



A Prevention Support System for the Dissemination and Implementation of Evidence-based Prevention

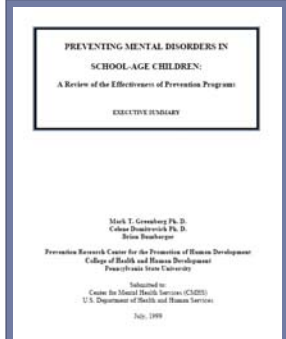
Brian K. Bumbarger
Children's Mental Health
Research and Policy Conference
March, 2010

Over a decade ago, we conducted a comprehensive review, at the request of CMHS, to identify programs with empirical evidence of effectiveness in preventing mental disorders in children.

Since then, many "lists" have emerged to guide policy makers and practitioners in the adoption of evidence-based practices.

Today there is little evidence that the knowledge of "what works" has resulted in large-scale public health impact.

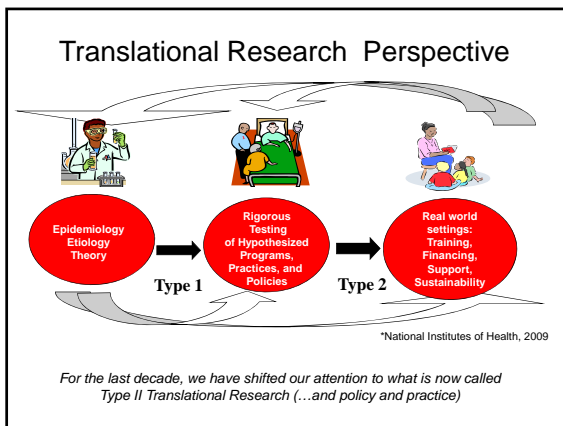


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- Progress in Type 1 Prevention Science**
- Advances in our knowledge of epidemiology, etiology, methodology, and prevention practice
 - Development and efficacy testing of a wide variety of preventive interventions
 - Growing and widely-accepted "lists" of efficacious programs

- We now have a number of lists of proven-effective prevention and intervention programs
- Effectiveness demonstrated in rigorous scientific evaluations (randomized controlled trials)
 - Large longitudinal studies or multiple replications (results that are generalizable)
 - Significant effects on aggression, youth violence, delinquency, substance use, school failure
- These evidence-based programs give us great confidence that if implemented well they will be effective at promoting better youth outcomes*

Moving prevention science to community-level public health impact



If you build it, they will come!

“If you build it”

...they may never know about it
 ...they may not understand what it is
 ...they won't know how to get there
 ...they won't think it fits
 ...they'll think they already have it
 ...they'll see it as competition
 ...they'll decide they should build their own
 ...they'll adapt it into something unrecognizable
 ...they'll only use the pieces of it they like

OR

...they will come, and love it.
 Then they'll want you to make ten more just like it in surrounding communities. Now.

Emshoff, J. (2008). Researchers, practitioners, and funders: Using the framework to get us on the same page. *American Journal of Community Psychology*, 41 (393-403).

From Lists to Improved Public Health: Barriers

- Synthesis and translation of research to practice, (and practice to research)
- EBP dissemination, selection, and uptake
- Ensuring sufficient implementation quality and fidelity
- Understanding adaptation and preventing program drift
- Measuring and monitoring implementation and outcomes
- Policy, systems, and infrastructure barriers
- Coordination across multiple programs and developmentally
- Sustainability in the absence of a prevention infrastructure

Bumbarger, B. and Perkins, D. (2008). After Randomized Trials: Issues related to dissemination of evidence-based interventions. *Journal of Children's Services*, 3(2), 53-61.

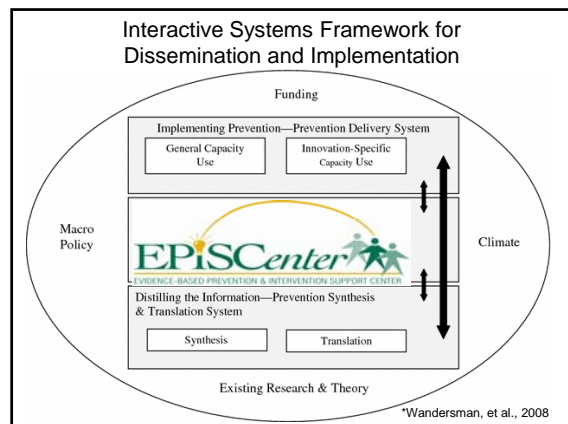
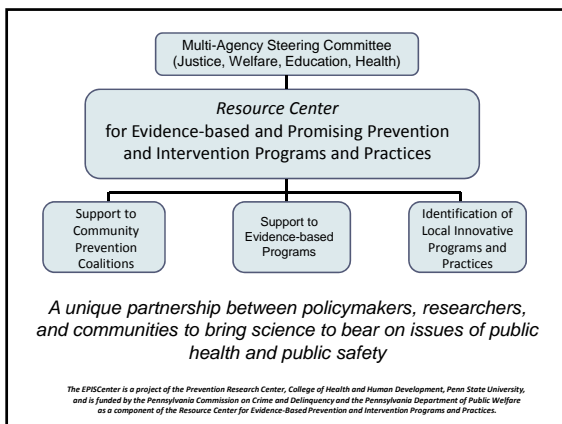
Bumbarger, B., Perkins, D., and Greenberg, M. (2009). Taking Effective Prevention to Scale. In B. Doll, W. Pfohl, & J. Yoon (Eds.) *Handbook of Youth Prevention Science*. New York: Routledge.

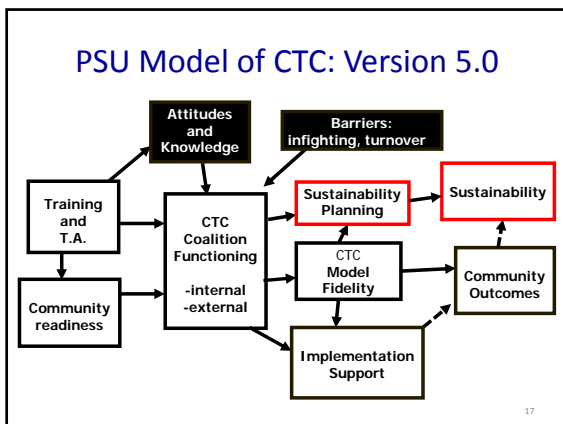
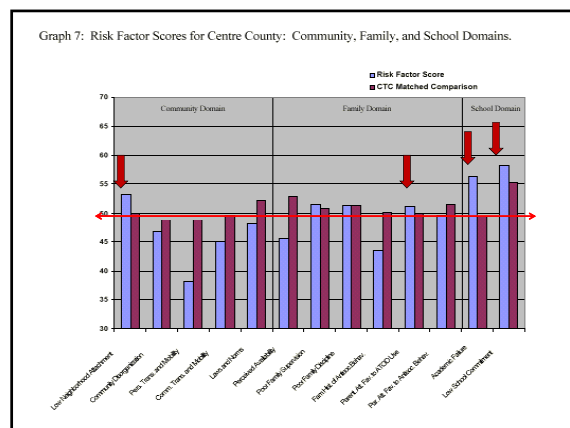
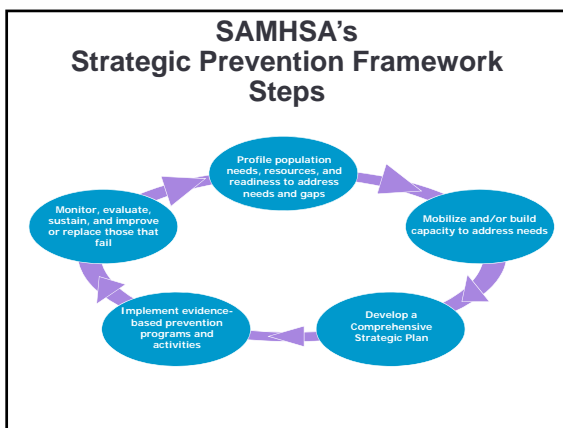
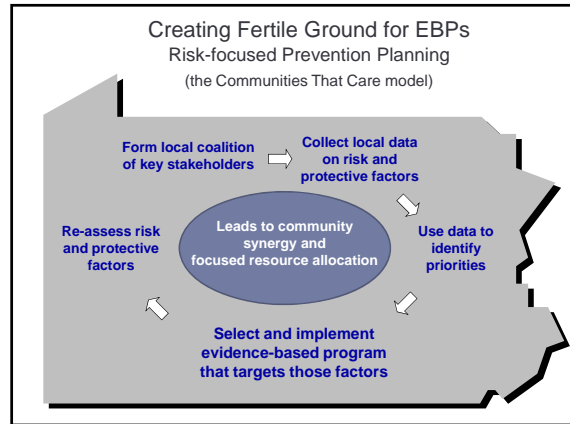
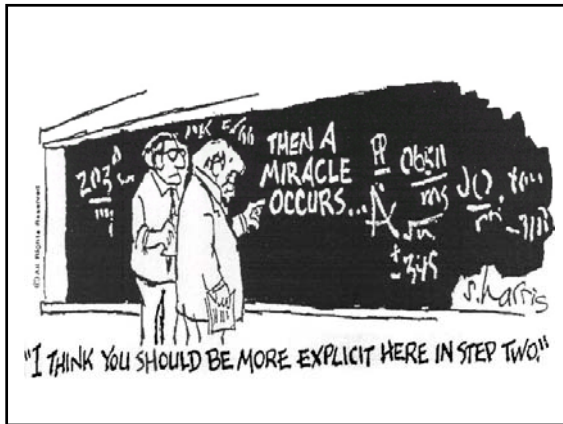
Why don't communities see greater success in prevention?

- Chasing money rather than outcomes
- No single guiding philosophy (many separate but disconnected efforts)
- Little accountability
- The lack of good data to drive decision-making and resource allocation
- Reliance on untested (or ineffective) programs
- Poor implementation quality
- Inability to sustain programs

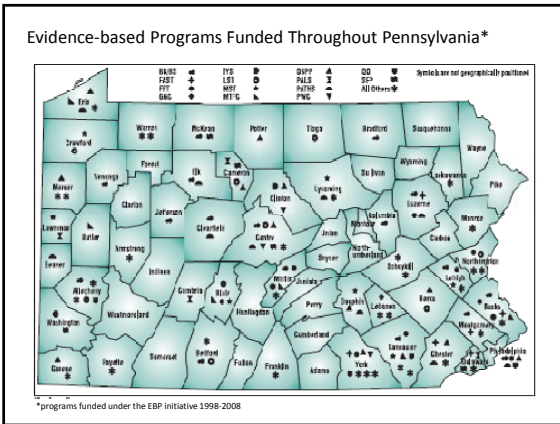
The challenges

- Having community-based prevention work be more focused and strategic
- Increase (carefully planned) adoption of EBPs by more communities
- Ensure high quality implementation
- Sustain programs long-term



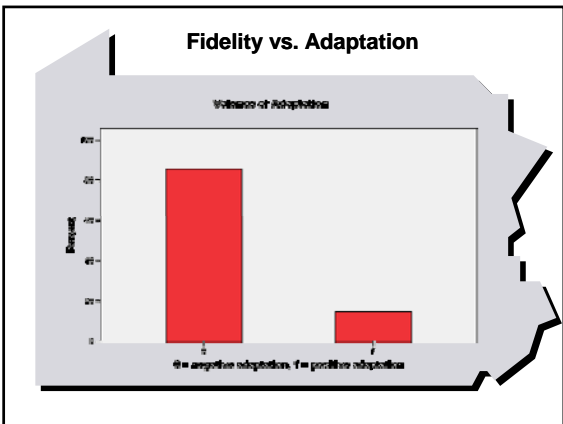
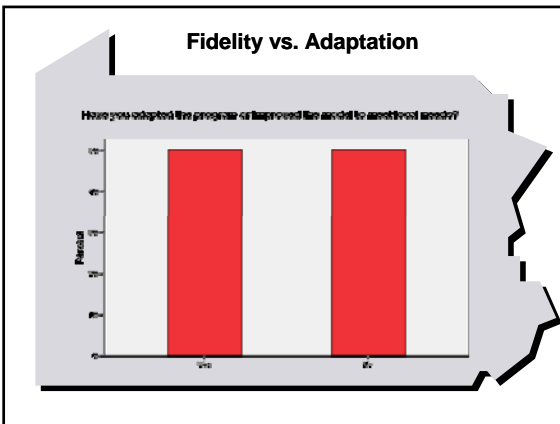


- ### Pennsylvania's "Evidence-based" Initiative
- Successor to earlier CTC initiative that promoted community coalitions/risk & resource assessments
 - Nearly 200 EBP's funded since 1998 (+~200 through other sources)
 - MST, FFT, MTFC, Big Brothers/Sisters, LST, SFP 10-14, PATHS, Olweus Bullying Program, TND, Incredible Years
 - Strong emphasis on implementation quality & fidelity, impact assessment, and sustainability planning



The reality....

- While possible, fidelity is not a naturally occurring phenomenon – adaptation (more accurately program drift) is the default
- Most adaptation is reactive rather than proactive
- Most adaptation weakens rather than strengthens the likelihood of positive outcomes



LEEP-LST Study:

Standardized Mean Fidelity Score by Implementer

(Bumbarger & Miller, 2007)

Implementer	Mean Fidelity	N	Std. Dev	Minimum	Maximum
Police Officer Only	62.47	29	18.27	27.5	94.7
Teacher Only	65.25	13	11.81	43.4	85.1
Team Taught	72.03	12	16.62	47.8	94.3

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Improving Implementation Quality

- Good pre-implementation planning
- What gets measured matters
- Improve practitioner knowledge of basic prevention science and theory of change
- Use adaptation discussion as a tool for training on the logic model of an intervention
- Build a sustainable infrastructure for monitoring implementation quality and fidelity
- Build internal capacity and desire for CQI

Practical strategies

- Peer coaching, peer observation
- Schedule regular opportunities for reflective practice and de-briefing
- Never let the initial training be the only training
- Data in must ALWAYS require data out – create feedback loops and safe environments for reflection
- Foster internal competition
- Emphasize the importance of a clear understanding of a program's logic model

Measuring Population-level Impact

- Cross-sectional quasi-experimental study of 98,000 students in 147 communities
- Found youth in CTC communities reported lower rates of risk factors, substance use, and delinquency than youth in similar non-CTC communities
- First evidence of the effectiveness of a large-scale community coalition approach

5 year Longitudinal Study of PA Youth

% Improvement of CTC/EBP Youth Over Comparison Group

Research following 419 age-grade cohorts (~85,000) over a 5-year period found youth in CTC communities using EBPs had significantly lower rates of delinquency, greater resistance to negative peer influence, stronger school engagement and better academic achievement

Category	% Improvement
Delinquency	10.8
Academic Performance	33.2
Negative Peer Influence	10.8
School Engagement	16.4

Brown, L.D., Feinberg, M.E., & Greenberg, M.T. (in press). Determinants of community coalition ability to implement evidence-based preventive interventions. *Prevention Science*.

Community Prevention Planning and Evidence-based Programs are wise investments of taxpayer resources

- Communities with EBPs embedded in the context of community mobilization/readiness strategy have lower levels of delinquency and youth drug use and better academic achievement*
- EBPs produce an overall return of 5 to 25 dollars for every dollar invested – a return measured in hundreds of millions**

* Feinberg, M.E., Greenberg, M.T., Osgood, W.D., Sartorius, J., Bartempo, D.E. (in Press). Can Community Coalitions Have a Population Level Impact on Adolescent Behavior Problems? CTC in Pennsylvania. *Prevention Science*.

** Jones, D., Bumgarner, B., Greenberg, M., Greenwood, P., and Kyler, S. (2008). The Economic Return on PCCD's Investment in Research-based Programs: A cost-benefit assessment of delinquency prevention in Pennsylvania. Prevention Research Center, Penn State University.

Improvements

- Reduced list of fundable programs based on rigor of evidence, identified needs, and capacity to support dissemination and implementation
- Targeted, proactive technical assistance to sites
- Developed logical and well-informed performance measures, and practical impact assessment tools
- Required certification of implementation quality
- Negotiated sustainable funding through MA/MCOs

Why don't communities see greater success in prevention?

- Chasing money rather than outcomes
- No single guiding philosophy (many separate but disconnected efforts)
- Little accountability
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Some Lessons Learned

- **Focus on risk and protective factors rather than narrowly-defined behavioral outcomes**
- **Community-specific (i.e. local) data to drive decision making and resource allocation**
 - Single state epidemiological survey
 - Becomes community needs assessment tied to multiple agency RFPs
- **Community needs assessment and mobilization, as well as EBP implementation, requires proactive Technical Assistance**

Some Lessons Learned (cont.)

- **Fix community readiness and infrastructure issues before throwing money at problems**
- **Find a small number of things that work, and do them well**
- **Multi-year funding is necessary to get to stable effective services**
- **Tie funding to quality implementation and outcomes (objective criteria de-politicizes the process)**
- **Build in evaluation for continuous quality improvement – at every level**

It is not enough to be busy. So are the ants. The question is: What are we busy about?

Henry David Thoreau

Thank You!

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