Using the Research Base for Prevention Science to Reduce Behavioral Health Problems

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Professor, School of Social Work
University of Washington
President, Society for Prevention Research

www.sdrg.org
Objectives

- Why should we care about prevention of adolescent behavioral health problems?
- What is the research base for prevention science?
- How can communities use the research base for prevention?
- Communities that Care examples of impact and scale
Shift in Causes of Mortality in the 21st Century

- There has been a shift in the leading causes of mortality from infectious to non-communicable diseases and conditions
- Behavioral health problems are implicated in this shift
<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Total deaths (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motor Vehicle Crashes</td>
<td>15.9</td>
</tr>
<tr>
<td>2</td>
<td>Accidents</td>
<td>11.5</td>
</tr>
<tr>
<td>3</td>
<td>Intentional self harm (suicide)</td>
<td>10.7</td>
</tr>
<tr>
<td>4</td>
<td>Assault (homicide)</td>
<td>10.3</td>
</tr>
<tr>
<td>5</td>
<td>Malignant neoplasms</td>
<td>3.7</td>
</tr>
<tr>
<td>6</td>
<td>Diseases of heart</td>
<td>2.2</td>
</tr>
<tr>
<td>7</td>
<td>Congenital malformations, deformations and abnormalities</td>
<td>1.0</td>
</tr>
<tr>
<td>8</td>
<td>Influenza and pneumonia</td>
<td>0.5</td>
</tr>
<tr>
<td>9</td>
<td>Cerebrovascular diseases</td>
<td>0.4</td>
</tr>
<tr>
<td>10</td>
<td>Pregnancy, childbirth and the puerperium</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>All other causes (Residual)</td>
<td>11.1</td>
</tr>
</tbody>
</table>

**48.8/100,000 or 72% of all deaths**
# Leading Causes of Mortality 15-24 Year Olds, American Indians/Alaskan Natives (2010, U.S.)

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<tr>
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</tr>
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<tr>
<td>5</td>
<td>Drug-related overdose</td>
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</tr>
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<td>6</td>
<td>Alcohol-related overdose and disease</td>
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66.8/100,000, or 82.6% of all deaths
Keeping the Population Healthy Will Require Reaching Beyond Medical Care

(Hacker & Walker, 2013: AJPH)

- Only 10% of health outcomes are a result of the medical care system
- 50% to 60% of health outcomes are due to behavioral health problems
- Preventive activities must reach beyond the clinical setting and incorporate community and public health systems
- We must enhance our capacity to assess, monitor, and prioritize risk factors that impact patient health outcomes in local communities
Prevention is Critical for Health and Well-being

- Behavioral health problems cause harm in adolescence
- Behavioral health problems established in adolescence cause harm into adulthood
- Preventing these behavioral health problems during adolescence can reduce mortality and morbidity over the life course
Early Prevention Efforts were Ineffective

Example Substance Abuse Prevention

- **Strategies:**
  - Information
  - Fear arousal
  - Just say “no”

- **Outcomes:**
  - No decreases in drug use
  - Some programs *increased* drug use (Tobler, 1986)

*Lesson: Untested ideas can sometimes make things worse.*
Paradigm Shift
A Public Health Approach to Prevention

- To prevent a problem before it happens, address its predictors
- Longitudinal research identified predictors
  - Risk factors
  - Protective factors
- Develop and test in controlled trials programs and policies to target risk and protective factors for change
40 Years of Prevention Science Advances: From Nothing Works to Effective Prevention

- Risk and protective factors that predict behavioral health problems are reliable targets for prevention
- Over 60 prevention programs and policies have been shown to prevent substance use problems in rigorous research
- Public health impact requires building local prevention infrastructure to choose appropriate programs/policies and implement them with fidelity and scale

(DHHS, 2016; Catalano et al., 2012; O’Connell, Boat & Warner, 2009)
## Risk Factors for Adolescent Behavioral Health 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

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Substance/Abuse</th>
<th>Delinquency</th>
<th>Teen Pregnancy</th>
<th>School Drop-Out</th>
<th>Violence</th>
<th>Depression &amp; Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
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<tr>
<td>Family</td>
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<tr>
<td>School</td>
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<td>✅</td>
<td>✅</td>
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<tr>
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<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td></td>
</tr>
</tbody>
</table>
**Much Commonality in Protective Factors for Behavioral Health Problems**

<table>
<thead>
<tr>
<th>Protective Factors</th>
<th>Substance Abuse</th>
<th>Delinquency</th>
<th>Risky Sexual Behavior</th>
<th>School Drop-Out</th>
<th>Violence</th>
<th>Depression &amp; Anxiety</th>
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<tr>
<td><strong>Individual</strong></td>
<td></td>
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<tr>
<td>Cognitive Competence</td>
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<td>✓</td>
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<tr>
<td>Emotional Competence</td>
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<tr>
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</tr>
<tr>
<td>Self Efficacy</td>
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<tr>
<td>Belief in the Future</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Self-determination</td>
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<tr>
<td>Pro-social Norms</td>
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<tr>
<td>Spirituality</td>
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<tr>
<td><strong>Family, School and Community</strong></td>
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<tr>
<td>Opportunities for Positive Social Involvement</td>
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<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Recognition for Positive Behavior</td>
<td>✓</td>
<td>✓</td>
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<td></td>
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<tr>
<td>Bonding to Prosocial Others</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td></td>
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</tbody>
</table>
The Challenge for Community Prevention: Different Communities, Different Needs

- Different Norms & Values
- Different youth problem behaviors
- Different levels of risk and protection
- Different resources & capacity
What We Now Know About Risk and Protective Factors

- Both an individual’s level of risk and level of protection influence behavioral health problems
- Common risk and protective factors predict many behavioral health problems
- Risk and protective factors show much consistency in effects across diverse groups
- Different communities/neighborhoods have different levels of risk and protection, thus may need different effective prevention/promotion programs and policies
Science Guided Prevention

Prevention interventions should target malleable risk and protective factors

(Coe et al., 1994; Mrazek and Haggerty, 1984; Woolf, 2008; O’Connell, Boat & Warner, 2009)
By addressing risk and protection all these behavioral health problems have been prevented in controlled trials.

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Depression</th>
<th>Autistic behaviors</th>
<th>Alcohol, tobacco, other drug use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky driving</td>
<td>Aggressive behavior and conduct problems</td>
<td>Delinquent behavior</td>
<td>Violence</td>
</tr>
<tr>
<td>Self-inflicted injury</td>
<td>Risky sexual behavior</td>
<td></td>
<td>School dropout</td>
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“Failure to invest in the health of the largest generation of adolescents in the world’s history jeopardises earlier investments in maternal and child health, erodes future quality and length of life, and escalates suffering, inequality, and social instability.”
Unleashing the Power of Prevention
Joint Publication of NAM, AASWSW

J. David Hawkins, Jeffrey M. Jenson, Richard Catalano, Mark W. Fraser, Gilbert J. Botvin, Valerie Shapiro, C. Hendricks Brown, William Beardslee, David Brent, Laurel K. Leslie, Mary Jane Rotheram-Borus, Pat Shea, Andy Shih, Elizabeth Anthony, Kevin P. Haggerty, Kimberly Bender, Deborah Gorman-Smith, Erin Casey, and Susan Stone
Progress in Prevention: 40 Years of Research

Controlled trials have identified over 60 effective policies and programs for preventing these behavioral health problems.

- **Effective programs**: [www.blueprintsprograms.com](http://www.blueprintsprograms.com); [https://ies.ed.gov/ncee/wwc/](https://ies.ed.gov/ncee/wwc/)

- **Effective policies**: Surgeon General, 2016; Komro et al., 2016; Anderson et al. 2009, Catalano et al. 2012, Vuolo et al., 2015

<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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<tbody>
<tr>
<td>Nurse-Family Partnership</td>
<td>$30,325</td>
<td>$9,421</td>
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</tr>
<tr>
<td>Chicago Child-Parent Centers</td>
<td>$39,160</td>
<td>$8,124</td>
<td></td>
<td></td>
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<td>$6,237</td>
<td>$2,959</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthening Families Program 10-14</td>
<td>$6,656</td>
<td>$851</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Skills Training</td>
<td>$1,415</td>
<td>$34</td>
<td></td>
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</tr>
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<td>Functional Family Therapy</td>
<td>$37,739</td>
<td>$3,190</td>
<td></td>
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¹Cost estimates are per participant, based on 2003 U.S. dollars for SFP 10-14; 2007 U.S. dollars for the Chicago Child-Parent Centers; and 2010 U.S. dollars for all other interventions.
## Cost-Benefit of Selected Programs*

*Steve Aos, Associate Director, Washington State Institute for Public Policy www.wa.gov/wsipp*

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<th>Program</th>
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Despite this Progress...

Prevention approaches that do not work or have not been evaluated are more widely used than those shown to be efficacious. (Ringwalt, Vincus et al., 2009)
The Challenge

- How can we build prevention infrastructure to increase use of tested and effective prevention policies and programs with fidelity and impact at scale...

while recognizing that communities are different from one another and need to decide locally what policies and programs they use?
IDEA to Enhance Adoption of EBI: Build Prevention Infrastructure at the Community Level

- Build cross-sector prevention/promotion coalitions
- Assess and prioritize risk, protection, and behavior problems
- Match priorities to efficacious preventive/promotive interventions
- Support/sustain quality implementation of efficacious preventive/promotive interventions to all those targeted
Communities That Care: An Effective Approach to Building Prevention/Promotion Infrastructure

CTC is a *proven* method for building prevention/promotion infrastructure

- Developed in 1988, 15 years of implementation and improvement through community based participatory research prior to testing (Fagan et al., 2018)

- CTC has been tested in a randomized controlled trial involving 12 pairs of matched communities across 7 states from Maine to Washington

- CTC’s effects have been independently replicated in a statewide test in Pennsylvania
CTC: A Continuous Improvement Process

1. Get Started
2. Get Organized
3. Develop Community Profile
4. Create a Plan
5. Implement & Evaluate
CTC Youth Survey
Pennsylvania Youth Survey (PAYS) in PA

- Assesses young peoples’ experiences and perspectives.
- Provides valid and reliable measures of risk and protective factors across state, gender, age and racial/ethnic groups. (Arthur et al., 2002; Glaser et al., 2005)
- Identifies levels of risk and protective factors and substance use, crime, violence and depression for state, district, city, school, or neighborhood.
- Provides a foundation for selection of appropriate tested, effective actions.
- Monitors effects of chosen actions by repeating surveys every two years.

The CTC Youth Survey is in the public domain
www.communitiesthatcare.net
Communities have Different Priority Risks

Risk Profile A

Survey Participation Rate 2002: 79.7%

Percent At Risk

Risk Profile A

Community Family School Peer-Individual

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Blueprints for Healthy Youth Development

Blueprints: Your Resource for Healthy Youth Development Programs

First time here? Try our Step-by-Step Search Approach

Get Started >>

Find What Works

Match your children's needs to cost-effective programs that meet the highest scientific standard of evidence for promoting youth behavior, education, emotional well-being, health, and positive relationships.

View videos: "Why Use Blueprints" and "How Blueprints Helps."

We review and rate programs that promote positive youth development.

Find a program that matches your needs with the tools below, or view our entire List of Programs »
How it Works

- Form task forces.
- Identify and train implementers.
- Track fidelity and reach.
- Evaluate outcomes annually.
- Evaluate community outcomes every two years.
- Adjust programming.

1. Get Started
2. Get Organized
3. Develop Community Profile
4. Create a Plan
5. Implement & Evaluate
## Communities That Care

**Process and Timeline**

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<thead>
<tr>
<th>Process</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| - Assess readiness, Mobilize the community  
- Assess risk, protection and resources  
- Develop strategic plan | - Increase in priority protective factors  
- Decrease in priority risk factors | - Increase in positive youth development  
- Reduction in problem behaviors |

### Measurable Outcomes

- **6-9 mos.**
- **1 year**
- **2-5 yrs.**
- **3-10 yrs.**
- **10-15 yrs.**
Community Youth Development Study (CYDS): A Test of Communities That Care

24 incorporated towns
~ Matched in pairs within state
~ Randomly assigned to CTC or control condition

5-year implementation phase

3-year follow-up post intervention

Longitudinal panel of students
~ N=4,407 - population sample of public schools
~ Surveyed annually starting in grade 5
## CYDS Communities Targeted a Variety of Risk Factors

<table>
<thead>
<tr>
<th>RISK FACTORS</th>
<th>CTC Community</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Laws and norms favorable to drug use</td>
<td></td>
</tr>
<tr>
<td>Low commitment to school</td>
<td>x</td>
</tr>
<tr>
<td>Academic failure</td>
<td></td>
</tr>
<tr>
<td>Family conflict</td>
<td>x</td>
</tr>
<tr>
<td>Poor family management</td>
<td></td>
</tr>
<tr>
<td>Parental attitudes favorable to problem behavior</td>
<td></td>
</tr>
<tr>
<td>Drug using and antisocial friends</td>
<td>x</td>
</tr>
<tr>
<td>Peer rewards for antisocial behavior</td>
<td>x</td>
</tr>
<tr>
<td>Attitudes favorable to antisocial behavior</td>
<td>x</td>
</tr>
<tr>
<td>Rebelliousness</td>
<td>x</td>
</tr>
<tr>
<td>Low perceived risk of drug use</td>
<td></td>
</tr>
</tbody>
</table>
## Number of CYDS Communities Implementing Tested-effective Programs

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School-Based</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Stars Core</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Life Skills Training (LST)</td>
<td>2</td>
<td>4*</td>
<td>5*</td>
<td>5*</td>
</tr>
<tr>
<td>Lion’s Quest SFA (LQ-SFA)</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Olweus Bullying Prevention Program</td>
<td>-</td>
<td>2*</td>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td>Program Development Evaluation Training</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Project Alert</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Project Northland-Class Action</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1*</td>
</tr>
<tr>
<td>Towards No Drug Abuse (TNDA)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td><strong>After-School</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big Brothers/Big Sisters</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Participate and Learn Skills (PALS)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Stay SMART</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Tutoring (generic programs)</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Valued Youth Tutoring Program</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Parent Training</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Matters</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Guiding Good Choices</td>
<td>6</td>
<td>7*</td>
<td>8*</td>
<td>7</td>
</tr>
<tr>
<td>Parenting Wisely</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Parents Who Care</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Strengthening Families 10-14</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total number of programs</strong></td>
<td>27</td>
<td>38</td>
<td>37</td>
<td>39</td>
</tr>
</tbody>
</table>

*Program funded through local resources in some communities

(Fagan et al., 2009)
CYDS Adherence Rates
Averaged across four years

Percentage of material taught or core components achieved

- School-based
- After-School
- Parent Training

60% fidelity standard
### CTC Effects on Youth Outcomes - CYDS

<table>
<thead>
<tr>
<th></th>
<th>Age 11</th>
<th>Age 12</th>
<th>Age 13</th>
<th>Age 14</th>
<th>Age 16</th>
<th>Age 18</th>
<th>Age 19</th>
<th>Age 21</th>
<th>Age 23</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 5</td>
<td>Grade 6</td>
<td>Grade 7</td>
<td>Grade 8</td>
<td>Grade 10</td>
<td>Grade 12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- ✓ = significant CTC effect
- ns = not significant
- empty cells = CTC effect not tested

*Gateway drugs* = alcohol, cigarettes, or marijuana.  *Any drugs* include gateway drugs, nonmedical use of prescription drugs, inhalants, LSD, cocaine, stimulants, ecstasy, and other illicit drugs.
## CTC Effects on Youth Outcomes - CYDS

<table>
<thead>
<tr>
<th>Risk</th>
<th>Baseline</th>
<th>✓</th>
<th>ns</th>
<th>✓</th>
<th>ns</th>
<th>ns</th>
</tr>
</thead>
</table>

### Age Groups
- **Age 11 Grade 5**
- **Age 12 Grade 6**
- **Age 13 Grade 7**
- **Age 14 Grade 8**
- **Age 16 Grade 10**
- **Age 18 Grade 12**
- **Age 19**
- **Age 21**

### Years
- **2004**
- **2005**
- **2006**
- **2007**
- **2009**
- **2011**
- **2012**
- **2014**

### Risk Protection

- ✓ = significant CTC effect
- ns = not significant
- empty cells = CTC effect not tested

*Gateway drugs* = alcohol, cigarettes, or marijuana. *Any drugs* include gateway drugs, nonmedical use of prescription drugs, inhalants, LSD, cocaine, stimulants, ecstasy, and other illicit drugs.
### CTC Effects on Youth Outcomes - CYDS

<table>
<thead>
<tr>
<th>Risk Protection</th>
<th>Age 11 Grade 5</th>
<th>Age 12 Grade 6</th>
<th>Age 13 Grade 7</th>
<th>Age 14 Grade 8</th>
<th>Age 16 Grade 10</th>
<th>Age 18 Grade 12</th>
<th>Age 19</th>
<th>Age 21</th>
</tr>
</thead>
</table>

**Delayed Initiation and Sustained Abstinence**

<table>
<thead>
<tr>
<th>Antisocial Behavior</th>
<th>Age 11 Grade 5</th>
<th>Age 12 Grade 6</th>
<th>Age 13 Grade 7</th>
<th>Age 14 Grade 8</th>
<th>Age 16 Grade 10</th>
<th>Age 18 Grade 12</th>
<th>Age 19</th>
<th>Age 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Gateway Drugs#</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ns</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>ns</td>
<td>ns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cigarettes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>males</td>
<td>males</td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
<td>males</td>
<td>males</td>
<td></td>
</tr>
<tr>
<td>Any Drugs+</td>
<td>ns</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>males</td>
<td>ns</td>
</tr>
</tbody>
</table>

✓ = significant CTC effect  
ns = not significant  
empty cells = CTC effect not tested

*Gateway drugs* = alcohol, cigarettes, or marijuana.  
*Any drugs* include gateway drugs, nonmedical use of prescription drugs, inhalants, LSD, cocaine, stimulants, ecstasy, and other illicit drugs.
## CTC Effects on Youth Outcomes - CYDS

<table>
<thead>
<tr>
<th>Age 11 (Grade 5)</th>
<th>Age 12 (Grade 6)</th>
<th>Age 13 (Grade 7)</th>
<th>Age 14 (Grade 8)</th>
<th>Age 16 (Grade 10)</th>
<th>Age 18 (Grade 12)</th>
<th>Age 19</th>
<th>Age 21</th>
</tr>
</thead>
</table>

### Risk Baseline
- ✓ = significant CTC effect  
- ns = not significant  
- Empty cells = CTC effect not tested

### Protection
- ✓ = significant CTC effect  
- ns = not significant

### Delayed Initiation and Sustained Abstinence

#### Antisocial Behavior
- ✓ = significant CTC effect  
- ns = not significant  
-〆 = alcohol, cigarettes, or marijuana.

#### Violence
- ✓ = significant CTC effect  
- ns = not significant

#### Gateway Drugs*
- ✓ = significant CTC effect  
- ns = not significant

#### Alcohol
- ✓ = significant CTC effect  
- ns = not significant

#### Cigarettes
- ✓ = significant CTC effect  
- ns = not significant

#### Marijuana
- ns = not significant

#### Any Drugs+
- ✓ = significant CTC effect  
- ns = not significant

### Reduced Prevalence of Recent Behavior (Past-month/Past-Year)

#### Antisocial Behavior
- ✓ = significant CTC effect  
- ns = not significant  
- Empty cells = CTC effect not tested

#### Violence
- ✓ = significant CTC effect  
- ns = not significant

#### Alcohol
- ✓ = significant CTC effect  
- ns = not significant

#### Binge Drinking
- ✓ = significant CTC effect  
- ns = not significant

#### Cigarettes
- ✓ = significant CTC effect  
- ns = not significant

#### Smokeless Tobacco
- ✓ = significant CTC effect  
- ns = not significant

---

*Gateway drugs = alcohol, cigarettes, or marijuana.  
*Any drugs include gateway drugs, nonmedical use of prescription drugs, inhalants, LSD, cocaine, stimulants, ecstasy, and other illicit drugs. Hawkins et al., various
## Benefit-Cost Analysis Summary

### CTC Effects on Cumulative Initiation – Grade 12

<table>
<thead>
<tr>
<th></th>
<th>Benefits monetized</th>
<th>CTC 12th Grade Total</th>
<th>WSIPP Adjustments to Effect Sizes *</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discounted 2011 dollars</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminal Justice System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victimization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Earnings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Loss</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>($556)</td>
<td>($556)</td>
<td></td>
</tr>
<tr>
<td><strong>Net Present Value</strong></td>
<td></td>
<td>$3,920</td>
<td>$1,749</td>
</tr>
<tr>
<td><strong>Benefit Cost Ratio</strong></td>
<td></td>
<td>8.22</td>
<td>4.23</td>
</tr>
<tr>
<td><strong>Investment Risk: % trials NPV &gt; $0</strong></td>
<td></td>
<td>100%</td>
<td>99%</td>
</tr>
</tbody>
</table>

- WSIPP halves effects when the program developer is involved in the trial – as it was in the CYDS (Hawkins involved). *(Kuklinski et al., 2015)*
Communities that Care

Franklin County, MA
Distribution of Elevated Risk Factors 2003-2015
Franklin County CTC
Elevated Risk Factors, 2003

number of risk factors per student
Franklin County CTC
Elevated Risk Factors, 2006
Franklin County CTC
Elevated Risk Factors, 2009

number of risk factors per student
Franklin County CTC
Elevated Risk Factors, 2012

number of risk factors per student
Franklin County CTC
Elevated Risk Factors, 2015
Scaling CTC
What is Possible in Two Decades?

• Pennsylvania Adopted CTC in 1994

• 16 cycles of CTC training have been delivered.

• About 65 CTC communities are currently functioning.

• First opportunity to study CTC in a long-term large-scale implementation under real-world conditions - developers not involved in the research.
Pennsylvania’s EBP dissemination in 1999...
Pennsylvania’s EBP dissemination in 2015...
Pennsylvania’s CTC coalitions
CTC Improves Academic Performance and School Engagement and Reduces Delinquency in Pennsylvania

(Feinberg, Greenberg et al., 2010).
Scaling Communities That Care
workshops are now online making access easy from anywhere at anytime.
Web streamed workshops

• Content provided by experts in brief videos followed by checks for understanding and activities to ensure learning and application
• Workshops divided into 50 modules with facilitator guides
• 3 types of video content (122 total videos):
  1. Big idea
  2. Instructional
  3. Testimonial
Colorado adopted CTC as a statewide prevention system in 2016.

Budget for 2017-2018 using marijuana tax revenue:

$9,100,000
COLORADO
COMMUNITIES THAT CARE (CTC), 2017 - 2018
$9,100,000
48 COMMUNITIES THAT CARE IN 42 COUNTIES
Colorado’s coaching and TA infrastructure supports high-quality implementation of CTC

Center for CTC - University of Washington

48 Colorado CTC Communities
Despite the Evidence of the Effectiveness of Prevention, We Continue to Invest Less in Prevention

Federal Drug Control Spending For FY 2008 through 2017

Need for Advocacy
Unleashing the Power of Prevention

An Action Plan to Advance Prevention Practice and Policy
Unleashing the Power of Prevention

- A summary of evidence pertaining to behavioral health problems and an action plan aimed at increasing the widespread use of preventive interventions

- Developed by the Coalition for the Promotion of Behavioral Health
  
  - Published as a Discussion Paper by the National Academy of Medicine

  - Selected as a Grand Challenge initiative by the Academy of Social Work and Social Welfare
Unleashing the Power of Prevention
10 Year Goals

- Reduce the incidence and prevalence of behavioral health problems in the population of young people from birth through age 24 by 20%
- Reduce racial and socioeconomic disparities in behavioral health problems by 20%
How Can We Advocate for Adequate Funding for Prevention?

- Increase public awareness of Prevention Science
- Increase public funding for evidence based prevention
- Increase the number of states that have criteria for evidence based interventions
- Increase utilization of evidence-based Prevention programs and policies
- Build prevention infrastructure and capacity at the community level
- Increase trained workforce to deliver evidence-based Prevention
Conclusions

- Behavioral health problems are significant causes of adolescent morbidity and mortality
- Risk and protective factors that predict behavioral health problems are potential targets for intervention
- Controlled trials show that policies and programs can prevent adolescent behavioral health problems
- CTC uses implementation science to build prevention infrastructure to achieve prevention intervention fidelity and impact at scale
- To achieve widespread implementation of evidence based prevention advocacy is necessary and timely
Thank You!

Richard F. Catalano, Ph.D.
Co-Founder, Social Development Research Group
Professor, School of Social Work
University of Washington

www.sdrg.org

Join the Coalition!
Jeffrey.Jenson@du.edu
Communities That Care (CTC) is a coalition-based prevention system implemented successfully in hundreds of communities across the world that promotes healthy development and reduces crime rates for youth.

- Contains the first comprehensive description of the development, through community-based participatory research, implementation, and evaluation of the Communities that Care prevention system

- Includes the results of a benefit-cost analysis and beneficial findings demonstrated over a 14-year period

- Provides a comprehensive and current review of the literature related to community-based prevention