

# Multisystemic Therapy (MST) Overview

Scott W. Henggeler, Ph.D.  
Family Services Research Center  
Medical University of South Carolina

# Multisystemic Therapy (MST)

Breaking the cycle of criminal behavior by keeping teens at home, in school and out of trouble



# MST Research and Dissemination



Family Services Research Center (FSRC) at the  
Medical University of South Carolina (MUSC)

MST Services

MST Institute

Licensed and affiliated organizations:

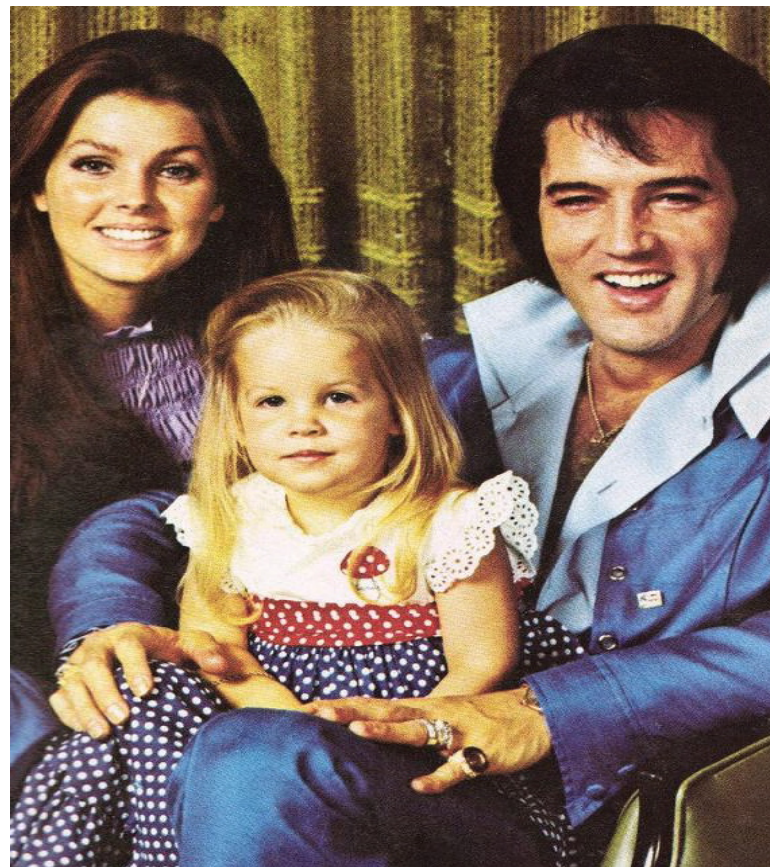
MST Network Partner Organizations

Local MST Provider Organizations

# Where is MST Being Used?

- Over 30 states in the U.S. and in 12 countries
- Treating more than 23,000 youth and families annually
- Statewide infrastructure in Connecticut, Georgia, Hawaii, New Mexico, Ohio, and South Carolina
- Nationwide program in Norway (20+ teams)
- Other international replications: Australia, Canada, Denmark, Iceland, Northern Ireland, England, Scotland, Sweden, Switzerland, the Netherlands, and New Zealand.

# Where did MST Start?



# What is MST?

- Community-based, family-driven treatment for antisocial/delinquent behavior in youth
- Focus is on “Empowering” caregivers (parents) to solve current and future problems
- MST “client” is the entire ecology of the youth - family, peers, school, neighborhood
- Highly structured clinical supervision and quality assurance processes



# Who is MST for?

- Targeted are adolescents between the ages of 12 and 17 years, have serious criminal arrest histories, and are at risk for out-of-home placements or incarceration
- Adolescents presenting with serious clinical problems like drug abuse, violence, or emotional disturbance

# Families as the Solution

- MST focuses on families as the solution
- Families are full collaborators in treatment planning and delivery with a focus on family members as the long-term change agents
- Giving up on families, or labeling them as “resistant” or “unmotivated” is not an option
- MST has a strong track record of client engagement, retention, and satisfaction

# How is MST Implemented?

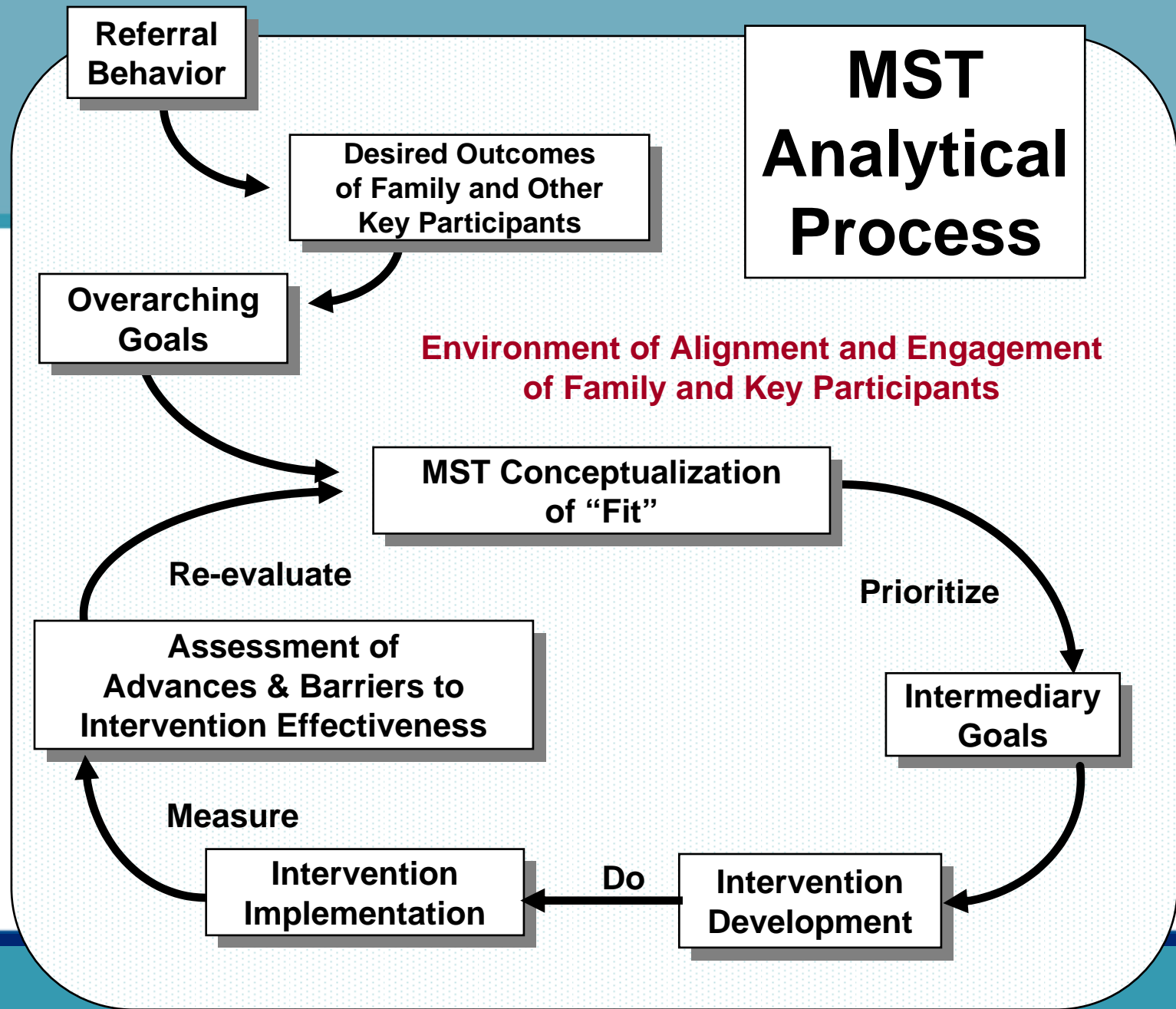
- Single therapist working intensively with 4 to 6 families at a time
- “Team” of 2 to 4 therapists plus a supervisor
- 24 hr/ 7 day/ week team availability
- 3 to 5 months is the typical treatment time (4 months on average across cases)
- Work is done in the community: home, school, neighborhood, etc.

# How is MST Implemented?

(continued)

- MST staff deliver all treatment - typically no services are brokered/referred outside the MST team
- Never-ending focus on engagement and alignment with the primary caregiver and other key stakeholder (e.g., probation, child welfare, etc.)
- MST staff must be able to have a “lead” role in clinical decision making for each case
- Highly structured weekly clinical supervision and Quality Assurance (QA) processes

# MST Analytical Process



# Keys to MST Engagement

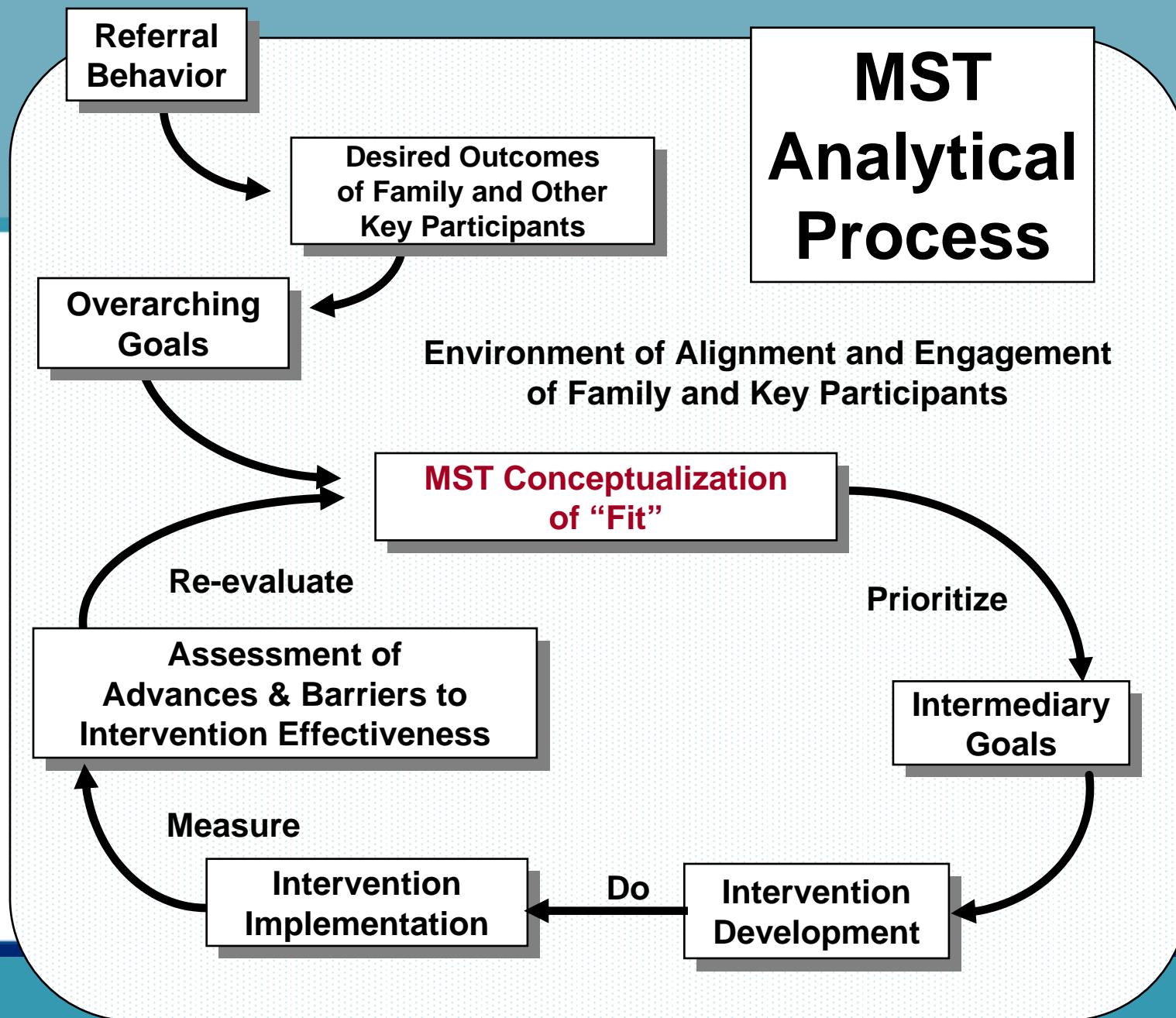
- Treatment team responsible and accountable for engagement -- thus, therapists are taught to “never give up” on engaging a family
- Treatment is strength-focused
- Family members are viewed as full collaborators, with treatment goals set primarily by family members

# Keys to MST Engagement

(continued)

- Services are individualized and comprehensive to meet multiple changing needs of youth and families
- Services are provided in the natural ecology, which decreases barriers to delivery
- Low caseloads provide time needed to establish treatment alliance
- Appointments are at times convenient for the family

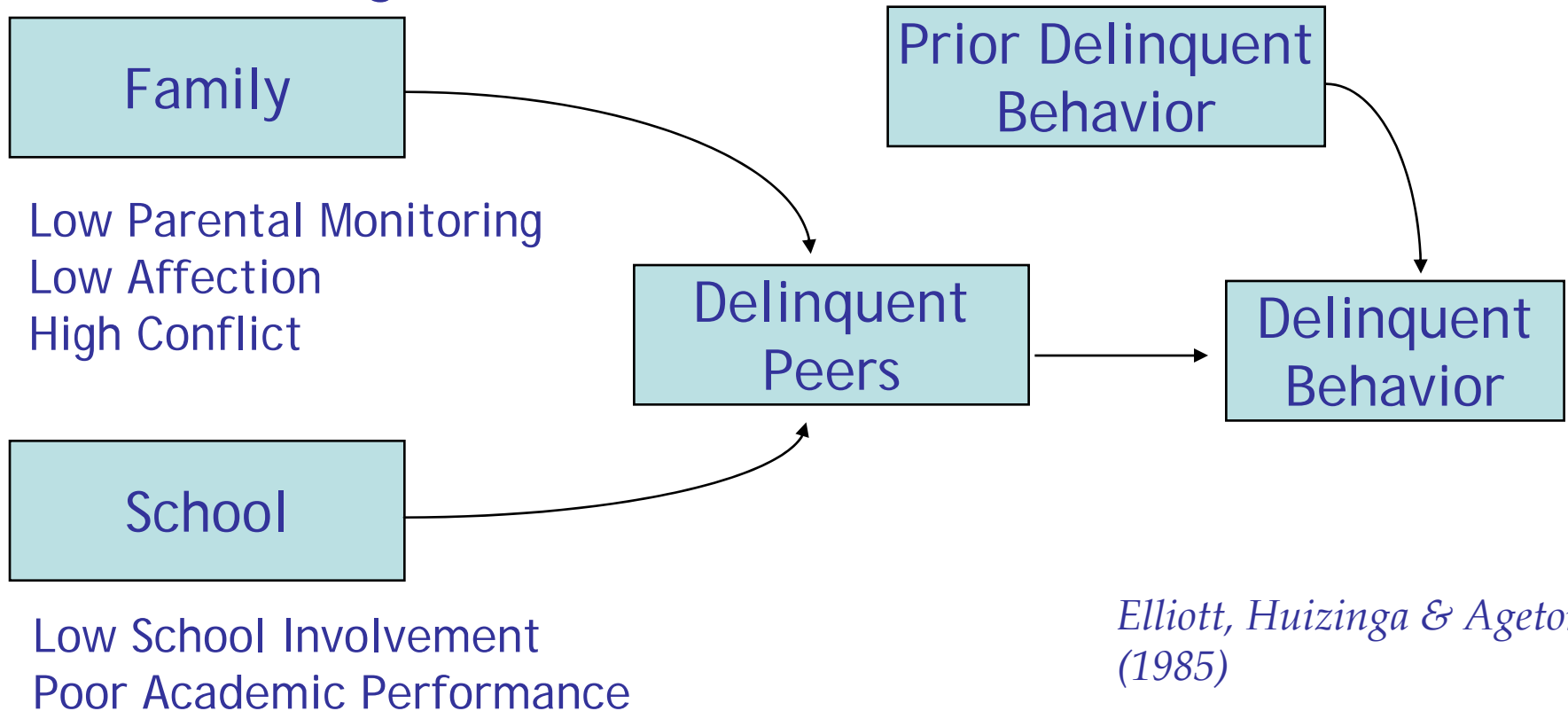
# MST Analytical Process



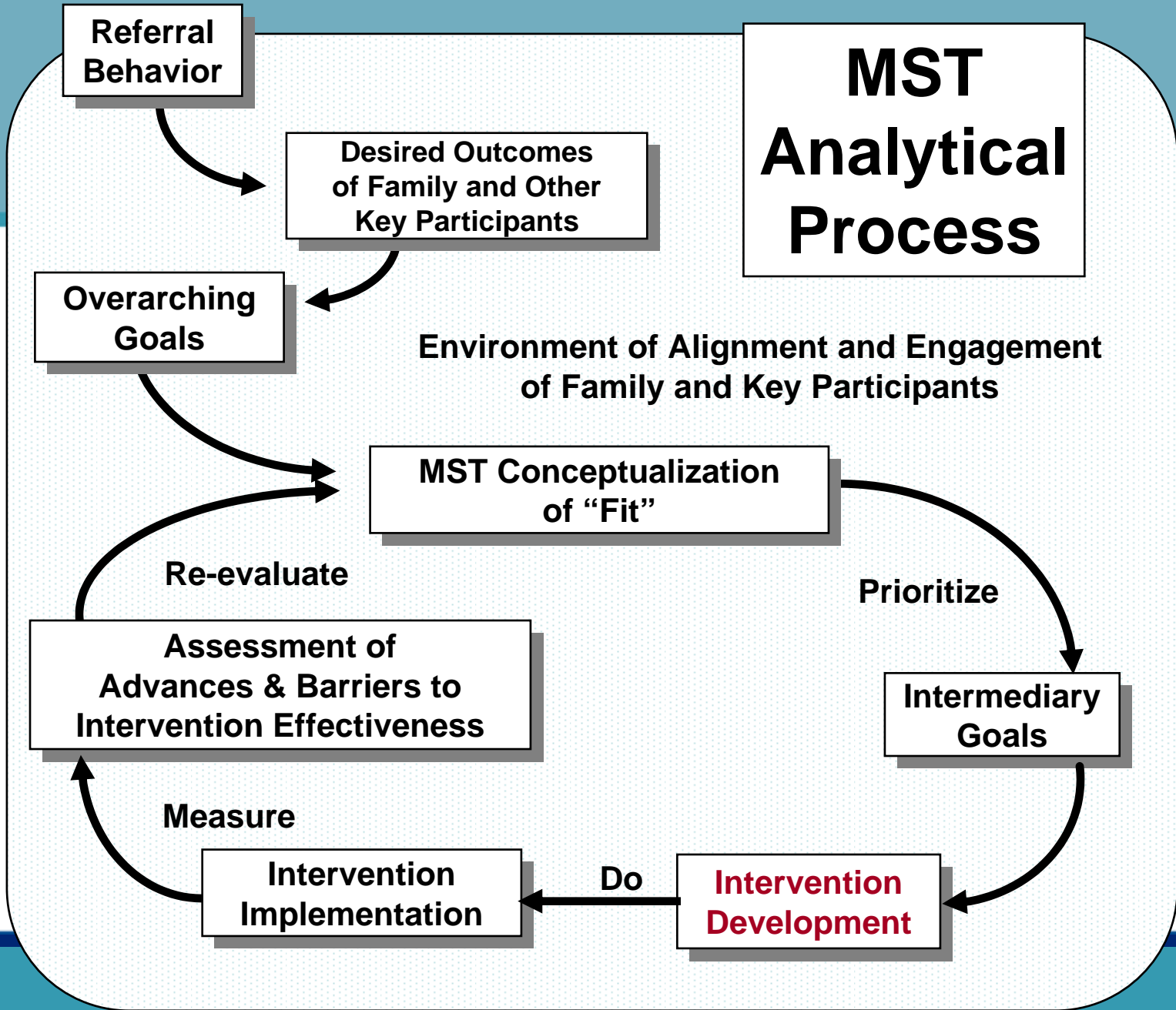


# Conceptualization of Fit is Guided by Causal Models of Delinquency and Drug Use

## Condensed Longitudinal Model



# MST Analytical Process



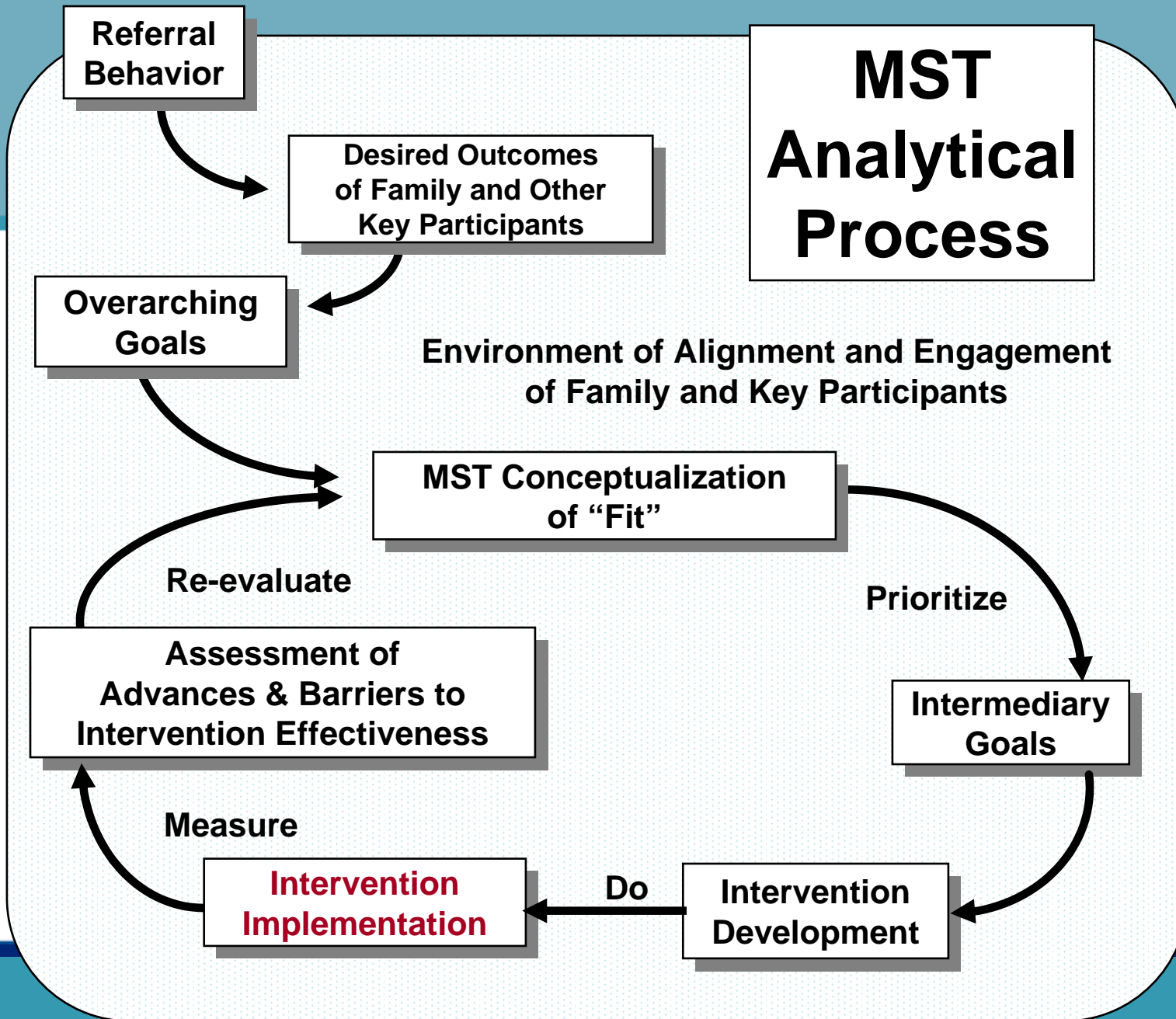
# Intervention Development

Based on 9 MST treatment principles -  
operationalize MST treatment fidelity

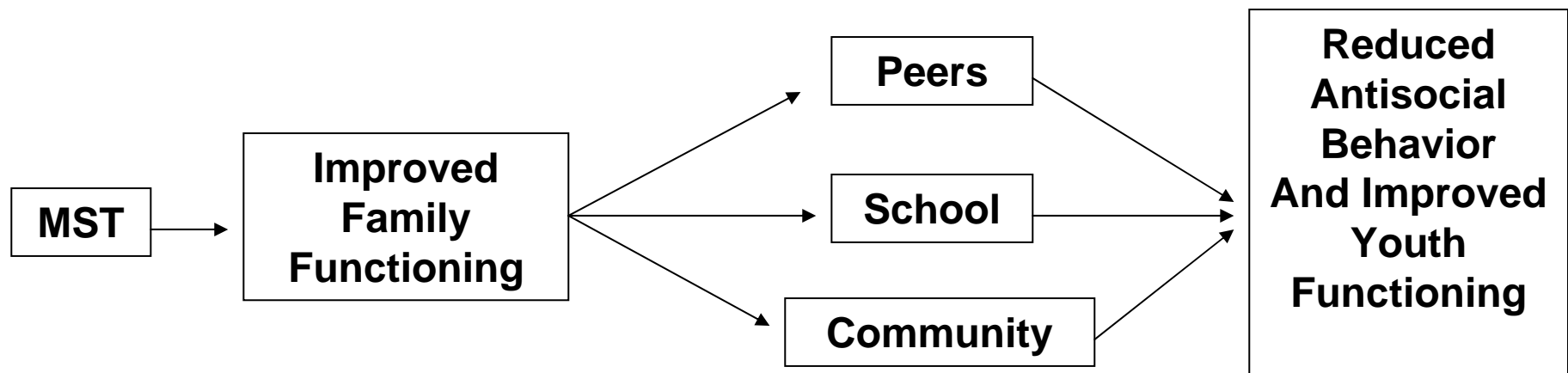
Draws from research-based treatment techniques

- Behavior therapy
- Parent management training
- Cognitive behavior therapy
- Pragmatic family therapies
  - Structural Family Therapy
  - Strategic Family Therapy
- Pharmacological interventions (e.g., for ADHD)

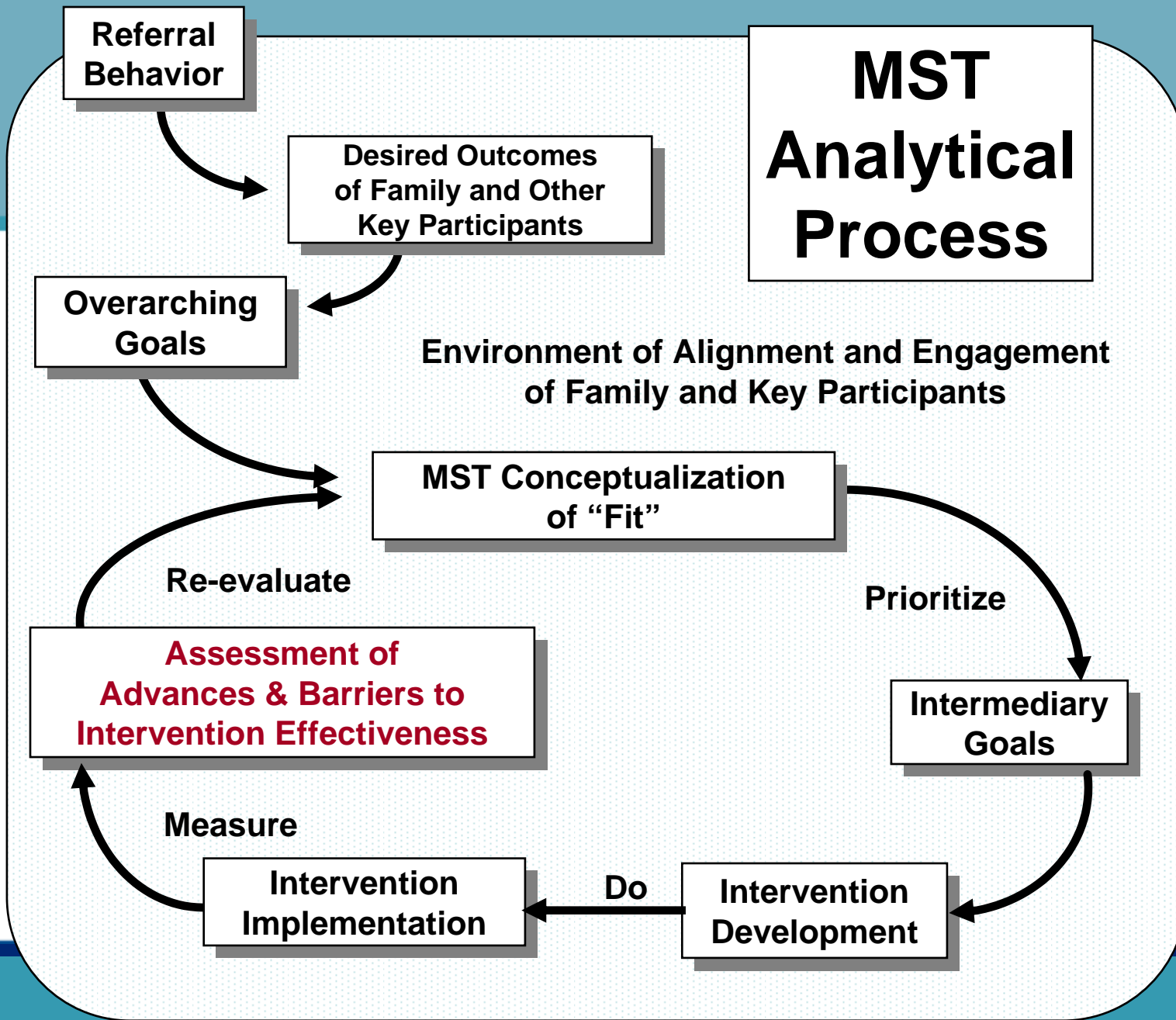
# MST Analytical Process



# MST Theory of Change



**MST Analytical Process**



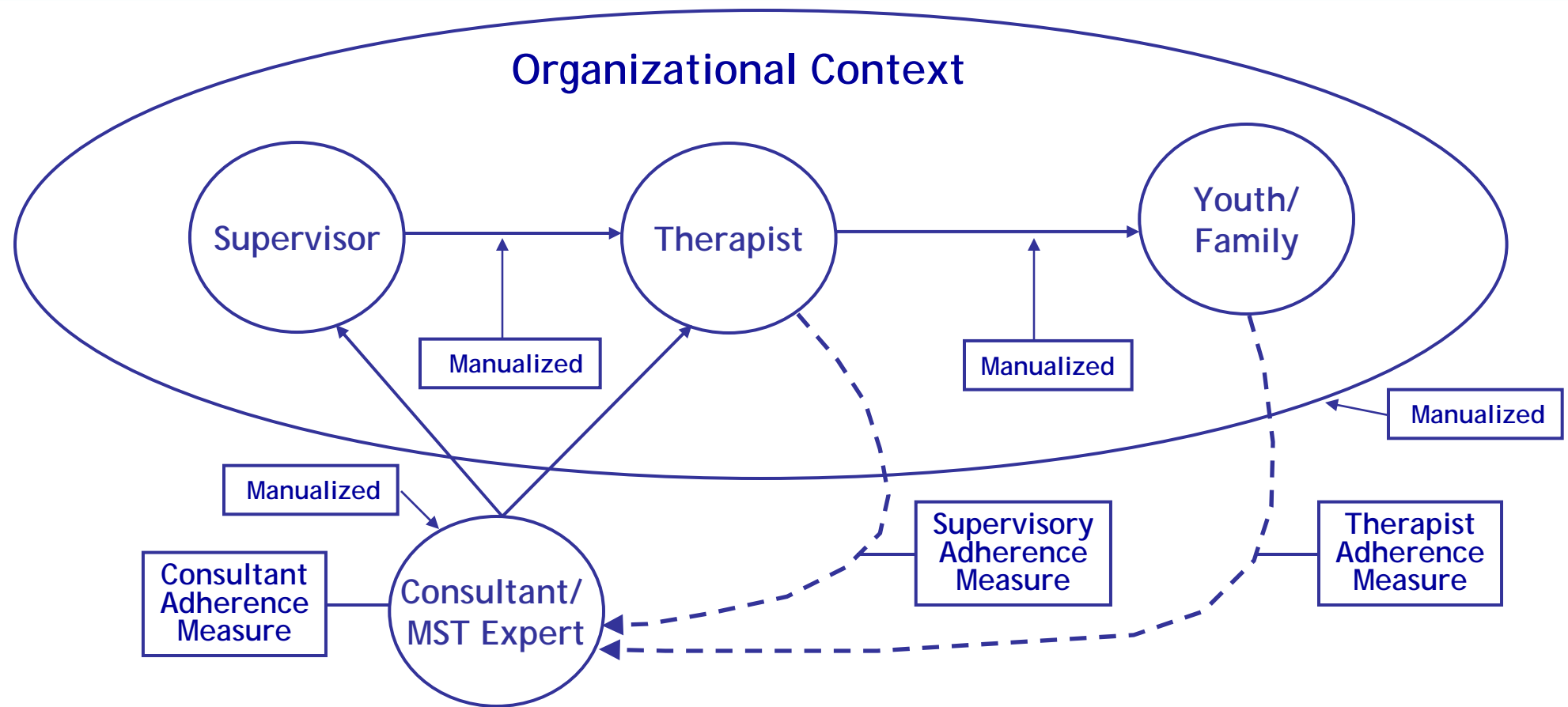
# Treatment Process Supported by MST Quality Assurance System



## Elements of the MST Quality Assurance system:

- Research-validated adherence technologies
- Development planning for all professionals
- Structured training (orientation and booster)
- On-the-job training (on-going, weekly expert case review and consultation)
- Weekly clinical supervision

# MST Quality Assurance System





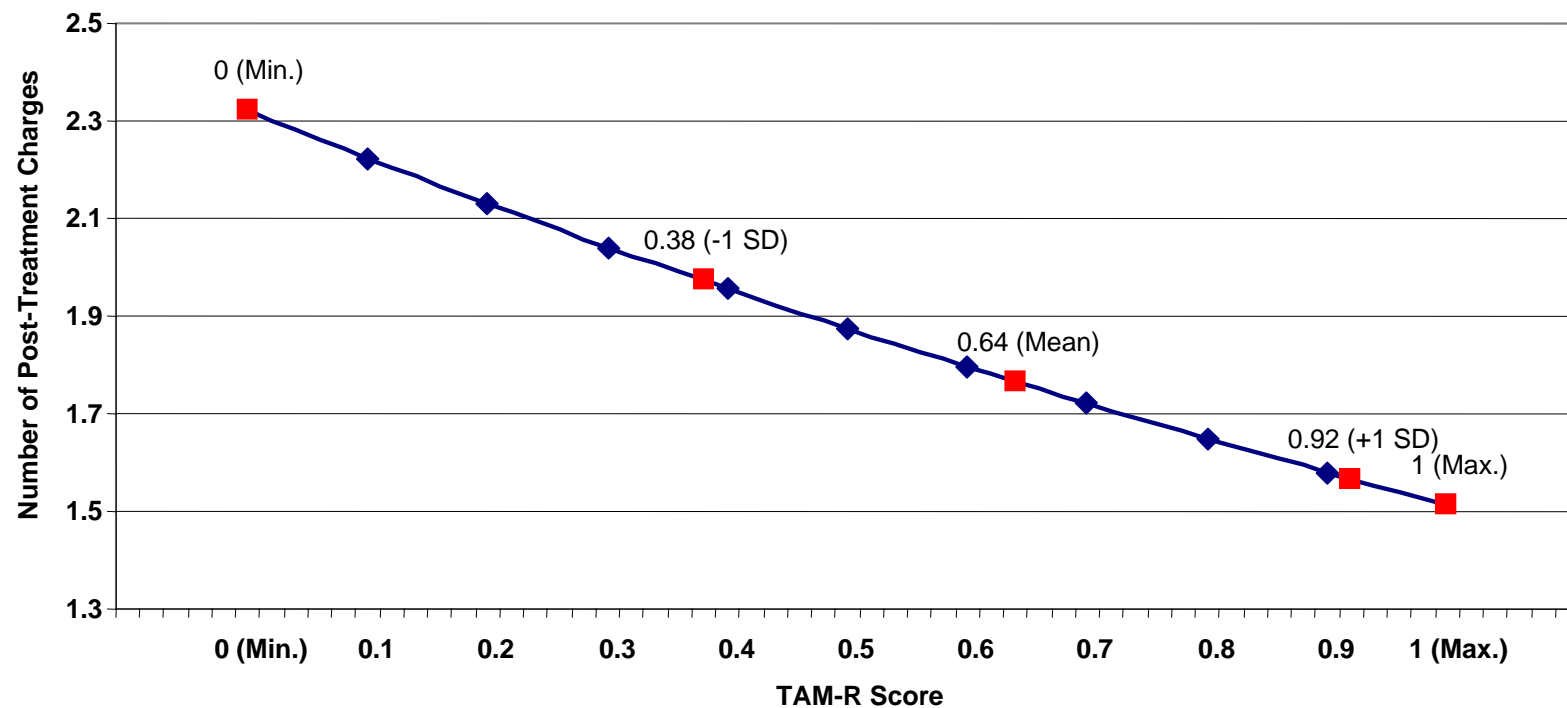
# Why the Emphasis on Quality Assurance?

## Research-based adherence measures:

- Youth criminal charges 36% lower for families with high adherence scores than for families with low adherence scores
- Youth criminal charges 53% lower for families with high supervisor adherence scores than for families with low supervisor adherence scores
- Consultant/MST expert adherence predicts improved therapist adherence and improved youth outcomes

# MST Transportability Study: Relationship between Therapist Adherence and Youth Criminal Outcomes (2.3 year follow-up)

TAM-R Predicting Post-Treatment Criminal Charges



# The Role of Treatment Fidelity

## Implications of research:

- High adherence is essential for obtaining outcomes with difficult clinical populations.
- Intensive training and supervisory protocols are necessary to obtain high adherence.
- To obtain the best outcomes, MST programs must “institutionalize” the collection and monitoring of adherence and operational data.

# MST's Research Heritage: 30+ Years of Science

## 18 Randomized Trials and 2 Quasi-Experimental Trials Published (>2000 families participating)

- 8 with serious juvenile offenders
  - 3 independent randomized trials
- 2 with substance abusing or dependent juvenile offenders
- 3 with juvenile sexual offenders
- 3 with youths presenting serious emotional disturbance
  - 1 independent quasi-experimental trial
- 1 with maltreating families
- 3 with adolescents with chronic health care conditions
  - all independent (diabetes, obesity, HIV, asthma)

**Other randomized trials are in progress**

# Consistent Outcomes

## In Comparison with Control Groups, MST:

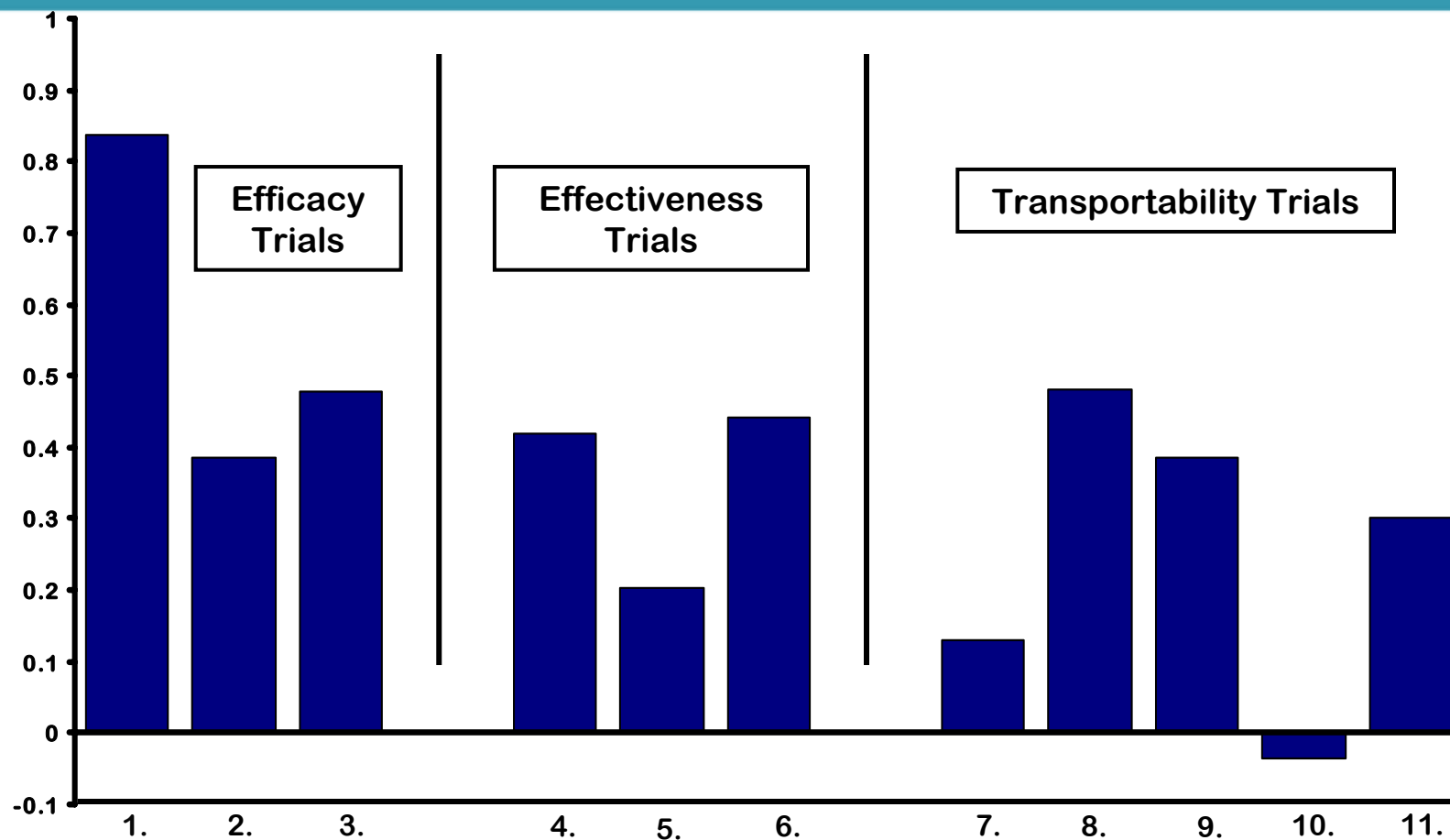
- Decreased long-term rates of rearrest 25% to 70%
- 47% to 64% decreases in long-term rates of days in out-of-home placements
- Improved family relations and functioning
- Increased mainstream school attendance
- Decreased adolescent psychiatric symptoms
- Decreased adolescent substance use
- Higher consumer satisfaction

**But, none of this happens without adherence to MST**

# Bridging the Gap: University to Community

- University-based research projects often show promising results which can not be replicated by community-based programs
- MST has successfully made this transition
  - Positive university-based research
  - Positive community-based research
  - Focusing on the implementation of effective community-based MST programs

# MST Delinquency Clinical Trials Effect Sizes



**Study Number**

\*Aos (2006). Washington State  
Institute on Public Policy

# The Missouri Delinquency Project Long-term (14 year) Follow-up Study

Schaeffer, C.M., and Borduin, C.M. (2005)



第9章 MSTのアウトカム：比較対照評価から得られるもの 325

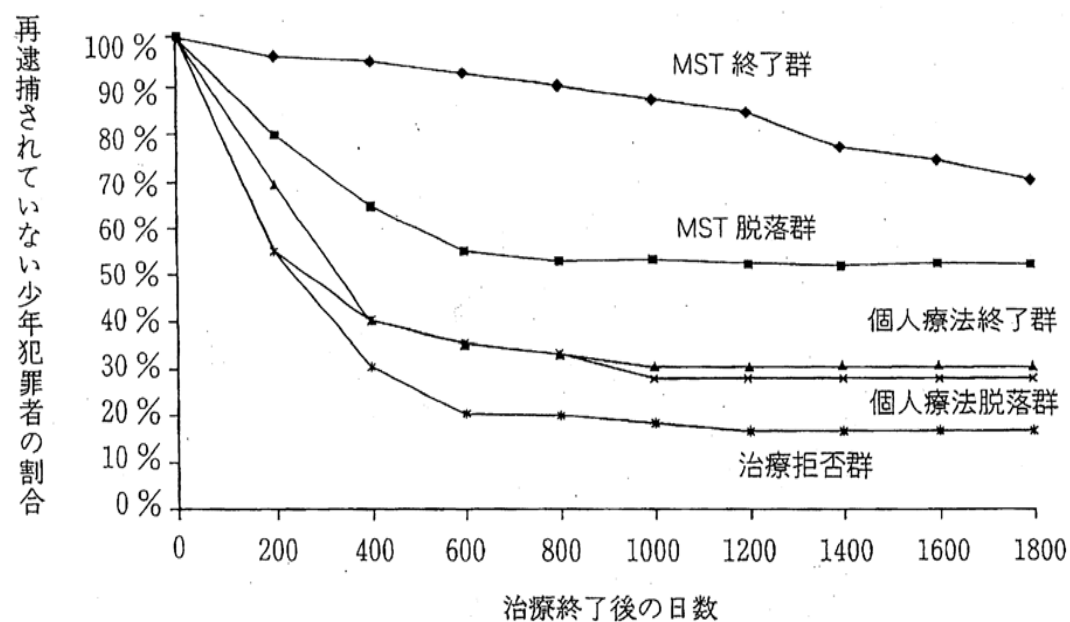


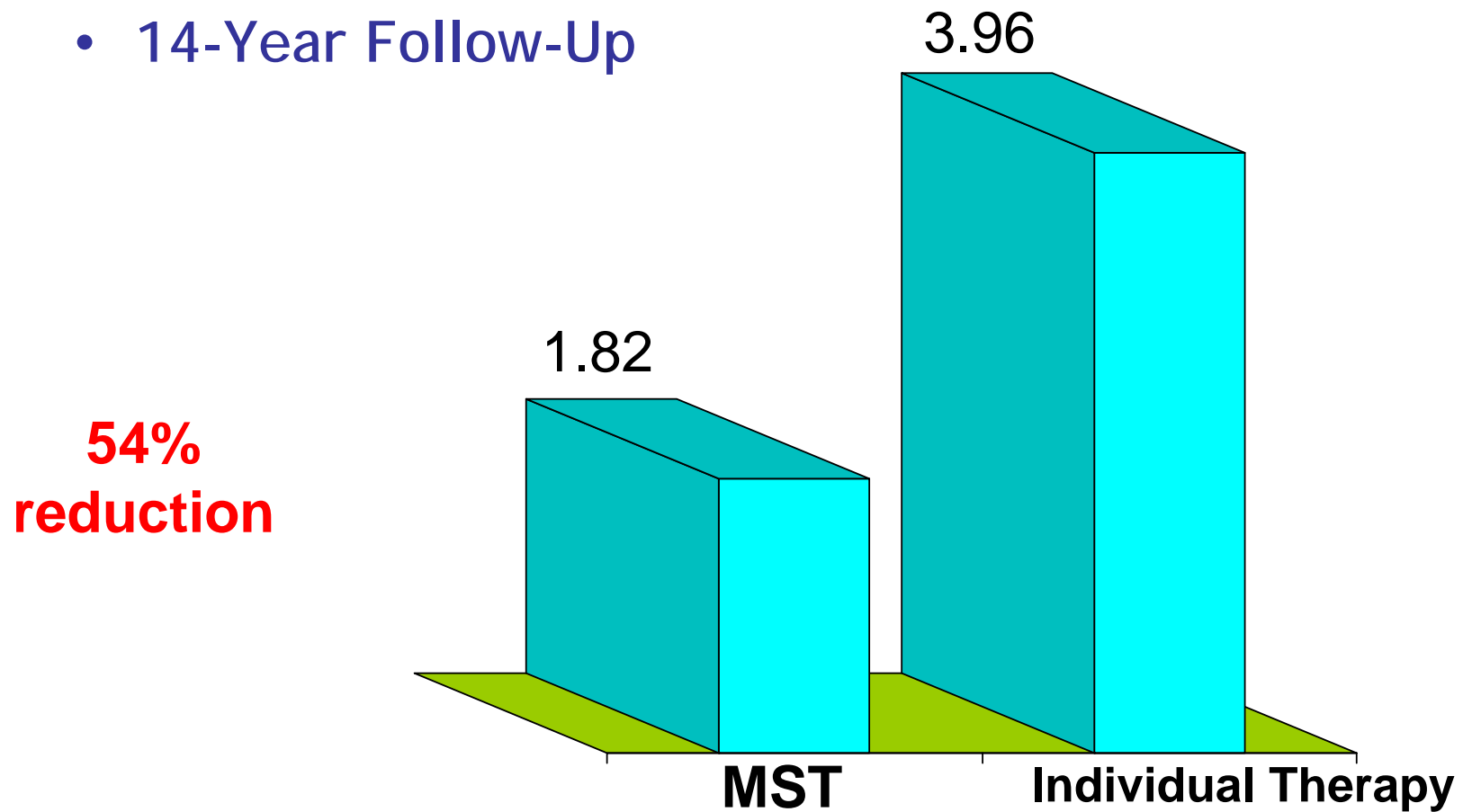
図9.1 ミズーリ州非行プロジェクトの生存時間解析

# 14-Year Follow-Up Sample

- Attempted to locate all participants (N = 176) who were randomly assigned to MST or individual therapy in Borduin et al. (1995) clinical trial
- Successfully located 165 (94%) of the original participants
- Average age at follow-up: 28.8 years (range = 24 to 32 years)
- Outcomes examined: criminal recidivism and days sentenced in adulthood

# All Arrests

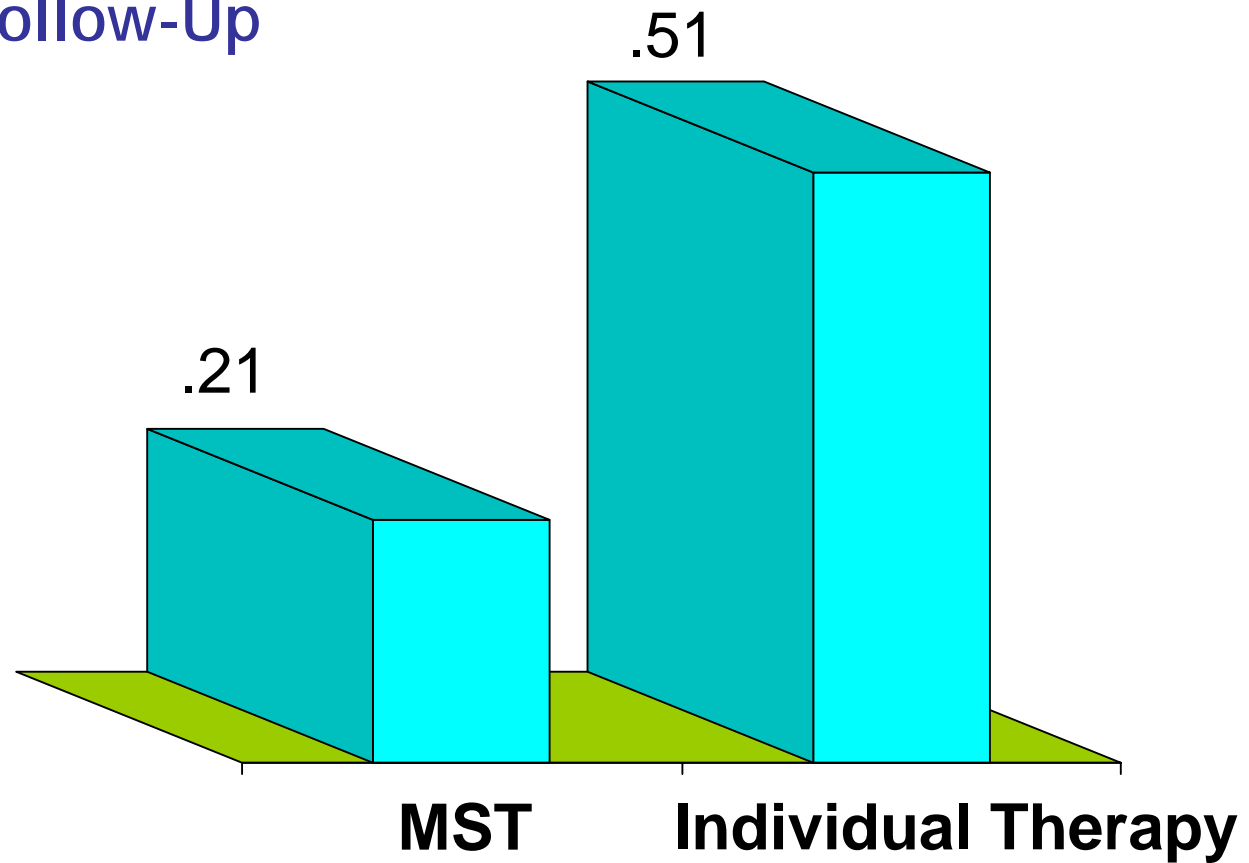
- 14-Year Follow-Up



# Violent Arrests

- 14-Year Follow-Up

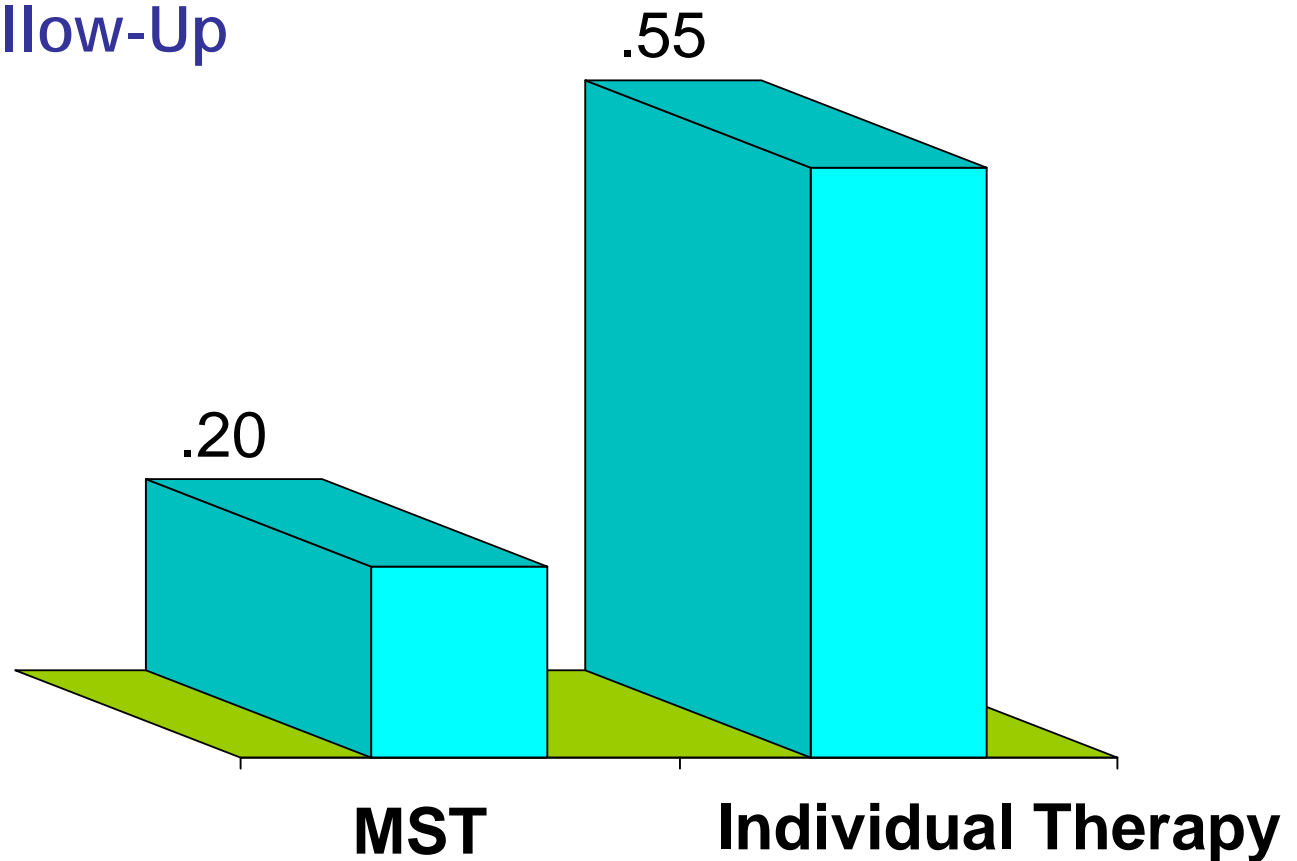
**59%**  
**reduction**



# Drug-Related Arrests

- 14-Year Follow-Up

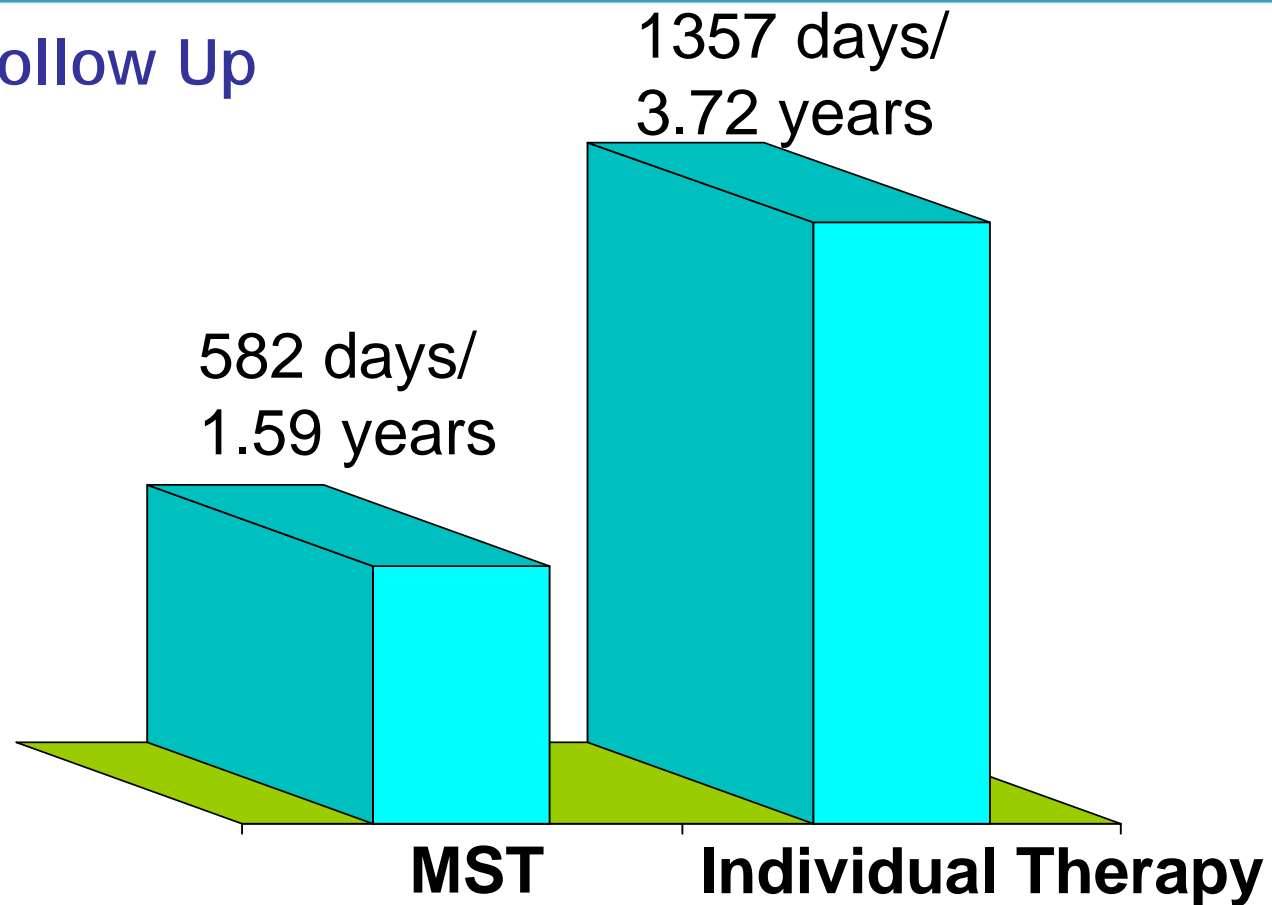
**64%  
reduction**



# Adult Days Sentenced

- 14-Year Follow Up

**57%  
reduction**



# An Independent Effectiveness Trial of MST with Juvenile Justice Youth - The Ohio Replication Study

Jane Timmons-Mitchell

Monica B. Bender, Maureen A. Kishna and  
Clare C. Mitchell

Funded by the Ohio Office of Criminal Justice Services

# Ohio Independent Replication Trial

Independent effectiveness trial of  
105 youth offenders:

- juvenile felons at imminent risk of placement
- averaged approximately seven prior offenses
- were predominantly male (78%) and white (78%)



# Ohio Independent Replication Trial

Results for the MST group 2 years after completion:

- 39% fewer arrests and arraignments per youth over the two years (1.4 vs. 2.3)
- significantly improved functioning for MST group in the home, at school and in the community.

# Ohio Independent Replication Study Quality

- High quality replication conducted by independent researchers (i.e. not the program's developers).
- Low attrition: At the 2-year follow-up, outcome data on arrest rates were collected for 89% of the original sample
- Conducted in a community mental health setting providing evidence of its real-world effectiveness
- Used official arrest data to measure criminal behavior

# MST “Champions” & Advocates



- U.S. Surgeon General: Reports on Mental Health and Youth Violence
- National Institutes on Health (NIH)
- U.S. Department of Justice - OJJDP
- National Institute on Drug Abuse (NIDA), Center for Substance Abuse Treatment (CSAT), and Center for Substance Abuse Prevention (CSAP)
- Washington State Institute for Public Policy (WSIPP)
- “Blueprints for Violence Prevention”

# Bottom Line: Why is MST Successful?

- Treatment targets known causes of delinquency: family relations, peer relations, school performance, community factors
- Treatment is family driven and occurs in the youths' natural environment
- Providers are accountable for outcomes
- Staff are well trained and supported
- Significant energies are devoted to developing positive interagency relations

# Today's Word: Thanks for Coming

**MST**<sup>®</sup>  
Multisystemic Therapy



# For More Information



- MST Program Development: <[mstservices.com](http://mstservices.com)>
- MST-Related Research: <[musc.edu/fsrc](http://musc.edu/fsrc)>