Scaling Systems for Evidence-based, Family-focused Programs: Challenges, Lessons and Strategies

Strategies for Scaling Tested and Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health: A Workshop

IOM-NRC Forum on Promoting Children’s Cognitive, Affective, and Behavioral Health

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Purpose:

• Highlight **findings on the development of systems** for scaling sustained, quality implementation of family-focused EBIs and indicated **next steps**

• Present “discussion points” concerning:
  
  Part I. Family-focused EBIs and Scalable Systems: **Problem** and Needed **Solutions/Strategies**
  
  Part II. One Illustrative Delivery System – **PROSPER** Approach and Outcomes
  
  Part III. Strategies to Address **Challenges** at Community, State, and National Levels
  
  Part IV. Further Considerations on **Steps Toward Greater Impact**
Part I – Problem, Needed Solutions

Advances in Family-focused Prevention

• **NRC-IOM 2009 Report** reviews on array of effective preventive interventions
  – Prenatal through adolescent stages
  – Prevent multiple behavioral problems, with long-term effects
  – Many show cost benefit/cost effectiveness

• Highlights **evidence on family-focused** programs in particular
  - Caregiver-child bonding, child management, as well as social, emotional and cognitive competencies
  - Substance use, delinquency, conduct problems, other mental health problems

Part I – Problem, Needed Solutions

Illustrative Advances: Crossover Effects

• Effects of Universal Intervention on Young Adolescents/Adults – Up to 14 Years Past Baseline
  ➣ Wide-ranging types of substance use (primary goal)
  ➤ Parenting skills and family functioning, youth skills (e.g., peer resistance, social competencies), school engagement and grades
  ➣ Aggressive/destructive behaviors, conduct problems, mental health problems (e.g., depression), health-risking sexual behaviors

Why? Programs address common R/P factors; have impacts on primary socializing environments (social networks); well-timed developmentally.

Part I – Problem, Needed Solutions

A Problem Remaining to be Addressed

• Despite advances
  – Most family-focused interventions actually implemented in real world are untested
  – Mostly have only limited, often ineffective delivery systems

Scalable Systems for Community-based, Family-focused EBIs to Address the Problem

The Translational Context...
Part I – Situation and Strategy

In Reality, Following a Formula for “Slow Flow” of EBIs & Limited Population Impact

(1) Relatively small portion of total interventions implemented are EBIs

(2) Frequent limited EBI implementation quality

(3) Limited sustainability

(4) Limited population-level impact

• Major barriers to flow from proven EBIs to broad dissemination, quality implementation, and impact
So... Core Challenge #1: Infrastructure and Systems Development

- Necessary **supports for practice** – large-scale adoption, implementation and sustainability of EBIs
- Necessary **supports for research** – to investigate the technical, human, structural features that support translation functions (re adoption and sustained, quality implementation)

Part II – One Illustrative System – PROSPER

One Illustrative Delivery System: PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience)

THE PROSPER APPROACH
Part II – One Illustrative System – PROSPER

PROSPER – Building on Existing Intervention Infrastructures/Systems

• USDA – Cooperative Extension System
  – Largest informal education system in the world
  – Reach into every county in the country

• DoE – State Public School Systems
  – Universal system reaching nearly all children
  – Existing relationships with Extension

• DoD – Military Family Support Systems
  – Ties into National Guard Support Systems
  – Could link to existing military training infrastructures

• Groundwork for linkage of the systems began in the late 1980s
Evolving Community Partnership Sustainability Model

**PROSPER**

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

- **Primary Task:** Sustained, quality implementation of family and school EBIs selected from menu
PROSPER Menu

• **Both family** EBIs (in 6th grade) and **school** EBIs (7th)

• Among 3 family EBIs, SFP 10-14* only one selected to date

• SPF 10-14 objectives
  - Protective factors (e.g., caregiver-child bonding)
  - Risk factors for child problem behaviors (e.g., ineffective discipline; low peer resistance)

• Program Length—7 weekly two-hour sessions

• Program Format—1 hour for separate parent and child training; 1 hour for family training

* SPF 10-14 is Strengthening Families Program: For Parents and Youth 10-14; formerly known as Iowa Strengthening Families Program
Part II – One Illustrative System – PROSPER

Community Level Staffing

• PROSPER Community Teams start with between 8-10 members including:
  – Family and/or youth Extension-based Team Leader – average 10 hours/week
  – School-based Co-team Leader – about 1 hour/week
  – Community volunteers – about 3 hours/month
    * Local mental health/public health representatives
    * Local substance abuse agency representative
    * Parents
    * Youth

• Teams and EBIs expand as teams mature, guided by TA
Part II – One Illustrative System – PROSPER

Outcome Study

• Collaboration with PSU

• Design: RCT of 28 school districts (14 IA, 14 PA)
  – Full partnership with community teams
  – Delayed intervention

• Participants: Two cohorts of 6th grade children
  (≈ 6,000 students per cohort); 2\textsuperscript{nd} cohort has ≈ 1,000 intensive assessment families

• Multimethod, multi-informant measurement (now at 9\textsuperscript{th} wave of data collection–post high school)

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Part II – One Illustrative System – PROSPER

“Snapshots” of Long-term Outcomes, Positive Trajectories

Long-term Impact on Illicit Substance Use Index Through 6½ Years Past Baseline

![Graph showing the number of substances used over time for different groups.]

- **Control Group**
- **PROSPER Group**

Difference in growth of use is statistically significant, as are differences at multiple time points, including 11th and 12th grades.

Stronger effects for higher-risk youth.

Part II – One Illustrative System – PROSPER

PROSPER Interacts with Genetic Factor to Reduce Negative Parenting Effect on Aggression

Subgroup of youth with the DRD4 gene and a high level of maternal hostility show decrease in aggression from ages 11-16.

Part II – One Illustrative System – PROSPER

Plus, PROSPER is a **Cost Effective** Way to Implement Evidence-based Programs

SFP 10-14 Implementation: PROSPER team vs. SFP 10-14 alone.

<table>
<thead>
<tr>
<th></th>
<th>PROSPER Low Estimate</th>
<th>PROSPER High Estimate</th>
<th>Economist Report Estimate**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Costs Per Family</td>
<td>$278.56*</td>
<td>$348.25*</td>
<td>$851.00</td>
</tr>
</tbody>
</table>

* Represents a **59-67%** reduction in costs.

Key PROSPER Partnership Randomized Control Trial Findings (from published reports)

- **Effective mobilization** of community teams
- Community **teams sustained programming** efforts for ten years
- Community teams achieved **high recruitment rates** for family program participation, compared to traditional approaches
- Reductions in **negative peer influences** indicated by social network analyses
- All programs **implemented with high levels of quality**
- Positive effects for **strengthening family relationships, parenting, and youth skill outcomes** – note crossover effects
- Youth score significantly lower on a **range of problem behavior outcomes** (both substance misuse and conduct problems)
- Indications that it is **more cost efficient** than regular programming; also, that it is **cost effective and cost beneficial**

Part III: Findings on Strategies to Address Key Challenges at Community Level

1. Technical Assistance and Support Systems for Evidenced-based Program Delivery

2. Participation/Active Engagement of Targeted General Populations

3. **Implementation Quality** of Evidence-based Programs

4. **Sustaining Evidence-based Programming** (especially funding)

5. Strategies for Integrating Ongoing Evaluation/Quality Improvement
Part III – Community Challenges/Strategies

Ongoing EBI Monitoring for Quality Implementation

- Educate/train PROSPER partnership members about the **importance of quality monitoring** at:
  - Statewide meetings
  - Learning communities
  - Facilitator and observer trainings
  - “Feedback sessions” after program (e.g. SFP 10-14) session is completed
  - Facilitator supervision
Part III – Community Challenges/Strategies

PROSPER Strategies to Implementation Quality – Illustrative Findings

PROSPER Long-Term Adherence Ratings

Part III – Community Challenges/Strategies

Phases of Sustainability-Oriented PROSPER Developmental Process

• **Assess benchmarked progress** across all phases, with special attention to core components
  – Used to monitor sustainability efforts re team and programs
  – Facilitates sustained, long-term development

Instructions for Completing PROSPER Model Benchmark Scoring
Team Training Guided by PROSPER Sustainability Model

**Purpose:**
Improved Child and Family Outcomes

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**Goal 1:**
Sustaining Growth & Quality of Programming

- Evidence-based Family Program
- Evidence-based School Program

- Community/ School Positioning
- Program Quality Management/ Planning
- Strengthening Partnerships with Schools/ Other Organizations

**Goal 2:**
Sustaining Well-Functioning Teams

- Effective External Relationships
- Effective Internal Relationships

- Resource Generation for Programs
- Strategic Communication Planning
- Planning for Recognitions and Rewards
- Monitoring Team Structure & Roles & Participation
- Conducting Effective, Regular Meetings

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Part III – Community Challenges/Strategies

Illustrative Team Financial Sustainability

Average Total Contributions Received Across All Project Communities by Academic Year

![Graph showing financial contributions by academic year]

- **In-Kind Contributions**
- **Cash Raised**
Key Challenges at the State and National Levels – Strategies and Lessons
Part III – Community Challenges/Strategies

Illustration of Network Systems: PROSPER National Support System
(CDC, NIH/NIDA, Foundation Scaling Up Projects)

- PROSPER Partnership Network Development
- The PROSPER Network Team was formed to support Model adoption in new states

Diagram:
- Community Teams
  - Prevention Coordinator Team
  - State Management Team
- National Network Team
  - Trainers/TA Providers
  - Prevention Scientists
Activities and Lessons on State and National Support Systems (CDC, NIH, Foundation Grants)

Pilot research and model implementation in adoption-ready states – Key Challenges:

- **Assessing readiness** of complex, dynamic systems (surveys of 50 states – Extension, Education, Public Health) – *mixed picture*
- State **adoption decision-making** supports
- State **implementation capacity-building**
- **Implementation staff effectiveness** in roles/functions
- **Partnering with state agencies**

Part III – Community Challenges/Strategies

Overarching Lessons Learned

• Complex systems change is required, and many resources must be devoted in formative stages, to assure that barriers are addressed quickly and effectively – resources are lacking

• Assessing readiness, adoption support, implementation capacity-building, and well-functioning implementation staff is key – an iterative process continuously addressing key factors necessary

• When have effective systems-level adaptations, program-level adaptations compromising quality are less likely

• General Strategy: Developing ongoing trainings/TA/data systems to ensure all of the relevant issues are addressed
Part IV: Further Considerations on Steps for Increasing EBI/Systems Impact
Part IV – Strategic Considerations for Increasing EBI Impact

Keep Eye on the Prize of Population Impact

- Sustain “...a clear vision of a desired outcome,” addressing complex interplays of implementation factors (see Tony Bates).

Increasing Impact: Delineating Infrastructure Development Needs Across Translational Phases

- **Pre-adooption and Adoption Phases**
  - Market analysis systems
  - Information sharing structures
  - Community monitoring/data systems
  - Community-based partnerships

- **Implementation Phase**
  - EBI-related training systems
  - Implementation TA systems
  - Supports for engaging participants

Increasing Impact: Delineating Infrastructure Development Needs Across Translational Phases (cont.)

• **Sustainability Phase**
  – **New financing structures/strategies**
  – State-supported TA systems with monitoring, benchmarking, CQI feedback systems

• **Cross-cutting Type 2 Translation Research**
  – Systems for early assessment of EBI feasibility/research feasibility
  – **Practitioner-Scientist Partnerships/Networks**
  – Dedicated research centers/technical/data systems
  – Indicated research projects/resources
  – Research workforce development
Increasing Impact: Possible Action Steps

1. Planning and Organization for Infrastructure Development
   - **Interagency collaboration** building on National Prevention Strategy and IOM-NRC 2009 Report, focusing on EBI scaling systems
   - Development of a **common conceptual framework** for addressing multiple behavioral health outcomes important across federal stakeholders (e.g., common risk and protective factors)
   - **Strategic planning on critical scaling activities** and related stakeholder involvement – see illustrative exercise
Increasing Impact: Illustrative Exercise for Strategic Planning Specific to Phases

**Next Steps from ACF Scaling Meeting:**
A Translation Function, Activity, Stakeholder (T-FAS) Framework-Toward Coordinated Strategy Across Agencies

<table>
<thead>
<tr>
<th>Translation Function/Phase</th>
<th>Activities/Steps</th>
<th>Required Stakeholders/Roles</th>
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<tbody>
<tr>
<td>Pre-adoption/adoption Phases</td>
<td>1. Identify/articulate targeted systems</td>
<td>Agency directors/administrators...</td>
</tr>
<tr>
<td></td>
<td>2. Market Analysis</td>
<td>•</td>
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<td></td>
<td>3. Readiness assessments</td>
<td>•</td>
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<tr>
<td></td>
<td>4. Etc.</td>
<td></td>
</tr>
<tr>
<td>Implementation Phase</td>
<td>1. Needs/Resource Assessments</td>
<td>Community agency supervisors</td>
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<tr>
<td></td>
<td>2. Coalition recruitment</td>
<td>•</td>
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<td></td>
<td>3. Team building</td>
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<td></td>
<td>4. Etc.</td>
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<tr>
<td>Etc.</td>
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<td>Etc.</td>
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</tbody>
</table>
2. **Innovative Funding Mechanisms**

- Support **braided funding** approaches
  - Across service and research agencies
  - State agency funding to support community grants with federal agency support for research

- Develop **private-public partnerships** (e.g., Social Impact Exchange Scaling Marketplace, AECF Evidence-2-Success)

- Develop **State Prevention Financing Teams** with Communities of Interest, to support priority prevention goals, possibly including M/M financing

Increasing Impact: Possible Action Steps (cont.)

3. Development, testing, coordination of **scalable delivery systems**, with embedded research
   - **Lessons** from wide-ranging **successful systems** (e.g., like this meeting)
     * Systems for delivering individual EBIs, or EBIs on menus
     * Consider systems for universal EBIs with crossover effects as gateways to more targeted, or intensive interventions
   - **Embed research in state and national prevention systems** to develop, test, disseminate EBIs, and use continuous systems improvement across translation phases (see SPR Task Force Paper*)

Please visit our website...
www.prosper.ppsi.iastate.edu

We've got prevention down to a science.

Most prevention programs for youth promise to reduce problem behaviors. And they can look good. On paper. But do they work?

Prevention scientists are discovering that results often fall far short of expectations. For some programs, it’s because they were not tested. For others, it’s ineffective implementation. For still others, it’s the lack of continued financial and community support for long-term sustainability, even when the program has positive results.

Learning from this research, we have developed a model for implementing quality, evidence-based prevention programs. Our model has been tested with over 10,000 youth and their families since 2001.

It’s called the PROSPER Partnership Model.
THANK YOU from
The PROSPER Partnership Group

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