

How Have Implementation Outcomes Been Measured Across More than 20 Years of NIDA CTN Trials — and Where Are the Gaps?

The Public Health Problem

Implementation science seeks to identify and overcome barriers to adopting effective treatments, increase uptake of clinical innovations and bridge the gap between research and clinical practice — but clinical trials have historically paid limited attention to measuring implementation processes and outcomes.

Background

The National Institute on Drug Abuse (NIDA) established the Clinical Trials Network (CTN) in 1999 to generate substance use treatment research in real-world settings through academic–community partnerships.

Implementation outcomes — such as **reach** (proportion or number of people who received the intervention relative to those who could benefit from it), **fidelity** (delivering it as designed), **adoption** (how widely it’s taken up across settings or providers), and **sustainment** (how well it’s maintained over time) — are critical for evaluating implementation. However, their measurement has not been consistent across trials.

What This Article Addresses

This systematic review explores, documents and characterizes implementation outcomes used across CTN trials and identifies gaps and opportunities to strengthen implementation research.

What They Did *(Methods)*

Researchers reviewed CTN study protocols to capture trial design characteristics, implementation outcomes and strategies, and implementation frameworks used across studies.

What They Discovered *(Findings)*



Measurement is concentrated in a narrow set of outcomes

Fidelity and reach were the most commonly included implementation outcomes across CTN trials.



Key outcome areas are missing

Certain implementation outcomes (e.g. adoption & sustainment) were not identified in the CTN protocols reviewed, indicating gaps in how implementation is measured across trials.



Implementation measurement remains difficult to assess

Reviewers faced challenges in evaluating implementation outcomes and strategies, pointing to inconsistencies and gaps in how implementation is measured and reported.

Opportunities for Action

The study findings highlight opportunities for:

Health care leaders & providers

- Support and encourage the assessment of implementation outcomes in clinical research to better inform real-world practice.

Policymakers & payors

- Require rigorous assessment of implementation outcomes to evaluate intervention scalability and sustainability via health insurance coverage and supportive policies.

Researchers

- Measure implementation outcomes more consistently and comprehensively in substance use disorder research.
- Incorporate measures to determine whether beneficial implementation outcomes are achieved across populations.