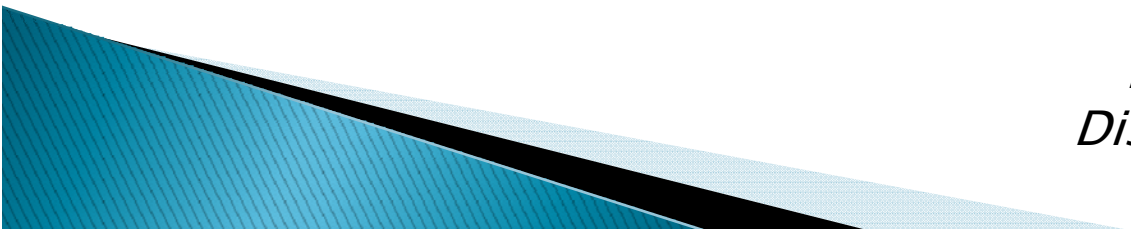


# Cultivating Programming Knowledge for the Dissemination of Evidence-Based Preventive Interventions: The PROSPER Model

Max Crowley, Mark Greenberg & Mark Feinberg

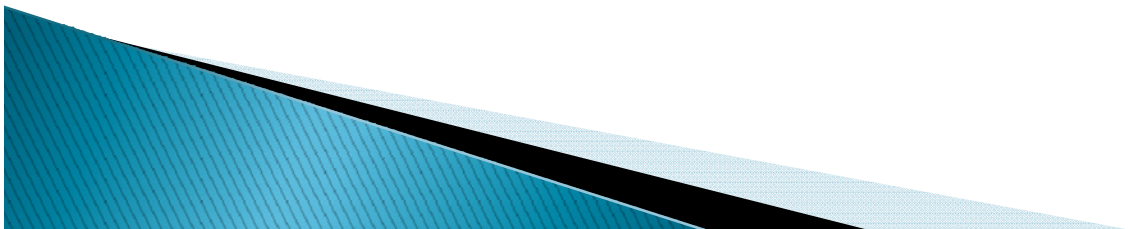
*The Prevention Research Center for the Promotion of Human Development  
Pennsylvania State University*



*NIH Conference on the Science of  
Dissemination and Implementation,  
March 15-16, 2010*

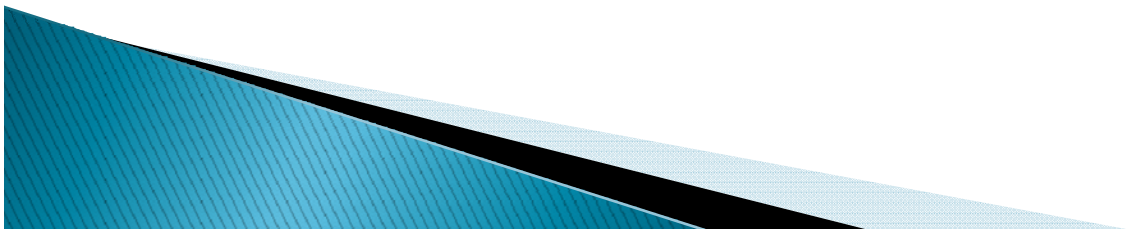
# Study Overview

- ▶ Community stakeholders utilize a **diverse body of knowledge** when making decisions about evidence-based prevention and health promotion programs (EBPs).
- ▶ Few of the **sources, standards and methods** advocated by prevention scientists, are known to these community leaders.
- ▶ The PROSPER model can lead to substantial increases in local stakeholder knowledge



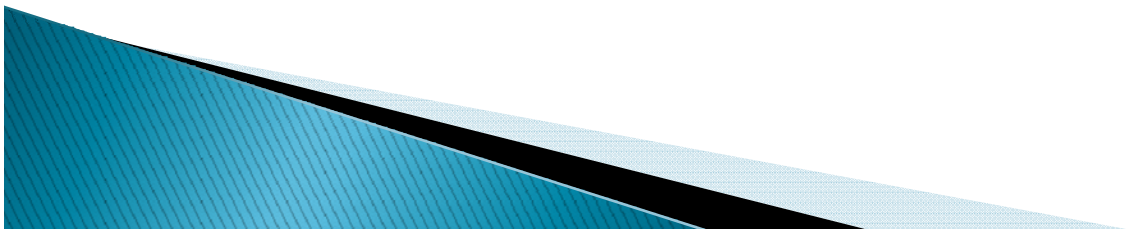
# Background

- ▶ Difficulties in taking evidence-based programs to scale (Ennett, et al, 2003; Wandersman & Florin, 2003; Ringwalt, et al., 2009)
- ▶ **Limited programming capacity** in local systems (Adleman & Taylor, 2003; Spoth & Greenberg, 2005; Wandersman, et al, 2008, Livet & Wandersman, 2005)
- ▶ Remains unclear what **knowledge of EBPs** community leaders in these local systems possess



# Programming Knowledge

- ▶ Three primary areas of programming knowledge:
  - **Adoption**
    - Sources of Prevention Programs
    - Standards of Evidence
  - **Implementation**
    - Fidelity Assurance
  - **Evaluation**
    - Program Evaluation

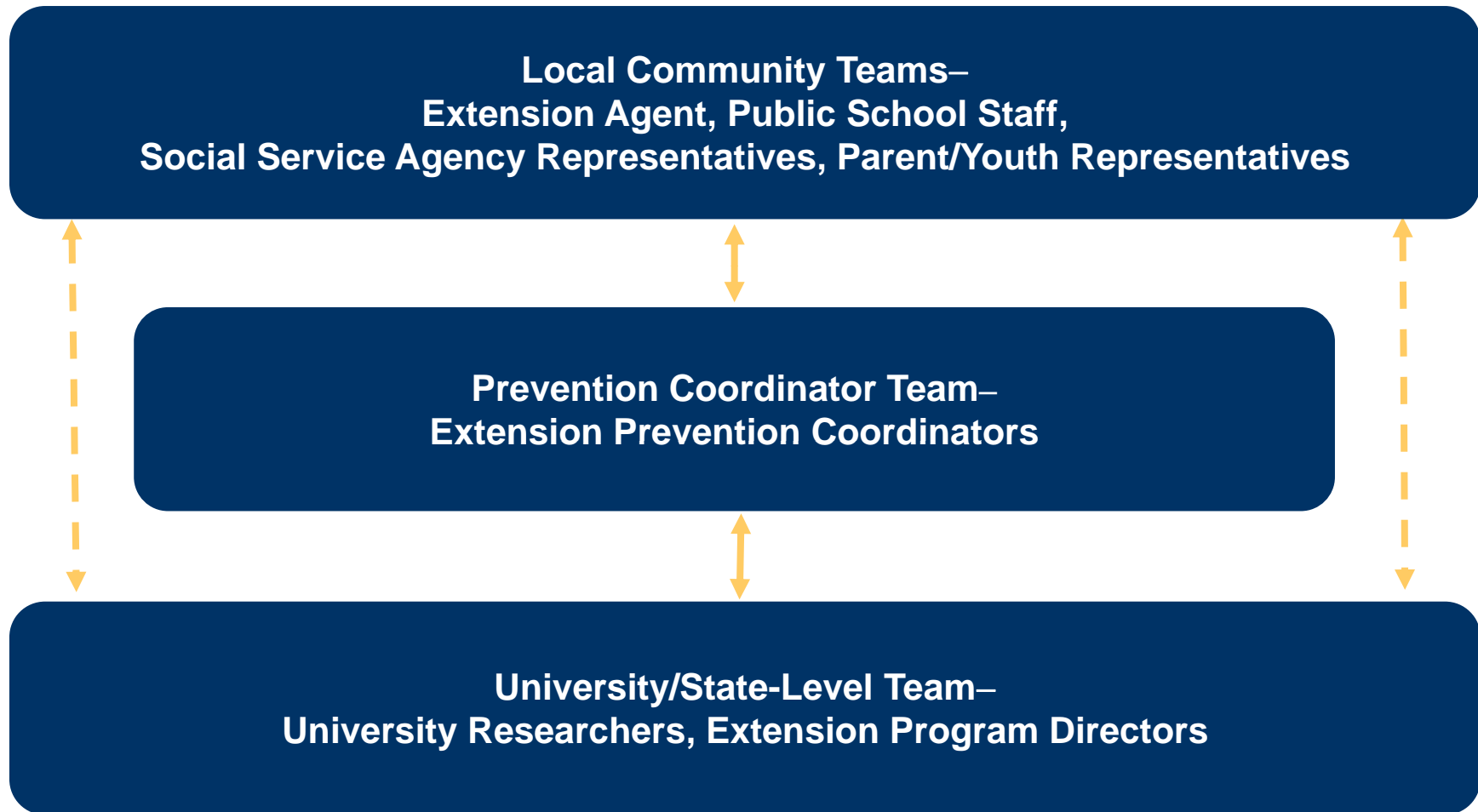


# The PROSPER Project

- ▶ PROSPER's goal is to develop community-based initiatives for the widespread **delivery of evidence-based prevention** and youth development programs.
- ▶ Utilizes the resources of Land Grant University and Extension systems and local Public School systems.
- ▶ PROSPER centers on community **capacity building and sustainability**, so that selected interventions will continue to be implemented over time.



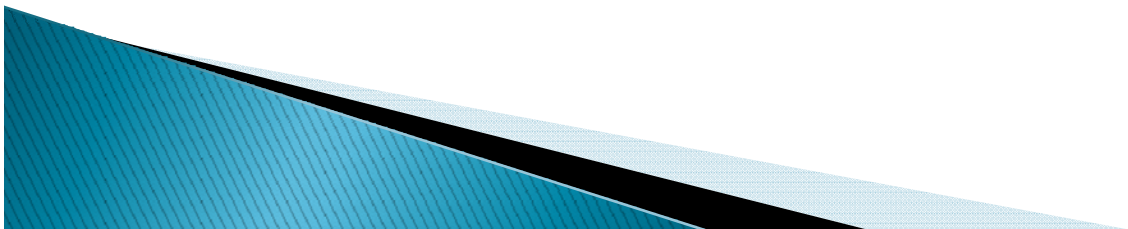
# PROSPER Organizational Structure



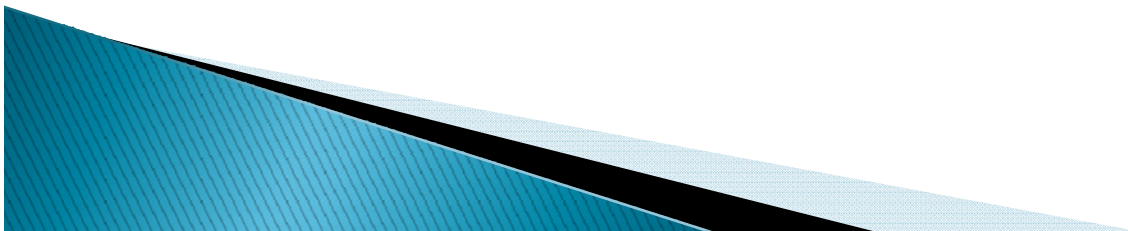
Spoth RL, & Greenberg MT. (2005) Toward a comprehensive strategy for effective practitioner–scientist partnerships and larger–scale community benefits. *American Journal of Community Psychology*, 35:107–126.

# Current Study

- ▶ Across-Stage Mixed Model Design
- ▶ Structured Open-Ended Interview of Community Leaders (n=422)
- ▶ Grounded Theory Analysis
- ▶ Expert Knowledge Coding
- ▶ Quantitative evaluation of differences between PROSPER & Control conditions



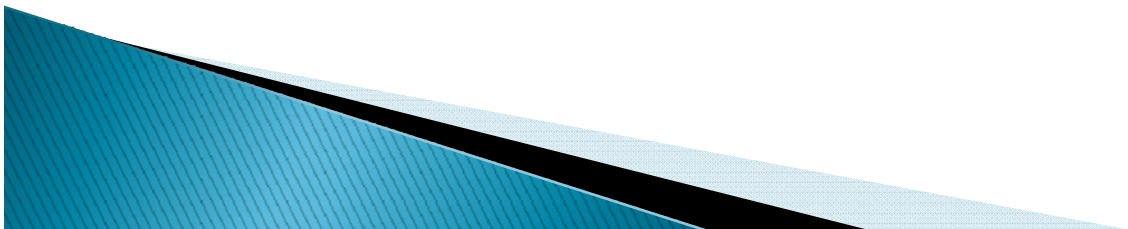
# Results



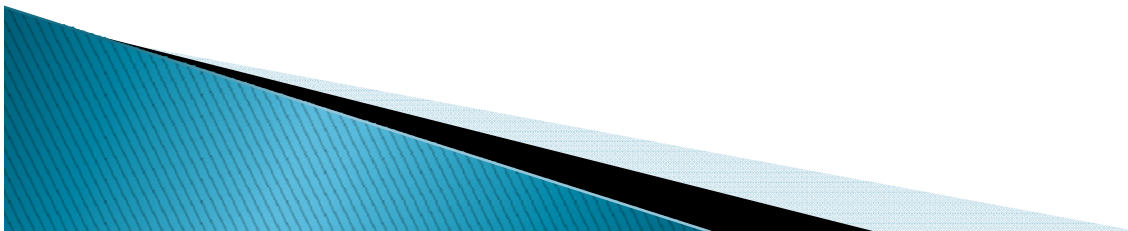
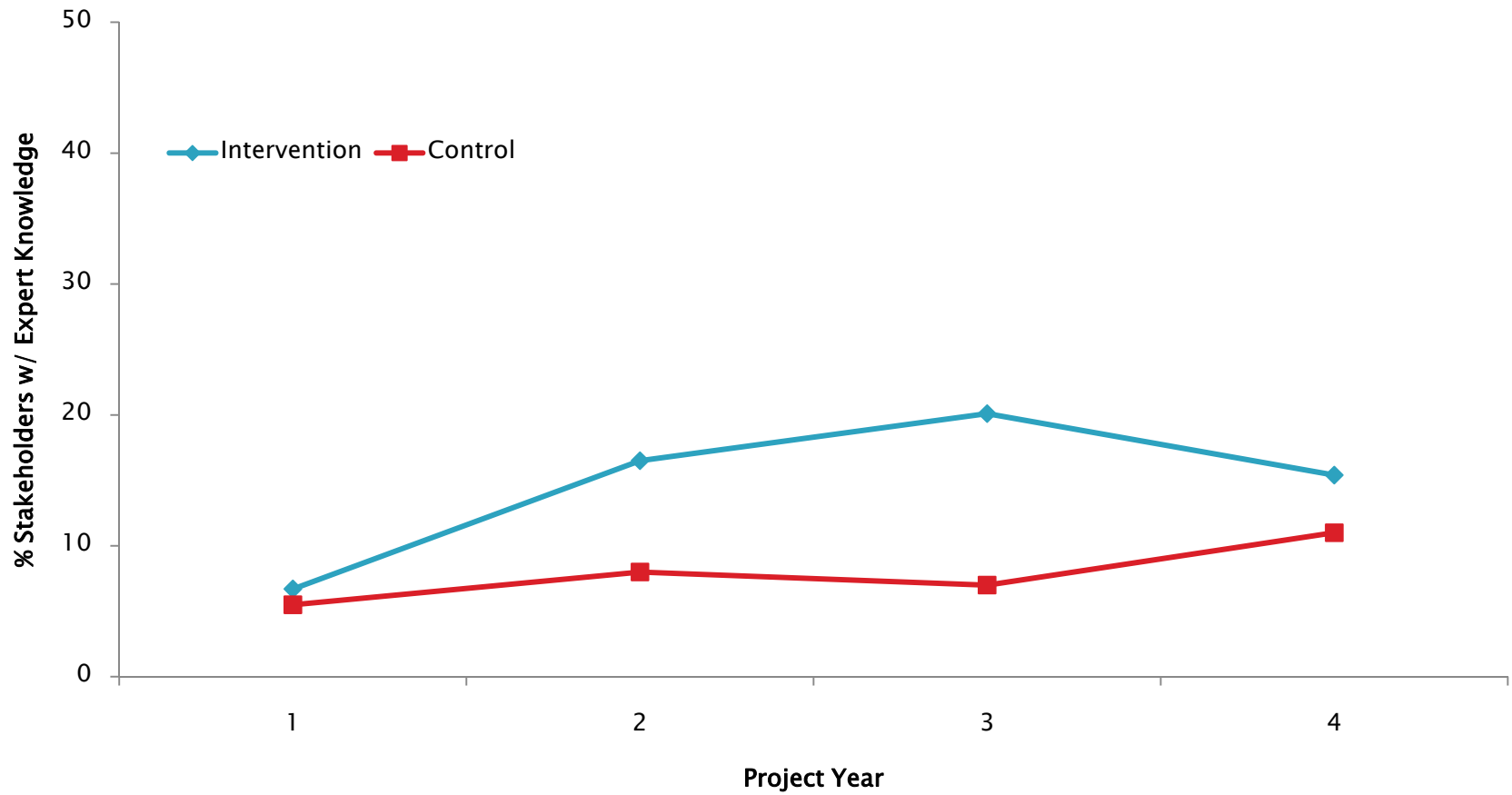
# Knowledge of Evidence-Based Program Sources

*“If someone asked you for the names of a couple of good prevention programs for youth, where would you go to research effective prevention programs?”*

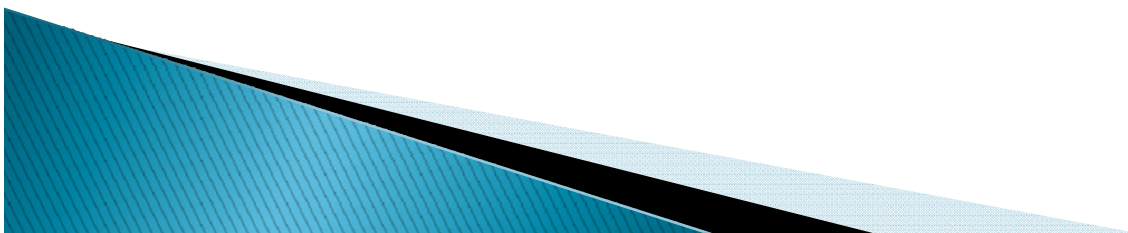
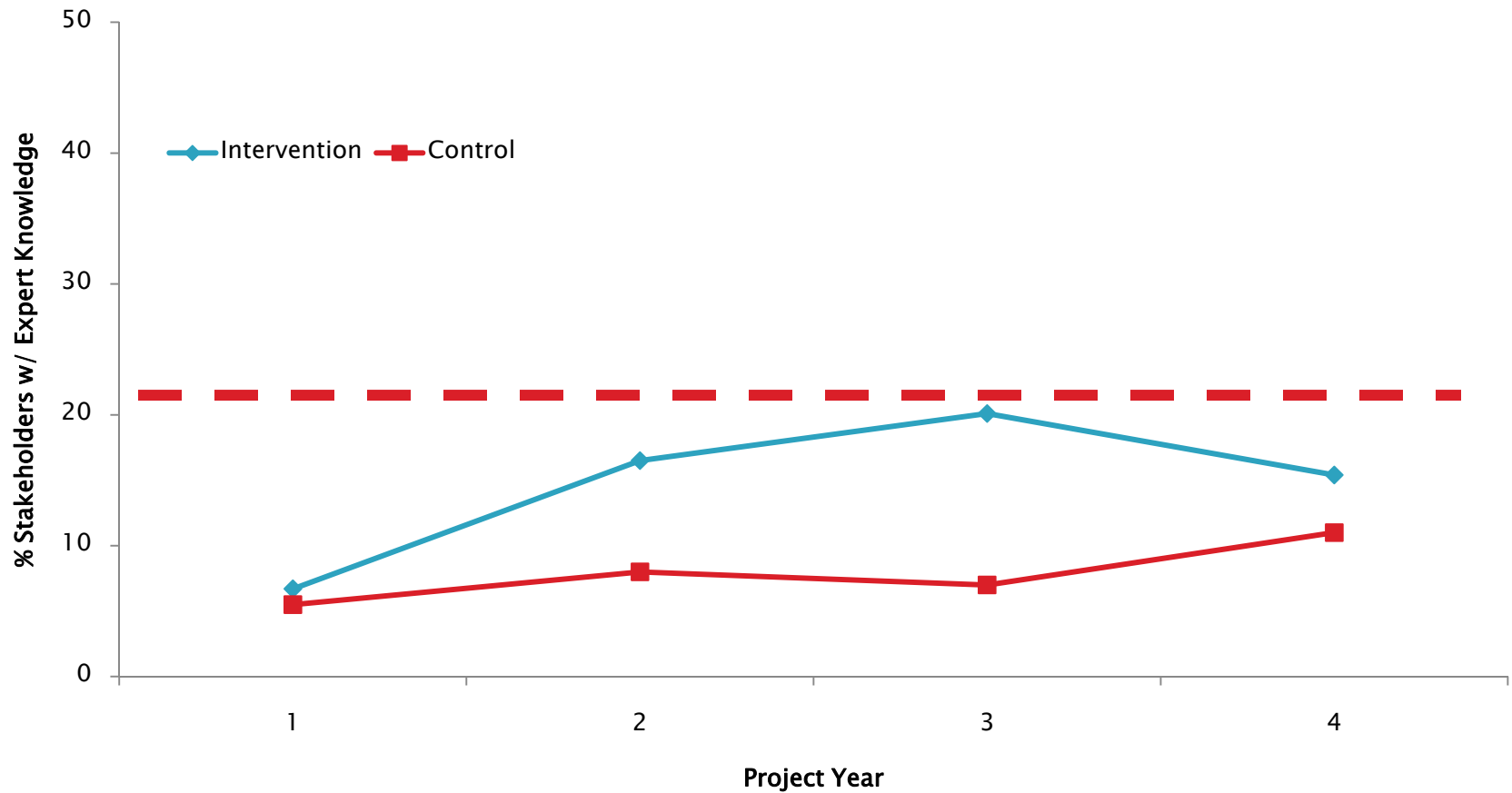
- ▶ An expert knowledge score was given to individuals’ responses that nominated a **specific source** of evidence-based prevention programs
  - ▶ *Blueprints for Violence Prevention*
  - ▶ *SAMHSA’s NREPP*



# *Percentage of Condition with Expert Knowledge of EBPs Sources*



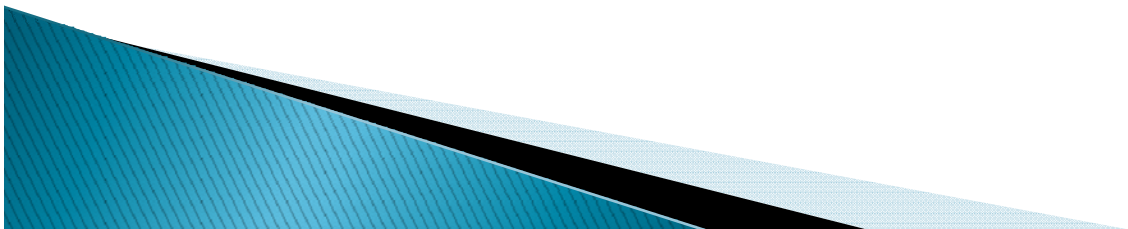
# *Percentage of Condition with Expert Knowledge of EBPs Sources*



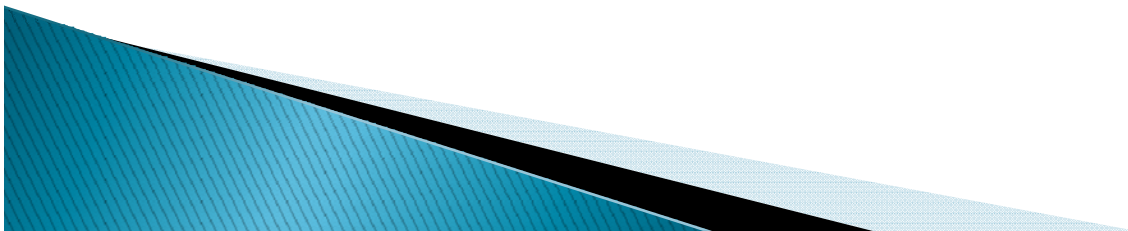
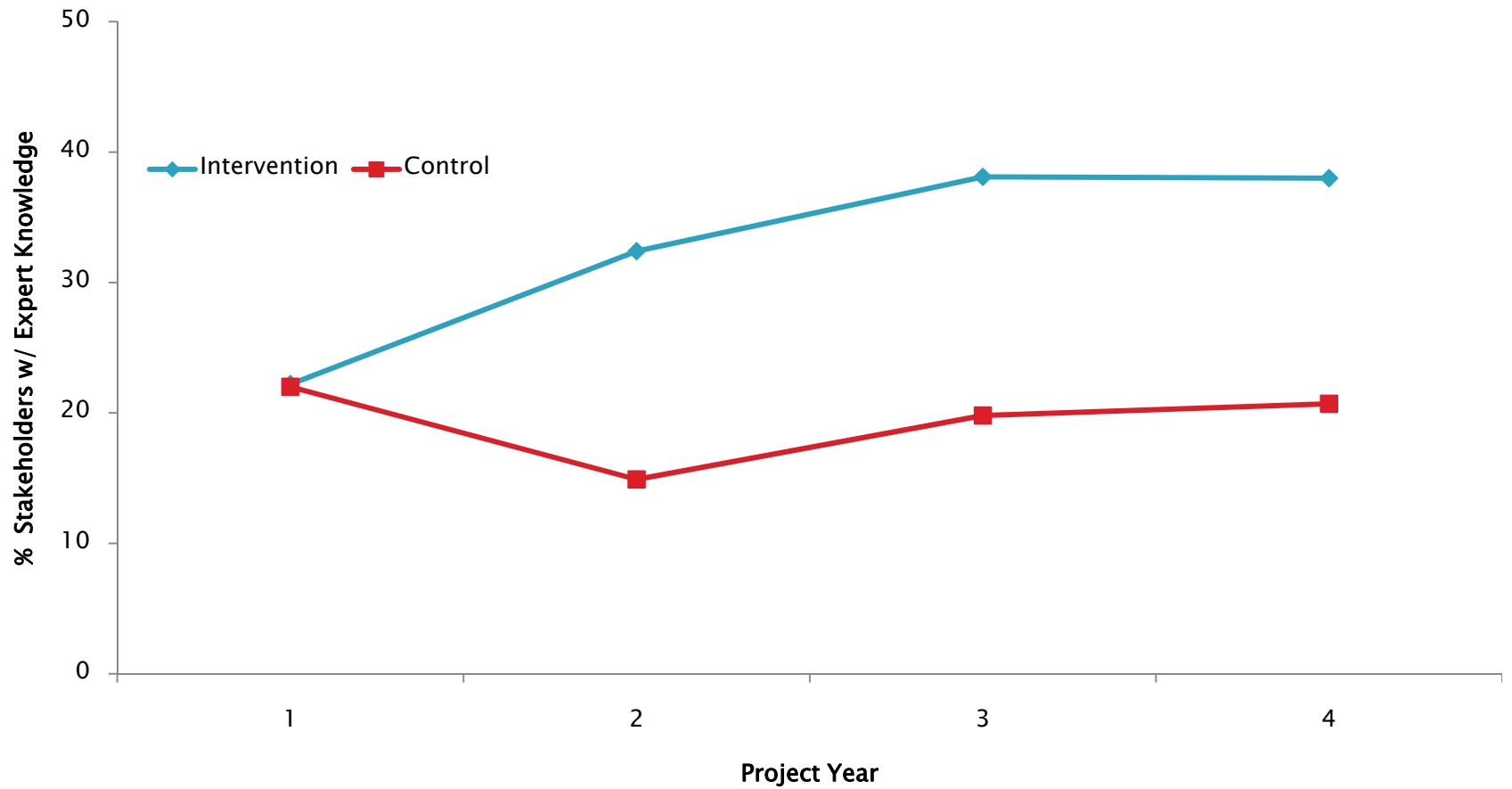
# Standards of Evidence for Program Selection

*“What kinds of information do you look for to decide if a program is backed by good research?”*

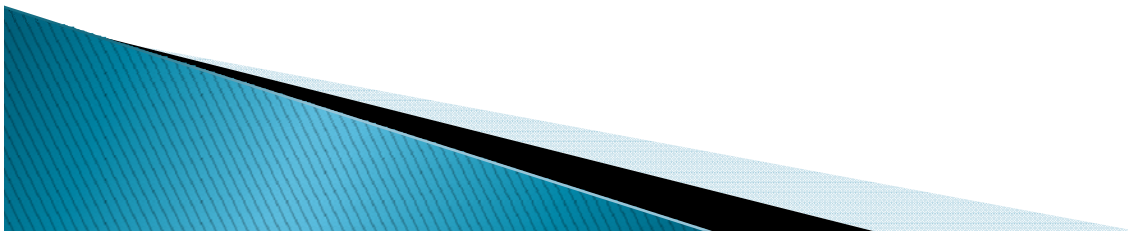
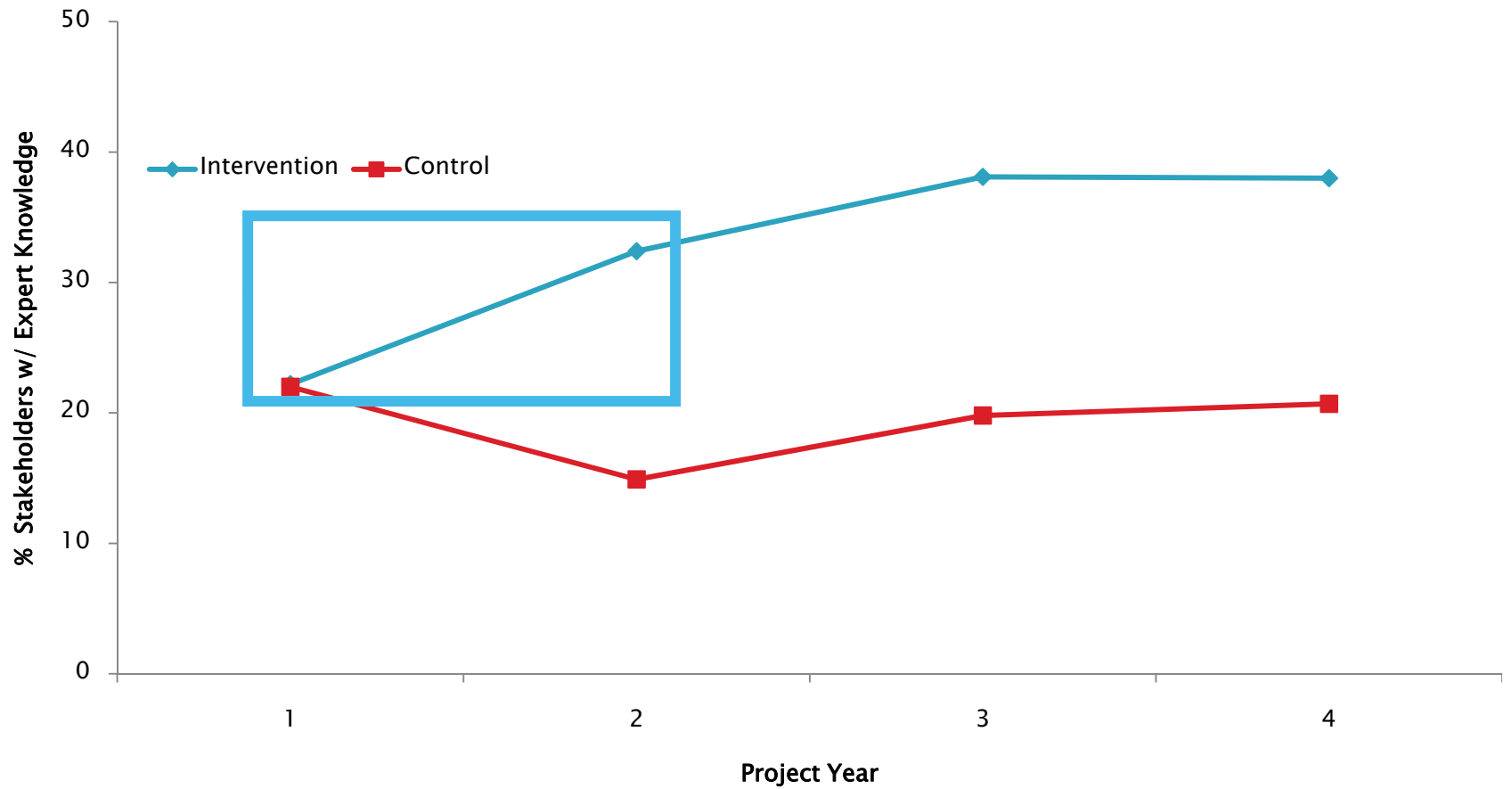
- ▶ An expert knowledge score was given if individuals’ responses indicated evaluation of program effectiveness was based upon the:
  - Research Design Quality
  - Outcome data/statistical analyses
  - Presence on a published prevention list



# *Percentage of Condition with Expert-Level Standards of Evidence*



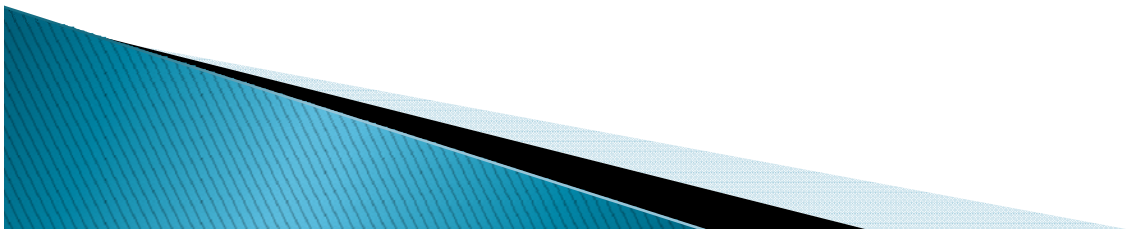
# *Percentage of Condition with Expert-Level Standards of Evidence*



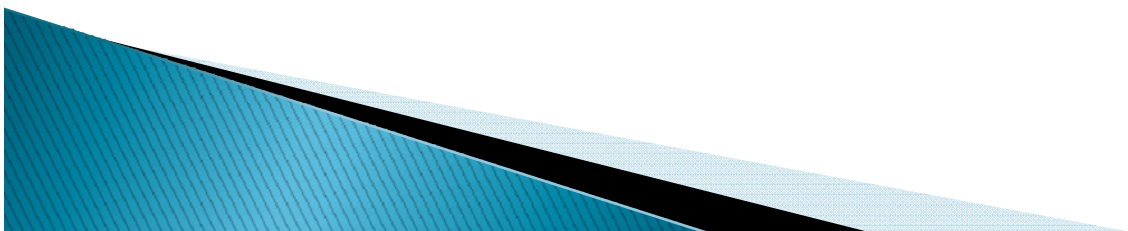
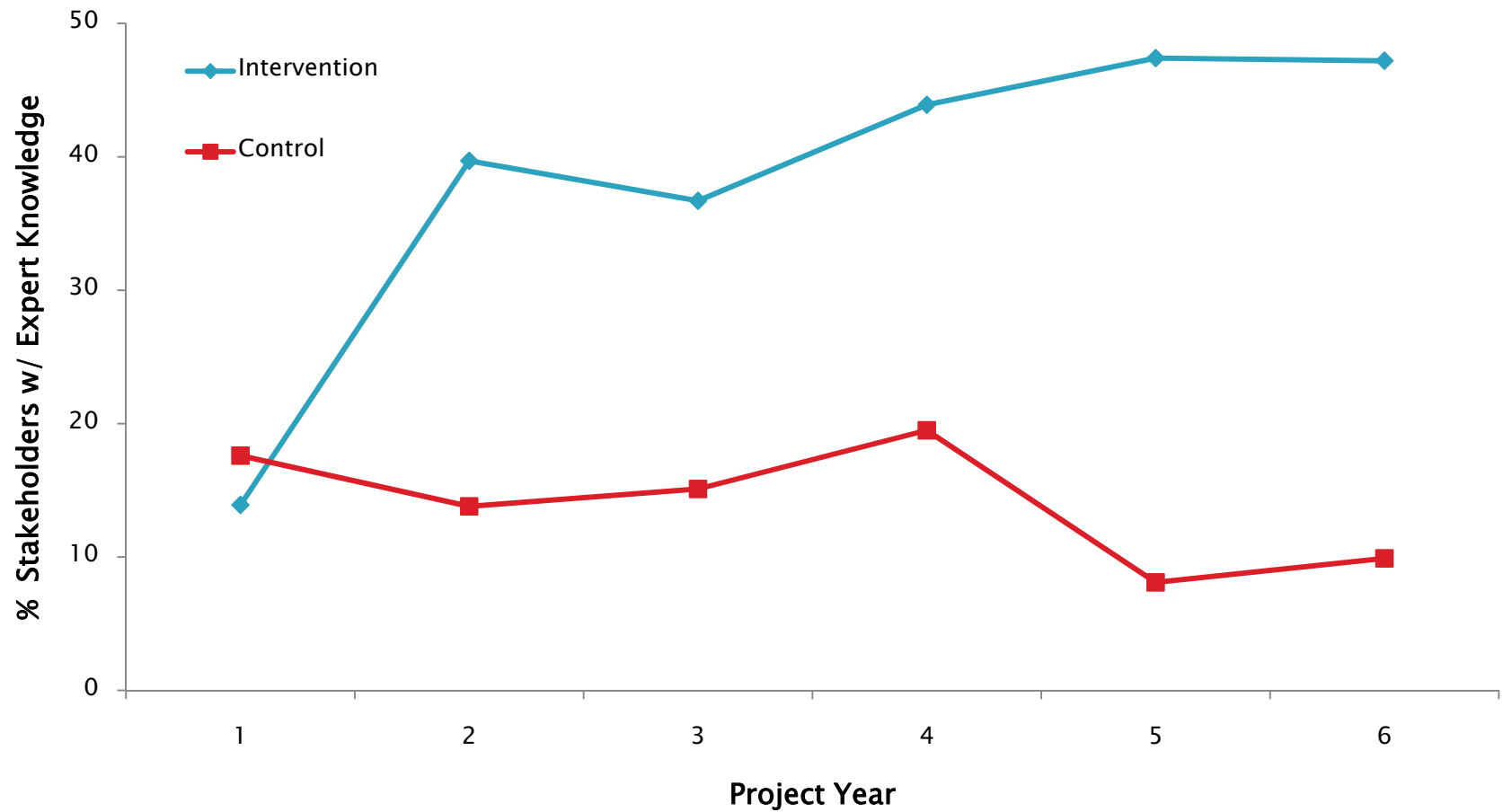
# Fidelity Assurance

*“How can you ensure effective implementation of a prevention program– that is, make sure it was delivered the way it was designed?”*

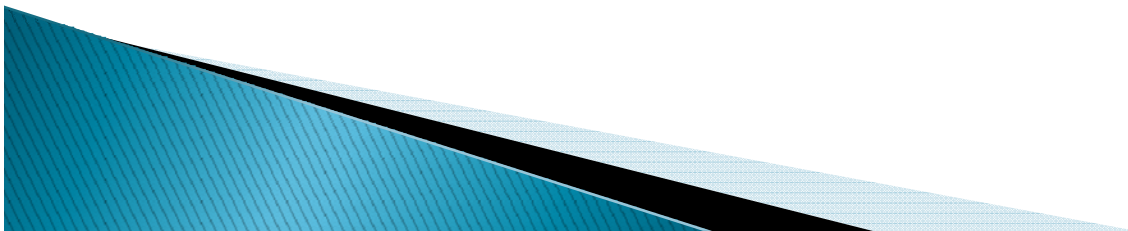
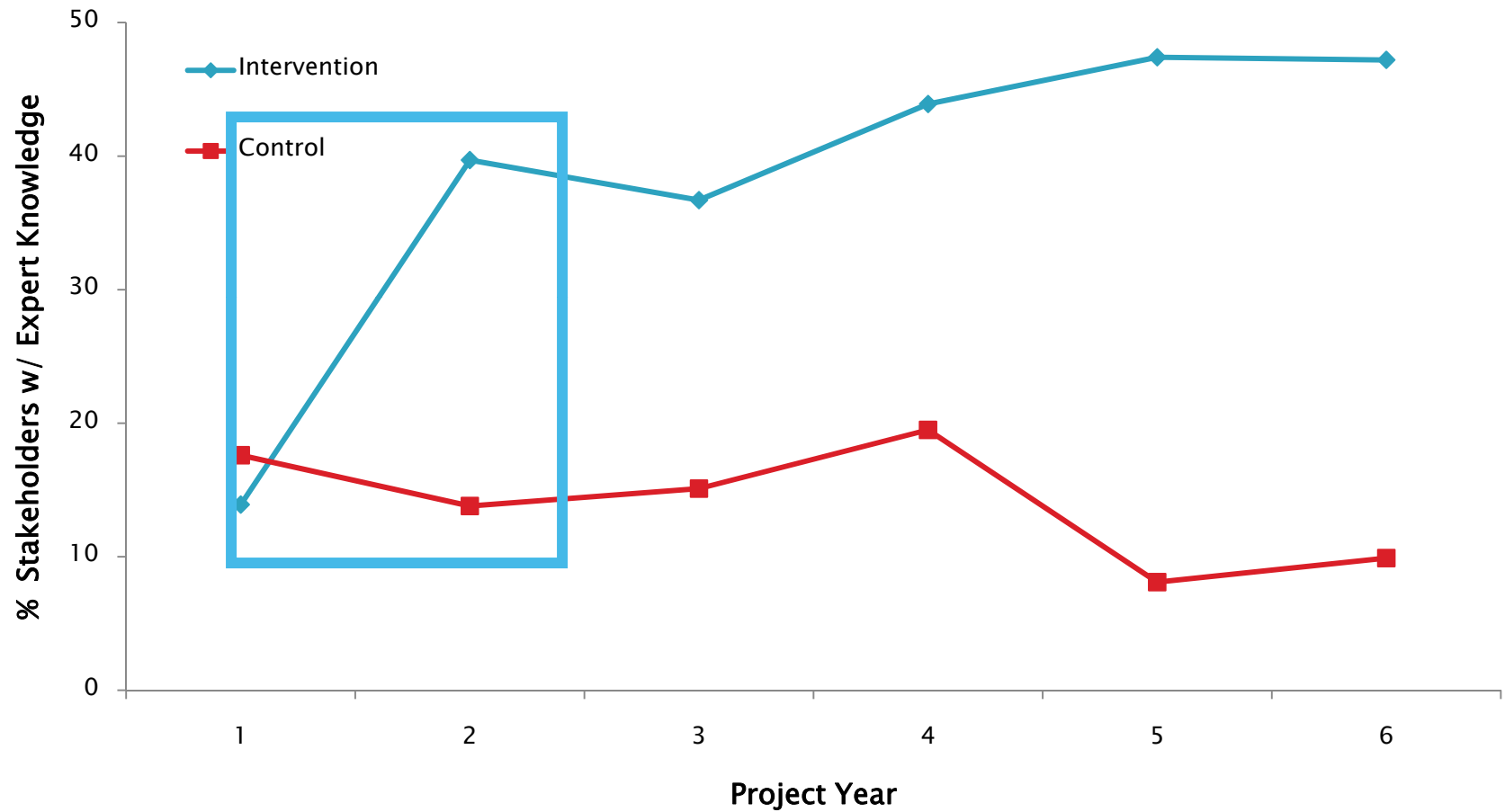
- ▶ An expert knowledge score was given if an individual described a specific method for assuring fidelity:
  - Implementation Monitoring
  - High–Quality Facilitator Training
  - Strict Program Adherence



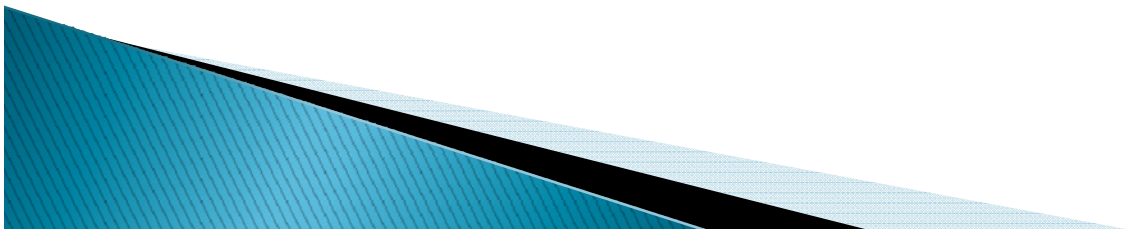
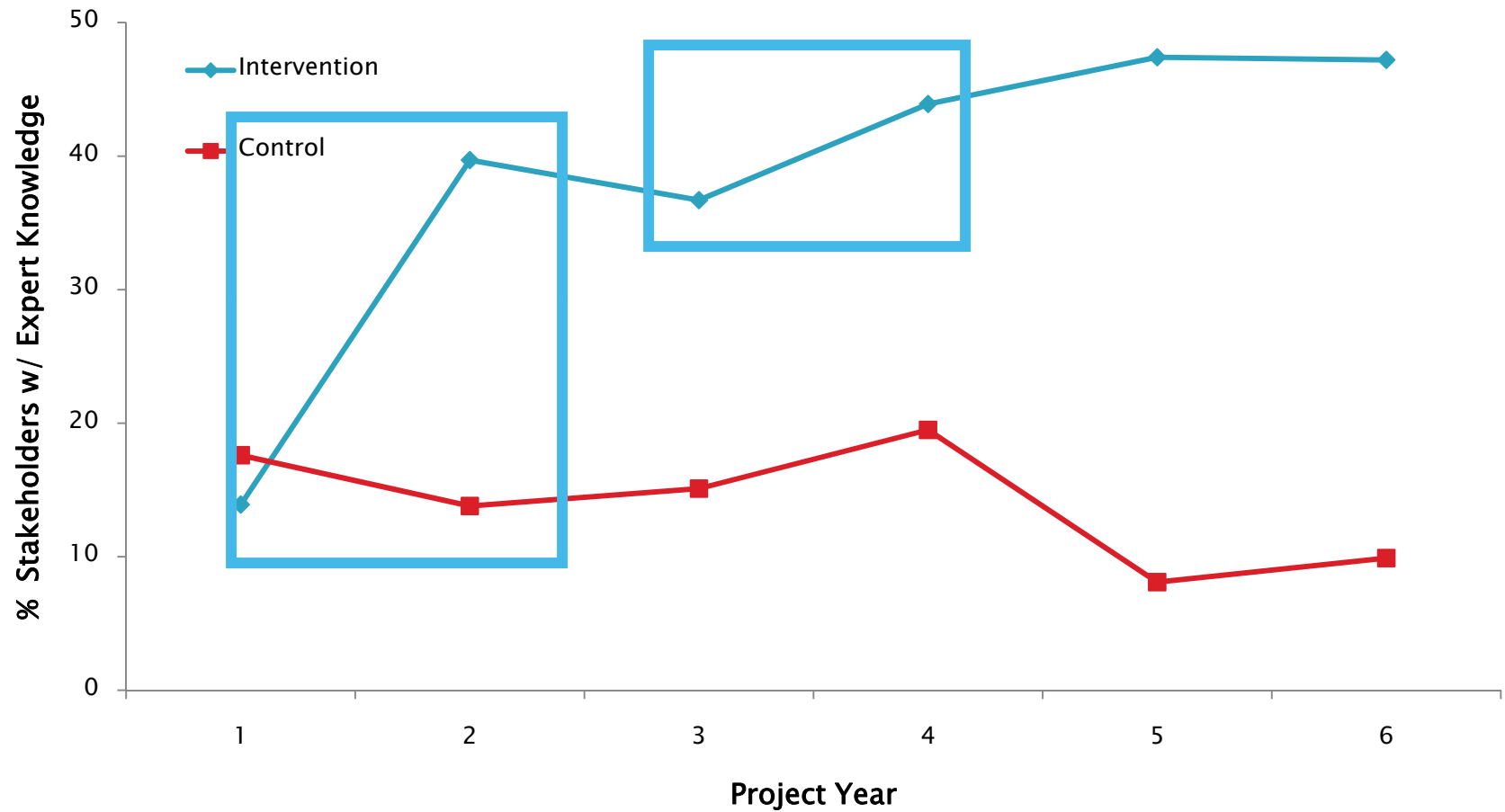
# *Percentage of Condition with Expert-Level Knowledge of Fidelity Assurance*



# *Percentage of Condition with Expert-Level Knowledge of Fidelity Assurance*



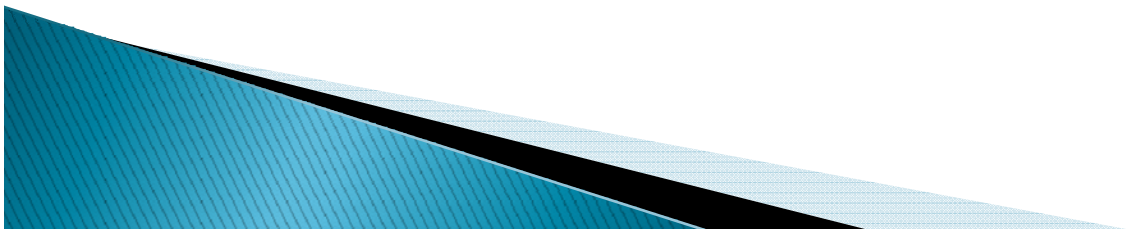
# *Percentage of Condition with Expert-Level Knowledge of Fidelity Assurance*



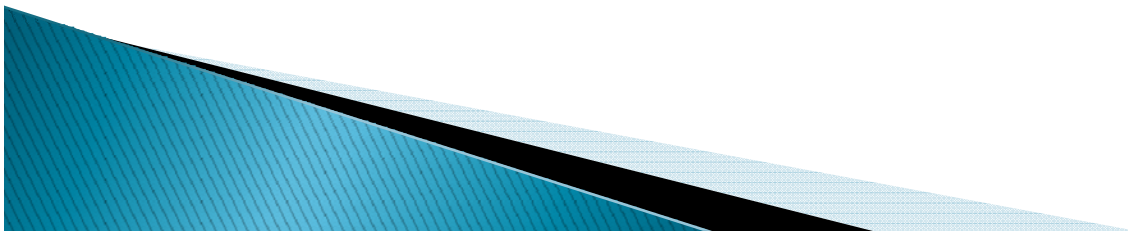
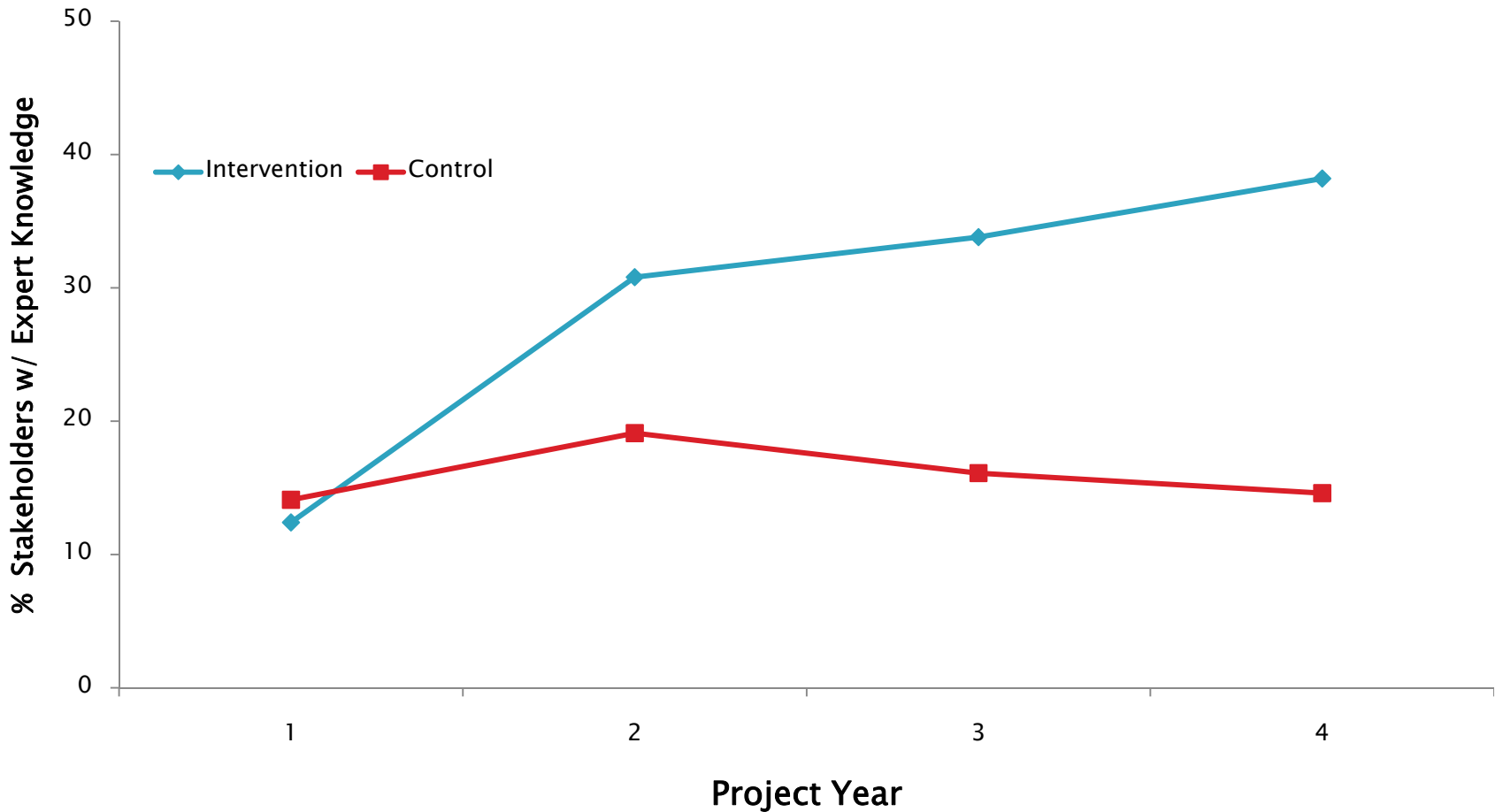
# Program Evaluation

*“What are the best ways to decide if a prevention program is working well in your community?”*

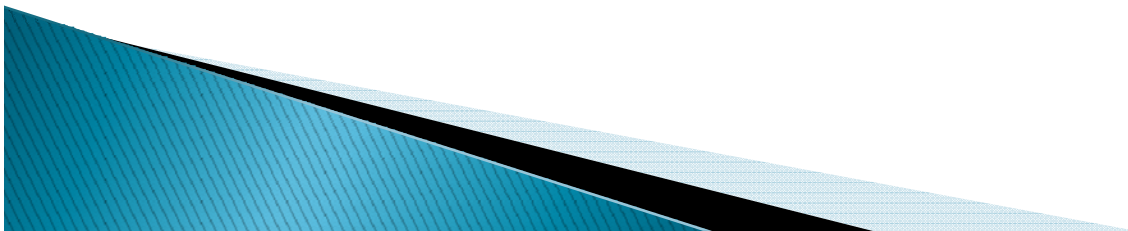
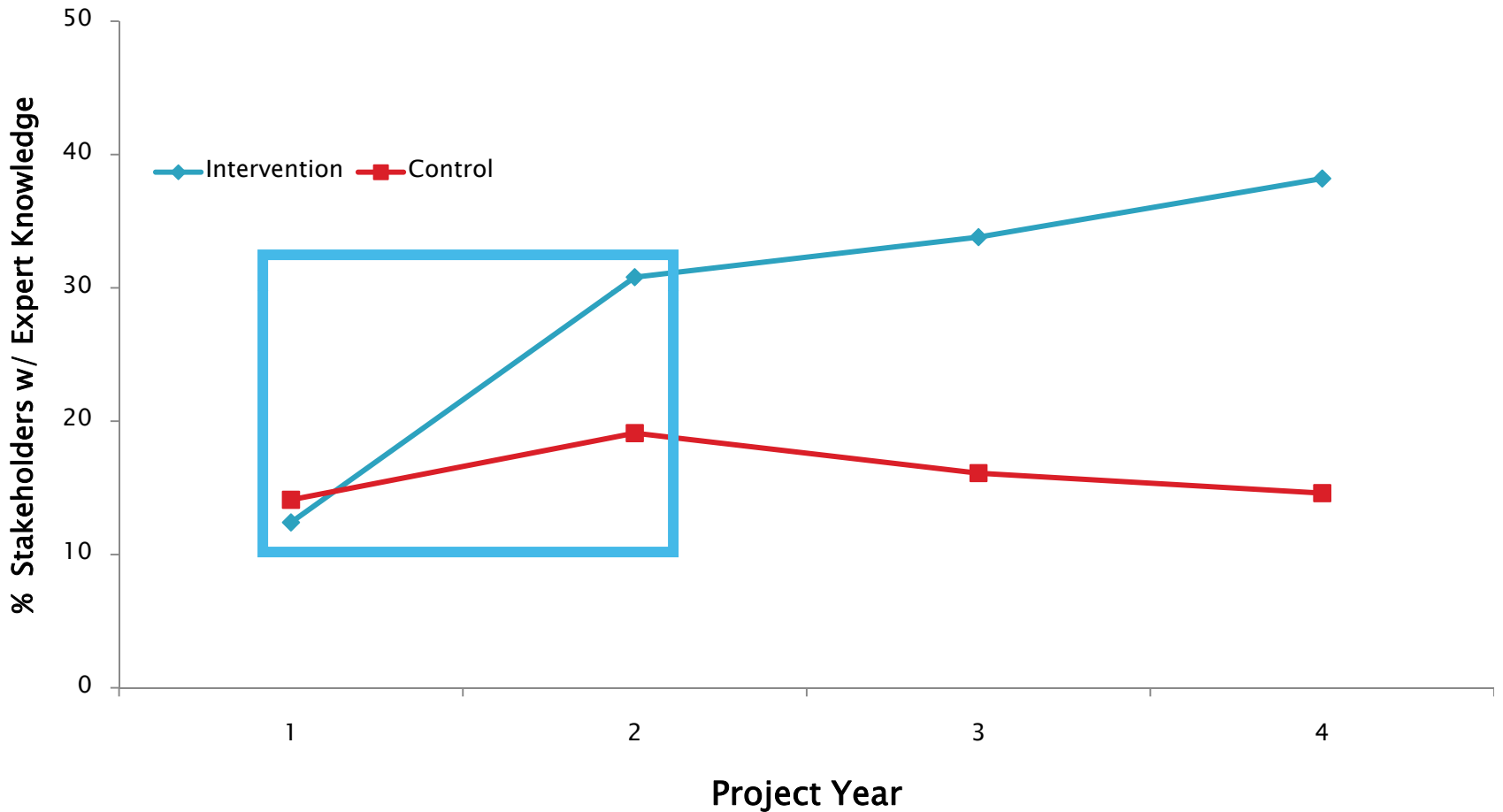
- ▶ An expert level knowledge score was given if individuals responses provided a specific quality method for evaluating program effectiveness:
  - Instrument Deployment
  - Participant Observation
  - Planned Evaluations



# Percentage of Condition with Expert-Level Knowledge of Program Evaluation

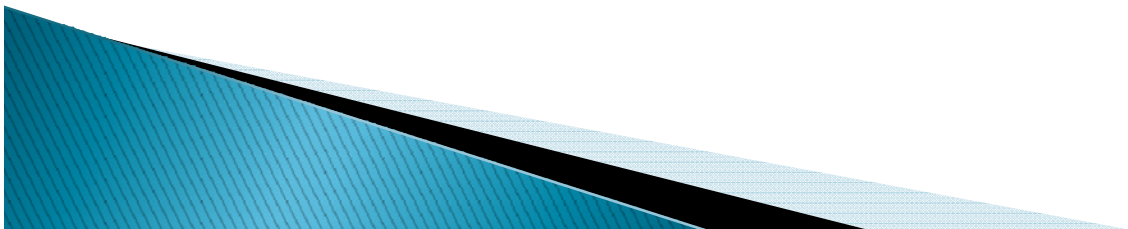


# Percentage of Condition with Expert-Level Knowledge of Program Evaluation



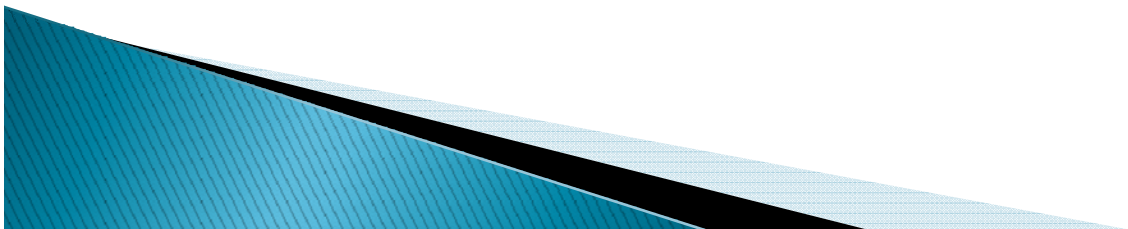
# Discussion

- ▶ A large information gap remains between the current state of our science and its translation to practice as exemplified by the low-level of knowledge in the control group



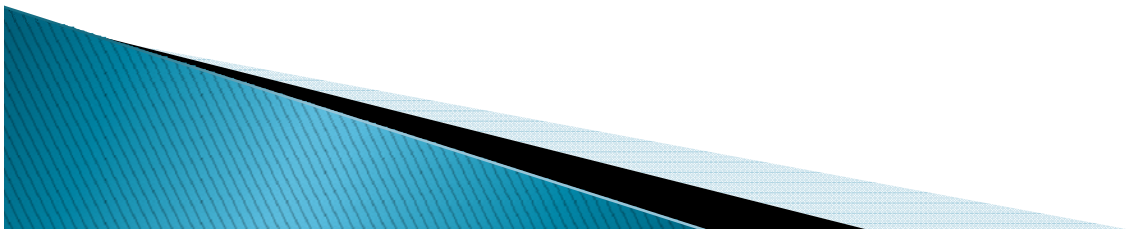
# Discussion

- ▶ Demonstration of the effectiveness of the PROSPER project and the value of robust TA for cultivating programming knowledge.



# Future Work

- ▶ Sub-Group Analyses
- ▶ Moderators and Mediators
- ▶ Stakeholders in Urban Centers
- ▶ Cross Domain Knowledge Development



# Acknowledgement of Our Partners in Research

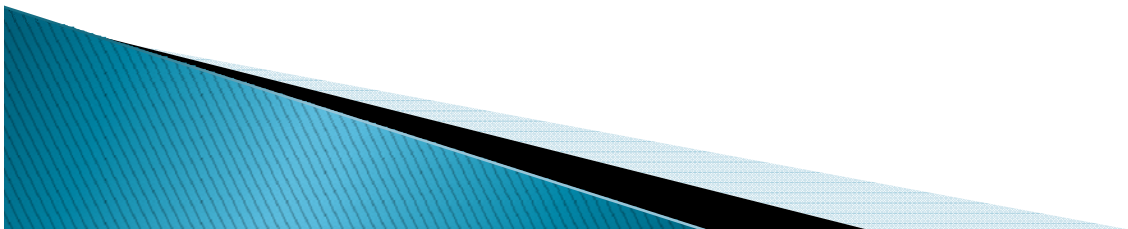
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# Thank you!

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

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



# References

- ▶ Adelman, H. S., & Taylor, L. (2003). On sustainability of project innovations as systemic change. *Journal of Educational and Psychological Consultation*, 14(1), 1-25.
- ▶ Ennett, S. T., Ringwalt, C. L., Thorne, J., Rohrbach, L. A., Vincus, A., Simons-Rudolph, A., & Jones, S. (2003). A comparison of current practice in school-based substance use prevention programs with meta analysis findings. *Prevention Science*, 4, 1-14.
- ▶ Livet, M., & Wandersman, A. (2005). Organizational functioning: Facilitating effective interventions and increasing the odds of programming success. In D. M. Fetterman & A. Wandersman (Eds.), *Empowerment evaluation principles in practice* (pp. 123- 154). New York: Guilford Press
- ▶ Mihalic, S., Irwin, K., Fagan, A., Ballard, D., & Elliott, D. (2004). Successful program implementation: Lessons from blueprints. Electronic report. U.S. Department of Justice, Office of Justice Programs). Retrieved August 10, 2006, from <http://www.ojp.usdoj.gov/ojjdp>.
- ▶ O'Connell, M. E., Boat, T., & Warner, K. E. (Eds.). (2009). Preventing mental, emotional and behavioral disorders among young people: Progress and possibilities. Washington, DC: National Academies Press.
- ▶ Redmond, C., Spoth, R., Chungyeol S., Schainke, L., Greenberg, M., & Feinberg, M. (2009) Long-Term Protective Factor Outcomes of Evidence-based Interventions Implemented by Community Teams through a Community-University Partnership. *J Primary Prevent* 30:513-530
- ▶ Ringwalt, C.R., Vincus, A., Ennett, S.T., Hanley, S., Bowling, J.M., & Rohrbach, L.A. (2009). The prevalence of evidence-based substance use prevention curricula in U.S. middle schools in 2005. *Prevention Science*, 10, 33-40.
- ▶ Spoth RL, & Greenberg MT. (2005) Toward a comprehensive strategy for effective practitioner-scientist partnerships and larger-scale community benefits. *American Journal of Community Psychology*, 35:107-126.
- ▶ Spoth, R., Gyll, M., Lillehoj, C. J., Redmond, C., & Greenberg, M. (2007). PROSPER study of evidence-based intervention implementation quality by community-university partnerships. *Journal of Community Psychology*, 35, 981-999.
- ▶ Spoth, R. L., Kavanagh, K., & Dishion, T. J. (2002). Family-centered preventive intervention science: Toward benefits to larger populations of children, youth, and families. In R. L. Spoth, K. Kavanagh., & T. J. Dishion (Eds.), *Universal family-centered prevention strategies: Current findings and critical issues for public health impact* [Special Issue]. *Prevention Science*, 3, 145-152.
- ▶ Wandersman A. (2008). Community science: bridging the gap between science and practice with community-centered models. *Am J Commun Psychol*; 31:227-242.
- ▶ Wandersman, A., & Florin, P. (2003). Community interventions and effective prevention. *American Psychologist*, 58, 441-448.

