Making a Difference with Youth, Families and Communities

Partnerships in Prevention Science Institute
Iowa State University
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**Associated Faculty/Scientists**

**Prevention Coordinators**
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Funding Agencies

- National Institute on Drug Abuse
- National Institute of Mental Health
- National Institute on Alcohol Abuse and Alcoholism
- Center for Substance Abuse Prevention
1. Mission and Background
Institute Mission:
*Public Health and Well-Being Through Science-with-Practice*

To promote healthy and capable youth, adults, families, and communities through prevention and health promotion science with practice.
Why is it important to pursue the mission?

• High prevalence rates of various public health problems (youth problem behaviors, unhealthy lifestyles)
• Benefits of positive youth and family development, particularly among those at risk
• Need to move toward a more comprehensive strategic plan for prevention/positive youth development/health promotion
• Limited diffusion of high-fidelity, evidence-based interventions—one estimate of effective prevention “market penetration” is 1%

Advantages of Focus on Evidence-Based Interventions (EBIs)

- Positive outcomes and economic benefits more likely for youth, families, others
- Better accountability—resources not used for ineffective programs
- **Funding increasingly targeted for evidence-based interventions**
- Materials, training and technical assistance typically are available
Conceptual Framework and Partnership Model
Framework for State Public Education Systems Approach to “Science-with-Practice”

Local Community Team

Internal Capacity Agents from Public Schools

Local Linking Agents from Extension System

External Resource Agents from Community/State University

University/Prevention Coordinator Teams

PROSPER—Organizational Structure for State Public Education Partnerships

- **Local Community Teams**
  - Extension Agent, Public School Staff,
  - Social Service Agency Representatives, Parent/Youth Representatives

- **Prevention Coordinator Team**
  - Extension Prevention Coordinators

- **University/State-Level Team**
  - University Researchers, Extension Program Directors
2. Illustrative Findings: Effectiveness in—

A. Delivery of Community-Level, Evidence-Based Interventions (EBIs)

B. Producing Positive Community-Level Outcomes through Partnership-Delivered EBIs

C. Quality Implementation of Rigorous Intervention Studies
A. Partnership Effectiveness in Delivery of Community-level EBIs
Types of Indicators of Effective Community-Level EBI Delivery

- Consistently high implementation quality/adherence
- High intervention recruitment rates
- High intervention retention rates
- Involvement of youth and families across the risk spectrum
- Successfully implemented cultural adaptations
- Initial evidence of partnership sustainability
Partnership-Based Delivery Results—Implementation Adherence*

Partnership-Based Delivery Results—
Family Program Retention/Participation Levels

**Strengthening Families Program Family Session Attendance**

<table>
<thead>
<tr>
<th>% Enrolled Families Attending</th>
<th>3 or more sessions</th>
<th>4 or more sessions</th>
<th>5 or more sessions</th>
<th>6 or 7 sessions</th>
<th>All 7 sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95.8%</td>
<td>95.2%</td>
<td>95.2%</td>
<td>91.6%</td>
<td>65.9%</td>
</tr>
</tbody>
</table>

*Enrolled families are those that signed up and attended at least one session.*
Partnership-Based Delivery Results—Sustainability

Early in first sustainability phase of ongoing partnership study—11 of 13 local teams have raised their own sustainability funds!
Partnership-Based Delivery Results—Harambee Cultural Adaptation Pilot Study

- Urban African-American families
- Recruitment is 70% of families assessed
- High retention rate
- High level of implementation quality
- Positive attitude re program
- Mix of posttest results—guide next steps

B. Positive Community-Level Outcomes Through Partnership-Delivered EBIs
Wide Range of Positive Community-Level Outcomes

- Positive youth protective factor and skills-building outcomes (e.g., significant improvements in relationships with parents, refusals with peers offering alcohol)
- Long-term effects on school engagement and academic success (e.g., increased grade point average)
- Long-term reductions in substance use (up to six years past baseline—e.g., 40% reduced likelihood of having been drunk by 10th grade)
- Long-term conduct/behavior problem reduction (e.g., 40% fewer aggressive and destructive behaviors by 10th grade)
- Economic benefits (e.g., $9.60 return on the dollar invested)
- Comparable longitudinal benefits for lower- and higher-risk groups
Results—Partnership-Based Outcome Studies

Longitudinal Growth of First-Time Drunkenness

Lifetime Drunkenness Through 6 Years Past Baseline: Logistic Growth Curve

## Results—Partnership-Based Outcome Studies

### Average Teen Age in School Districts When Stated Prevalence Levels are Reached—From 6-Year Follow-up

<table>
<thead>
<tr>
<th>Condition</th>
<th>10% Lifetime Marijuana Use</th>
<th>50% Lifetime Cigarette Use</th>
<th>50% Lifetime Drunkenness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Condition</td>
<td>15.3</td>
<td>15.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Partnership-based Iowa Strengthening Families Program Condition</td>
<td>17.5</td>
<td>17.9</td>
<td>17.8</td>
</tr>
</tbody>
</table>

## Results—Transition from Non-Advanced Use to Advanced Use*

<table>
<thead>
<tr>
<th></th>
<th>Control Transition</th>
<th>ISFP Transition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest 2-5 Years**</td>
<td>25.2</td>
<td>8.1</td>
</tr>
<tr>
<td>Pretest 4 years</td>
<td>38.0</td>
<td>31.5</td>
</tr>
<tr>
<td>Pretest 6 years**</td>
<td>58.8</td>
<td>47.9</td>
</tr>
</tbody>
</table>


* Advanced use means use of legal substances on regular basis or use of illicit drugs at least once: Reports one or more of the following—past month alcohol use (≥ 4 times), past month binge, past month one or more cigs/day, ever use of marijuana, inhalants, or other illicit drugs.

*p < .05
Results—
Partnership-Based Meth Outcomes of Universal Interventions

**Lifetime and Past-Year Meth Use at 4½-6½ Years Past Baseline**

- **ISFP** = Iowa Strengthening Families Program
- **SFP + LST** = Strengthening Families Program: For Parents and Youth 10-14 and Life Skills Training

Results—
Partnership-Based Outcome Studies
Observer-Rated Aggressive/Hostile Behaviors

Results—Diagnosable Disorders 10 Years Past Baseline

Results—
Differential Effects on Girls and Boys
Internalizing Symptoms

Partnership-based Iowa Strengthening Families Program

- Enhanced Positive Parenting Behavior
- Reduced Substance-related Risk Behaviors

6th Grade

8th Grade

Increased Student School Engagement

12th Grade

Increased Student Academic Success

- Partnership (School-Community-University) program in 6th grade significantly impacts student academic success (parent-reported grades) in 12th grade:
  - Through enhanced positive parenting behavior effects on school engagement
  - Through reduced substance-related risk behavior effects on school engagement

- Results from a randomized, controlled study with 33 Iowa school districts (see Project family Trial II at www.ppsi.iastate.edu–Spoth, R., Randall, G. K. and others. Building family skills leads to long-term academic success. Manuscript in final preparation.)
Results—Benefits to Higher-Risk Subgroups

- Successfully recruited and retained both higher- and lower-risk participants
- Benefit comparable across higher- and lower-risk subgroups
- When risk moderation effects observed, mostly stronger effects for those at higher risk

Results—
Delaying Onset of Alcohol Use Leads to Cost Savings

Partnership-Based Strengthening Families Program: Benefit-Cost Ratios Under Different Assumptions

*Study Data indicate $9.60 returned for each dollar invested under actual study conditions

C. Partnership Effectiveness in High-Quality Implementation of Rigorous Outcome Research
Types of Evidence of Successful Partnership-Based Outcome Study

- School recruitment/retention across studies
- Sample quality across studies—representative of general population samples
- Intervention validity across studies
- About 30,000 individuals assessed across studies
- Methodological innovations/multilevel designs and analyses
Results—Study Recruitment and Retention of Public Schools

- Six randomized controlled studies conducted, 11 supplemental studies
- 106 public schools involved in randomized controlled studies
- 90% of all schools attempted were successfully recruited
- 98% of school districts retained long-term—in two studies, 100% retained through end of HS
3. Future Directions
Overview of PROSPER Collaborative Study with PSU*

- **Design**
  - Random assignment of 28 school districts (14 IA, 14 PA) to full partnership and “delayed intervention” (comparison) conditions
- **Participants**
  - Two successive cohorts of 6th grade children and their families (N ≈ 5,750 students in each cohort)
  - Random selection of ≈ 1,100 families from Cohort II for more intensive assessments (in-home, teacher, school archival data)

*PROSPER = PROmoting School-community-university Partnerships to Enhance Resilience. In collaboration with the Prevention Research Center at Pennsylvania State University (Mark Greenberg, Director; Karen Bierman, Co-Director)
PROSPER Local Team Activities

- Recruit team members and building local team cohesion
- Consider local needs & resources for program implementation
- Select from a menu of evidence-based programs
  - Family-focused program
  - School-based program
Key Focus on Building Local Team Sustainability

- Emphasis on ongoing technical assistance through Extension-prevention staff
- Ongoing partnership evaluation & feedback
- TA focus on expansion of resources
- Strategies to accommodate team membership/leadership change
What PROSPER Has Accomplished

Third Year

- High family recruitment rates across 2 cohorts, compared with other “real world” community-based efforts
- Consistently high levels of implementation quality, for both family and school programs
- All of 13 local teams have raised their own sustainability funds!
Obesity Prevention
Framework for Health-Promoting Public Education Partnership Network (HealthPEP Net): Design, Testing and Dissemination

Intervention Development Process
- Scientifically-rigorous
- Ecological
- Consumer-oriented

Design → Testing/Implementation → Sustained Dissemination

Community-University Partnership Network (PROSPER Prototype)

*From “Obesity and Youth” Regional Conference at Iowa State University (R. Spoth)
Making a Difference with a National Network of Partnerships
Partnership Network Development

• Developing a partnership network to support community participatory research

• Goal is to achieve larger-scale public health and well-being through broader implementation of a science-with-practice approach

• Partnership network intended to:
  – Effectively deliver evidence-based interventions on a larger scale
  – Evaluate the public health impact of EBIs
  – Support development and evaluation of interventions with promise of positive outcomes
Future Directions

Toward a National Network of Partnerships—Early-Adopter States

• Meet with Extension and research leadership in other early-adopter states
• Conduct initial readiness and resource assessments
• Organize state-level steering committee
  – State partnership team
  – Pilot study
  – Grant-driven approach
Future Directions

Toward a National Network of Partnerships—National-Level Efforts

- Build awareness among national leaders and potential stakeholders
- Organize a research network steering committee
- Develop infrastructure for national-level technical assistance and multistate/multisite research (e.g., readiness assessment tools, network analyses of opinion leaders, information management system)
• Please visit our website at...

www.ppsi.iastate.edu

• Or visit us in Ames, Iowa...