

# **PROSPER Partnerships for Quality Implementation and Sustainability**

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**Science of Dissemination and Implementation: Building  
Research Capacity to Bridge the Gap from Science to Service**

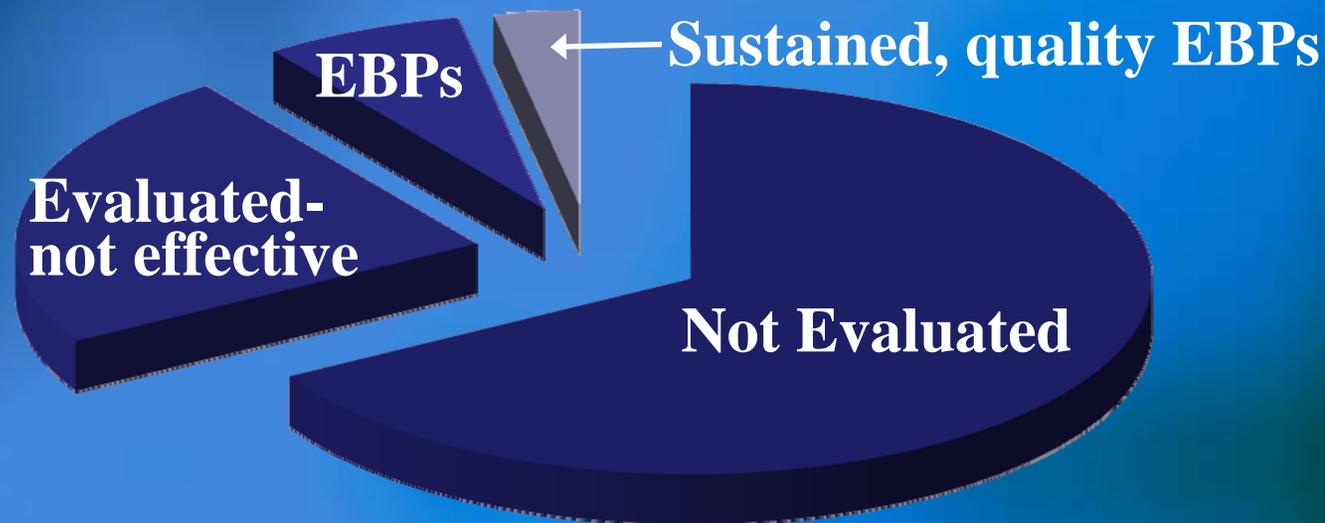
*January 29, 2009*

# Part 1—The Challenge Addressed by PROSPER—Translating EBPs into Community Practice



# Challenge of Scaling Up For Sustained, Quality EBP Implementation— What is Being Lost in Translation

...a larger “piece” of evidence-based programs (EBPs) to delay  
two types of transition with general community populations  
...sustained, quality implementation on a large scale



Rigorously demonstrated, long-term EBP impact is very rare (Foxcroft et al., 2003).

# Addressing the Challenge is Imperative

- “To maximize the health of its citizens, society should pursue interventions in proportion to the ability of those interventions to improve outcomes...building a system that can deliver advances reliably.”



- “The current policy...is probably costing lives.”

Steven H. Woolf (2007; 2008)

# Rationale for Choosing Translation of Existing EBPs— Case of EBPs on PROSPER Menu

- Existing EBP has 65% relative reduction rate for adolescent lifetime meth use;\* if reached 25% of those eligible, would prevent 16,250 cases for every 100,000
- Two choices for increasing prevention to 25,000 cases per 100,000
  1. Increase reach from 25% to 39%
  2. Develop and test new intervention that could be 100% effective (with 25% reached)
- In cases like this, enhancing translation is clear choice

\* See Spoth, R., Clair, S., Shin, C., & Redmond, C. (2006). Long-term effects of universal preventive interventions on methamphetamine use among adolescents. *Archives of Pediatrics & Adolescent Medicine*, 160, 876-882.

# PROSPER Realizes Translational Opportunities Through Partnerships

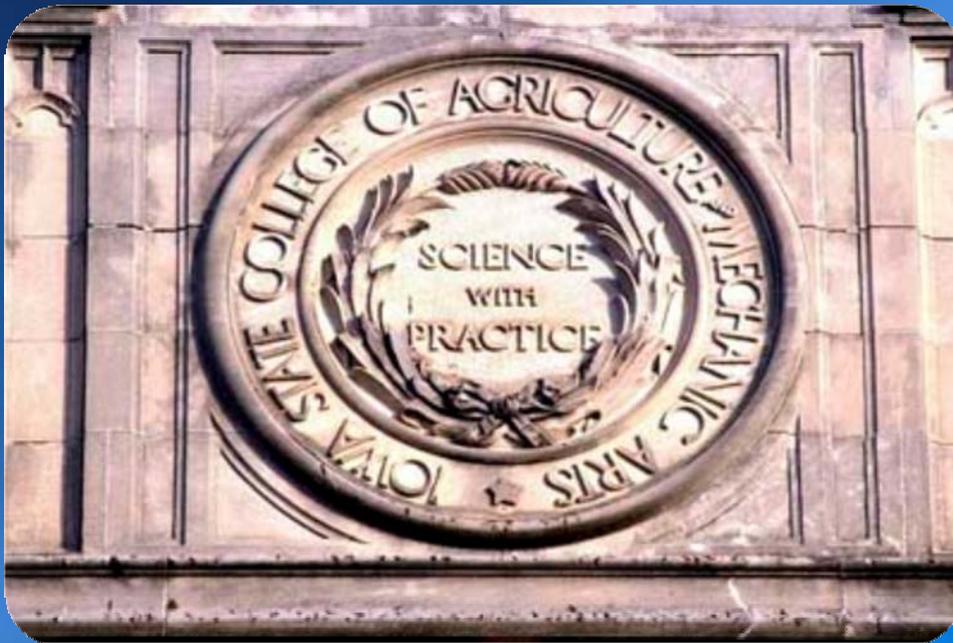
- Requires effective partnerships between scientists and the practitioners who would implement EBPs in a quality and sustained way
- Requires optimizing utilization of **existing infrastructures** to support these partnerships



# Existing Infrastructures to Support PROSPER Partnerships— Extension Linked with the Public School System

- Cooperative Extension System
  - Largest informal education system in the world
  - Over 3,150 agents in nearly every county
  - Science with practice orientation
- Public School System
  - Universal system reaching nearly all children
  - States have networks for programming support
  - Increasing emphasis on accountability/empirical orientation

# Part 2—Evolution of the PROSPER Community-University Partnership Model



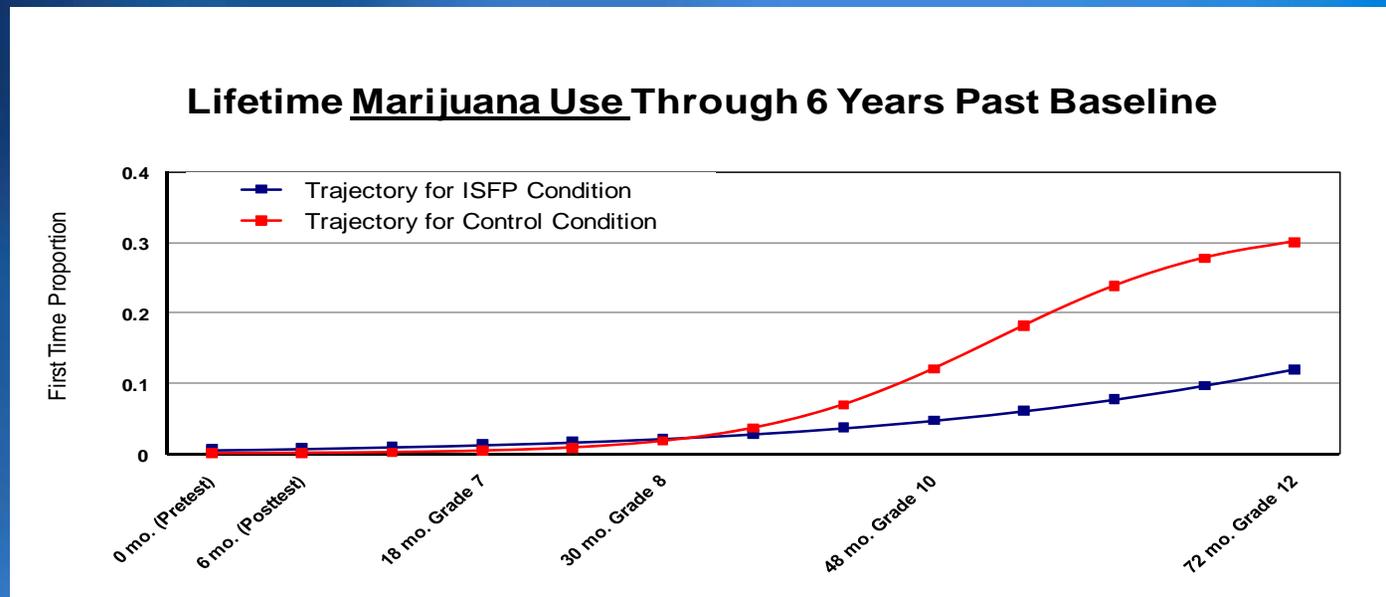
*Science with Practice...  
Through Evidence-  
Based Community-  
University Partnerships*

# Partnership Model Evolution Across Three Prevention Trials— Project Family and CaFaY



Spoth, R. (2007). Opportunities to meet challenges in rural prevention research: Findings from an evolving community-university partnership model. *Journal of Rural Health*, 23, 42-54.

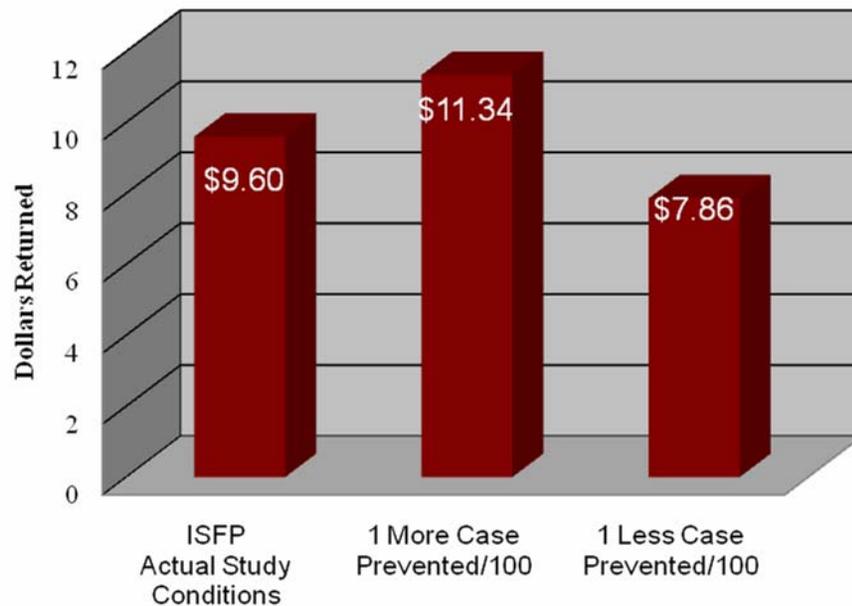
# Illustrative Evidence for Partnership-Based Interventions—Delayed Initiation



Source: Spoth, Redmond, Shin, & Azevedo (2004). Brief family intervention effects on adolescent substance initiation: School-level curvilinear growth curve analyses six years following baseline. *Journal of Consulting and Clinical Psychology*, 72, 535-542.

# Illustrative Evidence for Partnership-Based Interventions—Economic Benefits

**Partnership-Based EBPs:  
Benefit-Cost Ratios—Alcohol  
Disorder**



**Partnership-Based EBPs:  
Benefit-Cost Ratios—Past Year  
Meth Use (Employer Costs Only)**



Sources: Spoth, Guyll, & Day (2002). Universal family-focused interventions in alcohol-use disorder prevention: Cost-effectiveness and cost-benefit analyses of two interventions. *Journal of Studies on Alcohol*, 63, 219-228; Guyll & Spoth (2008). Economic analyses of methamphetamine use prevention by three preventive interventions designed for general populations. *Manuscript in preparation*.

## So, what more do we need?

For one, a test  
of a model for  
sustainable,  
community-based  
EBP delivery...



# Third Generation Partnership Trial Design (PROSPER Sustainability Design)

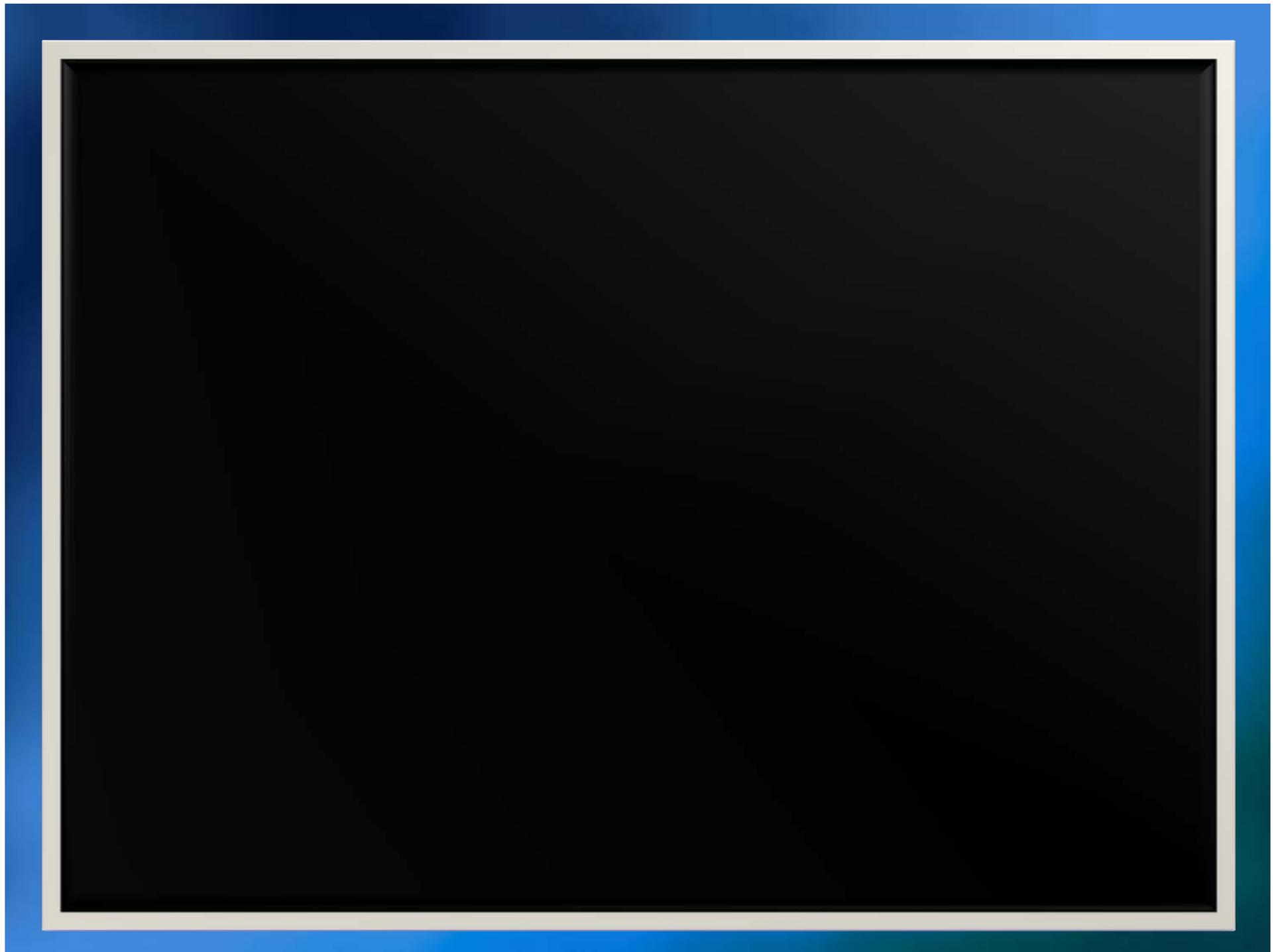


Source: Spoth, R., Greenberg, M., Bierman, K., & Redmond, C. (2004). PROSPER Community-university partnership model for public education systems: Capacity-building for evidence-based, competence-building prevention. *Prevention Science*, 5(1), 31-39.

# PROSPER team linkages to university-based prevention researchers

- Teams receive technical assistance from Prevention Coordinators (PCs)
- PCs are university staff with backgrounds in prevention or Extension programming
- PCs provide the interface between the field teams and the research teams





# Part 3—Overview and Findings for PROSPER (Promoting School-comunity-university Partnerships to Enhance Resilience)



# PROSPER Sustainability Trial

- Design: RCT of 28 school districts (14 IA, 14 PA)
  - Full partnership with community teams
  - Delayed intervention
- Participants: Two cohorts of 6th grade children ( $\approx 6,000$  students per cohort); 2<sup>nd</sup> cohort has  $\approx 1,000$  intensive assessment families
- Multimethod, multi-informant measurement (now at 5<sup>th</sup> wave of data collection—10<sup>th</sup> grade)

\*Funded by the National Institute on Drug Abuse—Collaboration with Pennsylvania State University (Mark Greenberg, PI and Mark Feinberg, Co-PI)

# PROSPER—Community Team Recruitment of Families



- Comparison study rates range from 1%-6%
- 17 % attended at least one session (N = 1,064; est. 2,650 family members)
- High end of researcher –based recruitment
- Intent-to-treat analysis

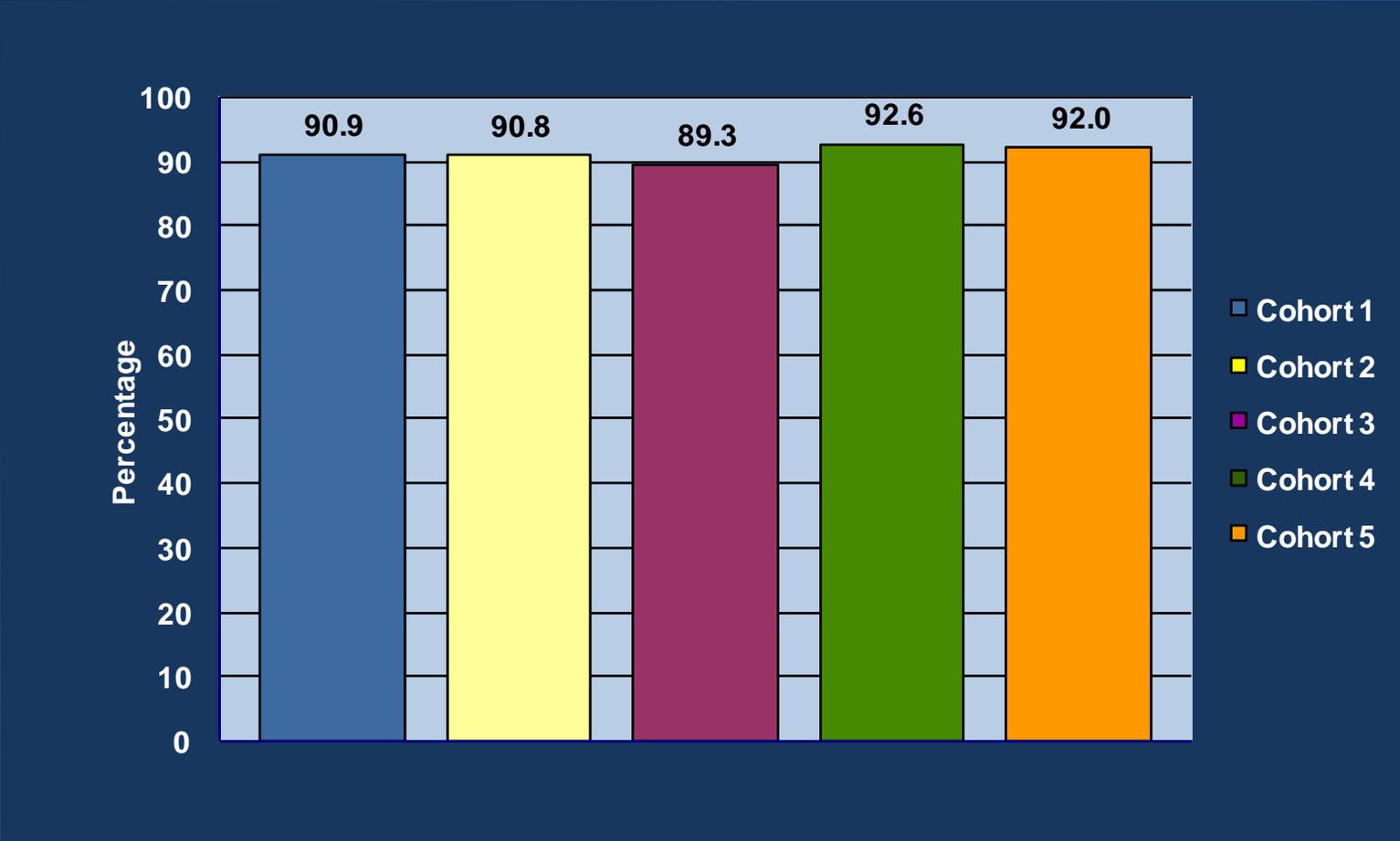
Source: Spoth, Clair, Shin, & Redmond (2007). Toward dissemination of evidence-based family interventions: Maintenance of community-based partnership recruitment results and associated factors. *Journal of Family Psychology*, 21, 137-146.

# PROSPER—Implementation Quality Outcomes

- Typical implementation adherence ranges from 42%-86%
- Average 91% adherence to the family programs
- Average 90% adherence to school programs
- High ratings on other quality indicators
- Quality maintained in the short-term (2 cohorts)
- Quality is sustained for the long term (3 additional cohorts)

Source: Spoth, Clair, Shin, & Redmond (2007). Toward dissemination of evidence-based family interventions: Maintenance of community-based partnership recruitment results and associated factors. *Journal of Family Psychology*, 21, 137-146.

# PROSPER SFP 10-14— Long-Term Mean Adherence Ratings



## PROSPER— Financial Sustainability

- 100% of PROSPER teams obtained external funding within a year
- Funds obtained from a variety of sources – state, city, business, religious and service organizations, and private individuals
- Collectively, over \$520,000 for sustained family EBP, over last two years

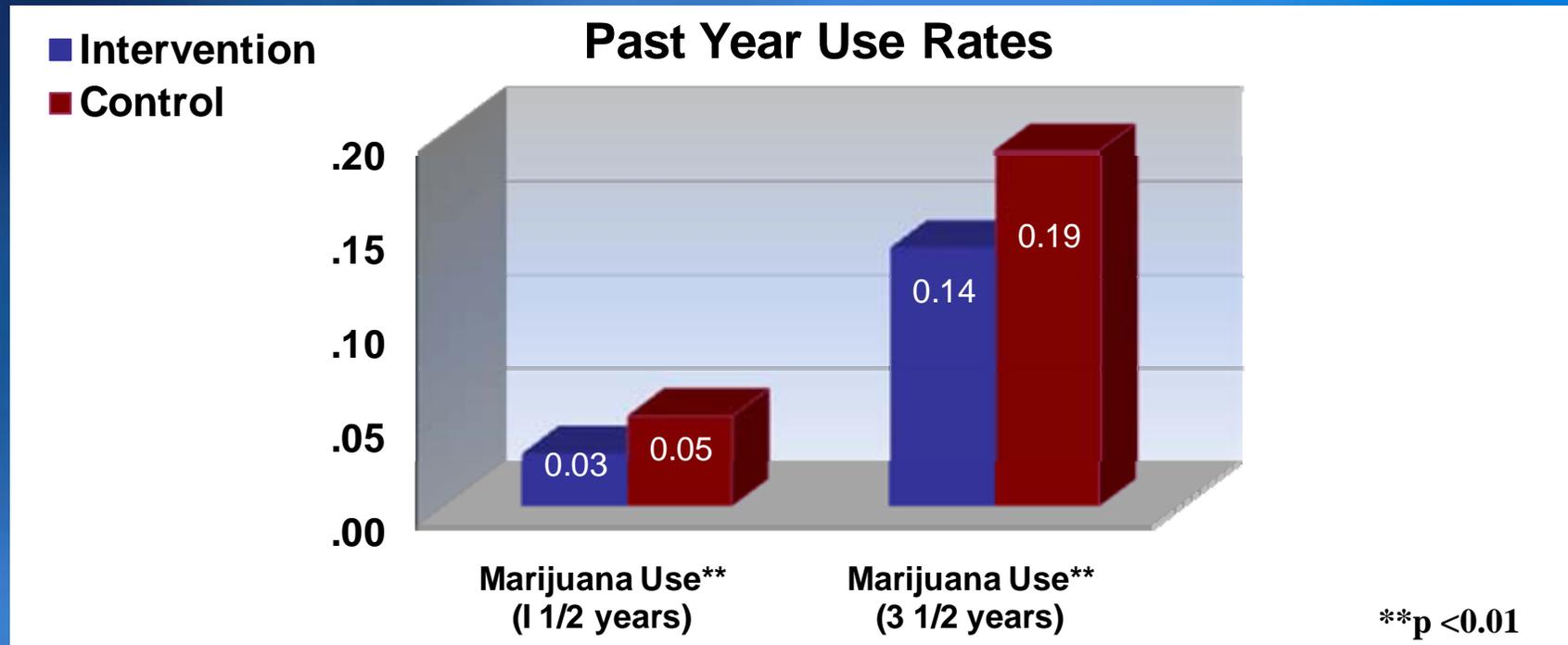
# One Community Example

Based on program costs of \$300 per family:

- 2004-2005—101 Families (27%)
- 2005-2006—135 Families (39%)
- 2006- 2007—raised enough money to cover attendance for 134 families or 38% of eligible participants



# PROSPER—Illustrative Substance-Related Outcomes at 1½ & 3½ Years Past Baseline



Source: Spoth, Redmond, Shin, Greenberg, Clair, & Feinberg (2007). Substance use outcomes at 1½ years past baseline from the PROSPER community-university partnership trial. *American Journal of Preventive Medicine*, 32(5), 395-402.

# Key Implementation Issues Confronted in PROSPER

- Addressing organizational change that adversely affects administrative and budgetary (and moral) support
- Issues with key personnel, e.g.,
  - Competing demands
  - Turnover
- Sustained engagement of team members (over 7 years and running)

# Part 4—Future Directions in Partnership-Based and Translational Research



# Realizing PROSPER Promise through the Next Generation Partnership Model...

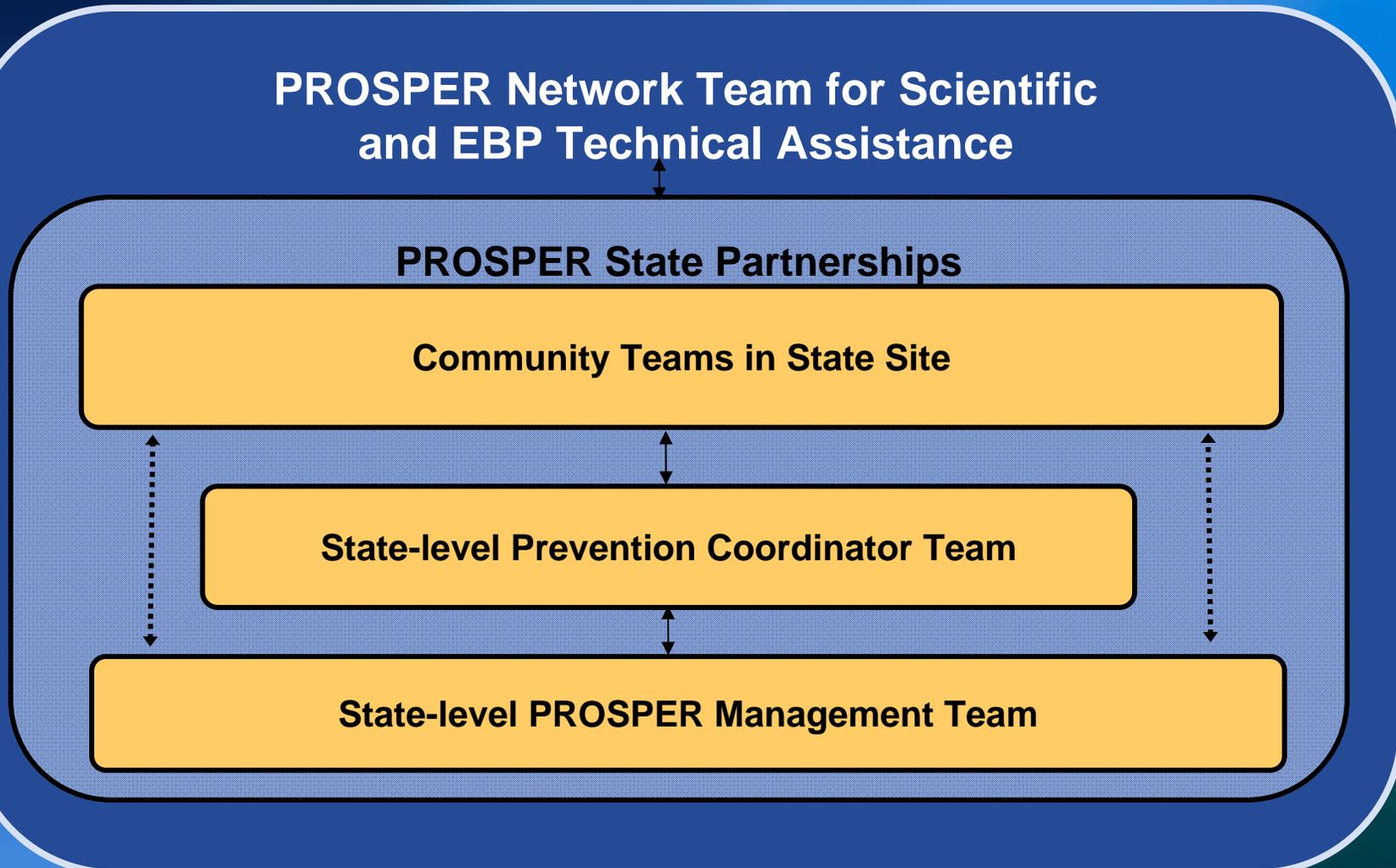
PROSPER Network Team for Scientific  
and EBP Technical Assistance

PROSPER State Partnerships

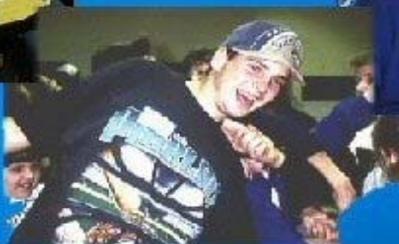
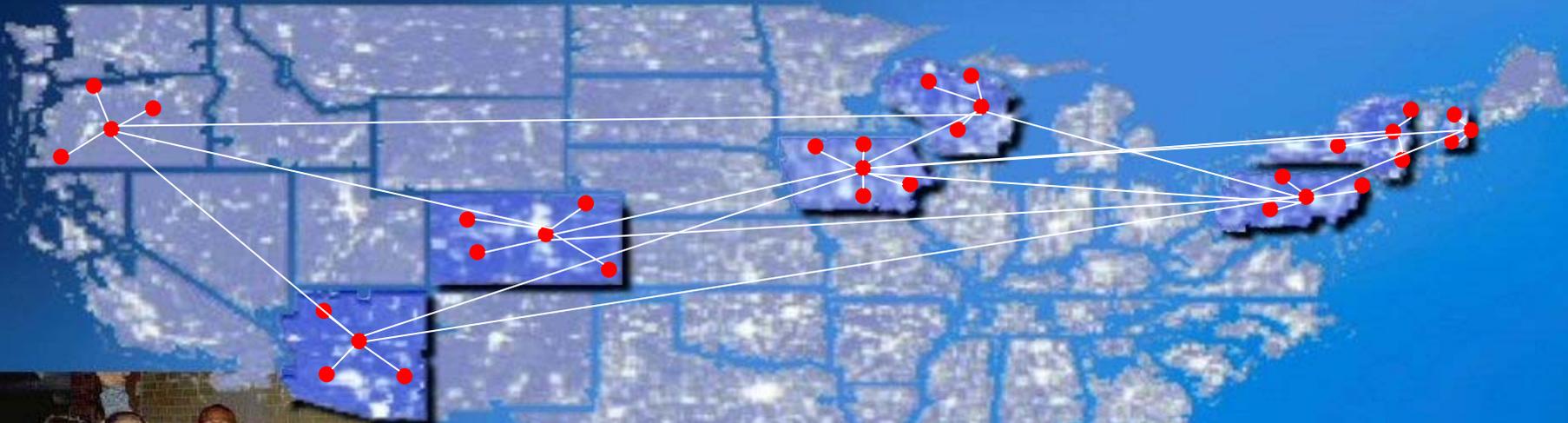
Community Teams in State Site

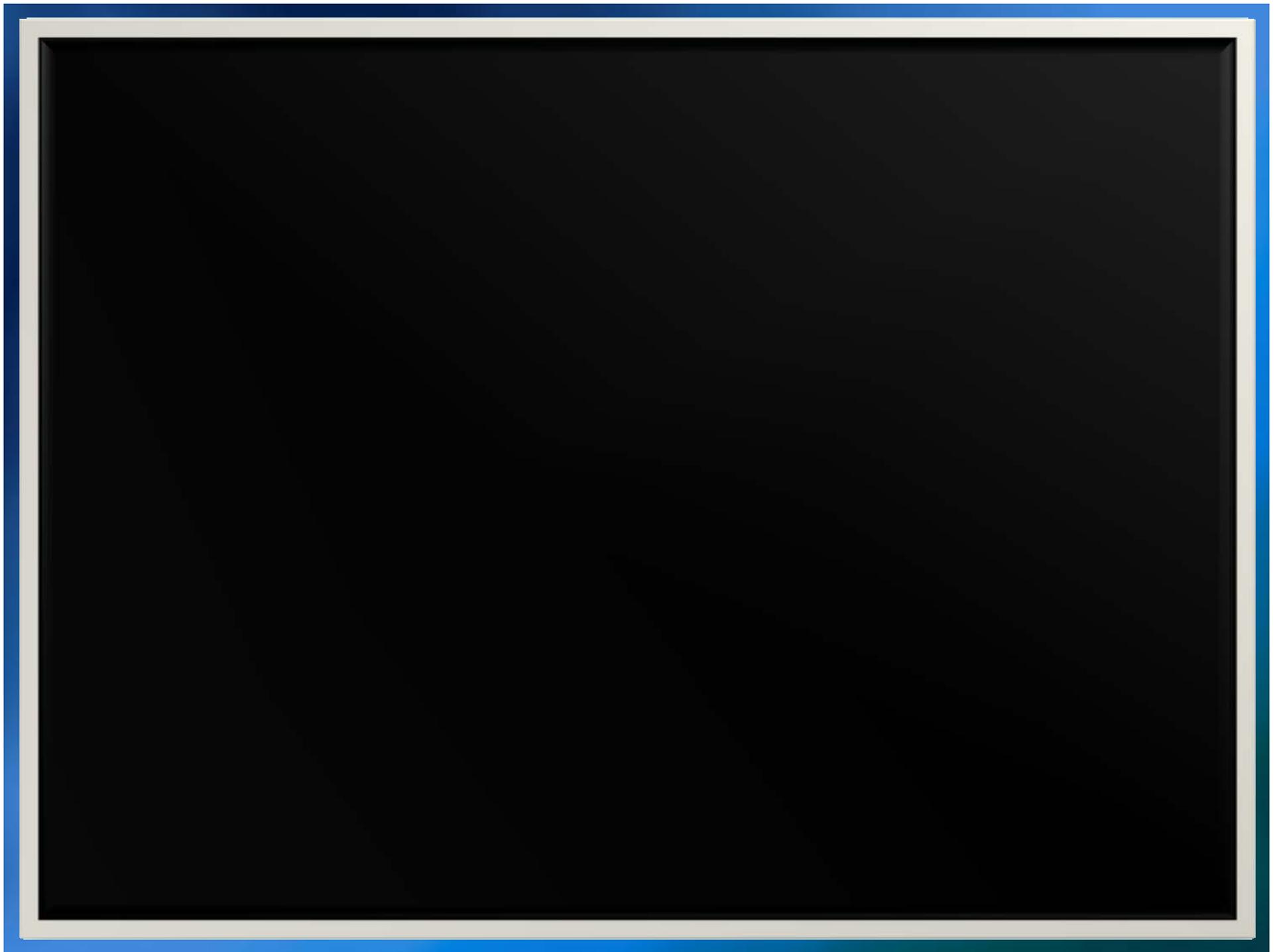
State-level Prevention Coordinator Team

State-level PROSPER Management Team



# ...and a PROSPER Partnership Network





## **Acknowledgement of Our Partners in Research**

### **Investigators/Collaborators**

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**Please visit our websites at...**

**[www.prosper.ppsi.iastate.edu](http://www.prosper.ppsi.iastate.edu)**

**[www.ppsi.iastate.edu](http://www.ppsi.iastate.edu)**

**[www.prevention.psu.edu](http://www.prevention.psu.edu)**