



## Consortium to Advance Prevention Solutions to the Opioid Crisis

Dear Dr. Volkow,

The newly formed **Consortium to Advance Prevention Solutions to the Opioid Crisis** (CAPSOC) commends you for your [recent blog](#) which recognized the vital importance of implementing evidence-based prevention strategies across US communities. Many of us were heartened to learn of your commitment and appreciation for the body of knowledge and best practices amassed by prevention science over the past nearly 50 years.

CAPSOC is a large nationwide group of leading experts in substance use research and practice, representing the full spectrum of etiologists, epidemiologists, program developers and practitioners, intervention specialists, behavioral and social scientists, and policy researchers. We have assembled to advance a national system of prevention supports as an integral part of a comprehensive strategy to avert trajectories away from substance use disorders (SUD) and their consequences. We have developed a brief consensus statement to implore NIDA leadership to strengthen the intervention evidence base and support the implementation research required for these scientific discoveries to benefit a greater number of individuals, families and communities—needs that you conveyed in your blog.

### **Relationship Between Health Disparities and Opioid Use**

Over the past forty years, NIH funding of prevention research has led to the development of family, school, and community interventions that have vastly increased our ability to prevent virtually all of the most common and costly psychological, behavioral, and physical health problems that undermine human wellbeing.<sup>1</sup>

Unfortunately, this progress has not meaningfully contributed to reducing disparities in health.<sup>2</sup> The life expectancy for members of disadvantaged groups, including Black, Hispanic, Native American and rural people is significantly lower than it is for other groups. In fact, these disparities have significantly increased in recent years.<sup>3</sup>

***One reason for this state-of-affairs is that not enough research has been conducted to adapt evidence-based preventive interventions for distressed communities and, in turn, test their ability to reduce health disparities.<sup>2</sup>***

***Another is that these disadvantaged communities are harmed by unabated high levels of poverty and discrimination.***

***Associations between OUD and the loss of jobs and [low educational attainment](#) have grown stronger over the past 15 years.***

***The opioid crisis is, in part, a function of these foundational sources of adversities which disproportionately affect certain groups in our society.***

To exert a meaningful impact on the opioid crisis and the disparities that often give rise to Opioid Use Disorder (OUD), we must invest in the development, evaluation, and implementation of preventive interventions in Black, Hispanic, Native American and rural communities to determine (a) impacts on health outcomes when interventions are appropriately adapted, (b) the extent to which population level disparities narrow, and (c) whether the opioid crisis is, in turn, attenuated.<sup>4</sup>

## The Evidence-Base Warrants Greater Investments

Effective preventive interventions have been developed thanks to hundreds of randomized trials, many/most of which were funded by NIDA. Researchers have identified at least sixteen different family interventions that can prevent child and adolescent problems including depression, antisocial behavior,<sup>5,6</sup> and substance use.<sup>7</sup> School based programs have prevented youth smoking,<sup>8</sup> other substance use,<sup>9</sup> as well as antisocial behavior, school dropout, and suicidal behavior.<sup>10,11</sup> Studies of community-wide interventions have also shown benefit in reducing risk factors for major health disorders such as cancer and diabetes. Additionally, adverse childhood experiences (ACEs), which are denser in disadvantaged communities and mostly preventable, are associated with higher rates of addiction, mental illness, heart disease, stroke, cancer, COPD, diabetes, and suicide.<sup>12-14</sup>

We were heartened to read your vigorous advocacy for using well-established, evidence-based prevention approaches, and hope that your comments will motivate their implementation. There is agreement amongst CAPSOC experts that there certainly is enough evidence to spur at least some action on prevention now to have an impact on the opioid crisis. However, to truly solve the problem and prevent the inevitability of a resurgence or a similar epidemic in the near future, more research is needed to understand how best to prevent substance use and addiction in the most vulnerable populations who too often are overlooked by existing broader, evidence-based interventions.

We recommend that NIDA and other institutes invest more in prevention research, specifically to improve effect sizes, determine best practices in implementation, and focus on populations that are most affected by the opioid crisis. Also, despite the need to develop more effective interventions for a greater number of people, NIH funding for randomized trials has declined over the past 15 years.<sup>15</sup> In particular, fewer randomized trials are being conducted to evaluate preventive interventions.<sup>16</sup> Indeed, only 2.5% of NIH studies involve experimental evaluations of preventive interventions.<sup>16</sup> Interventions are often not sufficiently adapted to the needs of disadvantaged communities and, thus, we cannot be sure they will produce the same benefits as have been achieved in more advantaged populations.

Differences in life expectancy result from disparities in behavioral and physiological risk factors, such as cigarette smoking, alcohol and other substance use, inactivity, hypertension, and diabetes.<sup>3</sup> A vitally important consideration, however, is that these risk factors are more prevalent in disadvantaged communities due to broad social and structural influences on health, including poverty, discrimination and justice involvement<sup>3</sup>, all of which also significantly contribute to SUD/OD. For these reasons, research is needed to develop and experimentally evaluate comprehensive interventions to affect behavioral and physiological risk factors that lead to disparities, and to develop research-based protocols for their effective implementation. At the same time, experimental research is needed to evaluate systems change and policy strategies for reducing poverty, inequities, and discrimination that in large part are the primary determinants of health disparities and the disproportionate use of substances in afflicted communities.

## Recommendations

We ask NIDA to consider adoption of a coordinated, long-term, and trans-institute effort to support extramural research that experimentally develops and evaluates preventive interventions and identifies effective implementation protocols that address the leading risk factors for health disparities and, in turn, problematic substance use. In general, we recommend a line of research to address the above gaps by evaluating the ability of existing research-based interventions to prevent and/or mitigate risk factors for health disparities. A second line of research needs to experimentally evaluate strategies for altering the underlying social determinants of health disparities including poverty, discrimination, and economic inequality. We recommend that **at least 15% of the NIDA research portfolio** be devoted to actionable research to address the causal and consequential role of health disparities in SUD/OD development.

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More specific lines of prevention research that warrant further investment include, but are not limited to, the following:

- 1) **Mechanistic drivers.** There are currently no interventions with more than small to modest effect sizes. Research is needed to delineate the mechanisms that both interfere with and boost favorable outcomes<sup>17</sup>. Results will guide the refinement of existing interventions and lead to the development of new ones that exert greater effects for a greater number of recipients. (On the aside, the same scenario applies to treatment interventions which also achieve no more than modest effects and are characterized by poor engagement, significant heterogeneity in outcomes, and other factors that are addressable by an appropriate line of research.)
- 2) **Implementation.** The field of implementation science is becoming increasingly rigorous, however, remains vastly underfunded. Research is needed to determine best practices for implementation, with attention to cultural, subgroup, contextual, and other factors that influence adoption, scaling, and sustainment. U.S. developed evidence-based prevention interventions are being replicated around the world. Many of these replications are resulting in either no positive outcomes or positive outcomes with lower rates of statistical significance than the control or comparison groups thus diminishing the 'evidence-based' designation. More cross-national studies of evidence-based prevention interventions are needed.
- 3) **Co-creation.** The development and implementation of prevention programs must be community driven from the ground up; otherwise, prevention efforts are bound to fail. Co-creation involves community-participatory research components, coalition building, community-guided adaptation of programs and implementation protocols, and many other features. Research is needed to determine how to effectively equip and activate researcher-community partnerships.
- 4) **Policy.** Policies should be considered a type of intervention and studied as such, including funding studies that assess the public's perceptions and attitudes about specific prevention policies, as well as a determination of how to most effectively communicate with policymakers to inform the decision-making process based on rigorous scientific findings.
- 5) **Infrastructure.** The overwhelming majority of communities lack prevention infrastructure, which severely limits the extent to which evidence-based preventive interventions can take hold. Applied research is needed to identify effective approaches to embed prevention into existing infrastructures (e.g., treatment facilities, public health departments, health and human services, schools) and develop new systems to support prevention in communities with varying degrees of capacity. Building an infrastructure also means developing a prevention workforce with the knowledge, skills, and competencies needed to deliver and to sustain evidence-based prevention interventions and policies in their communities. Funding is needed to evaluate training programs at all levels to address not only the acquired knowledge, skills and competencies but also the extent to which the training results in sustained evidence-based programming across U.S. communities.
- 6) **Economics.** Cost-effectiveness and cost-benefit models that address substance use prevention need to be developed. Current models are drawn from the health and medical fields and do not represent the same processes that occur in substance use prevention. Once such a model is developed, it is recommended that all intervention research, once it reaches a certain stage, should include a cost-effectiveness and cost-benefit analyses.<sup>18, 19</sup>
- 7) **Normalizing Prevention.** Research is needed to determine which program components/ingredients are most impactful and then determine how to "normalize" them – embed them into our general zeitgeist and daily interactions between adults and children.

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- 8) **Communication.** Research is needed to determine how to most effectively communicate prevention, with attention to what frames works best in which target audiences.

We would like to have an opportunity to discuss the particulars of this proposal at your convenience. And we look forward to your ongoing leadership in the field.

Respectfully,

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Partnership to End Addiction  
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Prevention Research Center, The Pennsylvania State University (PRC)  
Center for Community Health and Development, University of Kansas  
Pacific Institute for Research and Evaluation (PIRE)  
Prevention Science Program at Colorado State University-Boulder  
Applied Prevention Science International (APSI)  
North Carolina Medical Society  
Blueprints for Healthy Youth Development  
Research Center for Child Well-Being, University of South Carolina (RCCWB)  
Values to Action  
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Blueprints for Healthy Youth Development  
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## References

1. Biglan A. *The nurture effect: How the science of human behavior can improve our lives and our world*. Oakland, CA: New Harbinger; 2015.

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2. Biglan A, Elfner K, Garbacz SA, et al. A Strategic Plan for Strengthening America's Families: A Brief from the Coalition of Behavioral Science Organizations. *Clinical Child and Family Psychology Review*. 2020.
3. Dwyer-Lindgren L, Bertozzi-Villa A, Stubbs RW, et al. Inequalities in Life Expectancy Among US Counties, 1980 to 2014: Temporal Trends and Key Drivers. *JAMA internal medicine*. 2017;177(7):1003-1011.
4. Fishbein D. The Pivotal Role of Prevention Science in this Syndemic. *Prevention Science*. 2021(22):94-99.
5. Fishbein DH, Domitrovich C, Williams J, Gitukui S, Shapiro D, Greenberg M. Short-Term Intervention Effects of the PATHS Curriculum in Young Low Income Children: Capitalizing on Plasticity. *Journal of Primary Prevention*. 2016(37):493-511.
6. Calhoun B, Williams J, Domitrovich C, Greenberg M, Russell M, D.H. F. Social Emotion Learning Program Boosts Early Social and Behavioral Skills in Low-Income Urban Children. *Frontiers of Psychology*. 2020(11).
7. Leslie LK, Mehus CJ, Hawkins JD, et al. Primary health care: Potential home for family-focused preventive interventions. *American Journal of Preventive Medicine*. 2016;51(4):S106-S118.
8. Thomas RE, McLellan J, Perera R. Effectiveness of school-based smoking prevention curricula: systematic review and meta-analysis. *BMJ Open*. 2015;5(3):e006976.
9. Tobler NS. Meta-analysis of 143 adolescent drug prevention programs: Quantitative outcome results of program participants compared to a control or comparison group. *Journal of Drug Issues*. 1986;16(4):537-567.
10. Petras, H., Kellam, S. G., Brown, C. H., Muthén, B. O., Jalongo, N. S., & Poduska, J. M. (2008). Developmental epidemiological courses leading to antisocial personality disorder and violent and criminal behavior: Effects by young adulthood of a universal preventive intervention in first-and second-grade classrooms. *Drug and alcohol dependence*, 95, S45-S59.
11. Musci RJ, Bradshaw CP, Maher B, Uhl GR, Kellam SG, Jalongo NS. Reducing aggression and impulsivity through school-based prevention programs: A gene by intervention interaction. *Prevention Science*. 2014;15(6):831-840.
12. Hughes K, Bellis MA, Hardcastle KA, et al. The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *Lancet*. 2017(2):e356-e366.
13. Vig KD, Paluszek MM, Asmundson GJG. ACEs and mental health outcomes. In: Asmundson GJG, Afif TO, eds. *Adverse childhood experiences: Using evidence to advance research, practice, policy, and prevention*. London, UK: Elsevier; 2020:71-90.
14. Halfon N, Larson K, Son J, Lu M, Bethell C. Income inequality and the differential effect of adverse childhood experiences in US children. *Academic pediatrics*. 2017(17):S70-S78.
15. Gresham GK, Ehrhardt S, Meinert JL, Appel LJ, Meinert CL. Characteristics and trends of clinical trials funded by the National Institutes of Health between 2005 and 2015. *Clin Trials*. 2018;15(1):65-74.
16. Murray DM, Ganoza LF, Vargas AJ, et al. New NIH Primary and Secondary Prevention Research During 2012-2019. *Am J Prev Med*. 2021;60(6):e261-e268.
17. Fishbein, D.H., Ridenour, T., Stahl, M. & Sussman, S. (2016) The Full Translational Spectrum of Prevention Science: Facilitating the Transfer of Knowledge to Practices and Policies That Prevent Behavioral Health Problems, *Translational Behavioral Medicine*, 6(1).
18. Foster, E. M., Dodge, K. A., & Jones, D. (2003). Issues in the economic evaluation of prevention programs. *Applied Developmental Science*, 7, 76–86.
19. Foster, E.M., Porter, M.M., Ayers, T.S., Kaplan, D.L., Sandler, I. (2007). Estimating the costs of preventive interventions. *Evaluation Review*, 31, 261-286.