

**Dollars and Sense:
Return on Investment in Youth
Substance Abuse Prevention Programs**

**Beverlie Fallik, PhD, CSAP
Ted R Miller, PhD, PIRE**

WHY CONSIDER COST?



From NIDA Monograph 76, 1998

- **In an era of managed care, downsizing of Government services and**
- **Budgets... the practice of drug abuse prevention finds it necessary to address a number of interrelated critical questions...:**
- **What are the costs associated with those programs and are those programs and policies beneficial to those receiving them? ...**
- **what prevention programs and services have demonstrated their cost-effectiveness or cost benefit and can be implemented in the evolving healthcare system under the pressures of managed care?**

GREAT IDEAS 2001

- **CSAP Cost and Benefit Methodologies Expert Panel Meeting, 2001**
- **Identified current status, findings, issues, obstacles, needs**
- **Made recommendations**
- **Developed action plan**

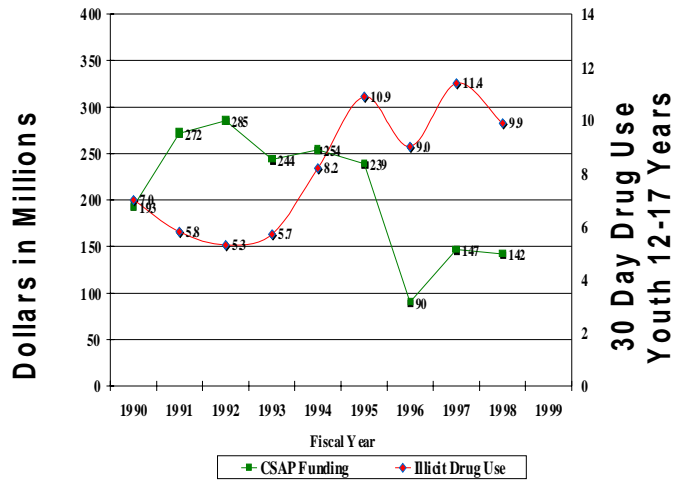
Some Recommendations from 2001

- **Reach consensus on prevention definitions**
- **Standardize costs to include in calculations**
- **Reach consensus on associated benefits**
- **Cost data should be part of data requirements**
- **Develop templates**
- **.....**

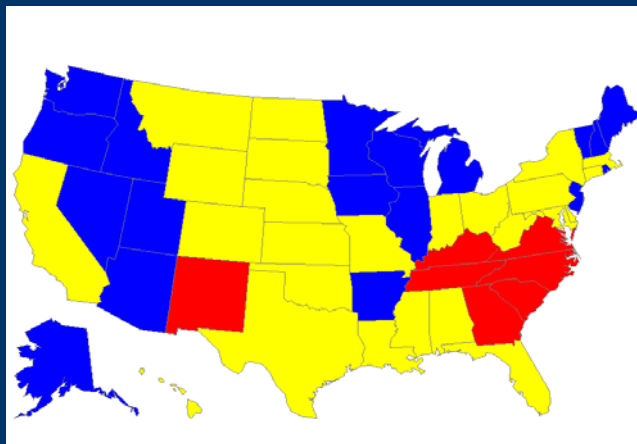
A Beginning but: ...

- **Identified Cost Bands for IOM categories (PART)**
- **Working on a standard instrument**
 - ⊕ **Valid and Reliable measures estimating common categories**
 - **Monetary and non-monetary expenses by category**
 - **Type of staff**
 - **Volunteer time**
 - **Equipment and overhead**
 - **Travel expenses**
 - **In kind contributions**
- **Various findings show value of prevention**

CSAP Discretionary Grant Funds and Illicit Drug Use



Cost-Benefit Ratio of Smoking-Related HealthCare Expenditures versus Tax Revenues from the Sale of Cigarettes in Each State and the District of Columbia



■ costs more than 20 times greater than revenues
 ■ costs between 10 and 20 times greater than revenues
 ■ Costs between 5 and 10 times greater than revenues

DCC, 2001

WHAT IS NEEDED

- **Need a comprehensive and coordinated strategy**
- **Need to demonstrate cost benefit, cost effectiveness of prevention programs**
 - ⊕ **For policymakers**
 - ⊕ **For practitioners**
 - ⊕ **For the public**

Why Do Cost Savings Analyses?

- **Project financial soundness**
- **Compare alternatives**
- **Evaluate return on investment**
- **Fund-raising: savings to prospective & actual funders**
- **Public/political**

You are the Governor of OH

- 11.4 M residents**
- 110K deaths in 2001**
- Can I convince you to continue my \$2 M alcohol-related injury prevention program?**

- We did a thorough evaluation. The results are highly significant statistically. Our program reduced deaths and hospital admissions due to alcohol-related injury by 1%.**

- **Our program prevented 76 deaths and 1820 hospital admissions last year.**

- **Our \$2 M program saved OH taxpayers \$106 M in medical payments and work losses last year. That's \$5.50 per OH resident.**

- **Walk thru BCA of a typical program**
- **BCAs for NREPP programs**

Cost-Benefit Analysis of School-based SA Prevention Programs

- **Looked at a typical program**
- **% of youth 12-14 who delay start-up due to the program**
- **Prevention delays start of substance use by 2 years on average**
- **# youth delaying use**
- **% reduction in substance use**

- **Total cost savings =
Cost of use x % reduced**
- **Divide the cost saving benefits by
program cost**
- **State & local government savings**

2 Lit Reviews: Mean of Technically Sound Non-Zero Effectiveness Estimates

	% of Youth 12-14 Delaying Use	# of Programs
Alcohol	4.7%	10
Marijuana	4.1%	9
Cocaine	2.7%	8
Tobacco	4.7%	9

**Assume Effectiveness Drops 25%
in Replication**

**Suppose We Had Universal Prevention
Programming in 2002**

	Youth 12-14 Delaying Initiation
Alcohol	446,000
Marijuana	389,000
Cocaine	247,000
Tobacco	436,000

	Reduction Past Month Users Ages 12-14	% Prevented
Drinking	267,000	5.6%
Binge Drinking	169,000	6.0%
Marijuana Use	183,000	8.6%
Cocaine Use	138,000	34.4%
Tobacco Use	205,000	8.9%
Regular Smoking	72,000	8.0%

**Equally Large Reductions Would
Occur in 2003**

What Costs Result from Using?

- **Illness/Poisoning**
- **Violent Crime**
- **Property Crime**
- **Public Order/Supply Crimes ***
- **Impaired Driving**
- **Other Injury ***

*** Not costed for tobacco**

What Costs Result from Using?

MONETARY COSTS

- **Medical**
- **Work Loss**
- **Other Resources (Property Damage/Police)**

- **Quality of Life – Controversial to Put a \$ Value On**

**Total Savings from Universal School-based
SA Prevention in 2002, Ages 12-14
(B=Billions of \$)**

	Monetary	Total
Alcohol	\$10.1 B	\$25.9 B
Marijuana	0.6 B	1.0 B
Cocaine	6.7 B	11.5 B
Tobacco	16.1 B	60.1 B
TOTAL	\$33.5 B	\$98.6 B

Program Cost/Pupil

- **\$220 average across 11 programs**
- **Includes training of teachers**
- **Teacher salaries, fringe, & overhead**
- **Program materials**

Return on Investment (ROI)

Savings/Pupil	\$3,960
Cost/Pupil	\$220
Cost/Benefit Ratio (ROI)	18 : 1 (6 : 1 monetary)
Net Savings/Pupil	\$3,740

State & Local Government Savings = \$1.3 Billion

Juvenile Justice	\$97 M
Education	\$1,038 M
Education	\$175 M
Total	\$1,310 M

**BCRs for School-Based Pgms (D=drugs
M=marijuana T=tobacco V=violence)**

PROGRAM	Cost/ Kid	% Alc Redux	BCR
All Stars MT	\$140	7%	34
Keepin' It Real MT	\$130	11%	28
Life Skills Training DT	\$220	1%	21
Project Northland DT	\$400	7%	17
Project Star MidwstPrevPgm DT	\$400	3%	10
Project Alert D	\$120	0%	6

**BCRs for Youth Development Programs
(with costs & benefits computed comparably)**

PROGRAM	Cost/ Kid	% Alc Redux	BCR
Family Matters T	\$160	7%	30
Family Strengthening (IA) DT	\$880	18%	11
Adolescent Transitions T	\$1220	14%	8
Social Competence Promo –	\$350	11%	7
Child Development Pjt D	\$230	4.5%	6
SOAR V Dropout	\$3200		6
Guiding Good Choices (Prening f/Drug-Free Yrs) MV	\$710	8%	3.4

BCRs for Other Environmental Interventions (costs & benefits computed comparably)

PROGRAM	BCR
20% Alcohol Tax	9
30% Alcohol Tax	6
21 Minimum Drinking Age	4
Mandatory Server Training	4
Enforce Serving Intoxicated Patrons Law	84
Provisional Licens, 12AM Driving Curfew	8
Zero ETOH Tolerance, Driver LT 21	25
Workplace Peer Support & AOD Testing	30

Prevention Approaches Can Impact Broadly or Narrowly

- Thinning Alcohol Outlet Density or Raising Alcohol Taxes changes alcohol consumption & thus reduces all alcohol-related problems**
- Creating Defensible Space (thru lighting, gating, etc.) only reduces violence**
- Evaluations often do not assess some impacts, notably for midnight driving curfew, 0-tolerance, .08**

BCRs for Youth Smoking Prevention

PROGRAM	Cost/ Kid	% Redux	BCR
MN Smoking Prevention Pgm	\$95	11%	59
Know Your Body	\$140	14%	43
Good Behavior Game ++	\$61	5%	35
Project Toward No Tobacco	\$180	5.5%	16
Anti-smoking Mass Media Campaign	\$370	5.5%	10
All Stars AM	\$140	6%	34

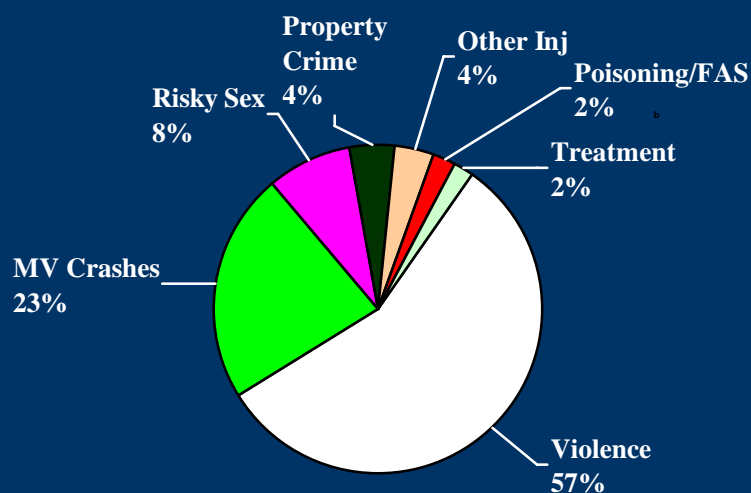
Conclusions

- Some programs are better than others
- Some programs should only be used in special circumstances
- Often one must trade off the largest impact vs the largest return per \$ spent

How do we sell prevention? Fact sheets by state available

- Underage drinking incidence & costs at www.iaaonline.org/profiles.php
- Impaired driving costs & B/C ratios at www.epidcc.samhsa.gov/
 - Be careful in comparing: Mixes differences in incidence & in reporting

Health & Safety Advocacy Underage Drinking Costs \$62 B/Year



**How can we make \$62 B
comprehensible?**



Use a yardstick

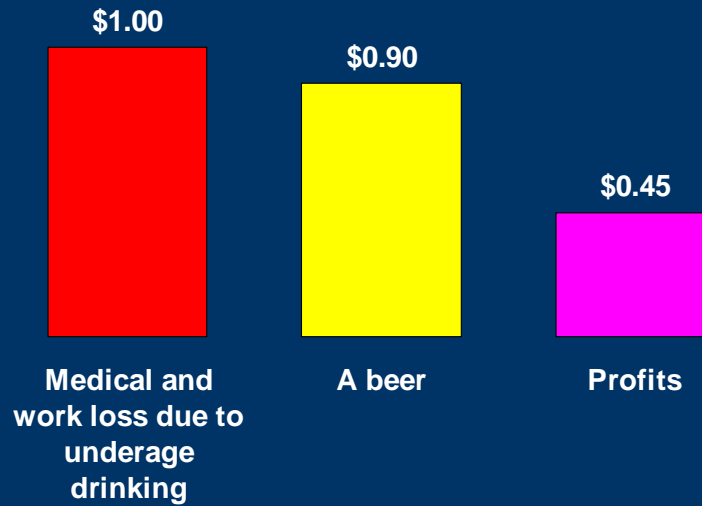
\$61.9B

**Underage
drinking**

\$67.6B

Tuition

Find a Sensible Exposure Measure to Divide By



- **3 Soundbites, 2 dozen variants, work your way back**
- **Do not create the wrong story**
- **Beware silence**
- **Rule of 3s**
- **Rhyme, alliteration**
- **Passion**
- **Paint pictures**
- **T-shirts**

- **People do not understand big numbers**
Give a policy relevant yardstick
Divide by exposure
- **Plan sound bites & how/when to release**
- **You cannot spend some savings**
- **Select costs to suit the audience**
- **White on blue slides; large type size**
- **Minimize words on slides**
- **Do not read every #**
- **Put a face with the \$**

Free PIRE Technical Assistance

Monique Sheppard & Ted Miller

**Children's Safety Network Economics &
Data Resource Center**

**Enforcement of Underage Drinking Laws TA &
Training Center**

CSAP State Epidemiological Workgroup TA

301-755-2728

sheppard@pire.org

Pass it Forward!

- **How can we work together to develop a comprehensive approach to providing evidence on the cost benefit and effectiveness of prevention programs?**
- **What groups are in the best position to take the lead in obtaining and providing valid findings and promoting dissemination and diffusion?**