### **Plan Overview**

A Data Management Plan created using DMPonline

Title: DCE healthcare rationing

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#### **Project abstract:**

Aim: To examine physician preferences on healthcare rationing policy in times of scarcity and to compare these preferences among physicians in different healthcare systems (Massachusetts General hospitals, Veterans Affairs hospitals, Dutch hospitals).

Background: All healthcare systems struggle with demands exceeding capacity and a finite number of healthcare resources. Therefore, prioritization decisions regarding healthcare are made on a daily basis, from the clinical level, (e.g. which patient receives OR-time first) to the political level (e.g. which drugs or interventions are publicly funded).

Typically, physicians are responsible for prioritizing between individual patients when they seek care. During situations like the COVID-19 pandemic, prioritization of individual patients may result in an inequitable distribution of healthcare resources (1–3). Rationing healthcare could be employed to optimize resource allocation and maximize healthcare outcomes for society as a whole (1,4,5). Rationing involves (temporarily) withholding treatments from patients that may potentially benefit from them.

Rationing poses ethical considerations for physicians, as they took the oath to provide care to patients who need it (6). Therefore, physicians may prefer explicit rationing policy, which alleviates them from performing bedside rationing. However, rationing policy also decreases professional autonomy, thus it may not be accepted by physicians (7). It is yet unknown whether physicians prefer to use explicit rationing policy during acute scarcity or whether they prefer to maintain professional autonomy in prioritizing care (8).

Therefore, this study aims to examine physicians' preferences for rationing policy and to compare these preferences among physicians from different healthcare systems.

Method: We will conduct a Discrete Choice Experiment (DCE) to examine medical professionals' preferences for healthcare rationing policy.

A DCE is a quantitative technique, through which preferences of individuals can be examined. In a DCE, respondents are asked multiple times to select a preferred option between two or more given hypothetical scenarios. These scenarios are systematically constructed based on several attributes varying over fixed levels, e.g. an attribute could be policy level, consisting of levels: individual, local, regional, and national. A DCE allows the researcher to uncover respondents' latent preferences on topics where socially desirable responses play a role.

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#### 0. General information

#### 0.1 Document version & date

DMP plan - DCE healthcare rationing version 1 21 november 2023

#### 0.2 Project title

DCE healthcare rationing

#### 0.3 Project summary

DCE to elicit physicians preferences on healthcare rationing policy during acute scarcity Comparison between physicians from Dutch hospitals and hospitals in Massachusetts (VA versus non-VA).

#### 0.4 At which VU Faculty is this project situated?

• School of Business and Economics (SBE)

#### 0.5 Your contact details

Vera de Weerdt CrediT: conceptualization, data curation, formal analysis, investigation, writing original draft Telephone: not applicable Email: v.de.weerdt@vu.nl ORCID: <u>0000-0003-3644-620X</u> University: School of Business & Economics, Vrije Universiteit Amsterdam & Amsterdam University Medical Centers Department/Research Group: Department of Ethics, Governance & Society, section health economics

## 0.6 List other people involved, including those at partner organisations in the project (if applicable)

Full name (partner) organization: Vrije Universiteit Amsterdam

Full name of person(s) involved: Xander Koolman
Their role(s) in the project (please refer to the <u>CRediT</u> contributor roles): conceptualization, formal analysis, investigation, supervision, <u>Writing – review & editing</u>
Email: x.koolman@vu.nl
ORCID (<u>LibGuideOpens in a new window</u>): 0000-0003-4225-8854
University: Vrije Universiteit Amsterdam
Faculty: School of Business & Economics
Department/Research Group: Department of Ethics, Governance & Society, section health economics

Full name (partner) organization: Vrije Universiteit Amsterdam

Full name of person(s) involved: Eric van der Hijden
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University: Vrije Universiteit Amsterdam
Faculty: School of Business & Economics
Department/Research Group: Department of Ethics, Governance & Society, section health economics

Full name (partner) organization: Amsterdam University Medical Centres

Full name of person(s) involved: prof. Sjoerd Repping CrediT: conceptualization, investigation, supervision, writing - review and editing Email: s.repping@amsterdamumc.nl ORCID: <u>0000-0002-6959-149X</u> University: Amsterdam University Medical Centres

Full name (partner) organization: Amsterdam University Medical Centres

Full name of person(s) involved: dr. H.C. Willems CrediT: conceptualization, investigation, supervision, writing - review and editing Email: h.c.willems@amsterdamumc.nl ORCID: <u>000000-0002-3166-6951</u> University: Amsterdam University Medical Centres Department of clinical geriatrics Full name (partner) organization: Harvard University

Full name of person(s) involved: prof. Meredith Rosenthal CrediT: conceptualization, investigation, supervision, writing - review and editing Email: mrosenth@hsph.harvard.edu ORCID: <u>0000-0003-3410-0184</u> University: Harvard University Faculty: T.H. Chan School of Public Health Department: Health Policy and Management

#### 0.7 Project code (if applicable)

not applicable

#### 0.8 Funding organisation & grant number (if applicable)

*Funding organisation: Zorginstituut Nederland & Nederlandse Federatie Universiteiten, Academische Werkplaats Zorgpraktijk & beleid Grant number: not applicable* 

#### 0.9 If there is another DMP connected to this form, please provide a link (when applicable)

Question not answered.

#### 1. Data description

#### 1.1 Will you use existing data? If yes, what is their source?

#### 1.2 Will you collect or produce new data? If yes, please describe how.

New data will be collected.

We will collect survey data among physicians in the Netherlands and Massachussetts, the United States. The survey will include a discrete choice experiment and questions regarding demographic characteristics.

No

The survey will be distributed via email, through department heads of participating hospitals.

The survey will be distributed via software "Survey Engine GmbH".

In the Netherlands only anonymous data will be collected, no personal data, nor email addresses will be collected.

In Massachusetts we will collect email addresses to enable distribution of gift cards as compensation for participation in the survey, as is desired by hospital department heads in Massachusetts. Email addresses will be stored in a separate database from the other survey results.

#### 1.3 Describe the population/participants/subjects that will be studied

Physicians in hospitals in the Netherlands and Massachusetts.

Specifically, we aim to include physicians from Internal Medicine, Cardiology, Pulmonology/Critical Care and Emergency departments.

We only target physicians providing inpatient care.

In Massachusetts we will sample physicians from general hospitals, academic hospitals and veterans affairs hospitals.

#### 1.4 Do you process any of the following (personal) data?

• Contact details

In the Netherlands only anonymous data will be collected, no personal data, nor email addresses will be collected.

In Massachusetts we will collect email addresses to enable distribution of gift cards as compensation for participation in the survey, as is desired by hospital department heads in Massachusetts. Email addresses will be stored in a separate database from the other survey results.

#### 1.5 Do you process the personal data based on informed consent?

• Yes, using digital consent

In the recruitment email an informed consent and privacy statement will be included in the attachment.

The first question of the survey will ask for participants consent.

## **1.6** On what legal ground will the data processing take place if it is not based on informed consent?

• Not applicable, I use informed consent

#### 1.7 Does the data collection include any of the following types of personal data?

None of the above.

### **1.8** If your research involves special categories of personal data (previous question) and you will not use explicit informed consent, what is the legal ground for the exemption?

Not applicable

#### 2. Storage and back-up during the research process

2.1 What measures will you take to secure and protect data during the research process? Please describe, for each separate data asset how you will ensure data security, where the data assets are stored & backed up, and who has authorization to access the asset.

#### Raw data

Data asset: survey responses Storage: **VU OneDrive / Research Drive (RD)** Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: Encryption using Cryptomator

#### **Processed data**

Data asset: scores on relevant variables Storage: Research Drive (RD) Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: Controlled folder access

#### **Analysed data**

Data asset: tables & graphs Storage: Research Drive (RD) Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: No additional measures

#### Other

Data asset: codebook Storage: Research Drive (RD) Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: No additional measures

Data asset: consortium agreement Storage: Research Drive (RD) Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: - Encryption using Cryptomator - Original forms stored in secure locker at the department

Data asset: R code Storage: Research Drive (RD) Backup: Automated daily backup (RD) Access: Authorizations (RD) Security measures: No additional measures

#### 2.2 Which tools are used in the collection, processing or storage of data during research?

- OneDrive
- R (software) \*
- Research Drive (Surf)
- Other (please specify below)

Survey Engine

#### 2.3 What other tools or software do you intend to use during your research?

Name: Survey Engine GmBH Role: data collection (online survey distribution software) Country: Germany

### 2.4 Is it necessary to transfer the (physical or digital) data assets to other locations or research partners? If yes, please describe how you secure the file transfer.

• No

### 2.5 Do you transfer personal data outside of the European Economic Area (EEA)? If Yes, please provide additional information

Data is collected from the United States, but through European software (Survey Engine). Legal basis: explicit informed consent

#### 3. Legal and ethical requirements, codes of conduct

### 3.1 Do you require approval of an ethical committee for this project? If yes, please indicate which ethical committee and whether you have obtained approval for this project.

- Yes
- Conducted a self-assessment with the ethical committee of the School of Business & Economics of the Vrije Universiteit Amsterdam, and obtained certificate stating study is in line with the ethical guidelines of the VU
- IRB approval needed from Harvard University
- IRB approval needed from Mass General Brigham hospital in Massachussetts for data collection among their physicians
- IRB approval needed from Beth Israel Deaconess for data collection among their physicians

#### 4. Data archiving and publishing

#### 4.1 Which data assets will be archived and which will be published?

- survey responses, analyzed data (tables and graphs) and r scripts will be archived for 10 years
- analyzed data (tables and graphs) will be published

#### 4.2 Where will you archive your data assets?

• Other, see next question

research drive?

#### 4.3 What other archive(s) do you intend to use to archive data assets?

#### 4.4 For how long will the data be available in the archive?

10 years

#### 4.5 Where will you publish your data assets? (if applicable)

only upon request

#### 5. Data management responsibilities and procedures

5.1 Who will be responsible for management of the data assets during the project? Please specify their name, position, role in the project, and faculty/ institution/ group.

Vera de Weerdt arts-onderzoeker executing PhD researcher School of Business & Economics, Vrije Universiteit Amsterdam

# 5.2 Who will be responsible for management of the data assets after completion of the project (e.g. the project lead/ dedicated data manager/ department head)? Please specify their name, position, role in the project, and faculty/ institution/ group.

Department Head prof Xander Koolman x.koolman@vu.nl Principal Investigator School of Business & Economics, department EGS, section health economics

### 5.3 For data that are only available upon request, what methods will be used to handle requests for access and how will data be made available to those requesting access?

"department head of the Vrije Universiteit are responsible for arranging agreements with researchers in their departments regarding the management of research data, particularly when a researcher's employment is ending." (**VU RDM policy 2020**).