



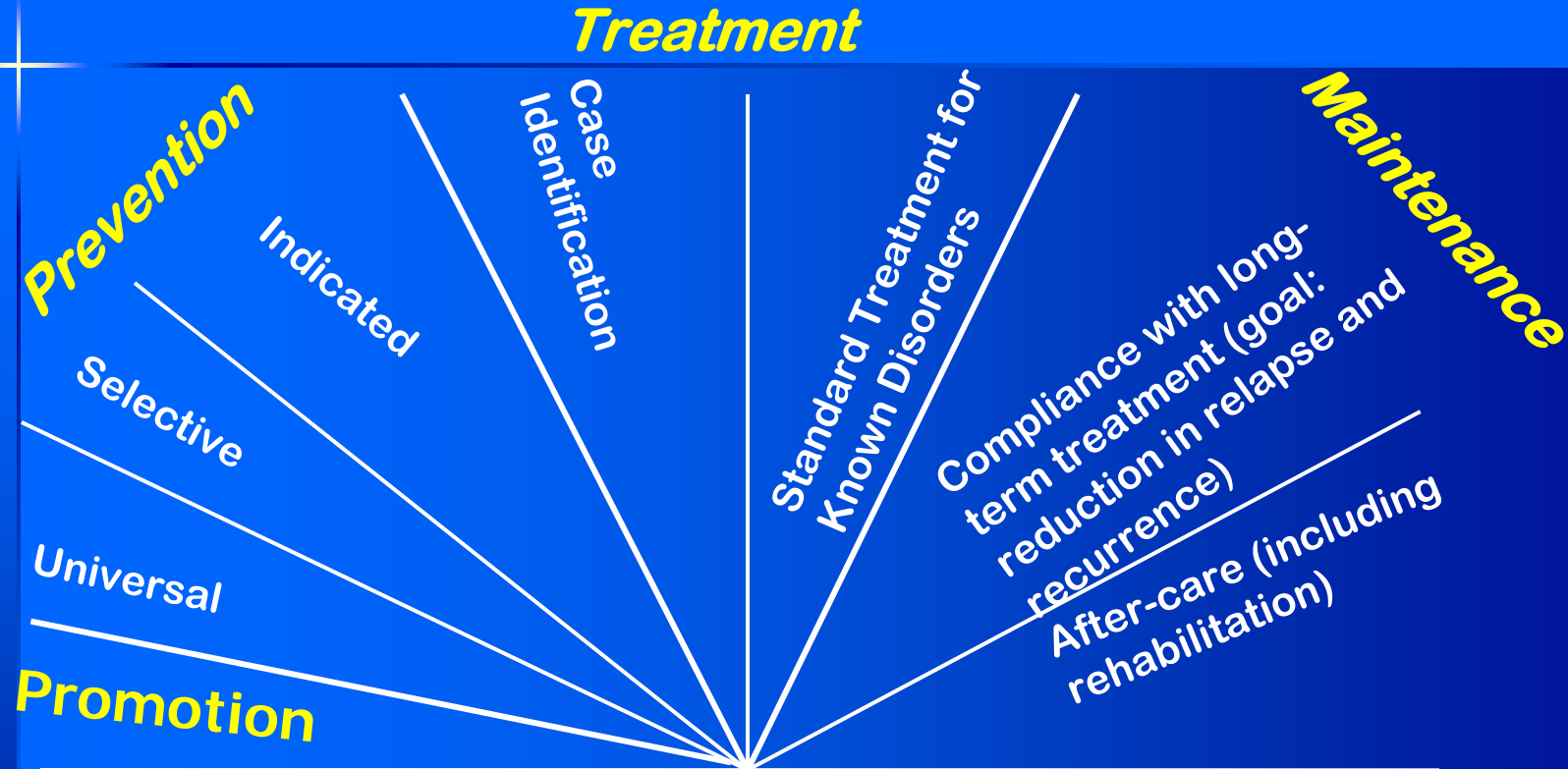
Third Annual Charles Shireman Memorial Lecture
March 19, 2009

Communities that Care:
Using the Research Base for Prevention
Science to Promote Community Well Being

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www.sdrp.org

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Intervention Spectrum



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

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Prevention Makes Sense!

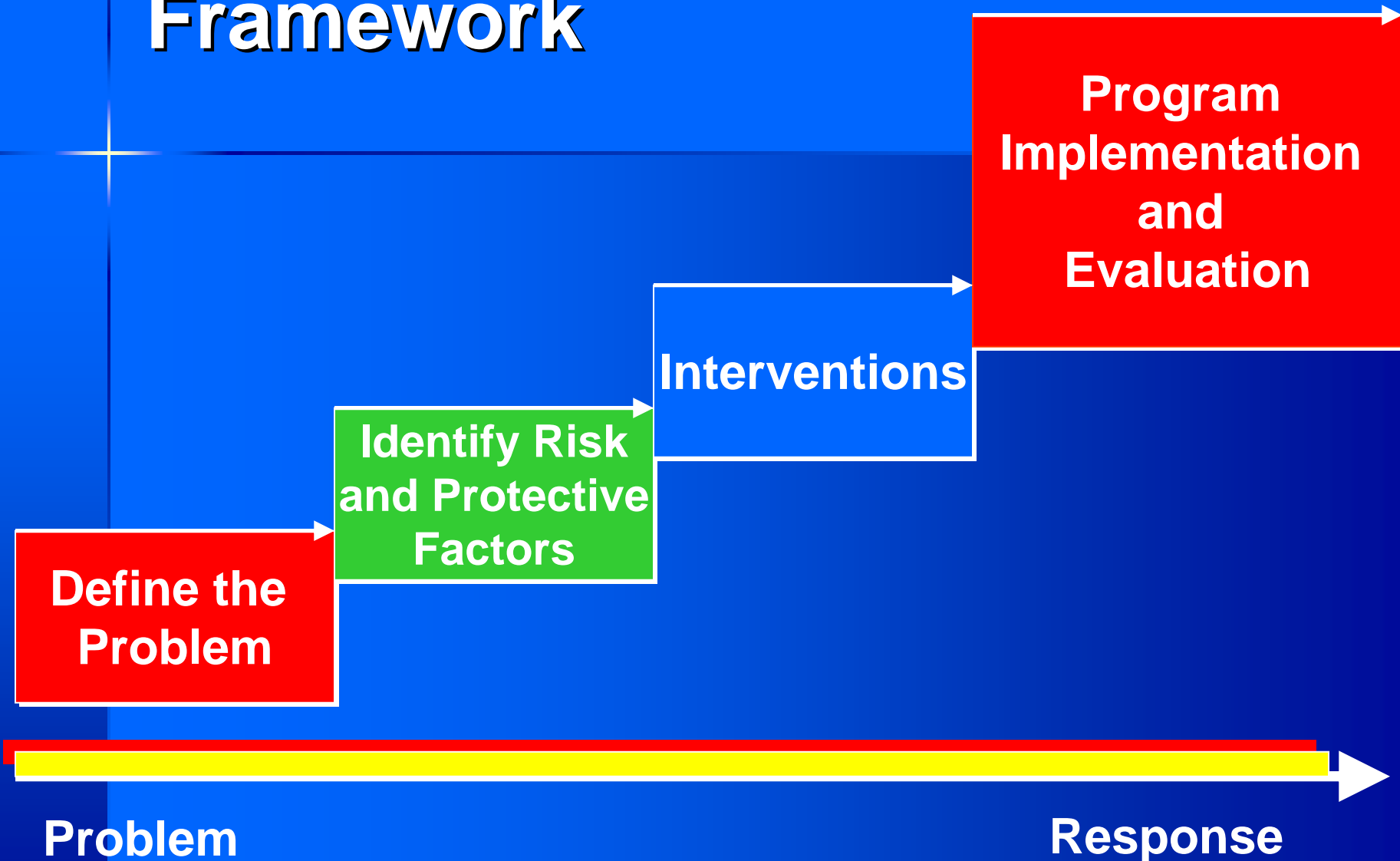


YOU NEVER KNOW HOW LONG YOU'VE GOT! YOU COULD STEP INTO THE ROAD TOMORROW AND -WHAM- YOU GET HIT BY A CEMENT TRUCK! THEN YOU'D BE SORRY YOU PUT OFF YOUR PLEASURES!



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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.

Prevention Services Research

- Apply lessons learned about etiology and effective interventions in real world settings.



Risk Factors for Adolescent Problem Behaviors

Risk Factors	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
Community						
Availability of Drugs	✓				✓	
Availability of Firearms		✓			✓	
Community Laws and Norms Favorable Toward Drug Use, Firearms, and Crime	✓	✓			✓	
Media Portrayals of Violence					✓	
Transitions and Mobility	✓	✓		✓		✓
Low Neighborhood Attachment and Community Disorganization	✓	✓			✓	
Extreme Economic Deprivation	✓	✓	✓	✓	✓	



Risk Factors for Adolescent Problem Behaviors

Risk Factors

	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
Family						
Family History of the Problem Behavior	✓	✓	✓	✓	✓	✓
Family Management Problems	✓	✓	✓	✓	✓	✓
Family Conflict	✓	✓	✓	✓	✓	✓
Favorable Parental Attitudes and Involvement in the Problem Behavior	✓	✓			✓	



Risk Factors for Adolescent Problem Behaviors

Risk Factors	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
School						
Academic Failure Beginning in Late Elementary School	✓	✓	✓	✓	✓	✓
Lack of Commitment to School	✓	✓	✓	✓	✓	



Risk Factors for Adolescent Problem Behaviors

Risk Factors

	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
Individual/Peer						
Early and Persistent Antisocial Behavior	✓	✓	✓	✓	✓	✓
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

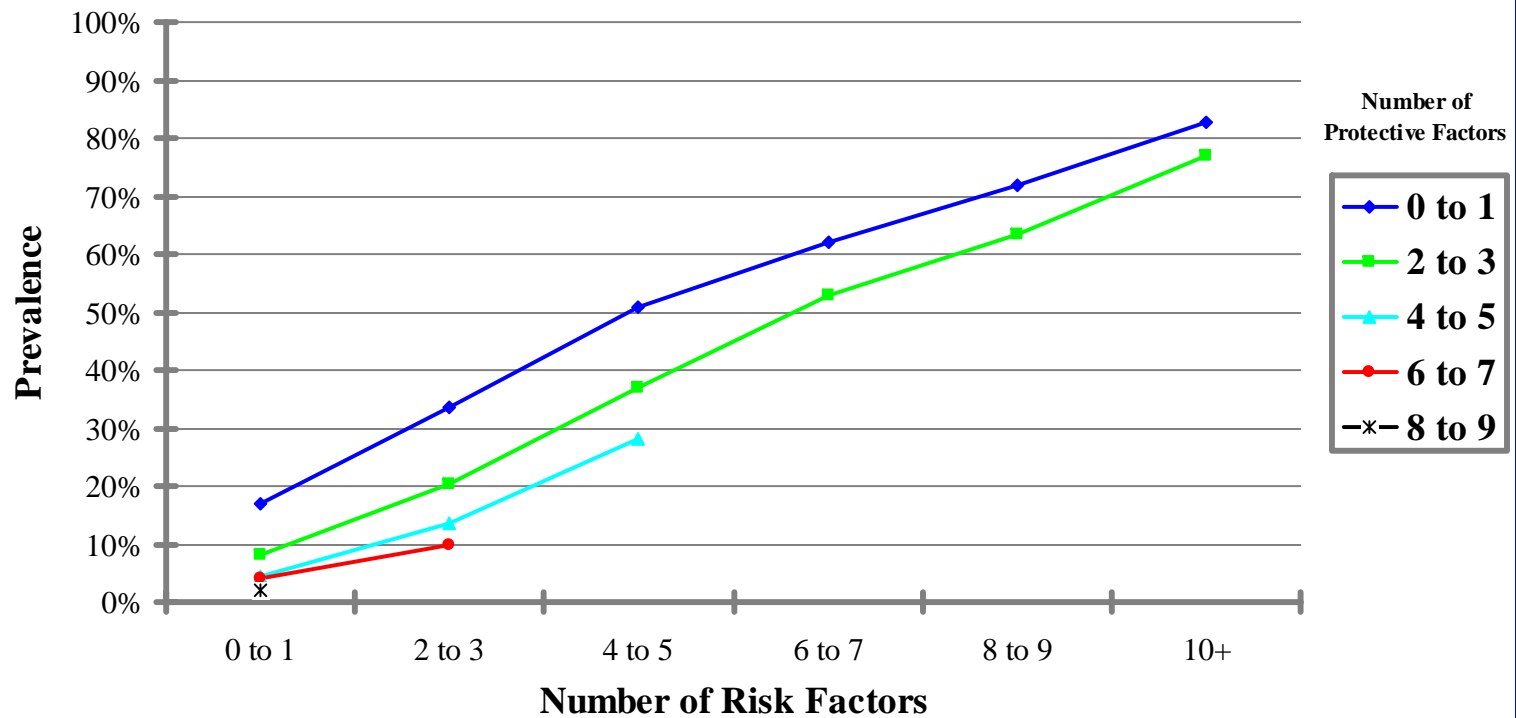
- High Intelligence
- Resilient Temperament
- Competencies and Skills

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

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

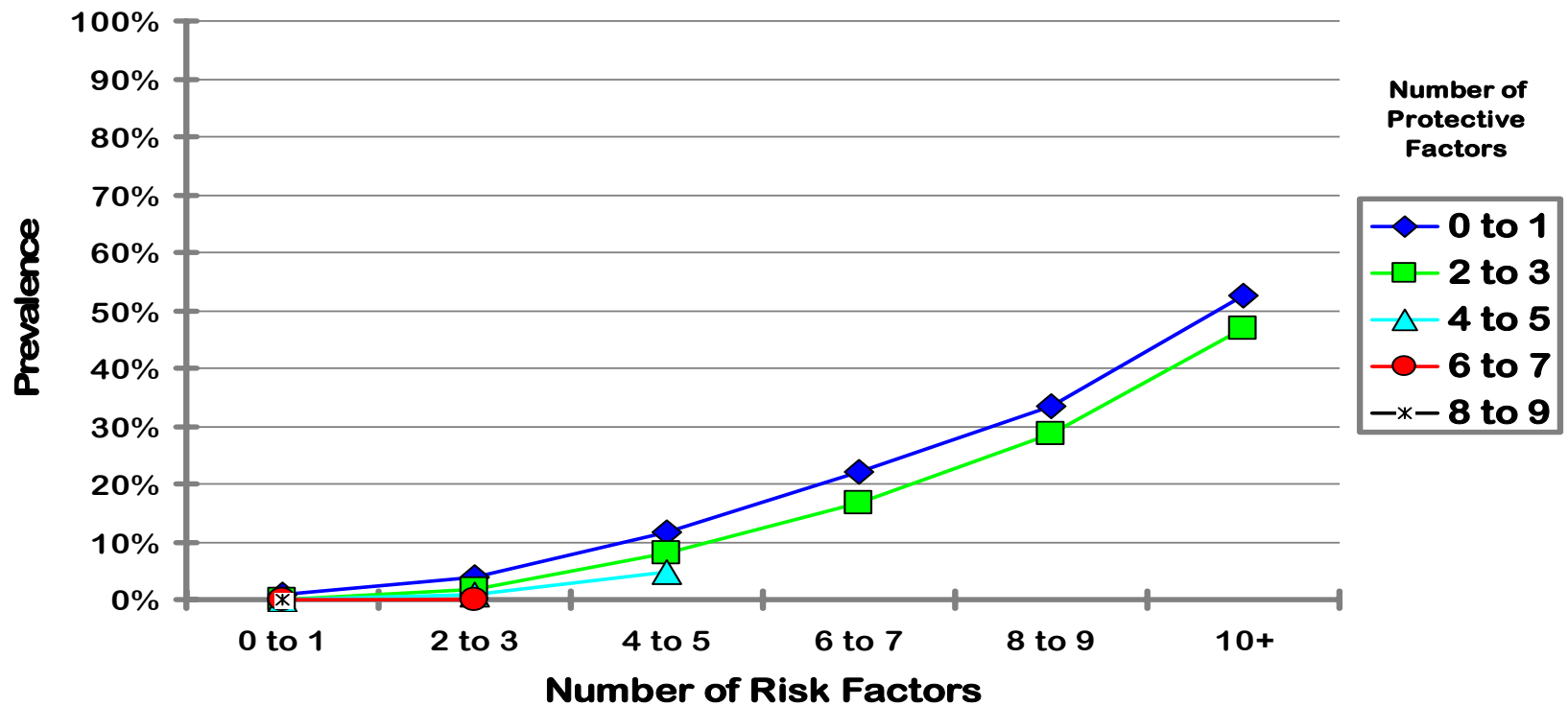
Prevalence of 30 Day Alcohol Use by Number of Risk and Protective Factors

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

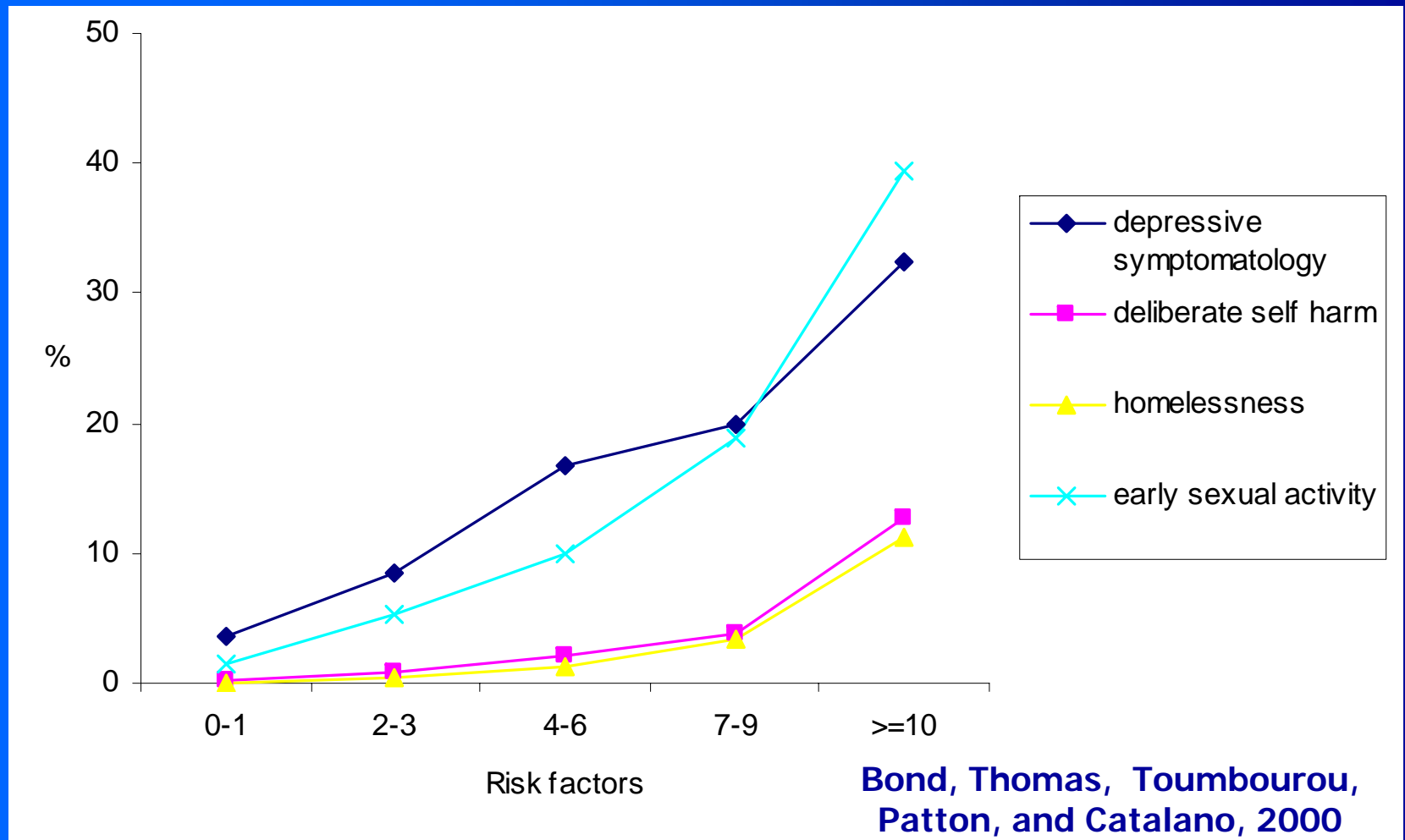


Prevalence of 30 Day Marijuana Use By Number of Risk and Protective Factors

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

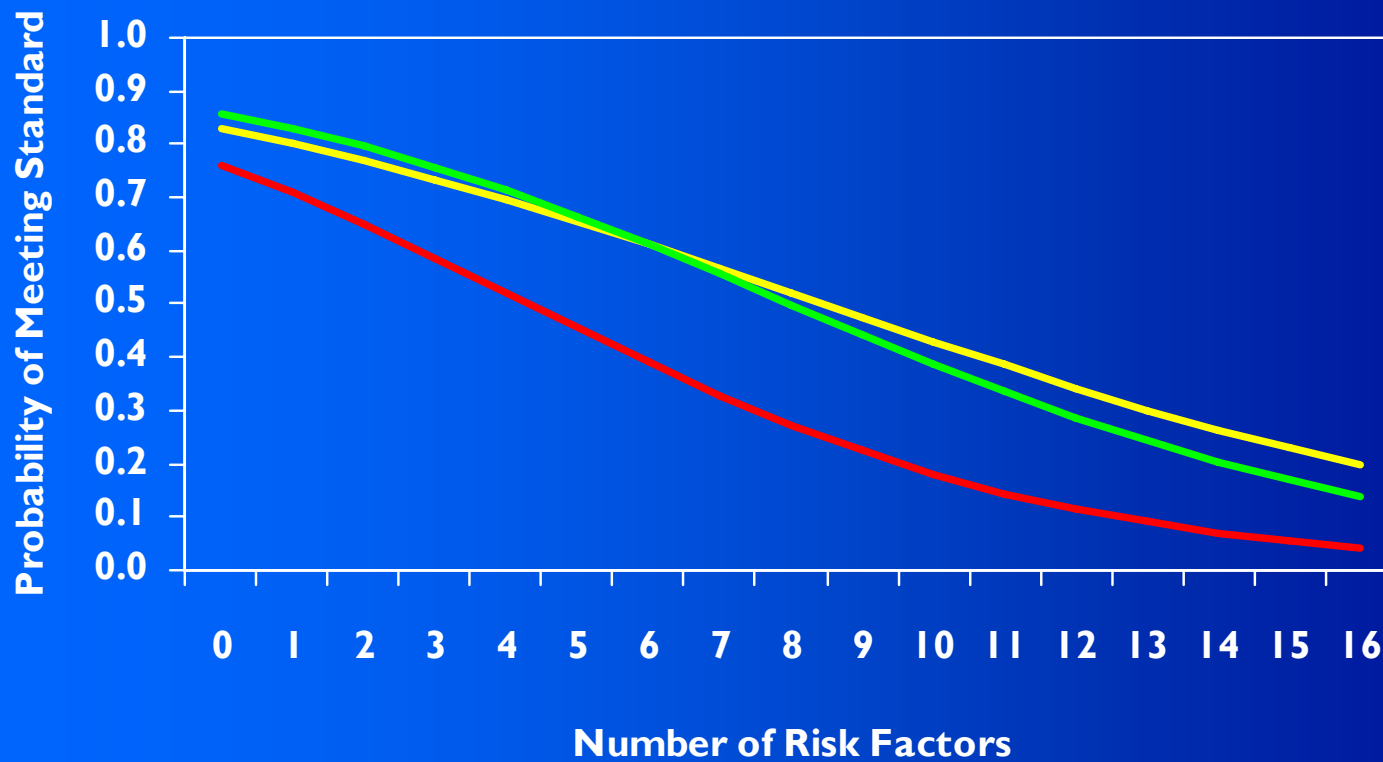


Prevalence of Other Problems by Number of Risk Factors



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Number of School Building Risk Factors and Probability of Meeting Achievement Test Standard (10th Grade Students)

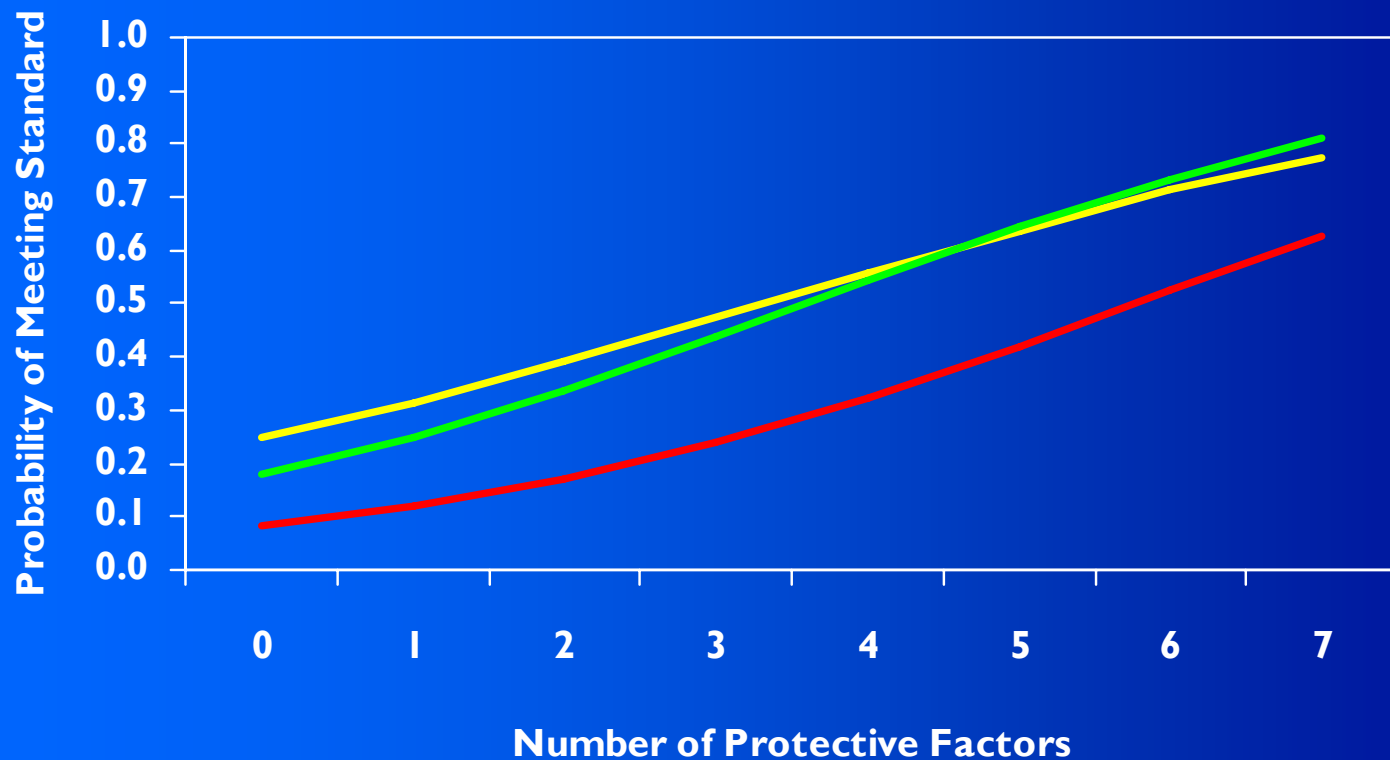


— Math — Reading — Writing

Arthur et al., 2006

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Number of School Building Protective Factors and Probability of Meeting Achievement Test Standard (10th grade students)

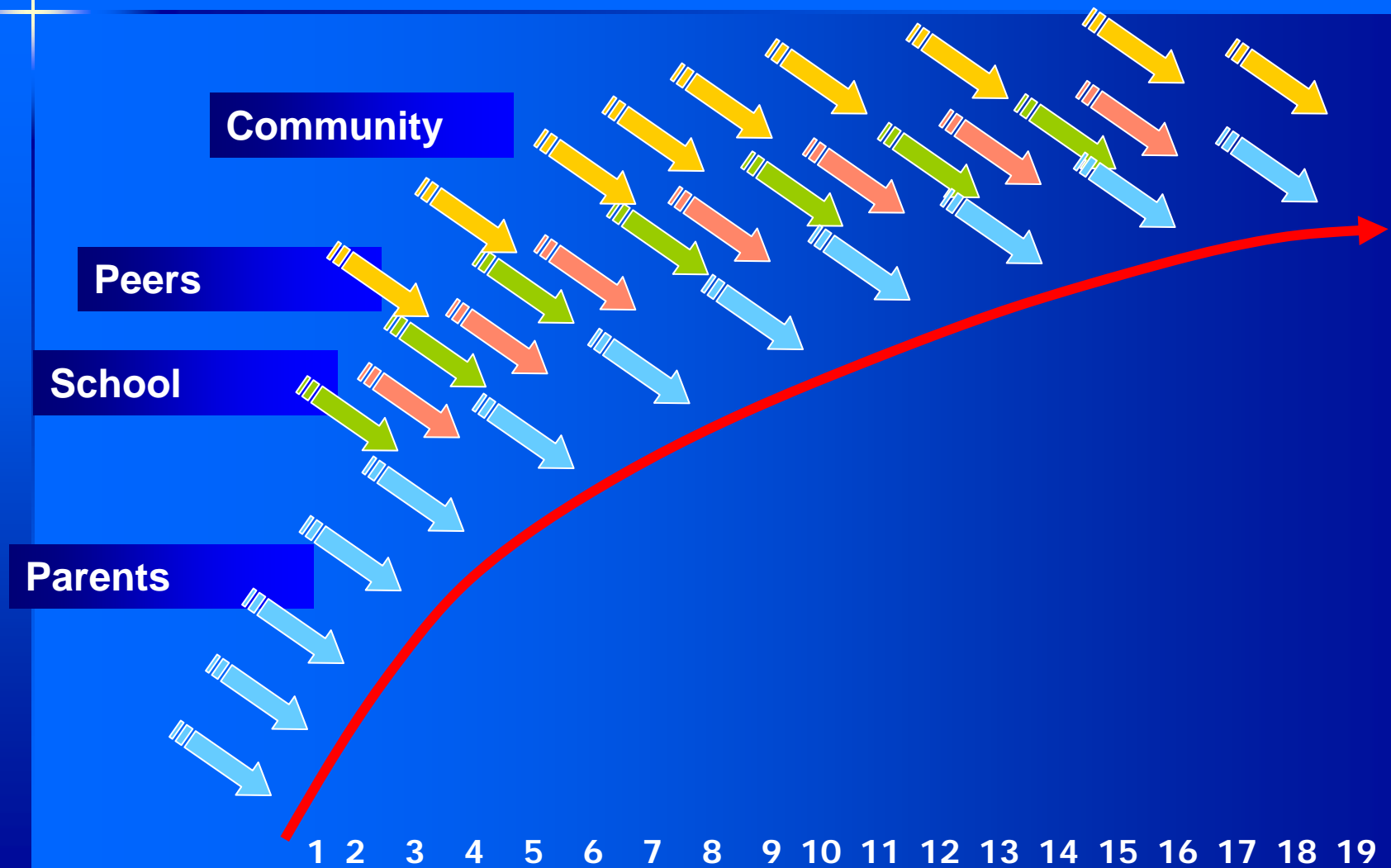


— Math — Reading — Writing

Arthur et al., 2006

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Factors Shaping Child and Adolescent Development



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Snowstorm: Extended Exposure to Positive Norms and Models of Problem Avoidance in Developmental Challenges without Protection

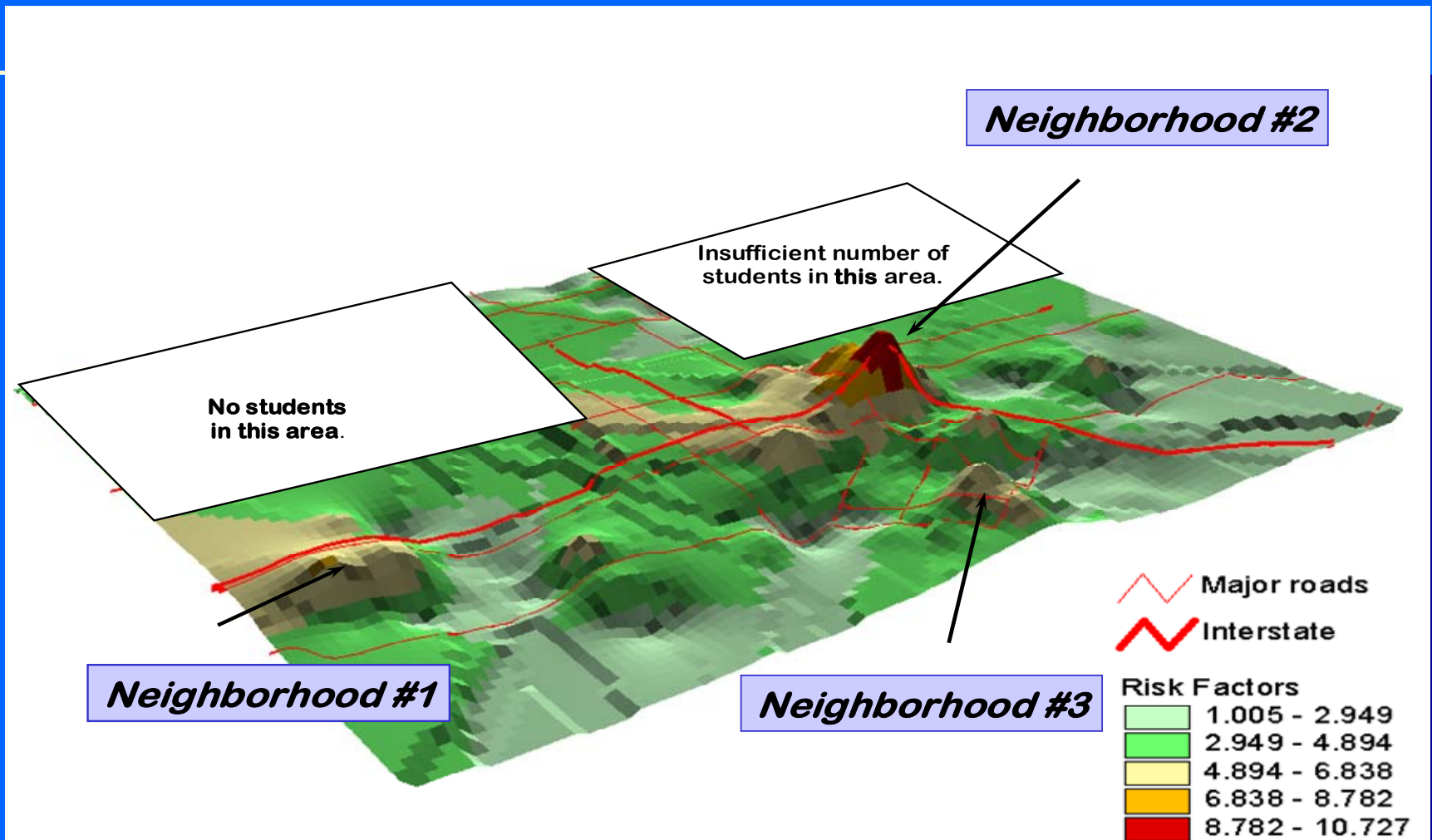


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Epidemiology

- 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.

Prevention Services Research

- Apply lessons learned about etiology and effective interventions in real world settings

Shireman, Mann, Larsen and Young, 1972

“Do offenders ‘adjust’ because of treatment efforts, or might success rates have been just as high or higher if they had simply been left alone?”

Such questions can be answered only by some form of experimental design...[which] applies a described technique to the experimental while withholding it from the control group; and develops meaningful measures upon the basis of which treatment outcomes may be compared for two groups.”

Ineffective Prevention Strategies

Universal Prevention

- Peer counseling, mediation, positive peer culture
- Non-promotion to succeeding grades
- After school activities with limited supervision, programming
- Drug information, fear arousal, moral appeal.
- DARE

Selected, Indicated Prevention

- Gun buyback programs
- Firearm training
- Mandatory gun ownership
- Redirecting youth behavior
- Shifting peer group norms
- Neighborhood Watch

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)

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Shireman, Mann, Larsen and Young, 1972

“Thus, some experimenters, working under some conditions, have demonstrated that treatment can be effective with considerable proportions of subject groups. This has been true of some projects in most of the treatment forms considered.”

Selected Findings

Summary of Benefits and Costs (2003 Dollars)

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

Steve Aos, Associate Director
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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 substance abuse and other problems.

Prevention Services Research

- Apply lessons learned about etiology and efficacious interventions in real world settings.

Keys to Diffusion of Innovation

- Effective Program that makes a difference



- Capacity to disseminate with fidelity



- Market demand-funders, practitioners and consumers must want it.

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Prevention Services Research

Implementation Fidelity is
Required if Efficacious
Programs are to be Effective in
Community Settings

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Prevention Services Research

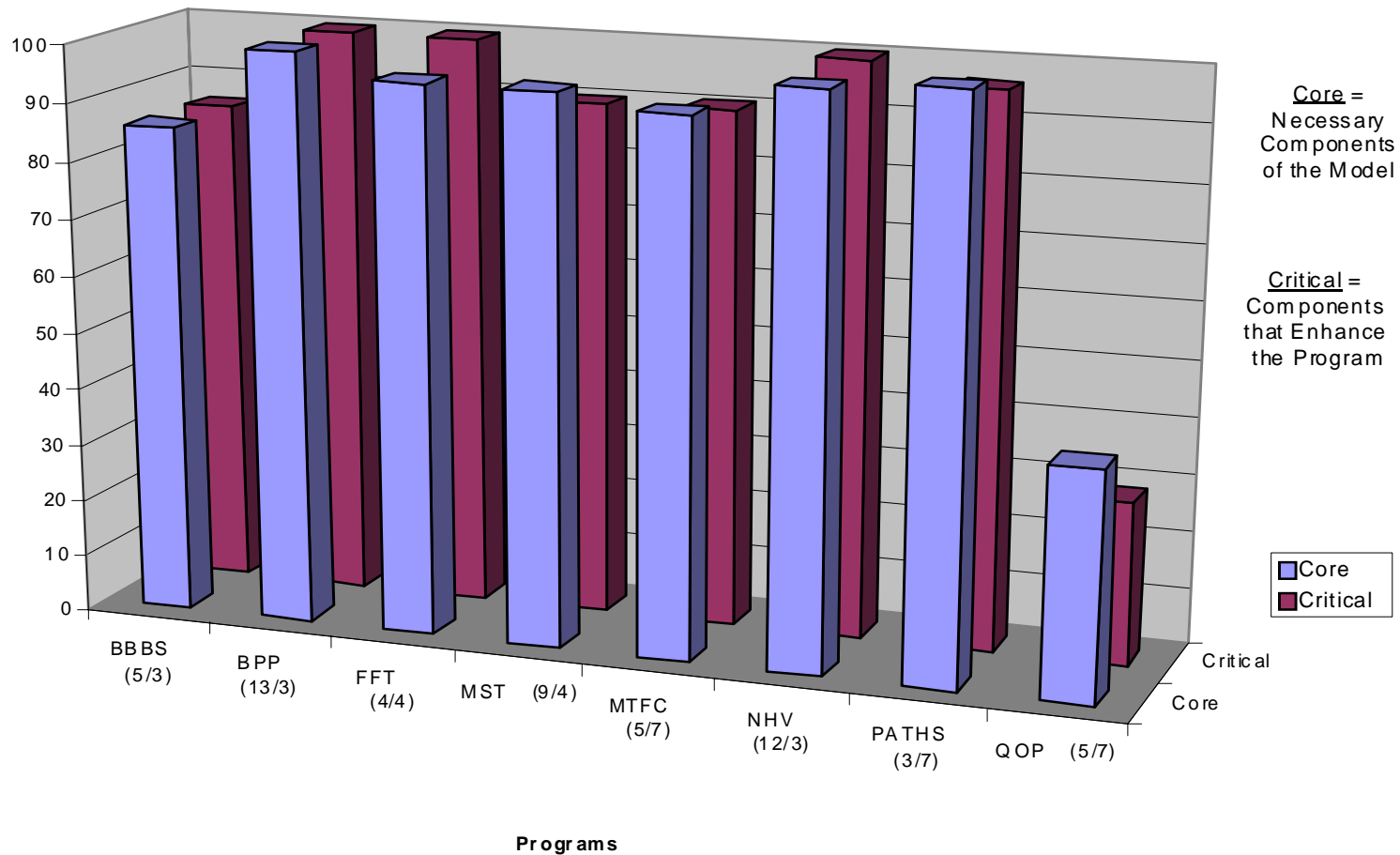
What Boosts Implementation Fidelity?

- Published material including manuals, guides, curricula.
- Certification of trainers.
- High quality, readily available technical assistance.
- Dissemination organization committed to distribution and delivery of tested program.
- Data monitoring system to provide feedback on implementation fidelity and outcomes.



With these Elements in Place Implementation Fidelity Can Be Achieved (Elliott & Mihalic –Blueprints Project)

Chart 2
Core and Critical Component Progress - 2 years
Percentage of All Core and Critical Components Achieved



Prevention Services Research

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 practice,” usual or new practice
- Tested, effective programs require training, technical assistance, and monitoring to be delivered with fidelity

History of Models for Achieving the Vision of Science Informing Practice-Early Models



- **Scientists know best-Experts inform communities what to do**
- **Communities know best-Providing resources to support community coalitions without a structure or process**

Largely ineffective (Hallfors et al. 2002; Klerman et al. 2005;
Merzel & D'Afflitti, 2003)



History of Models for Achieving the Vision of Science Informing Practice-More Recent Models



- Mutual self interest, collaboratively identifying, generating and testing potential solutions to salient social problems
- Providing the skills and tools for community decision making
 - Education and tools to empower communities to become advocates for tested, effective programs to meet their needs



Communities That Care (CTC) Activation and Education

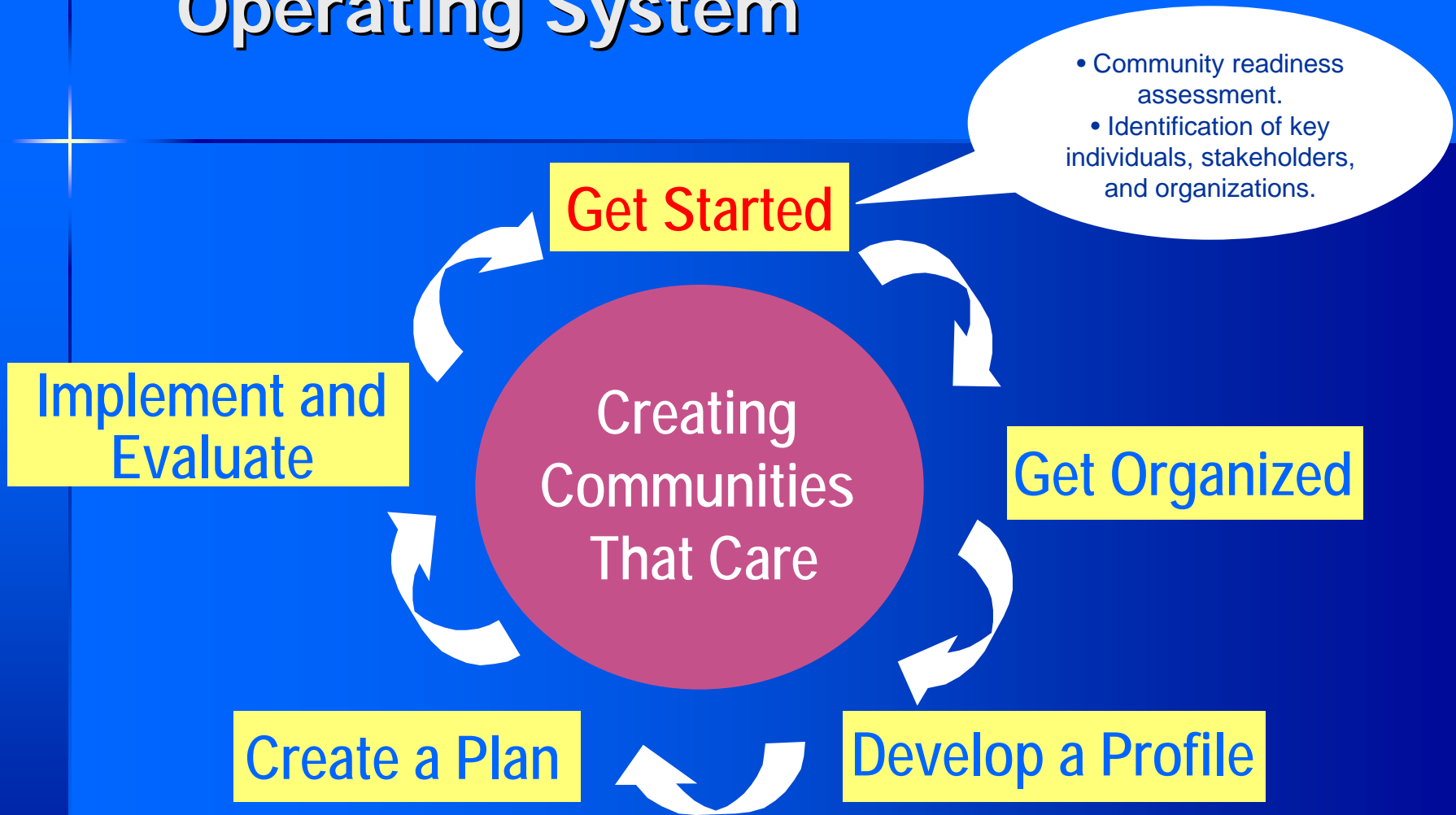
- Activates and educates communities about prevention science advances
 - Key leaders
 - Key implementers/planners in multiple sectors and grass roots
- Asks them to decide whether to apply this research base to address community health and behavior issues



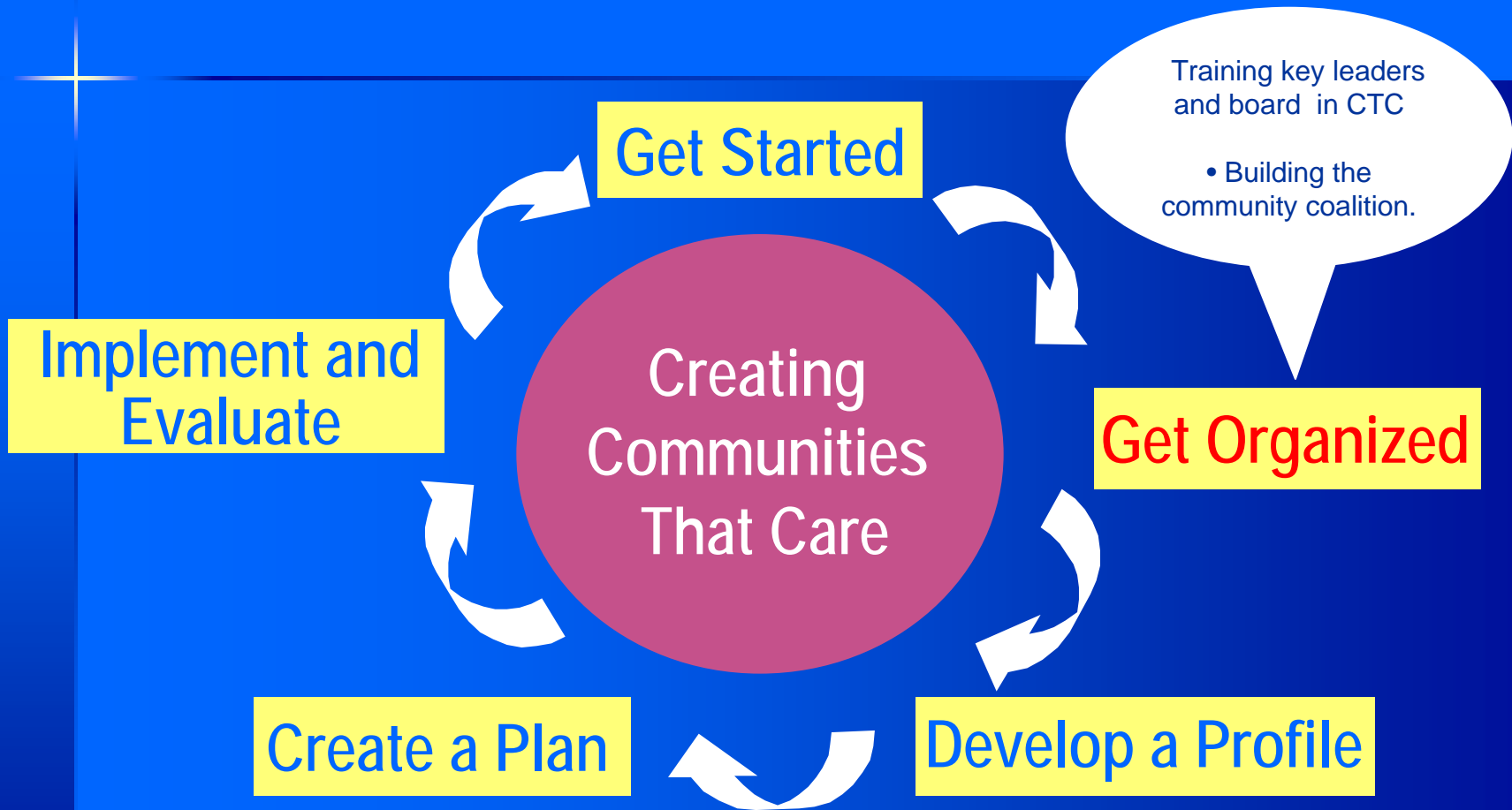
CTC Tools for Decision Making

- Organize and influence decision makers
- Assess need (risk and protection), set priorities and goals
- Match need with tested, effective practices, programs and policies
- Assess fidelity and outcomes to monitor goal achievement

The *Communities That Care* Operating System



The *Communities That Care* Operating System



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The *Communities That Care* Operating System



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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

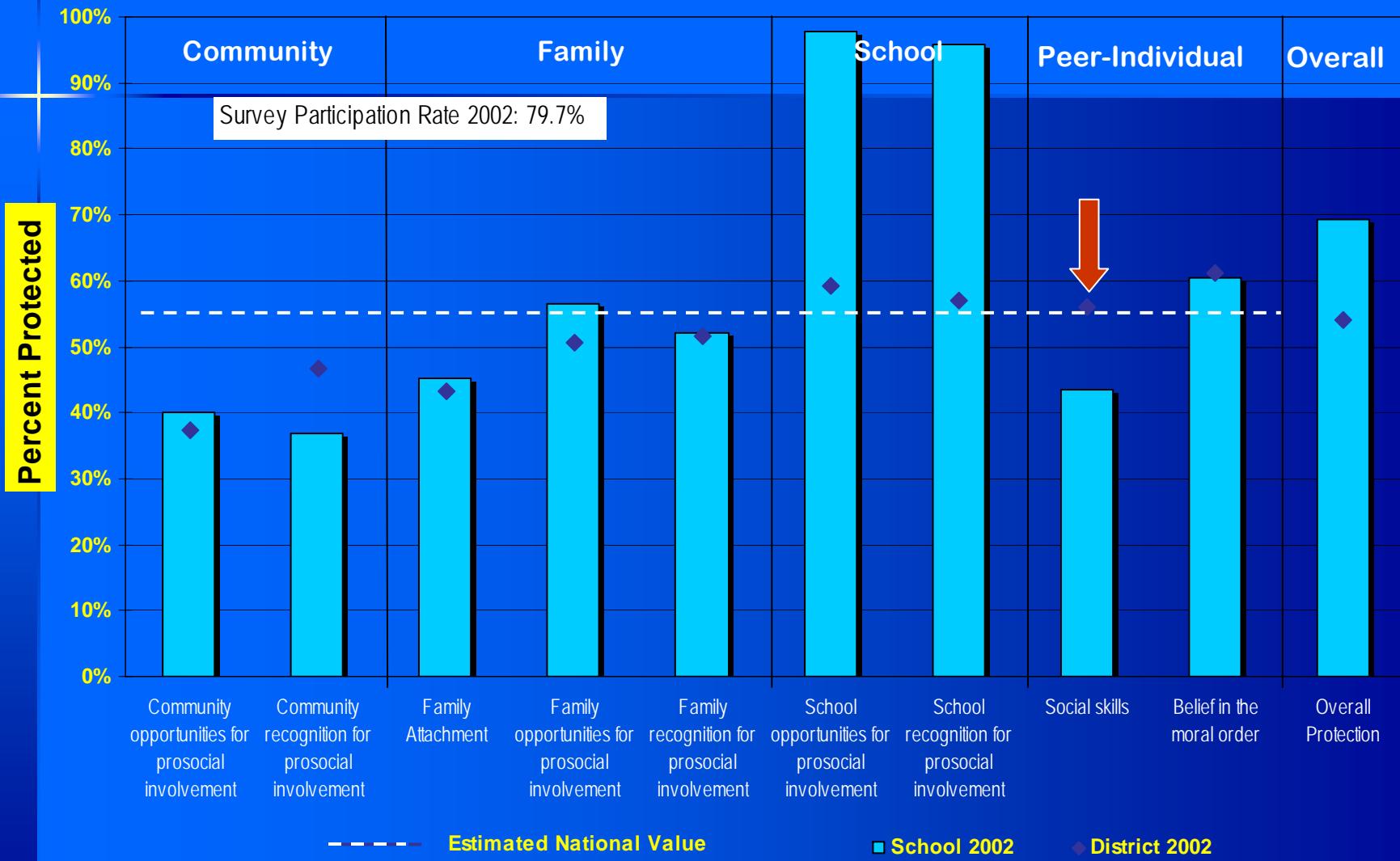
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The *Communities That Care* Operating System



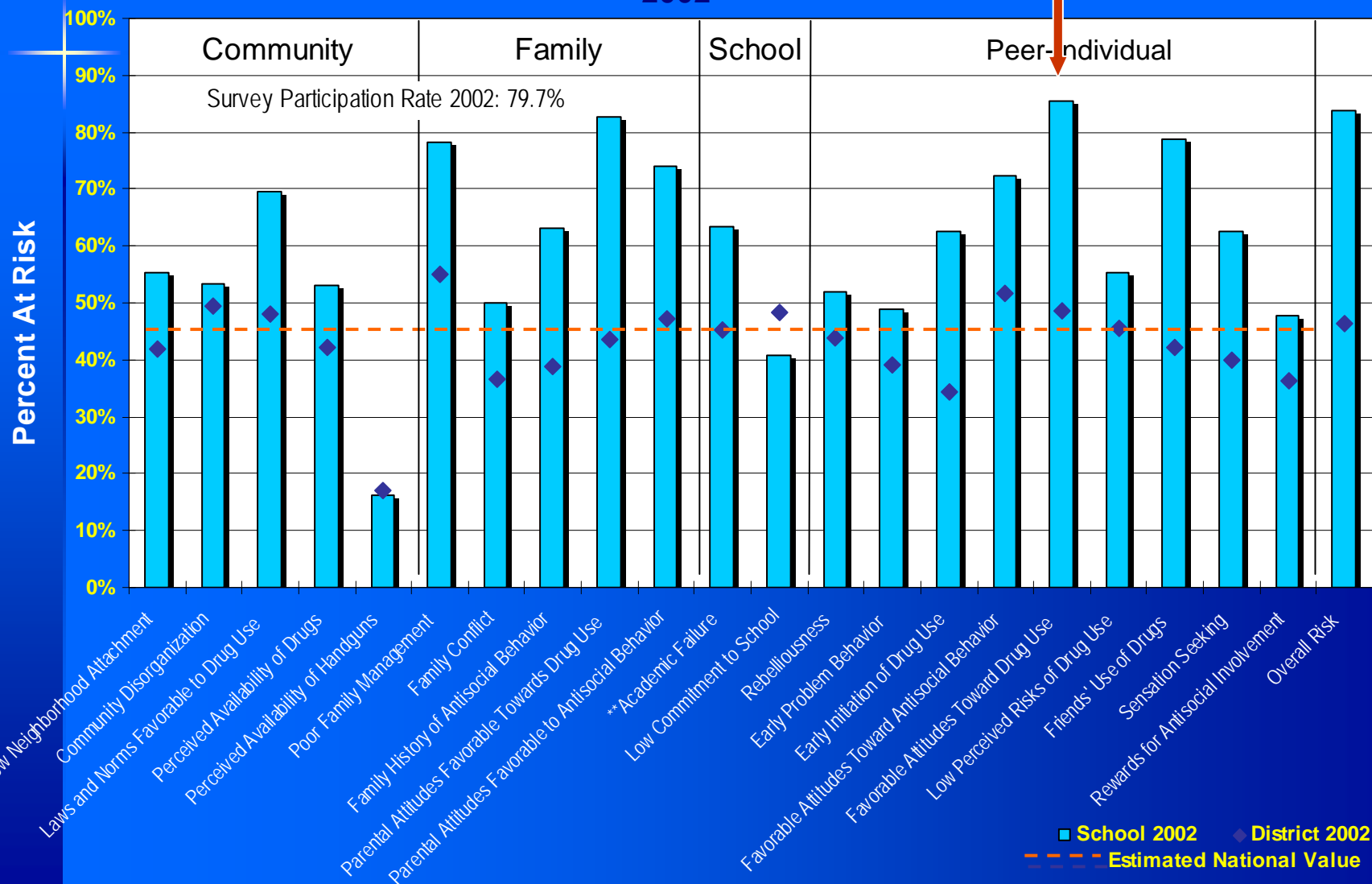
Nova High School Protective Profile 10th Grade

2002



Nova High School Risk Profile 10th Grade

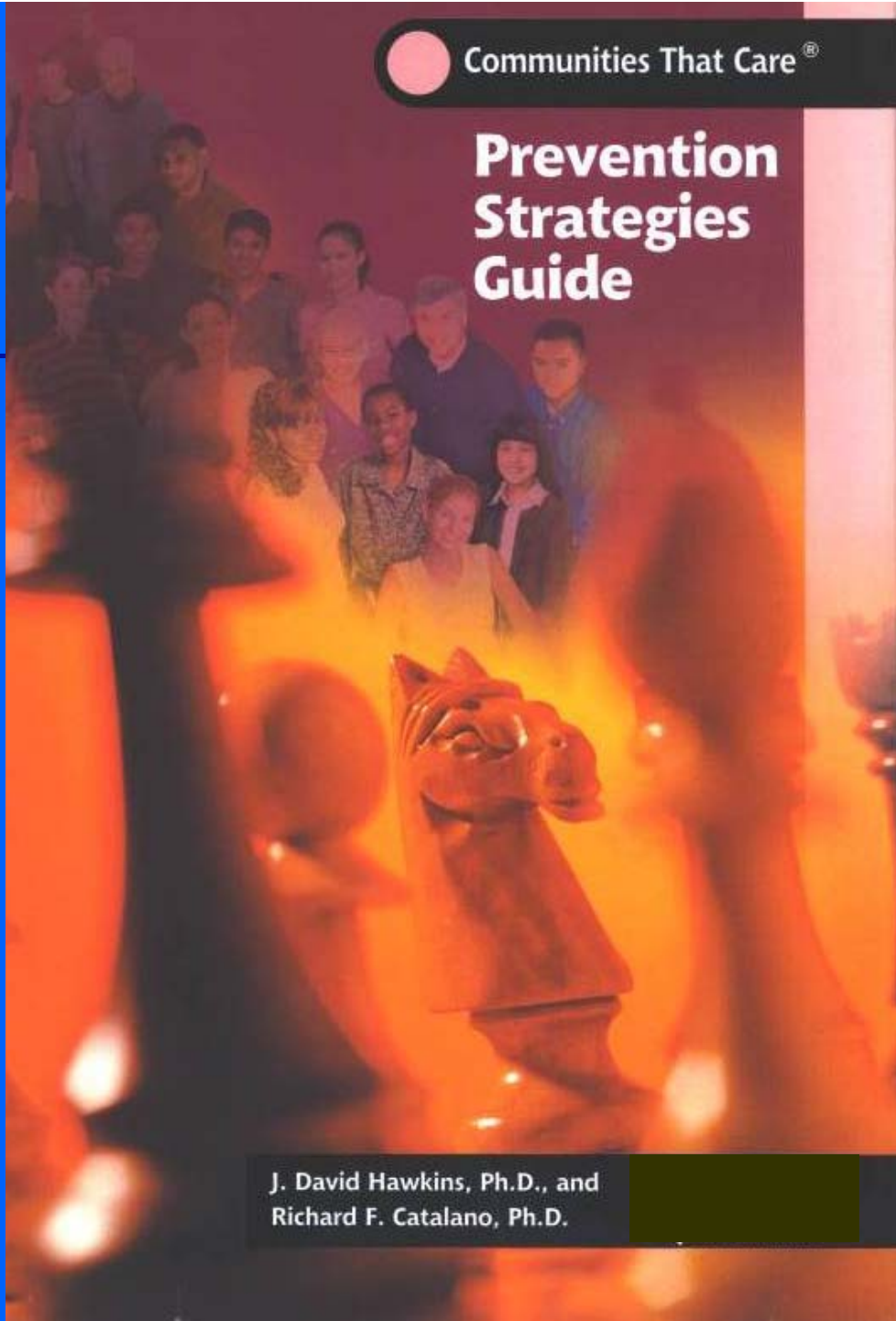
2002



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Communities That Care[®]

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.	
Individual/Peer Domain	Rebelliousness	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
	Friends Who Engage in the Problem Behavior →	Parent Training	☐	☐	☐	☐	☐	6-14
		Classroom Curricula for Social Competence Promotion	☐	☐	☐	☐	☐	6-14
		Afterschool Recreation	☐	☐	☐	☐	☐	6-14
		Mentoring with Contingent Reinforcement	☐		☐		☐	11-18
	Favorable Attitudes Toward the Problem Behavior →	Classroom Curricula for Social Competence Promotion	☐	☐	☐	☐	☐	6-14
		Community/School Policies						
	Early Initiation of the Problem Behavior	Parent Training	☐	☐	☐	☐	☐	6-14
		Classroom Organization Management and Instructional Strategy	☐	☐	☐	☐	☐	6-10
		Classroom Curricula for Social Competence	☐	☐	☐	☐	☐	6-14
		Community/School Policies	☐					all
	Constitutional Factors	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)



THE PREVENTION STRATEGIES GUIDE

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[Program Name](#) | [Recognition](#) | [Target Age](#) | [Protective Factors](#) | [Risk Factors](#) | [Components](#) | [Domains](#) | [Target Audience](#)
| [Summary](#) | [References](#) | [Contact Information](#)

Program Name:

Project Towards No Drug Abuse (Project TND)

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National Recognition:

- * SAMHSA Model Program
- * NIDA Research-Based Prevention Program
- * Blueprints for Violence Prevention Model Program

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Target Age Range:

14-18 years

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Protective Factors Addressed:

- * Skills
- * Healthy beliefs and clear standards

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Risk Factors Addressed:

- * Favorable attitudes toward the problem behavior

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How does it work?

Project Towards No Drug Abuse consists of twelve 40- to 50-minute lessons, which can be delivered by a health educator or through self-guided learning. The program motivates young people to reject drugs through:

- helping them correct their own perceptions and the perceptions of others that continuation high school students are more likely to use drugs
- teaching them the social skills that will help them bond with peers who are at low risk of using drugs
- teaching them decision-making skills that will help them channel their motivation and skills into positive actions.

The program is interactive and includes group discussions, games, role-playing, videos and student worksheets. It also includes information on tobacco cessation for students who already are smokers (Sussman, Dent, Craig, Ritt-Olsen, & McCuller, 2002; Sussman, Sun, McCuller, & Dent, 2003).

Program effectiveness

Evaluations of program effectiveness at continuation high schools showed that, relative to members of a comparison group:

- after one year, students in the program were less likely to use marijuana and hard drugs (all drugs except for alcohol, tobacco and marijuana), and students who had been using alcohol were less likely to continue to do so (Sussman, Dent, Stacy, & Craig, 1998; Sussman, Dent, & Stacy, 2002)
- after one year, male students in the program were less likely to be victims of violence (Simon, Sussman, Dahlberg, & Dent, 2002)
- after two years, students who were in health-educator-led sessions (as opposed to self-guided sessions) were less likely to have used tobacco or hard drugs in the past 30 days. In addition, boys who had not used marijuana before being exposed to the health-educator-led program were still significantly less likely to have used marijuana in the past 30 days (Sussman et al., 2003).

A similar evaluation at standard high schools showed that students who used alcohol or hard drugs before the program were less likely to continue to do so after the program than were students in a comparison group (Dent, Sussman, & Stacy, 2001).

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Contact Information:

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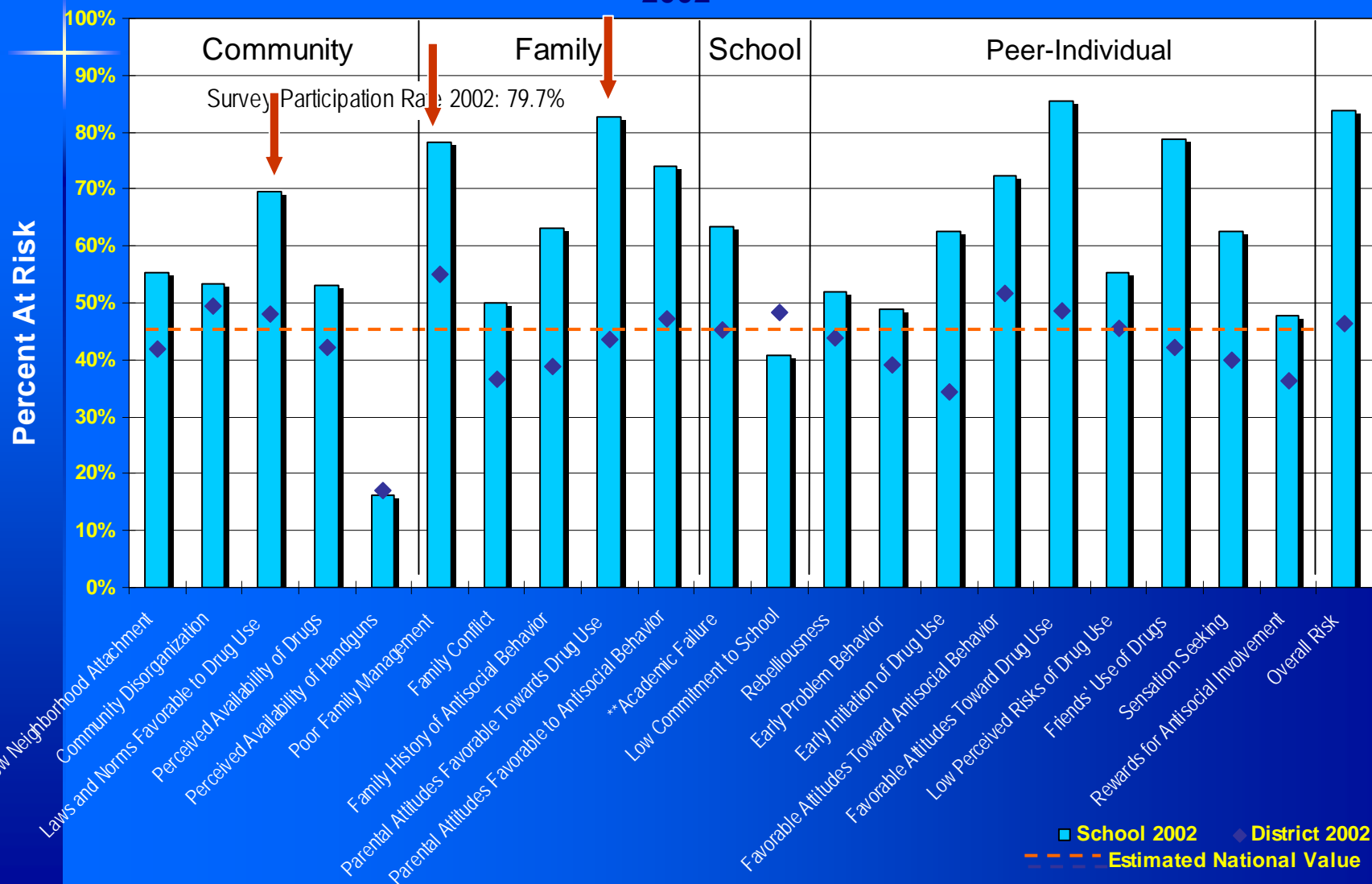
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Nova High School Risk Profile 10th Grade

2002



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Protective Factors

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



Parent Training Middle & High School

- Guiding Good Choices[®] (Spoth et al., 1998, Mason et al., 2003)
- Staying Connected with Your Teen[®] (Haggerty et al., 2008)
- Creating Lasting Connections (Johnson et al., 1996)
- Iowa Strengthening Families Program (Spoth et al., 1998)
- Focus on Families (Catalano et al., 1999; 1997; Haggerty et al., in press)



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.

Implement and Evaluate

Get Started

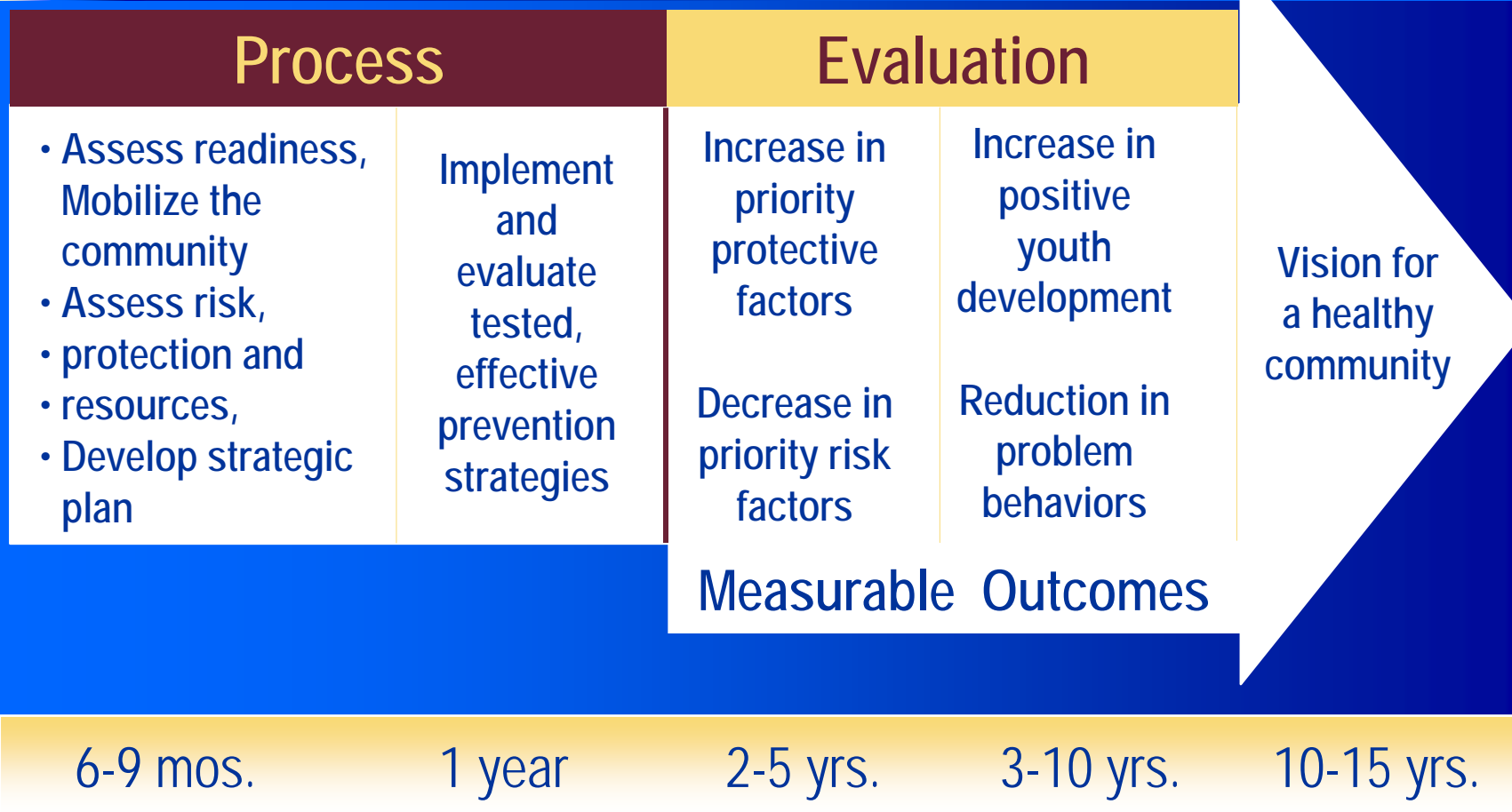
Get Organized

Create a Plan

Develop a Profile

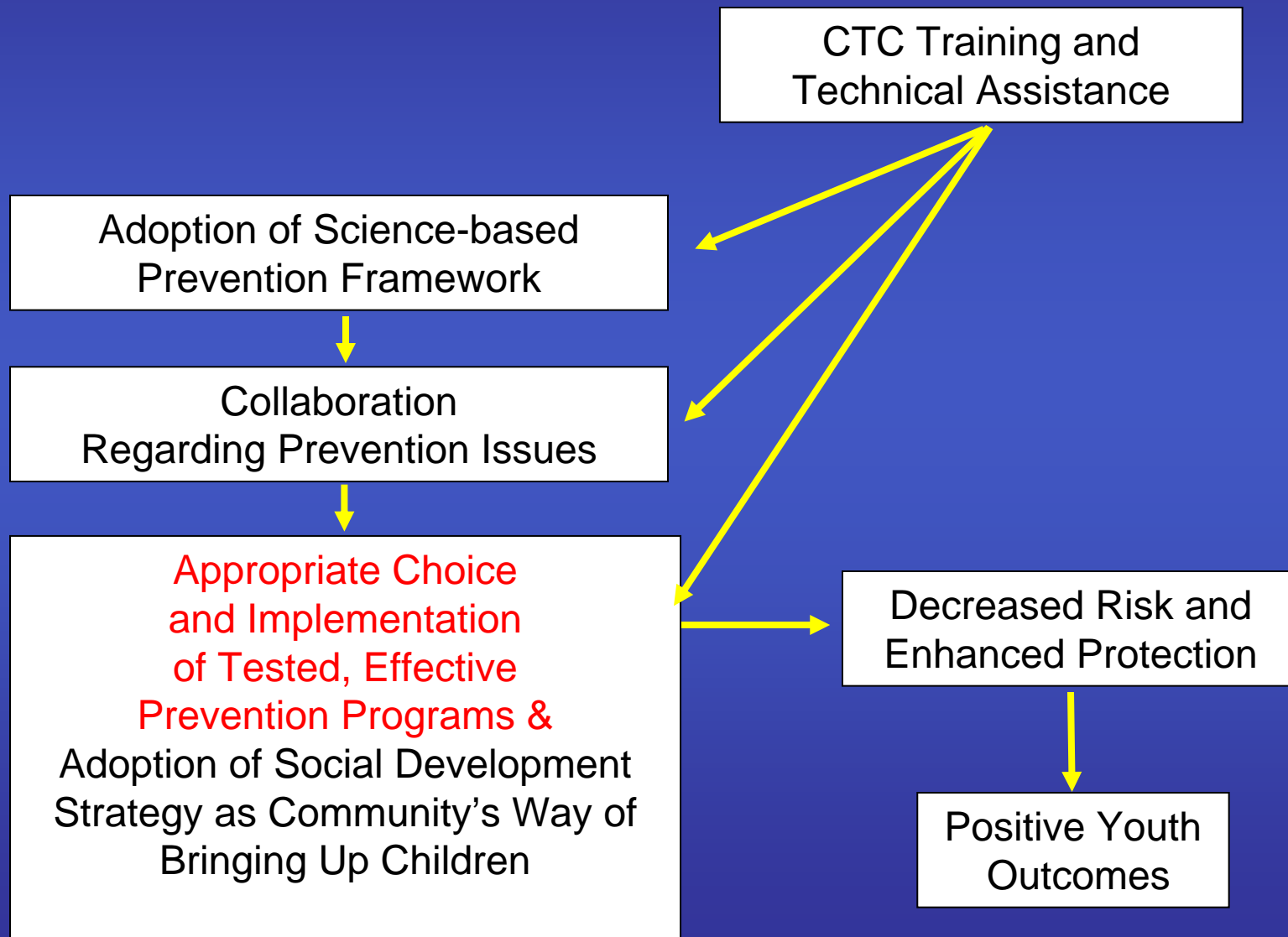


Process and Timeline





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
TOTAL	27	38	37

*Program funded through local resources in one or two communities



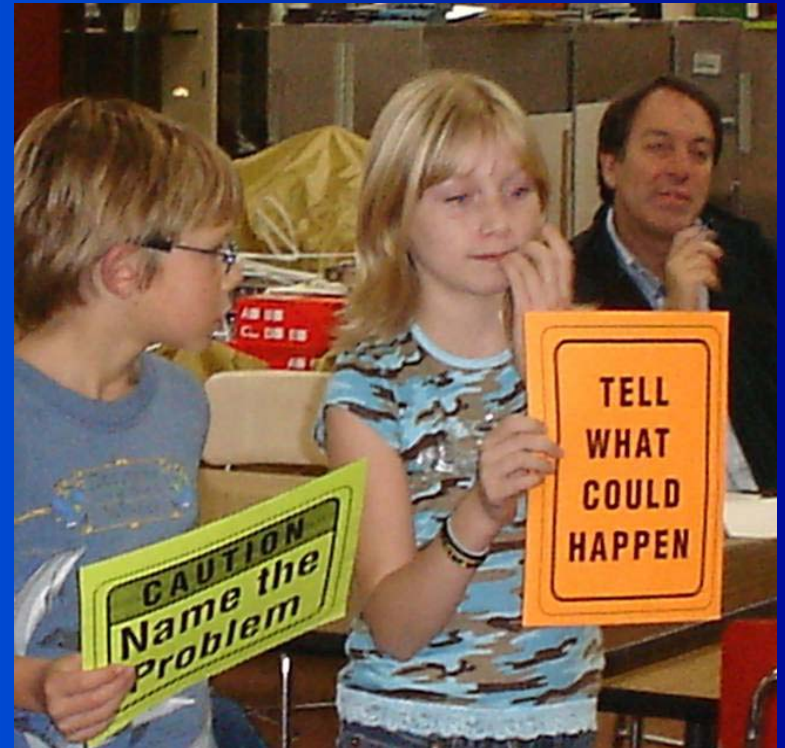
Exposure in the Community

Program Type	2004-05	2005-06	2006-07
School Curricula	1432	3886	5165
After-school*	546	612	589
Parent Training	517	665	476

*Includes PALS, BBBS, Stay SMART, and Tutoring programs

Tools Assisted Community Members to Assess Fidelity

- Used to assess attendance, adherence and dosage of all 16 programs implemented
- Over 6,000 checklists completed by program implementers and observers in 12 intervention communities
- Community volunteers observed 10-15% of sessions for 10 programs



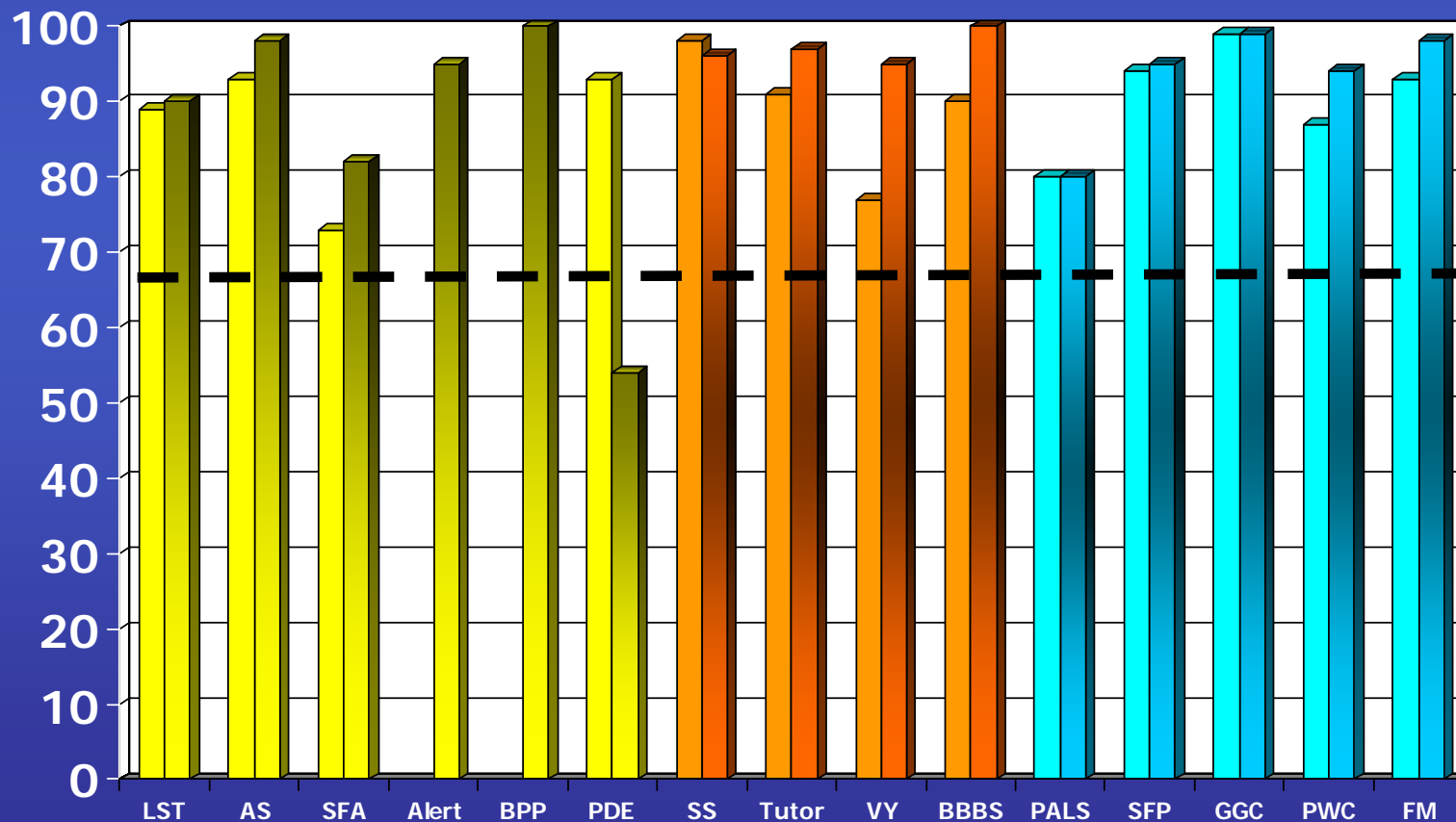


Adherence Rates

2004-05 and 2005-06 school years

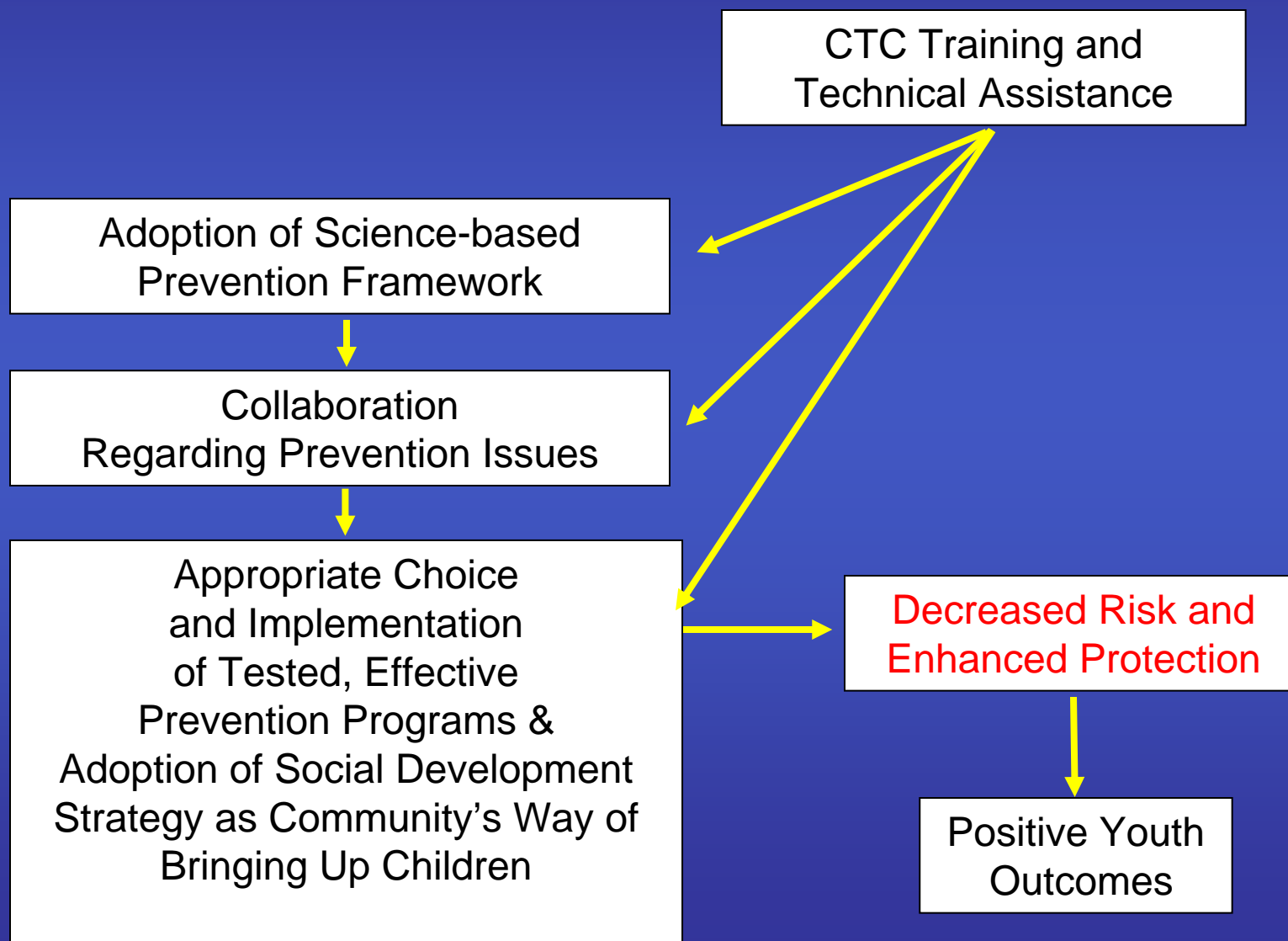


Percentage of material taught or core components achieved





Communities That Care Theory of Change

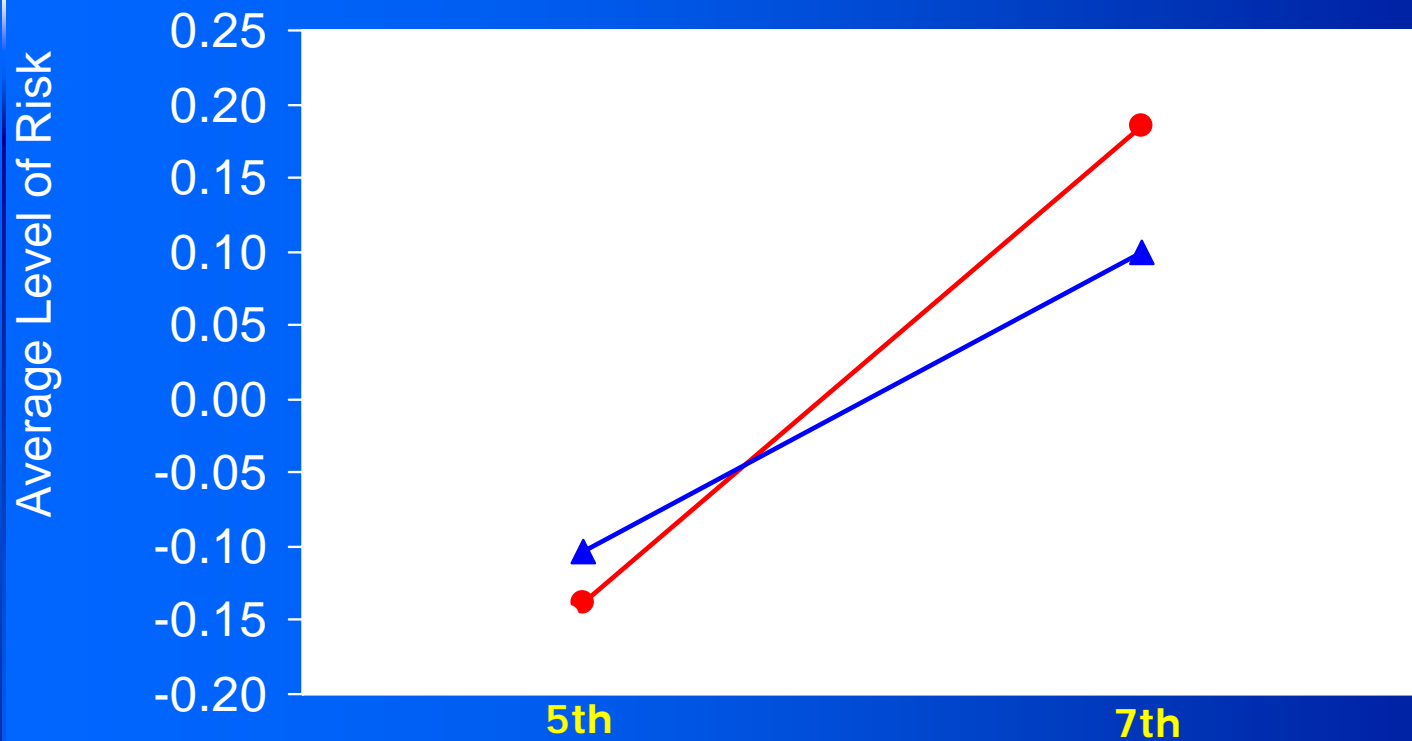


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Tools Assisted Community Coalitions to Prioritize Risk Factors

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

CTC Changed Prioritized Risk Factors



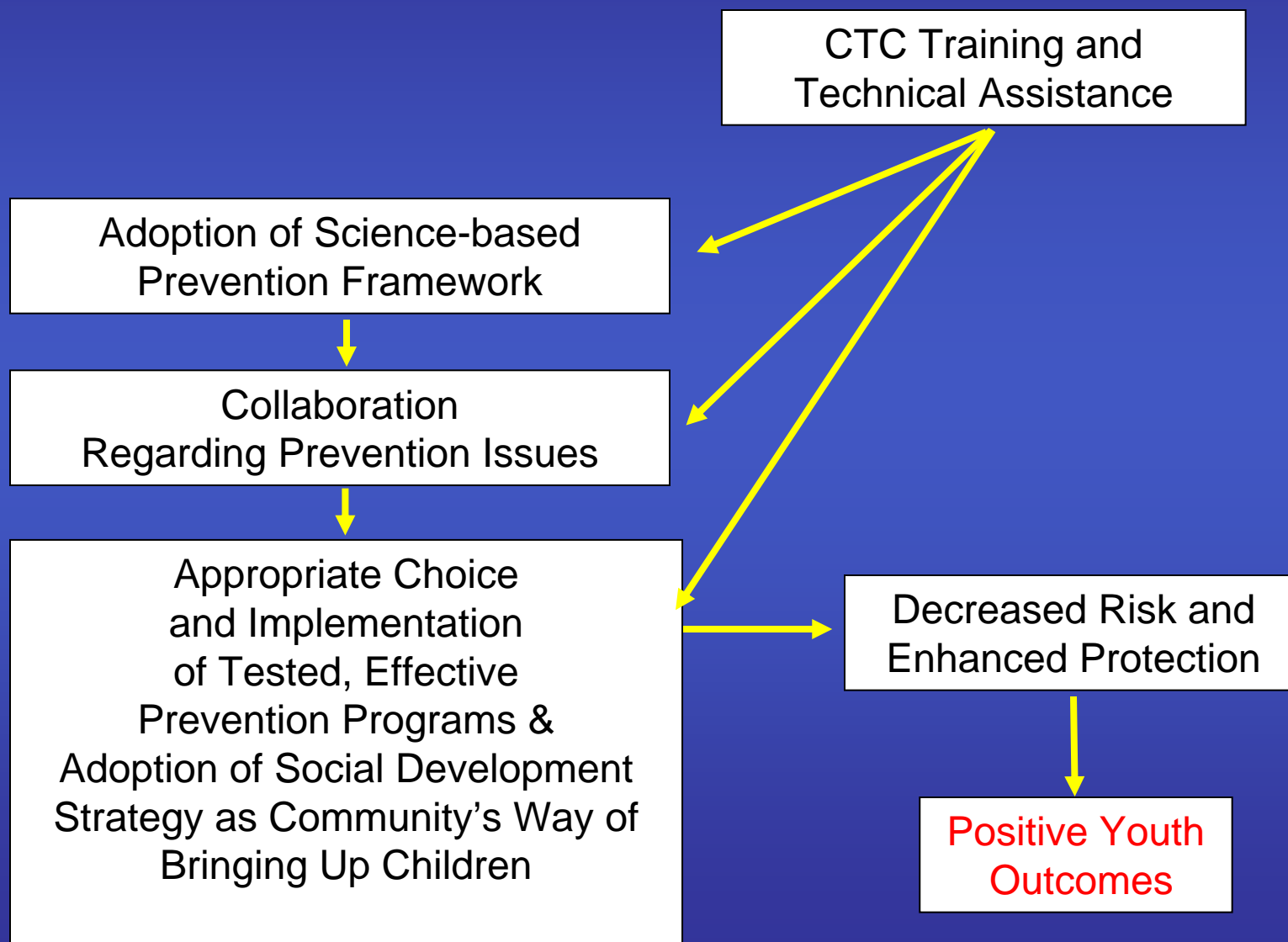
● Control Communities
 ▲ CTC Communities

Hawkins et al., in press

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

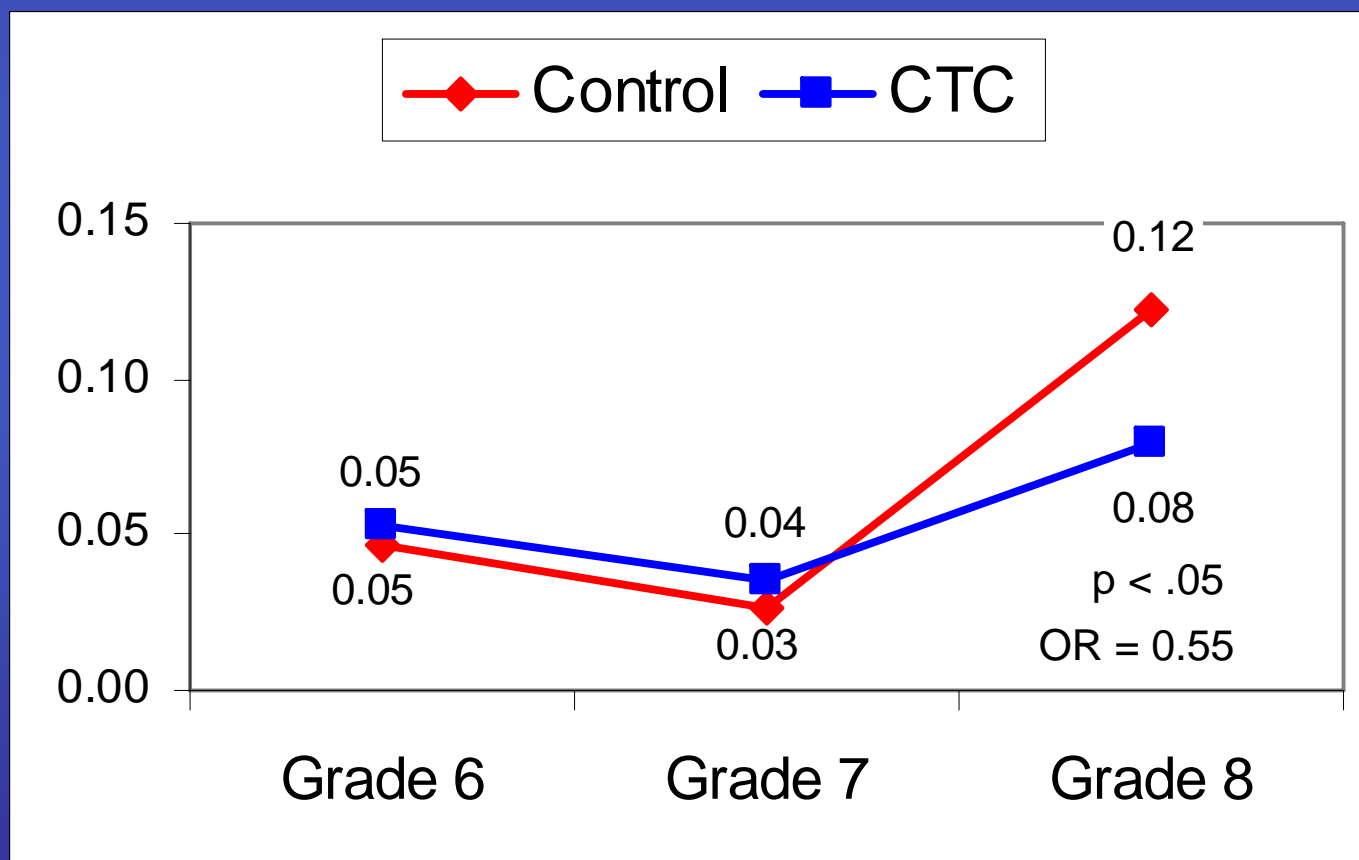
- Onset of substance use and delinquency between grade 6 and 8:
 - Alcohol use*
 - Cigarette smoking*
 - Smokeless tobacco use*
 - Marijuana use
 - Other illicit drug use
 - Delinquent behavior*
- Among 5th grade students who had not yet initiated.

*=Significant at $p < .05$



Onset of Cigarette Smoking

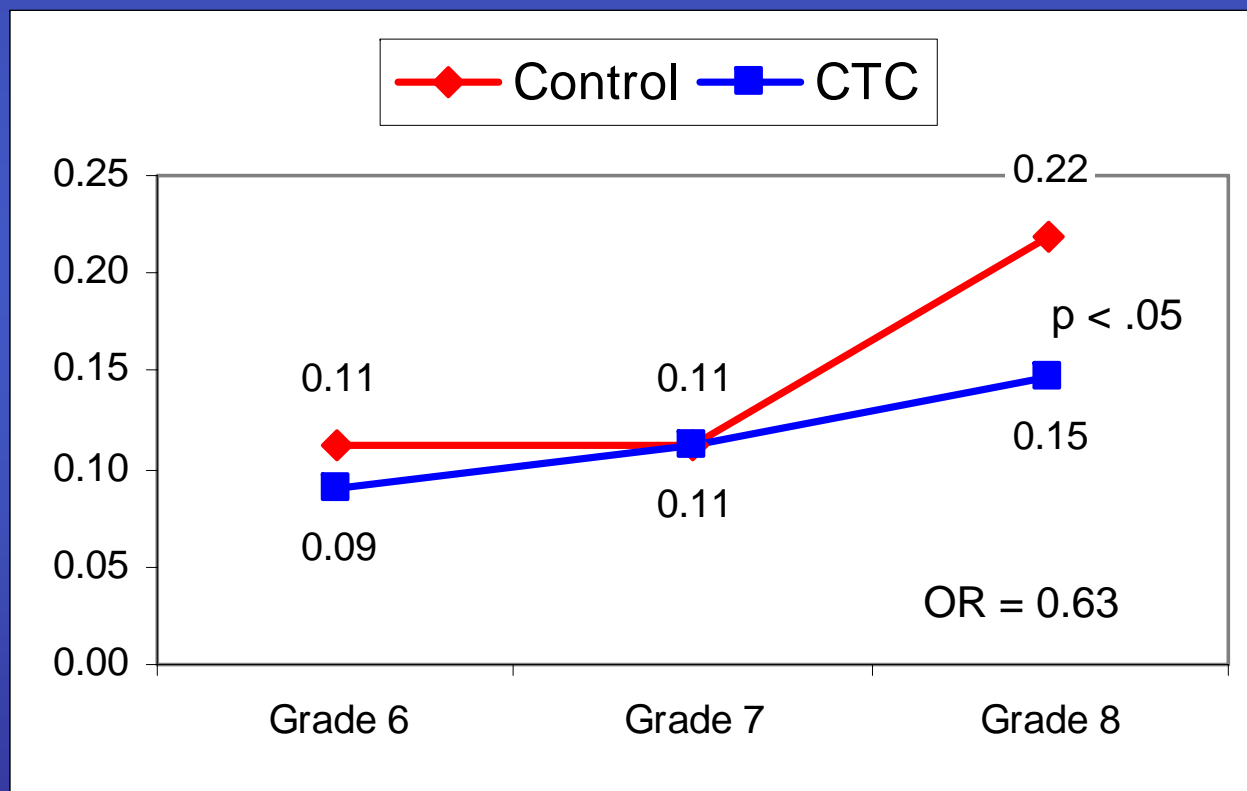
Adjusted Hazard





Onset of Alcohol Use

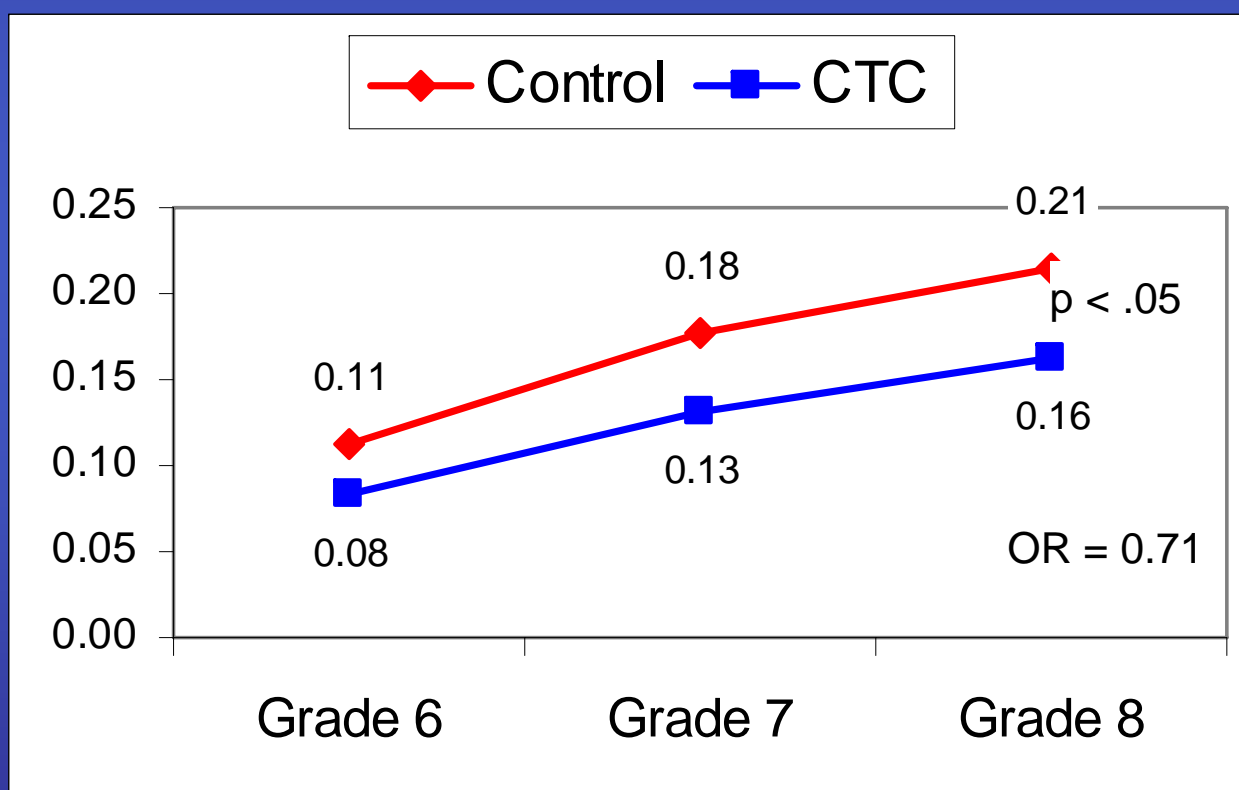
Adjusted Hazard





Onset of Delinquent Behavior

Adjusted Hazard





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

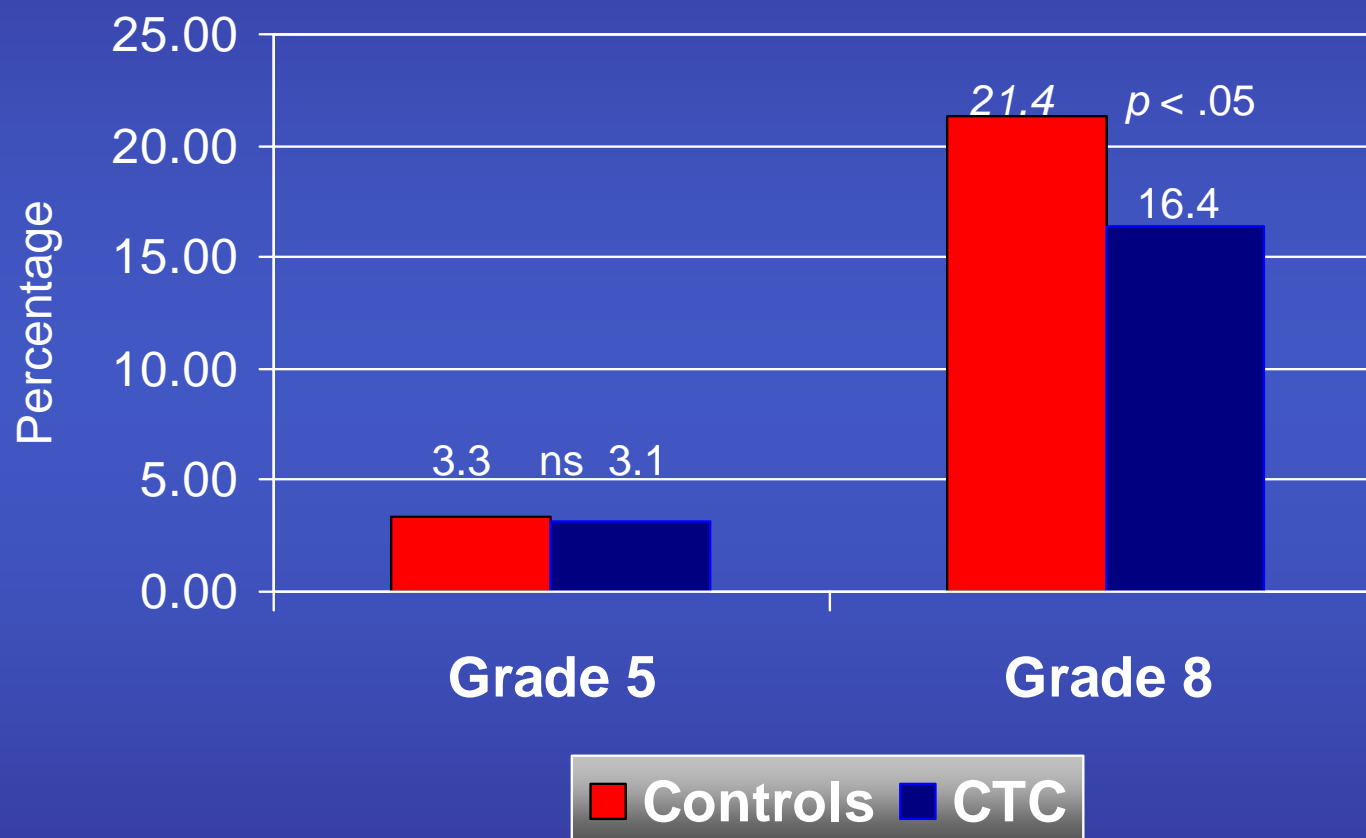


- Alcohol use*
- Binge drinking*
- Tobacco Use*
- Delinquency*

*=significant at $p < .05$



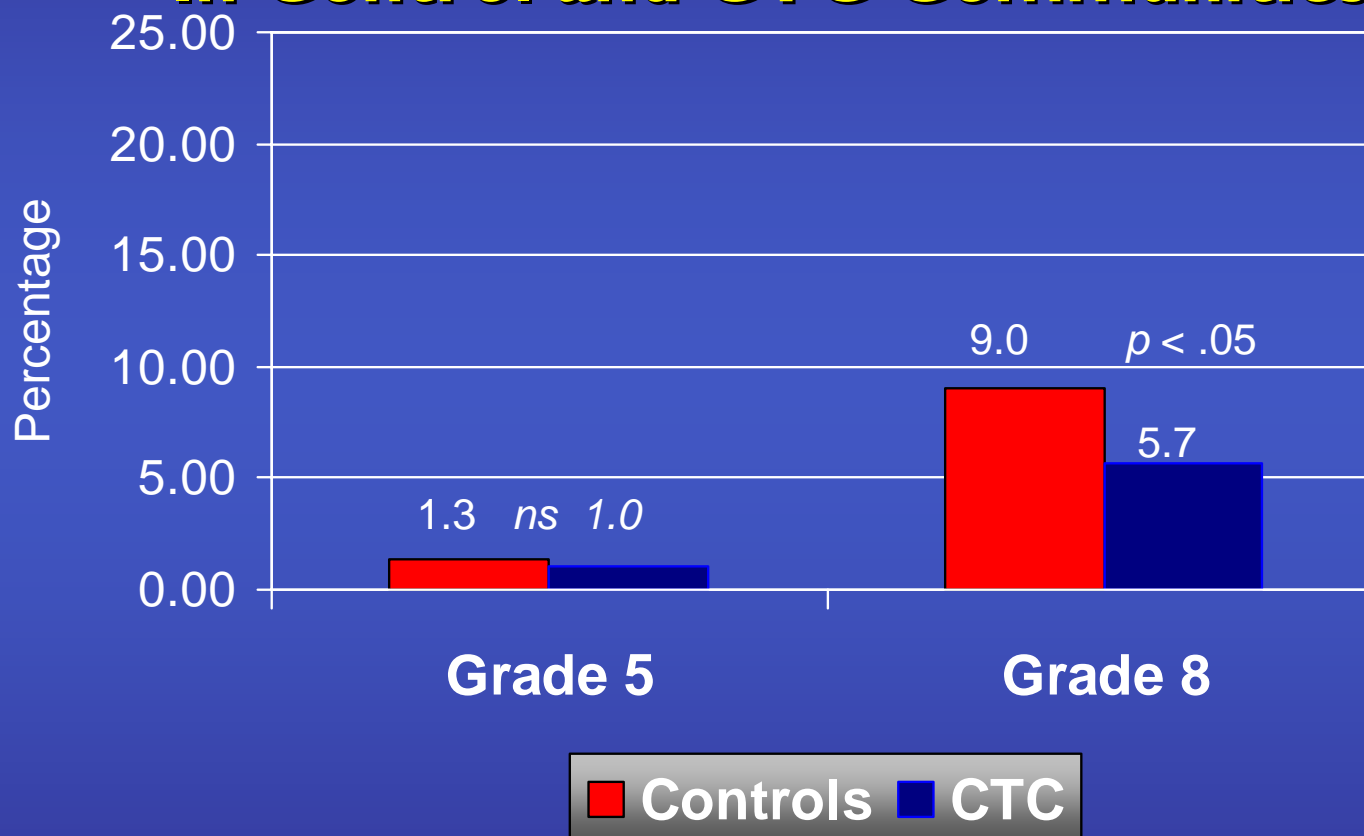
Prevalence of 30 Day Alcohol Use In Panel In Control and CTC Communities



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



Prevalence of Binge Drinking in Past Two Weeks In Panel In Control and CTC Communities

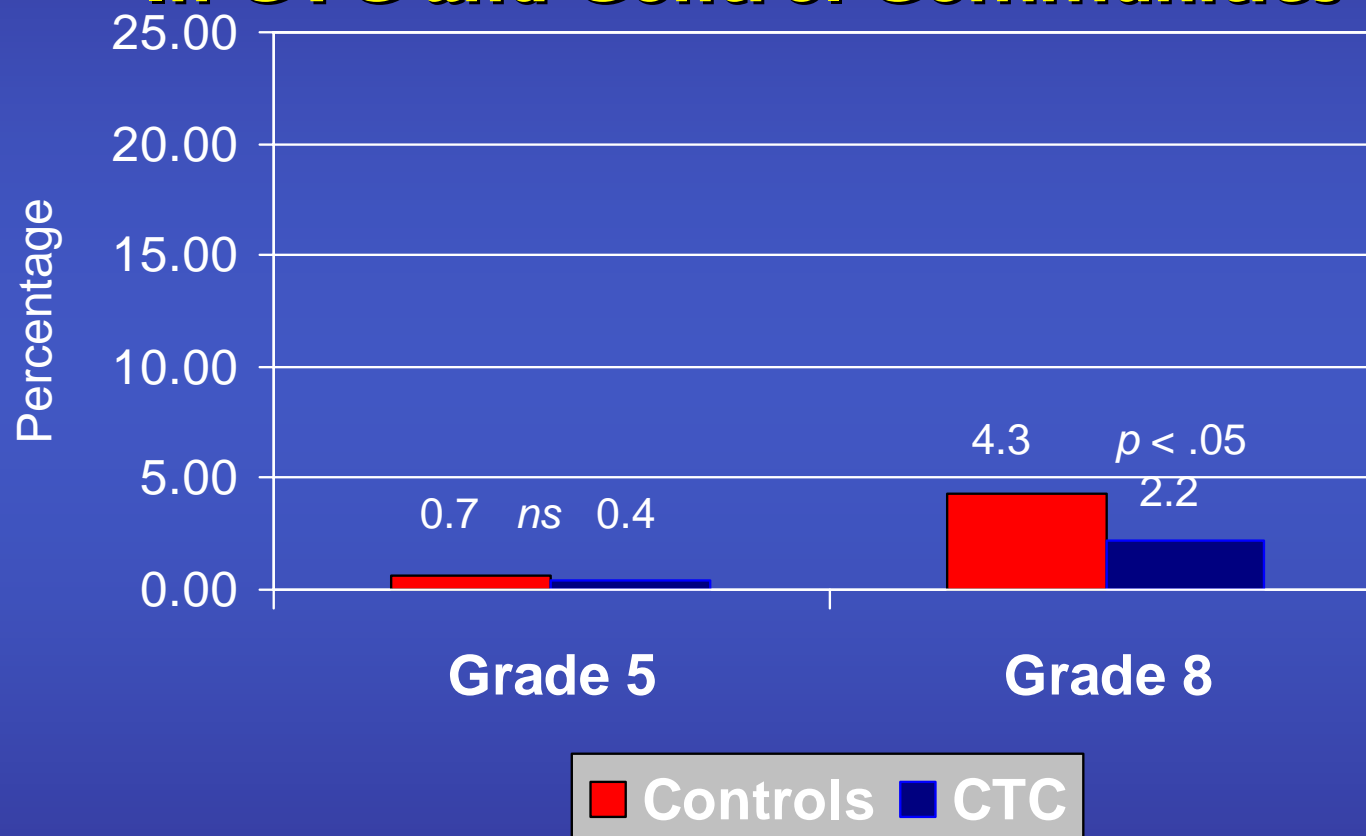


Note. Observed rates averaged across 40 imputations. ns = nonsignificant. $N = 4407$.



Prevalence of 30 Day Smokeless Tobacco Use In Panel

In CTC and Control Communities

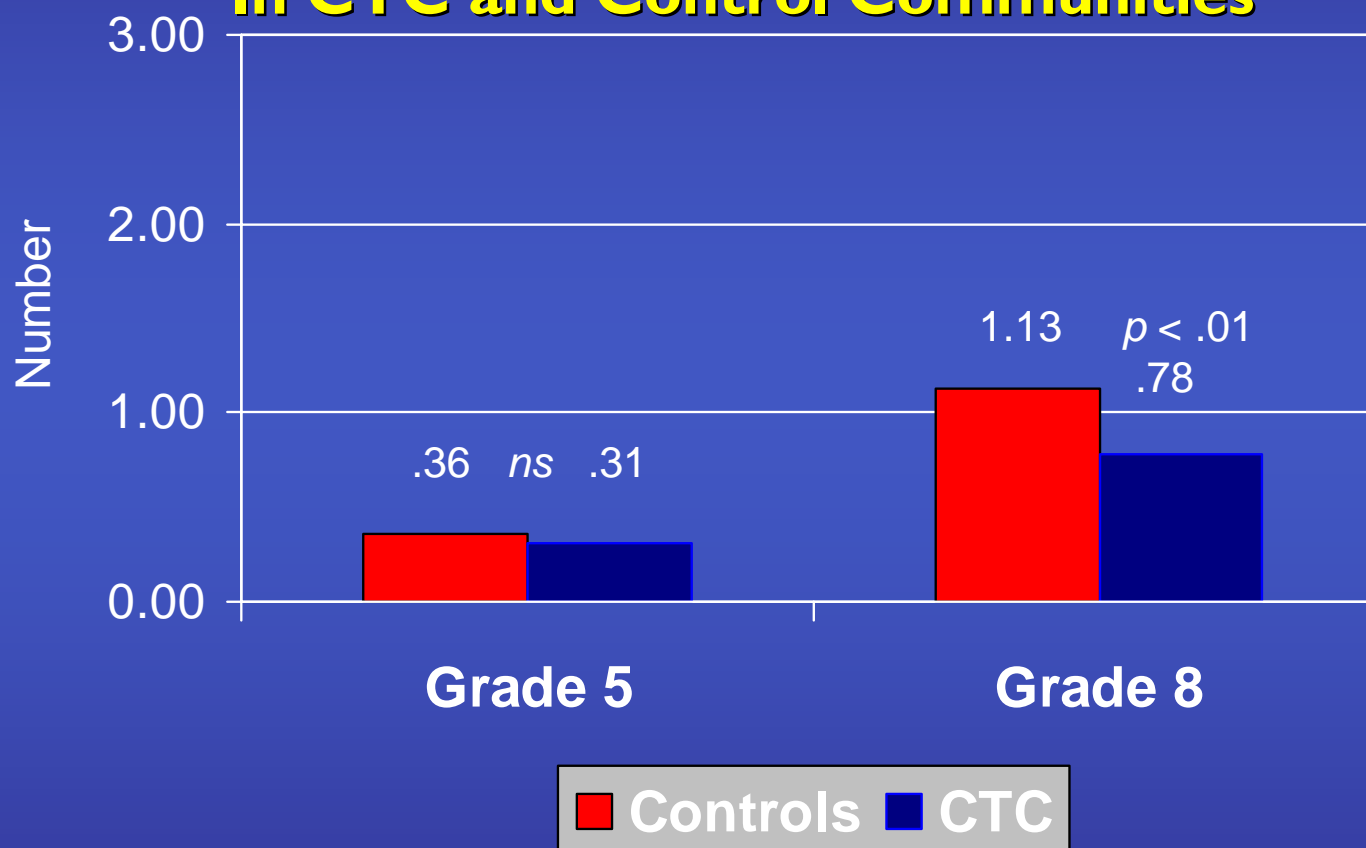


Note. Observed rates averaged across 40 imputations. ns = nonsignificant. $N = 4407$.



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: Evidence of Effects

- Adoption of science-based prevention is higher in CTC communities than in control communities.
- CTC communities and schools are adopting tested & effective programs.
- The new programs are being implemented with fidelity.
- Exposure to targeted risk factors is increasing less rapidly in the panel in CTC than in control communities.
- By the spring of grade 8,
 - significantly fewer panel students in CTC communities than controls have initiated smoking, smokeless tobacco use, alcohol use, and delinquent behavior.
 - Significantly fewer report drug use, specifically current alcohol use, binge drinking, and smokeless tobacco use.
 - Significantly lower rates of delinquent behavior.



Summary and Implications

There is evidence that we can advance public health 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



The **Communities That Care** is
available at:

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

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Charles Shireman Memorial Lecture
March 19, 2009

Communities that Care:
Using the Research Base for Prevention
Science to Promote Community Well Being

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