

# The Northern Sweden MONICA Study: Myocardial Infarction Registry

**SND-ID:** ext0042-7.

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## **Creator/Principal investigator(s)**

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## **Research principal**

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## **Description**

The Northern Sweden MONICA Study started with the WHO MONICA Study in 1985. The purpose was to monitor trends in mortality and morbidity in cardiovascular disease and relate them to trends in risk factors. Since 1985 21,000 strictly validated stroke events and 18,000 myocardial infarctions have been included in two registers. During the same period, six population based surveys have been taking place, the latest in 2009. The participation rates have been 69-81%. Subjects donated samples to the Northern Sweden Biobank. After 25 years since the start of the study, participants are starting to suffer from stroke, infarctions and diabetes in a rapidly increasing rate. We have successfully matched the event registers with population survey data, thereby creating a cost-effective prospective study design for MI, stroke and diabetes. Data from the three data bases has been used in more than 85 original studies and 14 dissertations since 2007. Increasingly other fields have been explored such as infectious diseases, nutrition and environmental toxins.

Purpose:

To study cardiovascular risk factors in the population and the incidence of myocardial infarction and stroke after strict validation.

Everyone who had a verified myocardial infarction in Norrbotten and Västerbotten in 1985. In 1985-1999 25-64 years-old were included, after that 25-74 years-old.

## **Unit of analysis**

[Individual](#)

## **Population**

25-74 years old

## **Time Method**

[Longitudinal: Cohort/Event-based](#)

## **Sampling procedure**

[Probability: Stratified](#)

**Time period(s) investigated**

1985 - Ongoing

**Number of individuals/objects**

18000

**Data format / data structure**

[Numeric](#)

**Geographic spread**

Geographic location: [Sweden](#)

Geographic description: Norrbotten and Västerbotten Counties

**Lowest geographic unit**

County (NUTS3)

**Responsible department/unit**

Department of Public Health and Clinical Medicine

**Research area**

[Social and clinical pharmacy](#) (Standard för svensk indelning av forskningsämnen 2011)

[Endocrinology and diabetes](#) (Standard för svensk indelning av forskningsämnen 2011)

[Cardiac and cardiovascular systems](#) (Standard för svensk indelning av forskningsämnen 2011)

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

[Health](#) (CESSDA Topic Classification)

**Keywords**

[Blood pressure](#), [Epidemiologic studies](#), [Cohort studies](#), [Medicine](#), [Exercise](#), [Socioeconomic factors](#), [Emotions](#), [Risk factors](#), [Myocardial infarction](#), [Stroke](#), [Work](#), [Workload](#), [Fractures, bone](#), [Chest pain](#), [Marital status](#), [Diabetes mellitus](#), [Leisure activities](#), [Cardiovascular diseases](#), [Health status](#), [Hypertension](#), [Coffee](#), [Cholesterol](#), [Lung diseases](#), [Smoking](#), [Pain](#), [Tobacco, smokeless](#), [Social support](#), [Tobacco](#), [Education](#), [Quality of life](#), [Dairy products](#), [Feeding behavior](#), [Food](#), [Unemployment](#), [Sedentary behavior](#), [Diabetes](#), [Emotional support](#), [Swedish cohort consortium \(scc\)](#), [Swedish diet cohort consortium \(sdcc\)](#), [Sdccc](#), [Cohorts.se](#)

**Publications**

Eliasson M, Jansson JH, Lundblad D, Näslund U. The disparity between long-term survival in patients with and without diabetes following a first myocardial infarction did not change between 1989 and 2006: an analysis of 6,776 patients in the Northern Sweden MONICA Study. *Diabetologia*. 2011 Oct;54(10):2538-43. Epub 2011 Jul 21.

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Lilja M, Rolandsson O, Shaw JE, Pavuvaday V, Cameron AJ, Tuomilehto J, Alberti KG, Zimmet PZ, Soderberg S. Higher leptin levels in Asian Indians than Creoles and Europeans: a potential explanation for increased metabolic risk. *Int J Obes (Lond).* 2010 Feb 2.

Alsema M, Vistisen D, Heymans MW, Nijpels G, Glumer C, Zimmet PZ, Shaw JE, Eliasson M, Stehouwer CD, Tabak AG, Colagiuri S, Borch-Johnsen K, Dekker JM. The Evaluation of Screening and Early Detection Strategies for Type 2 Diabetes and Impaired Glucose Tolerance (DETECT-2) update of the Finnish diabetes risk score for prediction of incident type 2 diabetes. *Diabetologia.* 2010 Dec 12.

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Janunger T, Nilsson-Ardnor S, Wiklund PG, Lindgren P, Escher SA, Lackovic K, Nilsson AK, Stegmayr B, Asplund K, Holmberg D. A novel stroke locus identified in a northern Sweden pedigree: linkage to chromosome 9q31-33. *Neurology.* 2009 Nov 24;73(21):1767-73.

Lundblad D, Holmgren L, Jansson JH, Naslund U, Eliasson M. Gender differences in trends of acute myocardial infarction events: the Northern Sweden MONICA study 1985 - 2004. *BMC Cardiovasc Disord.* 2008;8:17.

Lilja M, Eliasson M, Stegmayr B, Olsson T, Soderberg S. Trends in obesity and its distribution: data from the Northern Sweden MONICA Survey, 1986-2004. *Obesity (Silver Spring).* 2008 May;16(5):1120-8.

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### **Accessibility level**

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### **Contact for questions about the data**

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### **Related research data in SND's catalogue**

[The MONICA survey in Gothenburg 1985](#)

[The MONICA survey in Gothenburg 1990](#)

[The MONICA survey in Gothenburg 1995](#)

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[The Northern Sweden MONICA Study 1994](#)

[The Northern Sweden MONICA Study 1999](#)

[The Northern Sweden MONICA Study 2004](#)

[The Northern Sweden MONICA Study 2009](#)

[The Northern Sweden MONICA Study: Stroke Registry](#)

[Northern Sweden Diet Database \(NSDD\)](#)

[The Northern Sweden MONICA Study 2014](#)

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