Multisystemic Therapy

MST 2012 and Beyond

Scott W. Henggeler, PhD
Professor of Psychiatry
Medical University of South Carolina

MUSC
MEDICAL UNIVERSITY of SOUTH CAROLINA

MST®
Multisystemic Therapy

The Beginning : Memphis 1976

The Present

Juvenile Justice - Circa 1970s

"... with few and isolated exceptions, the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism."

Robert Martinson
American Sociologist, 1974

Juvenile Justice - Present

Catalogs of Effective Treatments

- Blueprints for Violence Prevention
- U.S. Surgeon General
- Washington State Institute for Public Policy
- Centers for Medicare and Medicaid Services
- Coalition for Evidence-Based Policy
- Substance Abuse and Mental Health Services Administration
- President's New Freedom Commission on Mental Health
- National Academy for Parenting Research

- Office of Juvenile Justice and Delinquency Prevention
- National Institute on Drug Abuse
- Institute of Medicine of the National Academies
- Institute for Public Policy Research
- Office of Justice Programs
- Center for Substance Abuse Prevention
- National Institutes of Health
- National Alliance for the Mentally Ill
- Mental Health America

Major Research Accomplishments Over Past 30+ Years

Validation of MST Effectiveness in Treating Serious Antisocial Behavior:

- Criminal Violence
- Sex Offending
- Drug Abuse
- Conduct Problems

22 Published Outcome Studies Resulting in 43 Articles

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interactions. Developmental Psychology, 22, 132-141. **FSRC Publication #104**

Brunk, M., Henggeler, S. W., & Whelan, J. P. (1987). A comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. Journal of Consulting and Clinical Psychology, 55, 311-318. **FSRC Publication #103**

Borduin, C. M., Henggeler, S. W., Blaske, D. M. & Stein, R. (1990). Multisystemic treatment of adolescent sexual offenders. International Journal of Offender Therapy and Comparative Criminology, 35, 105-114. **FSRC Publication #102**

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. Journal of Consulting and Clinical Psychology, 60, 953-961. **FSRC Publication #4**

Henggeler, S. W., Melton, G. B., Smith, L. A., Schoenwald, S. K., & Hanley, J. H. (1993). Family preservation using multisystemic treatment: Long-term follow-up to a clinical trial with serious juvenile offenders. Journal of Child and Family Studies, 2, 283-293. **FSRC Publication #13**

Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. Journal of Consulting and Clinical Psychology, 63, 569-578. **FSRC Publication #25**

Schaeffer, C. M., & Borduin, C. M. (2005). Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. Journal of Consulting and Clinical Psychology, 73(3), 445-453. **FSRC Publication #261**

Klietz, S. J., Borduin, C. M., & Schaeffer, C. M. (2010). Cost-benefit analysis of multisystemic therapy with serious and violent juvenile offenders. Journal of Family Psychology, 24, 657-666.
FSRC Publication #383

Sawyer, A.M., & Borduin, C.M. (2011). Effects of MST through midlife: A 21.9-year follow up to a randomized clinical trial with serious and violent juvenile offenders. Journal of Consulting and Clinical Psychology, 79, 643-652. **FSRC Publication #396**

Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G., & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. Journal of Consulting and Clinical Psychology, 65, 821-833.
FSRC Publication #55

Henggeler, S. W., Rowland, M. R., Randall, J., Ward, D., Pickrel, S. G., Cunningham, P. B., Miller, S. L., Edwards, J. E., Zealberg, J., Hand, L., & Santos, A. B. (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youth in psychiatric crisis: Clinical outcomes. Journal of the American Academy of Child & Adolescent Psychiatry, 38, 1331-1339. **FSRC Publication #88**

Schoenwald, S. K., Ward, D. M., Henggeler, S. W., & Rowland, M. D. (2000). MST vs. hospitalization for crisis stabilization of youth: Placement outcomes 4 months post-referral. Mental Health Services Research, 2, 3-12. **FSRC Publication #64**

Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Sheidow, A. J., Ward, D. M., Randall, J., Pickrel, S. G., Cunningham, P. B., & Edwards, J. (2003). One-year follow-up of multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis. Journal of the American Academy of Child & Adolescent Psychiatry, 42, 543-551. **FSRC Publication #231**

Huey, S. J. Jr., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C. A., Cunningham, P. B., Pickrel, S. G., & Edwards, J. (2004). Multisystemic therapy effects on attempted suicide by youth presenting psychiatric emergencies. Journal of the American Academy of Child & Adolescent Psychiatry, 43, 183-190. **FSRC Publication #247**

Sheidow, A. J., Bradford, W. D., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C., Schoenwald, S. K., & Ward, D. M. (2004). Treatment costs for youths in psychiatric crisis: Multisystemic therapy versus hospitalization. Psychiatric Services, 55, 548-554.
FSRC Publication #253

Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999). Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. Mental Health Services Research, 1, 171-184. **FSRC Publication #85**

Henggeler, S. W., Pickrel, S. G., Brondino, M. J., & Crouch, J. L. (1996). Eliminating (almost) treatment dropout of substance abusing or dependent delinquents through home-based multisystemic therapy. American Journal of Psychiatry, 153, 427-428.
FSRC Publication #4

Schoenwald, S. K., Ward, D. M., Henggeler, S. W., Pickrel, S. G., & Patel, H. (1996). MST treatment of substance abusing or dependent adolescent offenders: Costs of reducing incarceration, inpatient, and residential placement. Journal of Child and Family Studies, 5, 431-444. **FSRC Publication #54**

Brown, T. L., Henggeler, S. W., Schoenwald, S. K., Brondino, M. J., & Pickrel, S. G. (1999). Multisystemic treatment of substance abusing and dependent juvenile delinquents: Effects on school attendance at posttreatment and 6-month follow-up. Children's Services: Social Policy, Research, and Practice, 2, 81-93. **FSRC Publication #71**

Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of multisystemic therapy with substance abusing and dependent juvenile offenders. Journal of the American Academy of Child & Adolescent Psychiatry, 41, 868-874. **FSRC Publication #223**

Borduin, C. M., Schaeffer, C. M., & Heiblum, N. (2009). A randomized clinical trial of multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. Journal of Consulting and Clinical Psychology, 77, 26-37. **FSRC Publication #335**

Ogden, T., & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. Child & Adolescent Mental Health, 9(2), 77-83. **FSRC Publication #248**

Ogden, T., & Hagen, K. A. (2006). Multisystemic therapy of serious behaviour problems in youth: Sustainability of therapy effectiveness two years after intake. Journal of Child and Adolescent Mental Health, 11, 142-149. **FSRC Publication #264**

Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Greger, N. (2004). Use of Multisystemic Therapy to improve regimen adherence among adolescents with type 1 diabetes in poor metabolic control: A pilot study. Journal of Clinical Psychology in Medical Settings, 11, 315-324.
FSRC Publication #357

Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005a). Use of multisystemic therapy to improve regimen adherence among adolescents with type 1 diabetes in chronic poor metabolic control: A randomized controlled trial. Diabetes Care, 28, 1604-1610.
FSRC Publication #268

Ellis, D. A., Naar-King, S., Frey, M. A., Templin, T., Rowland, M., & Cakan, N. (2005). Multisystemic treatment of poorly controlled type 1 diabetes: Effects on medical resource utilization. Journal of Pediatric Psychology, 30, 656-666. **FSRC Publication #278**

Ellis, D. A., Frey, M. A., Naar-King, S., Templin, T., Cunningham, P. B., & Cakan, N. (2005b). The effects of multisystemic therapy on diabetes stress in adolescents with chronically poorly controlled type 1 diabetes: Findings from a randomized controlled trial. Pediatrics, 116, e826-e832.
FSRC Publication #267

Ellis, D. A., Templin, T., Naar-King, S., Frey, M. A., Cunningham, P. B., Podolski, C., & Cakan, N. (2007). Multisystemic therapy for adolescents with poorly controlled type I diabetes: Stability of treatment effects in a randomized controlled trial. Journal of Consulting and Clinical Psychology, 75, 168-174.
FSRC Publication #297

Naar-King, S., Ellis, D. A., Idalski, A., Frey, M. A., & Cunningham, P. B. (2007). Multisystemic therapy decreases parental overestimation of adolescent responsibility for type 1 diabetes management in urban youth. Families, Systems, & Health, 25, 178-189. **FSRC Publication #343**

Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., & Cunningham, P. B. (2007). Improving health outcomes among youth with poorly controlled type 1 diabetes: The role of treatment fidelity in a randomized clinical trial of multisystemic therapy. Journal of Family Psychology, 21, 363-371.
FSRC Publication #304

Ellis, D. A., Naar-King, S., Templin, T., Frey, M. A., Cunningham, P., Sheidow, A., Cakan, N., & Idalski, A. (2008). Multisystemic therapy for adolescents with poorly controlled type 1 diabetes: Reduced diabetic ketoacidosis admissions and related costs over 24 months. Diabetes Care, 31, 1746-1747.
FSRC Publication #380

Rowland, M. R., Halliday-Boykins, C. A., Henggeler, S. W., Cunningham, P. B., Lee, T. G., Kruesi, M. J. P., & Shapiro, S. B. (2005). A randomized trial of multisystemic therapy with Hawaii's Felix Class youths. Journal of Emotional and Behavioral Disorders, 13, 13-23. **FSRC Publication #262**

Timmons-Mitchell, J., Bender, M. B., Kishna, M. A., & Mitchell, C. C. (2006). An independent effectiveness trial of multisystemic therapy with juvenile justice youth. Journal of Clinical Child and Adolescent Psychology, 35, 227-236. **FSRC Publication #291**

Henggeler, S. W., Halliday-Boykins, C. A., Cunningham, P. B., Randall, J., Shapiro, S. B., & Chapman, J. E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidence-based treatments. Journal of Consulting and Clinical Psychology, 74, 42-54.
FSRC Publication #270

Rowland, M. R., Chapman, J. E., & Henggeler, S. W. (2008). Sibling outcomes from a randomized trial of evidence-based treatments with substance abusing juvenile offenders. Journal of Child & Adolescent Substance Abuse, 17, 11-26. **FSRC Publication #320**

Stambaugh, L. F., Mustillo, S. A., Burns, B. J., Stephens, R. L., Baxter, B., Edwards, D., & DeKraai, M. (2007). Outcomes from wraparound and multisystemic therapy in a center for mental health services system-of-care demonstration site. Journal of Emotional and Behavioral Disorders, 15, 143-155.
FSRC Publication #303

Sundell, K., Hansson, K., Lofholm, C. A., Olsson, T., Gustle, L. H., & Kadesjo, C. (2008). The transportability of MST to Sweden: Short-term results from a randomized trial of conduct disordered youth. Journal of Family Psychology, 22, 550-560. **FSRC Publication #330**

Letourneau, E. J., Henggeler, S. W., Borduin, C. M., Schewe, P. A., McCart, M. R., Chapman, J. E., & Saldana, L. (2009). Multisystemic therapy for juvenile sexual offenders: 1-year results from a randomized effectiveness trial. Journal of Family Psychology, 23, 89-102. **FSRC Publication #336**

Naar-King, S., Ellis, D., Kolmodin, K., Cunningham, P., Jen, K. L. C., Saelens, B., & Brogan, K. (2009). A randomized pilot study of multisystemic therapy targeting obesity in African- American adolescents. Journal of Adolescent Health, 45, 417-419. **FSRC Publication #352**

Carcone, A. I., MacDonell, K. E., Naar-King, S., Ellis, D. E., Cunningham, P. B., Kaljee, L. (2011). Treatment engagement in a weight-loss intervention for African American adolescents and their families. Children's Health Care, 40, 1-21. **FSRC Publication #395**

Swenson, C. C., Schaeffer, C., Henggeler, S. W., Faldowski, R., & Mayhew, A. M. (2010). Multisystemic therapy for child abuse and neglect: A randomized effectiveness trial. Journal of Family Psychology, 24, 497-507. **FSRC Publication #382**

Glisson, C., Schoenwald, S. K., Hemmelgarn, A., Green, P., Dukes, D., Armstrong, K. S., & Chapman, J. E. (2010). Randomized trial of MST and ARC in a two-level EBT implementation strategy. Journal of Consulting and Clinical Psychology, 78, 537-550.
FSRC Publication #381

Butler, S., Baruch, G., Hickley, N., & Fonagy, P. (2011). A randomized controlled trial of MST a statutory therapeutic intervention for young offenders. Journal of the American Academy of Child & Adolescent Psychiatry, (50)12, 1220-1235. **FSRC Publication #398**

MST is best validated for juvenile offenders at high risk of out-of-home placement

Primary MST Outcome Studies Treating Serious Antisocial Behavior

- Henggeler et al. (1986) – inner-city delinquents
- Borduin et al. (1990) – juvenile sex offenders
- Henggeler, Melton, & Smith (1992) – violent/chronic juvenile offenders
- Borduin et al. (1995) – violent/chronic juvenile offenders
- Henggeler et al. (1997) – violent/chronic juvenile offenders
- Henggeler, Pickrel, & Brondino (1999) – substance abusing juvenile offenders
- Henggeler, Rowland et al. (1999) – youth presenting psychiatric emergencies
- Ogden & Halliday-Boykins (2004) – youth with serious antisocial behavior
- Rowland et al. (2005) – youth with SED and antisocial behavior
- Henggeler et al. (2006) – substance abusing juvenile offenders
- Timmons-Mitchell et al. (2006) – juvenile felons
- Stambaugh et al. (2007) – youth with SED and antisocial behavior
- Sundell et al. (2008) – youth with conduct disorder
- Letourneau et al. (2009) – juvenile sex offenders
- Borduin, Schaeffer, & Heiblum (2009) – juvenile sex offenders
- Glisson et al. (2010) – juvenile offenders
- Butler et al. (2011) – juvenile offenders

Consistent Outcomes

In comparison with control groups, MST:

- Decreased long-term rates of rearrest: Median reduction = 39%.
- Decreases in long-term rates of days in out-of-home placements: Median reduction = 54%.
- Improved family relations and functioning.
- Increased mainstream school attendance.
- Decreased adolescent psychiatric symptoms.
- Decreased adolescent substance use.
- Higher consumer satisfaction.

MST Effects on Recidivism and Out-of-Home Placement

	Reduction in Rearrest	Reduction in Placements
Borduin et al. (1990)	72 %	not assessed
Henggeler, Melton, & Smith (1992)	43%	64%
Borduin et al. (1995)	63%	57%
Henggeler et al. (1997)	26%	53%
Henggeler, Pickrel, & Brondino (1999)	19%	50%
Henggeler, Rowland et al. (1999)	not assessed	49%
Ogden & Halliday-Boykins (2004)	no juv. justice system	78%
Rowland et al. (2005)	34%	68%
Timmons-Mitchell et al. (2006)	37%	not assessed
Stambaugh et al. (2007)	not assessed	54%
Sundell et al. (2008)	0%	0%
Letourneau et al. (2009)	not assessed	59%
Borduin, Schaeffer, & Heiblum (2009)	50%	80%
Glisson et al. (2010)	not assessed	53%
Butler et al. (2011)	41%	41%

Economic Benefits Examples:

- PEW – WSIPP Model
- "Evidence-based programs work and are a very good investment"
  - – Projected cost/family: $7,206
  - – Estimated net taxpayers benefits for using MST in lieu of placement: $22,096/youth

  –Benefit/cost Ratio: $4.07 for every $1 invested
    - Based on diverting the cost of placement

  –ROI: 28%

Florida Redirection Program

MST/FFT (overseen by Evidence-Based Associates) provided to 3,318 juvenile offenders as alternative to residential placements since 2005.

- 19% reduction in recidivism in 2009-2010 (vs. matched sample of residential treatment completers)
- $30,000,000 in savings in 2009-2010
- More than $100,000,000 in savings since 2005

RECLAIM Ohio

Allocated money to counties for juveniles based on delinquency levels and populations

- Allocation fixed
- Community based programs were less costly, thus creating incentive to invest more in these programs

Results: From program start (1992) through 2009

- Number of youth committed to secure state care in Ohio fell 42%
- For every dollar spent in RECLAIM, the state saved from $11 to $45 in commitment and processing costs (depending on the risk level of the youth)

Missouri MST Project (Borduin)

Long-term follow-up to the Missouri Delinquency Project: 22-year post-treatment outcome

- Individuals who had been involved in MST as a youth (average age at follow-up = 37+ years old):
  - 36% fewer felony arrests
  - 75% fewer violent felony arrests
  - 33% fewer days in adult confinement
  - $75K - $200K in cost benefits per MST participant

Cartwright et al. (2009)

Journal of Comparative Social Welfare

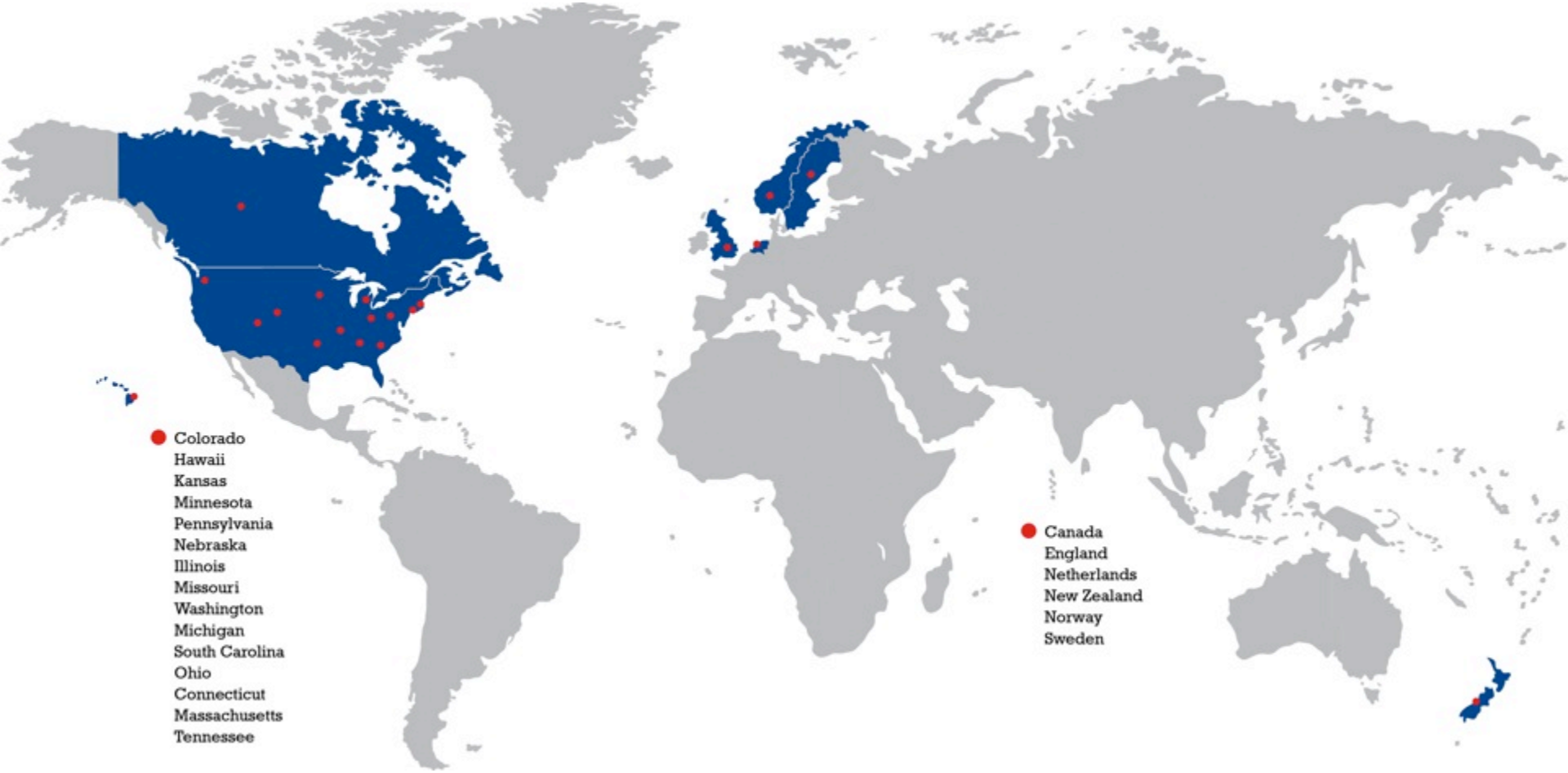
Using MST as an example, shows how the national expansion of MST can:

- Reduce racial disparities in incarceration
- Reduce national rates of placement
- Result in millions of dollars in cost savings

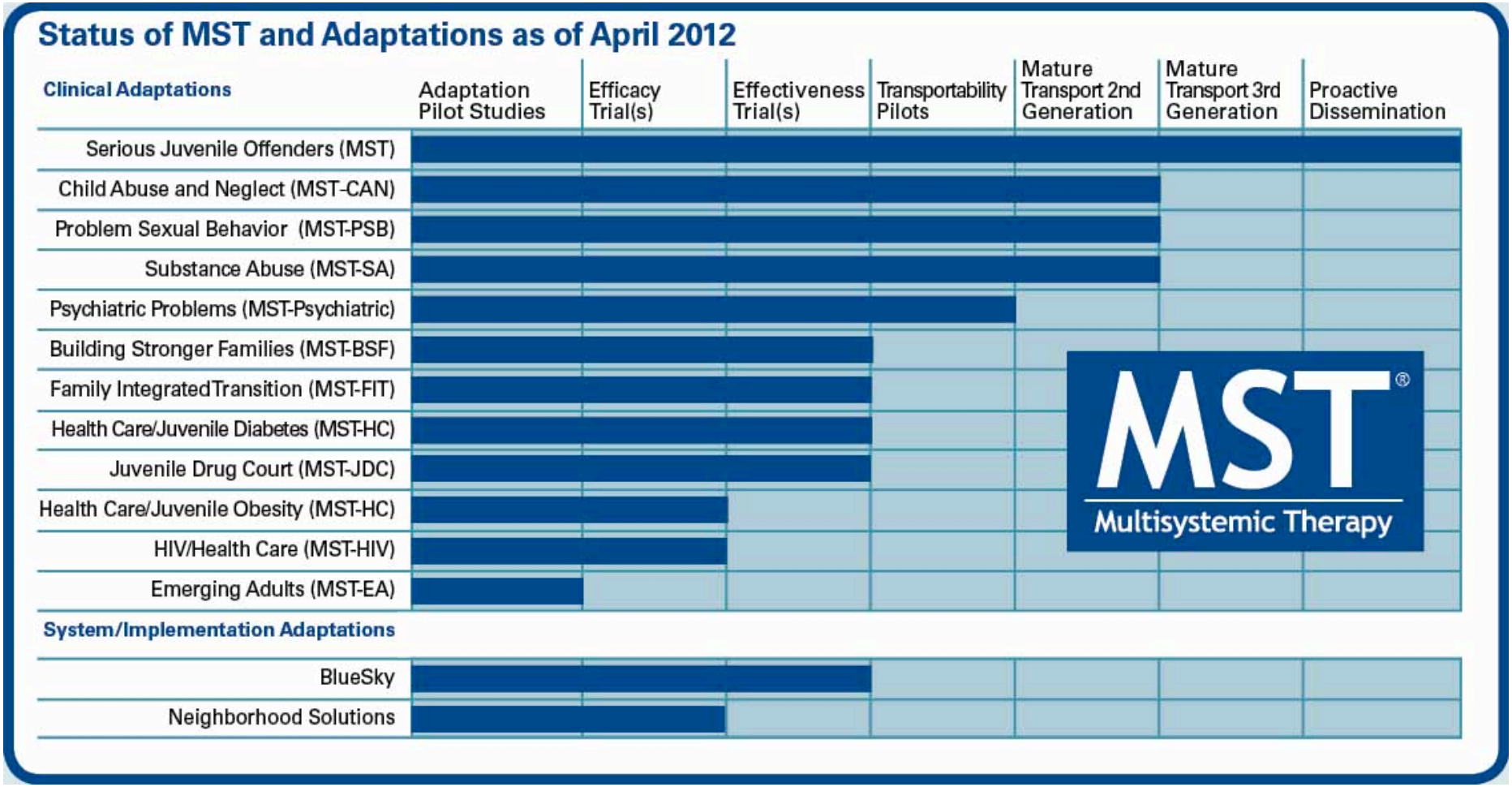
MST has transitioned from university-based efficacy trials conducted by MST developers to real-world clinical trials conducted by independent investigators!

Ellis et al. (2004 & 2005) – Michigan
Ogden et al. (2004) – Norway
Timmons-Mitchell et al. (2006) – Ohio
Stambaugh et al. (2007) – Nebraska
Sundell et al. (2008) – Sweden
Naar-King et al. (2009) – Michigan
Glisson et al. (2010) – Appalachian States
Butler et al. (2011) – England

MST Research Sites : Present



Adaptations to standard MST with serious juvenile offenders have been validated for several other challenging clinical populations.


Status of MST and Adaptations as of April 2012
Clinical Adaptations
Adaptation Pilot Studies
Efficacy Trial(s)
Effectiveness Trial(s)
Transportability Pilots
Mature Transport 2nd Generation
Mature Transport 3rd Generation
Proactive Dissemination
Serious Juvenile Offenders (MST)
Child Abuse and Neglect (MST-CAN)
Problem Sexual Behavior (MST-PSB)
Substance Abuse (MST-SA)
Psychiatric Problems (MST-Psychiatric)
Building Stronger Families (MST-BSF)
Family IntegratedTransition (MST-FIT)
Health Care/Juvenile Diabetes (MST-HC)
Juvenile Drug Court (MST-JDC)
Health Care/Juvenile Obesity (MST-HC)
HIV/Health Care (MST-HIV)
Emerging Adults (MST-EA)
System/Implementation Adaptations
BlueSky
Neighborhood Solutions
MST®
Multisystemic Therapy

MST – Problem Sexual Behavior

The only treatment proven effective for adolescent sexual offenders; Borduin et al. (1990); Borduin et al., (2009); Letourneau et al. (2009)

Chuck Borduin, PhD

Elizabeth Letourneau, PhD

KEY FINDINGS POST-TREATMENT:

- Improved family relations, peer relations, and academic performance
- Decreased behavior problems and symptoms

9-YEAR FOLLOW-UP:

- 83% decrease in sex offender recidivism
- 50% decrease in recidivism for other crimes
- 80% decrease in days incarcerated

MST – Psychiatric

For youth with serious mental health and externalizing problems;
Henggeler, Rowland et al. (1999); Rowland et al. (2005); Stambaugh et al. (2007)

Scott Henggeler, PhD

Melisa Rowland, MD

KEY FINDINGS:

- Improved youth functioning, family relations, and school attendance
- Decreased externalizing problems
- 73% reduction in days hospitalized
- 49%, 68%, 54% reductions in out-of-home placements

MST – Child Abuse and Neglect

For maltreated youth: Brunk et al. (1987); Swenson et al. (2010)

Cindy Swenson, PhD

Molly Brunk, PhD

KEY FINDINGS AT 16-MONTH FOLLOW-UP:

- Improved parenting
- Decreased symptoms for youth and caregiver
- Increased social support
- 63% reduction in days in out-of-home placements

MST – Substance Abuse

For adolescents with substance use disorders:
Henggeler, Pickrel, & Brondino (1999); Henggeler et al. (2006)

Scott Henggeler, PhD

Phillippe Cunningham, PhD

KEY FINDINGS:

- Post-treatment
  - Decreased substance use
  - 50% decrease in days in out-of-home placement
  - 98% rate of treatment completion
  - Increased school attendance
- **4-YEAR FOLLOW-UP:**
  - Decreased violent crime
  - Increased marijuana abstinence

MST – Health Care

For youth with chronic health care problems, including diabetes, obesity, HIV infection and asthma:
Drs. Ellis and Naar-King at Wayne State University; Ellis et al. (2004); Ellis et al. (2005); Naar-King et al. (2009)

Deborah Ellis, PhD

Sylvie Naar-King, PhD

KEY FINDINGS:

- Improved adherence to medical treatment regimens
- Improved health functioning
- Decreased hospitalizations

MST Worldwide

1,500+
Therapists

475+
Supervisors

100
MST Expert
Consultants

Capacity to serve more than
20,000 youths and families
annually

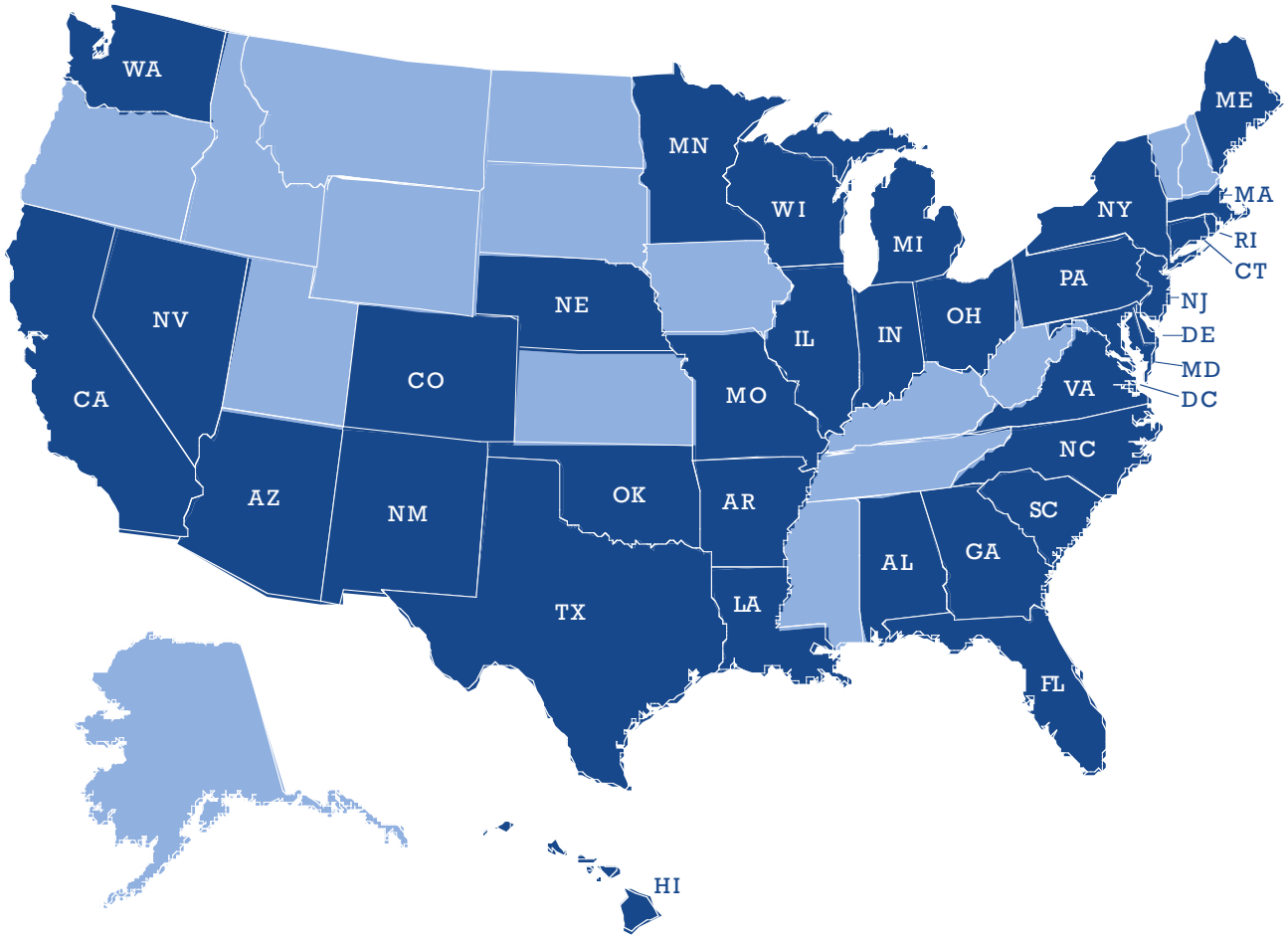
Large-Scale Transport Facilitated by the MST Network Partner Model

- Network Partners are purveyor organizations trained by MST Services to carry out all aspects of program development and implementation as well as monitoring for program fidelity and outcomes.
- Twenty-two MST Network Partners worldwide provide the quality assurance/improvement for 70% of youths/ families in MST programs.

MST Network Partner Model

- Three different types of NPs have emerged:
  - Provider organizations that deliver MST to families and choose to provide expert training and support to teams (e.g., Youth Villages, Community Solutions Inc.)
  - Provider organizations or Centers that don't deliver MST to families but provide expert training and support to teams (e.g., Center for Effective Interventions, Evidence-Based Interventions Ontario)
  - Systems (DJJ, DCF, etc.) that established NP organizations for the purpose of the developing, supporting and providing QA oversight of the network of MST teams in their system (e.g., Advanced Behavioral Health, Norwegian MST Center)

500+ MST Sites Worldwide



KEY

States w/teams

States w/o teams

Australia

Belgium

Canada

Denmark

England

Iceland

N.Ireland

Netherlands

New Zealand

Norway

Sweden

Switzerland

Scotland

QA/QI Process: Training and Support

Goal of MST Implementation:

- Obtain positive outcomes for MST youth and their families

QA/QI Process:

- Training and ongoing support (orientation training, boosters, weekly expert consultation, weekly supervision)
- Organizational support for MST programs
- Implementation monitoring (measure adherence and outcomes, work sample reviews)
- Improve MST implementation as needed, using feedback from training, ongoing support, and measurement

Therapist Training and Support

- Training and support to help therapists, supervisors, and experts implement the model as designed
  - Training processes (5-day Orientation, Supervisor Orientation, Boosters, Consultation, Group Supervision, and additional supervision and feedback for all staff as needed)
  - Training materials (MST text, 5-day training materials, Supervisory Manual, Supervisor Orientation materials, and Consultation Manual)

Organizational Support for MST Programs

- Training resources and materials in organizational practices that support MST
  - Program Developer Training
  - Organizational Manual
- Implement organizational practices needed to support delivery of the treatment model
  - MST Program Development Method
  - Ongoing problem solving of organizational and stakeholder barriers to implementation

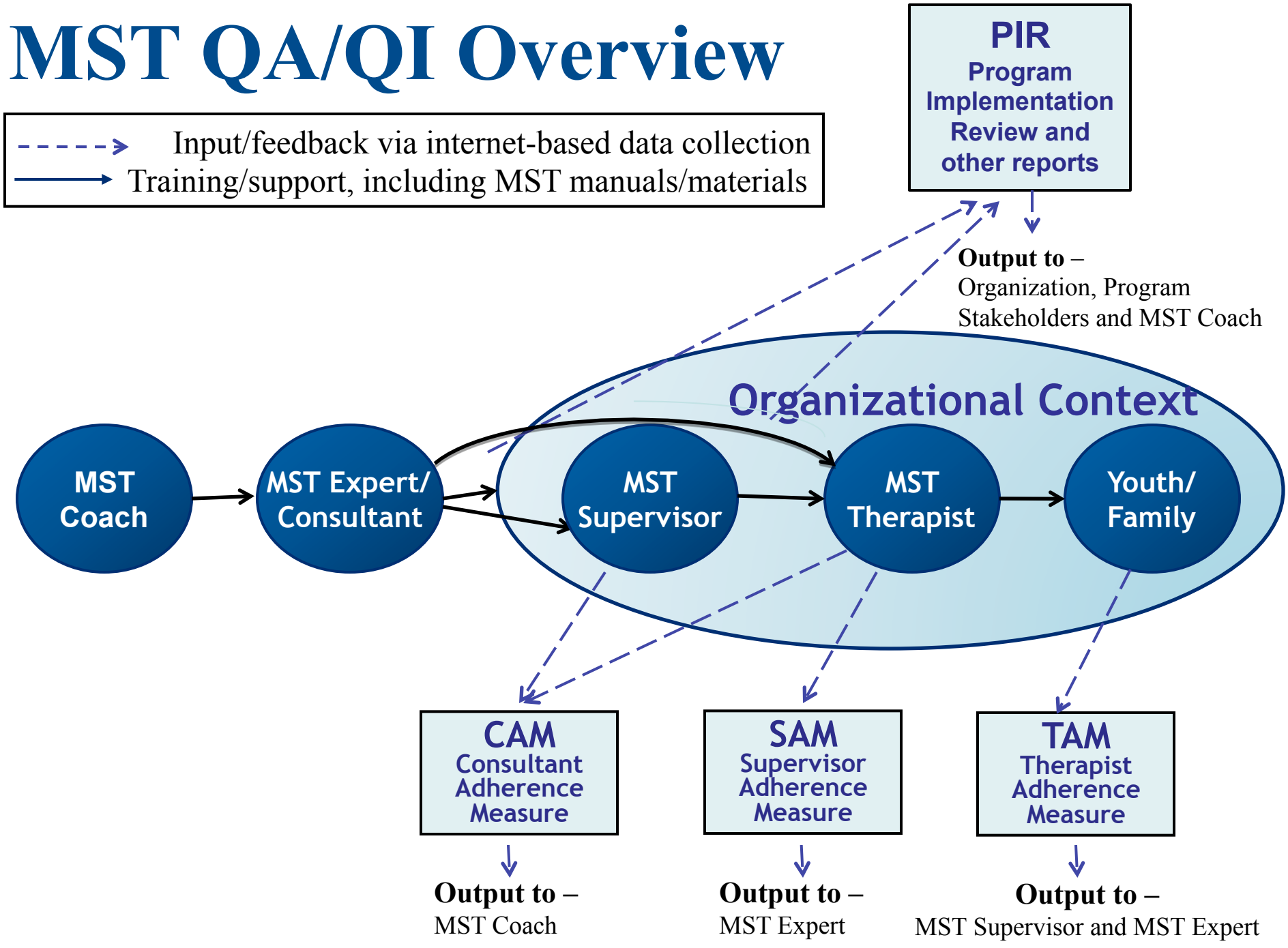
Monitoring Implementation of the Model

- Measure Adherence to the Model
  - Adherence measures entered and monitored via the MSTI Enhanced Website (TAM-R, SAM, CAM, Program Review Form)
  - Work sample review (e.g. session recordings and field visits, group supervision recordings)
- Measure Outcomes
  - Discharge Review Form data entered and monitored via the MSTI Enhanced Website

Improve Implementation of MST as Needed

- Improve implementation as needed, based on the information provided via measurement of adherence, outcomes, and staff's strengths and needs
  - Group supervision, consultation, and additional supervision and feedback as needed
  - Program Implementation Review
  - Professional development planning
- Follow an ongoing cycle of utilizing trainings and materials to guide implementation, measuring, and improving implementation

MST QA/QI Overview



MST Team Dashboard

Team	Total Cases Dis-charged	Total Cases with Opp. for Full Course of tx	% youth living at home	% youth in school or working	%youth with no new arrests	Avg. Length Stay In Days for Youth re-ceiving MST	% Youth Com-pleting Treat-ment	% Youth Dis-charged Due to Lack Of Eng	% of Youth Placed	Overall avg. adher. score *	% youth reporting adher-ence above thresh.(>.61)	% of youth with at least one TAM-R inter-view	% TAM-R due that are com-pleted	Total Cases with a Valid TAM-R	Number of active FTE therapist positions	Avg. Cases Per Therapist
			Ultimate Outcomes Review			Case Closure Data				Adherence Data					Operation Data	
Target			90%	90%	90%	120	85%	<5%	<10%	0.61	80%	100%	70%		3 to 4	4 to 6
Provider 1																
Team 1	15	11	91%	91%	91%	154.91	91%	0%	7%	0.730	70%	79%	72%	11	3.50	2.97
Team 2	18	17	76%	65%	88%	144.53	82%	6%	11%	0.690	67%	56%	46%	10	3.00	3.59
Team 3	14	11	91%	100%	55%	126.55	73%	14%	7%	0.691	68%	93%	81%	13	3.00	2.75
Provider 2																
Team A	9	8	100%	88%	100%	126.75	63%	33%	0%	0.799	70%	100%	69%	9	3.00	3.31
Provider 3																
Team Z	19	18	100%	89%	94%	193.44	94%	5%	0%	0.595	55%	63%	56%	12	3.00	4.40
Provider 4																
Team F	6	6	83%	83%	100%	141.50	83%	0%	17%	0.662	67%	83%	69%	5	3.00	2.71
Team G	11	11	91%	91%	100%	140.27	91%	0%	9%	0.546	42%	100%	86%	11	3.00	3.81
Team H	15	15	93%	87%	100%	124.40	93%	0%	7%	0.667	65%	80%	99%	12	4.00	2.96
Team K	10	10	100%	90%	80%	123.40	90%	10%	0%	0.691	67%	90%	75%	9	2.00	4.22

MST – Transportability Research

How can evidence-based treatments be transported effectively to community-based settings?

(Schoenwald 45-site MST transportability study with almost 2,000 families, more than 450 therapists, and more than 80 supervisors)

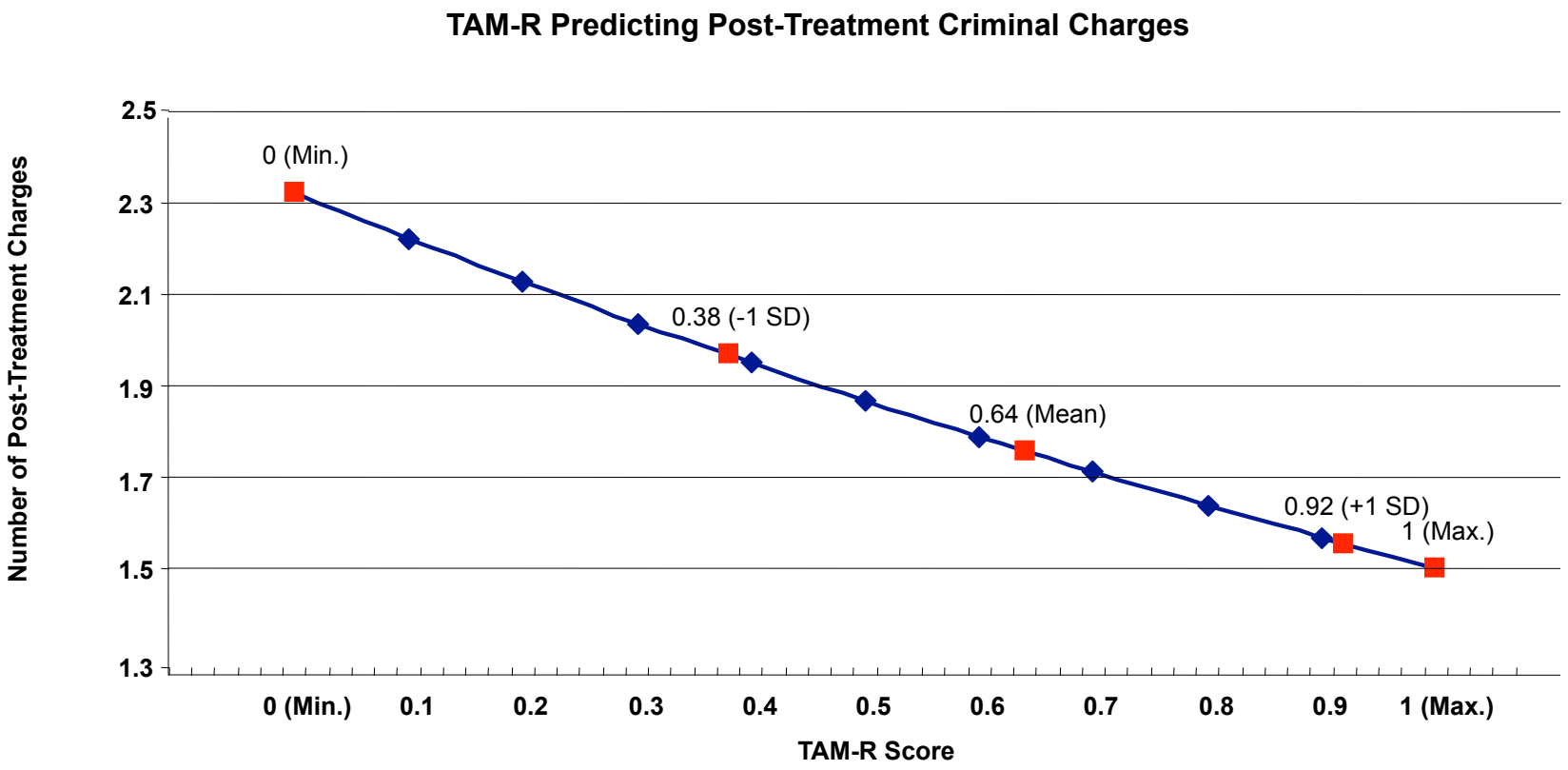
Sonja Schoenwald, PhD

KEY FINDINGS AT 2.3-YEAR FOLLOW-UP:

- High therapist adherence can reduce youth criminal charges by 36%
- High supervisor adherence can reduce youth criminal charges by 53%

MST – Transportability Research

Relationship between Therapist Adherence and Youth Criminal Outcomes (2.3 year follow-up)



For copies of research publications, visit www.musc.edu/fsrc.

For information on the development of MST programs, visit www.mstservices.com

Today's Words:
"THANK YOU FOR COMING!"