Perspectives from the National Institute on Drug Abuse: Using Prevention Research to Promote Health and Well-Being in Youth

Aleta Lynn Meyer, Ph.D.
Prevention Research Branch
Division of Epidemiology, Services and Prevention Research
National Institute on Drug Abuse

NIDA Prevention Research Branch Mission

NIDA's Prevention Research Branch supports a theory driven program of basic, clinical, and services research across the lifespan to reduce risks and prevent the initiation and progression of drug use to abuse and prevent drug-related HIV acquisition, transmission and progression.

Translational Research Perspective

Theory
Epidemiology
Etiology
Empirical Data

Type 1

Rigorous Testing of Hypothesized Programs, Practices, and Policies

Type 2

Real world settings: Training, Financing, Sustainability, etc.

Type One Translation: Examples from Current NIDA Prevention

- Friends Helping Friends: Socially Responsible ATOD Prevention (C. Flanagan, PI)
- Effects of Yoga on Physiological and Behavioral Precursors of Drug Abuse (D. Fishbein, PI)

Type Two Translation: Examples from Current NIDA Prevention

- Adaptation Processes in School-Based Substance Abuse Program (M. Hecht, PI)
- Testing the Community Change Model with Substance Abuse Coalitions (S. Fawcett, PI)

National Institute on Drug Abuse

Preventing Drug Use among Children and Adolescents

A Research-Based Guide

for Parents, Educators, and Community Leaders

Second Edition

U.S. DEPARTMENT OF
HEALTH AND HUMAN SERVICES
National Institutes of Health

Principles Related to:

Risk and Protective Factors

- Prevention programs should
  - enhance protective factors and reverse or reduce risk factors
  - address all forms of drug abuse, alone or in combination
  - Address the drug abuse problems of the local community by targeting modifiable risk factors and strengthening protective factors
  - Be tailored to address the risks specific to the target population

Principles Related to:

Prevention Planning

- Family programs should
  - Enhance family bonding, parenting skills, and communication
- School Programs should be specific to the developmental status of the children
  - Before/during the **elementary school years:** self control, emotional awareness, problem solving, communication & academic readiness/competence
  - **Middle, junior high, and high school**: peer relations, study habits and academic support, communication, self-efficacy and assertiveness, drug resistance skills

Family-level Risk and Protective Factors

Risk Factors	*Protective Factors*
Harsh discipline	Consistent discipline
Rejection / neglect	Close family bond
Lax supervision	Monitoring / supervision
Parent / sibling drug use	Anti-drug family rules
High family conflict	Family communication
Parent mental illness or life stress	Functional family

Reduce these

Elevate these

Principles Related to:

Prevention Program Delivery

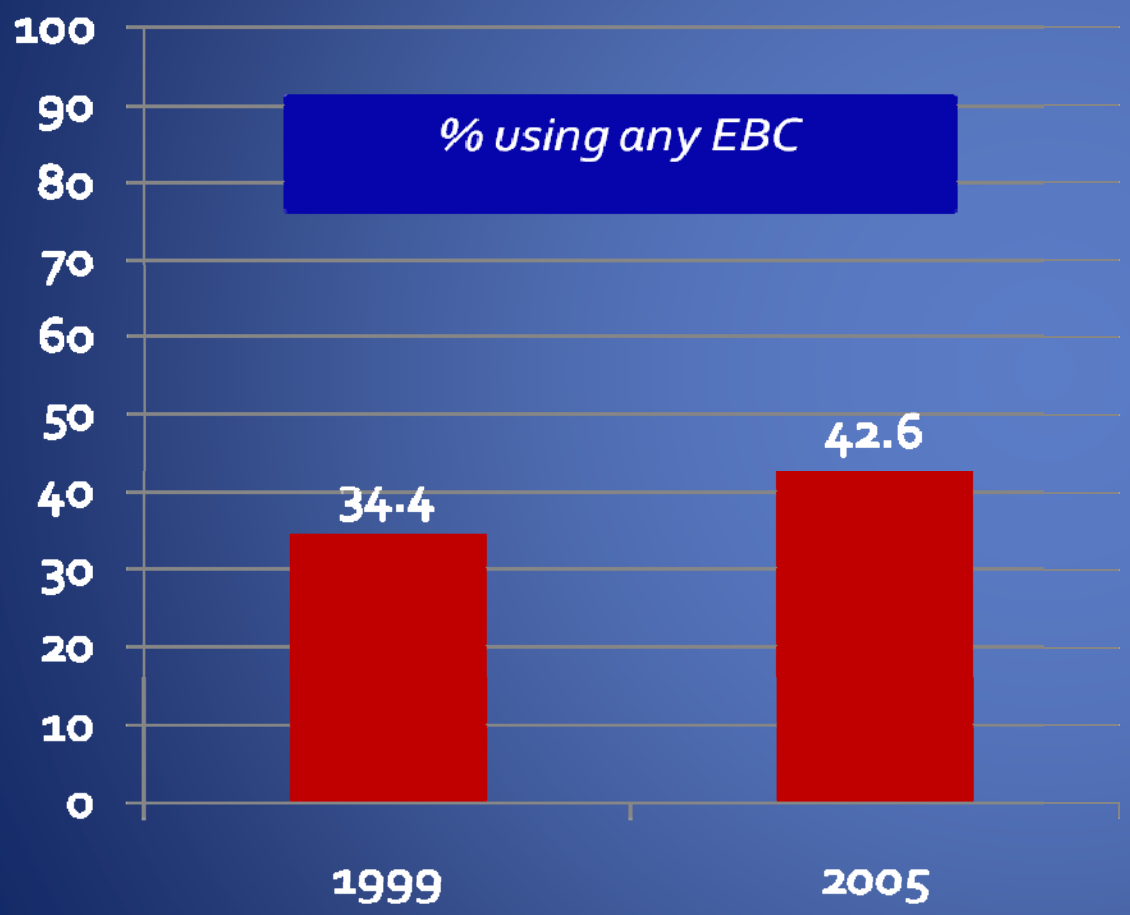
- When communities select programs to meet their needs, the implementation should retain the core elements of the original program
- Prevention is an on-going effort with repeated programming over time to reinforce earlier goals and develop new skills
- Teacher training in classroom management is a critical school-based prevention strategy
- Evidence based prevention interventions are cost effective

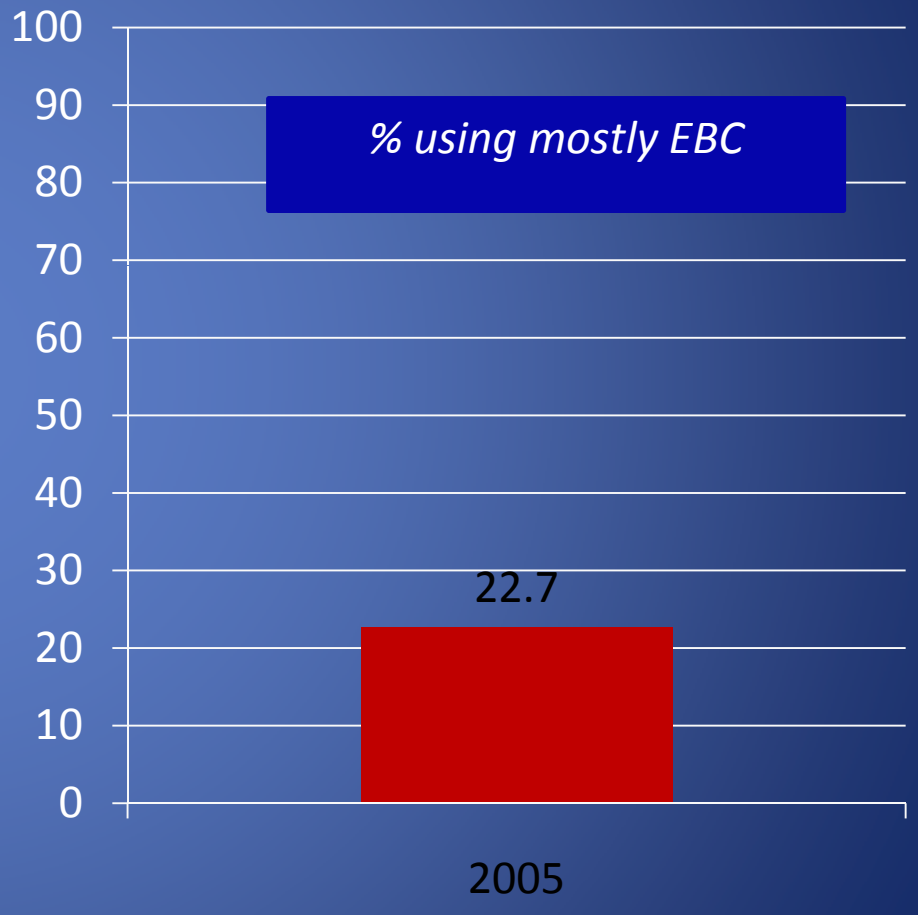
The Prevalence of Evidence-based Drug Use Prevention Curricula (EBC) in the Nation's Middle Schools

- Over 20 years of prevention science has produced many EBCs for school settings
  - Long-term follow-up demonstrates impact that lasts into adulthood (with crossover effects)
- Since 1998, many attempts have been made to promote implementation of EBCs
  - For example, schools receiving funds through Dept of Ed's Safe and Drug Free schools are required to implement EBCs on registries
- Current study tracks use of universal EBCs into U.S. public middle schools in 1999 and 2005

Ringwalt, et al. (2009). *Prevention Science*, 10, 33-40.

More Schools Use Evidence-Based Curricula (EBC), but Most Still Do Not





Ringwalt, et al., *Prev Sci*, 10 (2009), pp. 33-40

Additionally …

- 40% of middle schools used programs that were developed locally (17% used these the most)
- In a parallel study of high schools, 10% used EBCs (6% used EBC the most) (Ringwalt et al., 2008)

Research Questions

- Why do 75% of middle schools and 90% of high schools continue to administer curricula not identified as effective?
- Under what conditions do schools choose EBCs and continue to implement them?
- What adaptation, coaching, and technical assistance processes facilitate sustained implementation of EBCs?
- What communities drivers promote uptake and sustainability?

Big Picture of Prevention Science

Robertson, 2002

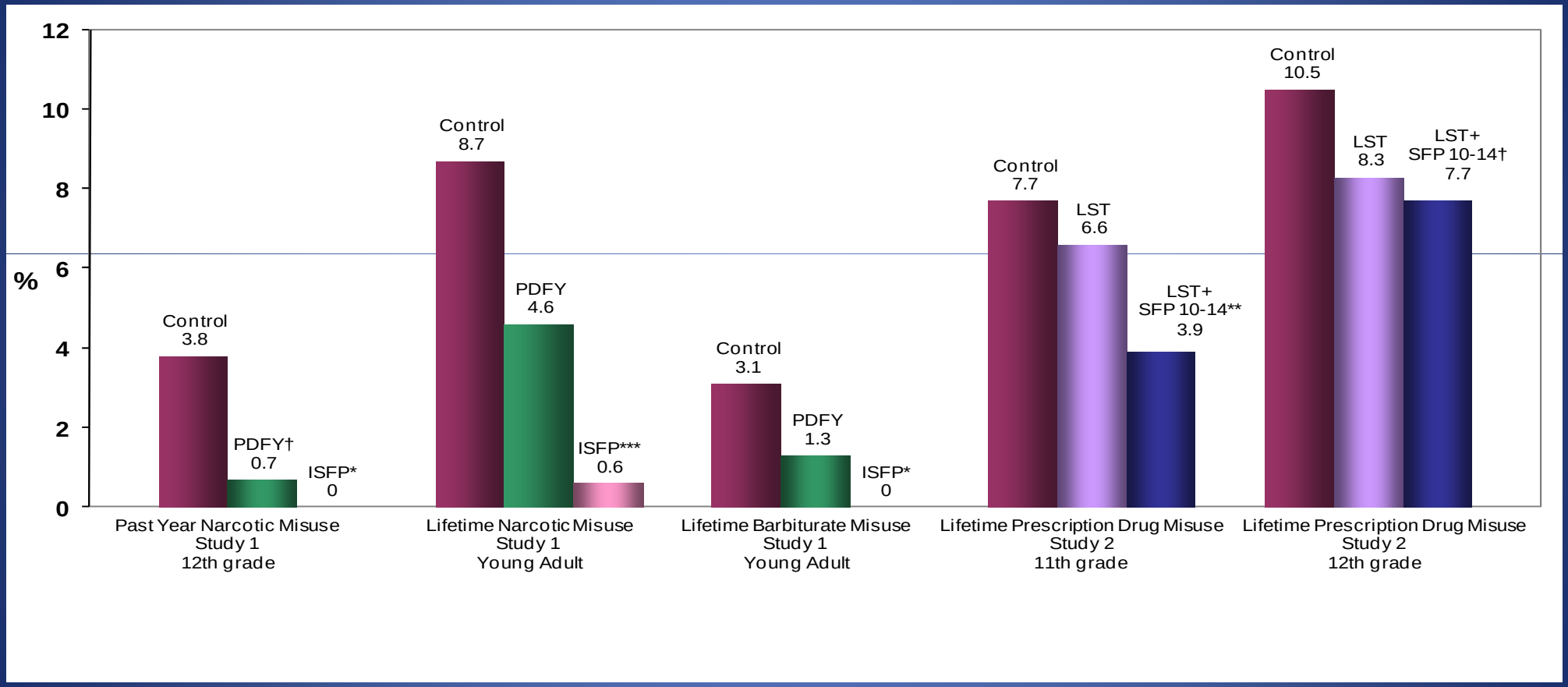
Rationale for PROSPER
A Model for Translating Effective EBP's

- Existing EBP has 65% relative reduction rate for adolescent lifetime methamphetamine use; if reached 25% of those eligible, would prevention 16,250 for every 100,000 (Spoth, Clair, Shin, & Redmond, 2006)
- Two options for increasing prevention to 25,000 per 100,000
  - Increase reach from 25% to 39%
  - Develop and test new intervention that could be 100% effective (with 25% reached)
- Builds on two decades of prevention science (Spoth & Greenburg)

PROSPER Realizes Translational Opportunities through Partnerships

- Type Two Translation
  - Requires effective partnerships between scientists and the practitioners who would implement EBPs in a quality and sustained way
  - Requires optimizing utilization of **existing infrastructures** to support these partnerships
- Cooperative Extension System
  - Largest informal education system in the world
  - Over 3,150 agents in nearly every county
  - Science with practice orientation
- Public School System
  - Universal system reaching nearly all children
  - States have networks for programming support
  - Increasing emphasis on accountability/empirical orientation

Long-term Effects of Universal Preventive Interventions on Prescription Drug Misuse



Spoth, R., Trudeau, T., Shin, C., & Redmond, C. (2008). Brief report on long-term effects of universal preventive interventions on prescription drug misuse among 17-21 year olds. *Addiction,* 103, 1160-1168.

Communities That Care
Prevention System

- **CTC allows local coalitions to choose programs that match their risks.**

- **Focuses on reducing the risk factors that predict alcohol, tobacco, and drug initiation and other risky behaviors.**

Community Youth Development Study

- **A Community Randomized Trial of CTC**
- **24 small towns (randomly assigned to CTC or control)**
- **7 States**
- **4407 5th Graders- Surveyed Annually through 8th grade**

Population Effects of CTC

- Compared with control communities, CTC significantly reduced the incidence of tobacco use, alcohol use and delinquent behavior community wide by end of 8th grade.

- Compared with control communities, CTC significantly reduced the prevalence of smokeless tobacco use, current drinking, binge drinking and delinquent behavior community wide in 8th grade.

Evidence-Based Kernels (Embry and Biglan, 2008)

- Fundamental units of behavioral influence that appear to underlie effective prevention and treatment
  - Shown to experimental analysis to have a reliable effect
  - Deletion of any component would render inert
- Examples:
  - Verbal praise
  - Peer to peer written praise
  - Cues in transition
  - “Beat the Timer”

Using Prevention Research to Promote Health and Well-Being in Youth: Questions to Consider

- Program Level
  - What is the evidence to indicate the program affects key risk and protective factors for substance use?
  - What are the long-term impacts?
  - Has it been implemented outside of original site of research?

- Community Level
  - What data is available about community's strengths and needs?
  - What programs match the goals of this community?
  - What community-level drivers exist to promote uptake and sustain the effort over time?
  - What organizational supports and infrastructures exist within settings?

Funding Opportunity Announcements

- Recovery Act Limited Competition: Building Sustainable Community-Linked Infrastructure to Enable Health Science Research (RC4)
  - Due December 12, 2009
- Substance Use and Abuse among U.S. Military Personnel, Veterans and their Families (R01, R21)
  - Due December 22, 2009