Plan Overview

A Data Management Plan created using DMPonline

Title: Re-designing everyday hospital practices for circular economy

Creator:Heidi Annala

Principal Investigator: Heidi Annala

Data Manager: Heidi Annala

Project Administrator: Heidi Annala, Bas van Vliet

Affiliation: Wageningen University and Research (Netherlands)

Funder: Netherlands Organisation for Scientific Research (NWO)

Template: NWO Template

ORCID iD: -

Project abstract:

This research explores, through a social practice theory lens, how everyday practices relating to single-use materials in Dutch university hospitals are performed, perpetuated and potentially changed. By examining the situated performance of these practices, the protocols that shape them, and the dynamics of an intervention co-creation process, this study seeks to uncover the underlying social structures and institutional routines that contribute to the current dependency on single-use items. This overarching goal is approached through three distinct research questions: 1) How and why do hospital practices shape and sustain reliance on single-use materials; 2) What does a co-created hospital practice intervention reveal about the process of changing practices and the outcomes that such efforts can achieve; and 3) How do variations in selected hospital practices across two countries reflect the cultural, institutional, or material conditions shaping practice change?

The research employs ethnographic methods, including participant observation and interviews, within three departments between two Dutch university hospitals, UMC Utrecht and EMC Rotterdam, as well as an international comparison case. These will be complemented by a multi-dimensional study of protocols, considering protocols as both crucial inputs and outputs of hospital practices. Towards the end of the project, these findings and expert insights will be employed in an intervention co-design process taking place at living labs at the two participating hospitals, aiming to create both new knowledge on successful circularity intervention co-design as well as tangible reductions in material use in hospital practices.

ID: 176446

Start date: 01-11-2024

End date: 31-10-2028

Last modified: 26-06-2026

Grant number / URL: NWA.1518.22.054

Copyright information:

The above plan creator(s) have agreed that others may use as much of the text of this plan as they would like in their own plans, and customise it as necessary. You do not need to credit the creator(s) as the source of the language used, but using any of the plan's text does not imply that the creator(s) endorse, or have any relationship to, your project or proposal

Re-designing everyday hospital practices for circular economy

General Information

Name applicant and project number

This project, led by Heidi Annala, is nested within a consortium led by Nicole Hunfeld, project number NWA.1518.22.054.

Name of data management support staff consulted during the preparation of this plan and date of consultation.

Dr Irene Verhagen
WUR Library – Research Data Management Support
data@wur.nl
Date: 2025-09-16

1. What data will be collected or produced, and what existing data will be re-used?

1.1 Will you re-use existing data for this research?

If yes: explain which existing data you will re-use and under which terms of use.

- Yes

Hospital protocols from University Medical Center Utrecht and Erasmus Medical Center Rotterdam; guidelines published by Dutch medical societies, Dutch Ministry of Health, and international organizations. Access to hospital protocols requires authorization, which has been obtained. The rest are openly available online, free to use without restrictions.

1.2 If new data will be produced: describe the data you expect your research will generate and the format and volumes to be collected or produced.

Fieldnotes and drawings:

- Approx. 200–500 pages total of handwritten notes from participant observations in hospital departments
- Occasional sketches or drawings (approx. 20–40 pages).
- Digitised and stored as PDF/A or TIFF; original notebooks retained securely.

Interviews:

- 20–30 semi-structured interviews with hospital staff as audio recordings in WAV format (~1–2 GB in total).
- Transcripts in DOCX and PDF/A for archiving (~1–2 MB per transcript, total ~50–80 MB).

Workshops / co-creation sessions:

- 5–15 sessions audio- and video-recorded.
- Audio in WAV (~1–3 GB total), video in MP4 (~20–60 GB total).
- Partial transcripts and notes in DOCX and PDF/A (~20–50 MB total).

Hospital protocols and related documents:

- Official documents collected for analysis (~400–800 files, estimated 400–800 MB).
- Stored as PDF/A; if only available in DOCX, converted to PDF/A or DOCX when possible.

Processing and analysis files:

- Coding and thematic analysis files generated in NVivo or equivalent qualitative analysis software. If open formats are not possible, documentation will specify software, version, and company. Exported coding reports will be saved in TXT and CSV where feasible.
- Expected volume: ~200–500 MB.

Metadata and documentation:

- Codebooks, interview guides, consent forms, anonymisation logs, and methodological notes.
- Stored in TXT and PDF/A (~50–100 MB).

Figures and processed outputs:

- Summary figures, diagrams, and tables (PNG, CSV, PDF/A).
- Estimated 100–200 MB.

1.3. How much data storage will your project require in total?

- 100 – 1000 GB

2. What metadata and documentation will accompany the data?

2.1 Indicate what documentation will accompany the data.

Information on the folder structure, files present and how they relate to each other, purpose of the files, purpose of the research, steps undertaken in processing, analysing and collecting the data, time and date.

2.2 Indicate which metadata will be provided to help others identify and discover the data.

Data set title, creators, contributors, affiliations, short description, license, key words, language, geographical and time range.

3. How will data and metadata be stored and backed up during the research?

3.1 Describe where the data and metadata will be stored and backed up during the project.

- Other (please specify)

WUR network drive, Erasmus Medical Center Rotterdam MS Teams environment, backed up to ScienCrew also under EMC license. Hand-written field notebooks will be securely stored in a locked cabinet accessible only to the researcher. They will not be removed from secure university or home office storage. When possible, notebooks will be digitised (PDF/A or TIFF) and the originals retained in the locked cabinet for the duration of the project.

3.2 How will data security and protection of sensitive data be taken care of during the research?

- Additional security measures (please specify)

As described in question 4.1.

4. How will you handle issues regarding the processing of personal information and intellectual property rights and ownership?

4.1 Will you process and/or store personal data during your project?

If yes, how will compliance with legislation and (institutional) regulation on personal data be ensured?

- Yes

Ethical approval will be applied for with WUR-REC and when applicable UMCU and EMC REC. By default, all projects at WUR that collect personal data will be screened on potential risks (e.g., through SmartPIA). Based on the outcome of this screening, a Data Protection Impact Assessment (DPIA) may be carried out. This impact assessment describes practices to mitigate risks associated with the collection of personal data. In compliance with the Dutch General Data Protection Regulation (GDPR) participants will sign a consent form, and data can only be used for purposes a participant has given prior agreement to. The raw data will be securely stored and accessible only to partners within the project. Data will be stored using the organization's IT security and policies / procedures for the internal storage media (W drive). Data (textual and visual) will be anonymised as to prevent identification of participants (unless stated otherwise in their consent form).

4.2 How will ownership of the data and intellectual property rights to the data be managed?

Ownership of new data remains with WUR, while project partners have unrestricted access.

5. How and when will data be shared and preserved for the long term?

5.1 How will data be selected for long-term preservation?

- All data resulting from the project will be preserved for at least 10 years

Platform Zorg will take over the necessary data for national dissemination. Wider project management will take care of restricted data by use of NDA with our involved stakeholders.

5.2 Are there any (legal, IP, privacy related, security related) reasons to restrict access to the data once made publicly available, to limit which data will be made publicly available, or to not make part of the data publicly available?

If yes, please explain.

- Yes

The anticipated data collected will not be openly accessible due to its sensitive nature.

5.3 What data will be made available for re-use?

- Other (please specify)

None outside the project partners.

5.4 When will the data be available for re-use, and for how long will the data be available?

- Data available as soon as article is published

To project partners.

5.5 In which repository will the data be archived and made available for re-use, and under which license?

Platform Zorg, under the license of EMC.

5.6 Describe your strategy for publishing the analysis software that will be generated in this project.

Not applicable.

6. Data management costs

6.1 What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

Time from the researcher has been allocated to clean and manage data at appropriate times during the project and to manage the handover of data at the end.