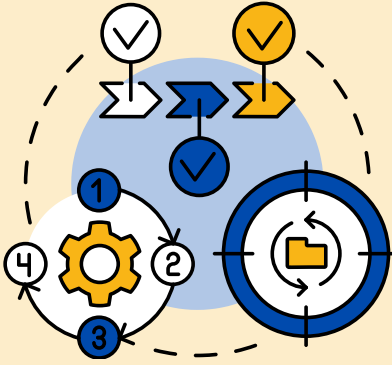


LOVE DATA WEEK

10-14 fevereiro 2025

RESEARCH DATA MANAGEMENT LIFECYCLE IN HEALTH SCIENCES



- **Data lifecycle** illustrates the **stages of data management** and describes how data flow through a research project from creation to preservation and reuse.
- Each stage of the Data lifecycle revolves around the management of data storage (**storage options** and **data safety**).
- The effective management of this lifecycle ensures data **integrity, reproducibility,** and compliance with **ethical and legal standards.**

1 PLAN & DESIGN

- Planning processes from onboarding to project closure and data resources (data collection methods, metadata creation, data management plans, data organisation).

2 COLLECT & CREATE

- Organisation and integration of data sets and collection processes;
- Knowledge of the best practices for gathering data, data formats and collection tools.

3 ANALYSE & COLLABORATE

- Collaborative and documented data processing and analysis;
- Clean, transform, analyse, and visualise data often with statistical methods, programming languages, and specialised software.

4 EVALUATE & ARCHIVE

- Identification of essential research records and retention evaluation;
- Knowledge of the strategies for secure data storage, backup, and long-term preservation, including repository options, file formats, and institutional or funder requirements.

5 SHARE & DISSEMINATE

- Establishment and support data reach and impact;
- Knowledge of responsible data sharing, open access policies, metadata provision and intellectual property licenses.

6 PUBLISH & REUSE

- Scholarly products publishing (persistent identifiers and citations)
- Ensuring research data broad utility and reproducibility for other researchers.



- **Planning:**
 - plan ahead & revisit often **1**
- **Active research:**
 - document **2** **3**
- **Operational Storage:**
 - think short & long term **4** **STORE & MANAGE**
- **Dissemination:**
 - share confidently **5** **6**



Research Data Management Lifecycle Checklist

<https://osf.io/d2pum>

Challenges in Health Sciences Data Management

- **Privacy & Ethical Concerns** (patient data anonymisation and protection)
- **Standardization** (data formats and metadata standards)
- **Data Integration** (combining data from multiple sources)
- **Long-Term Preservation** (maintain data accessibility)

