

Highlighted Article



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Research, Data, and Evidence-Based Treatment Use in State Behavioral Health Systems, 2001-2012

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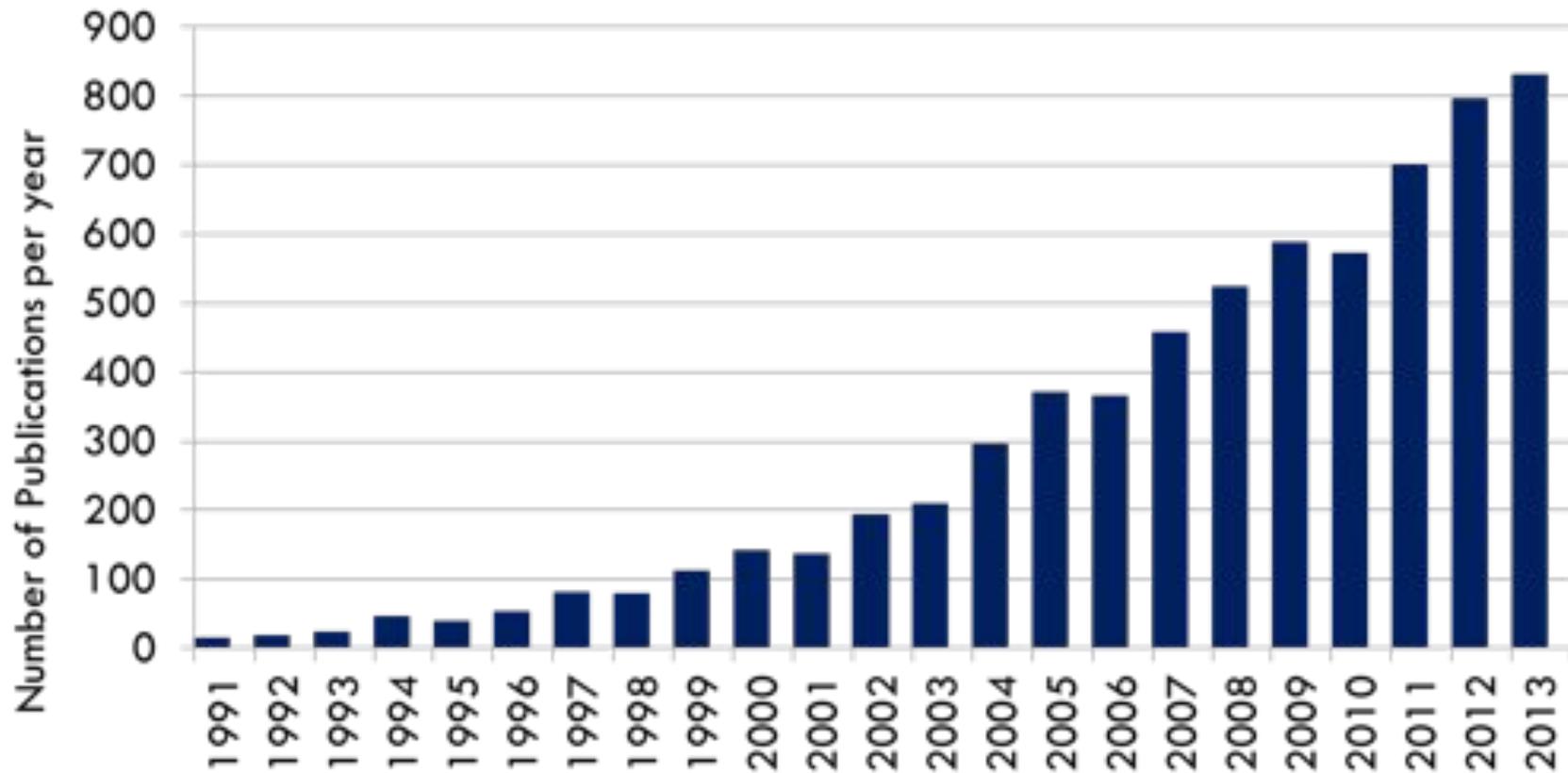
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Growth in Literature on Evidence Based Treatment (EBT)

Web of Science Search:
Evidence-based * treatment



- WOS Categories searched: = Psychiatry, Psychology, Social Work, Substance Abuse

Proliferation of Reports on Health and Behavioral Health Systems

NREPP

cluded in SAMHSA National Register of Evidence-based Programs and Practices

PRESIDENT'S NEW FREEDOM COMMISSION ON MENTAL HEALTH
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CROSSING THE QUALITY CHASM
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Mental Health: A Report of the Surgeon General

Studying the Use of Research Evidence in Policy & Practice

Evidence-based policy and practice. Evidence-informed policy and practice. Evidence-based management. Data-driven decision-making. Translational research. Knowledge transfer. Knowledge mobilization.

This wide array of terms reflects the growing demand for researchers to produce research evidence that is useful for policymakers and practitioners, as well as for policymakers and practitioners to use research evidence in their work. The William T. Grant Foundation has had a long-standing interest in supporting research that can inform policy and practice affecting youth.

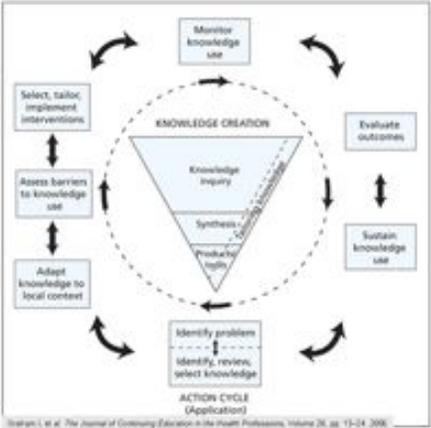
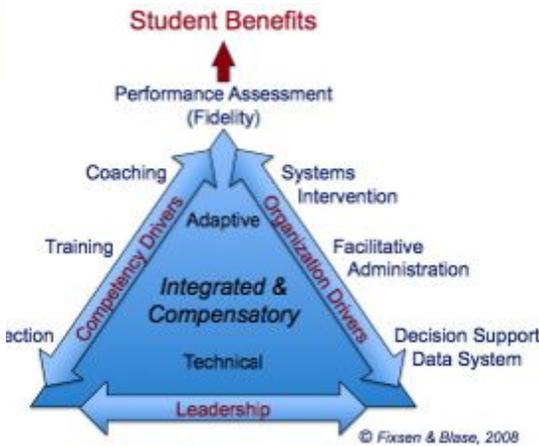
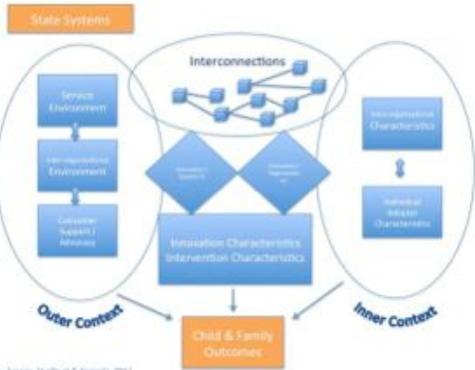
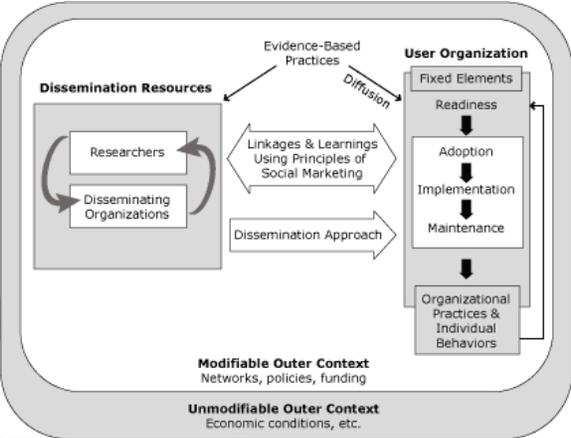
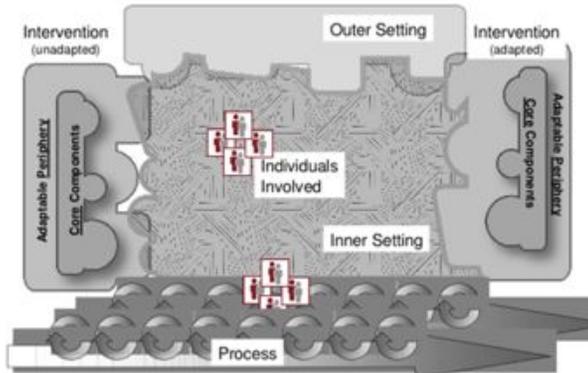
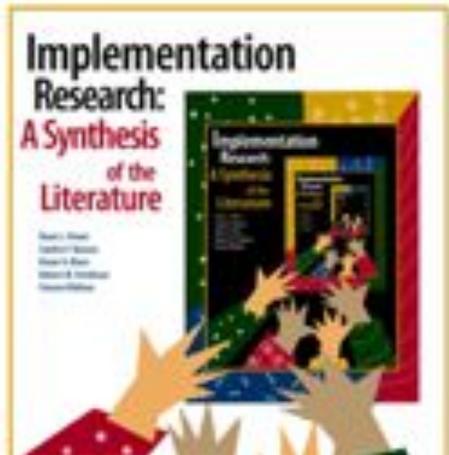
When we review our portfolio of grants over the last few years, we are pleased that our grantees have produced high-quality research evidence that is relevant for policymakers and practitioners in areas such as after-school, mentoring, K-12 education, juvenile justice, welfare, and

better understand when, how, and under what conditions research evidence is used in policy and practice that affect youth, and how its use can be improved. We believe that strengthening this understanding can improve our efforts to promote the production of useful research evidence and support policymakers' and practitioners' use of it to improve the lives of youth in the U.S.

In this essay, we discuss the Foundation's interest in generating more studies that focus on understanding the use of research evidence in policy and practice affecting youth and how to improve its use. We begin by defining what

Department of Health and Human Services

The Advent of Implementation Science



Use of evidence and research in behavioral health, 2000-present

- Research proliferates on EBTs for adults and children
- Federal reports and calls to action characterize public behavioral health systems as ineffective and needing reform
 - Common Recommendations:
 - Increase the availability of evidence-based treatments
 - Increase the application of research to policy
 - Integrate data systems; monitor quality, outcomes, and costs
- Explosion in conceptual models and frameworks for promoting uptake of EBT

Half empty ... or half full?

- “Disseminating and implementing EBPs may be more challenging than developing them.”
 - --Chaffin & Friederich, 2004
- “Most interventions found to be effective in health services research studies fail to translate into meaningful outcomes across multiple contexts.”
 - --Damschroeder et al., 2009
- “The EBP movement continues to evolve and mature...”
 - --Barth et al., 2011
- “The development of a policy research base regarding system transformation and implementation of EBP has begun.”
 - -- American Psychological Association Task Force on Evidence-Based Practice for Children and Adolescents, 2008



What is actually happening in public systems?

- Despite the oft-cited need for being evidence based, there has been little quantification of public system investment in:
 - ▣ Empirically-supported implementation strategies
 - ▣ Use of local data and evaluation to shape decision-making
 - ▣ Evidence-based treatments (EBTs) to improve client outcomes

Focus on states

- States lead behavioral health service/system reform
 - ▣ Including application of research to improve outcomes
- Limited empirical research on state efforts
 - ▣ Magnabosco (2006): 106 unique state activities to support implementation of EBTs for adults with SMI
 - State infrastructure building
 - Stakeholder relationship building
 - Financing
 - Continuous quality management
 - Services delivery practices and training

Focus on states

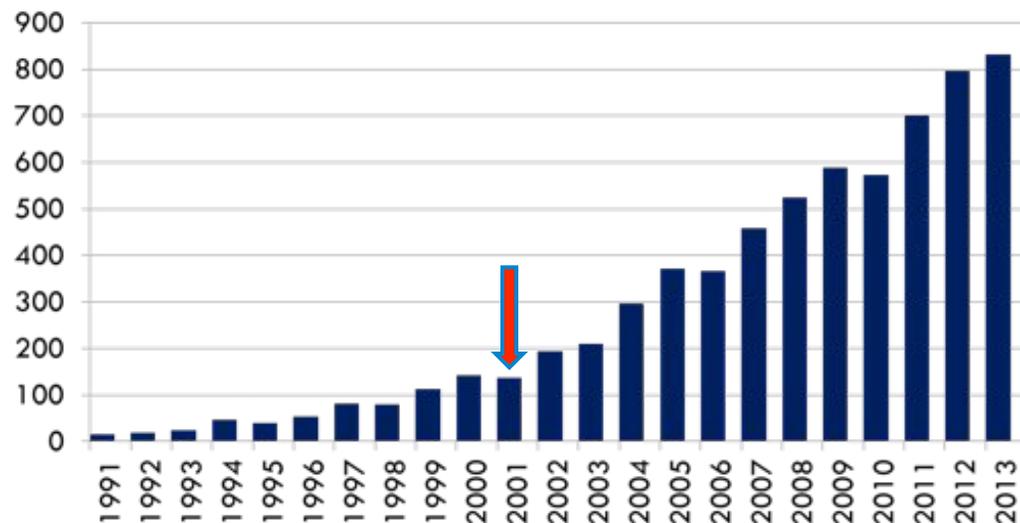
- States lead behavioral health service/system reform
 - ▣ Including application of research to improve outcomes
- Limited empirical research on state efforts
 - ▣ Bruns & Hoagwood (2008): Children's behavioral health
 - Statewide outcomes measurement
 - Use of community teams and learning collaboratives
 - Establishment of centers of excellence
 - EBT implementation mandates
 - Incentives for providers to meet fidelity standards
 - ▣ State specific studies (e.g., CA, NYS, PA, WA)

Research Questions

1. How have the rates of use and penetration of EBTs by SMHAs changed from 2001-2012?
2. What kinds of support to EBTs are provided by SMHAs, and how has this changed over time?
3. What infrastructure is in place to support use of data by SMHAs, and how has this changed over time?

Why 2001-2012?

- NRI tracking of state deployment of specific EBTs began in 2001
- Focus on behavioral health EBTs, and federal initiatives, became more prominent around 2000
- Inflection point in the scientific literature



Data sources

- Data provided by NRI
- Regular (near-annual) surveys of state mental health authority reps about the characteristics of SMHAs
 - ▣ State Profiles System (SPS)
 - *Mental Health Services*
 - *Research and Evaluation*
 - *Information Management*
 - ▣ Uniform Reporting System (URS)
 - *Use of EBTs*
 - *Fidelity data monitoring*

Sample

- SMHA representatives in all 50 states
 - ▣ Plus DC, Puerto Rico, and Virgin Islands.
- Good response rates by states and territories over the study period
 - ▣ Range = 86.6% (46 of 53) in 2001 to 98.1% (52 of 53) in 2005.

EBTs tracked

- Six interventions required by CMS for tracking and for which data are available since 2001
- Children with serious emotional disorders (SED):
 - Therapeutic Foster Care
 - Multisystemic Therapy (MST)
 - Functional Family Therapy (FFT)
- Adults with serious mental illness (SMI):
 - Supported Housing (SH)
 - Supported Employment (SE)
 - Assertive Community Treatment (ACT)

Other variables tracked

- Initiatives to promote the adoption of EBTs, e.g.:
 - Monitoring of fidelity
 - Financial incentives
 - Specific budget requests
 - Training and workforce development
- Data, research, and evaluation activities, e.g.:
 - Statewide client outcomes monitoring system
 - Cross-agency integration of client datasets
 - Produce a directory of research and/or evaluation projects
 - Operate a Research Center/Institute

Years examined

- Data were collected for most variables in:
 - 2001
 - 2002
 - 2004
 - 2005
 - 2007
 - 2009
 - 2010
 - 2012

- Data on numbers and rates of individuals served by EBTs, however, are only available from 2007-2012
 - This coincided with launching of the URS in 2007
 - Replaced the SPS as the means for estimating EBT utilization

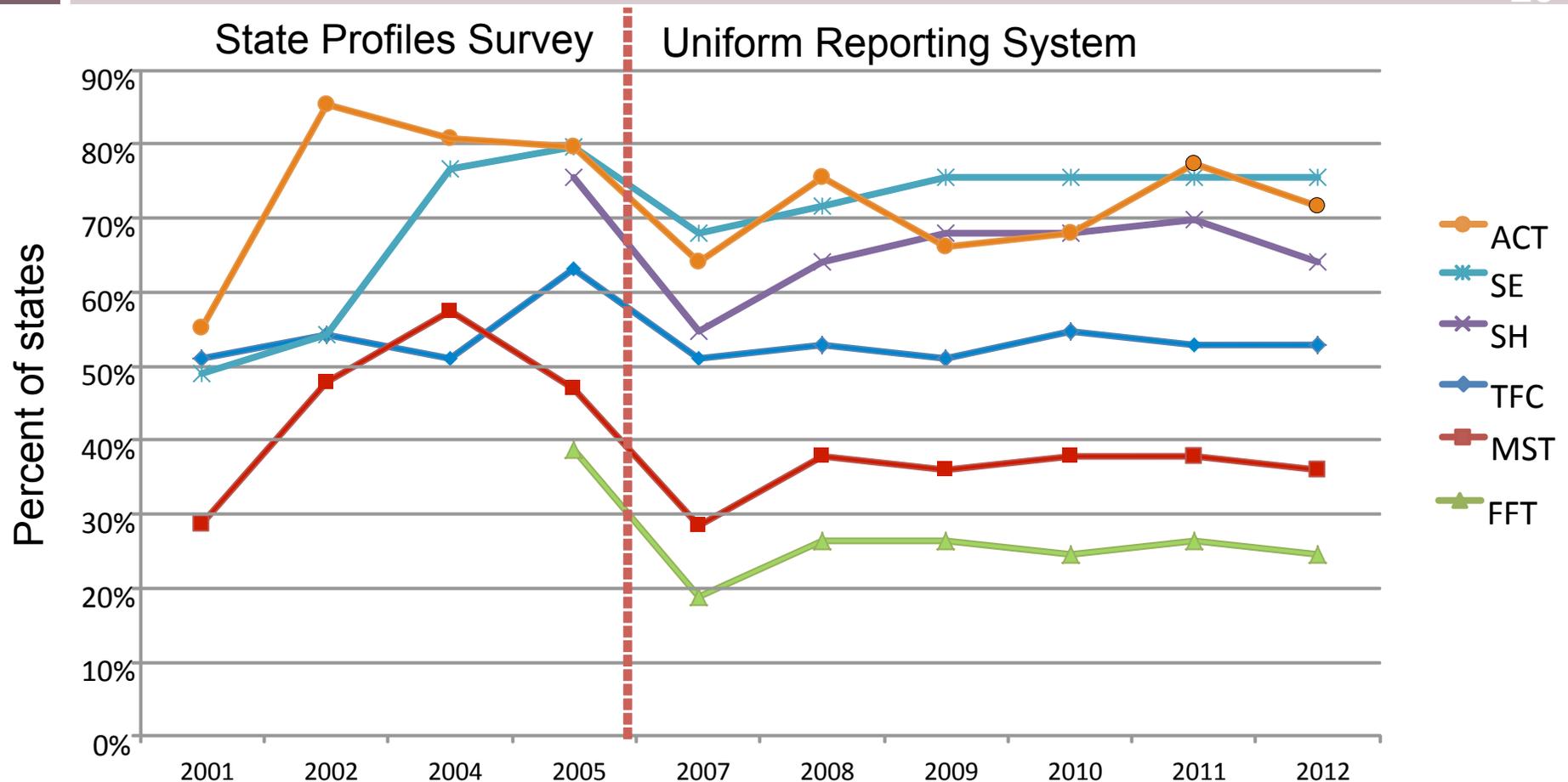
Data analysis

- Multilevel Models (MLM) used to examine change over time.
 - Overdispersed population-average models with robust standard errors, full MLE and randomly varying terms
 - Bernoulli distributions used for dichotomous outcomes
 - Poisson distributions were used for continuous variables because of positive skew
- Linear, quadratic, and cubic time trends were tested
 - The best-fitting, most parsimonious models are reported

Results

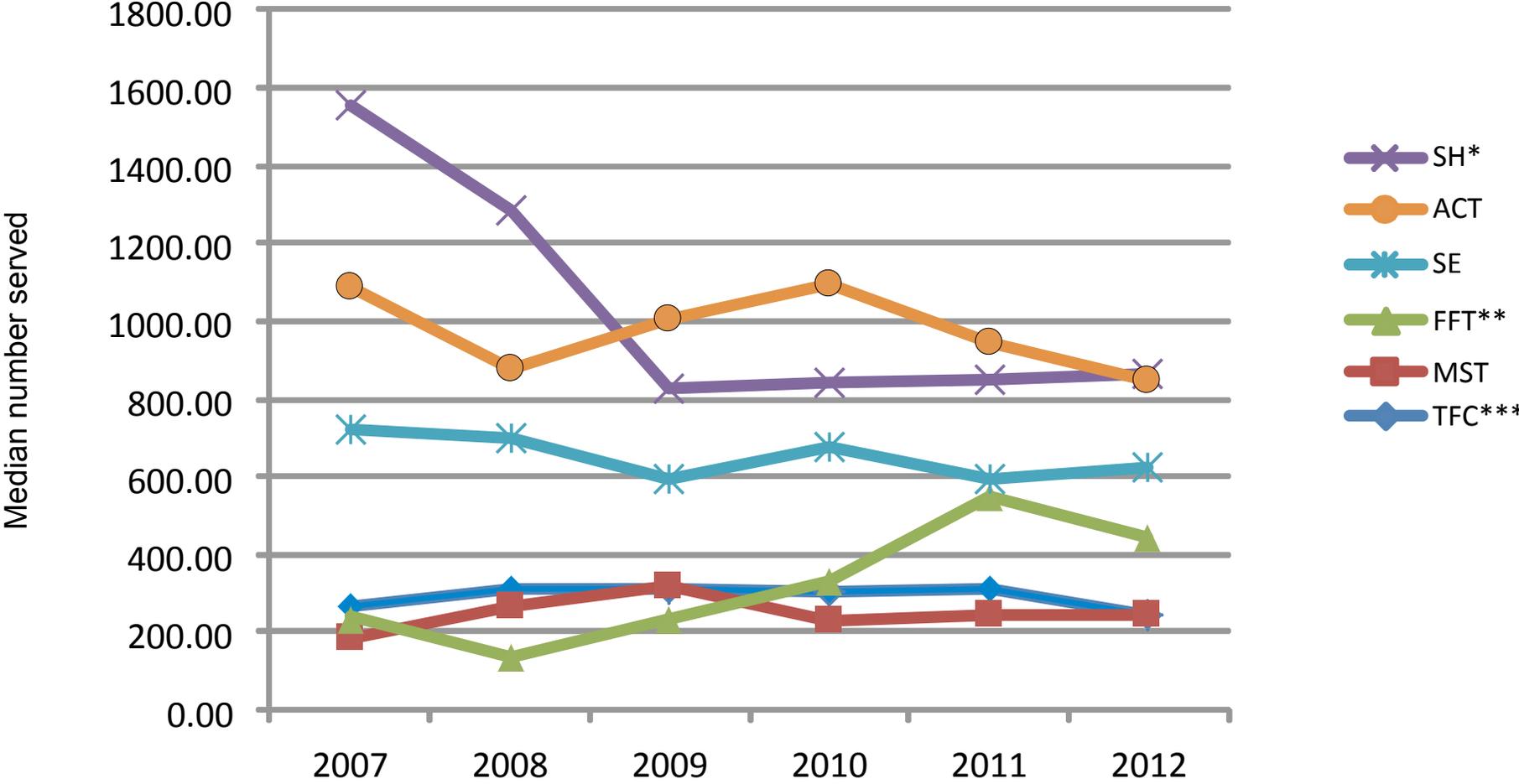
- Percent of States adopting the 6 EBTs
- Numbers of clients served by EBTs and penetration rates
- SMHA use of EBT support strategies
- SMHA data and research activities

Percentage of states using specific evidence-based practices



- Pre-2007 (SPS), SMHA reps were asked Yes or No about adopting selected EBTs
- Post-2007 (URS), states were asked for counts of clients served and were assumed to NOT be implementing if they answered "0."
- **Piecewise linear time trends find significant increases from 2001-2005, followed by no change from 2007-2012**

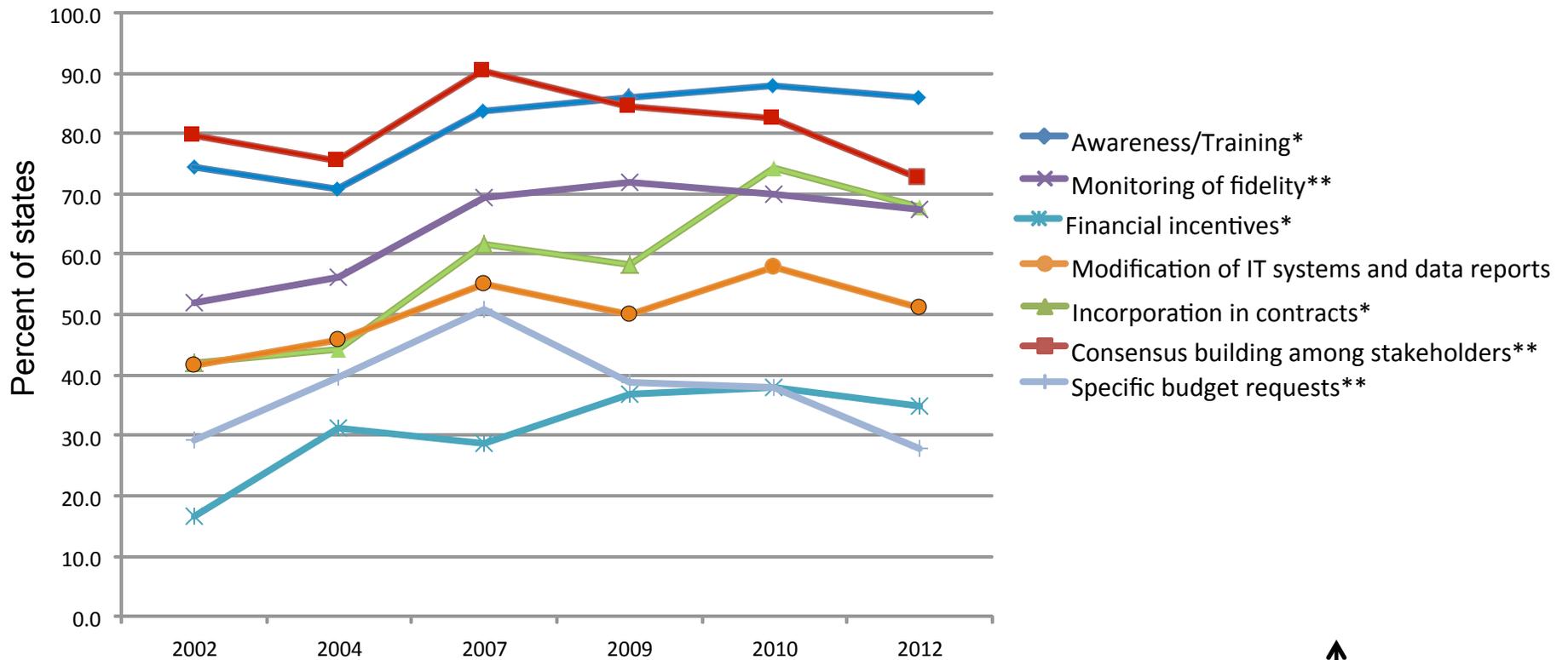
Median numbers of people served by specific evidence based practices



*Sig. cubic change (↓ then flat); ** Sig. linear change (↑);
 ***Sig quadratic change (↑ then ↓).

Initiatives to Support EBP Implementation

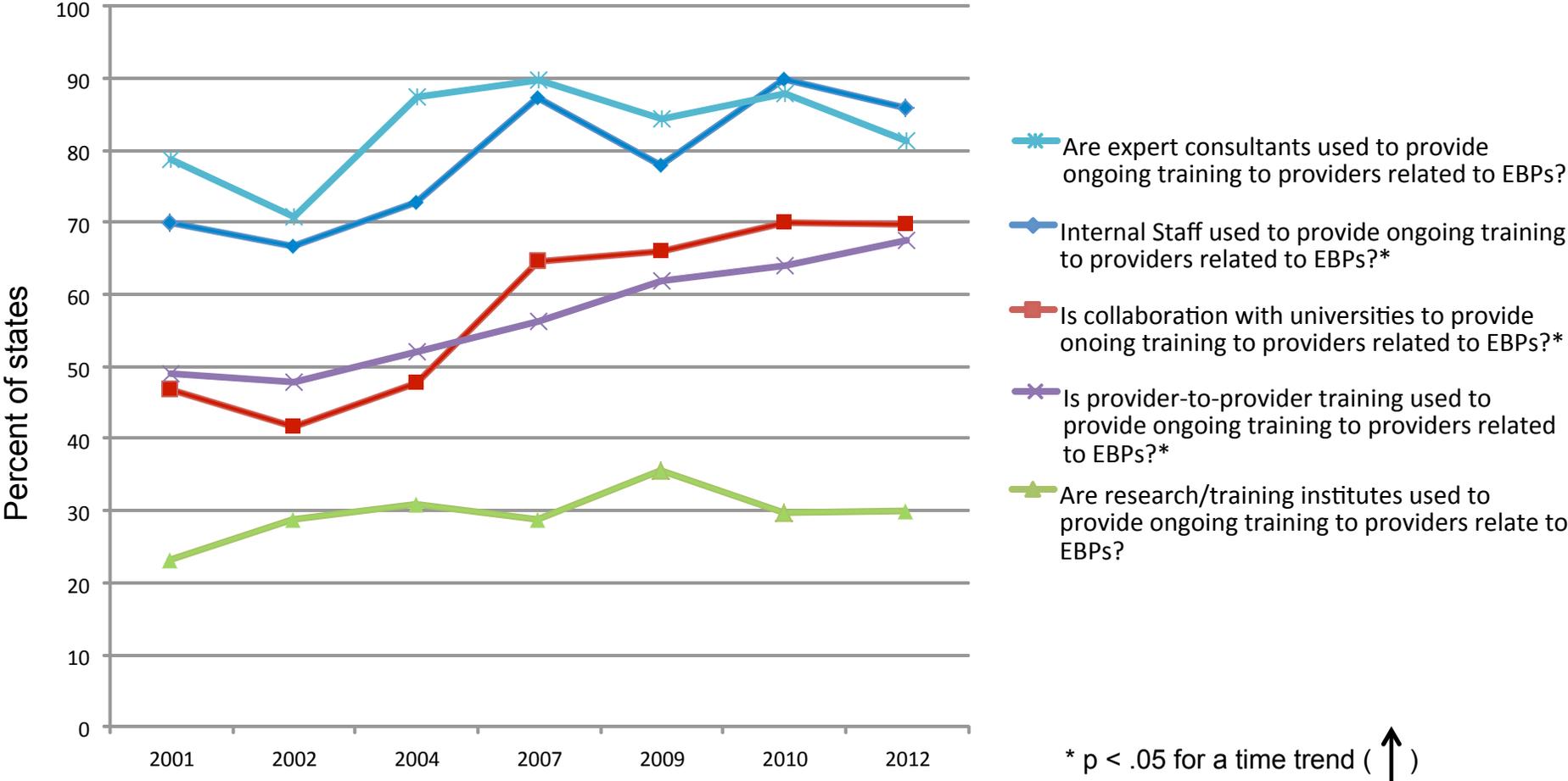
What initiatives, if any, are you implementing to promote the adoption of EBTs?



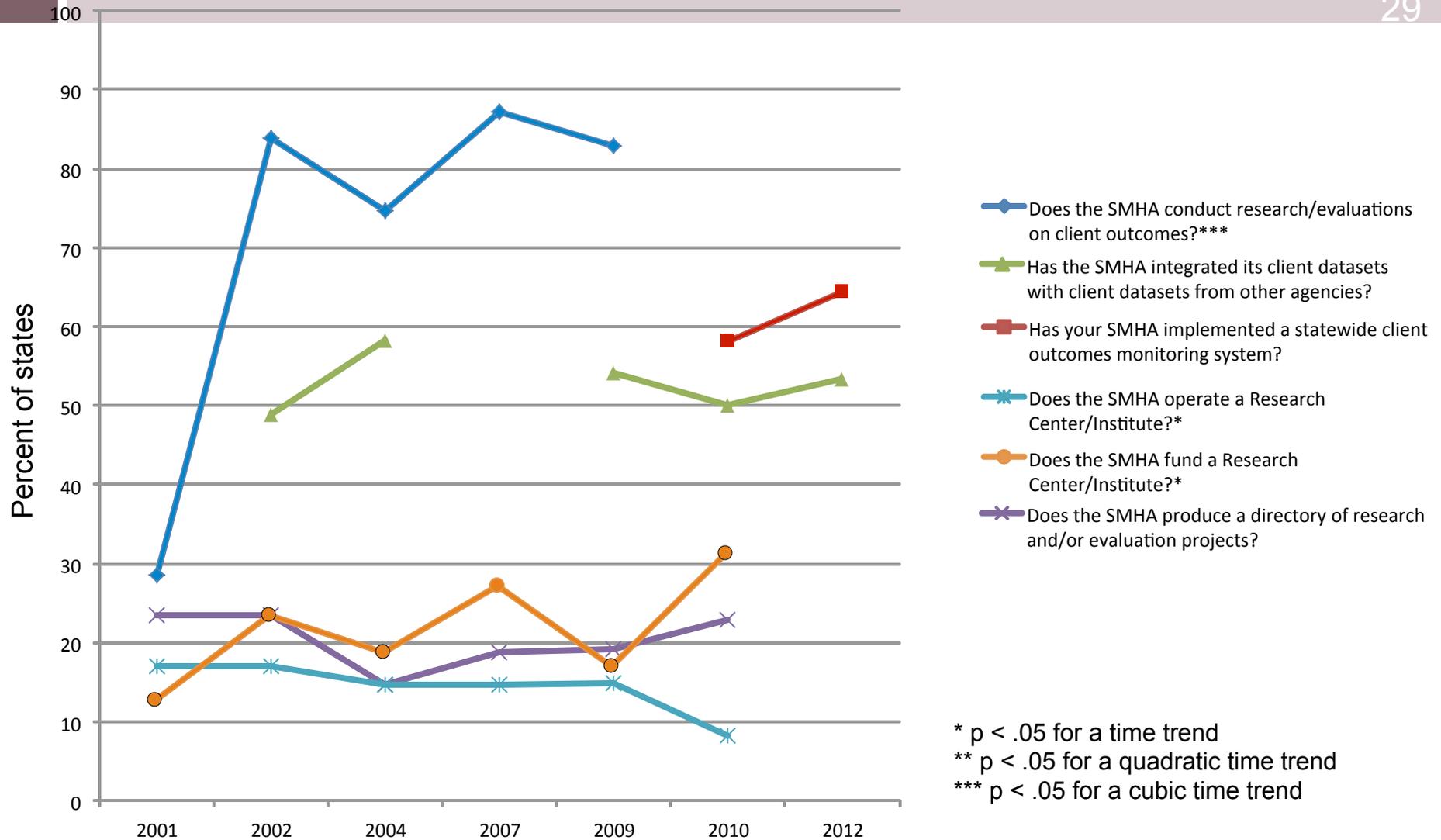
* p < .05 for a time trend (↑)

** p < .05 for a quadratic time trend (↑ then ↓)

Training and Workforce Support



Data and Research Use



Summary of Findings

EBT Utilization

- 65-80% of states use selected adult EBTs
 - Median clients served in these states 400-700
 - Penetration rates = 1.5% - 3.0% of estimated adults with SMI
- 25%-50% of states use selected child EBTs
 - Median clients served in these states 250-400
 - Penetration rates = 0.75% - 2.5% of all youths with SED
- Several EBTs showed increases in early 2000s followed by decreases or flattening from 2007-2012

EBT Implementation Strategies

- Some strategies increasing:
 - Building EBTs into provider contracts
 - Largest increase: From 41% - 70% of states
 - Financial incentives for provider EBT use
 - However, only 35% of states
- Many “inverted U” shaped trends in implementation strategies:
 - Consensus and awareness building among stakeholders
 - State-led fidelity monitoring
 - Specific budget requests for EBTs

Data and research use

- SMHA investment in data systems and use of research showed little change
 - Statewide outcomes monitoring system (only 56%)
 - Integrating client datasets across agencies
 - Producing directories of research/evaluation projects
 - Modifying IT systems to support EBT
 - Conducting research/evaluation on penetration rates
- “Funding an external research center” increased (From 13% → 31%)
 - But... SMHA operation of Center decreased (17% → 8%)

Limitations

- SMHAs are not the only systems that may provide these EBTs in a state
 - SMHA respondents may not be fully informed
- Selected EBTs provide a very limited picture
 - Surveys inquired only about EBTs designed for adults and children with serious conditions, per MH Block Grant
- Some missing data
 - e.g., estimates of prevalence of SMI and SED
- Because state-level data were aggregated, results reflect national-level trends, not representative of any specific state or local context.

Conclusions

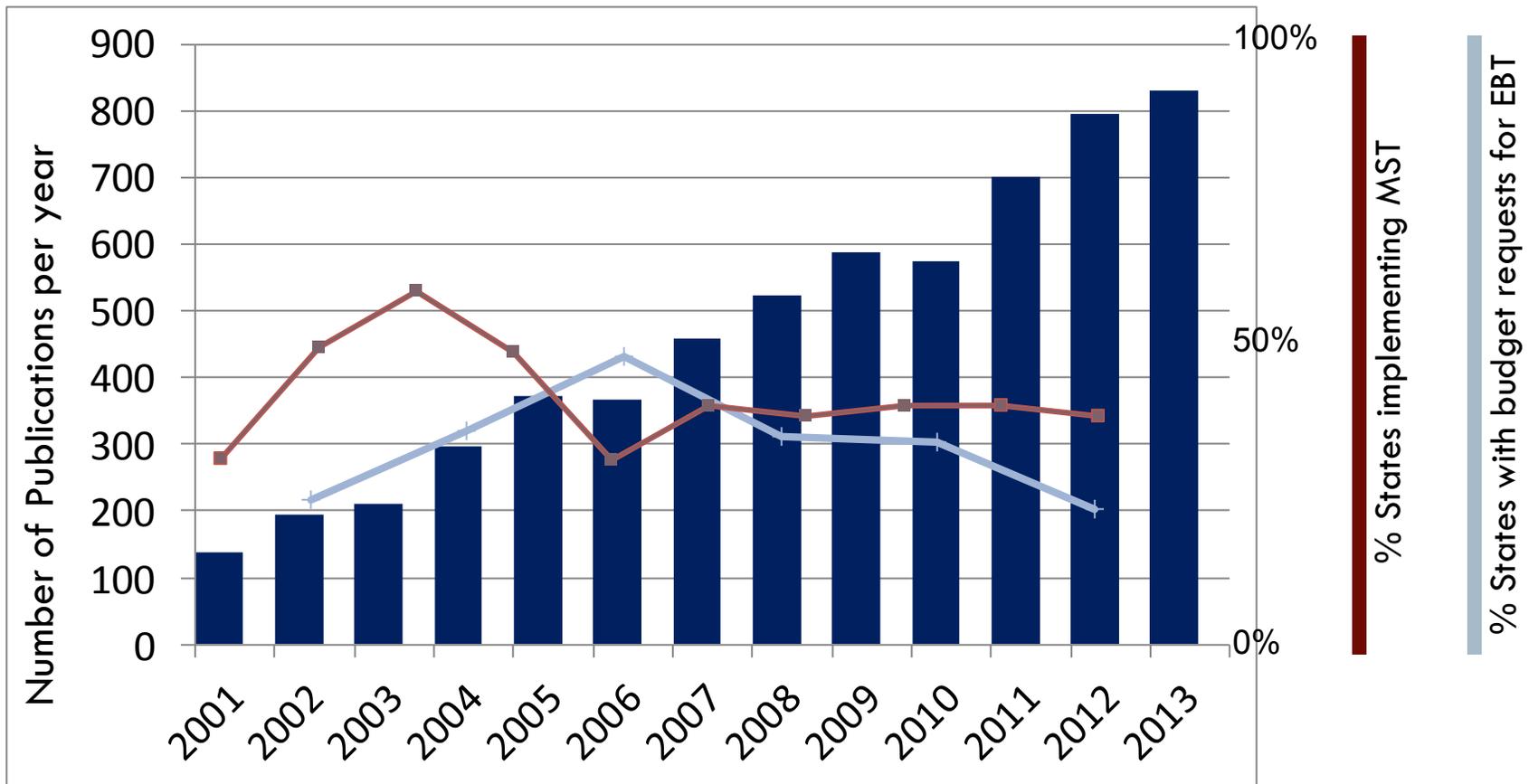
- SMHA investment in EBTs, implementation, and use of data has not kept pace with the volume of literature on these topics over the same time period
 - Recession of 2007 likely had a major role

Conclusions

- More research is needed on these dynamics
 - Examination of predictors
 - Reliable and valid measurement of implementation and uptake – investment in more rigorous monitoring
 - Take advantage of the “natural experiments” presented by the range of state strategies
- How can the system of care philosophy and resources provided (e.g., by SAMHSA grants) can promote better uptake and support to EBP?

Growth in Literature on EBT, 2001-2012

versus trends in SMHA adoption/investment



Questions

MST[®]
Multisystemic Therapy



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