

Data Management and Sharing Overview

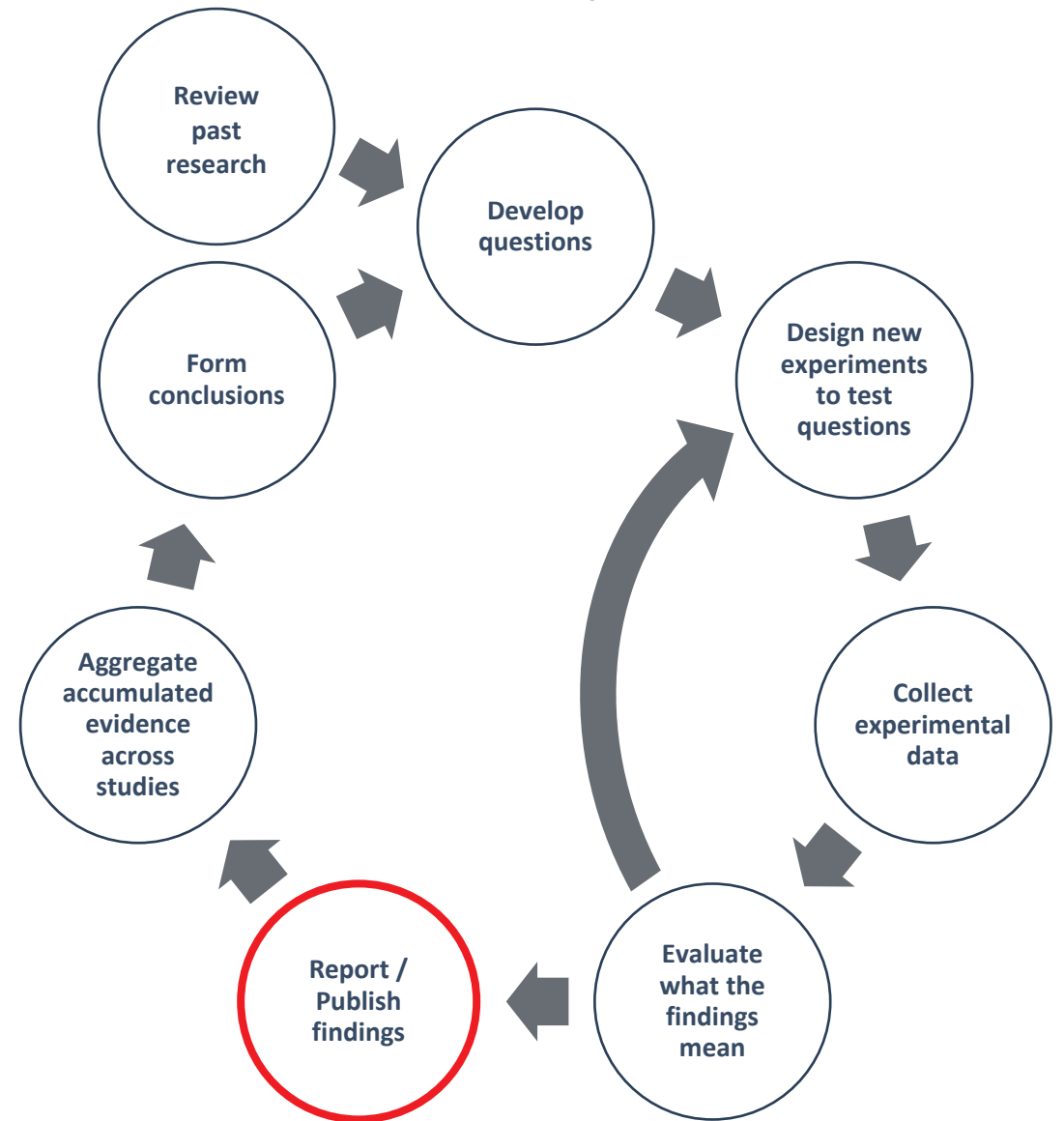
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The new NIH DMS Policy aims to catalyze a culture shift...

Making the practice of data management and responsible data sharing a fundamental component to the conduct of science itself, similar to reporting out on the findings of a study.



Maximizing the availability of scientific data can...



Test validity of research findings



Strengthen analysis through combined data sets



Allow for reuse of hard to generate data



Open new frontiers of discovery



Foster trust of publicly funded research

DMS Policy Overview

Applicability

All research, funded or conducted in whole or in part by NIH, that results in the generation of "**scientific data**".

See [Research Covered Under the Data Management & Sharing Policy](#)

Requirements

- ✓ **Submission of DMS Plan** with all applications for funding
- ✓ **Compliance with the DMS Plan** approved by the funding NIH Institute, Center, or Office

Planning & Budgeting



DMS Plan

- Describes how data will be managed and shared
- Addresses 6 key elements

See [Writing a Data Management & Sharing Plan](#)



DMS Costs

- Requests funding to support data management and sharing activities
- Consists of a budget and budget narrative
- Evaluated through a peer-review process

See [Budgeting for Data Management & Sharing](#)

DMS Plan Content



- **Data type**
 - Identifying data to be preserved and shared
- **Related tools, software and/or code**
 - Tools and software needed to access and manipulate data
- **Standards**
 - Standards to be applied to scientific data and metadata
- **Data preservation, access, and associated timelines**
 - Repository to be used, persistent unique identifier, and when/ how long data will be available
- **Access, distribution, or reuse considerations**
 - Description of factors for data access, distribution, or reuse
- **Oversight of data management and sharing**
 - Compliance to plan and the institutional role or person who will monitor/ manage compliance

See [Writing a Data Management & Sharing Plan](#) for details

Format of a DMS Plan

- ✓ **Plans recommended to be two pages or less**
- ✓ **Includes prompts to address topics for all six of the required data elements**

DATA MANAGEMENT AND SHARING PLAN

If any of the proposed research in the application involves the generation of scientific data, this application is subject to the NIH Policy for Data Management and Sharing and requires submission of a Data Management and Sharing Plan. If the proposed research in the application will generate large-scale genomic data, the Genomic Data Sharing Policy also applies and should be addressed in this Plan. Refer to the detailed instructions in the application guide for developing this plan as well as to additional guidance on [sharing.nih.gov](https://www.sharing.nih.gov). The Plan is recommended not to exceed two pages. Text in italics should be deleted.

Element 1: Data Type

A. Types and amount of scientific data expected to be generated in the project:
Summarize the types and estimated amount of scientific data expected to be generated in the project,

B. Scientific data that will be preserved and shared, and the rationale for doing so:
Describe which scientific data from the project will be preserved and shared and provide the rationale for this decision.

C. Metadata, other relevant data, and associated documentation:
Briefly list the metadata, other relevant data, and any associated documentation (e.g., study protocols and data collection instruments) that will be made accessible to facilitate interpretation of the scientific data.

Element 2: Related Tools, Software and/or Code:
State whether specialized tools, software, and/or code are needed to access or manipulate shared scientific data, and if so, provide the name(s) of the needed tool(s) and software and specify how they

The [optional DMS Plan format page](#) is available on the “Writing a Data Management and Sharing Plan” section of the [sharing.nih.gov](https://www.sharing.nih.gov) website

DMS Budget

Making data accessible and reusable for other researchers may incur costs.



Budget amount is provided as a line item (R&R Budget Form) or within the narrative justification (Modular Budget Form)

Budget justification is a half page document with a brief summary of:

- The type and amount of scientific data to be preserved and shared
- The name of repository to be used
- The general cost categories

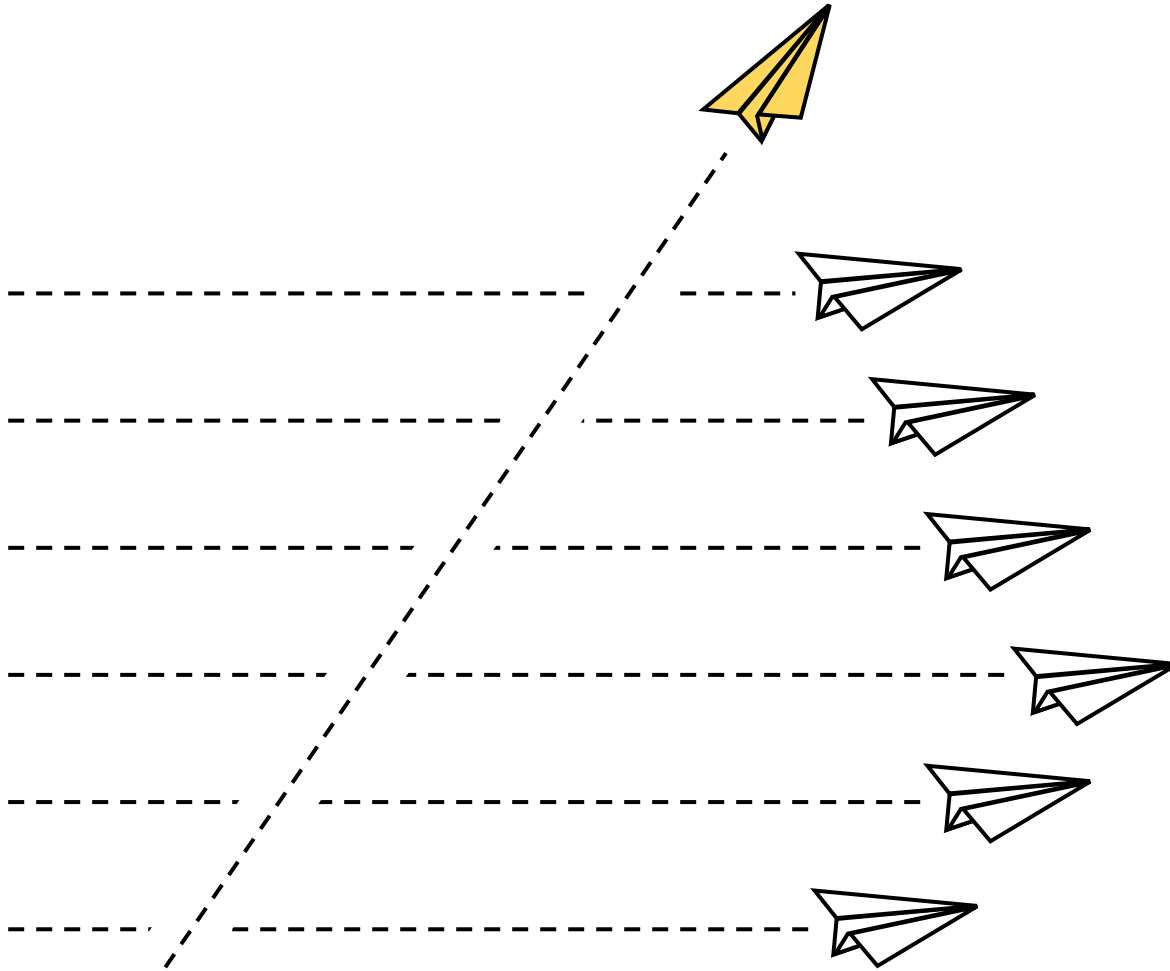
Allowable Costs

- Curating data
- Developing supporting documentation
- Formatting data according to accepted community standards, or for transmission to and storage at a selected repository for long-term preservation and access
- De-identifying data
- Preparing metadata
- Local data management
- Repositories' deposit fees

Unallowable Costs

- Infrastructure costs
- Costs associated with the routine conduct of research

NIDDK Expectations

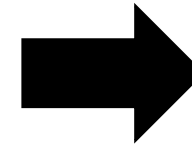


NIDDK is committed to making the practice of data management and responsible sharing the norm.

- Guidelines supplement the NIH DMS Policy, not a separate DMS Policy setup



A Quality DMS Plan



DMS Culture Change

NIDDK DMS Guidance

Home \ Research & Funding \ Research Resources \ NIDDK Data Management & Sharing \ NIDDK Guidance for Writing a DMS Plan

NIDDK Data
Management &
Sharing

NIDDK Guidance for Writing a
DMS Plan

NIDDK DMS Tools &
Examples

NIDDK Guidance for Writing a DMS Plan

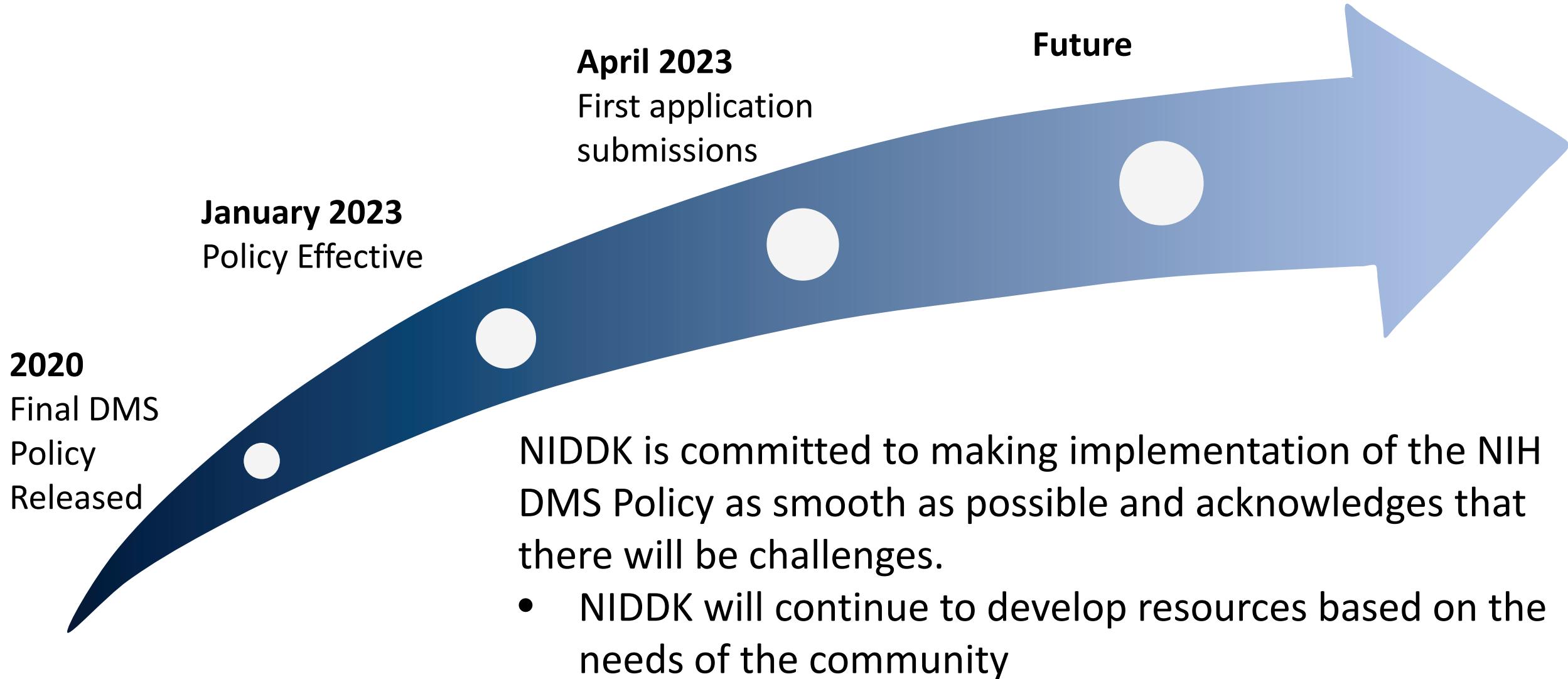
The National Institutes of Health (NIH) Data Management and Sharing (DMS) policy expects that researchers maximize the appropriate sharing of scientific data. The DMS Plan should describe how the scientific data generated will be managed and shared. NIH has outlined six elements that should be included in each submitted DMS Plan. The [Writing a Data Management & Sharing Plan](#) NIH section of sharing.nih.gov describes each of the recommended elements.

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) provides Institute-specific DMS Guidance, which builds upon the NIH guidance, for the following DMS Plan Elements:

1. [Data Type](#)
2. [Related Tools, Software, and/or Code](#)
3. [Standards](#)
4. [Data Preservation, Access, and Associated Timelines](#)
5. [Access, Distribution, or Reuse Considerations](#)
6. [Oversight of Data Management and Sharing](#)

<https://www.nidk.nih.gov/research-funding/research-resources/data-management-sharing/guidance-writing-dms-plan>

Implementation of the DMS Policy



NIDDK DMS Resources

Home \ Research & Funding \ Research Resources \ NIDDK Data Management & Sharing

Research Resources

NIDDK Data Management & Sharing

- NIDDK Guidance for Writing a DMS Plan
- NIDDK DMS Tools & Examples

NIDDK Data Management & Sharing

The goal of the NIH Data Management and Sharing (DMS) policy is to maximize the availability of data from NIH-supported research to advance NIH's mission to enhance health, lengthen life, and reduce illness and disability. The DMS policy provides a consistent, minimum expectation of data management and sharing for all research supported by the agency. To help investigators implementing the NIH DMS policy, the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) offers Institute-specific guidance for drafting a DMS Plan, as well as tools and examples to supplement the [NIH DMS policy and resources](#) NIH.

What's New at NIDDK DMS (April 2023)

Updated [Repository Selection Considerations Tool](#)

Updated [Genomic Data from Human Research Participants Example](#)

New [DMS Webinar Series – Register Now!](#)

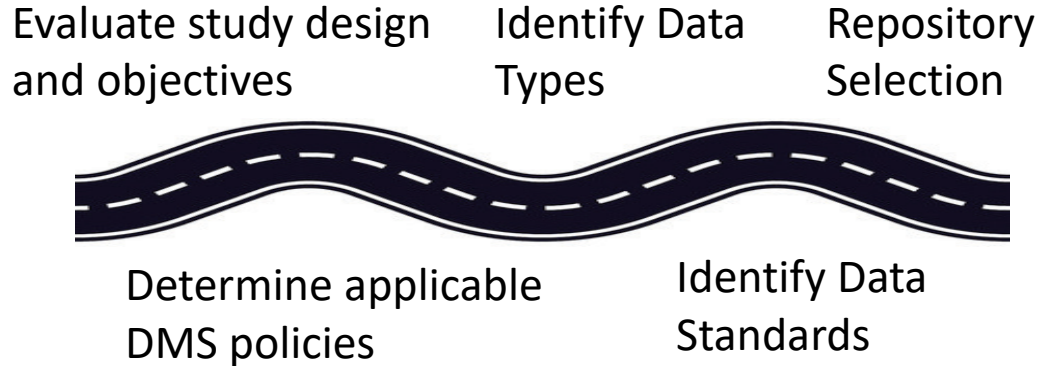
[NIDDK Guidance for Writing a DMS Plan](#)

[NIDDK DMS Tools and Examples](#)

<https://www.niddk.nih.gov/research-funding/research-resources/data-management-sharing>

DMS Resources Available On the NIDDK Website

DMS Plan Development Roadmap



NIDDK-specific Sample DMS Plans



Non-human basic research



Clinical Data

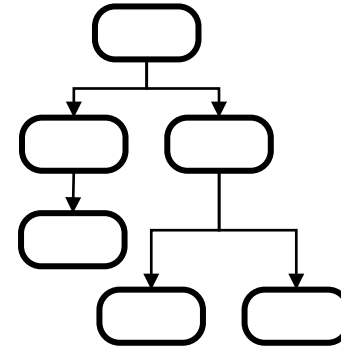


Genomic Data



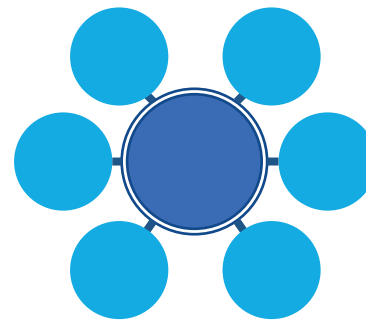
Secondary Analysis

Repository Selection Aides



- The landscape of available repositories is expansive
- Outline considerations when aligning the generated data types with an appropriate repository to maximize data sharing and value

Data and Metadata Standards



Exact data standards and metadata will vary by:

- Scientific area
- Study design
- Type of data collected
- Characteristics of the dataset

Links are provided to find relevant standards and terminologies

Summary

- The NIH DMS Policy is designed to catalyze a culture shift to promote the responsible sharing of scientific data in order to:
 - Increase rigor of scientific findings
 - Bring more intellectual power and people from different disciplines and perspectives together and build/enhance collaboration
 - Strengthen analysis through combining datasets
 - Open new frontiers of discovery
 - Foster trust of publicly funded research
- NIDDK has released guidance to support the maximal value and sharing of data
- Tools and resources to support investigators are available at the NIDDK DMS Website

Additional NIH Resources

- [Research Covered Under the Data Management & Sharing Policy | Data Sharing \(nih.gov\)](#)
- FAQ on Scientific Data ([Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#))
- [Data Management & Sharing Policy Overview | Data Sharing \(nih.gov\)](#)
- FAQ on Justifiable Reasons to Limit Data Sharing ([Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#))
- [Informed-Consent-Resource-for-Secondary-Research-with-Data-and-Biospecimens.pdf \(nih.gov\)](#)
- Sharing Data From Human Participants ([Data Sharing Approaches | Data Sharing \(nih.gov\)](#))
- FAQ on Reusing, Existing Shared Data ([Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#))
- [Writing a Data Management & Sharing Plan | Data Sharing \(nih.gov\)](#)
- Data Management and Sharing Plan Format Page ([NIH Forms & Applications | grants.nih.gov](#))
- [Selecting a Data Repository | Data Sharing \(nih.gov\)](#)

Additional NIH Resources (cont.)

- [Repositories for Sharing Scientific Data | Data Sharing \(nih.gov\)](#)
- FAQ on When to Share Data: [Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#)
- FAQ on Data Sharing Timelines When a No Cost Extension is Granted: [Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#)
- [Budgeting for Data Management & Sharing | Data Sharing \(nih.gov\)](#)
- [NOT-OD-22-189: Implementation Details for the NIH Data Management and Sharing Policy](#)
- FAQ on Noncompliance: [Frequently Asked Questions \(FAQs\) | Data Sharing \(nih.gov\)](#)
- [Which Policies Apply to My Research? | Data Sharing \(nih.gov\)](#)
- [NIH Institute and Center Data Sharing Policies | Data Sharing](#)
- [Home Page | Data Sharing \(nih.gov\)](#)

Questions

