

# Methodology and Advanced Analytics Resource Center (MAARC)

JCOIN 2.0 Technical Assistance Webinar  
10/18/24



# Leveraging MAARC Resources to Support Applicants for JCOIN Phase II Research and Innovation Hubs

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- Olga Morozova PhD (Technical Assistance Core Lead), Assistant Professor in the Department of Public Health Sciences, The University of Chicago
- John Schneider MD, MPH (MAARC PI), Professor of Medicine and Epidemiology in the Departments of Medicine and Public Health Sciences, The University of Chicago
- Philip Schumm MA (Data and Analytic Support Core Lead), Director of Biostatistics and Statistical Computing in the Center for Translational Data Science, The University of Chicago

# Outline

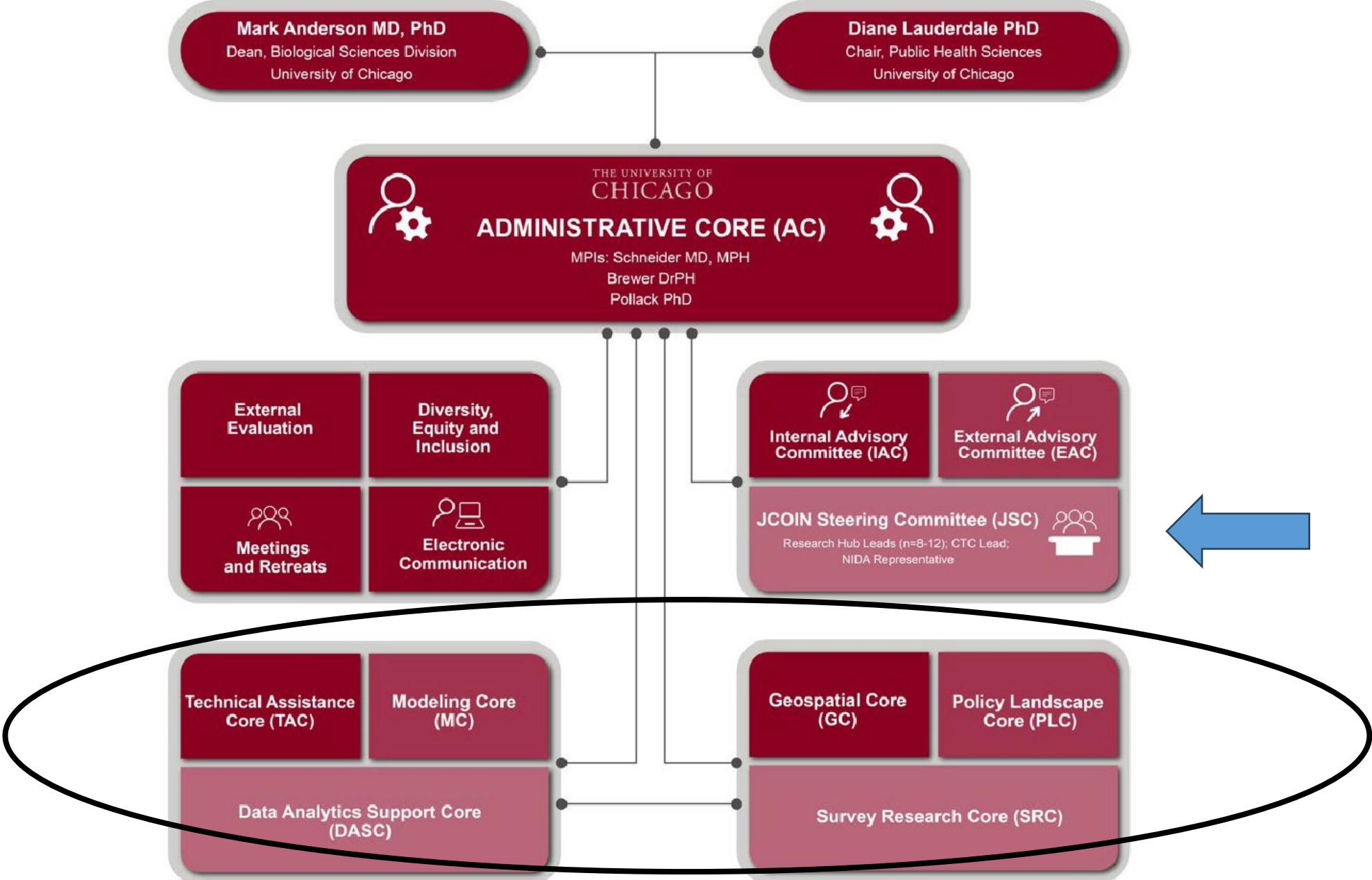
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- MAARC Overview – Schneider
- Technical Consulting – Morozova
- Data Collection Software – Schneider
- Data Commons – Schumm
- Questions/Discussion - All

# JCOIN Phase II, MAARC 2.0

- Provide a national resource in identifying, assessing, and implementing essential interventions to address the evolving overdose epidemic among people experiencing criminal legal involvement.
- Conduct novel empirical research to ensure timely understanding of changes in current practices in the U.S. related to addressing SUD and overdose in criminal-legal settings and affected individuals.
- Activities will include:
  - Overall leadership and coordination of centralized data management;
  - Data infrastructure support, inclusive of any data harmonization activities;
  - Providing resources for advanced methodological and analytical techniques across the network;
  - Conducting research on dynamic changes in policy and practice in criminal-legal and relevant community-based service settings; and
  - Conducting novel studies applying cutting edge analytical techniques to existing data and data collected across the JCOIN network.

# Methodology and Advanced Analytics Resource Center (2024-2029)



# MAARC TA for Research and Innovation Hub Applicants

- Online expert consultations up to two 30-min-long sessions per applicant free of charge (1-hour for data collection-related consultations)
- Available to applicants for Research and Innovation Hubs :
  - RFA-DA-25-025
  - RFA-DA-25-062
- Broad areas:
  - Methodologic questions
  - Substantive questions
  - Data collection software
  - Available resources, including JCOIN Data Commons

# MAARC TA for Research and Innovation Hub Applicants: Methodologic and Substantive Expertise

- Methodologic expertise
  - Study design
  - Analytic approaches for a wide range of study designs
  - Administrative data analyses
  - Analyses of Electronic Health Records
  - Modeling studies
  - Economic and cost-effectiveness analysis
  - Geo-spatial analyses
  - Network data collection and analyses
  - Qualitative data collection and analyses
- Substantive expertise:
  - Structure and operations of criminal legal system
  - SUD treatment, harm reduction and recovery support

## MAARC TA for Research and Innovation Hub Applicants: Disclaimers

- As part of the TA available to the Research and Innovation Hub Applicants, the MAARC cannot offer conducting new data analyses or review application drafts
- Receipt of the technical assistance from the MAARC is not required for the successful application.
- The MAARC will have no influence on funding decisions.



# Pre-award consulting on data collection strategies and software

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- Pros and Cons of different data collection strategies and software
- Advanced capabilities of REDCap
- Implications for data sharing
  - Compliance with NIH 2023 Data Sharing Policy
  - Interacting with MAARC infrastructure
- One hour free for all interested applicants

# Post-award REDCap consulting provided by MAARC

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- Guidance on:
  - Creating and configuring REDCap project to yield high quality data **and** support study execution
  - Best practices for creating forms
  - Use of advanced features
  - Use of API to add features and/or link to other systems
- Pre-made forms corresponding to Common Data Elements (CDEs) that can be incorporated into study-specific project
- Available web-based services provided by MAARC, e.g.:
  - ID assignment
  - Duplicate checker
  - Adaptive randomization
  - Linkage to Adaptive Survey items/testing - CAT-MH, CAT-SUD,
- Software for data export and packaging

# JCOIN Data Commons

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- Data Commons (versus Data Repository)
  - Co-locates data with cloud computing infrastructure
  - Commonly used software services, tools, and applications for discovering, managing, integrating, analyzing, and sharing data
  - Application Programming Interfaces (APIs) to create an interoperable resource
- JCOIN Data Commons (<https://jcoin.datacommons.io/>)
  - Created to facilitate data management, analysis and sharing within JCOIN network
  - Secure (FedRAMP Moderate approved)
  - JCOIN 1.0 hubs submit de-identified core measures data on a quarterly basis
  - Cloud-based workspaces with common software (e.g., Stata 18, RStudio, JupyterLab, Python)
  - Interoperates with HEAL Data Platform
- HEAL Data Platform (<https://healdata.org>)
  - Federated data ecosystem (aka. data mesh)
  - Provides search and discovery across all HEAL-funded studies
  - Interoperates with data repositories to provide data access
  - Rich metadata (both study- and variable-level)
  - Cloud-based workspaces, supports STRIDES

# Data Management and Submissions

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- JCOIN Core Measures (CDEs)
- Support additional measurement modules (esp. those shared by two or more hubs)
- Regular data submissions
  - Schema(s) and software tools to facilitate data preparation, including validation
  - Access initially restricted to submitting hub only
  - Established process for internal data sharing requests
  - Opportunity to improve/enhance local data management process
- MAARC services
  - Create project-specific, versioned, reproducible data packages for internal use
  - Work with hubs to facilitate broader data sharing
    - Publication related
    - Entire dataset at end of study

# Thank-you!

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To submit a TA request, please visit the JCOIN Phase II landing page: <https://www.jcoinctc.org/phase2/>

TA request link is available under the  
“Methods/Analytics Technical Assistance”

## Additional Contact Information

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