

Research Institute for Rehabilitation Technology and Telemedicine To go where no old person has gone before:

value-based design of mobility innovations for aging well

S.T. Boerema^{1,2}, L van Velsen^{1,2}, M.H.M Vollenbroek-Hutten^{1,2}, H.J. Hermens^{1,2}

1. Roessingh Research & Development, Telemedicine group, Enschede, The Netherlands

University of Twente, Faculty of Electrical Engineering, Mathematics and Computer Science, Telemedicine group, Enschede, The Netherlands

BACKGROUND

Due to physical decline, older people become less mobile, while the need to remain independent is higher then ever. In 2030, 1 in 3 elderly will live solitary in the Netherlands. There is a need for new innovations that support individuals in their mobility, while respecting personal values and take tackling barriers.

AIM

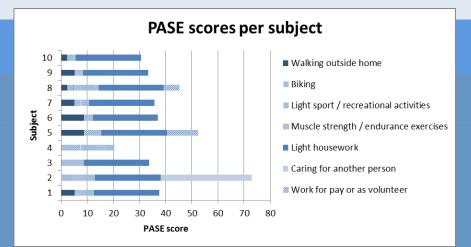
To study personal values of solitary living, community dwelling older adults, and how mobility barriers and facilitators affect their ability to life to their values.

METHOD

- 1. 10 in-depth interviews
 - What makes them happy (values)
 - How they spend your day (activity pattern)
 - Which physical limitations they experience
- 2. Full transcripts
- 3. 10 Mind maps of values, barriers and facilitators
- 4. Brainstorm with designers and care professionals to come to new mobility ideas

DEMOGRAPHICS

- Ten solitary living, community dwelling elderly
- in cities and villages of The Netherlands
- Age: 80.5 ± 8.1
- Very low physical activity score: PASE: 40 ± 13
- · Predominant modes of transport: biking & walking



RESULTS

Values

- > Social interaction
- > Independency
- > Killing time
- > Good physical health

Attributes

- > Doing groceries
- > Hobbies
- > Riding a bike or driving a car

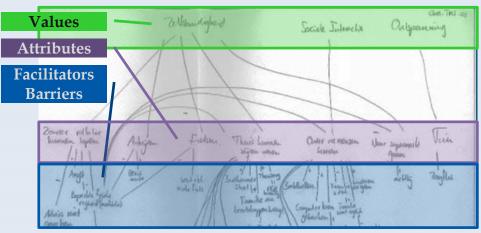


Figure 1. Part of a mind map of one of the subjects. With three levels,.



Figure 2. Concepts resulting from the brainstorm, to be evaluated.

CONCLUSIONS

The value-based approach offers designers a close look into the lives' of the elderly, thereby opening up a wide range of innovation possibilities.

TAKE HOME MESSAGE

No target population is more diverse in their values, barriers, facilitators and capacities then 'the elderly'.







Simone T. Boerema s.boerema@rrd.nl +31 53 487 5737