

Working With the NIH Collaboratory Coordinating Center

Adrian Hernandez, MD, MHS

October 28, 2025



**NIH PRAGMATIC TRIALS
COLLABORATORY**

Rethinking Clinical Trials®

Coordinating Center

Functions

- Provide national leadership and technical expertise
- Produce, document, and disseminate standards
- Support synergy within program
- Coordinate communication and dissemination
- **Help you be successful!**



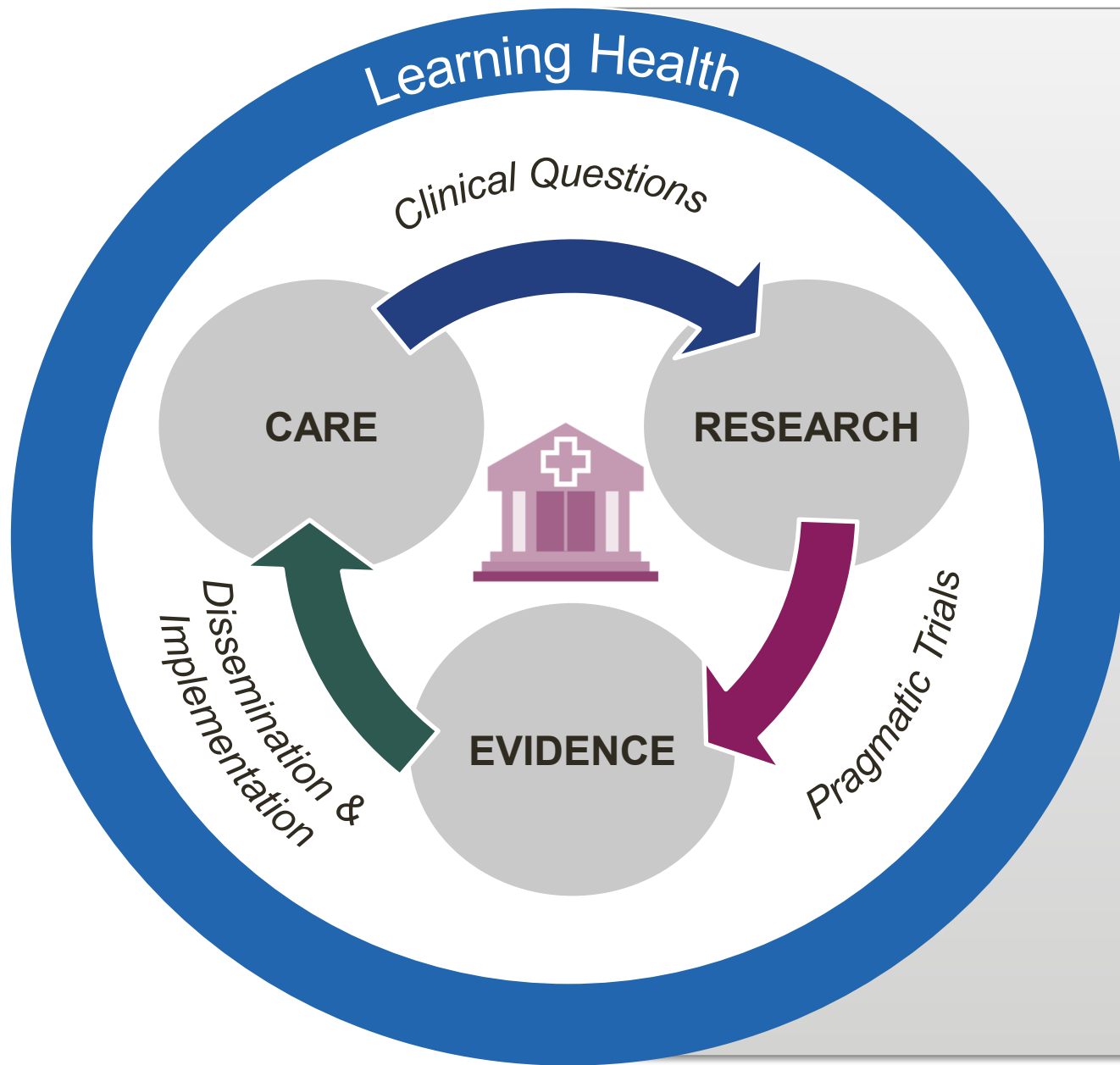
Coordinating Center Leadership

Principal Investigators

Adrian Hernandez, MD, MHS	Administrative responsibilities, Grand Rounds, liaison to the Biostatistics and Study Design Core, Health Care Systems Interactions Core, etc
Lesley Curtis, PhD	Chair of the Steering Committee, liaison to the EHR Core, Implementation Science Core, etc
Kevin Weinfurt, PhD	Editor-in-Chief of the Living Textbook, liaison to the Ethics and Regulatory Core, PCO Core, Community Health Improvement Core, etc

Operations

Tammy Reece, MS, PMP	NIH Collaboratory Project Director, partners with Coordinating Center Principal Investigators, and provides day-to-day oversight of operational activities
Marijo Mencini	Project Leader, Grand Rounds, works closely with Project Director on operational activities



NIH PRAGMATIC TRIALS COLLABORATORY

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SUPPORT SERVICES

- Consult and provide guidance on:
 - Study design and analysis
 - Regulatory issues and consent practices
 - Use of EHR and real-world data sources
 - Translating results into practice
- Offer strategies to:
 - Contribute to healthier communities
 - Engage healthcare system partners
- Assist with:
 - Defining study endpoints
 - Measuring patient-centered outcomes
 - Assessing feasibility of clinical workflows
 - Addressing challenges that arise

We've learned a lot about how to integrate research with practice...

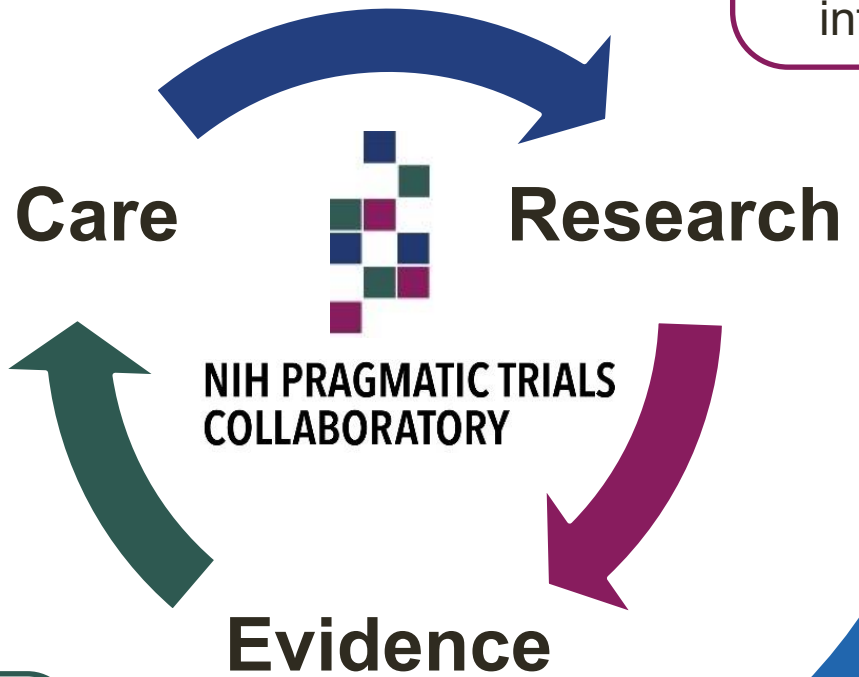
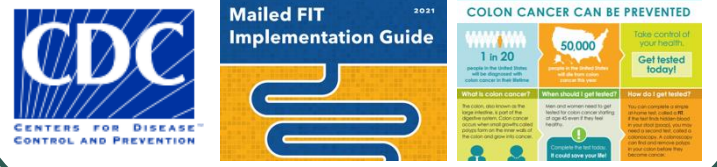
- Using EHRs for research is complex
- Unexpected changes occur, but there are ways to mitigate their effects
- Strong partnerships with healthcare systems are essential
- Some ethical and regulatory uncertainties remain
- Many factors involved in whether an intervention will be sustained
- **Sharing challenges and lessons promotes success, advances methods**

Question:
Does an EHR-based outreach program with mailed stool-tests improve rates of colorectal cancer screening?

Pragmatic Trial:
26 FQHC clinics randomized to routine care or intervention



Clinical Impact:
Adopted intervention in at least 150 clinics
Implementation materials published to support uptake



NIH Collaboratory Support:

- *Biostatistics:* Extensive support to modify analysis, develop secondary analysis
- *Data:* Helped team learn and implement standards and methods for validating EHR code
- *Overall:* Knowledge sharing, troubleshooting

Results:
Significantly improved screening rates

Study Population:
>40,000 patients and ~6,300 mailed stool-tests

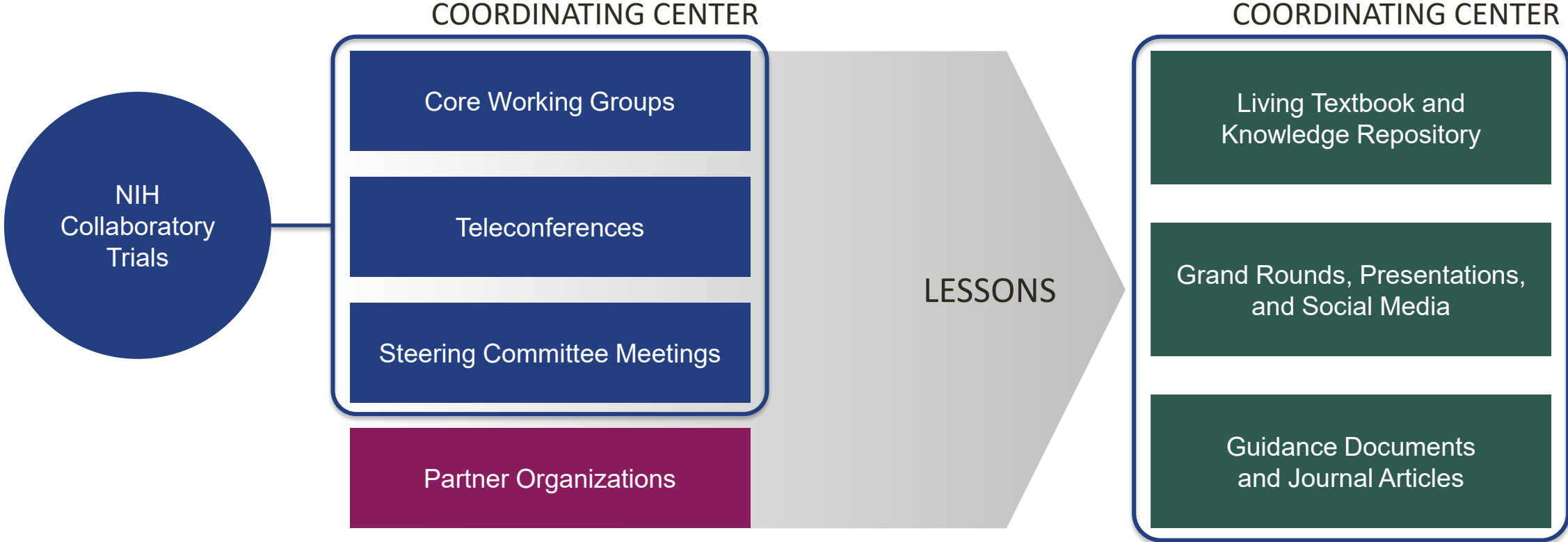
Resources Available to You



**NIH PRAGMATIC TRIALS
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How We Share Information



Learn From Other Trials



TRIAL WEBPAGES

- Trial details
- Interviews
- Publications and presentations



DATA AND RESOURCE SHARING

- Study tools
- Documentation

Publications

[Patient engagement with prescription refill text reminders across time and major societal events](#)

[Description of patient questions received by clinical pharmacists in the Nudge Study](#)

[Secondary analysis of electronic opt-out consent in pragmatic research: A study design method to diversify clinical trials?](#)



ICD-Pieces: Lessons Learned in an Ongoing Trial

MIGUEL A. VAZQUEZ, MD AND GEORGE H. OLIVER, MD
FOR THE ICD-PIECES STUDY TEAM @NIH COLLABORATORY

Data and Resource Sharing

[TSOS Data Dictionary](#)

[TSOS Protocol](#)

[TSOS Data Quality and Phenotyping Manual](#)

[TSOS Consent Form](#)



Study Snapshot



Pragmatic Trial of User-Centered Clinical Decision Support to Implement Emergency Department-Initiated Buprenorphine for Opioid Use Disorder (EMBED)

Principal Investigators
Edward Moinick, MD, MPH;
Gail D'Onofrio, MD, MS

Collaborators
• University of North Carolina at Chapel Hill
• University of Alabama at Birmingham
• University of Colorado Denver
• UIWaxs Chan Medical School Baystate

DATA AND RESOURCE SHARING
• [Data sharing checklist](#)
• Melnick ER, Nath B, Dziura JD, et al. User centered clinical decision support to implement

Sponsoring Institution
Yale University

GENERALIZABLE LESSONS

Challenge	Solution
Changes in leadership and variable understanding of how the study was aligned with opioid-tapering quality improvement efforts	The study team conducted significant formative research and communicated regularly with health plan and clinical leaders to track changes and account for the dynamic nature of usual care.
Hiring and retention of frontline staff, coordination, communication, and partnership with pain-related services and providers in settings where the study team worked	The study team made less use of clinic-based staff and greater use of traveling teams for delivery of interdisciplinary teams to provide the intervention (as well as more telephone work and flexibility with regard to the degree to which those from each core discipline were represented on intervention teams).
Irregular collection of data on pain intensity and interference for patients on long-term opioid treatment plans in healthcare systems	The study team set up a partially automated, tiered system for collection of patient-reported outcome (PRO) data with an email push through the patient portal, followed by an interactive voice response (IVR) call if there was no response to the email. Live, in-person follow-up was reserved for situations when there was no response to the email and IVR attempts at PRO data collection. (See Owen-Smith et al.)

"We appreciated the Collaboratory's general atmosphere of camaraderie and willingness to be honest about challenging issues and share suggestions with other study teams.

The Coordinating Center was a means of connecting us all, and we learned a lot from others, including those working in very different scientific domains."

— Dr. Lynn DeBar

"For those planning to rely heavily on PROs, consider setting up an automated approach to data collection and follow-up, and keep the PROs short and clinically informative. PROs focused on function can be more useful for clinicians and easier for the study team to deliver.

These kinds of win-wins for the healthcare system and the study team really help."

— Dr. Lynn DeBar

ADDITIONAL RESOURCES

- Article: [Interdisciplinary Team-Based Care for Patients With Chronic Pain on Long-Term Opioid Treatment in Primary Care \(PRACT\): Protocol for a Pragmatic Cluster Randomized Trial](#)
- Article: [Development and Assessment of a Crosswalk Between ICD-9-CM and ICD-10-CM to Identify Patients With Common Pain Conditions](#)
- Article: [Taking Opioids in Times of Crisis, Institutional Oversight, Chronic Pain and Suffering in an Integrated Healthcare Delivery System in the U.S.](#)
- Article: [Interactive Group-Based Orientation Sessions: A Method to Improve Adherence and Retention in Pragmatic Clinical Trials](#)
- Article: [Identifying Multiple Chronic Pain With Electronic Health Records Data](#)
- NIH Collaboratory Steering Committee Meeting Presentation (2020): [Lessons Learned About Embedding Complex Pragmatic Trials in Delivery Systems, Collaborative Care for Chronic Pain](#)

Access the complete set of PRACT resources.

Living Textbook

rethinkingclinicaltrials.org

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NIH PRAGMATIC TRIALS COLLABORATORY
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Design [View Chapters >](#) Data, Tools & Conduct [View Chapters >](#) Dissemination [View Chapters >](#) Ethics and Regulatory [View Chapters >](#)

Rethinking Clinical Trials: A Living Textbook of Pragmatic Clinical Trials

WATCH THE VIDEO

Welcome to the Living Textbook of pragmatic clinical trials, a collection of knowledge from the NIH Pragmatic Trials Collaboratory. Pragmatic clinical trials present an opportunity to efficiently generate high-quality evidence to inform medical decision-making. However, these trials pose different challenges than traditional clinical trials. The Living Textbook reflects a collection of special considerations and best practices in the design, conduct, and reporting of pragmatic clinical trials.

GET STARTED

What is the [NIH PRAGMATIC TRIALS COLLABORATORY?](#)

What is a [PRAGMATIC CLINICAL TRIAL?](#)

[TRAINING RESOURCES](#)



30+ chapters

TOPICS INCLUDE:

Design

- Developing a Grant
- Experimental Designs
- Building Partnerships
- Patient Engagement
- What Is a Pragmatic Trial
- Endpoints and Outcomes
- Using EHR Data
- Intervention Complexity

Data, Tools, and Conduct

- Assessing Feasibility
- Acquiring and Assessing Real-World Data
- Study Startup
- Participant Recruitment
- Monitoring Fidelity
- Clinical Decision Support
- PROs

Dissemination and Implementation

- Data Sharing
- Dissemination
- Implementation
- End-of-Trial Decision-Making

Ethics and Regulatory

- Privacy
- Consent, Waiver, and Notification
- Collateral Findings
- Data Monitoring
- Single IRB

Tools and Guidance Documents

CHEAT SHEETS

- Intraclass Correlation Coefficient
- Assessing Fitness-for-Use of Clinical Data for ePCTs
- End-of-Trial Decision-Making

TOOLS & TOOLKITS


- Intervention Complexity Calculator
- Patient-Centered Outcomes Toolkit
- Data Sharing Information
- Quick Start Guides

TEMPLATES & CHECKLISTS

- Data Monitoring Committee Charter
- Reporting ePCTs Template
- Trial Documentation Checklist
- Data Sharing Checklist

GUIDANCE DOCUMENTS

- Engagement in ePCTs
- Assessing Data Quality
- Cluster Randomized Trial Design
- Data Sharing



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Engagement in Research for Pragmatic Clinical Trials

Determining which individuals are most engaged in research (those engaged according to service provider) and document provides consent as institutional review board Protections (OHRP), the subjects, issued guidance directed at PCTs in part guidance from OHRP work

PURPOSE

This document provides an important for the design and by individual participant, the or primary-care practice, alth

DEFINITION

The **intraclass correlation coefficient** cluster are likely to be similar from other clusters. The ICC, the sample size needed to detect cluster-randomized trials is t

EXAMPLES

In cluster-randomized trials are highly correlated and wh cluster are likely to have sim cluster provides almost as m to the number of clusters as

To demonstrate why this is r

1 In a dietary intake study, t of the same family would differ from that of other fa little gain from sampling other hand, if a cluster the city are randomly sa little similarity from sub of the sample. In this c likely contribute "indep

2 Suppose we have 6 pro participants for a prag this hypothetical case, t rated on a scale from 1 as shown in Figure 1. O seen by a specific provid of satisfaction to each o providers and that som high patient satisfactio 1). This is an example o individuals to the cluste

Intraclass Correlation Coefficient Cheat Sheet

Key Questions

- Which individual
- Are these individ providers?
- Why does it matt

Addressing these questi relationship to the resear providers.

Research Subjects

It is generally easy to id and Human Services (DH subject:

"a living individu information or bi individual, and us obtains, uses, stu identifiable biosp

Annals of Internal Medicine

Moving From Idealism to Realism With Data Sharing

Keith A. Marsolo, PhD; Kevin P. Weinfurt, PhD; Karen L. Staman, MS; and Bradley G. Hammill, DrPH

Significant efforts have been made in the past decade to promote open science and data sharing in clinical research. The moral and scientific arguments are clear: If data are shared, it could promote transparency and understanding of the results, honor the participation of individuals, and enable new discoveries (1).

The White House Office of Science and Technology Policy recently updated guidance requiring that results of federally funded research be made immediately available, and federal agencies have drafted a series of policies that outline expectations of their awardees. For example, the National Institutes of Health (NIH) has released a new Policy for Data Management and Sharing that will take effect in January 2023 (2).

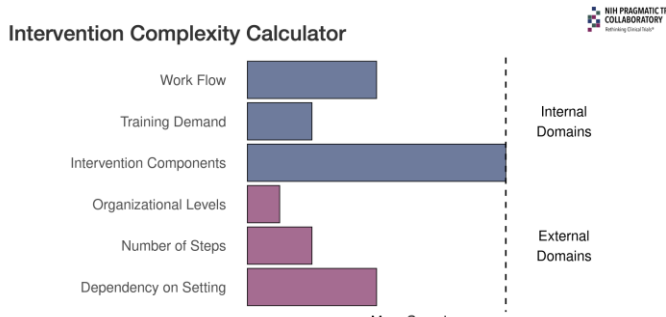
The NIH's background rationale for data sharing is that it enables researchers "to rigorously test the validity of research findings, describe what has been learned

generative science also becomes less feasible. Most NIH guidance on deidentification is concerned with patient privacy (4), and rightly so, but there is an opportunity to also describe best practices and methods that can better support specific goals of reuse.


Second, what do we mean by reproducibility? Reproducibility can be interpreted in different ways, and the types of data and metadata differ depending on the interpretation. As shown in the Figure, repeating an analysis starting with the raw data requires more metadata than simply rerunning an analysis on the analytic data set.

Third, what metadata should be shared? Data definitions are always needed so people can understand the shared data. For reproducibility, metadata like the study protocol and statistical analysis plan are needed to know what the study team has done. In some cases, the underlying code may be required as well. This expanded list of

Intervention Complexity Calculator



Category	Complexity Level (Relative)	Domain
Work Flow	High	Internal
Training Demand	Medium-High	Internal
Intervention Components	Very High	Internal
Organizational Levels	Low	External
Number of Steps	Medium-Low	External
Dependency on Setting	Medium	External



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Transition Preparation Support

- Discuss plans and potential barriers with Cores
- Provide regular progress updates to SC
- Open sharing of challenges and lessons learned
- Implementation Readiness Checklist

Implementation Readiness Checklist

Milestone	Completed
<i>Recruitment plans are finalized</i>	
All sites identified (documentation of site commitment)	
Methods for accurately identifying participants validated	
All agreements for necessary subcontracts in place	
<i>Ethical/regulatory aspects are addressed</i>	
Coordinated IRB oversight in place	
Finalized plans for informed consent or waiver of informed consent	
Finalized data and safety monitoring plan	
<i>Intervention is fully developed and finalized</i>	
Finalized intervention (including materials and training at sites) ready for site implementation	
Finalized protocol is IRB approved (informed consent and data collection forms, if applicable)	
<i>Data collection methods are adequately tested</i>	
Validated methods for the electronic health record information	
Validated study surveys, interviews, or other data collection modes	
Demonstrated quality assurance and harmonization of data elements across healthcare systems/sites	
Statistical and data analysis methods have been adequately developed	
<i>Budget is realistic, feasible, and accounts for potential changes</i>	


ePCT Training Resources

rethinkingclinicaltrials.org/training-resource/


- Learning pathway
- Learning modules
- Video library
- Tools (handouts, checklists, guides, etc)
- Workshop materials (slides, recordings, etc)
- Upcoming opportunities

Training Resources


Pathways to Learning




The NIH Pragmatic Trials Collaboratory Learning Path offers an innovative way to learn about designing a pragmatic clinical trial. The interactive, self-paced modules are led by an expert in study design and include videos, reference materials, and knowledge checkpoints. Learners can earn a certificate by completing this free, 1-hour course. To get started, click the Learn More button below.

[Learn More](#) 


Learning Modules



The NIH Pragmatic Trials Collaboratory Learning Modules offer a series of self-paced, guided learning for researchers interested in pragmatic clinical trials. These modules are organized by topic and can be watched sequentially or individually. Learn from our experts as they answer common questions about pragmatic clinical trials.


[Learn More](#) 

Videos




View our training videos, which feature NIH Pragmatic Trials Collaboratory experts and guest speakers presenting on topics that cover every phase of a pragmatic clinical trial.

Tools



Access downloadable tools that provide information about pragmatic clinical trials, including educational handouts, guidance documents, templates, and example materials from NIH Collaboratory Trials.

Workshops



Learn about upcoming NIH Pragmatic Trials Collaboratory workshops and view materials from past workshops, such as agendas, recordings, slides, participant guides, and more.

Upcoming Learning Opportunities

August 1 @ 1:00 pm - 2:00 pm
[Grand Rounds August 1, 2025: Clinical Trial Notifications Triggered by Artificial Intelligence-Detected Cancer Progression \(Kenneth L. Kehl, MD, MPH\)](#)

August 8 @ 1:00 pm - 2:00 pm
[Grand Rounds August 8, 2025: Varenicline for Youth Nicotine Vaping Cessation: A Randomized Clinical Trial \(A. Eden Evins, MD, MPH\)](#)

August 15 @ 1:00 pm - 2:00 pm
[Grand Rounds August 15, 2025: Dexmedetomidine or Clonidine-Based Sedation Compared with Propofol in Critically Ill Patients: The A2B Randomized Clinical Trial \(Tim Walsh, MD, FFICM; Chris Weir, PhD; Richard Parker, MSc\)](#)

[View Calendar of All Events](#)

Rethinking Clinical Trials® Grand Rounds



Weekly webinars

- **Fridays, 1:00-2:00 pm ET**
- Open to public
- >570 held to date
- Timely, high-interest topics
- Feature NIH Collaboratory work and beyond

The collage features six webinar slides:

- Slide 1 (Top Left):** NIH Pragmatic Trials Collaboratory Grand Rounds, January 24, 2025. Topic: The HEALing Communities Study – 10 Million People, 67 Communities. A Community-based Cluster Randomized Trial to Reduce Opioid Overdose Deaths. Speaker: Jeffrey H. Samet MD, MA, MPH.
- Slide 2 (Top Right):** The All of Us Research Program: Improving Health Through Diverse Technology, Huge Cohorts, and Precision Medicine. Date: May 5, 2023. Speaker: Joshua Denny, MD, MS, Chief Executive Officer.
- Slide 3 (Middle Left):** CLINICAL TRIALS TRANSFORMATION INITIATIVE, September 30, 2022. Topic: CTTI's Digital Health Trials Hub. Recommendations and Resources to Run Your Digital Health Trial. Speaker: Marianne Chase, MGH, CTTI Team Lead.
- Slide 4 (Middle Right):** State of Clinical Trials: An Analysis of Clinical.Trials.Gov. Speaker: Adrian F. Hernandez, MD, MHS, Executive Director, Duke Clinical Research Institute.
- Slide 5 (Bottom Left):** NIH Pragmatic Trials Collaboratory Grand Rounds, 24 June 2022. Topic: FDA Draft Guidance on Real-World Evidence. Speaker: John Concato, MD, MS, MPH, Associate Director for Real-World Evidence Analytics, Office of Medical Policy, Center for Drug Evaluation and Research.
- Slide 6 (Bottom Right):** From Observational Studies to Pragmatic Clinical Trials: (Almost) A Decade of Research in PCORnet®. Speakers: Erin Holve, PhD, MPH, MPP; Russell Rothman, MD, MPP; Neha Pagidipati, MD, MPH; W. Schuyler Jones, MD.

Rethinking Clinical Trials® Podcast



Podcast episodes

- >50 episodes available
- Timely, high-interest topics
- Feature NIH Collaboratory work and beyond

VIEWPOINT **INTEGRATING CLINICAL TRIALS AND PRACTICE**
Making Pragmatic Clinical Trials More Pragmatic

Richard Platt, MD, MSc
Department of Population Medicine, Harvard Pilgrim Health Care Institute and Harvard Medical School

Pragmatic clinical trials are having a moment—actually, a decade. More than 80% of National Library of Medicine citations identified by searching “pragmatic clinical trials” were published in the past 10 years. The Pragmatic Explanatory Continuum Indicator Summary (PRECIS-2) has been cited almost 700 times since its publication in

health care system. Although it was expected that widespread dissemination and implementation might require both replication and time, in a surprising number of instances, the collaborating health care systems in which the trials were conducted did not make decisions strictly consistent with the trial findings for the pro-

RETHINKING CLINICAL TRIALS PODCAST

Gregory E. Simon, MD
12 years ago, the National Academy of Medicine called for a “Learning Health System”—in which clinical trials would be integrated with health care delivery in a continuous

or adopting the findings of these studies. In some instances, health care system leaders did not adopt a practice that had been shown to be effective by the trial’s cri-

Public-Private Partnerships in the Trustworthy Health AI Ecosystem
Michael Pencina, PhD, and Brian Anderson, MD
Coalition for Health AI

Informing and Consenting: What Are the Goals?
P. Beard O'Rourke, PhD, and [Name], MD
Collaboratory

Decentralized Trial, Digital Trial, Yale PaxLC Trial, Long COVID
Harlan M. Krumholz, MD, SM

RETHINKING CLINICAL TRIALS PODCAST

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Keep In Touch

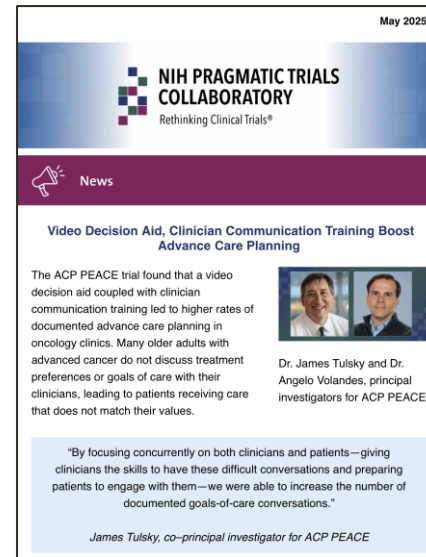
Publishing or presenting?

Keep us informed so we can track and help promote your work



nih-collaboratory@dm.duke.edu

Monthly email newsletter



Follow Us



Reach out anytime—we're here to help!

Tips for Success

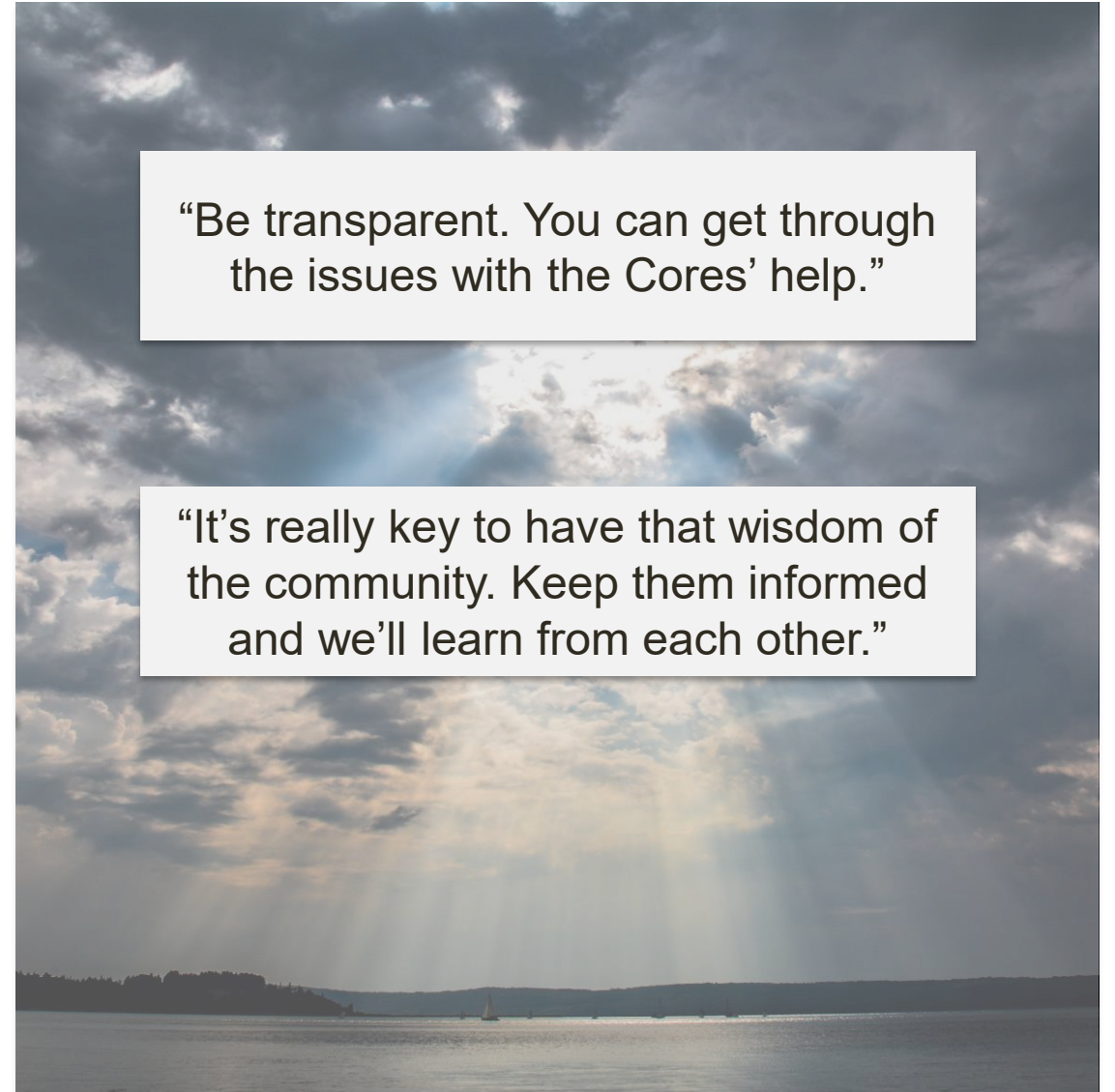


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The Year Ahead

- Tips for Year 1 Handout includes advice from other investigators
- Recommend delegating to your team to work through the tight timeline
- Be engaged and share openly
- **A whole community is here to support you**



“Be transparent. You can get through the issues with the Cores’ help.”

“It’s really key to have that wisdom of the community. Keep them informed and we’ll learn from each other.”

Be Aware – ClinicalTrials.gov Reporting Deadline

- **Submission of results due:**
1 year after the trial's primary completion date
 - Date when the final participant was examined or received an intervention to collect data for the primary outcome measure



Extensions rarely granted!

Q&A



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