

The Betula Project - Aging, memory and dementia

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Alternative title

Betula; The Betula cohort stud; The Betula prospective cohort study

Creator/Principal investigator(s)

[Lars Nyberg](#) - Umeå University, Integrative Medical Biology

[Lars-Göran Nilsson](#) - Stockholm University, Department of Psychology

[Rolf Adolfsson](#) - Umeå university, Psyciatry

[Lars Bäckman](#) - Karolinska Institutet, Institutionen för Neurobiologi, Vårdvetenskap och Samhälle

Research principal

[Umeå University](#) - Department of Integrative Medical Biology (IMB)

Principal's reference number

97-173 (§7/870303)

03-484

2013-92-31M

08-132

Description

The Betula Project is a longitudinal study of aging, memory and dementia. Data was collected through six waves between 1988–2014: 1988-1990 (test wave 1); 1993-1995 (test wave 2); 1998-2000 (test wave 3); 2003-2005 (test wave 4); 2008-2010 (test wave 5); 2013-2014 (test wave 6).

For each test wave participants completed a thorough physical examination with blood tests of a nurse and a careful examination of a memory tester. There are data collected from approximately 4,700 participants. On each occasion, data for about 2000 variables were collected for each participant, which includes data on demographics, health, illness, medication, social and cognitive factors.

The Betula project has received funding for research infrastructures (large databases) from the Swedish Research Council. This means a major effort to make the Betula database available to researchers outside the project through collaborations with researchers within the Betula project. To the Betulas database, genetic data and biological samples are also connected.

Purpose:

Study how memory functions change during adult life, to identify risk factors for dementia and to identify early preclinical signs of dementia and determine the critical factors of successful aging.

Data contains personal data

Yes

Sensitive personal data

Yes

Type of personal data

Pseudonymized data

Code key exists

Yes

Language

[English](#)

[Swedish](#)

Unit of analysis

[Individual/Patient](#)

Population

Individuals in agegroups between 25-80 living in Umeå county.

Study design

Observational study

Cohort study

Cohort study: Prospective

Description of study design

The study began with including 1000 randomly selected individuals from the Umeå municipality in the age groups 35, 40, 45, 50, 55, 60, 65, 70, 75 and 80 years. It was 100 in each age cohort, and the gender distribution was similar to the population with about as many men as women in the younger age groups, and about twice as many women as men in the age groups 70 and over. Over the course of the study five more samples was added with varying age span between 25-95 years old.

Sampling procedure

[Probability: Stratified](#)

1000 individuals in age groups 35, 40, 45, 50, 55, 60, 65, 70, 75 and 80 were randomly selected (sample 1, S1). There were 100 individuals in each age cohort, the gender distribution reflected the gender distribution in the population ie about as many men as women in the younger age groups and about twice as many women as men from age group 70 and above (test occasion 1, T1) In T2, five years later, two new samples were added to the group, S2 (ca 1000, age 35-80) and S3 (ca 960, age 40-85). At T3 sample 4 was added (ca 500, age 35-90). At T4, sample 5 was added (ca 500, age 35-95) and at T5 sample 6 was added (ca 350, age 25-80).

Time period(s) investigated

1988 – 2014

Data format / data structure

[Numeric](#)

[Text](#)

Data collection 1

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 1988 – 1990

Data collection 2

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 1993 – 1995

Data collection 3

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 1998 – 2000

Data collection 4

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 2003 – 2005

Data collection 5

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 2008 – 2010

Data collection 6

- Description of the mode of collection: Psychological measurements and tests, physical measurements and tests, and self-administered questionnaires.
- Time period(s) for data collection: 2013 – 2014

Geographic spread

Geographic location: [Sweden](#)

Geographic description: Umeå county

Responsible department/unit

Department of Integrative Medical Biology (IMB)

Funding 1

- Funding agency: Swedish Research Council
- Funding agency's reference number: K2010-61X-21446-01

Funding 2

- Funding agency: Knut and Alice Wallenberg foundation (KAW)

Ethics Review

Umeå - Ref. 97-173 (§7/870303)

Umeå - Ref. 03-484

Umeå - Ref. 2013-92-31M

Umeå - Ref. 08-132

Research area

[Medical and health sciences](#) (Standard för svensk indelning av forskningsämnen 2011)

[Geriatrics](#) (Standard för svensk indelning av forskningsämnen 2011)

[General health and well-being](#) (CESSDA Topic Classification)

Keywords

[Aged](#), [Ageing](#), [Age groups](#), [Activities of daily living](#), [Environment and public health](#), [Diagnosis](#), [Data collection](#), [Dementia](#), [Behavior and behavior mechanisms](#), [Life style](#), [Interview](#), [Medicine](#), [Geriatric nursing](#), [Memory](#), [Longitudinal studies](#), [Population surveillance](#), [Risk factors](#), [Epidemiology](#), [Public health](#), [Genes](#), [Genetics](#), [Genetic markers](#), [Health](#), [Retention, psychology](#), [Heredity](#), [Near- national e-infrastructure for aging research](#)

Publications

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Contact for questions about the data

Mikael Stiernstedt

mikael.stiernstedt@umu.se

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