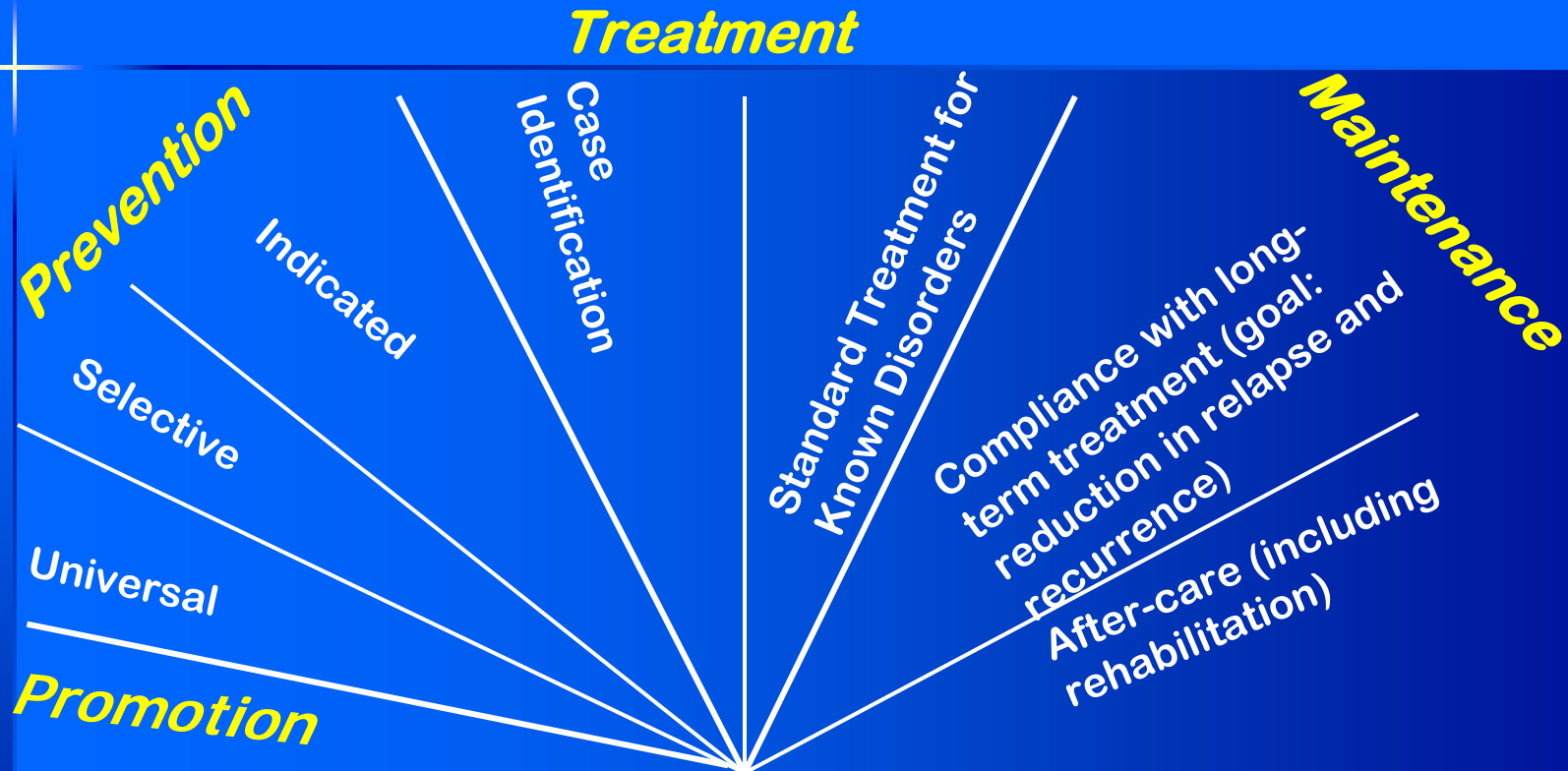


Key Leaders  
Baltimore, Maryland  
October 8, 2009

## Using the Research Base for Prevention Science to Improve Community Outcomes: Communities that Care

Richard F. Catalano, Ph.D  
Bartley Dobb Professor for the Study and Prevention of Violence  
Director, Social Development Research Group  
School of Social Work  
University of Washington  
[www.sdrdg.org](http://www.sdrdg.org)

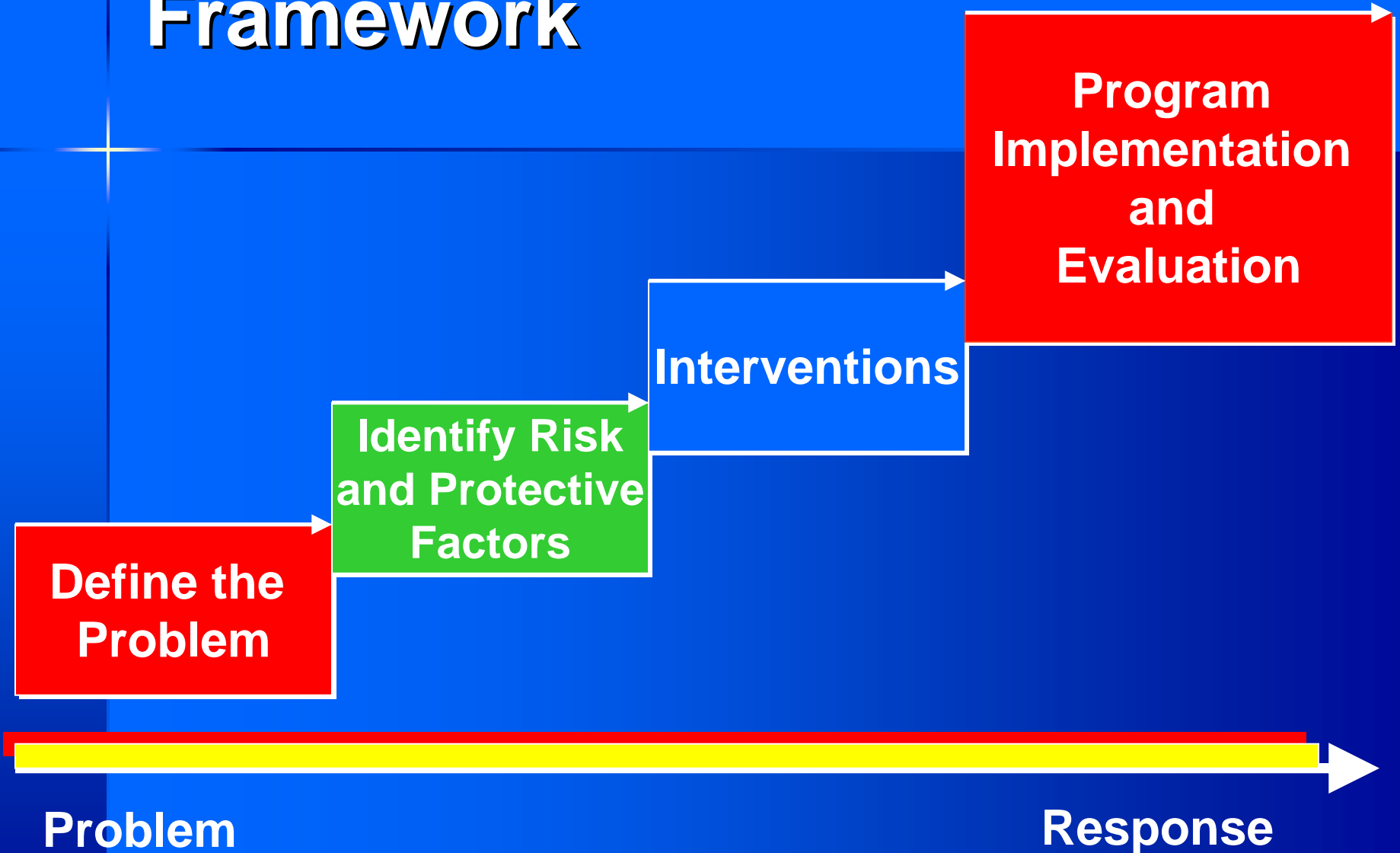
# Intervention Spectrum



Source: Institute of Medicine (2009). Preventing Mental, Emotional and Behavioral Disorders Among Young People. O'Connell, Boat & Warner (eds.) Washington DC: National Academy Press



# Prevention Science Framework





# 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.



## Community

## Family

## School

## Individual/Peer

	Substance Abuse	Teen Delinquency	School Drop-Out	Depression & Anxiety	Violence	
<b>Risk Factors</b>						
<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

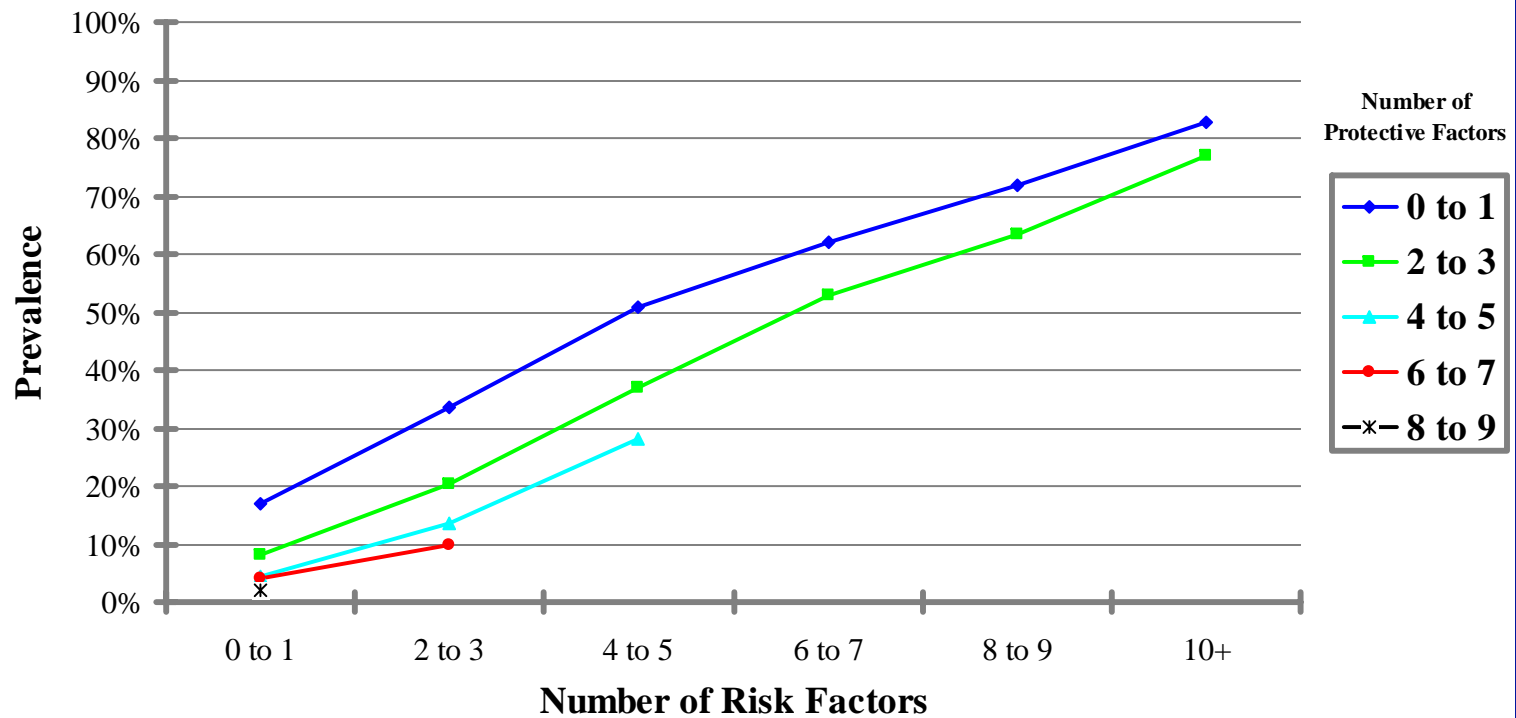
## In each social domain (family, school, peer group and neighborhood)

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



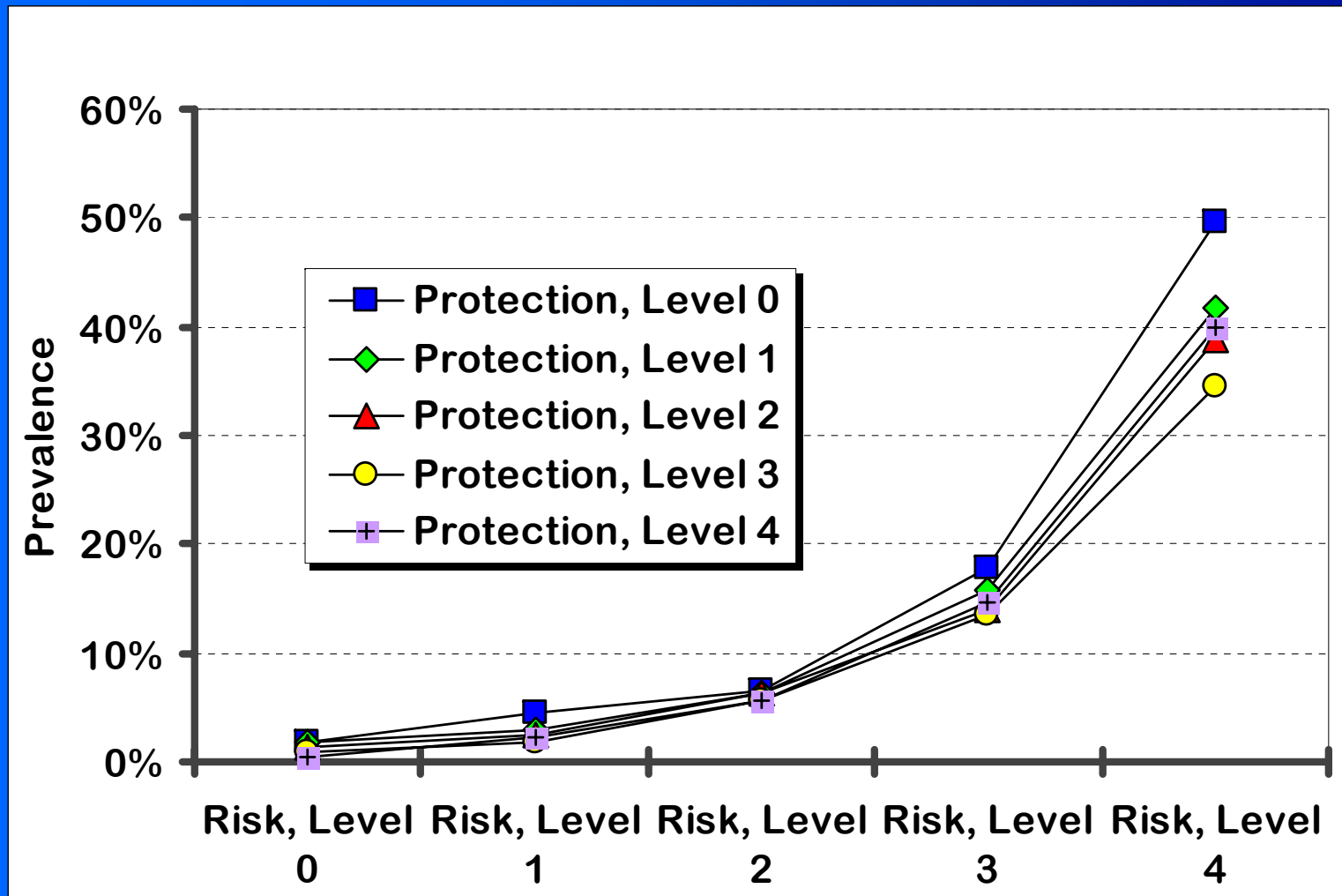
# Prevalence of 30 Day Alcohol Use by Number of Risk and Protective Factors

Six State Student Survey of 6th-12th Graders, Public School Students



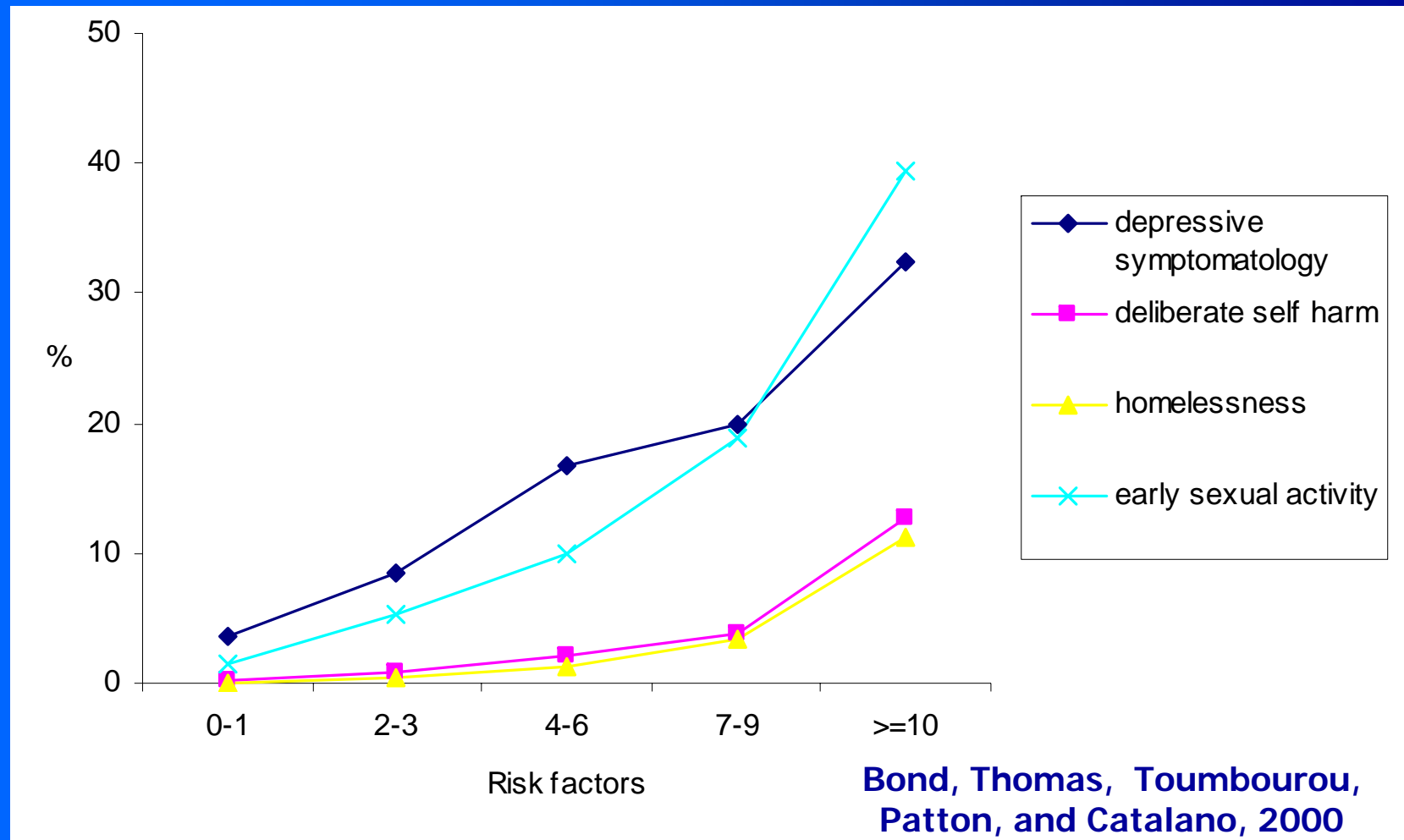


# Prevalence of "Attacked to Hurt" By Number of Risk and Protective Factors



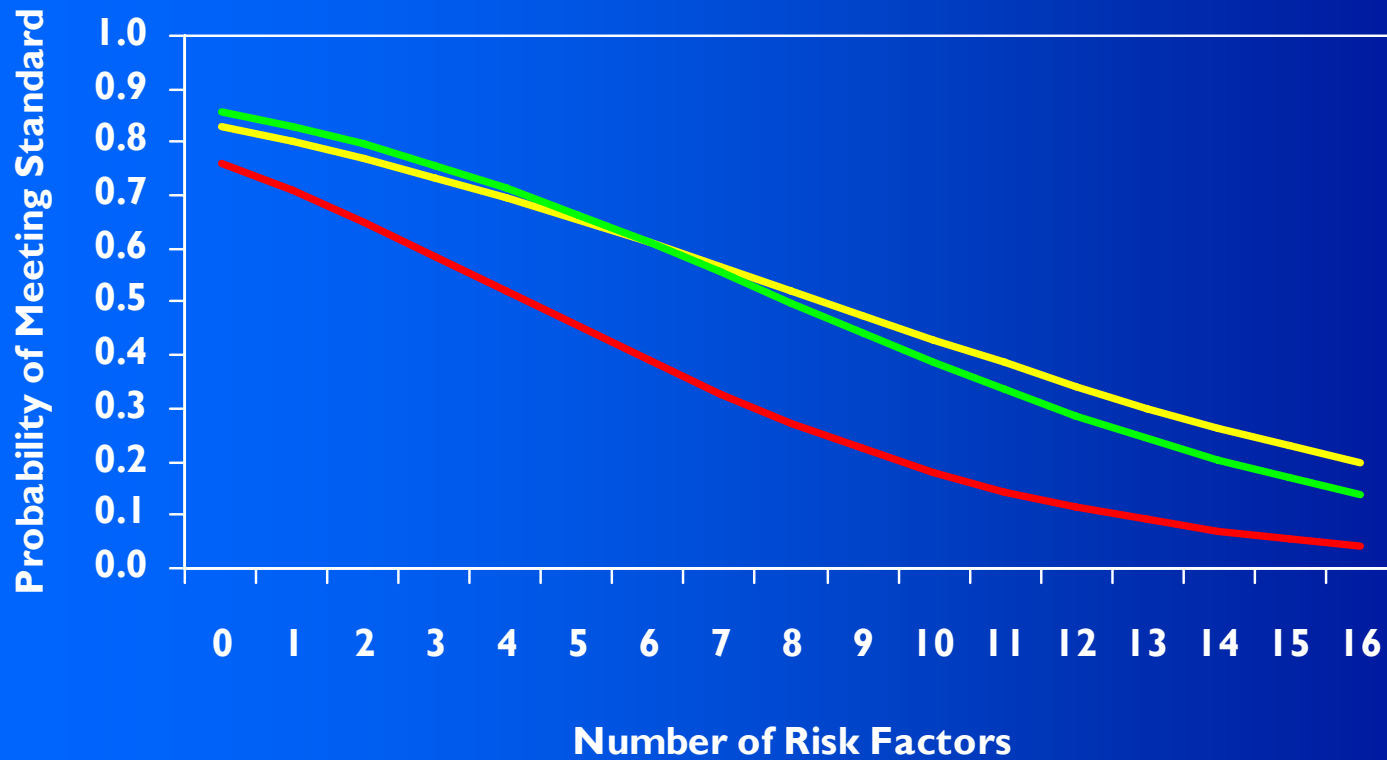


# Prevalence of Other Problems by Number of Risk Factors



S D  
R G

# Number of School Building Level Risk Factors and Probability of Meeting Achievement Test Standard (10<sup>th</sup> Grade Students)



— Math — Reading — Writing

Arthur et al., 2006

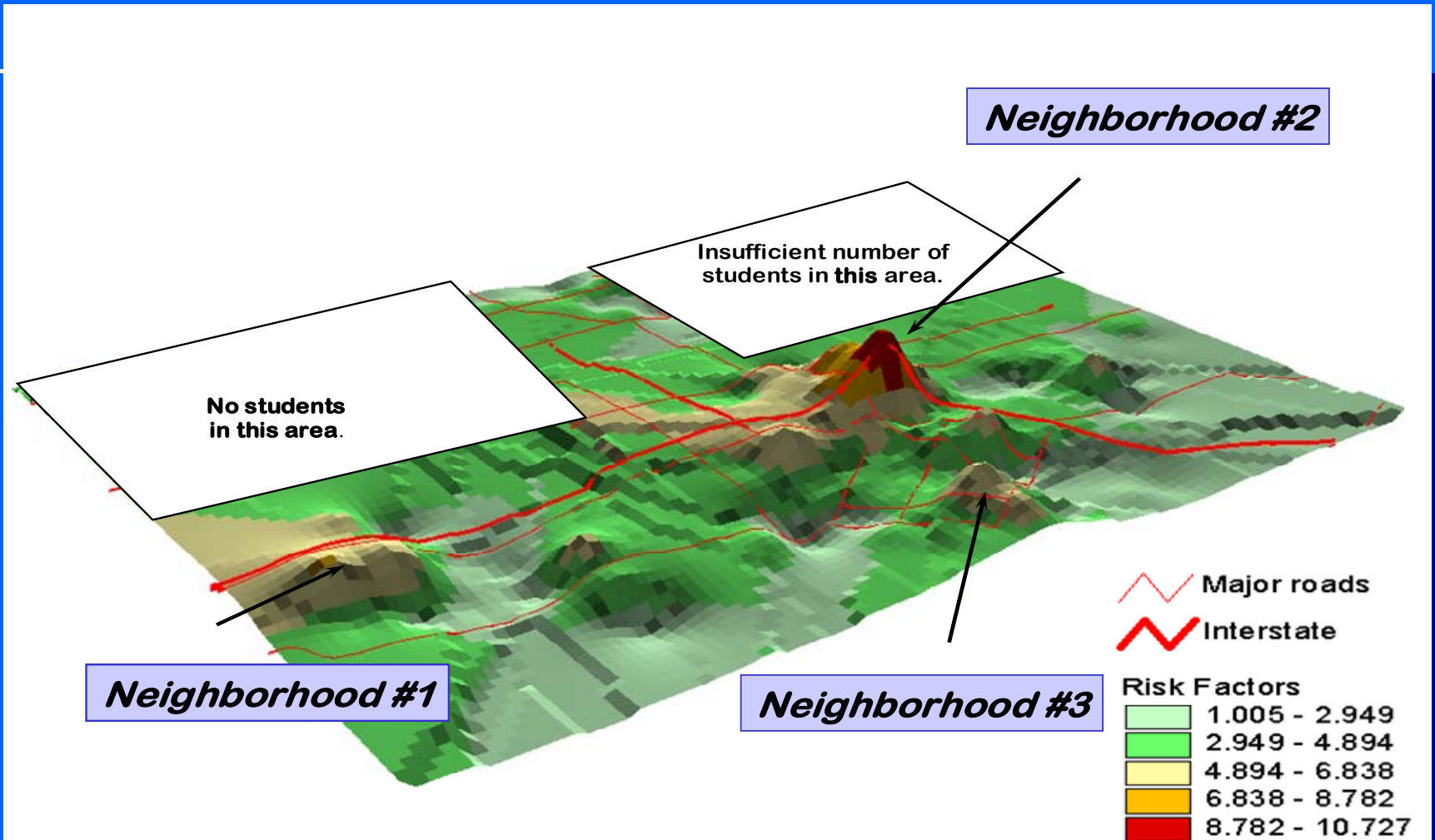


# Epidemiology

- Different neighborhoods have different profiles of risk, protection, and outcomes.



# Distribution of Risk in a City





# 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.



# Wide Ranging Approaches Have Been Found To Be Effective

1. Prenatal & Infancy Programs
2. Early Childhood Education
3. Parent Training
4. After-school Recreation
5. Mentoring with Contingent Reinforcement
6. Youth Employment with Education
7. Organizational Change in Schools
8. Classroom Organization, Management, and Instructional Strategies
9. School Behavior Management Strategies
10. Classroom Curricula for Social Competence Promotion
11. Community & School Policies
12. Community Mobilization

**(Hawkins & Catalano, 2004)**

# Selected Benefit Cost Findings

## Summary of Benefits and Costs (2003 Dollars)

Dollars Per Youth (PV)	Benefits	Costs	B - C
<b>Early Childhood Education</b>	<b>\$17,202</b>	<b>\$7,301</b>	<b>\$9,901</b>
<b>Nurse Family Partnership</b>	<b>\$26,298</b>	<b>\$9,118</b>	<b>\$17,180</b>
<b>Life Skills Training</b>	<b>\$746</b>	<b>\$29</b>	<b>\$717</b>
<b>Seattle Soc. Dev. Project</b>	<b>\$14,246</b>	<b>\$4,590</b>	<b>\$9,837</b>
<b>Guiding Good Choices</b>	<b>\$7,605</b>	<b>\$687</b>	<b>\$6,918</b>
<b>Multi-D Treat. Foster Care</b>	<b>\$26,748</b>	<b>\$2,459</b>	<b>\$24,290</b>
<b>Intensive Juv. Supervision</b>	<b>\$0</b>	<b>\$1,482</b>	<b>-\$1,482</b>
<b>Big Brothers/Sisters (all costs)</b>	<b>\$4,058</b>	<b>\$4,010</b>	<b>\$48</b>
<b>(taxpayer costs only)</b>	<b>\$4,058</b>	<b>\$1,283</b>	<b>\$2,775</b>

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## But...

- **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)



# Challenges for States and Communities in Using Prevention Science

- Matching tested, effective programs to local need
- Tested, effective programs/systems compete with “best,” usual, or new practice
- Tested, effective programs require training, technical assistance, and monitoring to be delivered with fidelity
- Achieving population wide outcomes

# Communities That Care Model for Achieving the Vision of Science Informing Practice



- **Providing the skills and tools for decision making**
  - Education and tools to empower communities to become advocates for tested, effective programs to meet their needs
  - Developed over the last 20 years through collaboration with community members



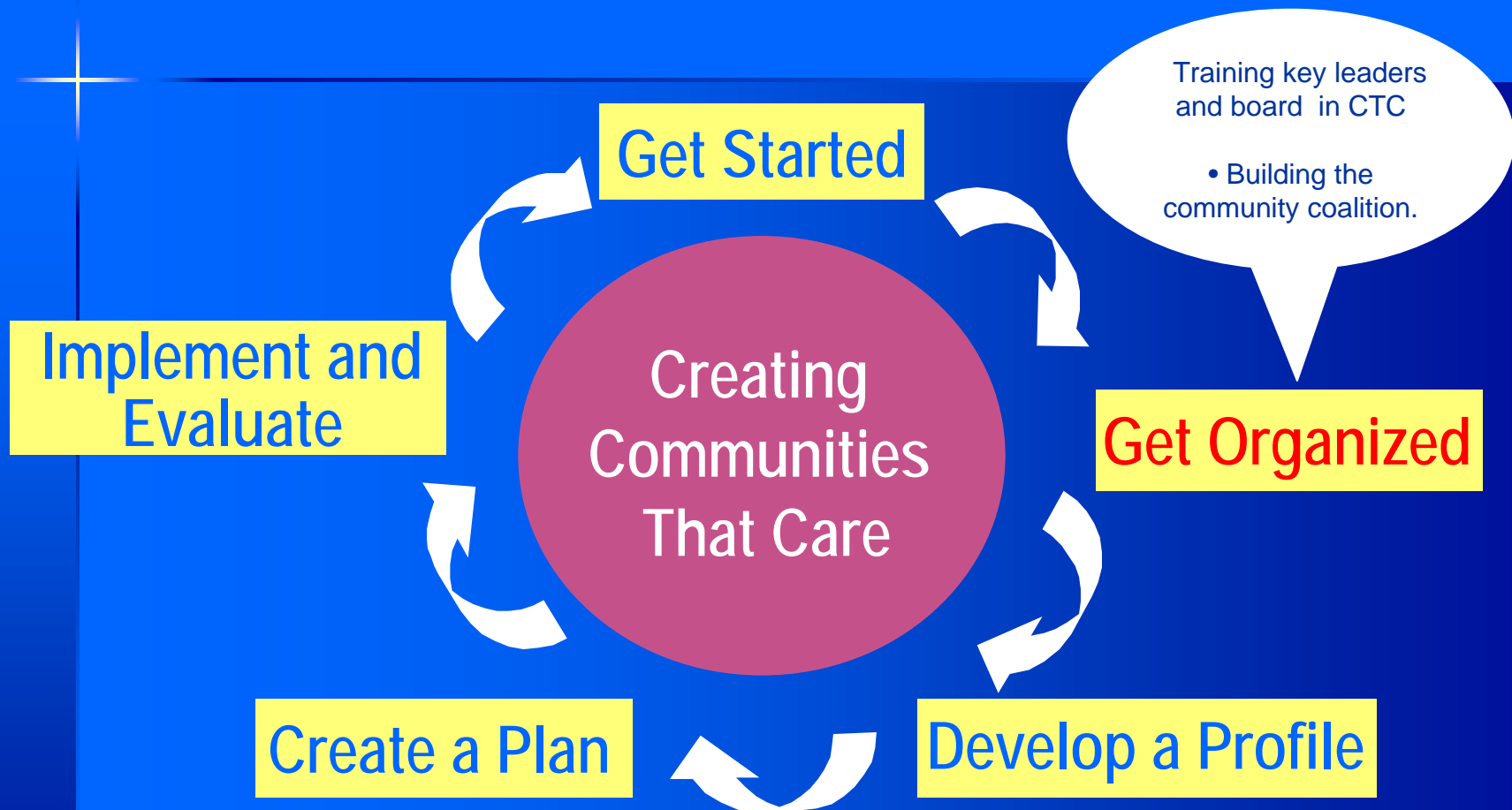


# The *Communities That Care* Operating System





# The *Communities That Care* Operating System





# The *Communities That Care* Operating System





# The CTC Youth Survey Tool Helps Match Need to Tested, Effective Programs

- Identifies levels of 21 risk and 9 protective factors and academic and behavioral outcomes
- Guides planners to select tested, effective actions
- Monitors the effects of chosen actions

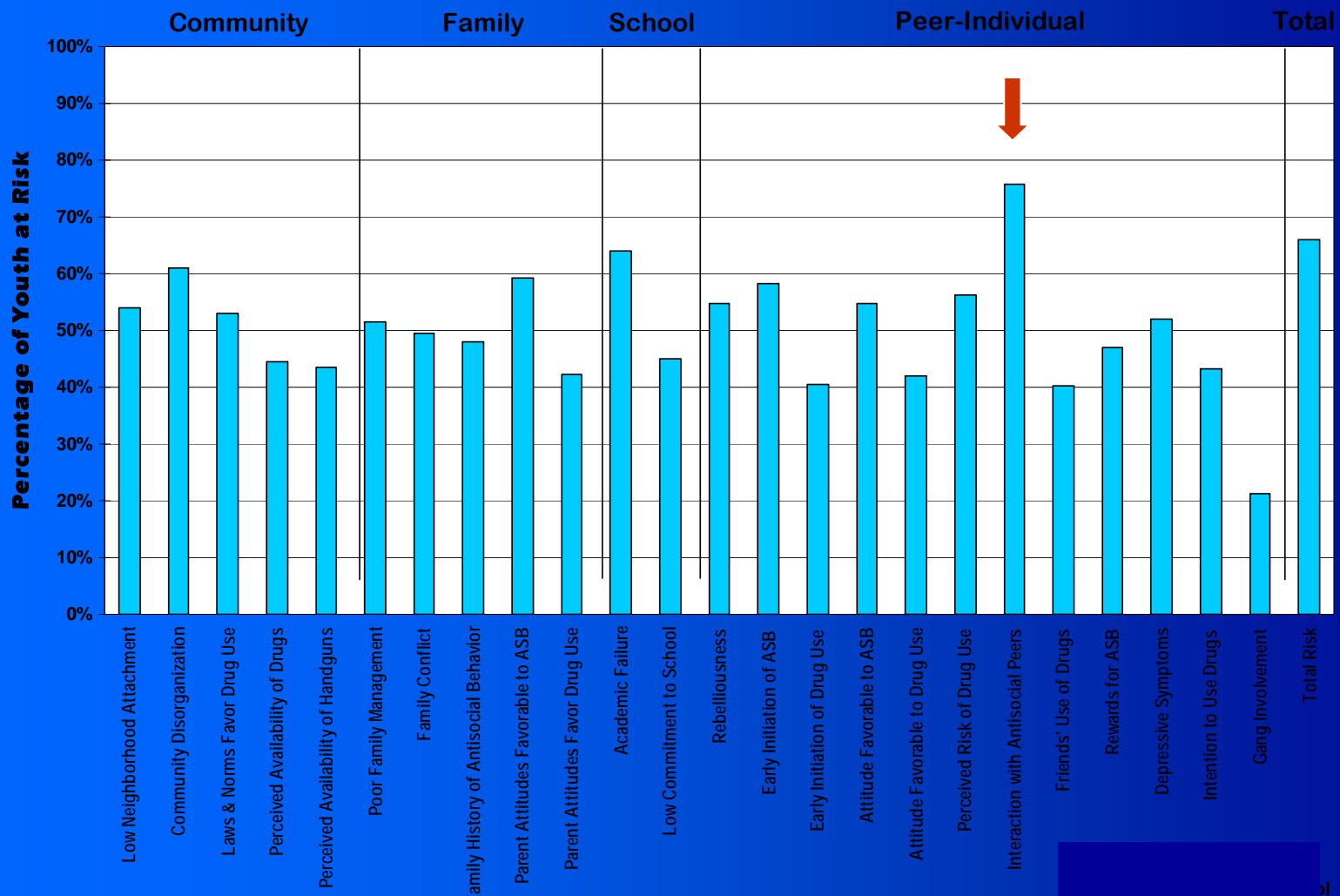


# The *Communities That Care* Operating System



## School A

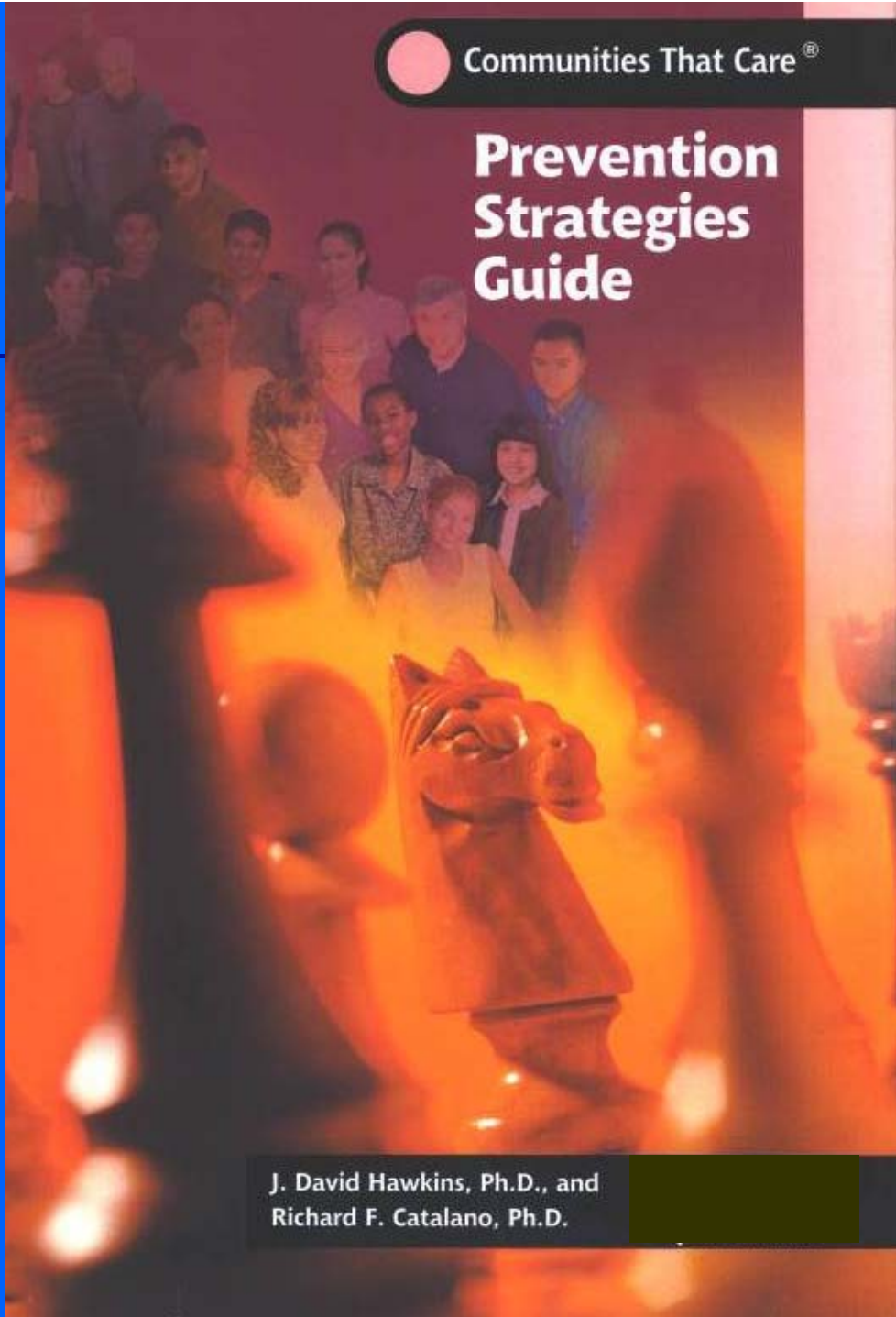
### 2005 Risk Profile





Communities That Care<sup>®</sup>

# Prevention Strategies Guide



J. David Hawkins, Ph.D., and  
Richard F. Catalano, Ph.D.



**Protective Factors**

	Risk Factor Addressed	Program Strategy	Protective Factors					Developmental Period
			Healthy Beliefs & Clear Standards	Bonding	Opport.	Skills	Recog.	
<b>Individual/Peer Domain</b>	<b>Rebelliousness</b>	Family Therapy	☐	☐	☐	☐	☐	6-14
		Classroom Curricula for Social Competence Promotion	☐	☐	☐	☐	☐	6-14
		School Behavior Management Strategies	☐		☐		☐	6-14
		Afterschool Recreation	☐	☐	☐	☐	☐	6-10
		Mentoring with Contingent Reinforcement	☐		☐		☐	11-18
		Youth Employment with Education	☐	☐	☐	☐	☐	15-18
	<b>Friends Who Engage in the Problem Behavior</b>	Parent Training	☐	☐	☐	☐	☐	6-14
		Classroom Curricula for Social Competence Promotion	☐	☐	☐	☐	☐	6-14
		Afterschool Recreation	☐	☐	☐	☐	☐	6-14
		Mentoring with Contingent Reinforcement	☐		☐		☐	11-18
	<b>Favorable Attitudes Toward the Problem Behavior</b>	Classroom Curricula for Social Competence Promotion	☐	☐	☐	☐	☐	6-14
		Community/School Policies						
	<b>Early Initiation of the Problem Behavior</b>	Parent Training	☐	☐	☐	☐	☐	6-14
		Classroom Organization Management and Instructional Strategy	☐	☐	☐	☐	☐	6-10
		Classroom Curricula for Social Competence	☐	☐	☐	☐	☐	6-14
		Community/School Policies	☐					all
<b>Constitutional Factors</b>	Prenatal/Infancy Programs	☐	☐	☐	☐	☐	prenatal-2	

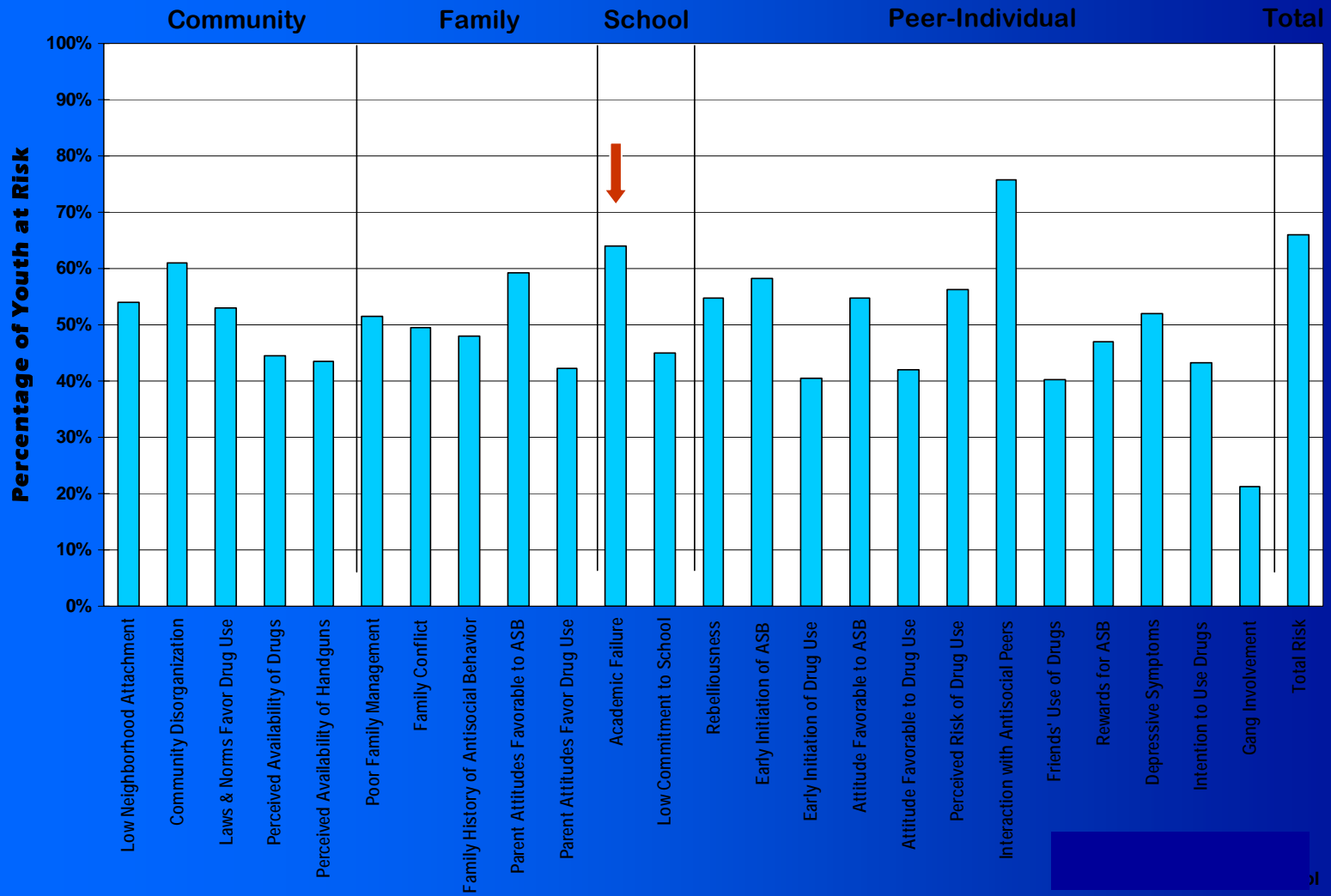


# Classroom Curricula for Social and Emotional Competence Promotion Middle and High School

- The Life Skills Training Program (Botvin et al., 1995)
- Project Alert Drug Prevention Curriculum (Ellickson et al., 1993; Ellickson and Bell, 1990)
- Alcohol Misuse Prevention (Maggs et al., 1998)
- ➔ ■ Towards No Drug Use (Sussman et al. 2003; 2003)

























## School A 2005 Risk Profile





**Protective Factors**

Risk Factor Addressed		Program Strategy	Healthy Beliefs & Clear Standards	Bonding	Opport.	Skills	Recog.	Developmental Period
<b>School Domain</b>	<b>Academic Failure (continued)</b> 	Classroom Organization, Management and Instructional Strategies						6-18
		Classroom Curricula for Social Competence Promotion						6-14
		School Behavior Management Strategies						6-14
		Youth Employment with Education						15-21
	<b>Lack of Commitment to School</b>	Early Childhood Education						3-5
		Organizational Changes in Schools						6-18
		Classroom Organization, Management and Instructional Strategies						6-18
		School Behavior Management Strategies						6-14
		Mentoring with Contingent Reinforcement						11-18
		Youth Employment with Education						15-21



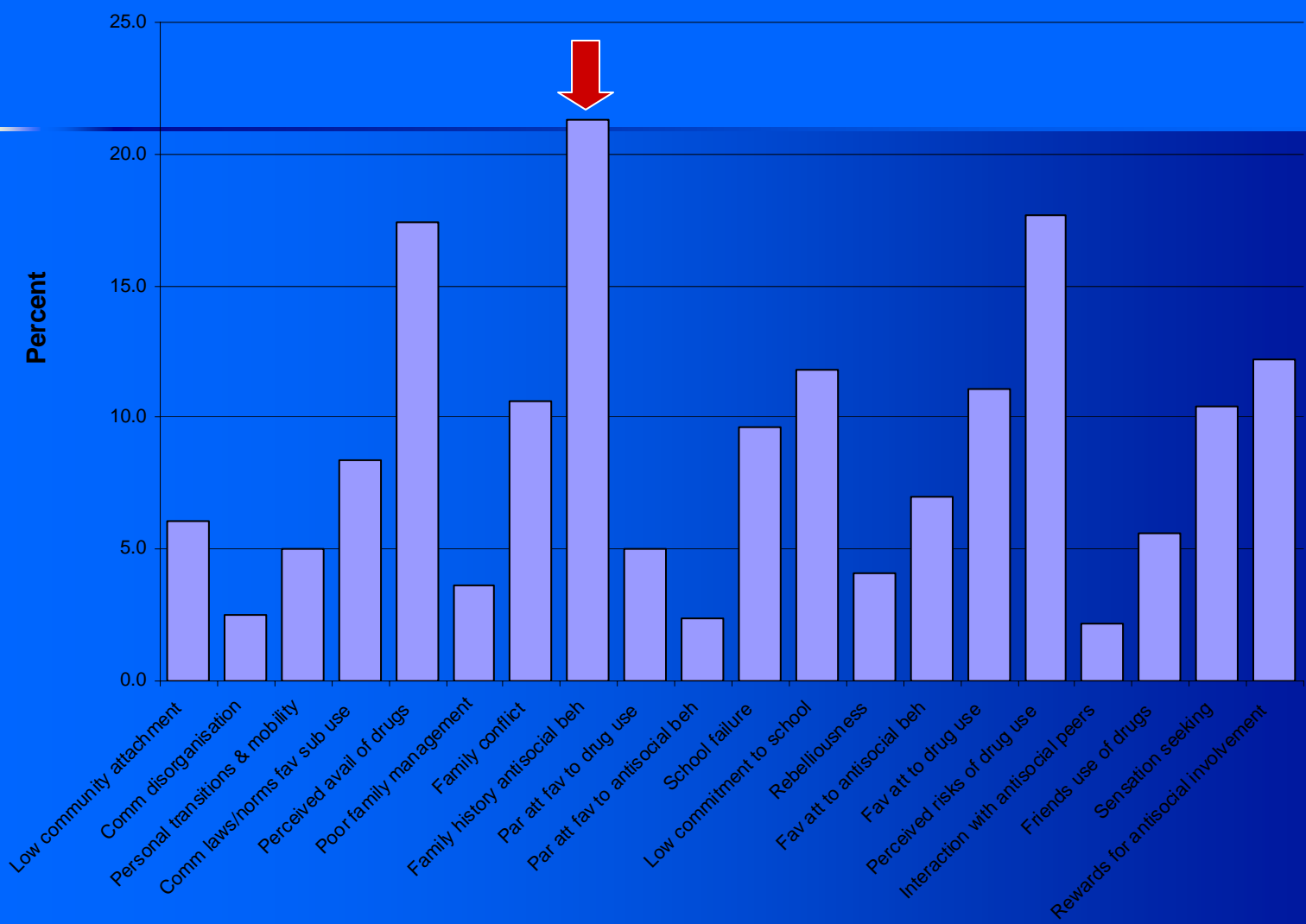
# Classroom Organization, Management, and Instructional Tested, Effective Strategies



- The Good Behavior Game (Kellam and Rebok, 1992)
- Seattle Social Development Project (Hawkins et al., 1999; 2005; Lonczak et al., 2002)
- Behavioral Intervention for Middle School Students (Bry, 1982)
- Cooperative Learning Programs (Slavin, 1983)
- Tutoring Programs (Coie et al., 1984; Greenwood et al., 1993)
- Success for All (Slavin et al., 1990)



# School B





**Protective Factors**

		<b>Risk Factor Addressed</b>	<b>Program Strategy</b>	<b>Healthy Beliefs &amp; Clear Standards</b>	<b>Bonding</b>	<b>Opport.</b>	<b>Skills</b>	<b>Recog.</b>	<b>Developmental Period</b>
<b>Family Domain</b>		<b>Family History of the Problem Behavior</b> →	Prenatal/Infancy Programs	☐	☐	☐	☐	☐	prenatal-2
		<b>Family Management Problems</b>	Prenatal/Infancy Programs	☐	☐	☐	☐	☐	prenatal-2
			Early Childhood Education	☐	☐	☐	☐	☐	3-5
			Parent Training	☐	☐	☐	☐	☐	prenatal-14
			Family Therapy	☐	☐	☐	☐	☐	6-14
		<b>Family Conflict</b>	Marital Therapy	☐	☐	☐	☐	☐	prenatal
			Prenatal/Infancy Programs	☐	☐	☐	☐	☐	prenatal-2
			Parent Training	☐	☐	☐	☐	☐	prenatal-14
			Family Therapy	☐	☐	☐	☐	☐	6-14
		<b>Favorable Parental Attitudes and Involvement in the Problem Behavior</b>	Prenatal/Infancy Programs	☐	☐	☐	☐	☐	prenatal-2
			Parent Training	☐	☐	☐	☐	☐	prenatal-14
			Community/School Policies	☐	☐	☐	☐	☐	all



# Prenatal and Early Infancy Programs

- Nurse Family Partnership (Olds et al., 1998; Olds et al., 1986; Olds and Kitzman, 1993)
- The Family Development Research Program (Lally et al., 1988)
- Early Detection and Treatment of Postnatal Depression (Murray, et al. 1999)
- The Infant Health and Development Program (Liaw et al., 1995; Ramey et al., 1990; Ramey, 1992)
- The Carolina Abecedarian Project (Campbell and Ramey, 1994; Horacek et al., 1987)
- Accelerating Language Development through Picture Book Reading (Arnold et al., 1994)



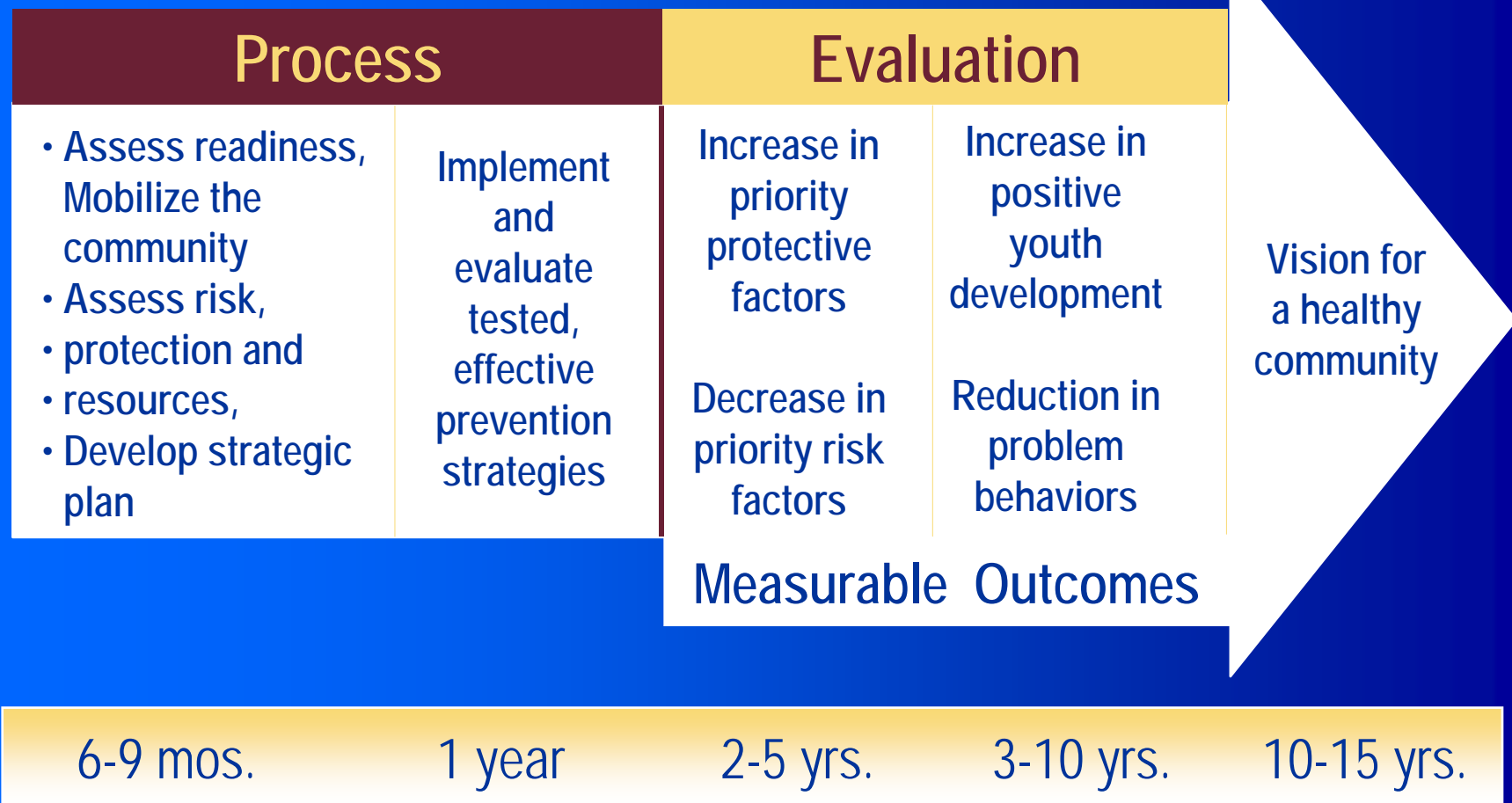
# The *Communities That Care* Operating System Tools for Decision Making

- Form task forces.
- Identify and train implementers.
- Sustain collaborative relationships.
- Evaluate processes and outcomes for programs annually.
- Evaluate community outcomes every two years.
- Adjust programming.



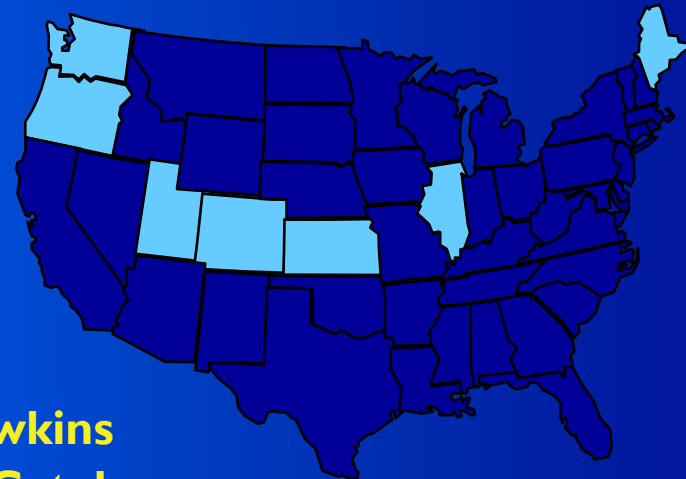


# Process and Timeline





# Evidence of Effectiveness of CTC from Community Youth Development Study A 24 Community Randomized Trial



**PI: J. David Hawkins**

**Co-PI: Richard F. Catalano**

**Funded in 2003 by:**

**National Institute on Drug Abuse**

**Center for Substance Abuse Prevention**

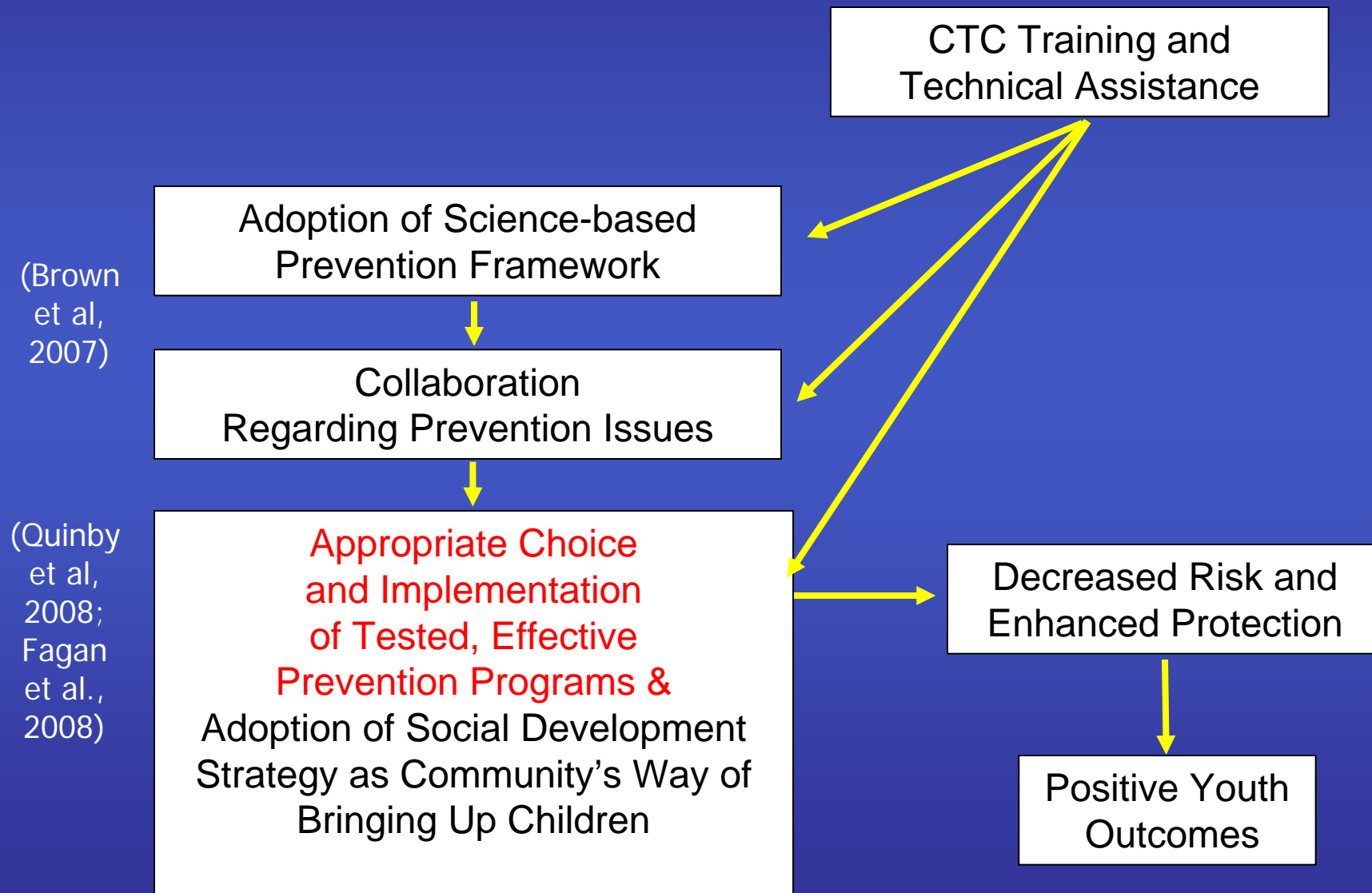
**National Cancer Institute**

**National Institute on Child Health and Development**

**National Institute on Mental Health**



# Communities That Care Theory of Change





# Program Selection

**CTC Community Board members selected prevention programs from a menu\* of programs that:**

- ~ Showed significant effects on risk/protective factors, and drug use, delinquency, or violence
- ~ In at least one high-quality research study
- ~ Targeted children or families in grades 5-9
- ~ Provided materials and training

\* Communities That Care Prevention Strategies Guide



# Tested, Effective Programs Selected in 2004-2007

<u>PROGRAM</u>	<u>2004-05</u>	<u>2005-06</u>	<u>2006-07</u>
All Stars Core	1	1	1
Life Skills Training	2	4*	5*
Lion's-Quest Skills for Adolescence	2	3	3
Project Alert	-	1	1
Olweus Bullying Prevention Program	-	2*	2*
Program Development Evaluation Training	1	1	-
Participate and Learn Skills (PALS)	1	1	1
Big Brothers/Big Sisters	2	2	2
Stay SMART	3	3	1
Tutoring	4	6	6
Valued Youth Tutoring Program	1	1	1
Strengthening Families 10-14	2	3	3
Guiding Good Choices	6	7*	8*
Parents Who Care	1	1	-
Family Matters	1	1	2
Parenting Wisely	-	1	1
<b>TOTAL</b>	<b>27</b>	<b>38</b>	<b>37</b>

\*Program funded through local resources in one or two communities

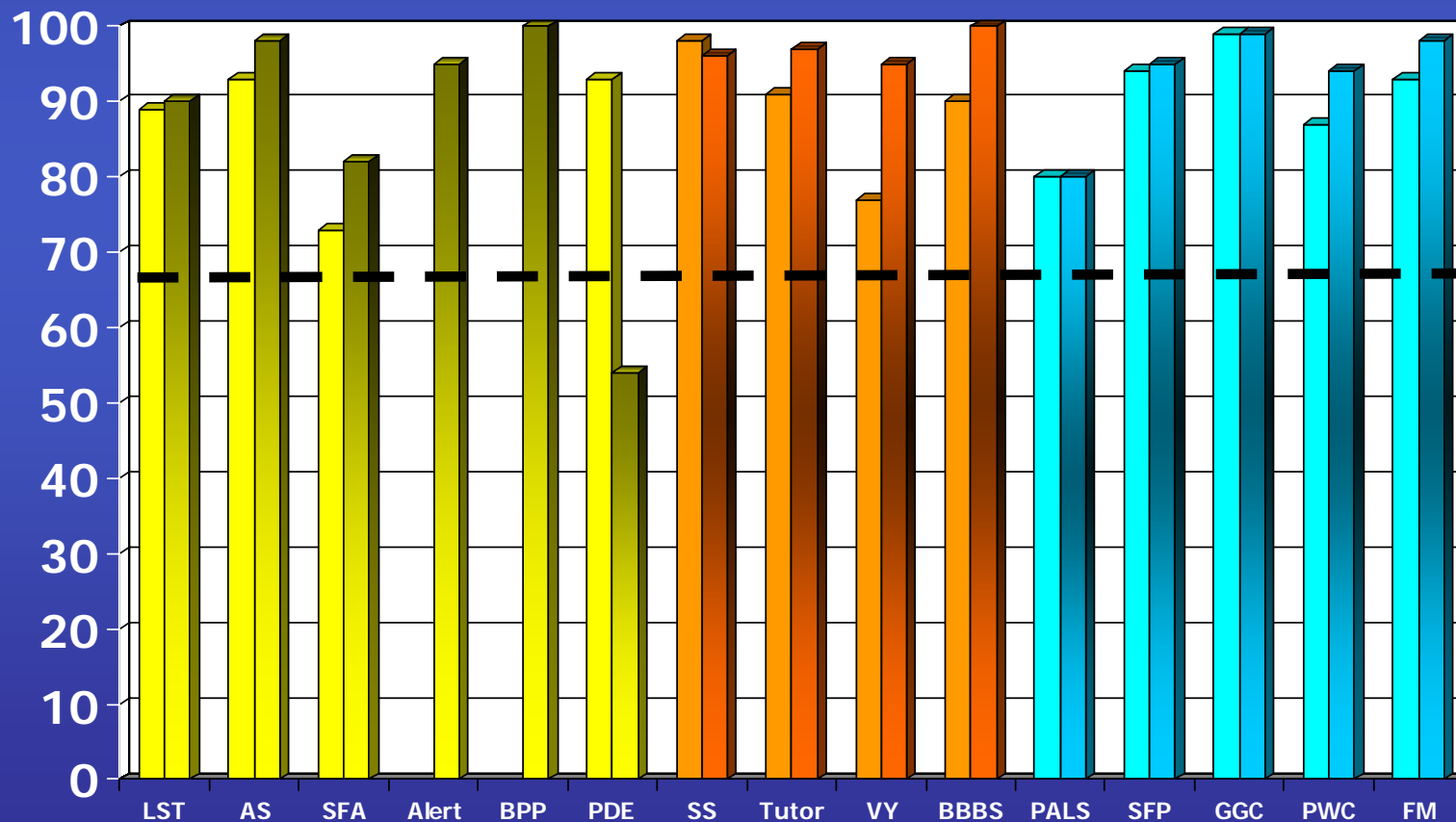


# Adherence Rates

## 2004-05 and 2005-06 school years

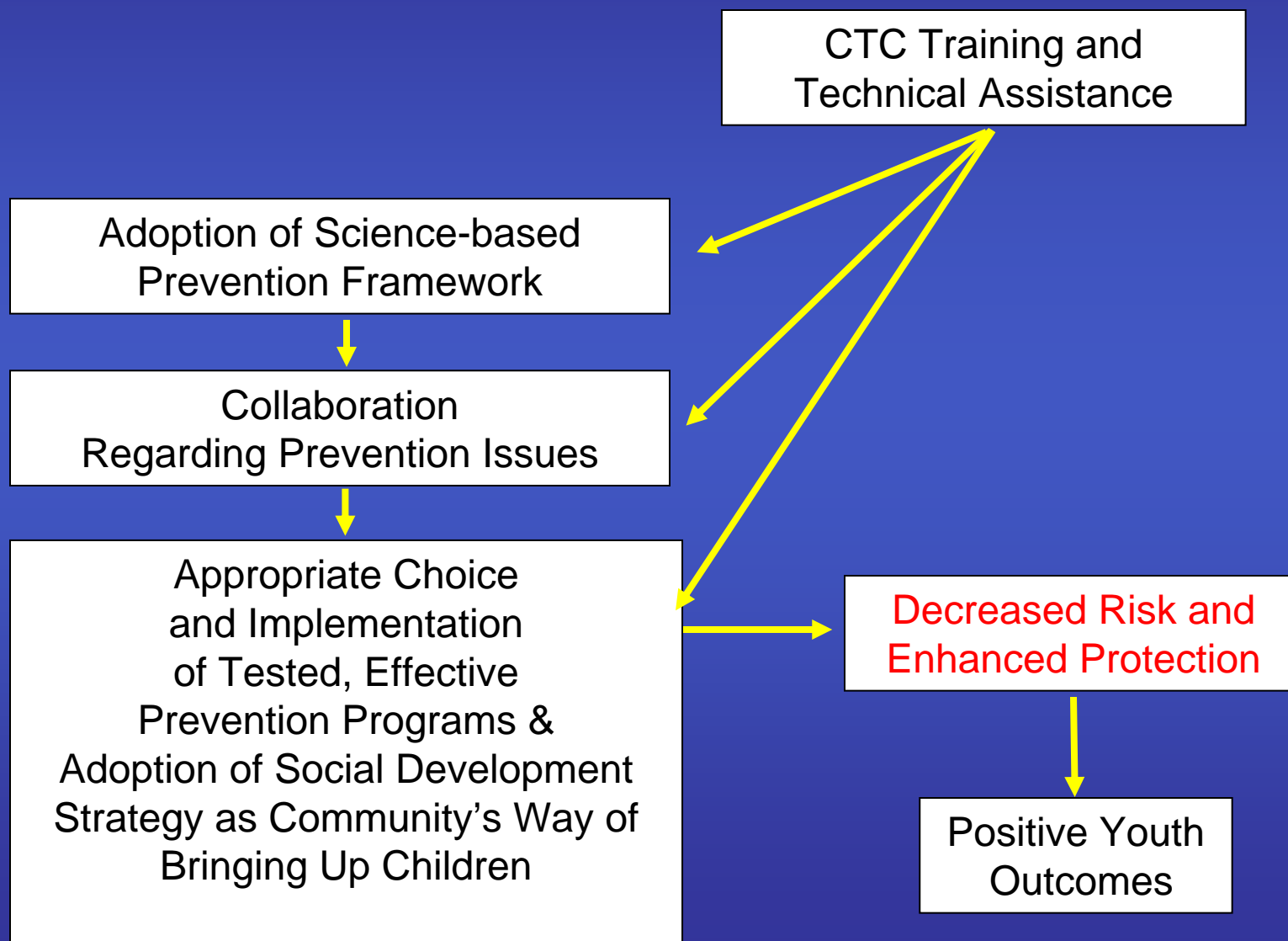


Percentage of material taught or core components achieved





# Communities That Care Theory of Change

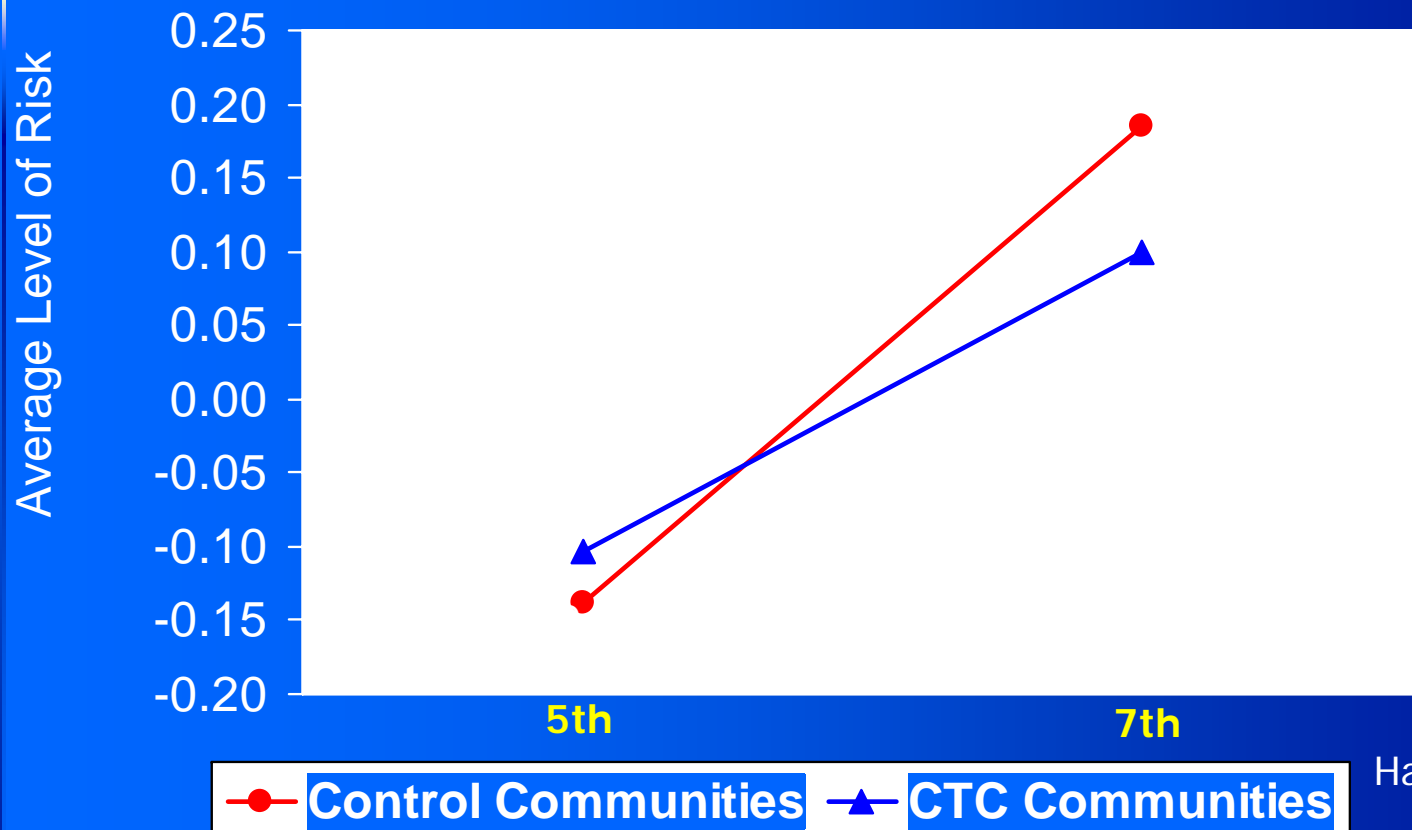




# CTC Tools Assisted Community Coalitions to Prioritize Risk Factors

- Family management problems
- Parental attitudes favorable to problem behavior
- Family conflict
- Low commitment to school
- Academic failure
- Favorable attitudes toward problem behavior
- Friends who engage in problem behavior
- Rebelliousness
- Laws and norms favorable toward drug and alcohol use

# CTC Changed Prioritized Risk Factors Community-wide

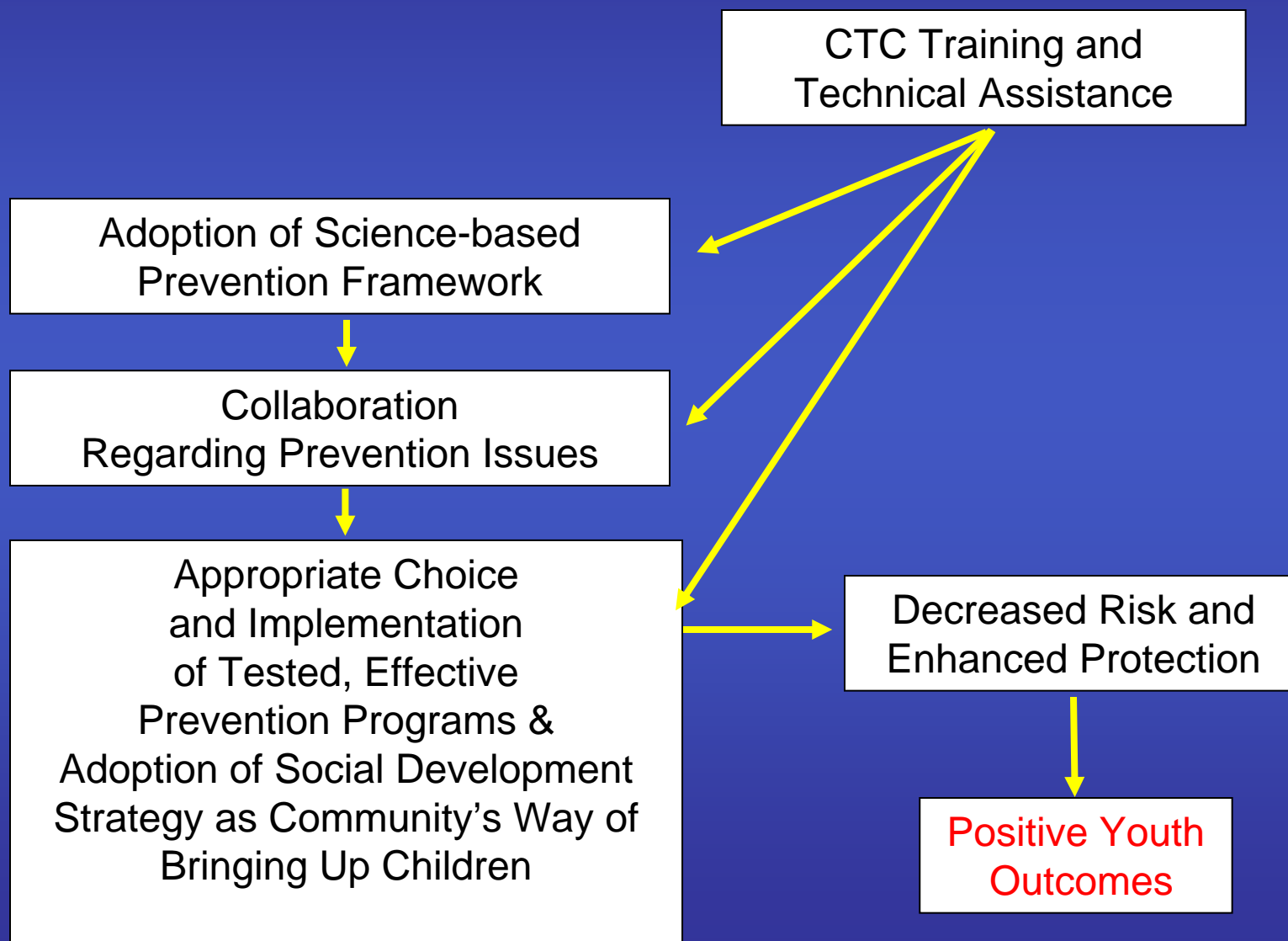


Hawkins et al., 2008

*Note.* Values are model-fitted levels of standardized average risk for students in the Youth Developmental Study panel sample. Nonsignificant difference in means at Grade 5,  $t(11) = 0.61$ ,  $p > .05$ . Significant difference in means at Grade 7,  $t(11) = -3.13$ ,  $p = .01$ .



# Communities That Care Theory of Change





# Effects of CTC on Onset of Drug Use and Delinquency

- Onset of substance use and delinquency between grade 6 and 8:
  - Alcohol use\*
  - Cigarette smoking\*
  - Smokeless tobacco use\*
  - Marijuana use
  - Other illicit drug use
  - Delinquent behavior\*
- Among 5<sup>th</sup> grade students who had not yet initiated.

**\*=Significant at  $p < .05$**



# Effects of CTC on Current Drug Use and Delinquency in the Panel



- Alcohol use\*
- Binge drinking\*
- Tobacco Use\*
- Delinquency\*

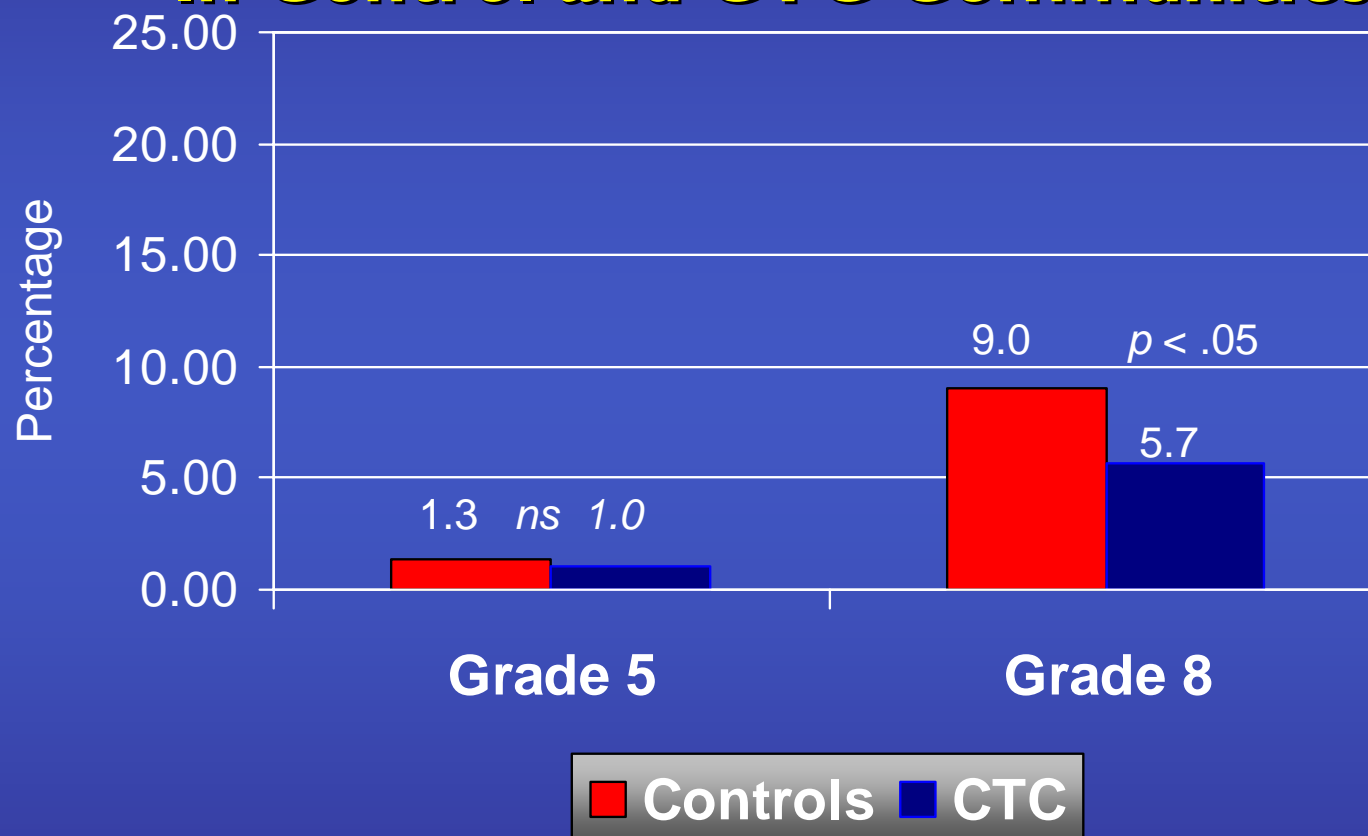
\*=significant at  $p < .05$



# Prevalence of Binge Drinking in Past Two Weeks In Panel



## In Control and CTC Communities

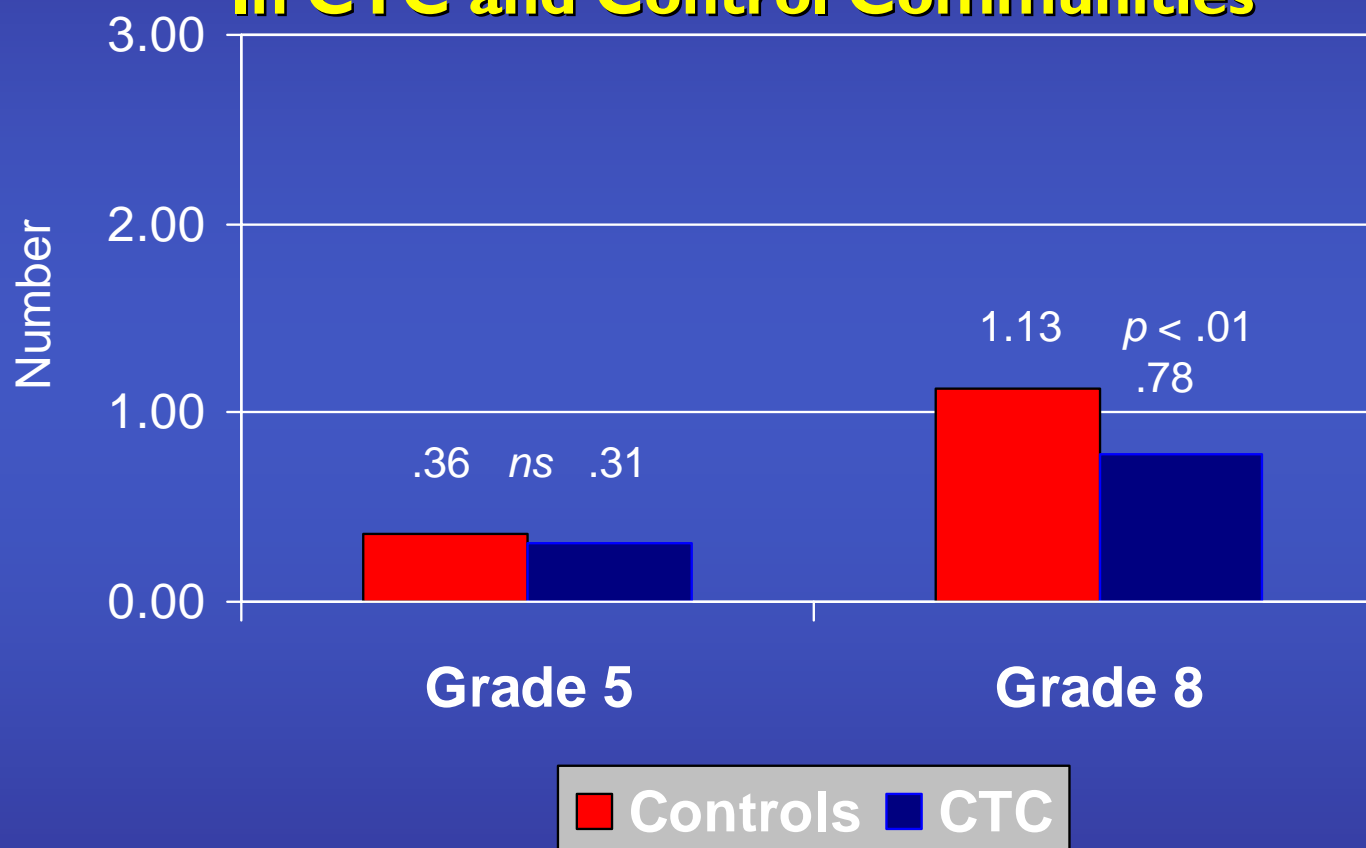


Note. Observed rates averaged across 40 imputations. ns = nonsignificant.  $N = 4407$ .



## Mean Number of Different Delinquent Behaviors

### Committed by Panel in Past Year In CTC and Control Communities



Note. Observed means averaged across 40 imputations.  
ns = nonsignificant.  $N = 4407$



**Communities That Care** is owned by the federal government and is available at:

<http://preventionplatform.samhsa.gov/>

**NIDA Town Hall Meeting on CTC**

<http://www.visualwebcaster.com/event.asp?id=61945>

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Center for Substance Abuse Prevention

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V



# Summary and Implications

There is evidence that we can advance public health and achieve population wide outcomes in our communities by using CTC to:

- Promote the collection of data on levels of risk and protection to focus community action on elevated risks.
- Engage in community efforts to strengthen protection and reduce risks.
- Sponsor, endorse and use tested and effective prevention programs.
- Deliver effective programs with fidelity



Key Leaders  
Baltimore, Maryland  
October 8, 2009

## Using the Research Base for Prevention Science to Improve Community Outcomes: Communities that Care

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