BRIDGING THE GAP between Research and Practice

National Drug Abuse Treatment Clinical Trials Network

The First Decade
Network Organization

The CTN framework consists of multiple nodes, or Regional Research and Training Centers (RRTCs)—each linked with several Community-Based Treatment Programs (CTPs)—together with a Clinical Coordinating Center and a Data and Statistical Center. This framework allows the CTN to provide a broad and powerful infrastructure for the rapid, multisite testing and delivery of promising science-based therapies to patients in community-based treatment settings nationwide. For more information, visit the Web site at http://www.drugabuse.gov/CTN/.
Overview

The Genesis: In 1998, the Institute of Medicine noted an unacceptable gap between research and practice in the drug and alcohol abuse field, stating that treatments might never get to the adoption phase. It recommended involving practitioners to elicit “buy-in” to research and designing research projects that communities could feasibly adopt. The National Institute on Drug Abuse (NIDA) created the National Drug Abuse Treatment Clinical Trials Network (CTN) the following year (1999). A far-reaching network that tests treatment effectiveness in real-world settings with diverse patient populations, the CTN is an ideal vehicle for translating promising NIDA-supported research into practice at the community level.

A Collaborative Approach:
The CTN’s innovative approach blends the skills and experience of community treatment providers and academic researchers in collaborative partnerships that offer patients better access to scientifically tested treatments. These fruitful collaborations are formed in “nodes” and comprise academic Regional Research and Training Centers (RRTCs) and Community-Based Treatment Programs (CTPs). CTP involvement has broadened the outlook of both researchers and treatment providers; it has made the research more readily adoptable and has helped CTPs become dissemination leaders in their own communities. Over the past decade, 19 geographically diverse CTN nodes have introduced scientific research principles to nearly 300 local CTPs in 38 states and Puerto Rico.

“The CTN has done a remarkable job translating our research and involving and integrating scientists from multiple backgrounds. It is flexible so as to engage the right people and facilitate their working together to hone research-based treatments and get our best science out to the field.”

—NIDA Director Nora Volkow, M.D. (address to NIDA Council, Feb. 2010)
The CTN Mission:

1. **Test and adapt evidence-based treatments in community settings.** CTP practitioners work closely with researchers to determine the clinical effectiveness of treatments that use medications and behavioral approaches, alone and in combination. Rigorous multisite clinical trials are conducted with diverse patient populations across a broad range of settings.

2. **Deliver research findings into the hands of clinicians and other professionals who can make the best use of them – fast.** Community-level practitioners engage in real-world testing and adapt treatments in their CTPs and as a result, research results are rapidly made available to them when the studies conclude.

3. **Train staff, expanding the reach of evidence-supported treatments.** The RRTCs within each CTN node train their affiliated CTPs on how to implement a study protocol. Subsequent train-the-trainer sessions create hundreds of new experts who are qualified to train local practitioners in critical treatment strategies. This approach has benefited thousands of treatment staff (and patients) in communities nationwide.

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**CTN-Tested Treatments Make CDC’s Compendium of Evidence-Based HIV Prevention Interventions**

Use of illicit drugs is a significant risk factor for acquiring HIV/AIDS, which is why the CTN has devoted considerable resources to examining HIV risk-reduction strategies in the context of drug abuse treatment. This investment has yielded significant success, including being reflected in recommendations by the Centers for Disease Control and Prevention (CDC). CDC routinely translates scientific evidence into practical information for use by providers and state/local health departments nationwide. In August 2009, the CDC listed two CTN-tested treatment programs as “Promising-Evidence Interventions” (e.g., behavioral interventions shown to eliminate or reduce risk behaviors). These programs—**Safer Sex Skills Building** and **Real Men Are Safe**—underscore the CTN’s critical role in prompting change to greatly improve the public health.
Changing Drug Abuse Research and Practice in the U.S.—10 Years of Triumph

In its first 10 years, the CTN has fueled a cultural shift toward evidence-based care for substance abuse treatment, showing that rigorous and relevant clinical research can be carried out directly in CTPs and can address a broad range of addictive disorders. The following achievements highlight this decade of success:

**Treatment Innovation: Buprenorphine.** For some patients, medically supervised detoxification is the first and most critical step to recovery. Administration of Suboxone (buprenorphine with naloxone) has demonstrated particular effectiveness in detoxifying opioid-addicted patients. Yet positive research outcomes alone could not neutralize entrenched biases against using an opiate medication (partial opiate agonist) with patients in treatment for opiate dependence. Negative attitudes softened, however, following the CTN’s testing of a buprenorphine detoxification protocol with trained treatment providers who witnessed first-hand its positive effects.

CTN’s first two trials demonstrated the superior effectiveness of Suboxone in the initial detoxifying stage of treatment to that of clonidine, a nonopioid medication that previously was the standard. Further, a third CTN study demonstrated that a 7-day buprenorphine detoxification program was just as effective as one lasting 28 days. Buprenorphine has also demonstrated value in treatment retention. In fact, a seminal study in opioid-dependent young people (ages 15–21) showed...

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Stories of Success and Recovery

When James tested positive for HIV at our site, the clinic staff were all concerned for his well-being and wanted to ensure that he had as much support as possible in receiving and processing this news. He said he was determined that this news would not affect his sobriety. When he came back for followup, he reported completion of his drug treatment program and that he was doing well, working and living in a recovery community. He shared that he was glad he had learned of his status in such a supportive way, and was now feeling so much better physically and mentally: he had not used any drugs or alcohol, had a good job, and was enjoying life.
that 3 months of buprenorphine treatment (beyond detoxification) reduced drug use and increased time in treatment.

The CTN showed that Suboxone is useful in the detoxification stage of treatment and could be a safe and effective maintenance treatment, even for young people, resulting in its greater acceptance and wider use by CTPs.

**Related Blending Products:**

1. Short-Term Opioid Withdrawal Treatment Using Buprenorphine and
2. Buprenorphine Treatment: Training for Multidisciplinary Addiction Professionals — including a newly modified version for treating young adults.

These two training packages summarize CTN research findings on buprenorphine effectiveness in both inpatient and outpatient settings. Non-physician treatment professionals must team up with physicians who prescribe buprenorphine and work as informed collaborators with patients. The taper package includes methods of evaluation and induction, taper schedule, and use of ancillary medications during detoxification. The detoxification/withdrawal packet is useful to centers, because it is specific to detoxification and contains information that was not available when the national guidelines were developed. The training package includes a training manual for 6-hour classroom modules, a PowerPoint presentation and CD, and training video.

**What is “Blending” All About?**

The NIDA/SAMHSA Blending Initiative is an innovative partnership between NIDA and SAMHSA’s Addiction Technology Transfer Centers (ATTCs) for disseminating treatment and training products based on results from CTN trials as well as other NIDA-supported research. This initiative incorporates bidirectional feedback from clinicians, scientists, and experienced trainers to catalyze the creation of treatment tools and accelerate their adoption by CTPs across the Nation. To further this translation, National Blending Conferences are held that feature presentations and workshops by both researchers and providers on treatment effectiveness, training, and implementation issues. For details, see www.nida.nih.gov/blending/.
Contingency management is one of the ‘quiet successes’ of the CTN—but make no mistake, it has changed the field.”

—Thomas J. Crowley, M.D., Department of Psychiatry, University of Colorado

Treatment Innovation: Contingency Management/Motivational Incentives. In addition to effective pharmacotherapies, clinicians and researchers also understand the need to motivate patients to attend treatment and sustain recovery. In this regard, the research literature has long supported motivational incentives, or contingency management, as a way to help those in treatment maintain recovery. It awards privileges or vouchers (exchangeable for goods or services) to patients for verified abstinence or continued treatment attendance. And while research had shown it to work, the use of motivational incentives was not widely embraced by the treatment community because of such concerns as costs, implementation issues (e.g., which behaviors to target for reinforcement), and treatment philosophy. Along with perceived financial and administrative burdens, some providers simply did not accept a treatment model they viewed as rewarding people for what they should be doing anyway.

To overcome these barriers, two early CTN studies tested the effectiveness of contingency management and, with practitioner input, modified the protocol so it was less costly, yet still effective.

By showing that treatment programs could easily incorporate low-cost incentives and thereby prolong treatment attendance and drug abstinence, the CTN helped to shift the field toward greater acceptance of this effective approach.

Related Blending Product: Promoting Awareness of Motivational Incentives (PAMI). A lack of buy-in from community treatment providers for using incentives prompted this suite of products, which informs treatment providers of the value of catching the patient “doing something right.” It presents details of the CTN trial results and more broadly describes successful ways in which motivational incentives have been used in community programs. The package includes a training video, a PowerPoint presentation, a brochure, and a CD of resources.
Treatment Innovation: Motivational Interviewing. Motivational interviewing (MI) focuses on building a collaborative partnership between the patient and counselor, creating a powerful therapeutic alliance to produce behavior change. The counselor listens reflectively and addresses “resistance” in a nonconfrontational way, keeping patients engaged long enough for their internal motivations to kick in and take ownership of their recovery.

An initial CTN study showed that integrating MI early as part of a single intake session enhanced patient retention and improved outcomes in the first month of care, compared with standard intake procedures. CTN research also affirmed that MI is not easy to do right. Results stressed the importance of ensuring that counselors apply MI skills correctly through supervision and mentoring.

The CTN established a standard for ensuring the appropriate delivery of motivational interviewing skills that the field has embraced, demonstrating that use of the protocol significantly increases the chances that people will stay in treatment, which is critical to recovery.

Related Blending Product: Motivational Interviewing Assessment: Supervisory Tools for Enhancing Proficiency (MIA:STEP). This package offers a collection of tools for clinical supervisors to mentor counselors in the reliable use of MI strategies with patients. It provides the necessary tools to teach MI techniques and assess and improve the counselor’s facility with them. Materials include a 10-hour supervisor training curriculum, a supervision manual, and a rating guide for using audiotapes of actual sessions to monitor clinician proficiency and adherence to the MI model.

“I know that contingency management can transform lives. One of our patients stated emphatically: ‘the reinforcement program saved my life, and I have no doubt that without it, I would have died from drugs…this is an important program that patients like me really need.’ It is frustrating that contingency management is not yet a standard practice in all treatment settings. And while this patient is just one example, her testimony has stayed with me, and when I speak with providers about using reinforcements, I often see her in my mind’s eye, looking happy and healthy and cheering me on.”

–Scott Kellogg, Ph.D., Department of Psychology, New York University
Looking Ahead

The infusion of CTN resources and processes into CTPs has created momentum for change and improved treatment quality among the community programs that have joined in. The CTN will continue to evolve and to remake the state of the art in addiction medicine and treatment. It is poised to examine a variety of innovative approaches, all with the ultimate goal of getting the best treatments to those who need them.

The Research Lives On

CTN Dissemination Library

This comprehensive store of CTN research findings offers a free digital repository of resources and downloadable materials, such as detailed treatment manuals, scientific publications and presentations, and Blending products. It provides CTN members, CTPs, and the public with a single point of access to research findings and other materials, all of which are available for direct transmission upon request. This makes the library particularly valuable to clinicians who may not have access to Medline or scientific journals (http://ctndisseminationlibrary.org/).
The Research Lives On

CTNdatashare.org

The CTN is creating new dissemination pathways, making the research data from its trials available for further analyses and innovative investigations by scientists around the Nation and the world. This electronic environment allows de-identified data from completed CTN trials to be downloaded for conducting new analyses. Indeed, people have used the raw data to ask and answer research questions in knowledge gap areas. This innovative Web site is another way the CTN facilitates communication and collaboration.

Stories of Success and Recovery

Riley had used alcohol, various sedatives, marijuana, hallucinogens, and cocaine on a regular basis since her teens. She had been in and out of treatment programs and was, 30 years later, living in a homeless shelter. In July 2009, she entered a CTN psychosocial treatment trial, where she completed all of her planned individual and group counseling sessions ahead of schedule. She also completed three followup study visits over 3 months! The staff could literally see the changes and improvement in her attitude and demeanor. As of the last followup study visit 3 months later, she was hard at work at a new job and had a place of her own, while maintaining her sobriety.
Resources


