



NIH PREVENTION FUNDING ALLOCATION

Prevention is crucial to public health. The National Institutes of Health/NIH lead the world in advancing public health research. Despite this, just 16.2% of NIH external research funding (excluding basic and pre-clinical research) is categorized as prevention, and the vast majority—82%—of those funds are actually spent on etiological or observational research. Just 3% of NIH's total portfolio is spent on randomized prevention intervention trials. In part, this funding crisis is a result of having few prevention scientists on review panels; in part it appears to be due to a lack of prioritization by NIH leadership.

JUST 3%

NIH's total portfolio spent on randomized prevention intervention trials

While basic animal and pre-clinical human research is important to science, only human prevention studies have the capacity to determine what interventions work, how they work, and how they can be widely implemented to prevent and reduce the most common and costly public health problems.

Despite the small amount of NIH funds allocated to prevention, NIH research investments over the past forty years have largely led to discovery of earlier predictors (often called risk and protective factors) for behavioral health problems such as drug abuse, violence, mental health disorders, obesity, and school failure. These discoveries have led to the development and testing of preventive interventions that target these risk and protective factors. Today, largely through the support of NIH, there are effective strategies for treating or preventing all of these problems.¹⁻³ Many of these interventions have demonstrated lifetime benefit cost returns of \$2-40 for every dollar invested.⁴ But this research is not being adequately funded and, in effect, NIH is not able to fully contribute to the ultimate public health goal of reducing the incidence and prevalence of disorders.

\$2 - \$40

Lifetime return on every dollar invested in prevention research

Effective prevention programs and policies can only improve public health if they are widely disseminated, in order to reduce opioid and other drug abuse, violence and suicide, mental disorders, school dropout and related problems. There is an urgent need for further research to determine how best to disseminate and implement these interventions so that they can achieve maximal effects and be adapted and scaled across the nation.

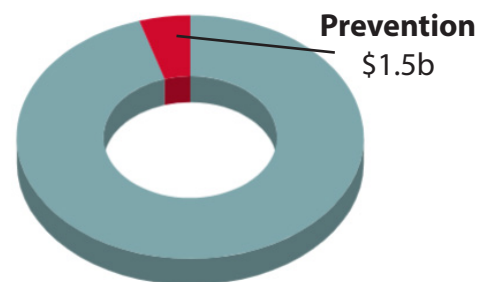
We desperately need: (i) an increased percentage of NIH funding allocated to human prevention intervention research, and (ii), integrated or braided funding between NIH and behavioral health agencies like SAMHSA, Maternal and Child Health Bureau, and the Office of Juvenile Justice and Delinquency Prevention to study how proven prevention interventions can be widely and effectively scaled to reduce behavioral health problems.

NREPP

The Substance Abuse and Mental Health Services Administration (SAMHSA) recently announced that it is ending the National Registry of Evidence-Based Programs and Practices (NREPP) and replacing it with an as-yet undefined effort to be administered by SAMHSA's newly created Policy Lab. As behavioral scientists who have been working on these efforts for the past forty years, we highlight below some critical steps that are needed for this change to truly improve Americans' health. We have endorsed higher standards for dissemination of evidence based programs including the *Society for Prevention Research's Standards of Evidence, 2015*⁵ and the Blueprints for Healthy Youth Development⁶, also adopted by the 2016 Surgeon General's Report, *Facing Addiction in America: Alcohol, Drugs and Health*.²

While we understand that the 21st Century Cures Act requires SAMHSA to address treatment of those with serious mental illness, we do hope that this will not mean a de-emphasis of the *importance of tested, effective universal, selective, and indicated prevention interventions*. Health care expenditures are overwhelmingly directed to treating disorders that could have been prevented: of more than \$30 billion drug control spending in 2017, just \$1.5 billion was spent on prevention, compared to \$14.2 in treatment and \$15.2 in law enforcement. Yet an array of effective prevention programs save significant amounts of money by preventing youth from using and becoming addicted to drugs.²

Drug Control Spending (2017)



Many prevention interventions and policies, when rigorously tested in controlled trials using the above standards, have proven long-term benefits in preventing substance abuse and mental illness, reducing health care, educational, and criminal justice costs. As the 2009 Institute of Medicine Report on the *Prevention of Mental, Emotional, and Behavioral Disorders Among Young People*¹ and the Surgeon General's report cited above show, prevention programs have been demonstrated effective at preventing mental illness and substance abuse. As examples, consider:

- » A simple, scalable program to increase positive classroom management by primary grade teachers that has documented benefit in preventing suicide and opiate misuse⁷ in adolescence and beyond.⁸⁻¹⁰
- » Two prevention programs—a parenting program, and a middle school-based classroom program—have demonstrated independent and important complementary effects on opioid misuse in randomized controlled trials.^{11,12}
- » Approaches to aid communities to choose and implement tested, effective prevention interventions have, in randomized trials, shown community-wide uptake with positive impacts on substance use and delinquent behavior in a cohort of middle school aged youth with effects lasting into young adulthood.^{11,13} These examples represent but a few of the prevention strategies proven to alter the progression to serious mental illnesses and addictions.

The integrity of the nation's efforts to prevent and treat mental, emotional, behavioral, and physical disorders depends on our making use of the enormous amount of prevention science knowledge generated in the past forty years. As behavioral scientists, practitioners, and community leaders invested in interventions that effectively prevent mental health and substance use disorders, we offer our expertise to SAMHSA and NIH as science, practice, and policy advisors. Together, we can shape a healthier America.

REFERENCES

1. Institute of Medicine, National Research Council, Division of Behavioral and Social Sciences and Education, Board on Children, Youth, and Families & Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth and Young Adults: Research Advances and Promising Interventions. *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*. (National Academies Press, 2009).
2. Substance Abuse and Mental Health Services Administration (US) & Office of the Surgeon General (US). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. (US Department of Health and Human Services, 2017).
3. Biglan, A. *The Nurture Effect: How the Science of Human Behavior Can Improve Our Lives and Our World*. (New Harbinger Publications, 2015).
4. Washington State Institute for Public Policy. Available at: <http://www.wsipp.wa.gov/BenefitCost>. (Accessed: 24th May 2018)
5. Flay, B. R. *et al.* Standards of evidence: criteria for efficacy, effectiveness and dissemination. *Prev. Sci.* **6**, 151–175 (2005).
6. Mihalic, S. Blueprints for Healthy Youth Development | Blueprints Programs. Available at: <http://www.blueprintsprograms.com>. (Accessed: 10th May 2016)
7. Ialongo, N., Poduska, J., Werthamer, L. & Kellam, S. The Distal Impact of Two First-Grade Preventive Interventions on Conduct Problems and Disorder in Early Adolescence. *J. Emot. Behav. Disord.* **9**, 146–160 (2001).
8. Ialongo, N. S. *et al.* Proximal impact of two first-grade preventive interventions on the early risk behaviors for later substance abuse, depression, and antisocial behavior. *Am. J. Community Psychol.* **27**, 599–641 (1999).
9. Wilcox, H. C. *et al.* The impact of two universal randomized first- and second-grade classroom interventions on young adult suicide ideation and attempts. *Drug Alcohol Depend.* **95 Suppl 1**, S60–73 (2008).
10. Wilcox, H. C. & Wyman, P. A. Suicide Prevention Strategies for Improving Population Health. *Child Adolesc. Psychiatr. Clin. N. Am.* **25**, 219–233 (2016).
11. Spoth, R. *et al.* Longitudinal effects of universal preventive intervention on prescription drug misuse: three randomized controlled trials with late adolescents and young adults. *Am. J. Public Health* **103**, 665–672 (2013).
12. National Institute on Drug Abuse. Life Skills Training Shields Teens From Prescription Opioid Misuse. (2015). Available at: <https://www.drugabuse.gov/news-events/nida-notes/2015/12/life-skills-training-shields-teens-prescription-opioid-misuse>. (Accessed: 24th May 2018)
13. Hawkins, J. D., Oesterle, S., Brown, E. C., Abbott, R. D. & Catalano, R. F. Youth problem behaviors 8 years after implementing the communities that care prevention system: a community-randomized trial. *JAMA Pediatr.* **168**, 122–129 (2014).