Positive Youth Development: Global Application of Prevention Science

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- Adolescence: a foundation for future health (Sawyer, Afifi, Bearinger, Blakemore, Dick, Ezeh, & Patton)
- Adolescence and the social determinants of health (Viner, Ozer, Denny, Marmot, Resnick, Fatusi, & Currie)
- **Worldwide application of prevention science in adolescent health** (Catalano, Fagan, Gavin, Greenberg, Irwin, Ross & Shek)
- Health of the world’s adolescents: a synthesis of internationally comparable data (Patton, Coffey, Cappa, Currie, Riley, Gore, Degenhardt, Richardson, Astone, Sangowawa, Mokdad, & Ferguson)
40 Years of Prevention Science Research Advances

Etiology/Epidemiology of Problem Behaviors
- Identify risk and protective factors that predict problem behaviors and describe their distribution in populations.

Efficacy Trials
- Design and test preventive interventions to interrupt causal processes that lead to youth problems.
## Risk Factors for Adolescent Problems

### Community
- Availability of Drugs
- Availability of Firearms
- Community Laws and Norms Favorable Toward Drug Use, Firearms, and Crime
- Media Portrayals
- Transitions and Mobility
- Low Neighborhood Attachment and Community Disorganization
- Extreme Economic Deprivation

### Family
- Family History of the Problem Behavior
- Family Management Problems
- Family Conflict
- Favorable Parental Attitudes and Involvement in the Problem Behavior

### School
- Academic Failure Beginning in Late Elementary School
- Lack of Commitment to School

### Individual/Peer
- Early and Persistent Antisocial Behavior
- Alienation and Rebelliousness
- Friends Who Engage in the Problem Behavior
- Favorable Attitudes Toward the Problem Behavior
- Early Initiation of the Problem Behavior
- Constitutional Factors
Protective Factors

**Individual Characteristics**
- High Intelligence
- Resilient Temperament
- Competencies and Skills

**In each social domain (family, school, peer group and neighborhood)**
- Prosocial Opportunities
- Reinforcement for Prosocial Involvement
- Bonding
- Healthy Beliefs and Clear Standards
Risks and Protective Factors in Shaping Child and Adolescent Development

Snowball: Risk Accumulates through Early Developmental Challenges without Protection

Snowstorm: Extended Exposure to Norms and Models Favorable to Problem Behavior without Protection

Toumbourou and Catalano, 2005
A Place Based Approach is Needed Because Communities Vary in Type and Amount of Risk Exposure.

John A. Pollard, Ph.D.
Developmental Research and Programs

Neighborhood #1
No students in this area.

Insufficient number of students in this area.

Major roads
Interstate

Neighborhood #2

Neighborhood #3

Risk Factors
- 1.005 - 2.949
- 2.949 - 4.894
- 4.894 - 6.838
- 6.838 - 8.782
- 8.782 - 10.727
Prevention interventions should target malleable risk and protective factors

(Coie et al., 1994; Mrazek and Haggerty, 1984; Woolf, 2008; O’Connell, Boat & Warner, 2009)
Wide Ranging Approaches Have Been Found To Be Efficacious

<table>
<thead>
<tr>
<th>Prevention Programs/Policies</th>
<th>Violence</th>
<th>Drug Use</th>
<th>HIV STI</th>
<th>Unintended Pregnancy</th>
<th>Vehicle Crash Risk</th>
<th>Obesity</th>
<th>Mental Health</th>
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<td>5. Mentoring with Contingent Reinforcement</td>
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<td>11. Multicomponent Positive Youth Development</td>
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<td>12. Policies (eg., MLDA, Access to Contraceptives)</td>
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<td>13. Community Mobilization</td>
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Criteria for Selection of Illustrative Programs

- Randomized or quasi-experimental designs
- Statistically significant effect on problem behaviors during adolescence at least one year post intervention
- Examples address both snowball and snowstorm risk patterns
- Some diversity in global context
Illustrative Efficacious Prevention Programs: Snowball Pattern of Risk Age 0-11

- Early Childhood Education (Schweinhart et al., 1993; Campbell et al., 2002; Reynolds et al., 2001; 2007)
- Seattle Social Development Project (Hawkins et al., 1999; 2005; 2008; Lonczak et al., 2002)
Illustrative Efficacious Prevention Programs: Snowball Pattern of Risk Age 12-18

- **Nurse Family Partnership** (Olds et al., 1988; 1998; 2002; 2004)
- **New Beginnings Parent and Child Program** (Wolchick, Sandler et al., 2002)
- **Functional Family Therapy** (Klein, Alexander & Parsons, 1977)
Illustrative Efficacious Prevention Programs: Snowstorm Pattern of Risk
School and Family Programs
Age 12-14

- Life Skills Training (Botvin et al., 2006)
- Unplugged (Faggiano et al., 2010)
- Project PATHS (Shek & Ma, 2011; Shek & Yu, 2011)
- Gatehouse Project (Bond et al., 2004; Patton et al., 2006)
- Strengthening Families Program 10-14 (Spoth et al., 2001; 2004; 2008)
- Self Administered Youth and Parent Computer Based Instruction (Schinke et al., 2004)
Illustrative Efficacious Prevention Programs: Snowstorm Pattern of Risk Age 15-18

- **Stepping Stones** *(Jewkes et al., 2008)*
- **Sistering, Informing, Healing, and Empowering** *(DiClemente et al., 2004)*
- **Conditional Cash Transfer** *(Baird et al., 2010; Duflo et al., 2006)*
Illustrative Efficacious Prevention Policies
Age 12-18

- Adolescent Access to Contraceptives (Brindis et al., 2003; Foster et al., 2006; Boonstra et al., 2010; Guldi, 2008; Zavodny, 2004; Kearney & Levine, 2009)

- Graduated Driver Licensing (Shope, 2007)

- Increased Taxes on Alcohol (Wagenaar et al., 2009; Elder et al., 2010)

- Minimum Legal Drinking Age 21 (Wagenaar & Toomey, 2002)
<table>
<thead>
<tr>
<th>Program</th>
<th>Benefit</th>
<th>Cost¹</th>
<th>Benefit Minus Cost</th>
<th>Benefit per Dollar Cost</th>
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¹ Cost estimates are per participant, based on 2003 U.S. dollars for SFP 10-14;¹⁹ 2007 U.S. dollars for the Chicago Child-Parent Centers;¹¹⁵ and 2010 U.S. dollars for all other interventions¹¹⁴
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Despite the Efficacy of Prevention...

Prevention approaches that do not work or have not been evaluated have been more widely used than those shown to be effective.

The Global Challenge

How can we increase use of tested, efficacious prevention policies and programs globally...

while recognizing that communities and nations are different from one another and need to decide locally what policies and programs they use?
Recommendations for Global Action

- Educate government, professionals and public in the research base for prevention science
- Include prevention in service systems
- Create database of efficacious prevention policies and programs
- Shift 10% of funds spent on children and adolescents to efficacious prevention policies and programs
- Increase translational research on adaptation and fidelity, going to scale & sustainability
Recommendations for Global Action

Build capacity of communities to:

- Build prevention coalitions
- Assess and prioritize risk, protection, and behavior problems (Create database of surveys, indicators to assess local risk, protection, and behavior problems)
- Match priorities to efficacious preventive interventions
- Support/sustain quality implementation of efficacious preventive interventions to all those targeted
Why Community Coalitions to Prevent Adolescent Problems?

- Risk/protective factors are located in community, family, school, peer and individual
- Risk/protection vary by neighborhood
- Community coalitions representing multiple sectors of influence can coordinate multiple resources and actions
- Multiple sector involvement creates local ownership, is likely to reach all children and youth, thus may have population wide effect
- **However, not all approaches are effective**
Communities that Care
A Proven Example

- Provides skills and tools,
- To build community capacity to change youth outcomes
- Through choosing proven prevention programs matched to locally prioritized risk and protective factors and,
- Implementing them with fidelity
CTC Effects on Problem Behavior Initiation in a 24 Community Randomized Trial

In a panel of 4407 youth followed from grade 5, by grade 8 youth in CTC communities were:

- 33% less likely* to start Smoking Cigarettes
- 32% less likely* to start Drinking
- 25% less likely* to start engaging in Delinquent Behavior
  
  ...than those from control communities

Effects sustained in 10th grade

*Relative Risk Reduction
Benefits of CTC Compared to Costs

Net Benefit Per Child in CTC Community

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<tr>
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<th>Delinquency</th>
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<tr>
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<td>Net Benefit</td>
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**Benefit-Cost Ratio**

\[
\frac{\text{Benefit}}{\text{Cost}} = \frac{$5,893}{$1,112} = $5.30
\]

$1.00 invested in CTC yields $5.30 in benefits

(Kuklinski et al., 2012)
Next Steps to Strengthen the Evidence Base for PYD

Adapt Lessons Learned from 40 Years of Prevention Science
Positive Youth Development Evidence Base

Etiology/Epidemiology of Problem Behaviors

- Identify youth development concepts that longitudinally predict problem and positive behaviors
- More longitudinal evidence is needed to ensure PYD concepts are important targets for youth development interventions

Efficacy Trials

- Design and test preventive interventions to promote youth development concepts that are predictors of youth positive and problem behaviors
- Progress in efficacy of programs would accelerate when focused on malleable predictors
Recommendations to Strengthen PYD

- Define a limited number of Positive Youth Development Outcomes
- Review longitudinal relationships between PYD concepts and positive and problem outcomes
- Use longitudinally related PYD concepts and theory for intervention development
- Continue to review PYD program effects
- Measure PYD concepts, positive and problem outcomes comprehensively in PYD and prevention trials to capture potentially broad impact
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