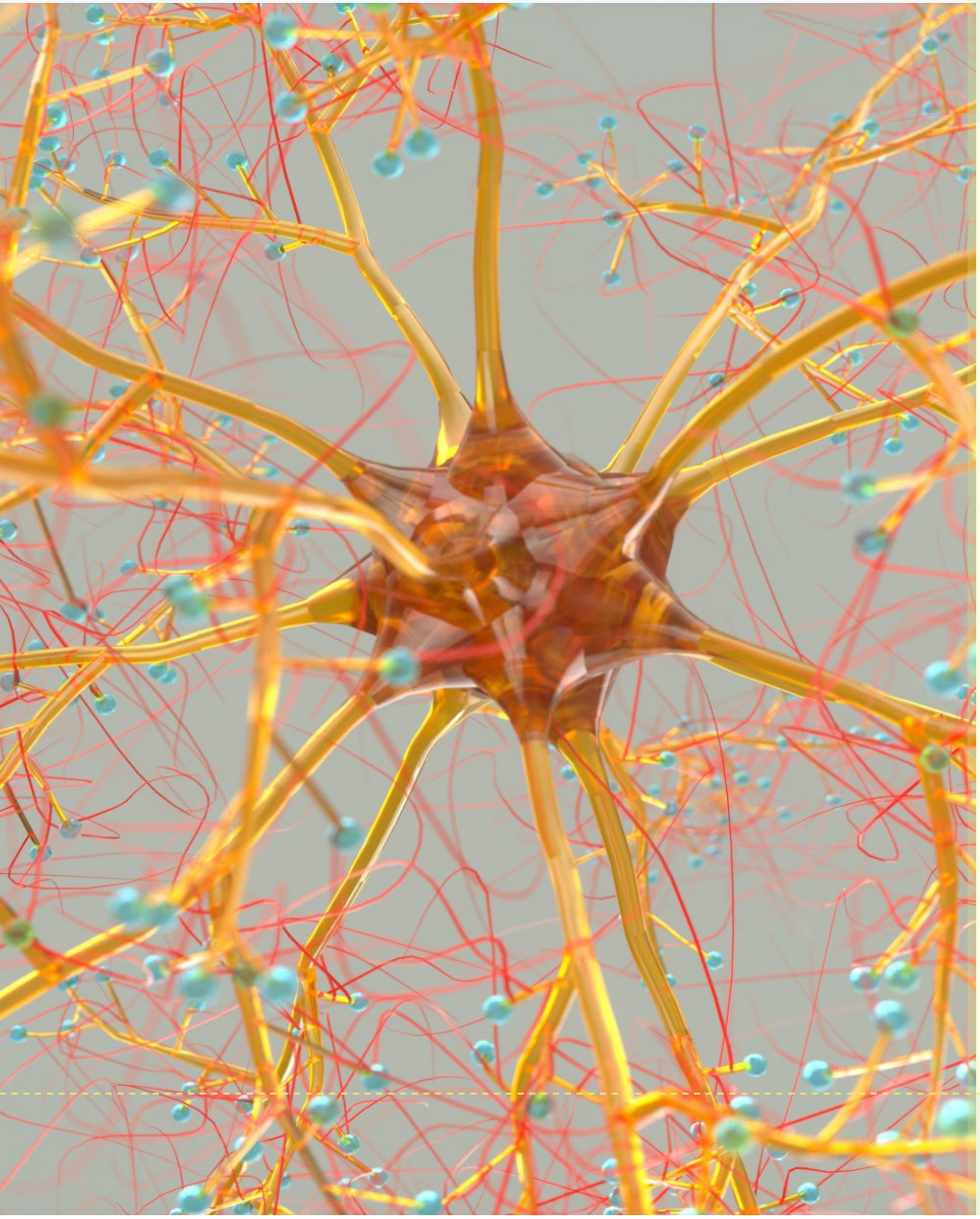

EHES case studies in Europe

- Netherlands -

4 february 2021

The health system in the Netherlands

- The Dutch health system is funded 50% through the taxes payed by the employers to a fund controlled by the Health Reglementation Authority, where the Government also contributes with 5%.
- The rest of 45% of the health expenses are covered by the employees, directly to the insurance companies.

- Among the strong points to the Dutch system:
  - access to necessary medication
  - professional health care
  - relatively short waiting time

The EHES study

- 2009-2010 – pilot EHES project, a partnership between the Ministry of Public Health, the National Institute of Public Health and environment (RIVM) and the University Medical Centre in Utrecht (UMCU), Julius Clinical Research BV

- The team consisted of a team leader (the principal investigator for the study), a medical doctor to supervise the daily study, a logistics manager, a data manager and scientific body where important national experts were invited, responsible for monitoring, public health, statistics, obesity and other topics in the study

The EHES study (II)

- Before the field work, the study was advertised in the local press
  - articles in the local newspapers
  - informing medical general practitioners (GPs) about the study
  - posters in the waiting lounges of the GPs, pharmacies and local hospital

- The participants were rewarded with an amount of 50 euro (initially 10 euro, however this raise managed to raise the participation rate as well)

Measurements and indicators

- The measurement instrument from the research questionnaire were drafted according to the EHES protocol

- Biological risk factors
  - anthropometric factors (weight, height, waist)
  - blood pressure (systolic and diastolic, treatment information)
  - seric cholesterol level (total and HDL, treatment information)
  - seric glucose levels (preferably, post)
  - triglyceride plasmatic concentrations (when obtained in food ingest pause).

- Informations regarding the life style
  - smoking
  - physical activity
  - diet

Methodology

- Permanent residents
- Number of respondents: ~10.000* (700 per locality)

  *taking into account the study challenges and the large non-response rates, they chose a sample three times larger
- Men and women between 18 and 70 years
- Selection from the national registry, to ensure a probabilistic sampling, with an equal probability of selection for all citizens

Methodology / Sample

- Selection stages:
  - first selecting a region
  - selecting localities in that region => 15 cities (3 per region: small, large and medium)
  - in the small and medium cities
    - 18-20 years: 180 respondents
    - 20-39 years: 550 respondents
    - the rest of the age groups (10 years intervals): 350 respondents
  - in big cities: sample size increased with 10%, due to the administrative errors in the databases and migration

EHES questionnaire

- Questions and items split into:
  - general questions (historic / anamneses: health, diseases, family history)
  - current life style (smoking, weight and connected questions)
  - physical activity
  - general welfare
- The questionnaires were completed at the respondents living households and later brought to the research centre
- At the research centre the questionnaires were verified, and if some information was found to be missing, the respondent is asked if available for further inquiry; if situations where the respondent did not understand what to fill in, the researcher can bring further explanations.
  - The research assistant in the centre adds the new responses with a pen having a different colour, signing the note regarding the date of these modification / additions

EHES implementation (I)

- The respondents have received:
  - a letter of invitation
  - a letter of recommendation on behalf of the Local Municipal Health Service
  - a brochure explaining the goal and the context of the EHES study
  - response card

*when no reaction for two consecutive weeks, the respondents are paid a visit at their households by a field worker

EHES implementation (II)

- Function of reaction and responses, the next step:
  - respondents send back their response card indicating they do not want to proceed further : no other measures
  - respondents send back their response card indicating they do want to participate: they receive a letter with the date and time they are expected at the research centre. The date and time is matched as close as possible to the one indicated by the respondents;
  - if no other reaction for the next two weeks, households visits (max 6 attempts);
  - in case of no show: the respondents are contacted by phone to establish a new meeting
  - after the second no show, a third meeting is attempted by phone