



NIH Cloud Platform Interoperability Administrative Coordinating Center (NCPI-ACC)

2025 Fall Workshop Public Report Out
September 25-26, 2025

Overview

The NIH Cloud Platform Interoperability (NCPI) Fall Workshop was held September 25-26, 2025, at the National Cancer Institute's Shady Grove campus in Rockville, Maryland. The meeting brought together representatives from the NCPI-funded Interoperability Projects, members of the NCPI Steering Committee, and colleagues from across NIH to discuss lessons learned from NCPI, share areas of potential overlap and collaboration with other NIH data ecosystems, and foster new connections. The first day of the workshop was open to collaborators and the second day of the workshop was a closed session for the NCPI team. This document provides a list of key lessons learned and overarching themes from the workshop and recommendations for future work. A copy of the full agenda can be found in the **Appendix: NCPI Fall 2025 Workshop Agenda**.

Key Lessons Learned and Overarching Themes

Over the course of the workshop a number of key lessons learned and overarching themes emerged.

Key lessons learned from across interoperability project teams and NCPI participants included:

- Build on existing collaborations and successes. Trusting relationships are a key foundational component and leveraging those relationships to continue to make progress is beneficial.
- To accelerate progress, build multidisciplinary teams centered around a scientific use case with the understanding that it takes multiple skill sets and perspectives to generate high-quality, FAIR (findable, accessible, interoperable, reusable) data sets.
- Get to a proof of concept quickly. Quick wins enable people to see what is possible and energize them to seek new advances.
- Ensure search tools are coupled with pathways to accessing data. Being able to find data is not helpful if there are not straightforward ways to also access that data.
- Prepare to leverage artificial intelligence (AI) technologies but be cognizant of where human in the loop is required. The level of effort required to create the metadata required for some AI efforts may be of limited return on investment.
- Leverage existing sources of information, including audit logs, to better understand the current NCPI user base and inform improvements. Understanding how users are currently using and accessing data can inform the development of new tools and features.
- User-friendly systems, search interfaces, and high-quality search results are needed to increase users and user satisfaction.

Workshop attendees also discussed the need for further education and dissemination strategies such as:

- Reduce the barrier to entry for researchers who want to use Fast Healthcare Interoperability Resources (FHIR)®.
- Support researchers in making their data more standardized and accessible, recognizing that this often requires subject matter expert support.

They also highlighted opportunities for technical advancements, including increased usage of FHIR and ensuring data are AI-ready:

- Augment and normalize metadata to support AI readiness.
- Leverage investments in FHIR to make data FAIR.
- Apply FHIR to enable access to new data types.

Finally, attendees drew attention to the need for sustainability including:

- Leverage existing NIH policy around data management and sharing plans to support grantees in being more specific about their approaches to data and providing better metadata.
- Ensure that less experienced users receive the guidance and support they need to become power users and make tools available that support beginners and novices.
- Determine metrics for success, especially in terms of data quality.
- Explore other options for sustainability.

Consolidated Recommendations for Future Work

Recommendations for future work included education and dissemination of existing resources, additional research needs, and overcoming key governance challenges.

Specifically, attendees suggested the following:

Education and Dissemination

- Sharing lessons learned from current NCPI work
 - Case studies summarizing NCPI work (what did interoperability projects do and how did they do it?).
 - NCPI playbook supplemented with dissemination strategies.
 - NCPI community conference or workshop that promotes and educates people about existing tools and resources.
 - Office hours around specific topics, such as RAS (Researcher Auth Service), conducting cross-repository analyses in CAVATICA, or others.
- Fellows program.
- NCPI-focused tutorials.
- Tools and resources that support beginner and novice users of partner systems and NCPI assets.

New Research

- More interoperability projects.
- Research on computable governance frameworks.

Governance

- Understand variation in governance across different institutes and centers within NIH.
- Align incentives to support data quality.
- Leverage the requirement for grantees to have data management and sharing plans (DMSPs) to guide the selection of appropriate schema.
- Address data governance, including data-specific access requirements based on program and/or consent requirements, i.e., computable data governance frameworks & AuthZ and passports.
- Address data provenance to ensure replicability and appropriate privacy and security controls.

Appendix: NCPI Fall 2025 Workshop Agenda

Day 1: Celebrating NCPI Successes, September 25, 2025

Time	Session
9:00-9:15	Welcome & Housekeeping
9:15-9:30	Welcome from ODSS
9:30-9:45	NCPI Achievements and Context
9:45-10:30	Panel Discussion 1: FHIR Implementation Guide Lessons Learned
10:30-10:50	Break
10:50-11:10	Technical Demo: Watershed
11:10-12:00	Panel Discussion 2: Cross-NIH Data Ecosystem Collaboration
12:00-1:30	Lunch
1:30-2:00	Lightning Talks: <ul style="list-style-type: none">• NCPI Sustainability Plan• NCPI Data Catalog• RAS Playbook
2:00-2:45	Panel Discussion 3: Search Working Group Lessons Learned
2:45-3:00	Break
3:00-3:30	Technical Demos: PFB Imports from AnVIL to CAVATICA; Mapping NCPI Datasets to DUOS; DRS/FHIR Metadata Integration in CAVATICA
3:30-4:15	Facilitated Affinity Discussions
4:15-4:30	Day 1 Wrap Up
4:30	Adjourn

Day 2: NCPI Internal Working Sessions, September 26, 2025

Time	Session
9:00-9:10	Welcome and Housekeeping
9:10-9:30	Remarks from Susan Gregurick, Director, ODSS
9:30-9:50	NCPI Sustainability Level Set
9:50-10:40	Gallery Walk: Looking Ahead for NCPI
10:40-11:00	Break
11:00-12:00	“Ask Me Anything” with the NCPI Steering Committee
12:00-1:30	Lunch
1:30-2:30	Parallel Working Sessions
2:30pm	Adjourn