

Preventing High-Risk Behaviors and Achieving Socially Significant Outcomes for Children and Families: Can Science Inform Community Solutions in America?

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Promoting collaborative research on child and adolescent healthy development across scientific disciplines, in tandem with efforts to build public awareness about evidence-based approaches to prevent distress and promote wellbeing, offers a new model to support children, families and communities and foster successful outcomes.

A recently-formed organization of researchers, child-serving organizations, educators, policy makers and investors – the Cooperative for Translational Solutions to Prevent Risky Behaviors (“Prevention CO-OP”) – has formed to bridge the gap between research and practice to reduce high-risk behaviors and improve wellbeing for all of America’s communities.

**“For these are all our children, we will all profit by or pay for what they become.”
~James Baldwin**

Minding Research to Promote Healthy Minds, Families and Communities

After years of seeing self-destructive habits like smoking, alcohol or overeating contribute to a rising rate of heart disease, cancer and untimely deaths – and the medical costs associated with treating disease – the nation is finally coming to accept that prevention of health problems is a more rationale approach to wellbeing.

Prevention research is defined by the Institute of Medicine as encompassing, “Theory, research, and practice to support an approach to prevention that aims not only to prevent disorder, but also to promote positive mental, emotional, and behavioral health in young people.” That is, prevention not only prevents the onset or worsening of specific disorders but also more generally enhances wellbeing.

In tandem, the scientific and medical community has contributed to prevention awareness of physical health ailments by providing information and evidence-based programming to patients, communities and families. Additional public and private support has also grown through policy, advocacy, legislation and funding for prevention research.

And it seems the public is taking note of these messages.

For example, evidence from thousands of studies provides overwhelming evidence that

adopting habits like healthy eating, quitting smoking, moderate drinking, and exercise improve health for individuals, families and communities. Where physical health is concerned, people are beginning to understand that healthier lifestyles lead to longer, healthier and happier lives.

Unfortunately, the same progress has not extended to mental, emotional, behavioral, or social health, despite growing scientific understanding – through neuroscience, genetics, economics, the social and behavioral sciences and a range of other disciplines – about the complex workings of the brain and the profound impact of the social environment on its functioning. Knowledge about the causes and prevention of high risk behaviors, and evidence-based solutions to improve wellbeing, are not reaching the public; there have not been significant investments in this potentially impactful approach.

And nowhere is that gap more evident than in neglecting the conditions that contribute to rising “mental, emotional, behavioral, and social” (MEBS) problems among young people. We see it in the numbers of new diagnoses for Attention Deficit Hyperactivity Disorder (ADHD); in disruptive classroom behaviors; in disappointing test results in reading and math; in the distressingly high dropout rate among high school students. We see it in gang activity and bullying behaviors. We see it in continuing prevalence of unsafe sexual behavior and drug misuse related to deficits in positive affect. And we see it in a spate of high-profile mass shootings that somehow escaped notice from mental health professionals.

While many social, economic and environmental factors contribute to these problems, research has provided us with potential solutions – through early detection and targeted interventions – to ameliorate, treat and perhaps even prevent these problems from surfacing before they become major burdens to individuals, families, schools, communities and society.

And these issues cross all social and cultural boundaries, from minority and immigrant children and kids living in poor or rural communities, to children growing up in middle class or high income families living in stable communities. The environmental “triggers” however, such as poverty, tend to mostly affect those who already have multiple disadvantages.

This deficit in public MEBS health awareness is pervasive, and children are falling through the cracks. But the voices of those children – and those who are finding answers to their suffering – are rising to a new level.

They are begging to be heard.

In the midst of millions of children experiencing severe adversity, poorly equipped schools and ineffective or detrimental parenting strategies are innovative researchers, practitioners, and funders who are actively identifying solutions; solutions that need only to be implemented on a wide-scale basis.

Carving Out a New Approach

In 2010, the National Institutes of Health funded a small grant to support a conference series to spawn a big idea: advances in translational research to prevent high-risk behaviors and promote child, family, and community wellbeing. The conferences assembled the nation’s leading prevention scientists, practitioners, educators, federal administrators and policy makers

from across a wide spectrum of disciplines to share their research and experiences and to find ways to translate their findings to the public and private sectors to accelerate work to prevent high-risk behaviors and improve chances for successful lives.

Ultimately the goal is to promote a mindset nationwide that focuses not only on illness and problems but, also prioritizes mental, emotional, behavioral and social wellness among children, families, and communities.

Conference participants were energized by what they learned from colleagues that might further advance the science and, in turn, contribute to public understanding and prevention.

For example, University of Pittsburgh behavioral geneticist Dr. Michael Vanyukov investigates the biological bases of substance abuse. Vanyukov posited the notion long supported by neuroscience research to focus future studies on when, whether and how intervening at earlier ages may better prevent or minimize symptoms for those who are genetically at-risk to develop addiction, depression, or psychoses during adolescence when these are most likely to appear.

Dr. Susan Andersen, a psychiatric researcher at Harvard School of Medicine, studies the neural bases for child and developmental psychiatric disorders like ADHD, Tourette's Syndrome, schizophrenia and depression, and potential neuropharmacological (brain-based drug) treatments. In her lab, she has observed that experiencing stressors like poverty, violence, abuse and neglect impacts children's brain development, and ultimate outcomes such as depression or ADHD may not show up until adolescence or later. Her research suggests how the development of apparent risk factors or traits in childhood could lead to greater understanding about when, where and how to intervene with treatments that could, again, prevent or minimize symptoms later on.

Addressing complex, systemic problems like preventing addiction, violence, bullying, abuse and neglect is a big undertaking, and there's no "one-size-fits-all" that will work for every child. However, growing research shows that there are common factors that lead to all these problems (although in different configurations for any given individual). And individual and community-level interventions with proven evidence suggest the capacity to jump-start a path to better child and family wellbeing through scaling up prevention programs from pilot to public health-level implementation.

Through advocacy, changes in public policy, family, school and community participation, and collaboration with those working on the front lines, we can change the trajectory of youth's lives for the better and place them on a positive path towards MEBS health, educational accomplishment and resilience.

The old adage, "It takes a village to raise a child," could not be more apt. By seeing the bigger picture, researchers would be able to ask bigger questions that could lead to new solutions to prevent high risk behaviors and achieve socially significant outcomes for all children and youth in America's communities.

Seizing the Momentum

Investigating methods to prevent high-risk behaviors and promote wellbeing across a range of

disciplines opens up new avenues for research and working with community organizations, funders and policymakers to create greater public awareness of these advances. Accordingly, the *Cooperative for Translational Solutions to Prevent Risky Behaviors*, or Prevention CO-OP, was founded. The Prevention CO-OP is an informal national organization made up of researchers, child-serving organizations, educators, policy leaders and funders dedicated to the prevention of high-risk behaviors and achievement of socially significant outcomes for all children, families, and communities across America.

The organization's mission is to encourage raising healthy, resilient and thriving children primed for adult success through three activities: (a) aggregating proven prevention research, practices and policies for fostering childhood growth, resilience and mental, emotional, behavioral, and social wellbeing; (b) facilitating translation and dissemination of that research for child-serving organizations and communities; and, (c) promoting high-quality, large-scale implementation of practices that support caregivers in creating nurturing families, neighborhoods, schools and social institutions. In effect, the organization spans the gap between science, policy and society to increase potential for generations of children to thrive in ways that have never before been possible and, through prevention, to alleviate excessive social and economic burdens for treatment and care.

The research community has generated some solutions. There is a host of programs that have been shown effective through years of testing and measurement that are known to produce just such results. To cite a few:

The Communities that Care (CTC) initiative is a well-known coalition-based community prevention operating system that uses a public health approach to protect against problem behaviors in children and youth, including underage drinking, tobacco use, violence, delinquency, school dropout and substance abuse. By bringing together families, school and community leaders to address these risks, pilot programs in seven states and 24 communities demonstrate that, within 4 years of adopting the CTC system, the incidence of delinquent behaviors including binge drinking, tobacco and smokeless tobacco use, was significantly reduced by 8th grade.

The Good Behavior Game (GBG) is designed to promote social and emotional control in young school-aged children. Self-regulation of attention is the single most accurate predictor of later success on academic performance and standardized achievement test scores. GBG is used during normal instruction and gives teachers a way to cultivate this essential skill and has been proven, through more than 30 years of evidence, to result in:

- adding up to one additional hour each day in which real learning and teaching can occur;
- a greater than 70 percent drop in inattentive, disturbing or disruptive behavior;
- less stress every day, less bullying, fewer fights and reasons for referrals;
- a decrease in the number of children who need hard-to-get special services; and
- better academic achievement, especially if teachers take advantage of time freed up from managing disruptive behavior in the classroom for additional instruction and learning.

Are Such Solutions Sustainable?

At the same time, both public and private funders of community-based and national mental health organizations want to ensure that their scarce program dollars are well invested. Thus,

they are looking for sustainable solutions with potential to effectively and consistently create community and individual wellness. The focus by philanthropic, corporate and government funders on scaling up evidence-based prevention programs and building local implementation capacity within community prevention systems has many research organizations, university researchers, religious-based and community organizations, schools and others determined to advance knowledge about what works and how to effectively implement and scale-up such practices.

And yet, the scientific findings that can inform these processes remain locked up in academic journals, in scientific or technical language that those who might profit cannot access.

This leaves funders, community organizations and policy makers clamoring for effective solutions, and to work more closely with scientists and active implementation supports to translate findings across the spectrum from research to community. Likewise, scientists must be supported to work closely with community counterparts and generate more usable innovations, ready for real-world implementation and scaling.

An ounce of prevention is worth a pound of cure.
~Benjamin Franklin

Prevention is better, cheaper in the long run, but harder and not faster. A concerted federal presence, clear national leadership, and well-functioning implementation infrastructure are needed to advance the use of prevention and promotion approaches to benefit the wellbeing of the nation's young people. Infusing a prevention focus into the public consciousness requires developing a shared public vision and attention at a higher national level than currently exists (IOM, 2009).

One way the Prevention CO-OP will be able to contribute to the conversation among policy makers and political leaders is to connect researchers and economists to provide comprehensive cost-benefit analyses for each of the evidence-based interventions cited above. For example, an analysis done for the Good Behavior Game suggests that the benefit to society is substantial. To ramp up GBG for first-graders in all 50 states would cost \$150 per child with a 30-1 return on investment in reductions in drug and alcohol abuse and dependence, lower smoking rates, and less use of services for behavioral and emotional problems.¹

In a 2012 paper², Communities that Care described long-term monetary benefits associated with significant drops in cigarette smoking and delinquency as compared to the cost of conducting the intervention. Under conservative cost assumptions, the net present benefit was estimated at \$5,250 per youth, including \$812 from the prevention of cigarette smoking and \$4,438 from the prevention of delinquency. The benefit-cost ratio indicated a return of \$5.30 per \$1.00 invested.

¹ Source: Paxis Institute; cost estimate source: Aos, S., Lee, S., Drake, E. Pennuci, A., Klima, T., Miller, M., et al. (2011). Return on Investment: Evidence-Based Options to Improve Statewide Outcomes. (July), 8. Retrieved from www.wsipp.wa.gov/rptfiles/11-07-1201.pdf

² Source: Prevention Science; Kulinski, M.R., Briney, J.S., Hawkins, J.D., and Catalano, R.F. (2012), in PubMed. <http://www.ncbi.nlm.nih.gov/pubmed/22108900>

Under less conservative but still viable cost assumptions, the benefit-cost ratio due to prevention of cigarette smoking and delinquency increased to \$10.23 per \$1.00 invested. Benefits from CTC's reduction in alcohol initiation as well as broader inclusion of quality-of-life gains would further increase CTC's benefit-cost ratio. Results provide evidence that CTC is a cost-beneficial preventive intervention and a good investment of public dollars, even under very conservative cost and benefit assumptions.

The Good Behavior Game and Communities that Care are only two of the many evidence-tested prevention approaches that can demonstrate a strong return on public and private investment. Triple P and PROSPER are just two additional programs that yield significant benefits.

Such an investment that could start every child in America on a healthier path, one that inoculates them against suffering from risk behaviors, addiction, depression, ADHD and other psychological disorders, and saves them from social and cognitive deficits that detract from their ability to learn, develop healthy relationships, and to build the capacity to succeed as adults – the work of childhood – seems a small price to pay.

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Programs and Interventions

- Promise Neighborhoods <http://promiseneighborhoods.org/what-works.html>
- Tools of the Mind <http://www.learnnow.org/topics/attention/early-lessons-shape-the-brain>
- Promoting Alternative Thinking Strategies (PATHS) <http://www.prevention.psu.edu/projects/PATHS.html>
- MindUp <http://thehawnfoundation.org/>
- PROSPER <http://www.prosper.ppsi.iastate.edu/>
- Triple P <http://www.triplep.net/glo-en/home>

Reports and Statistics

- IOM Report <http://www.ncbi.nlm.nih.gov/books/NBK32775/pdf/TOC.pdf>
- National Institute on Drug Abuse (NIDA) www.drugabuse.gov/parents-educators
- SAMHSA <http://samhsa.gov/healthreform/docs/HealthReformCoreConsensusPrinciples.pdf>
- World Health Organization - http://www.who.int/mental_health/media/en/545.pdf
- Agency for Health Care Research and Quality - http://meps.ahrq.gov/data_files/publications/st242/stat242.pdf
- National Center on Addictions and Substance Abuse at Columbia University - <http://www.casacolumbia.org/templates/Publications.aspx?articleid=685&zoneid=52>

Resources

- LearnNow <http://www.learnnow.org/topics/attention/what-your-child-may-not-be-learning>
- Promise Neighborhoods Research Consortium (PNRC) <http://promiseneighborhoods.org/index.html>
- National Implementation Research Network's (NIRN) Active Implementation Hub: <http://implementation.fpg.unc.edu>.
- Office of National Drug Control Prevention (ONDCP - Prevention) <http://www.whitehouse.gov/ondcp/prevention-intro>