Program Policies and Guidance Documents

Project Onboarding Meeting
July 17, 2023

Adrian Hernandez, MD, MHS
Damon Seils, MS

NIH PRAGMATIC TRIALS COLLABORATORY
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Data Quality Guidance and Data Sharing Policy

Adrian Hernandez, MD, MHS

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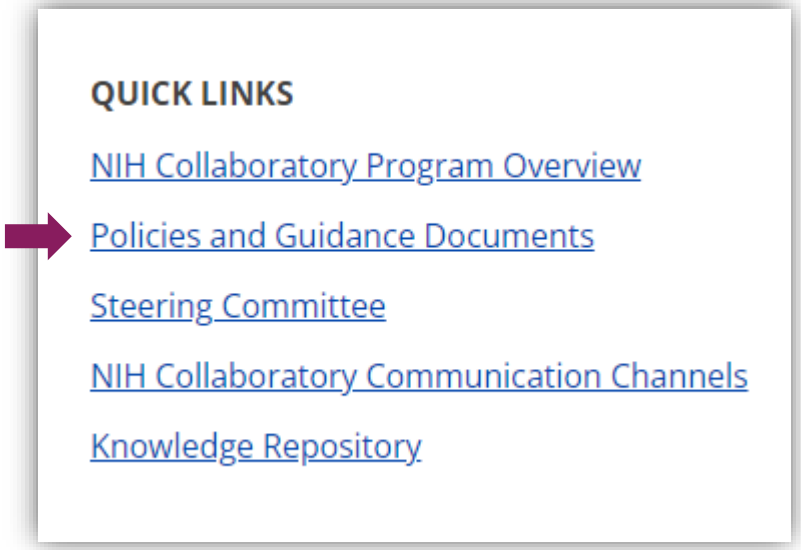
NIH Collaboratory Governance Policies & Guidance Documents

- Available on website and in meeting e-Binder
  - https://rethinkingclinicaltrials.org/nih-collaboratory-policies-and-guidance-documents/



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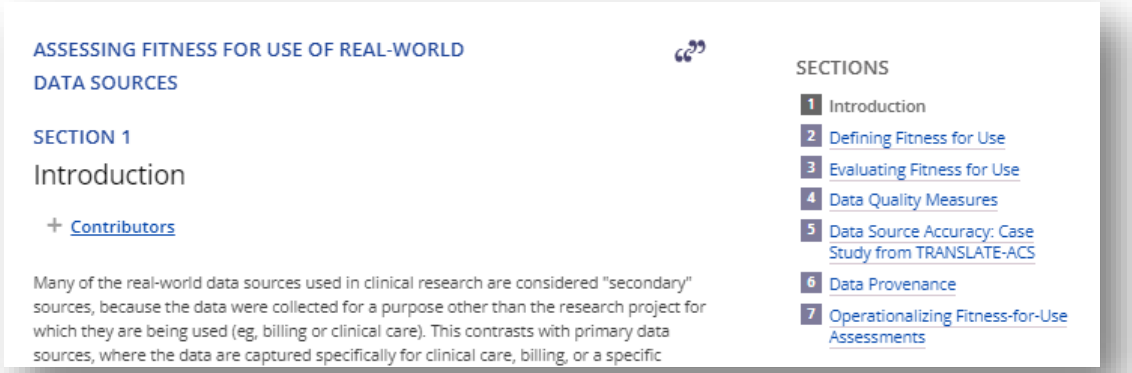
Data Quality Guidance

- **Assessing Fitness for Use of Real-Word Data**
  - Describes approaches to determine whether real-world data are fit for their intended use prior to their use in research settings

- **Quick Reference Handout**

Consult EHR Core with any questions


ASSESSING FITNESS FOR USE OF REAL-WORLD DATA SOURCES

SECTION 1

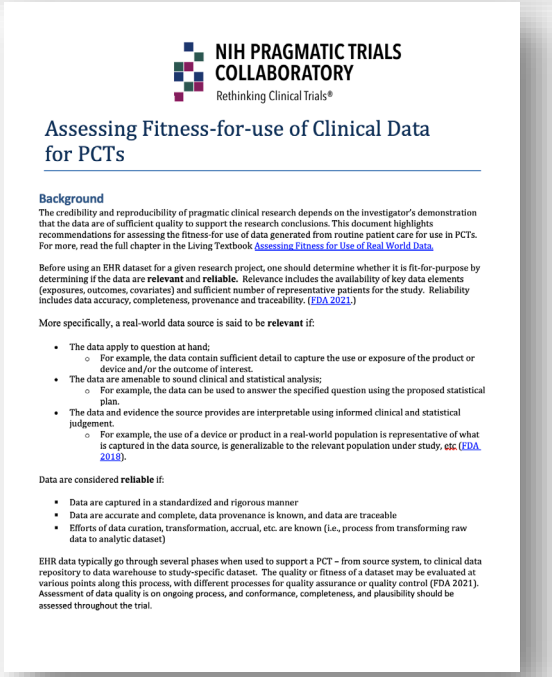
Introduction

+ Contributors

Many of the real-world data sources used in clinical research are considered "secondary" sources, because the data were collected for a purpose other than the research project for which they are being used (eg, billing or clinical care). This contrasts with primary data sources, where the data are captured specifically for clinical care, billing, or a specific

SECTIONS

1 Introduction
2 Defining Fitness for Use
3 Evaluating Fitness for Use
4 Data Quality Measures
5 Data Source Accuracy: Case Study from TRANSLATE-ACS
6 Data Provenance
7 Operationalizing Fitness-for-Use Assessments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Assessing Fitness-for-use of Clinical Data for PCTs

Background

The credibility and reproducibility of pragmatic clinical research depends on the investigator's demonstration that the data are of sufficient quality to support the research conclusions. This document highlights recommendations for assessing the fitness-for use of data generated from routine patient care for use in PCTs. For more, read the full chapter in the Living Textbook Assessing Fitness for Use of Real World Data.

Before using an EHR dataset for a given research project, one should determine whether it is fit-for-purpose by determining if the data are **relevant** and **reliable.** Relevance includes the availability of key data elements (exposures, outcomes, covariates) and sufficient number of representative patients for the study. Reliability includes data accuracy, completeness, provenance and traceability. (FDA 2021.)

More specifically, a real-world data source is said to be **relevant** if:

- The data apply to question at hand;
  - For example, the data contain sufficient detail to capture the use or exposure of the product or device and/or the outcome of interest.
- The data are amenable to sound clinical and statistical analysis;
  - For example, the data can be used to answer the specified question using the proposed statistical plan.
- The data and evidence the source provides are interpretable using informed clinical and statistical judgement.
  - For example, the use of a device or product in a real-world population is representative of what is captured in the data source, is generalizable to the relevant population under study, etc (FDA 2018).

Data are considered **reliable** if:

- Data are captured in a standardized and rigorous manner
- Data are accurate and complete, data provenance is known, and data are traceable
- Efforts of data curation, transformation, accrual, etc. are known (i.e., process from transforming raw data to analytic dataset)

EHR data typically go through several phases when used to support a PCT – from source system, to clinical data repository to data warehouse to study-specific dataset. The quality or fitness of a dataset may be evaluated at various points along this process, with different processes for quality assurance or quality control (FDA 2021). Assessment of data quality is on ongoing process, and conformance, completeness, and plausibility should be assessed throughout the trial.

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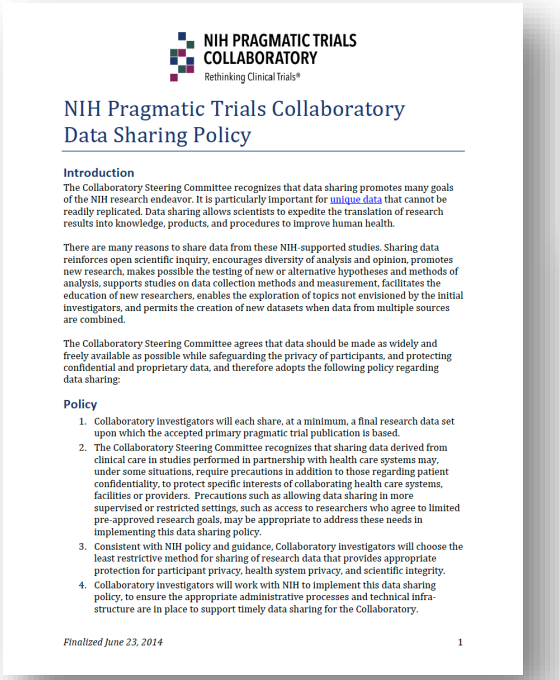
Data Sharing Policy and Considerations

- **Data Sharing Policy**
  - States the 4 policies adopted by the NIH Collaboratory for data sharing
- **Data Sharing Considerations**
  - Describes considerations for use of healthcare system data, methods and tools for data sharing, and expectations for NIH Collaboratory trials



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NIH Pragmatic Trials Collaboratory
Data Sharing Policy

Introduction

The Collaboratory Steering Committee recognizes that data sharing promotes many goals of the NIH research endeavor. It is particularly important for unique data that cannot be readily replicated. Data sharing allows scientists to expedite the translation of research results into knowledge, products, and procedures to improve human health.

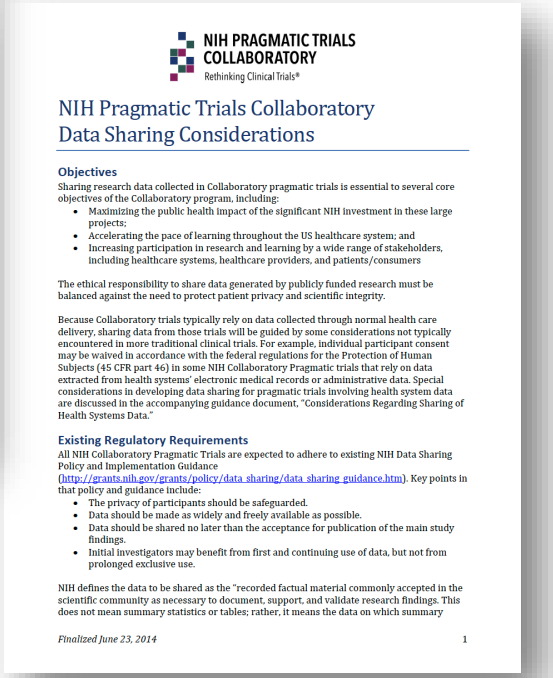
There are many reasons to share data from these NIH-supported studies. Sharing data reinforces open scientific inquiry, encourages diversity of analysis and opinion, promotes new research, makes possible the testing of new or alternative hypotheses and methods of analysis, supports studies on data collection methods and measurement, facilitates the education of new researchers, enables the exploration of topics not envisioned by the initial investigators, and permits the creation of new datasets when data from multiple sources are combined.

The Collaboratory Steering Committee agrees that data should be made as widely and freely available as possible while safeguarding the privacy of participants, and protecting confidential and proprietary data, and therefore adopts the following policy regarding data sharing:

Policy

1. Collaboratory investigators will each share, at a minimum, a final research data set upon which the accepted primary pragmatic trial publication is based.
2. The Collaboratory Steering Committee recognizes that sharing data derived from clinical care in studies performed in partnership with health care systems may, under some situations, require precautions in addition to those regarding patient confidentiality, to protect specific interests of collaborating health care systems, facilities or providers. Precautions such as allowing data sharing in more supervised or restricted settings, such as access to researchers who agree to limited pre-approved research goals, may be appropriate to address these needs in implementing this data sharing policy.
3. Consistent with NIH policy and guidance, Collaboratory investigators will choose the least restrictive method for sharing of research data that provides appropriate protection for participant privacy, health system privacy, and scientific integrity.
4. Collaboratory investigators will work with NIH to implement this data sharing policy, to ensure the appropriate administrative processes and technical infrastructure are in place to support timely data sharing for the Collaboratory.

Finalized June 23, 2014 1



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NIH Pragmatic Trials Collaboratory
Data Sharing Considerations

Objectives

Sharing research data collected in Collaboratory pragmatic trials is essential to several core objectives of the Collaboratory program, including:

- Maximizing the public health impact of the significant NIH investment in these large projects;
- Accelerating the pace of learning throughout the US healthcare system; and
- Increasing participation in research and learning by a wide range of stakeholders, including healthcare systems, healthcare providers, and patients/consumers

The ethical responsibility to share data generated by publicly funded research must be balanced against the need to protect patient privacy and scientific integrity.

Because Collaboratory trials typically rely on data collected through normal health care delivery, sharing data from those trials will be guided by some considerations not typically encountered in more traditional clinical trials. For example, individual participant consent may be waived in accordance with the federal regulations for the Protection of Human Subjects (45 CFR part 46) in some NIH Collaboratory Pragmatic trials that rely on data extracted from health systems' electronic medical records or administrative data. Special considerations in developing data sharing for pragmatic trials involving health system data are discussed in the accompanying guidance document, "Considerations Regarding Sharing of Health Systems Data."

Existing Regulatory Requirements

All NIH Collaboratory Pragmatic Trials are expected to adhere to existing NIH Data Sharing Policy and Implementation Guidance (http://grants.nih.gov/grants/policy/data_sharing/data_sharing_guidance.htm). Key points in that policy and guidance include:

- The privacy of participants should be safeguarded.
- Data should be made as widely and freely available as possible.
- Data should be shared no later than the acceptance for publication of the main study findings.
- Initial investigators may benefit from first and continuing use of data, but not from prolonged exclusive use.

NIH defines the data to be shared as the "recorded factual material commonly accepted in the scientific community as necessary to document, support, and validate research findings. This does not mean summary statistics or tables; rather, it means the data on which summary

Finalized June 23, 2014 1

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Reasons to share:

- Advancing public health
- Maximizing investment
- Accelerating learning
- Fostering collaboration (pay it forward)

*Ultimately… transparency, reproducibility, and secondary use of medical research are **good for society**.*

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Annals of Internal Medicine

IDEAS AND OPINIONS

Data Sharing and Embedded Research

Gregory E. Simon, MD, MPH; Gloria Coronado, PhD; Lynn L. DeBar, PhD, MPH; Laura M. Dember, MD; Beverly B. Green, MD, MPH; Susan S. Huang, MD, MPH; Jeffrey G. Jarvik, MD, MPH; Vincent Mor, PhD; Joakim Ramsberg, PhD; Edward J. Septimus, MD; Karen L. Staman, MS; Miguel A. Vazquez, MD; William M. Vollmer, PhD; Douglas Zatzick, MD; Adrian F. Hernandez, MD, MHS; and Richard Platt MD, MS

- The ethical responsibility to share data generated by publicly funded research must be balanced against the need to protect patient privacy and scientific integrity
- Data sharing policies *must not dissuade healthcare system participation*

- Data sharing should be more than just a box-checking exercise to meet a mandate
- Technologies are making data more available and "useful"
- Opportunity >>>> Current practices

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Data and Resource Sharing Process for Demonstration Projects

Damon Seils, MS

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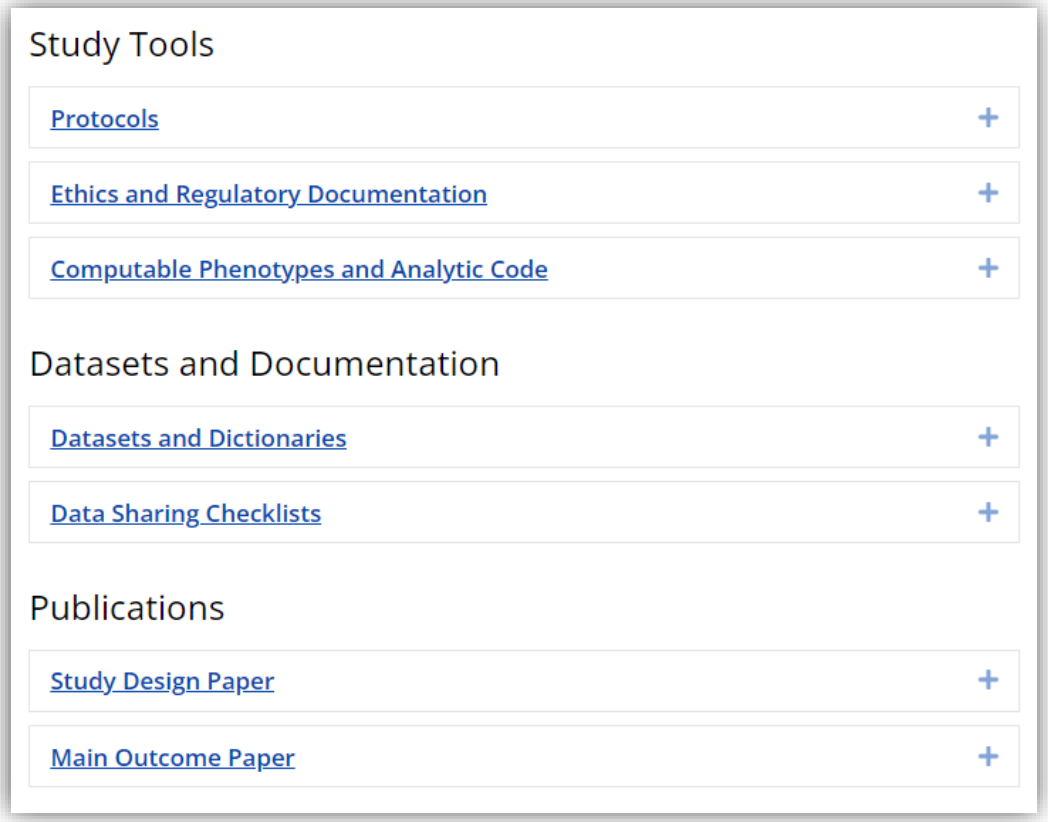
Coordinating Center Facilitates Projects' Data and Resource Sharing

- Completed projects expected to share data and resources publicly
  - Study tools
  - Datasets and documentation
- Materials added to NIH Collaboratory website at project closeout



rethinkingclinicaltrials.org/data-and-resource-sharing/

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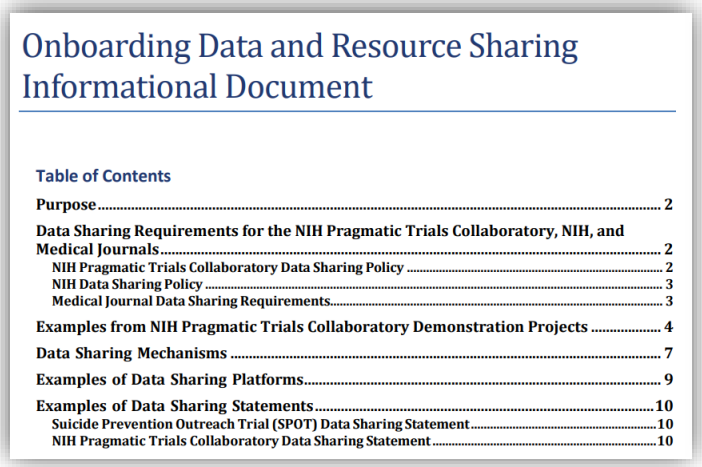
Data and Resource Sharing Preparations

Consult Informational Document

- Data sharing examples
  - From NIH Collaboratory Demonstration Projects
  - Mechanisms
  - Platforms
  - Statements

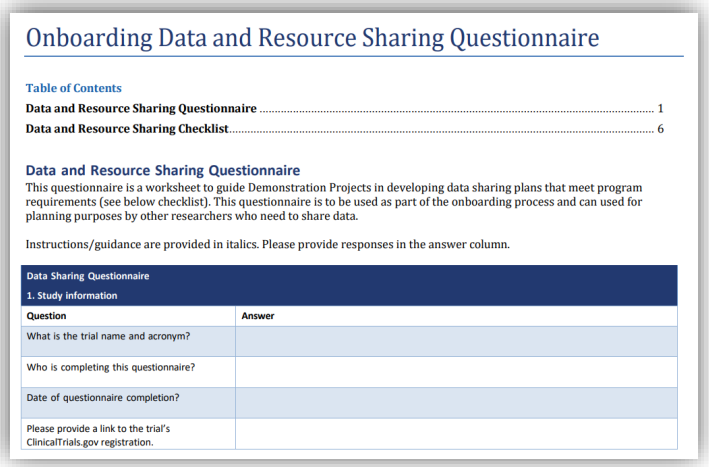


Onboarding Data and Resource Sharing Informational Document

Table of Contents

Complete Onboarding Data and Resource Sharing Questionnaire

- Planning tool for researchers
- Worksheet guides in development of data sharing plan



Onboarding Data and Resource Sharing Questionnaire

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Data and Resource Sharing Questionnaire

This questionnaire is a worksheet to guide Demonstration Projects in developing data sharing plans that meet program requirements (see below checklist). This questionnaire is to be used as part of the onboarding process and can used for planning purposes by other researchers who need to share data.

Instructions/guidance are provided in italics. Please provide responses in the answer column.

Data Sharing Questionnaire 1. Study information	
Question	Answer
What is the trial name and acronym?	
Who is completing this questionnaire?	
Date of questionnaire completion?	
Please provide a link to the trial's ClinicalTrials.gov registration.	

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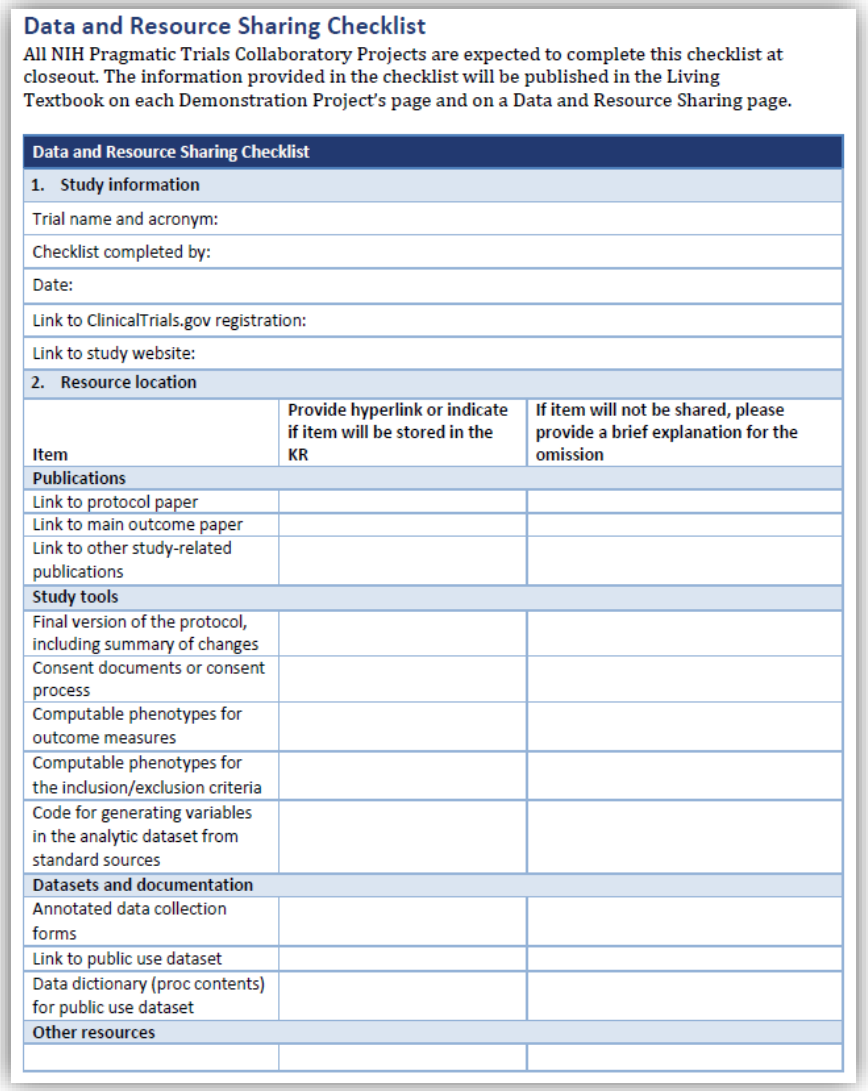
At Project Closeout

Complete Closeout Data and Resource Sharing Checklist

- Provide links or files for posting on the program website
- Share everything requested or indicate why an item cannot be shared
- Coordinating Center will initiate this process



Data and Resource Sharing Checklist

All NIH Pragmatic Trials Collaboratory Projects are expected to complete this checklist at closeout. The information provided in the checklist will be published in the Living Textbook on each Demonstration Project's page and on a Data and Resource Sharing page.

Data and Resource Sharing Checklist		
1. Study information		
Trial name and acronym:		
Checklist completed by:		
Date:		
Link to ClinicalTrials.gov registration:		
Link to study website:		
2. Resource location		
Item	**Provide hyperlink or indicate if item will be stored in the KR**	**If item will not be shared, please provide a brief explanation for the omission**
Publications		
Link to protocol paper		
Link to main outcome paper		
Link to other study-related publications		
Study tools		
Final version of the protocol, including summary of changes		
Consent documents or consent process		
Computable phenotypes for outcome measures		
Computable phenotypes for the inclusion/exclusion criteria		
Code for generating variables in the analytic dataset from standard sources		
Datasets and documentation		
Annotated data collection forms		
Link to public use dataset		
Data dictionary (proc contents) for public use dataset		
Other resources		

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Publications, Presentations, and Products Policy

Damon Seils, MS

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Publications Committee

- Coordinating Center and NIH program leaders and Demonstration Project representatives
- Oversees the program's publication activities, in accordance with the Publications and Presentations Policy

Richard Platt, MD, MSc
Harvard Medical School

NIH Collaboratory Publications

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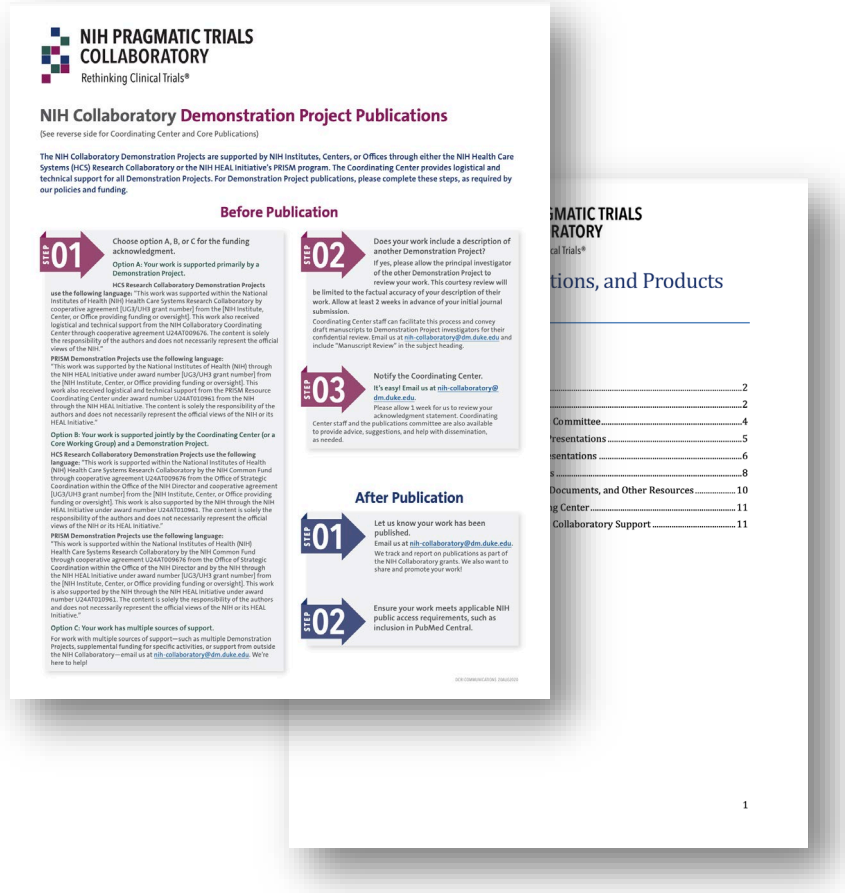
Publications, Presentations, and Products Policy

- Outlines procedures for Coordinating Center review of publications from the Demonstration Projects and Core Working Groups
- Includes required funding acknowledgment language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NIH Collaboratory Demonstration Project Publications

(See reverse side for Coordinating Center and Core Publications)

The NIH Collaboratory Demonstration Projects are supported by NIH Institutes, Centers, or Offices through either the NIH Health Care Systems (HCS) Research Collaboratory or the NIH HEAL Initiative's PRISM program. The Coordinating Center provides logistical and technical support for all Demonstration Projects. For Demonstration Project publications, please complete these steps, as required by our policies and funding.

Before Publication

STEP 01 Choose option A, B, or C for the funding acknowledgment.

Option A: Your work is supported primarily by a Demonstration Project.

HCS Research Collaboratory Demonstration Projects use the following language: "This work was supported within the National Institutes of Health (NIH) Health Care Systems Research Collaboratory by cooperative agreement [UG3/UH3 grant number] from the [NIH Institute, Center, or Office providing funding or oversight]. This work also received logistical and technical support from the NIH Collaboratory Coordinating Center through cooperative agreement U24AT009676. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH."

PRISM Demonstration Projects use the following language: "This work was supported by the National Institutes of Health (NIH) through the NIH HEAL Initiative under award number [UG3/UH3 grant number] from the [NIH Institute, Center, or Office providing funding or oversight]. This work also received logistical and technical support from the PRISM Resource Coordinating Center under award number U24AT010961 from the NIH through the NIH HEAL Initiative. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or its HEAL Initiative."

Option B: Your work is supported jointly by the Coordinating Center (or a Core Working Group) and a Demonstration Project.

HCS Research Collaboratory Demonstration Projects use the following language: "This work is supported within the National Institutes of Health [NIH] Health Care Systems Research Collaboratory by the NIH Common Fund through cooperative agreement U24AT009676 from the Office of Strategic Coordination within the Office of the NIH Director and cooperative agreement [UG3/UH3 grant number] from the [NIH Institute, Center, or Office providing funding or oversight]. This work is also supported by the NIH through the NIH HEAL Initiative under award number U24AT010961. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or its HEAL Initiative."

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Option C: Your work has multiple sources of support.

For work with multiple sources of support—such as multiple Demonstration Projects, supplemental funding for specific activities, or support from outside the NIH Collaboratory—email us at nih-collaboratory@dm.duke.edu. We're here to help!

STEP 02 Does your work include a description of another Demonstration Project?

If yes, please allow the principal investigator of the other Demonstration Project to review your work. This courtesy review will be limited to the factual accuracy of your description of their work. Allow at least 2 weeks in advance of your initial journal submission.

Coordinating Center staff can facilitate this process and convey draft manuscripts to Demonstration Project investigators for their confidential review. Email us at nih-collaboratory@dm.duke.edu and include "Manuscript Review" in the subject heading.

STEP 03 Notify the Coordinating Center.

It's easy! Email us at nih-collaboratory@dm.duke.edu.

Please allow 1 week for us to review your acknowledgment statement. Coordinating Center staff and the publications committee are also available to provide advice, suggestions, and help with dissemination, as needed.

After Publication

STEP 01 Let us know your work has been published.

Email us at nih-collaboratory@dm.duke.edu.

We track and report on publications as part of the NIH Collaboratory grants. We also want to share and promote your work!

STEP 02 Ensure your work meets applicable NIH public access requirements, such as inclusion in PubMed Central.

1

[Publications, Presentations, and Products Policy]

[Publications Process Handout]

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Must-Dos for Demonstration Projects

- **Before submission**:
  - Include the appropriate funding acknowledgment in your manuscript
  - Send your manuscript to the Coordinating Center for review; turnaround is 1 week maximum, and usually much quicker
- **After submission**:
  - Notify the Coordinating Center of submission(s)
  - Notify the Coordinating Center of acceptance
  - Ensure your work meets NIH public access requirements, such as inclusion in PubMed Central

Publications Process Handout

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Publication Tracking

- Coordinating Center staff will contact you **quarterly** for updates about your publications and presentations

Publications

Treating persistent pain: a nurse co-led, interdisciplinary model for primary care

Economic evaluation: a randomized pragmatic trial of a primary care-based cognitive behavioral intervention for adults receiving long-term opioids for chronic pain

PPACT Closeout Snapshot

Graded chronic pain scale revised: mild, bothersome, and high-impact chronic pain

PPACT Main Outcome Paper

Validating pain communication: current state of the

Presentations

2023 NIH Workshop Panel 1: DeBar, Glassenberg

Lynn DeBar Sharing Study Results Presentation 2023 Steering Committee Meeting

Lynn DeBar Presentation 2023 Steering Committee Meeting

Primary Care-Based Behavioral Treatment for Long Term Opioid Users with Chronic Pain: Primary Results and Lessons Learned from the PPACT Pragmatic Trial

Primary Care-Based Behavioral Treatment for Long Term Opioid Users with Chronic Pain: Primary Results and Lessons Learned from the PPACT Pragmatic Trial

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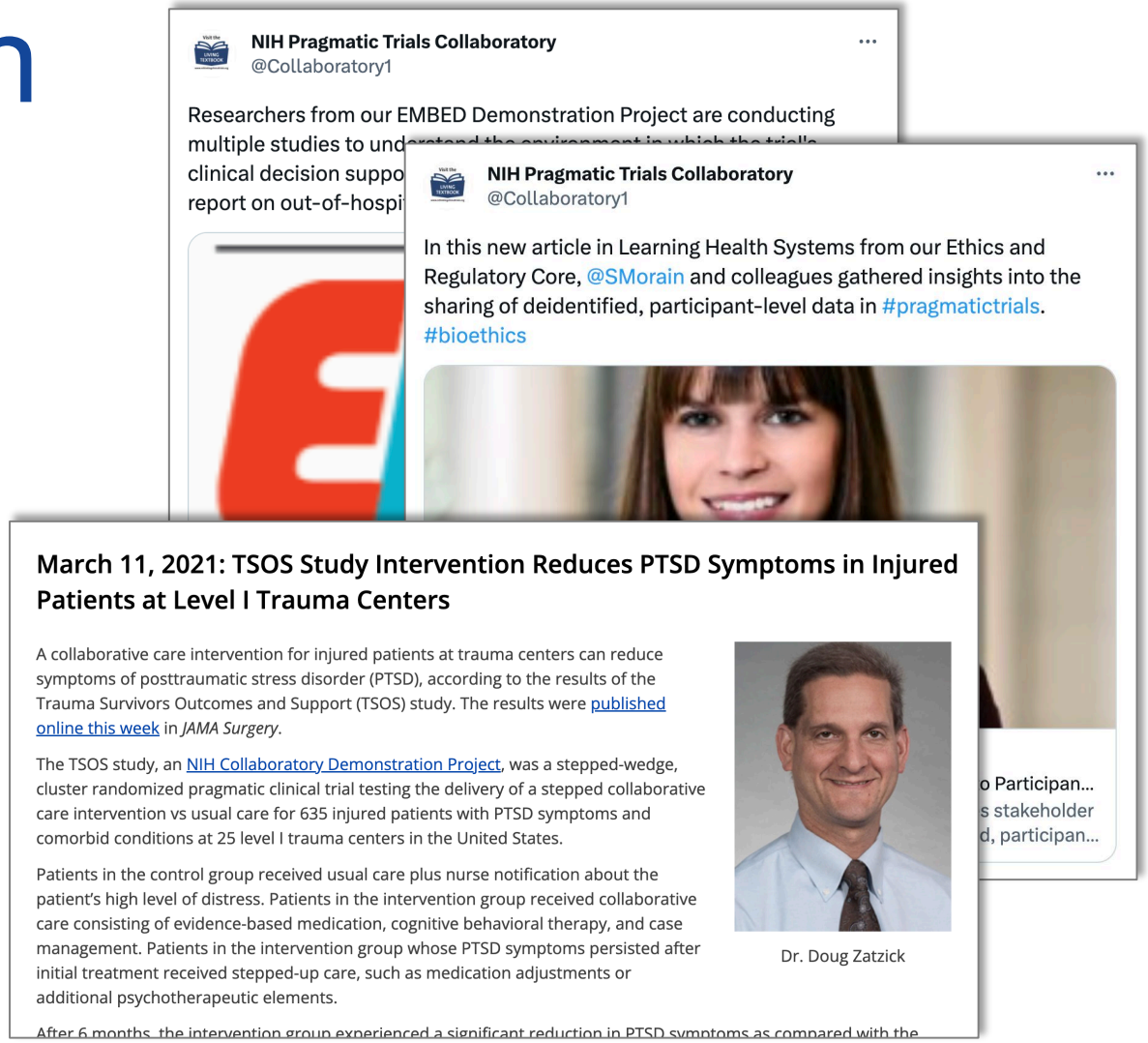
Publication Promotion

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

nih-collaboratory@dm.duke.edu



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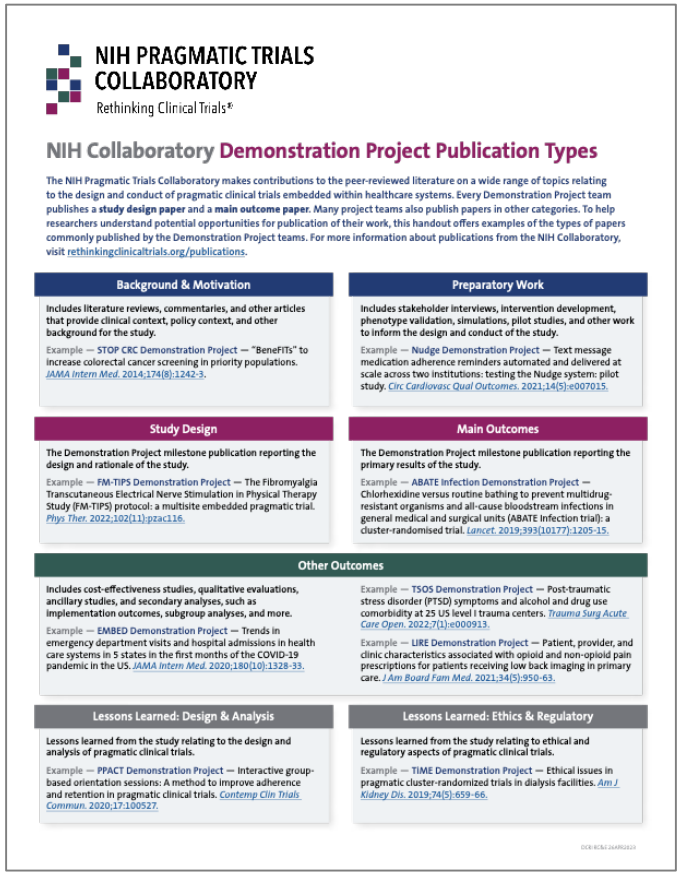
Demonstration Project Publication Types

- Many opportunities for study teams to publish throughout the lifecycle of their projects
- Pilot studies, secondary outcomes, lessons learned, and more—in addition to the study design paper and main outcome paper



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NIH Collaboratory Demonstration Project Publication Types

The NIH Pragmatic Trials Collaboratory makes contributions to the peer-reviewed literature on a wide range of topics relating to the design and conduct of pragmatic clinical trials embedded within healthcare systems. Every Demonstration Project team publishes a **study design paper** and a **main outcome paper**. Many project teams also publish papers in other categories. To help researchers understand potential opportunities for publication of their work, this handout offers examples of the types of papers commonly published by the Demonstration Project teams. For more information about publications from the NIH Collaboratory, visit rethinkingclinicaltrials.org/publications.

Background & Motivation

Includes literature reviews, commentaries, and other articles that provide clinical context, policy context, and other background for the study.

Example — **STOP CRC Demonstration Project** — "BeneFITs" to increase colorectal cancer screening in priority populations. *JAMA Intern Med.* 2014;174(8):1242-3.

Preparatory Work

Includes stakeholder interviews, intervention development, phenotype validation, simulations, pilot studies, and other work to inform the design and conduct of the study.

Example — **Nudge Demonstration Project** — Text message medication adherence reminders automated and delivered at scale across two institutions: testing the Nudge system: pilot study. *Circ Cardiovasc Qual Outcomes.* 2021;14(5):e007015.

Study Design

The Demonstration Project milestone publication reporting the design and rationale of the study.

Example — **FM-TIPS Demonstration Project** — The Fibromyalgia Transcutaneous Electrical Nerve Stimulation in Physical Therapy Study (FM-TIPS) protocol: a multisite embedded pragmatic trial. *Phys Ther.* 2022;102(11):pzac116.

Main Outcomes

The Demonstration Project milestone publication reporting the primary results of the study.

Example — **ABATE Infection Demonstration Project** — Chlorhexidine versus routine bathing to prevent multidrug-resistant organisms and all-cause bloodstream infections in general medical and surgical units (ABATE Infection trial): a cluster-randomised trial. *Lancet.* 2019;393(10177):1205-15.

Other Outcomes

Includes cost-effectiveness studies, qualitative evaluations, ancillary studies, and secondary analyses, such as implementation outcomes, subgroup analyses, and more.

Example — **EMBED Demonstration Project** — Trends in emergency department visits and hospital admissions in health care systems in 5 states in the first months of the COVID-19 pandemic in the US. *JAMA Intern Med.* 2020;180(10):1328-33.

Example — **TSOS Demonstration Project** — Post-traumatic stress disorder (PTSD) symptoms and alcohol and drug use comorbidity at 25 US level I trauma centers. *Trauma Surg Acute Care Open.* 2022;7(1):e000913.

Example — **LIRE Demonstration Project** — Patient, provider, and clinic characteristics associated with opioid and non-opioid pain prescriptions for patients receiving low back imaging in primary care. *J Am Board Fam Med.* 2021;34(5):950-63.

Lessons Learned: Design & Analysis

Lessons learned from the study relating to the design and analysis of pragmatic clinical trials.

Example — **PPACT Demonstration Project** — Interactive group-based orientation sessions: A method to improve adherence and retention in pragmatic clinical trials. *Contemp Clin Trials Commun.* 2020;17:100527.

Lessons Learned: Ethics & Regulatory

Lessons learned from the study relating to ethical and regulatory aspects of pragmatic clinical trials.

Example — **TIME Demonstration Project** — Ethical issues in pragmatic cluster-randomized trials in dialysis facilities. *Am J Kidney Dis.* 2019;74(5):659-66.

[Demonstration Project Publication Types]

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