

Investing in Evidence-Based Prevention: Supporting Health and Saving Public Resources

Congressional briefing, Washington, DC., May 30th, 2017

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Introduction and Overview

- What is prevention science?
 - Standards of evidence
 - Evidence-based prevention programs
- How does investing in prevention strengthen health and save resources?
 - Cascading effects over time
 - Cost savings
- Speakers
 - Max Crowley – The science of investing in prevention
 - Bethanne Barnes – A state model for comparing cost effectiveness
 - Steve Lize – discussant commentary

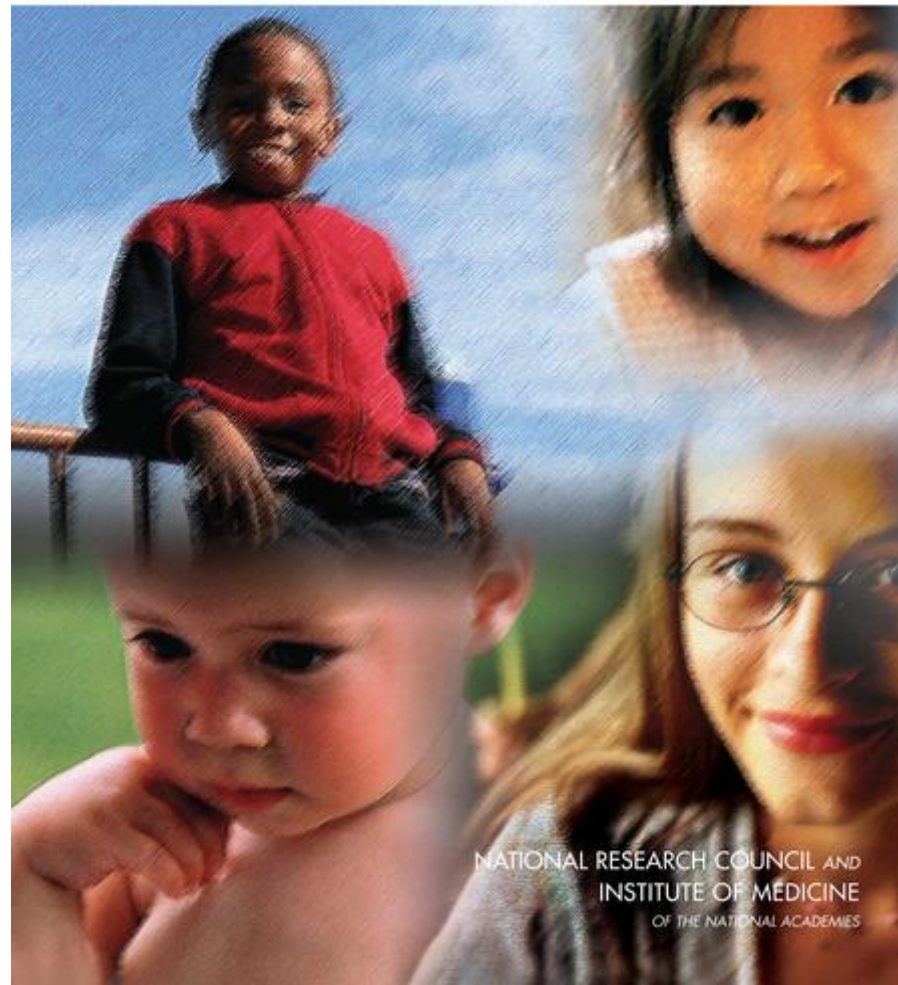
What is prevention science?

- Aimed at understanding and preventing social, academic, physical and mental health problems, and the promotion of health and well being.
- Prevention science has yielded data on what practices are most effective to ensure that children and adolescents reach their potential and by identifying cost beneficial, effective policies that support nurturing environments for families and communities.
- Scientific evidence generated for practices and policies that:
 - recognize early warning signs and risk factors that predict or lead to unfavorable outcomes;
 - are developmentally and culturally appropriate and accessible to the communities they serve;
 - focus on reducing exposure to detrimental conditions – or addressing the effects of such conditions – that otherwise contribute to poor outcomes;
 - **demonstrate the cost-savings of prevention**

National Academy of Sciences, 2009 report on Prevention

Preventing Mental, Emotional, and Behavioral Disorders Among Young People

Progress and Possibilities



We already have the knowledge “to begin to create a society in which young people arrive at adulthood with the skills, interests, assets, and health habits needed to live healthy, happy, and productive lives in caring relationships with others.”

Products of prevention science

- By applying rigorous standards of evidence for evaluating prevention programs, prevention science has established exemplary programs with strong bodies of evidence for their effectiveness
 - Many of these programs have been widely disseminated in the USA and around the world
- This body of evidence forms the basis for examining and yielding cost effectiveness data
- Standards of evidence are similar to standards of evidence for bringing drugs to market
 - i.e. randomized controlled trials with rigorous (intent-to-treat) analyses of data

Evidence-based prevention programs are rated and listed by several organizations including:

- SAMHSA's National Registry of Evidence-based Programs and Practice:
www.nrepp.samhsa.gov
- Blueprints for Healthy Youth Development:
<http://www.blueprintsprograms.com/>
- California Evidence-based Clearinghouse for Child Welfare:
<http://www.cebc4cw.org/>
- Department of Justice, OJJDP Model Programs Guide:
<https://www.ojjdp.gov/mpg>
- Department of Education, What Works Clearinghouse:
<https://ies.ed.gov/ncee/wwc/>

Just a few examples of evidence-based prevention programs



GOOD BEHAVIOR Game

at American Institutes for Research

ISII Implementation Sciences International, Incorporated



PMTO[®]

Parent Management Training — Oregon Model

"Working together to make families better."

One example of the impact of a prevention program: Parent Management Training-Oregon/PMTO Model

- Family of interventions to prevent conduct problems and related concerns – substance use, school problems, etc
 - Developed by Gerald Patterson, Marion Forgatch, and their colleagues at the Oregon Social Learning Center
- Implemented as both prevention and treatment programs in the USA (MI, KS, NY) and internationally – Norway, Iceland, Denmark, Netherlands
- Prevention program tested with single and divorcing mothers in the 1990s (Parenting Through Change; Forgatch & DeGarmo, 1999)
 - Randomized controlled trial with 238 mothers and their K-3rd grade boys
 - 14 week group-based parenting program, 90 minutes/week
 - Mothers and children followed for 9 years

Program benefits using intent-to-treat analyses comparing intervention vs. control group demonstrated:

- Improvements in positive parenting (observed) and reductions in coercive parenting (observed) at 1 year post-baseline (Forgatch & DeGarmo, 1999)
- Reductions in both child and maternal depression symptoms 1-9 years later
- Improvements in children's behavior (reductions in emotional and behavior problems, school problems, drug use, arrests) 1-9 years later
- At 9 years post baseline, improvements in standard of living (education, occupation, per capita yearly income); Patterson et al., 2010; Forgatch & Gewirtz, 2017

Parent Management Training—Oregon Model (treatment population)

Children's Mental Health: Disruptive Behavior

Benefit-cost estimates updated May 2017. Literature review updated May 2015.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [Technical Documentation](#).

Program Description: Parent Management Training—Oregon Model (PMTO) is a family-based program that focuses on teaching parents to apply five parenting practices: skill encouragement, appropriate discipline, monitoring, problem solving, and positive involvement. This analysis focuses on the use of PMTO in populations with emerging or identified conduct problems.

Benefit-Cost Summary Statistics Per Participant

Benefits to:

Taxpayers	\$698	Benefit to cost ratio	\$2.77
Participants	\$531	Benefits minus costs	\$1,234
Others	\$588	Chance the program will produce	
Indirect	\$115	benefits greater than the costs	84 %
<u>Total benefits</u>	<u>\$1,932</u>		
<u>Net program cost</u>	<u>(\$698)</u>		
Benefits minus cost	\$1,234		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2016). The chance the benefits exceed the costs are derived from a Monte Carlo risk analysis. The details on this, as well as the economic discount rates and other relevant parameters are described in our [Technical Documentation](#).

References/further reading

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