

DESCRIPTION OF THE PRACTICE

1. Title of the practice

- 'SWEDISH NATIONAL STUDY ON AGEING AND CARE (SNAC)' -

2. Organisation responsible for the practice

Municipality of Östersund, Sweden

3. Contact person(s)

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4. Summary of the practice

SNAC is the Swedish national study on Ageing and Care, for which the regions of Skåne, Karolinska Institutet and the municipality of Kungsholmen and Nordanstig are partners. It constitutes an individual-based longitudinal data collection across different sectors, including indicators for ageing, health and social care needs, medical and psychological well-being, as well as on care services that the individual receives from local social services providers. Whilst the study was initiated and is funded by the national government, the selection of sites, the planning and the conduct of the study have been the responsibility of regional research institutes in collaboration with municipalities. Between 2001 and 2012, 10,588 people over the age of 60 participated in the study. A well-functioning care system for older people based on available resources that address the needs of older people in the best possible way requires a good knowledge about these needs and how older people can best benefit from the care provision. SNAC intends to increase this knowledge. The study was initiated by the government in 1998 and is supported equally by the municipalities and counties involved in the study.

The basic idea behind SNAC is a long-term (30 years or more) sectoral individual-based data collection, which describes ageing, health, and the emergence of social care needs from a social, medical and psychological point of view and documents the care that individuals receive at the local regional level. Even data about informal care from family members and NGOs is collected. The data is organised in a longitudinal database.

The purpose of this study is to track individual interventions and care provision in the region over a long time to study how health and social care needs evolve, how well they are covered and what impact a holistic approach can have.

The SNAC study in Kungsholmen looked specifically at the prevalence of disability among 80 to 90-year-olds over a 20-year period and investigates how vascular risk factors affect the rate of cognitive decline in older age. They collected data on whether a person aged 80 to 90 was able to perform basic activities of daily living, such as bathing, getting dressed, eating, moving from bed to chair and going to the toilet, without assistance.

5. National/regional/local context of the practice

Every region and municipality in Sweden has a responsibility by law to promote active ageing (early interventions). There are, however, no national or regional finance mechanisms to support this work. The benefits for service users and for society are clear. Therefore, it is important to know more about ageing and care in order to better understand how early interventions can be developed and to strengthen the case for financial support.

6. Staff involved

Several research centres participate in the work, each with its constituent projects:

SNAC-Blekinge

Blekinge Institute of Blekinge Competence. Collaboration takes place with Blekinge Institute of Technology, Blekinge County Council, and the Universities of Lund, Växjö and Kristianstad.

SNAC - Kungsholmen

Stockholm Gerontology Research Centre. Work is conducted in conjunction with the Ageing Research Center (ARC).

SNAC - Nordanstig

Nordanstig's Primary Care R&D unit has been responsible for the SNAC project in Nordanstig. The project is implemented in cooperation with Nordanstig and Gävleborg County Council.

SNAC- SKÅNE

In Skåne, the sub-project "Good ageing in Skåne" samples data from people aged 60 years and older living in Malmö, Eslöv, Hässleholm, Osby and Ystad.

7. Target group

This ongoing study focuses on a large number of people who are 60 years and older in three different parts of Sweden. Over 60 different aspects of ageing and care are studied by researchers.

8. Aims of the practice

The basic idea behind the SNAC is long-term (30 years or more) sectoral individual-based data collection, which partly describes ageing, health, and the emergence of social care needs from a social, medical, and psychological point of view, and documents the provision that individuals receive from municipal care and county health care. The aim is to use this data for planning purposes, to evaluate existing services and prevention programmes and to improve knowledge about the enablers of active ageing.

Knowledge is vitally important – and that is what SNAC is aiming to provide. When we know what works well, we can try different approaches/interventions and allocate resources to these services.

9. Issues for social services

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|---|----------|-------------------------|----------|--------------------|--|
| Service Integration/ Cooperation across services | x | Service Planning | x | Contracting | |
|---|----------|-------------------------|----------|--------------------|--|

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|-------------------------------|---|---------------------------------------|--|---------------------|---|
| Technology | | Skills development (of the workforce) | | Quality of services | x |
| Prevention and rehabilitation | x | Participation of users | | | |

ANALYSIS OF THE PRACTICE

10. Status

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|----------------------------|--|----------------------|--|---|---|
| Pilot project (ongoing) | | Project (ongoing) | | Implemented practice (restricted areas) | |
| Pilot project (terminated) | | Project (terminated) | | Widely spread practice/rolled out | x |

11. Scope of the practice

Describe the setting of the practice, considering the following criteria:

- *Micro-level practice:* a practice that involves individuals at the local level
- *Meso level practice:* a practice that involves organisations or communities

- *Macro level practice:* a practice that involves large population groups

A macro-level initiative involving large groups of older people across Sweden.

12. Leadership and management of the practice

Description of the leadership of the practice, considering the following criteria:

- *Collaborative management:* shared between large partnerships, often of central, regional, and local representation
- *Organisational management:* by one organisation
- *Professional management:* managed by a single person
- *Shared management:* shared with no defined leadership

Collaborative management: Since the beginning, SNAC was a national initiative from the Swedish government. The national government has been funding the research but has not been involved in selecting the sites.

13. Engaging stakeholders in the practice

Description of the engagement of stakeholders, considering the following criteria:

- *Individual practice:* individuals have sought practice change
- *Network approach:* one or more organisations develop a network
- *Collaborative approach:* large collaboration with relevant stakeholders

Collaborative approach: the research is a large collaboration of the national government, research institutions and municipalities.

Volunteers: Research participants are essentially volunteers in the study. SNAC follows a large selection of the population who are 60 years and older over time. One part of the study relates in particular to providing information about the significance of past and current living conditions, lifestyle and personality for the health and well-being of older people. The data is collected by examinations, surveys, and interviews that are repeated every few years. Changes over time in several personal characteristics are documented: ill health, functional ability, mental condition, perceived quality of life, social relationships and contact with the health and social care system.

14. Involvement of service users and their families

Description of the involvement of service users, considering the following criteria:

- *Team involvement: service users and carers were part of the practice team*
- *Consultative: a consultative body of users was set up for an ongoing dialogue and feedback • Involvement in care: person-centred approaches to care/support*

Service users have participated in the study as volunteers providing information about their health, their lives and the care services they use.

15. Costs and resources needed for implementation

Description of how the practice is financed, considering the following criteria:

- *Within existing resources: staff time and other resources are provided 'in-house'*
- *Staffing costs: costs for staff investment*
- *Joint/Pooled budgets: two or more agencies pool budgets to fund services • Funded project: external investment*

Funded project: SNAC is financed by the government together with the institutions mentioned above.

The SNAC study is a valuable resource in itself as it provides a wealth of information for researchers and stakeholders in the area of ageing and care.

16. Evaluation approaches

Description of the evaluation method of the practice, considering the following criteria:

- *Multi-method: use of both a qualitative and a quantitative approach*
- *Single method: a qualitative or quantitative approach*
- *Audit: looks at data sources such as existing medical records and/or other routinely collected service data.*
- *Informal: refers to in-house service evaluation using locally designed tools and/or collecting opportunistic feedback*
- *No evaluation*
- *An evaluation is planned*

Multi-method: The data is collected through examinations, surveys and interviews that are repeated every few years. ○ Surveys to capture the individual's subjective perception of their quality of life, health, and disabilities.

- Examinations where the participants meet a nurse, a doctor, and a psychologist. The nurses collect social and demographic data, assess exercise capacity, take blood samples, and measure height and weight. The medical examination is a comprehensive clinical, neurological, and psychiatric examination.
- Neuropsychological tests conducted by psychologists assess cognitive abilities.
- Interviews with the person and, if necessary additional interviews with a relative or related person, provided that the participant gives his/her consent. The estimated time for the nursing interview and physical examination is about four hours. The person is then asked back for the cognitive survey, which takes about two hours.

Data collection is organised by a coordinating nurse. The nurses work in two teams, with a doctor, a nurse, and a psychologist in each team. Finally, the "National Quality Register" uses tools like the Senior Alert (which assesses the risk of malnutrition, falls and pressure ulcers), "BPSD" ([behavioural and psychological symptoms of dementia](#)) and "[Rikssår](#)" (National Register supporting the development of wound care in Sweden) is used to complete the picture.

Data analysis

The data is analysed by:

44 PhD students

20 doctoral researchers

Approximately 4,500 data items are recorded per person in the population section and 200 in the health care system part per survey round.

10,588 people have been included between 2001-2012, and 20,205 surveys have been conducted, which provided about 100 million data entries.

17. Measurable effects of the practice and what it has achieved for...

Service users

Regarding the prevalence of disability among 80- and 90-year-olds over a 20-year period:

SNAC looked at the change in the prevalence of disability among 80- and 90-year-olds over a 20-year period and compares this with findings from the previous [Kungsholmen project](#), which was a longitudinal population-based study on ageing and dementia running from 1987 to 1999.

The study focused on whether a person can perform basic activities of daily living without assistance, such as bathing, dressing, eating, moving from the bed to a chair and going to the toilet.

It also examined the life expectancy of people with and without disabilities. The proportion of people in their 80s with disabilities remained largely unchanged during the last two decades, while for people in their 90s, the proportion with disabilities declined.

People in their 80s without disabilities lived 1.3 years longer today than 20 years ago, but for people with a disability, mortality was unchanged.

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| | <p>People in their 90s without disabilities had lower mortality than people in their 80s with disabilities.</p> <p>The results of this study suggest that the reduction in mortality during the last two decades is reflected in improved functional abilities.</p> <p>The SNAC researcher Sara Angleman summarised “We live longer and feel better.”</p> <p>Regarding vascular risk factors affecting the brain and the rate of cognitive decline in older age:</p> <p>One of the most recently presented results is a sample from SNAC (Kungsholmen), which uses magnetic resonance imaging scan (MRI) to investigate whether vascular risk factors affect the brain and the rate of cognitive decline in older age. The results showed that high blood pressure, diabetes, smoking and heavy alcohol consumption, especially when they occur simultaneously, lead to a faster decline of cognitive abilities.</p> <p>Research shows that prevention and control of vascular risk factors among older adults can keep the brain young and postpone cognitive decline which suggests that adequate and early information about the risks connected to our eating and drinking habits is important.</p> |
| Formal care givers | <p>This study shows that it is important to support our older generation to retain their ability to do basic activities of daily living without assistance. This knowledge is important for formal and informal caregivers as well as organisations providing care.</p> <p>For formal care givers and organisations it is important to see and inform the individuals with higher risk as early as possible. It is, however, too early to say what specific approaches/initiatives work best.</p> |
| Informal carers | <p>This study shows that it is important to support our older generation to retain their ability to do basic activities of daily living without assistance. This knowledge is important for formal and informal caregivers as well as organisations providing care.</p> |
| Organisations | <p>For formal care givers and organisations, it is important to see and inform the individuals with higher risk as early as possible. It is, however, too early to say what specific approaches/initiatives work best.</p> |
| Other | n. a. |
| <p>18. Anticipated or ‘aspirational’ effects of the practice and what it has achieved for...</p> <p><i>This category can include outcomes which are not documented, quantified or properly evaluated. They can include such elements as improved knowledge, quality, workforce, etc.</i></p> | |
| Service users | n. a. |
| Formal care givers | n. a. |
| Informal carers | n. a. |
| Organisations | n. a. |

| | |
|---|-------|
| Other | n. a. |
| 19. How the practice has changed the way the service is provided (lessons learned) | |
| The SNAC study has been used to evaluate the effectiveness of interventions and care. | |

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| <p>20. Sustainability of the practice</p> <p><i>Description of whether the practice is sustainable, considering the following criteria:</i></p> <ul style="list-style-type: none"> • <i>Potential for sustainability:</i> practice was newly started or is on-going/not yet mainstreamed. How could the practice be sustained (in terms of resources)? • <i>Organic sustainability:</i> service users have been empowered to take the practice forward • <i>Established:</i> the project has been operational for several years |
| <p>Established: SNAC receives continued funding from the national government and has been running for 18 years and is planned to run long-term.</p> |
| <p>21. Transferability of the practice</p> <p><i>Description of whether the practice has been transferred, considering the following criteria:</i></p> <ul style="list-style-type: none"> • <i>Transferred:</i> transfer to other regions, countries, service user groups, etc. • <i>Potential for transferability:</i> there is interest from the outside; elements of the practice have been taken up and used elsewhere; material for transferability (for ex. training material) has been developed |
| <p>Transferred: Over a 20-year period, the study has extended to the municipalities of Odense, Frederica (DK) and Östersund, among others. In 2015 the study was extended to the areas of food and social inclusion, and in 2016 the focus will be on alcohol.</p> <p>Potential for transferability:</p> <p>Regarding the prevalence of disability among 80- and 90-year-olds over a 20-year period:</p> <p>The municipalities of Örebro, Östersund, Falun and Torsby are now collaborating with SALAR (Swedish Association of Local Authorities and Regions) and the municipality of Odense. The aim is to disseminate the knowledge about the importance of rehabilitative work gathered through SNAC and other studies on rehabilitation.</p> <p>Regarding vascular risk factors affecting the brain and the rate of cognitive decline in older age: Our aim is to implement this knowledge in our own municipality in Östersund.</p> |
| <p>22. Further information</p> |

Three other results from the SNAC-study:

- 1) It is well known that people who are physically active in their leisure time have a reduced risk of developing disabilities as they age. In contrast, we know less about how physical activity at work can affect health later in life.
A study from SNAC Kungsholmen investigated the relationship between physical activity at work and disability in old age. The results showed that moderate physical activity in professional life, such as being mobile at regular intervals, particularly if you are desk-bound – frequently rising from the chair, taking a long walk to the photocopier etc. reduced the risk of suffering from disability later on. (This association was only observed for white-collar workers, not for blue-collar workers.)
The results show the importance of encouraging office workers to participate in physical activity during or outside working hours.
- 2) Using data from the SNAC-B (Blekinge) study, Amanda Hellström described in "Insomnia symptoms in older people" that various activities during daytime can help improve sleep for older people. Socially and intellectually challenging activities such as chess or card games were highlighted as particularly good for sleep.
It was also found that the performance of home repairs and maintenance activities seemed to have a greater positive effect on sleep for women than for men. This finding is difficult to interpret but could indicate that women are positively challenged by tasks that are traditionally performed by men.
- 3) Healthy habits have positive effects on people over 75 years of age who have some

genetic risk factors or a chronic disease. A [study by Debora Rizzuto](#), which draws on data from the SNAC-K study, investigated what factors make some people live longer than expected and whether any of these factors can be influenced. The results showed that a healthy lifestyle and a rich social network can help to live a longer, healthier life. The most important single factor was physical activity. A healthy lifestyle can also have positive effects on those who have an increased genetic risk. The message from the study is clear: It is never too late to invest in a healthy lifestyle.