Introduction to Research
Data Management

Data management plans
Workshops

1. Build an overview
2. Collect and document data
3. Store digital data
4. Work with data
5. Share and preserve data
6. Plan ahead
Introduction

Focus on planning for effective data management in advance of research projects.

The goal is to have an overview of information to include in a plan.
Data management plans (DMPs)

Describe the data management activities for a research group, researcher, or research project.

• Structured documents created in advance of collecting data.

• Explain practices that will be followed over the course of the data lifecycle.
Two approaches

- **For funders**: Document written as part of a grant proposal.
- **For researchers**: Living documents describing overall data management practices.
For funders

● Limited in scope.

● Describe the expected practices for a particular research project.

● Approximately two pages of text written within a funder’s template.
For researchers

A tool, allowing researchers to:

- Identify practices that improve research efficacy.
- Plan in advance, reducing later costs in time and effort.
- Easily share an overview with collaborators and stakeholders.
- Make incremental changes to meet the needs of the research community.
- Speed up the grant application process over multiple cycles.
The audience

Developing a data management plan is a useful practice.

- Forces you to think through choices that will affect you, and others, in the future.
- Writing with the data lifecycle in mind, you'll respond to what a funder cares about and more.
What’s in a plan?

● Data description.
● Standards used.
● Policies for access, sharing and re-use.
● Long-term storage and management.
Read a DMP

- Choose one DMP to read over.
- What strikes you about the plan you read?
Questions to answer in a DMP

- Who will be the responsible steward for the data throughout the data lifecycle?
- What is the nature, scope, and expected scale of the data generated or collected?
- What types of documentation and metadata will you produce to support the data?
- How will files will be managed during the project? Types, naming conventions, versioning?
- How and where will you store copies of your research files to ensure their safety?
- How will you ensure that the data meet quality assurance standards?
- How do you intend to archive and share your data? Why that option?
Review a DMP

- How well does your chosen example answer these questions?
- Is it thorough?
- Which questions does it omit?
DMPTool

An online tool that walks you through writing a DMP for specific funding agencies. It will ask you to answer the questions that a particular funder cares about.

https://dmptool.org
Conclusion

- Reviewed the purpose of data management plans.
- Identified questions to think about and answer in a data management plan.
References and resources

- DataONE. "Data management planning" [Website](https://www.dataone.org/data-management-planning)
- DCC. "Checklist for a data management plan" [PDF](http://www.dcc.ac.uk/sites/default/files/documents/resource/DMP/DMP_Checklist_2013.pdf)
- ICPSR. "Framework for creating a data management plan" [Website](http://www.icpsr.umich.edu/icpsrweb/content/datamanagement/dmp/framework.html)