says wheelchair bound kids can't wrestle!"
Gabrielle and Manny Pennell

"Teamwork divides the task and doubles the Success"



"I'll change the diaper and stretch Gabby while you make us dinner!"
Renee Williams

Partnering with Families can help break system barriers and change policies



"We do want the same things, so let's work together to get them done."
Renee Williams and Jonicea Pennell

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