

Implementation Science at NIDA

Opportunities, Priorities & Processes

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The Plan

- NIDA orientation
- Priority areas
- D&I Research funding opportunities
- Building a D&I grant application
- General grantsmanship pointers
- Q&A

NIDA Orientation

D&I Research

NIDA Office of the Director

HIV Research Program

Training & Diversity*

Small Business Grants*

International Program

Office of Management

Science Policy & Communications

Intramural Research Program

Division of Neuroscience & Behavior*

Division of Therapeutics & Medical Consequences*

Division of Epidemiology, Services & Prevention Research*

Center for the CTN*

Tx development
(Hybrid 1s)

Treatment delivery
(Hybrid 2-3
+ pure D&I)

Prevention (all):
(Hybrid 1-3
+ pure D&I)

CTN-funded
implementation
studies

Implementation as a Priority Area

NIDA Strategic Plan, 2016-2020

Goal 1: Identify causes & consequences of addiction

Goal 2: Develop new & improved prevention strategies

Goal 3: Develop new & improved treatments

Goal 4: Increase the public health impact of NIDA research

- Objective 4.3: Increase strategic partnerships with the community to **improve dissemination and implementation of evidence-based research findings into policy and practice**

NIDA Strategic Plan, 2022-2027*

**Anticipated, per NOT-DA-20-059*

- Understand drug use, addiction, and the brain
- Develop and test novel prevention, treatment, and recovery interventions
- **Study implementation of EBPs in real-world settings**

NIDA's Services Research Branch

Mission: SRB supports rigorous research to improve population health by maximizing the **efficient** delivery of **high-quality, personalized** addiction treatment and related services

Efficient = cost-effective, integrated

**High Quality = evidence-based,
delivered with fidelity**

Personalized = what, when, where, & how

Vision: Invest resources to build a deep understanding of how to address *what really matters* from the perspective of the people who experience addiction and the systems that (are) should be designed to help them recover effectively.

Ongoing Research Interests:

Optimizing the delivery of high-quality treatment services for individuals with substance use disorder (SUD) – including those with or at risk for HIV

- Removing barriers to treatment access
- Improving engagement and retention in care
- Promoting broad uptake of evidence-based treatments (behavioral therapies, pharmacotherapies, mHealth tools, and care delivery models)
- Understanding the impact of policy on service delivery
- Integrating SUD care into other healthcare – including HIV services
- Eliminating inequities in service access, utilization, quality, and outcomes

PRIORITIES FOR AN **INTEGRATED PUBLIC HEALTH APPROACH** TO THE OPIOID CRISIS



Attend to Social Determinants of Health & Social Context

- Social Context of Substance Use & Misuse
- Social Context in Prevention Interventions
- Developmental Perspective—family, peers & social identity
- Role of Technology for Social Interactions & Intervention



Person-Centered Approaches

- Use a Developmental Frame to Understand Evolution of Addiction
- Understand Motivations for Opioid Misuse & Service Engagement
- Tailor Prevention & Treatment to Patient Preferences
- Emphasize Positive Development & Recovery



Bridge the Gap Between Implementation Science & Implementation Practice

- Consider Scalability in Implementation Strategies
- User-Centered Design in Implementation
- Modeling Complexity & Looking Beyond Opioids



Use Data to Build Cross-System Collaborations and Learning Systems of Care

- Building Learning Systems of Care
- Developing Common Frameworks
- Thinking About Data at a Community Level

Notable Gaps in NIDA D&I Portfolio

- Dissemination research
- How to make addiction treatment services more attractive
 - Understanding “demand side” of equation
- De-implementation
 - Except specifically around inappropriate opioid prescribing for pain
- Sustainability
 - Given how addiction services are funded, this is really important!

Funding mechanisms

NIDA D&I Funding Mechanisms

- We support implementation science activities at all career stages, and in various forms:
 - Research Grants (R01, R34, R21, others)
 - Career Development Awards (K's)
 - Diversity supplements to existing awards
 - Dissertation Grants (R36, F31)
 - Training and Education Grants (T32, R25)

NIH-Wide Funding Opportunity Announcements

Dissemination and Implementation Research in Health

- PAR-19-274 (R01 – Clinical Trial Optional)
- PAR-19-275 (R21 – Clinical Trial Optional)
- PAR-19-276 (R03 – Clinical Trial Not Allowed)

These remain open for the May 7 AIDS receipt date.

[NOT-CA-22-042](#): Notice of intent to reissue these PARs for June 2022 receipt dates & beyond

Sample Topics of Interest in the D&I PAR

- Strategies to address equitable implementation of EBPs and elimination of disparities in access and outcomes
- Strategies for implementing multiple EBPs within community or clinical settings to meet the needs of complex patients and diverse systems of care
- De-implementing clinical practices that are ineffective/unproven
- Observational studies of major policy rollouts
- Understanding local adaptation of EBPs in the context of implementation
- Longitudinal + follow-up studies on the factors that contribute to sustainability

When to use the D&I PAR?

- When your application has a clear relevance for implementation science generally
- “I want to learn how this implementation theory/model/strategy/method works, and will use my specific clinical setting/EBP as the testbed.”
- Reviewers will ask: “How will this study move the field of implementation science forward?”
- If your primary outcomes are measures of patient-level health status, you are probably using the wrong FOA.

Other options:

- NIDA/NIAAA Health Services Research R₃₄ (PA-21-180)
 - Pilot a key element of a planned future implementation trial
- RFAs from the NIH HEAL Initiative (<https://heal.nih.gov>)
 - “Translation of Research to Practice” is a key pillar of HEAL
- Don’t forget AHRQ (www.ahrq.gov)
 - Frequently funds implementation demonstration projects (R18)

Mentored K Awards

- K01 – Mentored Research Scientist Development Award
- K08 – Mentored Clinical Scientist Development Award
- K23 – Mentored Patient-oriented Career Development Award

K or R? Which Path Should I Choose?



- Do you need additional training to develop research skills or substantive expertise?
 - Is your desired research area dependent on that training?
- Do you need protected time to do research?
- Do you have preliminary data? Publications?
- Have you supervised research projects before?
- Do you have a solid research plan ready to go?
- Do you have institutional support (resources, collaborators)?

A quick word about review

A program officer can help you figure this out. It matters!

"Pure" D&I and Hybrid 3

Primary/sole focus is D&I processes and outcomes

SIHH

Hybrid 1

Assigned to panel best matching primary aim. Most common:

IPTA, ODHS, HSQE, HPC

Hybrid 2

HIV/AIDS applications (all)

Reviewed in HIV committees:

PPAH, HIBI, others

RFA applications (all)

Reviewed in **Special Emphasis Panels**

Putting it together

Recipe for Implementation Grants

- An identified quality gap
- An evidence-based practice to fill that gap
 - Or a harmful/discredited practice to be de-implemented
- Framework/model/theory to guide selection of:
 - Implementation strategy to be tested
 - Study design / methods
 - Outcomes & measures
- Research partnerships
 - EBP developer, implementation researcher
 - Study sites, practitioners, stakeholders
- A compelling story for your review audience

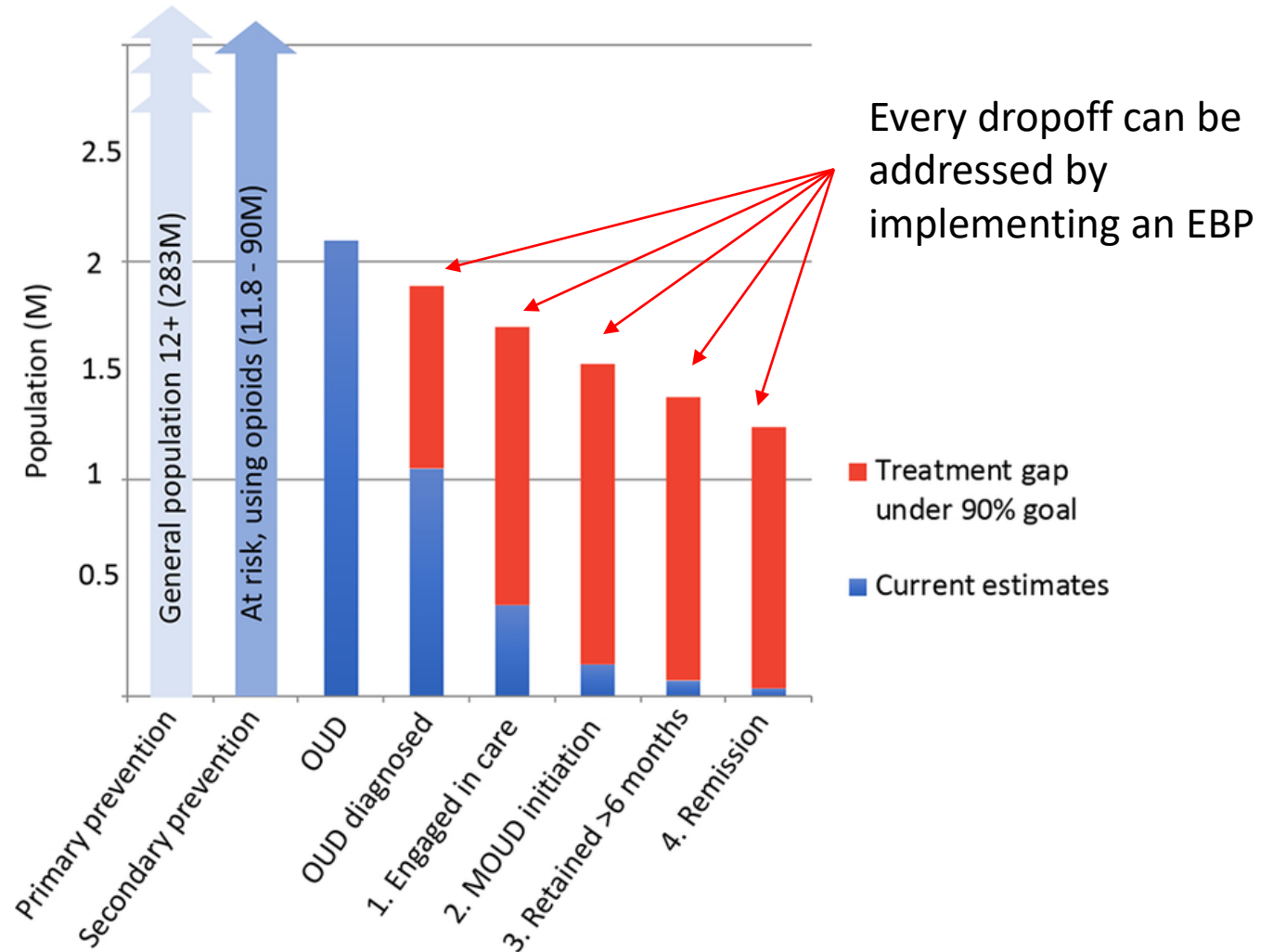


Identifying a Quality Gap

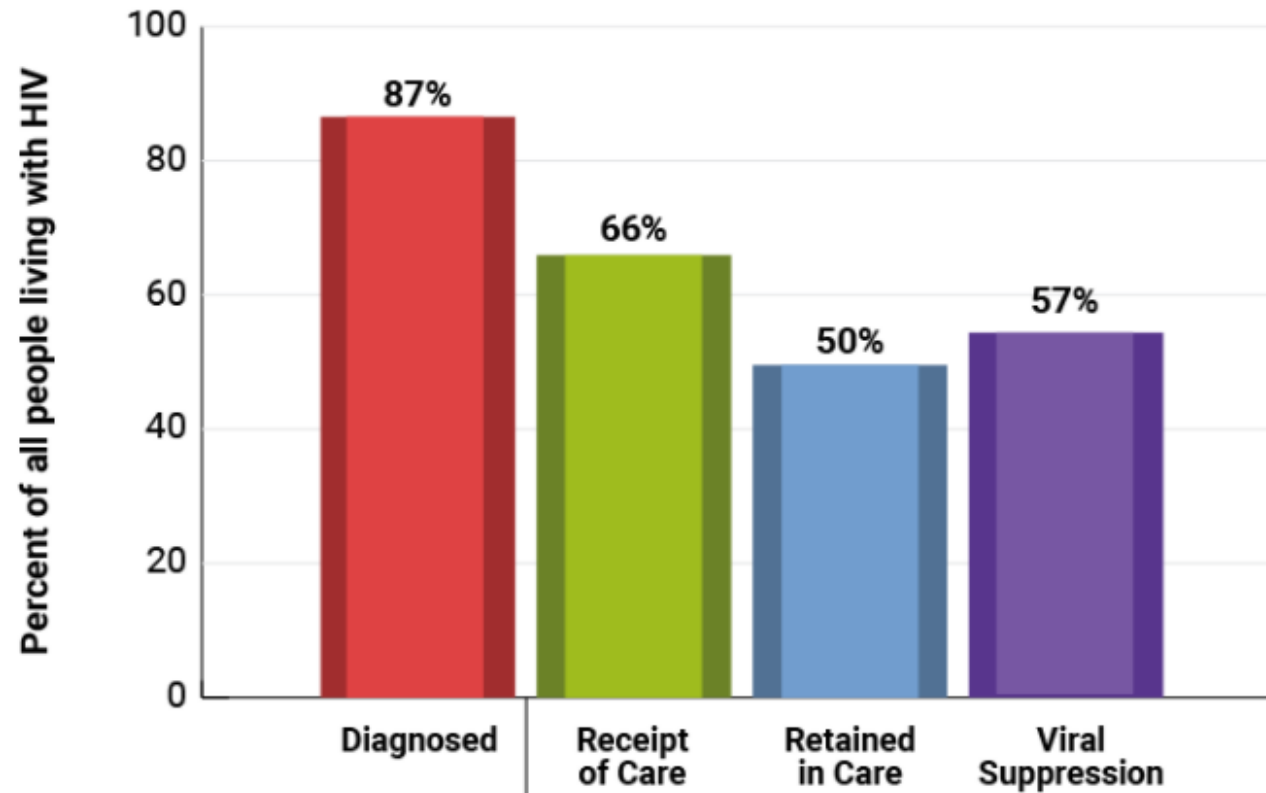
- **Substance use treatment has an inherent implementation problem**
 - 3 FDA-approved medications for OUD, 3 for alcohol, 3 for smoking
 - Multiple effective behavioral therapies, including FDA-approved digital therapies
 - Only ~10% of people with an SUD receive treatment
 - Many in treatment do not receive evidence-based care
 - Mismatch between what patients want and what is available
- **Do not assume your reviewers understand these gaps, or why they still haven't been resolved!**

Care cascades can help tell the story

Opioid Care Cascade

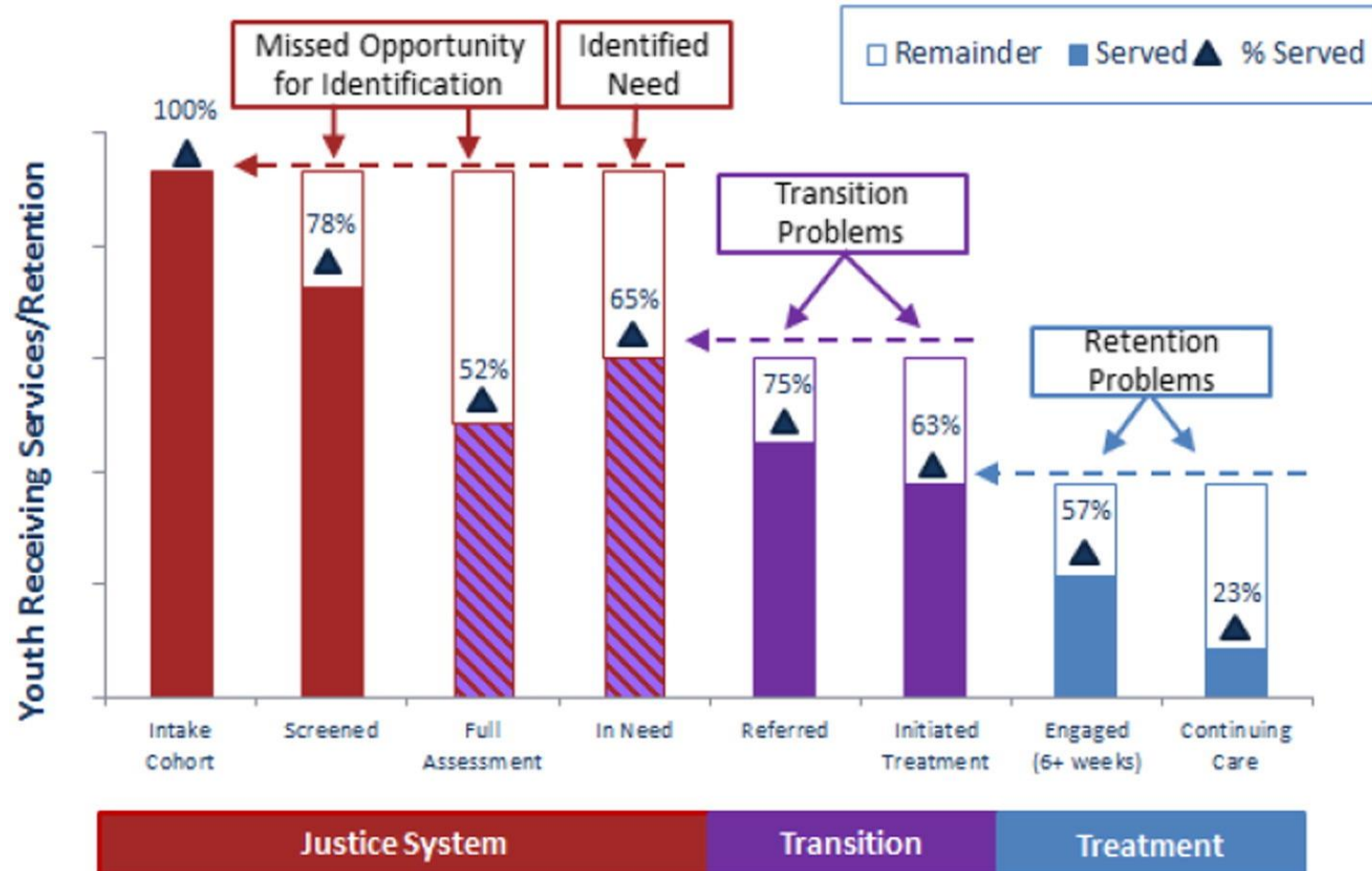


Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2019



Linked to Care: **81%** of persons with diagnosed HIV infection were linked to care within 1 month of diagnosis

Juvenile justice behavioral health services cascade

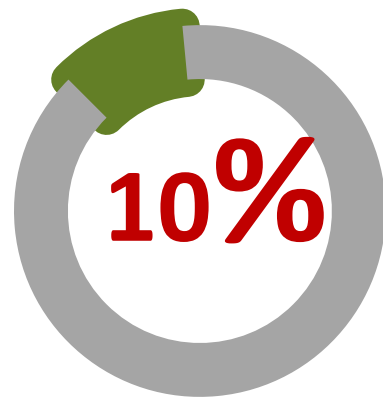


Opportunities to expand delivery of EBPs

Treatment program offers:	
Buprenorphine	44%
Meds for alcohol use disorder	38.5%
HIV testing	32%
CM/motivational incentives	54%
Telehealth	58%
Nicotine replacement therapy	35%



41.1M needed SUD tx in 2019



Received Treatment

Gap between supply and demand

What patients want:

- ???
- High quality, effective treatment
- Convenient access
- Integrated care
- Insurance coverage / affordability
- Build on social supports
- Cultural relevance
- Technology for on-demand treatment
- Privacy
- Ability to tell what's good
- Respect/dignity

What patients find:

- Services outside of routine care settings
- One-size-fits-all approaches
- Ineffective or minimally effective treatment
- Barriers to receiving effective medications
- Stigma
- Mandated treatment
- Discharge for relapse
- Fragmented care
- Lack of insurance coverage / barriers to payment
- Disconnect from family

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Specifying Implementation Strategies

- Name it
 - but don't rename it
- Define it
 - generally what's involved
- Operationalize it:
 - Actor – who will do it
 - Action – actions/steps/processes to be done
 - Target – what are they acting upon; unit of analysis
 - Timing – when, how often, in what sequence does it happen
 - Dose – how much for how long
 - Implementation outcome affected
 - Justification for choice of strategy

Proctor et al. *Implementation Science* 2013, **8**:139
<http://www.implementationscience.com/content/8/1/139>



DEBATE

Open Access

Implementation strategies: recommendations for specifying and reporting

Enola K Proctor^{1*}, Byron J Powell¹ and J Curtis McMillen²

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Why do D&I applications fail in review?

- Questionable evidence base for the practice to be implemented
- Unclear, inappropriate, or “tacked-on” conceptual model
- Implementation strategy is not well specified
- Implementation strategy is not scalable
 - Too specific, expensive, or unique to the study sites
- Mismatch between proposed intervention & outcomes
 - Often: patient-level clinical outcomes only
- Study design doesn't fit the question being asked
 - RCT's are not always the best choice for D&I studies

Resources

Contact a Program Official

- We're friendly and helpful and we work for you
 - For implementation science – start with Lori.Ducharme@nih.gov
 - For everything else – check FOA contact or PO descriptions on NIDA website
- Contact us early in the process
 - Best: send a 1-2 page concept paper
 - Is this topic of interest to NIDA?
 - Is there an FOA that's a particularly good fit?
 - Where is this likely to get reviewed?
- After review, we can talk about:
 - Interpreting the Summary Statement
 - Strategic next steps

Other tools you can use

- **NIH Guide** – list of all active NIH/AHRO funding announcements
 - Link to subscribe for weekly updates at:
<https://grants.nih.gov/funding/searchguide/index.html#/>
- **NIH Reporter** – searchable public database of all funded NIH grants
 - <https://reporter.nih.gov/>
- **CSR website** – description of all NIH-wide review committees, and lots of applicant tips & tricks
 - <https://public.csr.nih.gov/>
- **CSR's Assisted Referral Tool** – handy widget to see which committee is likely to review your application
 - <https://public.csr.nih.gov/ForApplicants/ArtHome>

15th Annual Conference on the Science of Dissemination and Implementation in Health

Co-hosted by NIH and AcademyHealth • **December 12-14, 2022**
Walter E. Washington Convention Center, Washington DC

Abstracts usually due in June

Thematic Tracks (likely):

- Behavioral Health
- Big Data & Technology for D&I Research
- Clinical Care Settings: Patient-Level Interventions
- Clinical Care Settings: System-Level Interventions
- Global D&I
- Health Policy D&I
- Models, Measures & Methods
- Prevention and Public Health
- Promoting Health Equity & Eliminating Disparities



Q&A