

# Working With the NIH Collaboratory Coordinating Center

Adrian Hernandez, MD

January 8, 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!**



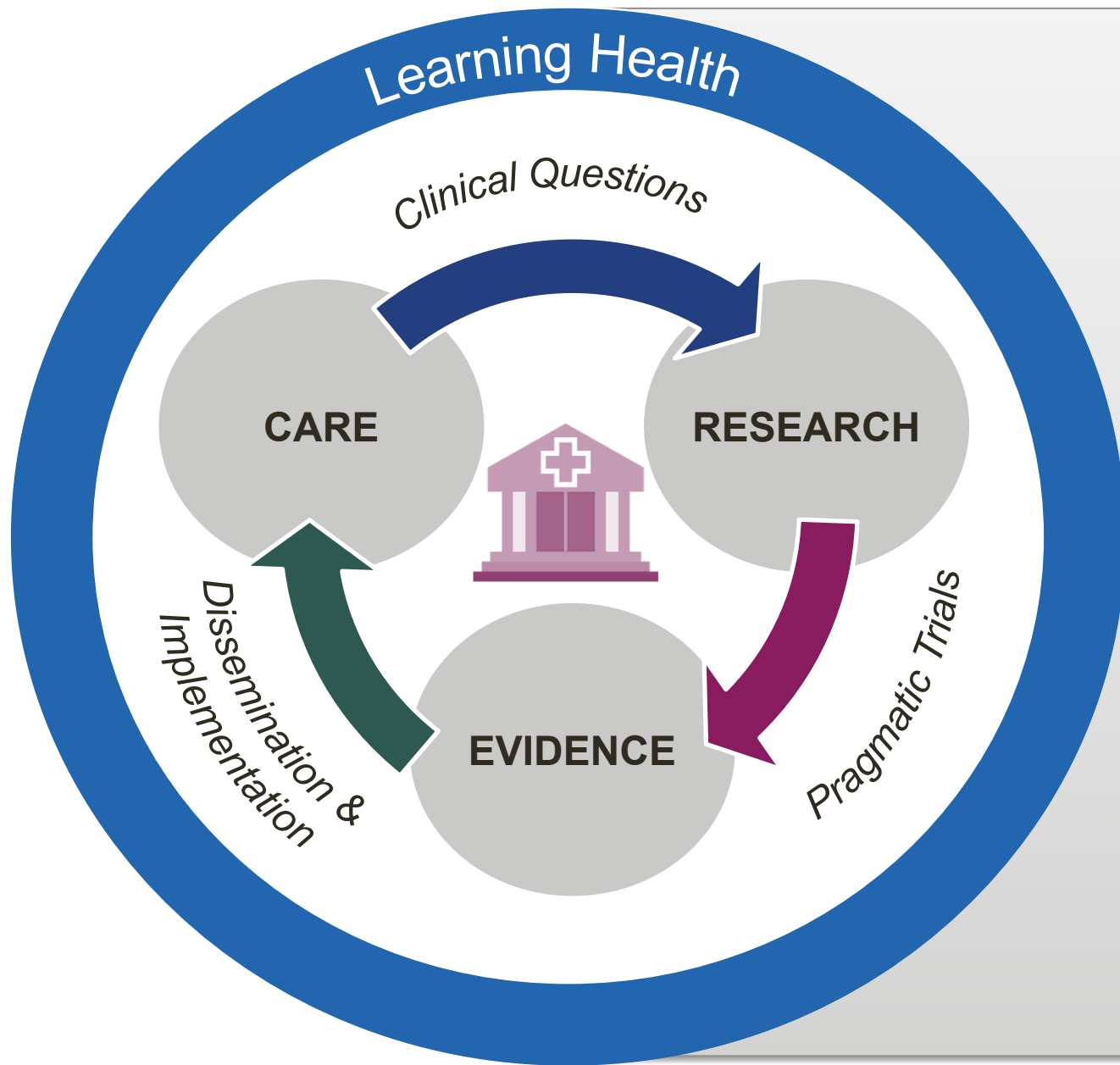
# Coordinating Center Leadership

## 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, Health Equity 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:
  - Improve diversity, equity, and inclusion
  - Engage health 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...

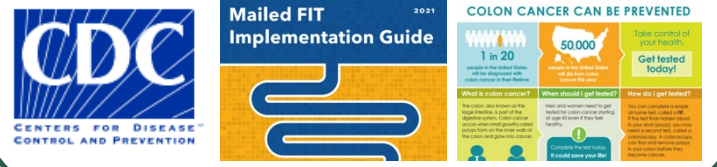
- Using EHRs for research is complex
- Unexpected changes occur, but there are ways to mitigate their effects
- Strong partnerships with healthcare systems are essential
- Some ethical and regulatory uncertainties remain
- Many factors involved in whether an intervention will be sustained
- **Sharing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

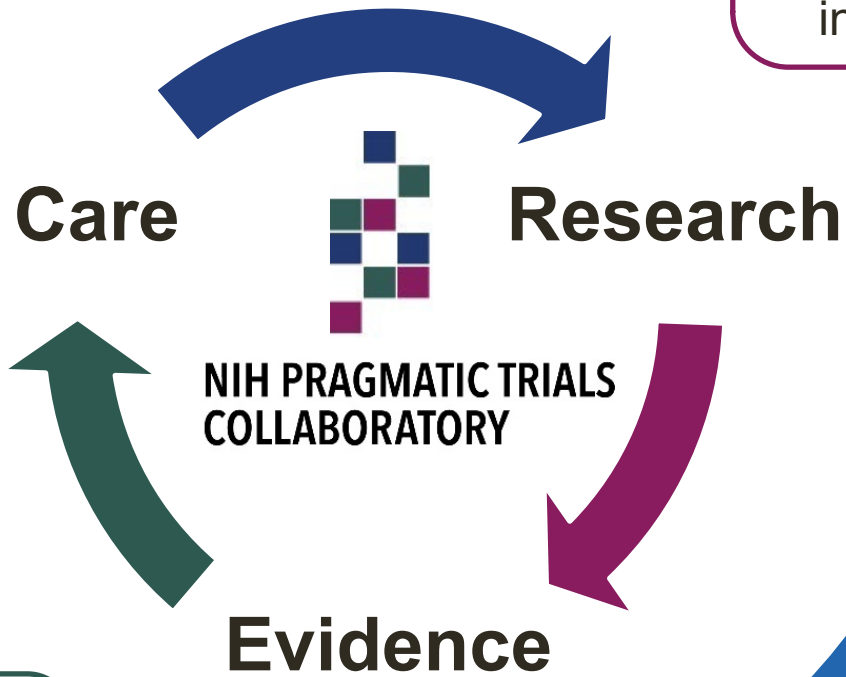


**Results:**  
Significantly improved screening rates

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

**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



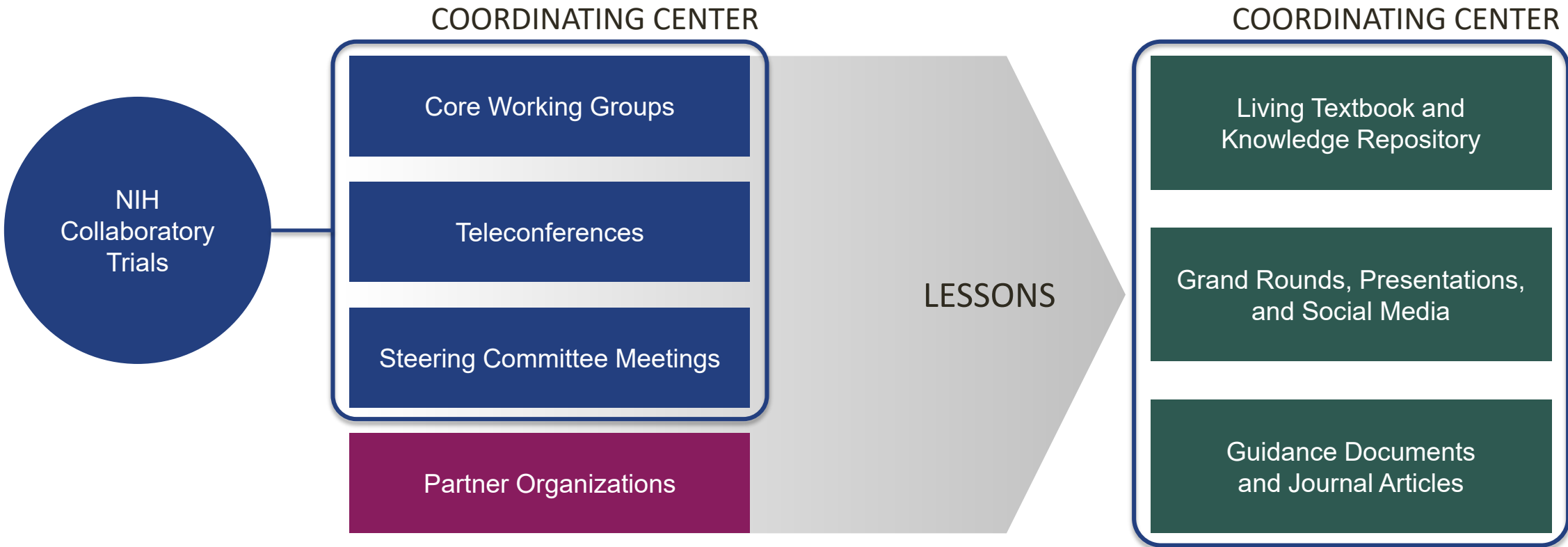
# Resources Available to You



**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

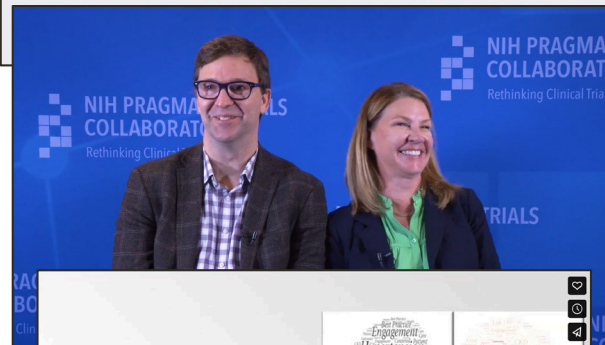
- Study tools
- Documentation

### 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, PRAGMATIC COLLABORATORY

MAINTAINING

▶

### 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

**ClinicalTrials.gov Identifier**  
NCT03658642

**Sponsoring Institution**  
Yale University

**Collaborators**  
• University of North Carolina at Chapel Hill  
• University of Alabama at Birmingham  
• University of Colorado Denver  
• UMass 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

#### 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 \(FPRACT\) - 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 [FPRACT resources](#).

# Living Textbook

[rethinkingclinicaltrials.org](http://rethinkingclinicaltrials.org)

Home About Resources Grand Rounds News [Subscribe to Newsletter](#)

**NIH PRAGMATIC TRIALS COLLABORATORY**  
Rethinking Clinical Trials®

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

- Data Sharing
- Dissemination
- Implementation

### Ethics and Regulatory

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

# Tools and Guidance Documents

## CHEAT SHEETS

- Intraclass Correlation Coefficient
- Equitable Language
- Assessing Fitness-for-Use of Clinical Data for ePCTs

## 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 is a complex task. This document provides guidance on how to assess engagement in research for pragmatic clinical trials. It includes information on the importance of engagement, the role of the research team, and the importance of patient-centered outcomes.

**PURPOSE**

This document provides an important tool for the design and implementation of pragmatic clinical trials. It is intended for use by researchers, clinicians, and other stakeholders involved in the design and implementation of pragmatic clinical trials.

**DEFINITION**

The intraclass correlation coefficient (ICC) is a measure of the degree of agreement between two raters who are rating the same subject. It is used to assess the reliability of ratings and is a key component of the Intraclass Correlation Coefficient Cheat Sheet.

**Key Questions**

- Which individual providers?
- Are these individuals likely to be similar to other providers?
- Why does it matter?

**Addressing these questions is important to the relationship to the research providers.**

**Research Subjects**

It is generally easy to identify research subjects. However, it is important to ensure that the subjects are representative of the population of interest. This document provides guidance on how to identify and recruit research subjects for pragmatic clinical trials.

**Examples**

In cluster-randomized trials, individuals within the same cluster are likely to be more similar to each other than to individuals in other clusters. This document provides guidance on how to account for this clustering in the analysis of cluster-randomized trials.

**1** In a dietary intake study, researchers found that individuals in the same family would differ from that of other families. In this case, the likely contribute "independent" information to the study.

**2** Suppose we have 6 providers for a pragmatic clinical trial. This hypothetical case, rated on a scale from 1 (low) to 5 (high) patient satisfaction. This is an example of a cluster-randomized trial.

### Intraclass Correlation Coefficient Cheat Sheet

**IDEAS AND OPINIONS**

**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).

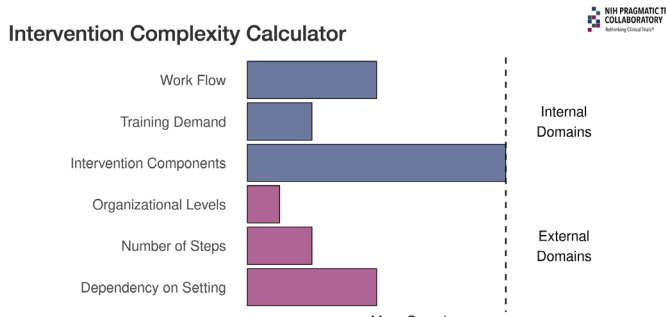
The NIH's background rationale for data sharing is that it enables researchers "to rigorously test the validity of research findings, to disseminate the results of research, and to promote open science and data sharing in clinical research."

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

More Complex →

# 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/](https://rethinkingclinicaltrials.org/training-resource/)


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

## Training Resources

### 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.



### Resources

Access downloadable resources developed by the NIH Pragmatic Trials Collaboratory, including educational handouts, guidance documents, and worksheets that provide information about pragmatic clinical 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

November 17 @ 1:00 pm - 2:00 pm  
[Grand Rounds November 17, 2023: Personalized Patient Data and Behavioral Nudges to Improve Adherence to Chronic Cardiovascular Medications: Results from the Nudge Study \(Michael Ho, MD, PhD; Sheana Bull, PhD\)](#)

November 24 @ 1:00 pm - 2:00 pm  
[Grand Rounds November 24, 2023: No Presentation \(Holiday\)](#)

November 28 @ 1:00 pm - 3:00 pm  
[Exploratory and Inferential Spatial Statistical Methods: Tools To Understand the Geography of Health Across the U.S.](#)

December 1 @ 1:00 pm - 2:00 pm  
[Grand Rounds Biostatistics Series December 1, 2023: Guidelines for Design and Analysis of Stepped-Wedge Trials \(Jim Hughes, PhD; Moderator: Patrick Heagerty, PhD\)](#)

[View Calendar of All Events](#)

# Rethinking Clinical Trials® Grand Rounds



## Weekly webinars

- **Fridays 1-2 pm ET**
- Open to public
- >500 held to date
- Timely, high-interest topics
- Feature NIH Collaboratory work and beyond



## Podcast episodes

- >40 available

**Inclusion and Diversity in Clinical Trials: Actionable Steps to Drive Lasting Change**  
Gerald Bloomfield, Lesley Curtis, Michelle Kelsey  
September 30, 2022

**The All of Us Research Program: Improving Health Through Diverse Technology, Huge Cohorts, and Precision Medicine**  
May 5, 2023  
Joshua Denny, MD, MS, Chief Executive Officer

**CTTI's Digital Health Trials Hub**  
Recommendations and Resources to Run Your Digital Health Trial  
Marianne Chase, MGH, CTTI Team Lead

**Equitably Including Diverse Participants in Pragmatic Clinical Trials**  
Consuelo H. Wilkins, MD, MSCI  
Senior Vice President and Senior Associate Dean for Health Equity  
Professor of Medicine

**NIH Pragmatic Trials Collaboratory Grand Rounds**  
FDA U.S. FOOD & DRUG ADMINISTRATION  
**FDA Draft Guidance on Real-World Evidence**  
24 June 2022  
John Concato, MD, MS, MPH  
Associate Director for Real-World Evidence Analytics  
Office of Medical Policy  
Center for Drug Evaluation and Research

**From Observational Studies to Pragmatic Clinical Trials: (Almost) A Decade of Research in PCORnet®**  
Erin Holve, PhD, MPH, MPP, PCORI  
Russell Rothman, MD, MPP, Vanderbilt University School of Medicine  
Neha Pagidipati, MD, MPH  
W. Schuyler Jones, MD

# Keep In Touch

## Publishing or presenting?

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



[nih-collaboratory@dm.duke.edu](mailto:nih-collaboratory@dm.duke.edu)

## Monthly email newsletter



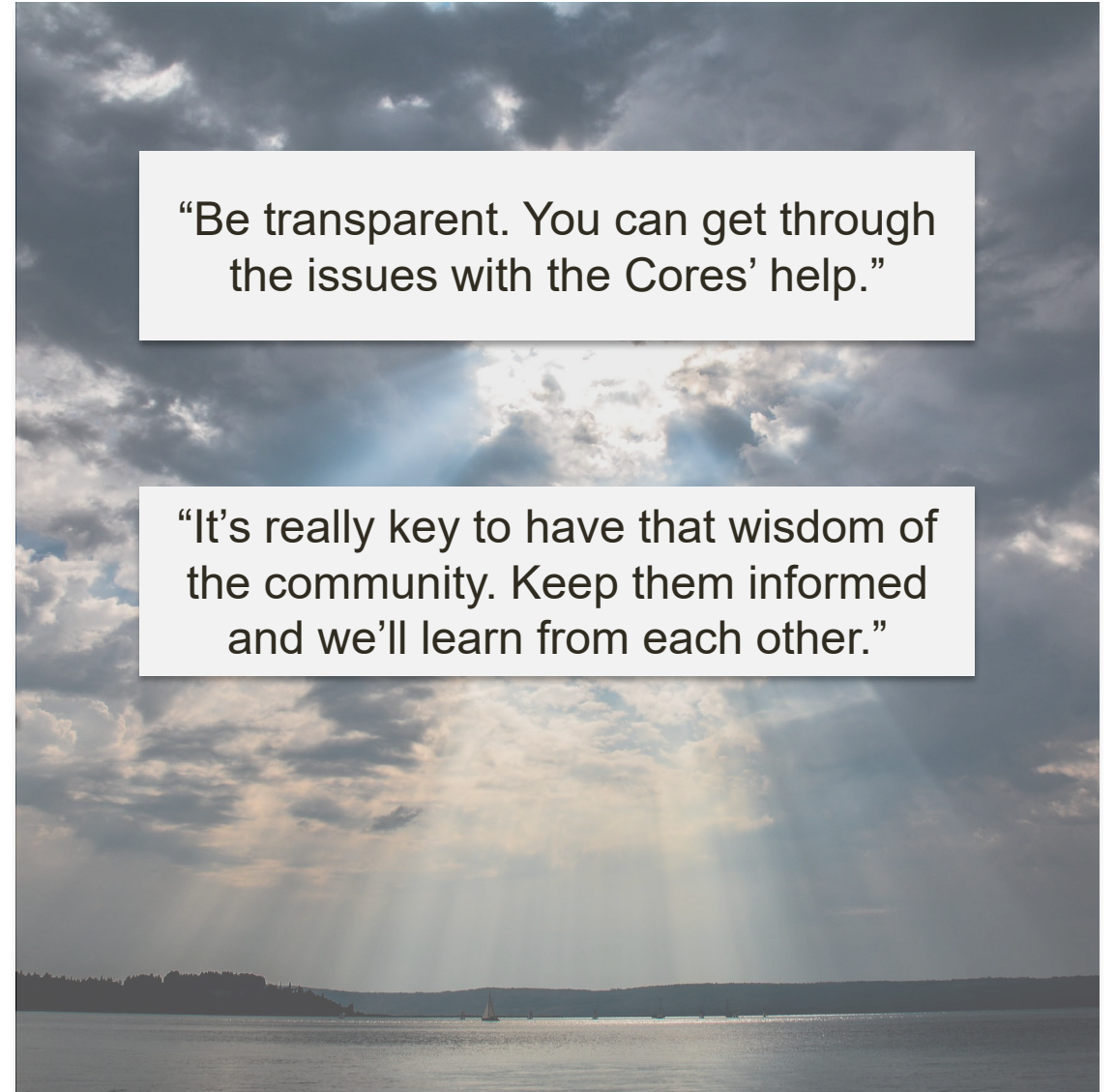
## Follow Us



***Reach out anytime—we're here to help!***

# 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**





# Up Next: Core Working Groups Introduction

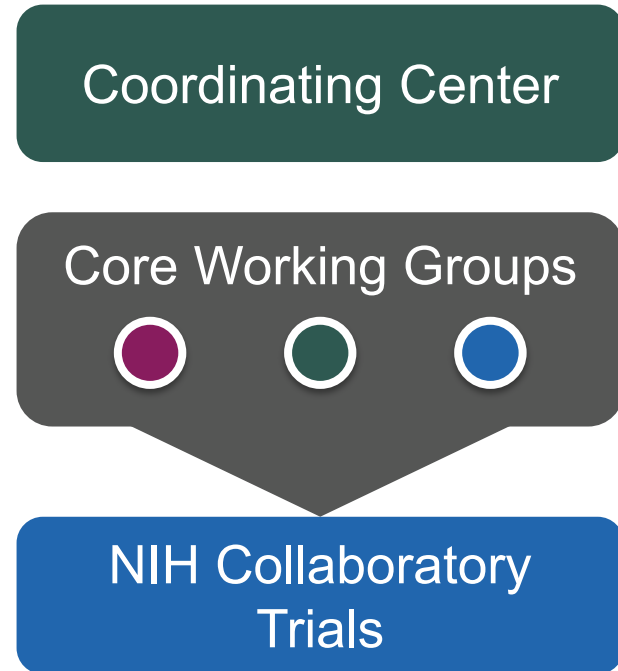


**NIH PRAGMATIC TRIALS  
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# Core Working Groups

- Component of Coordinating Center focusing on key areas of ePCTs
- Led by Chairs from Coordinating Center
- Include representatives from
  - NIH Collaboratory Trials
  - NIH



# Core Working Groups: Purpose

## COORDINATING CENTER

Biostatistics  
and Study  
Design

Electronic  
Health  
Records

Ethics and  
Regulatory

Health Care  
Systems  
Interactions

Health Equity

Implementation  
Science

Patient-  
Centered  
Outcomes



- Guide and support NIH Collaboratory Trials
- Disseminate knowledge
  - Guidance
  - Lessons learned