



Youth Development in the Global Context: Emergent Issues and Responses

The Hong Kong Polytechnic University

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# Positive Youth Development: Global Application of Prevention Science



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and the author group for the Prevention article in Lancet series on Adolescent Health: Abigail Fagan, Loretta E. Gavin, Mark T. Greenberg, Charles Irwin, David A. Ross, Daniel T.L. Shek



# Lancet Series on Adolescent Health

(April 28, 2012. V379:9826)

- 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

## Family

## School

## Individual/Peer

Risk Factors	Substance Abuse	Teen Delinquency	School Drop-Out	Depression & Anxiety	Violence		
<b>Community</b>							
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	✓	✓	✓	✓	✓		
<b>Family</b>							
Family History of the Problem Behavior	✓	✓	✓	✓	✓	✓	✓
Family Management Problems	✓	✓	✓	✓	✓	✓	✓
Family Conflict	✓	✓	✓	✓	✓	✓	✓
Favorable Parental Attitudes and Involvement in the Problem Behavior	✓	✓			✓		
<b>School</b>							
Academic Failure Beginning in Late Elementary School	✓	✓	✓	✓	✓	✓	✓
Lack of Commitment to School	✓	✓	✓	✓	✓		
<b>Individual/Peer</b>							
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

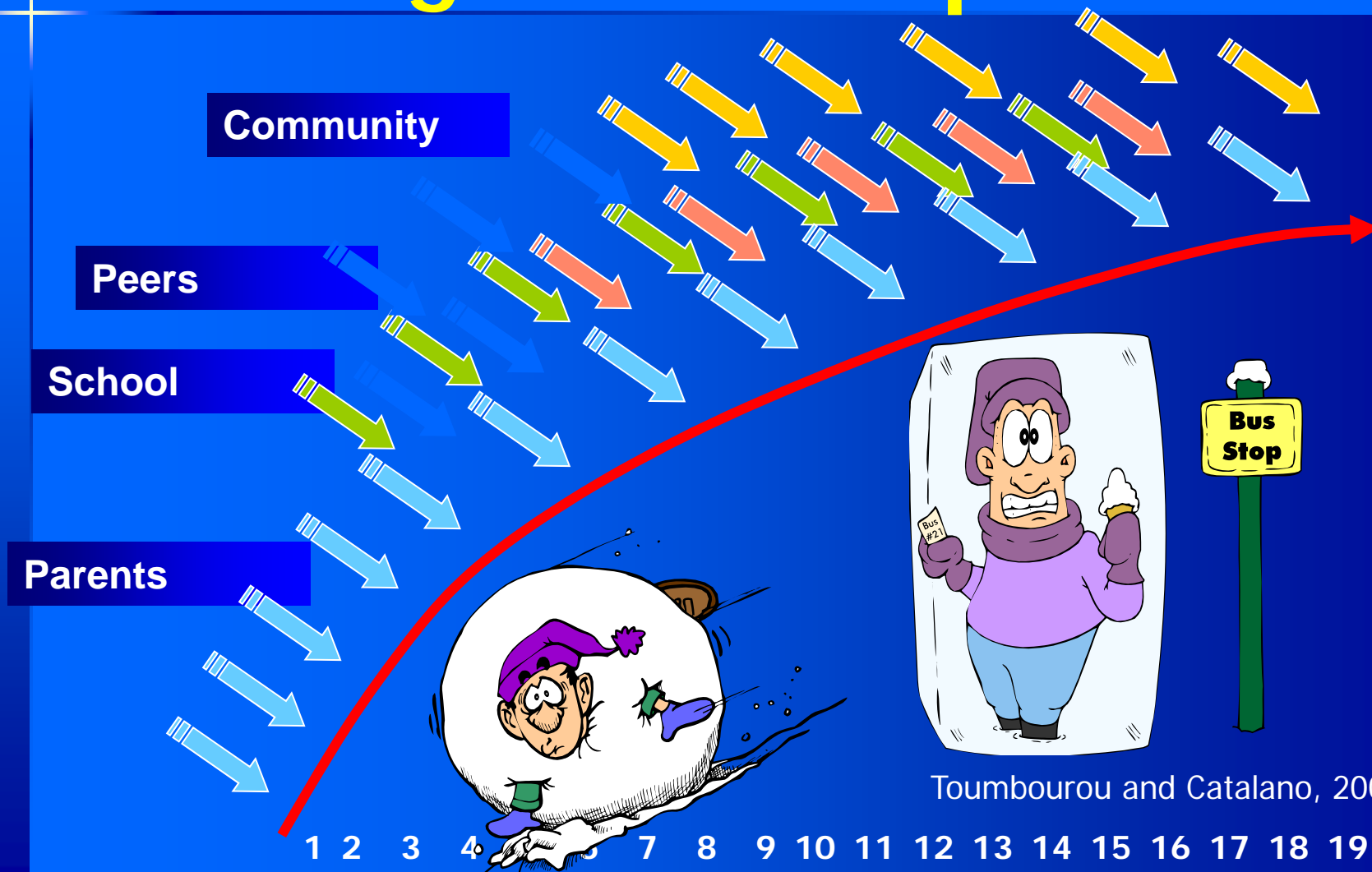
## In each social domain (family, school, peer group and neighborhood)

- Prosocial Opportunities
- Reinforcement for Prosocial Involvement
- Bonding
- Healthy Beliefs and Clear Standards

S D  
R G

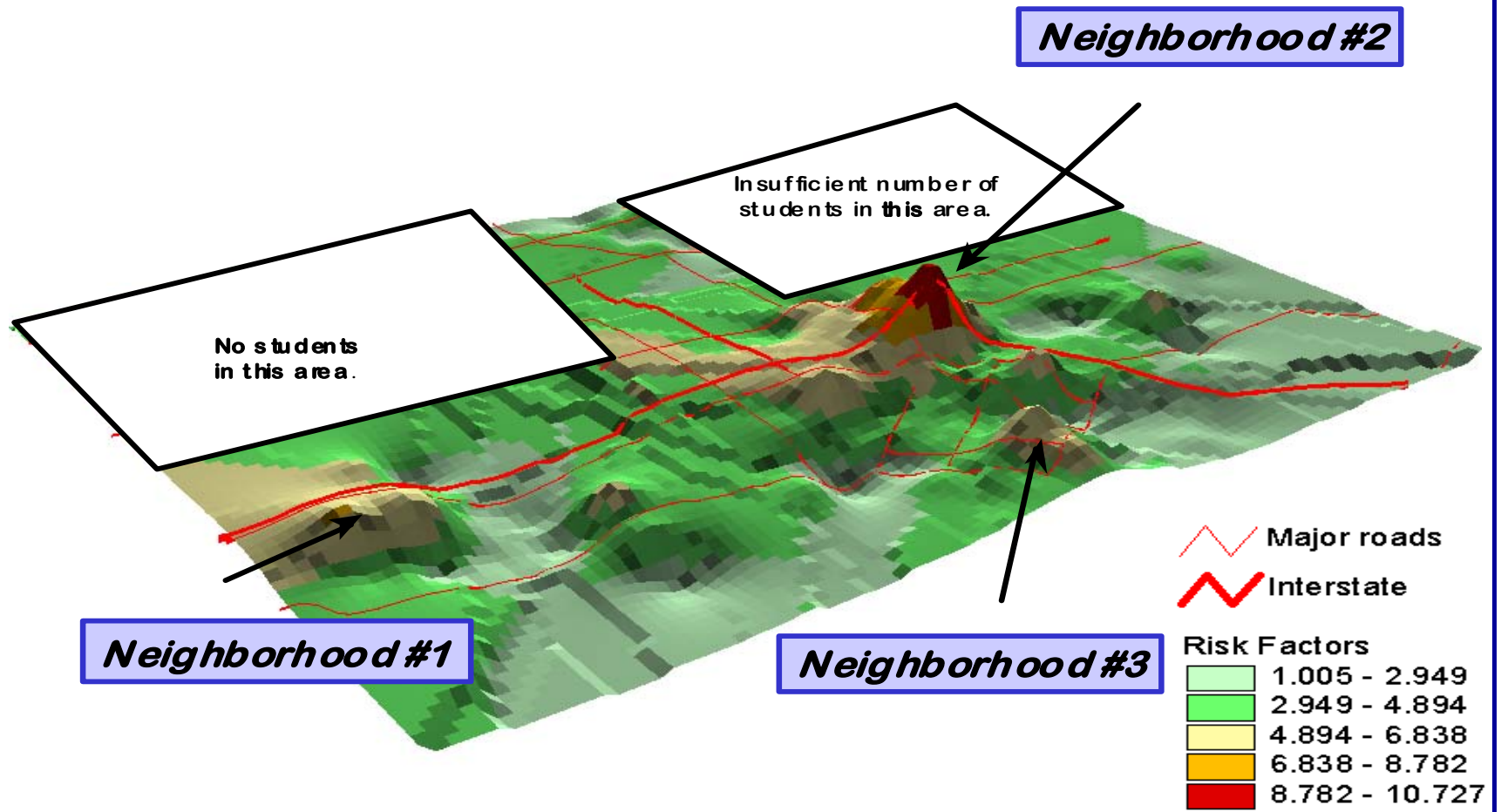
# Risk and Protective Factors

Strong and Malleable  
Early Childhood Developmental  
Problem Behavior without Protection  
Adolescents with no protection



Toumbourou and Catalano, 2005

# A Place Based Approach is Needed Because Communities Vary in Type and Amount of Risk Exposure





# Science Guided Prevention

**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

Prevention Programs/Policies	Violence	Drug Use	HIV STI	Unintended Pregnancy	Vehicle Crash Risk	Obesity	Mental Health
1. Prenatal & Infancy Programs(eg., NFP)		✓		✓			
2. Early Childhood Education	✓	✓					
3. Parent Training	✓	✓			✓		✓
4. After-school Recreation	✓						
5. Mentoring with Contingent Reinforcement		✓					
6. Cognitive Behavior Therapy							✓
7. Classroom Organization, Management and Instructional Strategies	✓	✓		✓			✓
8. Classroom Curricula	✓	✓		✓		✓	✓



# Wide Ranging Approaches Have Been Found To Be Efficacious

Prevention Programs/Policies	Violence	Drug Use	HIV STI	Unintended Pregnancy	Vehicle Crashes	Obesity	Mental Health
9. Community Based Skills Training/Motivational Interviewing			✓	✓			
10. Cash Transfer for School Fees/Stipend				✓			
11. Multicomponent Positive Youth Development	✓			✓			
12. Policies (eg., MLDA, Access to Contraceptives)		✓		✓	✓		
13. Community Mobilization	✓	✓					
14. Medical Intervention			✓	✓			
15. Law Enforcement					✓		
16. Family Planning Clinic				✓			



# 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

- Nurse Family Partnership (Olds et al., 1988; 1998; 2002; 2004)
- 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)





# Cost-Benefit of Selected Programs\*

\*Steve Aos, Associate Director, Washington State Institute for Public Policy [www.wa.gov/wsipp](http://www.wa.gov/wsipp)

Program	Benefit	Cost <sup>1</sup>	Benefit Minus Cost	Benefit per Dollar Cost
Nurse-Family Partnership	\$30,325	\$9,421		
Chicago Child-Parent Centers	\$39,160	\$8,124		
Seattle Social Development Project	\$6,237	\$2,959		
Strengthening Families Program 10-14	\$6,656	\$851		
Life Skills Training	\$1,415	\$34		
Functional Family Therapy	\$37,739	\$3,190		

<sup>1</sup>Cost estimates are per participant, based on 2003 U.S. dollars for SFP 10-14;<sup>19</sup> 2007 U.S. dollars for the Chicago Child-Parent Centers;<sup>115</sup> and 2010 U.S. dollars for all other interventions<sup>114</sup>



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Program	Benefit	Cost <sup>1</sup>	Benefit Minus Cost	Benefit per Dollar Cost
Nurse-Family Partnership	\$30,325	\$9,421	\$20,905	\$3.23
Chicago Child-Parent Centers	\$39,160	\$8,124	\$31,036	\$4.82
Seattle Social Development Project	\$6,237	\$2,959	\$3,279	\$2.11
Strengthening Families Program 10-14	\$6,656	\$851	\$5,805	\$7.82
Life Skills Training	\$1,415	\$34	\$1,382	\$42.13
Functional Family Therapy	\$37,739	\$3,190	\$34,549	\$11.86

<sup>1</sup>Cost estimates are per participant, based on 2003 U.S. dollars for SFP 10-14;<sup>19</sup> 2007 U.S. dollars for the Chicago Child-Parent Centers;<sup>115</sup> and 2010 U.S. dollars for all other interventions<sup>114</sup>



# 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.**

(Gottfredson et al 2000, Hallfors et al 2000, Hantman et al 2000, Mendel et al 2000, Silvia et al 1997; Smith et al 2002)



# 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

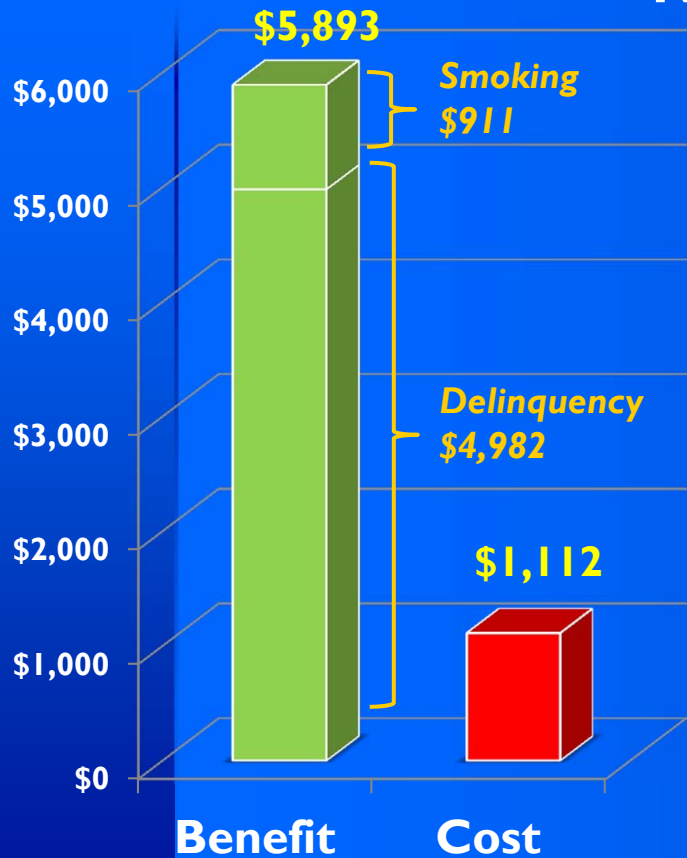
In a panel of 4407 youth followed from grade 5, by grade 8 youth in CTC communities were:

- ➔ 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 10<sup>th</sup> grade

\*Relative Risk Reduction

# Benefits of CTC Compared to Costs

## Net Benefit Per Child in CTC Community



	Delinquency	Smoking	Total
Benefits	\$4,982	\$911	\$5,893
Cost			<u>\$1,112</u>
Net Benefit			<b>\$4,780</b>

### Benefit-Cost Ratio

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

**\$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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