ISRCTN17170098 https://doi.org/10.1186/ISRCTN17170098

# Neighbourhood active & connected: an integral approach to healthy ageing

**Submission date**
11/10/2022

**Recruitment status**
No longer recruiting

**Registration date**
17/10/2022

**Overall study status**
Completed

**Last Edited**
09/02/2026

**Condition category**
Other

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

## Plain English summary of protocol

Background and study aims
The rapid and double ageing of our global society requires serious attention, as it negatively impacts older adults, their (in)formal caregivers and society as a whole. Significant negative consequences of global ageing are the rising prevalence of chronic diseases and older adults' dependency on care, the substantial decline in physical activity and social connectedness, and the corresponding increase in loneliness. While these problems affect most older adults, those with low socioeconomic status are most vulnerable. The World Health Organisation endorsed this problematic situation. It declared healthy ageing as a major focal point to prevent and decrease ageing-related problems and focus on older adults' strengths and possibilities.

Healthy ageing is multidimensional. It is influenced by socioeconomic, cultural and environmental conditions in which individuals, social networks and organisations are situated. Additionally, it is affected by the personal behaviour of individuals. Given this complexity, an integral approach seems essential and promising to influence this broad range of factors adequately.

This study aims to evaluate the effectiveness of Neighbourhood Active & Connected (NAC): a neighbourhood-oriented integral approach to promote healthy ageing in community-dwelling older adults, focusing on those with a low SES. This evaluation will demonstrate whether an integral approach like NAC, which considers environmental factors and relies on the collaborative effort of the neighbourhood, is successful in improving the health and well-being of older adults with a low SES.

Who can participate?
Older adults aged 65 years and over living in the Dutch municipalities of Bergeijk, Bladel, Eindhoven, Heerlen, and Voerendaal.

What does the study involve?
NAC will be tested in an RCT executed in 10 to 15 neighbourhoods within the abovementioned municipalities. Neighbourhoods will be randomly assigned to the experimental or control group. Both groups will simultaneously complete questionnaires at baseline, after 3 and 6 months. The experimental group receives NAC at the start of the RCT, while the control group is offered an

exercise intervention (Active Plus, part of NAC) after six months. The questionnaires are an amalgamation of several existing and validated surveys, such as the SQUASH, De Jong Gierveld 6-items Loneliness Scale, and the EQ5D.

What are the possible benefits and risks of participating?
NAC will target multiple ageing-related risk factors, facilitate processes and systems in community care surrounding older adults, and aid local stakeholders in reaching a holistic and integral viewpoint. Local stakeholders will consistently treat root causes of (health) problems by activating and coaching older adults whilst being sensitive to their daily realities. There are no risks associated with participating in the intervention for older adults.

Where is the study run from?
The study is conducted by the Department of Health Psychology at the Open Universiteit in Heerlen (the Netherlands). Participants will be recruited in close collaboration with the involved Dutch municipalities.

When is the study starting, and how long is it expected to run for?
October 2022 to January 2024

Who is funding the study?
The study is funded by the Netherlands Organisation for Health Research and Development (ZonMw, project no. 50-55510-98-013). The study protocol was reviewed and approved by ZonMw.

Who is the main contact?
Lieke J.E. Duijsens, lieke.duijsens@ou.nl

# Contact information

### Type(s)
Principal investigator

### Contact name
Prof Catherine Bolman

### ORCID ID
https://orcid.org/0000-0001-9209-6449

### Contact details
Valkenburgerweg 177
Heerlen
Netherlands
6419 AT
+31 455762626
catherine.bolman@ou.nl

### Type(s)
Scientific

### Contact name
Miss Lieke Duijsens

**ORCID ID**
https://orcid.org/0000-0003-3923-0922

**Contact details**
Valkenburgerweg 177
Heerlen
Netherlands
6419 AT
+31 653437241
lieke.duijsens@ou.nl

# Additional identifiers

**Protocol serial number**
50-55510-98-013

# Study information

**Scientific Title**
Healthy ageing in older adults with a low socio-economic position: effectiveness of an integral neighbourhood-oriented approach

**Study objectives**
H1: After participating in Neighbourhood Active & Connected, older adults spend more minutes per week on moderate to vigorous physical activity than before.
H2: Older adults who participated in Neighbourhood Active & Connected report less loneliness than they previously did.
H3: After participating in Neighbourhood Active & Connected, older adults experience improved social cohesion in their community.
H4: Neighbourhood Active & Connected participants use digital media and the internet more frequently following the intervention.
H5: Older adults who participated in Neighbourhood Active & Connected experience a better quality of life than their matched peers who did not participate.
H6: After participating in Neighbourhood Active & Connected, older adults use local activities and support services more.

**Ethics approval required**
Old ethics approval format

**Ethics approval(s)**
Approved 28/11/2022, central ethical review committee of the Open University of the Netherlands (Valkenburgerweg 177, 6419 AT Heerlen, Netherlands; ceto@ou.nl), ref: U202209546

**Primary study design**
Interventional

**Study design**
Interventional blinded randomized controlled trial

### Study type(s)
Quality of life

### Health condition(s) or problem(s) studied
Encouraging healthy ageing in older adults (aged 65 and over) with a low socio-economic status.

### Interventions
Neighbourhood Active & Connected (NAC) will be tested in 10 to 15 (deprived) neighbourhoods spread across five Dutch municipalities. Within each municipality, each participating neighbourhood will be randomly assigned to the experimental group or a waiting list control group by generating random numbers (0 = Control; 1 = Intervention) in Microsoft Excel.

The experimental group receives NAC: a neighbourhood-oriented integral approach to encourage healthy ageing in community-dwelling older adults. We developed NAC last year in consultation with older adults and local stakeholders (i.e. co-creation). The final approach consists of several components: 1) the computer-tailored and proven-effective exercise intervention Active Plus, 2) a booklet with activities and support services in the local neighbourhood, 3) a stamp card that allows older adults to discover local initiatives for free, and 4) a neighbourhood network of stakeholders working together from a shared perspective on healthy ageing. The neighbourhood network informs older adults about local activities and support services, and motivates older adults to visit these initiatives. The total NAC intervention lasts approximately three months.

To test NAC's (short- and long-term) effectiveness, participants fill in a questionnaire at baseline, after 3 and 6 months. The waiting list control group answers the same questionnaires simultaneously and receives the Active Plus physical activity intervention after six months.

### Intervention Type
Behavioural

### Primary outcome(s)
At baseline, after 3 and 6 months:
1. Physical activity assessed with the Short Questionnaire to Assess Heatlh Enhancing Physical Activity (SQUASH).
2. Loneliness assessed by the 6-item De Jong Gierveld Loneliness scale.
3. Social cohesion assessed by the 6-item scale of the Dutch CBS Veiligheidsmonitor (Safety-monitor).
4. Quality of life measured with the EQ5D questionnaire.

### Key secondary outcome(s)
Digital activity and literacy will be assessed by a shortened version of the Dutch CBS questionnaire on internet use and digital skills at baseline, after 3 and 6 months

### Completion date
01/01/2024

## Eligibility

### Key inclusion criteria

1. Participants have to be 65 years or older.
2. Participants have to live independently. (For potential participants living in sheltered housing or group facilities, the situation will be assessed per participant; refer to exclusion criteria).

### Participant type(s)
Healthy volunteer

### Healthy volunteers allowed
No

### Age group
Senior

### Lower age limit
65 Years

### Upper age limit
100 Years

### Sex
All

### Total final enrolment
868

### Key exclusion criteria
1. Having cognitive impairments or disabilities
2. Being unable to leave home independently.
3. Being unable to use public facilities in the neighbourhood independently.
4. Lack of proficiency in the Dutch language (given the intervention material is provided in Dutch).

### Date of first enrolment
01/01/2023

### Date of final enrolment
11/05/2023

## Locations

### Countries of recruitment
Netherlands

### Study participating centre
**Open University**
Valkenburgerweg 177

Heerlen
Netherlands
6419 AT

# Sponsor information

**Organisation**
Netherlands Organisation for Health Research and Development

**ROR**
https://ror.org/01yaj9a77

# Funder(s)

**Funder type**
Government

**Funder Name**
ZonMw

**Alternative Name(s)**
Netherlands Organisation for Health Research and Development

**Funding Body Type**
Private sector organisation

**Funding Body Subtype**
Other non-profit organizations

**Location**
Netherlands

# Results and Publications

**Individual participant data (IPD) sharing plan**
Our products (data, intervention, implementation guideline) will be made available as online source material at the end of our study. The intervention products will be made available through the main project website, while all research data will be stored and made available through DANS Easy. Of course, we are following all ethical and legal regulations, such as the General Data Protection Regulation (GDPR/AVG).

**IPD sharing plan summary**

Stored in publicly available repository

## Study outputs

| Output type | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---|---|---|---|---|---|
| Results article | | 12/12/2025 | 09/02/2026 | Yes | No |
| Study website | | 11/11/2025 | 11/11/2025 | No | Yes |