

Screening Across the Lifespan Twin Study (SALT)

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Associated documentation

Additional_information_SALT.docx (12.11 KB)

Creator/Principal investigator(s)

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Description

The SALT study was initiated in 1998 and is a sub-study of the Swedish Twin Registry (STR) where a complete screening of all twins born 1958 or earlier were included (n=44 919). There are three sub-studies of the SALT study; 1) HARMONY (1998-2003), where SALT participants who were 65 years or above were screened for dementia. All twins who screened positive together with their co-twins, as well as cognitively intact controls went through a clinical examination (n=1 557); 2) TwinGene (2004-2008) where biological samples were collected from a subset of the SALT population (n=12 614); 3) SALT Y (2009-2010), which included another subset of twins from the SALT study who were born between 1943 and 1958 (n=11 372). Data have been collected at three waves over a total of ten years for the older cohort (included in HARMONY) and 12 years for the younger cohort (included in SALT Y).

The purpose of the SALT study was to screen all twins in Sweden born 1958 or earlier for the most common complex diseases, regardless of the status of their twin partner.

- In the SALT study, computer assisted telephone interviews collected information on twin and family status, height, weight, education, occupation, use of alcohol, tobacco, and caffeine, common illnesses, medications, and gender- and age-specific questions. Information about maternal and birth characteristics were also retrieved from the participants' birth records.
- In HARMONY, a cognitive screening was based on the twin's performance on the TELE cognitive screening instrument, which incorporates the ten-item mental status questionnaire (MSQ), two other cognitive domains, and questions about health and daily functioning. For individuals who performed poorly on the TELE, an informant was interviewed with the Blessed Dementia Rating Scale (BDRS), with questions about how much the twin's cognitive status interfered with their daily functioning.
- HARMONY twins suspected of dementia, their co-twins, and a control sample were referred for a clinical workup. This included a complete medical history, including use of prescription and non-prescription medications, as well as the onset and sequence of memory and cognitive symptoms, collected through medical records review and interviews with the participant and an informant. Participants also underwent an assessment conducted by a nurse and a physician, which included a

physical and neurological examination, a neuropsychological assessment, and referral for neuroimaging. Dementia diagnosis, including differential diagnosis, was then set at a multidisciplinary conference.

- The primary aim of the TwinGene project was to enhance the SALT study with biological specimens. Participants were asked to fill out a questionnaire about common diseases and to contact their local healthcare facility for health checkup and blood sample collection.
- In the SALTY project, data collection consisted of an extensive self-reported paper-questionnaire and an internet-based investigation that included questionnaires on musical experience, tendency to experience psychological flow and creative achievement, as well as tests of cognitive and motor performance. In addition, saliva was collected for DNA extraction.

The SALT study was initiated in 1998, with the purpose of screening all twins in Sweden born before 1958 for most common complex diseases, regardless of the status of their twin partner. The extensive interview included questions about illnesses and health, medication use, occupation, education, and lifestyle factors.

For more detailed information

[https://neardb.near-aging.se/search#lists?type=variables&query=study\(in\(Mica_study.id,salt\)\),variable\(limit\(0,20\)\)](https://neardb.near-aging.se/search#lists?type=variables&query=study(in(Mica_study.id,salt)),variable(limit(0,20)))

Data contains personal data

Yes

Sensitive personal data

Yes

Type of personal data

Pseudonymised data

Code key exists

Yes

Language

[English](#)

[Swedish](#)

Unit of analysis

[Family](#)

Population

Swedish twins born 1958 or earlier

Study design

Observational study

Cohort study

Sampling procedure

[Total universe/Complete enumeration](#)

All twins born 1958 or earlier and alive in 1998.

Time period(s) investigated

1998 – 2010

Biobank is connected to the study

The study has collected samples/material which are stored in a scientific collection or biobank

Scientific collection or biobank name: SALT

Type(s) of sample: Blood tests

Variables

2186

Data format / data structure

[Numeric](#)

Data collection 1

- Mode of collection: Interview
- Time period(s) for data collection: 1998-01 – 2002

Data collection 2

- Mode of collection: Measurements and tests
- Time period(s) for data collection: 1998-02 – 2003

Data collection 3

- Mode of collection: Measurements and tests
- Time period(s) for data collection: 2004 – 2008

Data collection 4

- Mode of collection: Measurements and tests
- Time period(s) for data collection: 2009 – 2010

Geographic spread

Geographic location: [Sweden](#)

Responsible department/unit

Department of Medical Epidemiology and Biostatistics

Funding

- Funding agency: The Swedish Research Council
- Funding agency's reference number: 2017-00641; 2021-00180

Ethics Review

Other - Ref. 00-132

Forskningsetikommittén vid Karolinska Institutet

Other - Ref. 97-051 (HARMONY)

Forskningsetikommittén vid Karolinska Institutet

Other - Ref. 96-098

Forskningsetikommittén vid Karolinska Institutet

Research area

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

[Public health, global health, social medicine and epidemiology](#) (Standard för svensk indelning av forskningsämnen 2011)

Keywords

[Human health and safety](#), [Disease](#), [Telephone interview](#), [Near- national e-infrastructure for aging research](#), [Twins](#), [Cohort](#), [Health](#), [Heritability](#)

Publications

Zagai, U., Lichtenstein, P., Pedersen, N., & Magnusson, P. (2019). The Swedish Twin Registry: Content and Management as a Research Infrastructure. *Twin Research and Human Genetics*, 22(6), 672-680. doi:10.1017/thg.2019.99

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Accessibility level

Access to data through an external actor

Access to data is restricted

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<https://ki.se/en/research/swedish-twin-registry-for-researchers>

<https://www.maelstrom-research.org/study/salt>

Contact for questions about the data

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Related research data in SND's catalogue

[Swedish Twin Registry](#)

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