



Strategy 4

Fund Innovation to Improve Prevention and Treatment



THE CENTER FOR
HIGH IMPACT PHILANTHROPY
The University of Pennsylvania



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In earlier sections, we've presented strategies to lift the burden of SUDs. **But even the best strategies based on the best evidence available are operating without the answers to important questions.** Those big unanswered questions are promising targets for research and innovation and can lead to some of the most exciting opportunities for philanthropy to make a lasting impact. High-impact targets include SUD prevention, better treatment, improved access to treatment, and reduced stigma.

In the following pages, we summarize key findings and highlight promising practices in prevention. We also note promising directions for research and innovation and resources to help funders identify specific opportunities..

HIGH-IMPACT RESEARCH OPPORTUNITIES IN PREVENTION

The importance of preventing SUDs among adolescents is undisputed. Adolescents are the highest-risk age group for new SUDs, and preventing or delaying substance use can have protective effects. For example, **each year a teen delays alcohol use decreases their chances of developing an alcohol use disorder by 14%.**¹⁸⁹ For that reason, there are hundreds of adolescent substance abuse prevention programs operating within schools and communities across the country. It's a well-studied topic, with an extensive body of academic literature. And it's a well-funded goal: in FY 2015 alone, the federal government allocated \$1.3 billion for substance abuse prevention efforts in schools and communities.¹⁹⁰ However, despite all of those efforts, **much of what's currently done in the name of SUD prevention isn't effective in preventing substance use.**

What does that mean for philanthropy? This is an area with a great deal of room for innovation. Given the potential benefit of effective prevention, even moderate progress can yield major social impact.

Despite the prevention field's limited success to date, funders interested in prevention are by no means flying blind. While the sector has not cracked the code on prevention, there are lessons learned and promising paths to pursue. A common theme is that they need more evidence of impact in different settings and for different populations before donors should consider replicating them widely.

In the following pages, we present promising targets for research and innovation, along with resources to help interested funders learn more about existing efforts they can build upon.

HIGH-IMPACT RESEARCH OPPORTUNITY:

Testing the impact of prevention programs that have shown promise in particular settings

Before promising pilot programs can be rolled out on a large scale, they need to be tested within different settings and populations so that researchers and practitioners can understand what the programs really accomplish and for whom. Philanthropy can support that analysis, bridging the gap from a new idea to full-scale implementation. In many ways, this research is a win-win. Learning what works is always the goal, and it's exciting if a new program shows real impact. But even if the results aren't so positive, learning what *doesn't* work is still an important step toward impact.

Donors interested in this opportunity can look for programs with (1) well-supported theories of change, (2) promising evidence of impact, and (3) data limitations that can be addressed with additional research. The examples that follow have strong evidence from well-designed studies, making them among the most promising targets within the over 50 interventions we reviewed. However, one has demonstrated results only in a particular population, while the other has not consistently replicated effects on substance use—but has repeatedly shown other positive impacts.

PROMISING INNOVATION TARGET:

Integrate prevention programs at the community level

The theory: Taken as a whole, the evidence indicates that any single prevention program is unlikely to deliver major reductions in substance use. However, combining programs to weave a web of support may make a greater difference than the individual programs on their own. The hope is that programs can reinforce each other in a way that's multiplicative rather than additive.

The model: Promoting School-community-university Partnerships to Enhance Resilience (PROSPER), a partnership program between local communities and land-grant universities, is a system to deliver a suite of programs within a community. The programs themselves are chosen by community representatives from a list of evidence-based approaches provided by researchers. Community representatives select one family-focused program to deliver in 6th grade and one school-based program to deliver in 7th grade. A team based out of a state university helps the community implement the selected programs.

What we know: In a randomized controlled trial of PROSPER implementations in Iowa and Pennsylvania, researchers found that the program decreased use of a number of substances (not including tobacco or alcohol) by approximately 4 to 6 percentage points.¹⁹¹

What we hope to learn: One important question is whether these results are replicable and generalizable to different populations. The trial was conducted in a population of mostly Caucasian, relatively affluent adolescents in rural areas. Further research is needed to test PROSPER in different settings and better understand the populations for which it can be reliably effective. More research is also needed to understand how much of the effect is due to the delivery system—which is the core of the PROSPER approach—or the specific interventions chosen by the communities.

Implications for funders: The idea of integrating different programs to create a supportive community is an exciting one, but still too new to replicate widely. This is a great avenue for further research, whether focused on new populations, new combinations of approaches, new delivery systems, or all of the above.

LEARN MORE & TAKE ACTION

Dr. Richard Spoth out of Iowa State University developed PROSPER and is currently leading research efforts on the program. (Visit www.ppsi.iastate.edu to learn more.) A similar program with promising results is Communities That Care, currently studied by the University of Washington's Social Development Research Group. (Visit www.sdrp.org to find out more.)





For more on working with grantees to understand their impact, see our guide *Beyond Compliance: Measuring to learn, improve, and create positive change*.

For more on supporting early-childhood efforts, see our early-childhood toolkit for funders, *Invest in a Strong Start for Children*.

PROMISING INNOVATION TARGET:

Focus on healthy child development for positive impacts in adolescence and beyond

The theory: Many of the known risk factors for SUDs are also known risk factors for other negative outcomes such as high school drop-out or teen pregnancy. Promising approaches might target those risk factors early, tackling SUD prevention as part of a broader set of healthy development goals.

The model: The Good Behavior Game (GBG) is designed to improve first-grade classroom behavior and help children see themselves as members of a classroom community. In GBG classrooms, there are clear, consistent, and transparent rules for behavior. Children are divided into teams of 2-5 students, and the team gains or loses points based on the behavior of its members. The hope is that giving kids tools to manage their behavior early can help them make good choices—such as steering clear of substance use—over the long term.

What we know: GBG has demonstrated positive impacts, particularly for boys, but it doesn't always reduce substance use. Substance use is only one of several problem behaviors that GBG targets. In one of the first GBG studies, low-income African American students in Baltimore were randomized into GBG classrooms and tracked from first grade to age 19. The young men in the GBG classrooms showed significant reductions in illicit drug use (excluding alcohol and marijuana) at age 13 and increased academic achievement and reduced behavioral problems at age 19. (The researchers did not report information about substance use at age 19.) The impact was greatest among male children who ranked highest on measures of aggressive and disruptive behavior. There was no effect on female children.¹⁹²

What we hope to learn: The biggest question about GBG is whether it can reliably and consistently get results in different settings. The same researchers in the same Baltimore schools mentioned above tried to replicate their results with the next class of first-graders entering school, but they did not see the same impacts. Other studies on GBG have been conducted in Oregon and in Europe. Positive impacts on disruptive and aggressive behavior have been consistently replicated, but impacts on substance use have not.

Implications for funders: GBG has been a good and helpful program for children. It's just not clear whether or not it's also a good way to prevent substance use. Philanthropists can support research to understand how, when, and for whom it might impact substance use in particular, knowing that even without an effect on substance use, the program is likely to be a positive influence in children's lives.

LEARN MORE & TAKE ACTION

The Johns Hopkins Center for Prevention and Early Intervention is researching strategies such as the Good Behavior Game to improve classroom behavior and outcomes and to prevent behavioral problems, including substance abuse, among youth. To contact the Center and support their work, visit their website at <http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-prevention-and-early-intervention/>.

HIGH-IMPACT RESEARCH OPPORTUNITY:

Target risky drinking in adolescents with secondary prevention

Alcohol is the most commonly used substance, and alcohol use disorders are the most common type of SUD among teens as well as adults. In 2013, for example, the rate of current alcohol use among youths aged 12 to 17 was 12%, and the rate of binge drinking was over 6%.¹⁹³ However, even the most promising primary prevention efforts—those that aim to prevent any use of alcohol—have not delivered reductions in teen drinking. While innovation in primary prevention is a worthwhile goal, there may be opportunities to make a difference by focusing on the riskiest users and helping them curb their use. This strategy has been effective in adults, and early research indicates that it may work for adolescents as well.

PROMISING INNOVATION TARGET: Secondary prevention for adolescents

The theory: Secondary prevention efforts, which focus on stopping the progression from risky use to disorder, have been effective among adults and may be a promising approach for adolescents as well.

The model: Under the SBIRT protocol (also discussed on page 30), all patients in participating health care settings automatically undergo a quick screening to assess their alcohol and drug use. If their use puts them at risk of developing a serious problem, they receive a brief intervention that focuses on raising their awareness of substance abuse and motivating them to change their behavior. Patients who need more extensive treatment receive referrals to specialty care.

What we know: A meta-analysis found that brief alcohol interventions can lead to modest but statistically significant reductions in risky drinking among adolescents and young adults. The effects persisted for up to one year after intervention.¹⁹⁴

What we hope to learn: The evidence base for SBIRT is still much stronger for adults. More research and testing are needed in settings like school health clinics where more adolescent patients can be reached. There may be ways to tailor the content of the brief intervention to make it more effective for a younger population.

Implications for funders: SBIRT offers a way to target prevention and early intervention toward the adolescents who need it most, but there are still questions about how best to deliver it and what impact might be possible. Philanthropy can support research into new settings and other adjustments to potentially make this a powerful tool to reach adolescents. In addition, learning more about how it works (or doesn't work) for adolescents might yield insights about how other services, such as SUD treatment, can be tailored for adolescents.

LEARN MORE & TAKE ACTION

The University of Minnesota's Center for Adolescent Substance Abuse Research (www.psychiatry.umn.edu), in collaboration with Kaiser Permanente, is conducting a study on an SBIRT model for primary care and school settings that is tailored to adolescents experiencing mild to moderate drug involvement.

A partnership led by the research center NORC at the University of Chicago is working to engage social work and nursing schools in a learning collaborative to create an effective SBIRT curriculum to integrate into the students' training. Community Catalyst, a consumer advocacy group, is developing consumer-led advocacy campaigns in five states (Georgia, Massachusetts, New Jersey, Ohio, and Wisconsin) to enact state policy change to increase funding and training for SBIRT. The Conrad N. Hilton foundation is funding SBIRT research and implementations in multiple sites. See norc.org, communitycatalyst.org, and hiltonfoundation.org for more.



TIPS:

- **Primary Prevention** of SUDs is the prevention or delaying of the start of substance use among a general population of adolescents, such as all teens in a state, county, or school district.
- **Secondary Prevention** of SUDs is preventing risky substance use from progressing to a SUD in individuals.
- **Tertiary Prevention** of SUDs is providing time, cost, and labor-intensive care to patients who are acutely or chronically ill with a SUD.

HIGH-IMPACT RESEARCH OPPORTUNITY:

Learn from successful behavior change efforts in related fields

While the evidence base for successful interventions in SUD prevention is relatively slim, there have been successful behavior change efforts in related fields that can provide a jumping-off point for further research. Anti-tobacco and anti-drunk-driving campaigns have both had successes with efforts focused on changing perceptions of what's normal in one's peer group (see box on following page). Other insights from behavioral science might be relevant as well. Researchers are learning more and more about the way small tweaks to the wording of a message can change people's responses, as well as the importance of choosing the right messenger.¹⁹⁵

Behavior change research can also tell us a great deal about what doesn't work—and what may even cause harm. It may make intuitive sense that telling kids about the dangers of drug use would keep them away from drugs, but research has demonstrated that it doesn't work. D.A.R.E. (Drug Abuse Resistance Education), a popular school-based program delivered by police officers, was used in 80% of American school districts in 2001.¹⁸⁹ The program was started and delivered by police officers and focused on educating children and teens about the risks of drug use. Somewhat infamously, however, multiple studies have shown that D.A.R.E. had no effect on substance use behavior in teens and may even have increased some participants' curiosity about substance use.¹⁹⁰ Similarly, the much-touted and still publicly funded Meth Project uses graphic and shocking ads to illustrate the dangers of meth, but researchers found that it had no effect on actual meth use.¹⁹⁸

The same pattern holds in anti-tobacco campaigns. Teens actually overestimate the risk of smoking, but that doesn't translate to any change in their behavior.¹⁹⁹ A related sector, criminal justice, also shows this effect: Scared Straight, the popular program in which prison inmates warn children away from a life of crime, has actually been shown to increase the likelihood of juvenile delinquency.²⁰⁰

Avoiding scare tactics does not mean avoiding honest discussion and education. Consider the depiction of teenage pregnancy in the MTV reality series "16 and Pregnant." The show is marketed to adolescents and follows the lives of pregnant teens and their families, exposing youth to information that would otherwise be less visible, particularly in areas that utilize abstinence-only education. Research shows that "16 and Pregnant" led to increased online searches for information regarding birth control and teen pregnancy. Researchers link that increase in knowledge to a marked change in behavior and a decline in teen birth rates during the first 18 months following the show's release. Declining abortion rates during the same time indicate the reduced birth rates were the result of fewer pregnancies.²⁰¹

The line between appropriate information and scare tactics can be difficult to find, making it a potentially valuable area for further investigation.

Any teenager could explain why [scare tactics don't work]. For them, a cigarette is not a delivery system for nicotine. It's a delivery system for rebellion. Kids take up smoking to be cool, to impress their friends with their recklessness and defiance of adults. They know that smoking is dangerous. ... Danger is part of a cigarette's appeal.

—Tina Rosenberg, journalist, on why tobacco companies support scare-tactic advertising²⁰²

PROMISING INNOVATION TARGET: Using social norms to spur behavior change

The theory: As the advertising industry has long known, people are influenced by what they perceive as the behavior of their peers. Using media to change the perceptions of what's normal in substance use might help reduce use by removing the powerful incentive to fit in.

The model: The 1998 Truth Campaign, a counter-marketing campaign to reduce smoking among Florida teens, used an advertising agency to produce billboards and television ads aimed at exposing the tobacco industry's lies and manipulations toward teens, using teens themselves as the messengers. It worked by creating a new target for teens to rebel against—the tobacco industry rather than the public health establishment—and by creating a visible peer group of teens who weren't taken in by Big Tobacco. That gave kids a new, healthier social norm.

The 1988 Harvard Alcohol Project aimed to spread the concept of the “designated driver” throughout America. With the support of leading television networks and Hollywood studios, writers inserted drunk driving prevention messages (including references to designated drivers) into scripts of popular shows such as “Cheers” and “L.A. Law” over a four-year period.

What we know: The anti-tobacco campaign was successful: Florida teen smoking rates were cut in half in less than a decade.²⁰³ The designated driving campaign was also successful: a 1991 poll showed that 9 out of 10 respondents were aware of the designated driver program. Researchers believe that the initiative was a major contributing factor to the 30% decline in alcohol-related traffic fatalities from 1988-1994, a decrease that saved over 50,000 lives.²⁰⁴

What we hope to learn: Both of these campaigns were launched over a decade ago, when media consumption patterns were different and there were fewer alternate avenues for social norm messages. More work is needed to understand how similar efforts might be adapted to the new media landscape. More research could also illuminate how well these programs can work when there's a strong social norm reinforcing the targeted behavior. For example, can an ad campaign counteract the celebration of drinking on a college campus?

Implications for funders: Media campaigns can make a difference, but they're likely to be more effective if they're developed based on what we know about human behavior—in particular, tapping into the powerful drive to fit in with one's peers. Funders should be wary of prevention efforts that are overly focused on highlighting risks, despite the intuitive appeal that many of these programs hold. Better evidence can reduce spending on unsuccessful efforts and help the field get closer to what works.

LEARN MORE & TAKE ACTION

Many public health schools have departments dedicated to using behavioral science to improve health. Researchers in these departments can be a great place to start. Organizations like the Partnership for Drug-Free Kids (www.drugfree.org/) that support ad campaigns and other kinds of outreach can also be partners in this research.

The University of Pennsylvania's Annenberg School (www.asc.upenn.edu) and other schools of communication are good resources for more information about the role media can play.





HIGH-IMPACT RESEARCH TARGETS IN SUD TREATMENT AND BEYOND

Few people with SUDs get treatment, and, of those, few achieve recovery the first time they try.²⁰⁵ Research into treatment improvements can focus on getting more people into treatment or on new treatment tools that will be more effective for more people. Both pieces are needed to make care more effective, more personalized, and perhaps most importantly more available to SUD patients no matter where they live and work.

New treatment tools

We know that there are treatments that work—for some people, sometimes. But there’s potential to do so much more. Researchers have only just begun to tap the potential of research in genetics, pharmacology, and even immunology. A vaccine against addiction might sound far-fetched, but there’s research into it happening right now. It might never work, but if it does, the potential for impact is enormous. Much of the work in new treatment development is funded by public dollars via research agencies like the National Institutes of Health. However, private philanthropy has the potential to contribute in meaningful ways.

LEARN MORE & TAKE ACTION

Universities often have research centers dedicated to particular topics or types of research, including those related to substance use. For example, The Perelman School of Medicine at the University of Pennsylvania includes the Center for Studies of Addiction, which conducts research into topics like the genetics of addiction, as well as behavioral therapies. Scripps University hosts the Pearson Center for Alcohol and Addiction Research, where researchers are studying the use of new compounds to control the effect of substances on the brain to prevent relapse during recovery. The National Institute on Drug Abuse (NIDA) maintains research consortia on multiple topics in SUD treatment and delivery.

To learn more about strategic approaches to research funding more generally, see resources from FasterCures.org, a non-profit dedicated to investments in medical research.

Better treatment delivery

Improving treatment delivery is an important goal that can be approached in many different ways. For example, providing care remotely via computer has shown promise in other chronic conditions, such as depression and heart disease, and could open up access to care for those unable to access a specialized facility. The National Institute on Drug Abuse is supporting researchers working toward mobile health (mhealth) solutions to help SUD patients remain on track to recovery and maintain the health of drug users with other medical problems such as HIV. Using mobile technology, this method sends reminder messages about medication and skills learned in treatment. Such technology can also track patients’ progress in real time.

LEARN MORE & TAKE ACTION

Dartmouth College’s Center for Technology and Behavioral Health (CTBH) conducts research into promising technologies for improving and delivering better SUD treatment. Columbia University’s CASAColumbia research center works on topics in treatment delivery as well as other systemic issues related to SUDs.

Reduced stigma and discrimination

Underlying many of the issues outlined in this report is the question of stigma and, relatedly, discrimination. As this report emphasizes, we have tools that can make a difference, but those tools could be even more effective if people could seek help without the fear—or the reality—of being stigmatized. Stigma, misinformation, and stereotypes regarding who has substance use disorders has made addiction a politically unpopular topic. As a result, research funding has been difficult to secure, and innovation has been slow. It's not obvious how to conquer stigma and the discrimination that often accompanies it, but there's a role for philanthropy in helping to figure that out. Research on stigma itself can help us understand how to change hearts along with minds. For example, one thing we do know is that personal contact is the most powerful force against stigma.²⁰⁶ What we don't yet know is how to harness that to make a difference on a large scale. And, finally, there is a role for philanthropists—and all other advocates for SUD patients—in simply speaking up about the ways SUD patients suffer and the ways we can all help.

LEARN MORE & TAKE ACTION

The Annenberg Public Policy Center conducts research on the stigma of mental illness. Researchers out of Boston University are exploring language's impact on stigma and how changing the way we speak about substance abuse and addiction can change negative outcomes that often result from stigma. Former House Representative Patrick Kennedy, a recovering addict and founder of the Kennedy Forum, is a dual funder and advocate who openly shares his story of addiction and recovery.

