Plan Overview

A Data Management Plan created using DMPonline

Title: Topzorg Verzilveren (TOVER)

Creator:PLEASE UPDATE YOUR DETAILS

Principal Investigator: Simone van Dulmen

Data Manager: Niek Stadhouders

Affiliation: Radboud University Medical Center (Radboudumc)

Funder: ZonMw (Nederlands)

Template: Radboudumc Data Management Plan

Project abstract:

Top clinical centers combine highly specialized care with applied scientific research and education (highly specialised functions). Funding for these activities is complex and varies between institutions. This study explored how to ensure structural funding for these highly specialised functions within the current healthcare system.

Seven funding criteria were identified. The research shows that the TZO subsidy covers only part of the costs (39-68%), requiring additional funding.

To ensure sustainable funding, four measures are recommended: 1) availability-based funding, 2) a negotiable surcharge, 3) structural financing for research infrastructure, and 4) a greater role for centers in applying for research grants. These measures do not solve all challenges but represent a feasible step within the existing healthcare system.

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Start date: 01-01-2020

End date: 01-01-2025

Last modified: 14-09-2025

Grant number / URL: 10070442010001

Topzorg Verzilveren (TOVER)

1. Project info

1.1 DMP version and date

0.1

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

saartje.hontelez@radboudumc.nl
RTC Data Stewardship Radboudumc

1.3 Does the project consist of multiple (sub)projects?

- No

1.4 Project number(s)

CMO number: 2022-13881 niet-toets-verklaring niet-WMO-onderzoek

1.5 Project leader (PI); provide contact information (Name, email address, phone number)

Simone van Dulmen
Simone.vandulmen@radboudumc.nl
00341655342373

1.6 Science department
(and if applicable, also add the research programme and research group(s) involved in the project)

IQ Health

1.7 Will non-human research (i.e. research NOT performed on human subject data) be performed in this project?

- No

1.8 Will the research conducted in this project involve human participants (WMO compliant / non-WMO)?

- Yes, non-WMO research (please specify which (sub)projects)

We will perform interviews with stakeholders involved in this project (e.g. phycians, managers, financial/policy makers, VWS, health insurance compagnies)
CMO number: 2022-13881 niet-toets-verklaring niet-WMO-onderzoek

1.9 Is review of this DMP needed in order to obtain approval by the Executive Board (Local Feasibility procedure ('Lokale Uitvoerbaarheid))?

- No, this is not needed.

2. Planning and design

2.1 Will this research project involve collaboration with other parties? (E.g. in collecting, processing, analyzing and/or publishing the data).

- Yes

University: ESHPM (Rotterdam), hospitals

2.2 If yes, which parties will be involved, and what will be their contribution with regard to collection, processing, analysis and/or publishing of project(s) data?

ESHPM: will perform WP4
Hospitals will provide financial data

2.3 If yes, describe which agreements (have been made / will have to be made) with these parties regarding data management and intellectual property?

Researchers from IQ Health will take responsibility for the data management.

2.4 Who are the persons involved in data management? Mention all persons that have

access to the data, and in which role they will participate.

Institute	Name	Role
Radboudumc	Simone van Dulmen	PI
Radboudumc	Niek Stadhouders	data collection

2.5 For human-related research, describe the informed consent procedure. Will consent be obtained from the participants to collect and process their data? Multiple options can be selected, specify the informed consent procedure for the applicable project(s).

- Yes (please specify)

Participants are asked for (focusgroup) interviews. They receive an information letter and have opportunities to ask questions. Before the start they will provide individual consent.

2.6 If yes, will consent be obtained from the participants to share and re-use their data for future research, according to the FAIR principles?

- Yes

Since the data will be mainly resulting from interviews and a focus group, and will include hospital's financial data, these data are rather sensitive. Therefore it is mandatory to safely store these data and to handle them carefully with much integrity, which means that we will not be able to publish these data publicly. We will publish meta data. Besides, we will deliver evaluation reports and publish (academic) articles about this research project. In such a way the data and knowledge unfolding from this project will be publicly shared.

3. Collect and Create

3.1 Will existing data be used for this project?

- Yes (specify which data sources)

Interviews conducted by researchers from ESHPM during the ZonMw TopZorg project will be used in work package 4 'Evaluatie lange termijn maatschappelijke meerwaarde TopZorg-functies aan de hand van het verbeterde evaluatiekader ESHPM'.

Reports unfolded from this former research project:

J. Postma, A. van Dongen, L, Hakkaart, R. Bal. Tussenrapportage TopZorg. Erasmus University Rotterdam, 2016.

J. Postma, A. van Dongen, L, Hakkaart en R. Bal. Een evaluatie van 4 jaar specialistische zorg en wetenschappelijk onderzoek in het St Antonius Ziekenhuis, het Oogziekenhuis en het ETZ. Erasmus University Rotterdam, 2018.

3.2 Do restrictions apply to the use of these existing data? Describe how the use of these data will be arranged with the owners of the data.

We will use the data from the following reports:

J. Postma, A. van Dongen, L, Hakkaart, R. Bal. Tussenrapportage TopZorg. Erasmus University Rotterdam, 2016.

J. Postma, A. van Dongen, L, Hakkaart en R. Bal. Een evaluatie van 4 jaar specialistische zorg en wetenschappelijk onderzoek in het St Antonius Ziekenhuis, het Oogziekenhuis en het ETZ. Erasmus University Rotterdam, 2018.

3.3 Will human patient data be used from Radboudumc's clinical archives, like Epic, GLIMS, PACS , Dentium, etc.?

- No

3.6 How will privacy of the human participants be safeguarded?

- The data will be pseudonymized

The data will be pseudonymised when preferred to ensure the participant's privacy and handle the data carefully and with integrity.

3.7 How will pseudonymization/ anonymization/other be arranged?

- The data will be pseudonymized / anonymized by using a tool or system different from PIMS (explain in next question)

3.8 Please specify how pseudonymization or anonymization will take place. How is the subject ID composed, will identifying elements be omitted, where (and/or in which system) will the Subject Identification Log be saved?

PIMS will be used: any identification log will be stored two directories away from other project administration files.

E.g.
Q:\Codelijsten\Project TOVER
"H:\PL Patrick Jeurissen\Project TOVER"

3.9 Provide the details from the Identification Log data in PIMS.

https://pims.radboudumc.nl/

3.10 Describe the data that will be collected / created:
(optional: the data can be described per (sub)project, for instance workpackages or chapters)

(Sub)Project *(optional)*	**Volume, N=**	**Existing / new data**	**Data source**	**Data collection tool / system**	**Data Type**	**File Format**	**Storage space**
Interviews	N=20	*new data*	Interviews	PIMS	Qualitative data (audio recordings and transcripts)	.docx	1-10GB
financial data hospitals	N=10	new data	survey	PIMS	financial data of hospitals	.cvs	1-10GB

3.11 Are study participants randomly allocated to groups? Select which option applies to the randomization (if any) of the participants.

- No randomization will take place.

4. Store and analyze

4.1 Where will the data be stored during the data collection (e.g. for combining, processing, and/or analyzing data)? Check the boxes for both digital and paper data storage.

- Data will be stored in a Data Acquisition Collection (DAC) and/or a Research Documentation Collection (RDC) in the Radboud Data Repository (RDR)

4.2 Give a short description of all the options that will be used for data storage, during the data collection. Provide the locations for digital and paper data.

Research data is stored in the Radboud Data Repository, collection identifier

4.3 How will data security be ensured during the data collection?

We use the standard folder structure in line with IQ Health department regulations:
WI Bestandsbeheer en -deling (Versie 2)
https://qportaal.umcn.nl/iProva/iDocument?DocumentId=76751474-6f97-465b-9ab1-d00c703d8ba6

4.4 How often, where and by whom will backups be made of the data?

NA

4.5 How will access to the data be arranged for all parties, internal and external (if applicable); which restrictions will be applied to data access during the data collection?

NA

4.6 Which software or tools will be needed to process or analyze the data?

- Atlas.ti
- Microsoft Excel

4.7 Will standard facilities, (like Zero Clients "werkplek 2.0", Fat clients provided by Radboudumc ICT or DRE), be sufficient to process and analyze the data or will extra computing power and memory be required ?

- The Radboudumc standard facilities will suffice for processing and analyzing the data (virtual 'werkplek 2.0', standard fat clients, standard DRE work space)

4.8 What will be the estimated costs for managing the data during the study, and how will these be covered?

All costs for data management during the study are covered by the department (overhead) or by the

Radboudumc.

4.9 How will you structure your data? Briefly elaborate on the naming conventions and the structure of the files and directories.

We use the standard folder structure in line with IQ-Healthcare department regulations:
WI Bestandsbeheer en -deling (Versie 2)
https://qportaal.umcn.nl/iProva/iDocument?DocumentId=76751474-6f97-465b-9ab1-d00c703d8ba6
There is a NAW-folder which is stored two directories away from other project administration files:

4.10 How will version control be applied, with clear version numbers, to maintain all changes that will be made to the data?

A revision numbering system will be used for major (v1.x) and minor (vx.1) alterations, and all files will have a yyyymmdd date stamp corresponding when the last alteration was made.

4.11 Which documentation will be added to the data to (further) describe the data collection?

- I will link the data to one or more scientific publications
- I will document the research process (data cleanings, methodology of data collection, quality controls, statistics)
- I will make use of a codebook, that describes all data items in the data collection

5. Archive and share

5.1 Describe the data that will be archived for the predetermined legal retention period.

As elaborated earlier our data will not accessible for other researchers and computers to read our data collection. For the part that will be published via DANS repository.

5.2 Where will the data (described in question 5.1) be archived for the predetermined legal retention period after the research? Provide the locations for digital and paper data.

Research data is archived in the Radboud Data Repository

5.3 Will there be any issues that affect the sharing of (parts of) the data collection after the research? If so, briefly describe these issues.

- Yes, there are issues that affect the sharing of (parts of) the data after the publication of the results. (please specify)

As elaborated earlier our data will not accessible for other researchers and computers to read our data collection.

5.4 Which (part of the) data will be made findable and shared for reuse and/or verification?
(See also the table from question 3.10 that describes the data collection)

We will publish the meta data from our quantitative study.

5.5 How will the data be made findable and shared for reuse and/or verification? Select the options that apply, and provide further details the comments field.

- Data will be published in a data repository or other online data archive (e.g. Radboud Data Repository, DANS Data Station, disciplinary repository, data archive) (please specifiy)

Dans Data Station Life Sciences: https://doi.org/10.17026/LS/IM7PTF

5.6 Will restrictions be applied to access to (parts of) the data?

- Yes, restrictions will be applied to (parts) of the data (please specify, e.g. how restrictions will be applied, how will access to the data be arranged, who will be made responsible for granting access to the data)
- The raw and processed data that cannot be shared via open/restricted access will be made findable by archiving the data under 'closed access' in a Data Acquisition Collection in the Radboud Data Repository. Metadata and documentation will be published whereas the raw and processed data remain inaccessible.

5.7 Will a license be applied to the published data? If yes, what license?

All articles will be published Open Acces under a Creative Commons licence (attribution 4.0 International (CC BY 4.0))

5.8 In case of restricted access, what are the conditions for access to the data? If yes, how are these defined, e.g. in a consortium agreement, data use agreement and/or other terms of use?

?

5.9 How will metadata be published to describe the data collection, and to enable findability of the data collection? And which metadata will be shared, e.g. will standards be used?

- Metadata about the data collection will be published via the data repository/repositories (see above, please specify which metadata standard(s))
- Dublin Core and DataCite Metadata about the data collection will be registered in RIS

Meta data has been publishe in the DANS repository
Dulmen, S.A. van, Stadhouders, N.W. & Jeurissen, P.P.T. (2025). *Topzorg Verzilveren.* DANS Data Station Life, Health and Medical Sciences [Dataset]. doi: 10.17026/LS/IM7PTF.

5.10 Will the dataset be made findable by means of linkage to a persistent identifier (PID) like a DOI, a Handle or other PID? Please provide the PID here as soon as it is available!

Met hulp van de universiteitsbibliotheek van Radboud Universiteit (https://www.ru.nl/research-information-services/) is het project
en de metadata vindbaar gemaakt worden via DANS Data Station Life Sciences archief (https://easy.dans.knaw.nl/ui/home).

5.11 Which documentation will be added to the published data collection to enable reuse? (see also 4.6 and 4.11 for examples of data documentation)

Read me.txt for understanding the structure and content of the documents

5.12 What will be the estimated costs for data archiving and/or publication after the study, and how will these be covered?

The use of the DANS Data Station repository is free since the dataset is < 50GB.

5.13 Which (bio)medical or other discipline specific terminology (vocabularies, classifications, ontologies or other standards) will be used within the data collection?

SNOMED

5.14 Which data formats will the data collection contain? See also 3.10, is there a need to migrate the data to (a) preferred data format(s)?

Preferred formats

5.15 If applicable, describe your strategy for publishing the analysis software that will be generated in this project.

NA