

# Umeå SIMSAM Lab: A register-based research program connecting childhood with lifelong health and welfare

**SND-ID:** ext0282-1.

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

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## **Research principal**

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## **Description**

The Umeå SIMSAM Lab in a nutshell:

1) The Lab was established for interdisciplinary research from childhood into lifelong health and welfare. It provides individual-level data on an entire nation's population, covering demography, socioeconomics and health, otherwise rarely accessible to the research community.

2) Initiated in 2008 and launched in 2014, the Lab hosts comprehensive prospectively collected individual-level data on all 14.9 million individuals in Sweden between 1960 and 2010, including intergenerational links and geographical coordinates. The foundation is data from national registers at Statistics Sweden, rich in demography and socioeconomics. Health data come from national registers such as the Medical Birth Register, the Patient Register, the Prescribed Drug Register and the Celiac Disease Register. Regionally data have been enriched by systematic and long-term initiatives involving data collection on weight/height, lifestyle habits, self-rated health, injuries etc. Each person has a unique serial number that allows linkage on individual level from all data sources.

3) The combination of longitudinal and individual-level demographic, socioeconomic and health data provides unprecedented research opportunities. In addition, social relations within family, workplace and neighbourhood can be depicted as intergenerational links, and geographical coordinates are available.

4) Researchers are welcomed to make contact for collaborative projects. Contact information and details on data access are also available on: [[www.simsam.org.umu.se](http://www.simsam.org.umu.se)].

Purpose:

We aim:

(1) to increase knowledge of social and environmental factors that are of importance to health and welfare during childhood and life as it continues, e.g. regarding family changes, exchanges between generations and geographical mobility.

(2) to increase knowledge of several childhood diseases (and injuries) considering the contribution of the social and economic context

(3) i) monitor the health and lifestyle of children from foetal life to adolescence, and identify any changes over time; ii) perform aetiological studies to increase the understanding of child-health determinants from a family and neighbourhood perspective; and iii) evaluate the Salut programme with respect to any changes in lifestyle, health and educational outcomes in the short and long term. (4) to develop modern statistical methods for microdata research, primarily in order to perform aetiological studies with a life course perspective, and to assess complex interventions.

### **Unit of analysis**

[Household](#)

[Geographic unit](#)

[Individual](#)

[Family](#)

[Event/Process/Activity](#)

[Time unit](#)

### **Population**

Entire Swedish population between 1960 and 2010

### **Time Method**

[Longitudinal](#)

### **Sampling procedure**

[Total universe/Complete enumeration](#)

Record linkage of health and socioeconomic registers together with data from population wide health intervention programs

### **Time period(s) investigated**

1960 - 2010

### **Data format / data structure**

[Numeric](#)

### **Data collection 1**

- Time period(s) for data collection: 1960-01-01 - 2010-12-31
- Source of the data: Registers/Records/Accounts

### **Geographic spread**

Geographic location: [Sweden](#)

### **Responsible department/unit**

Department of Epidemiology and Global Health

### **Funding**

- Funding agency: Swedish Research Council

### **Ethics Review**

Umeå - Ref. 2010-157-31Ö

Umeå - Ref. 2014-185-32Ö

## **Research area**

[Education](#) (CESSDA Topic Classification)

[Social stratification and groupings](#) (CESSDA Topic Classification)

[Society and culture](#) (CESSDA Topic Classification)

[Migration](#) (CESSDA Topic Classification)

[Employment](#) (CESSDA Topic Classification)

[Unemployment](#) (CESSDA Topic Classification)

[Children](#) (CESSDA Topic Classification)

[Youth](#) (CESSDA Topic Classification)

[Social welfare policy](#) (CESSDA Topic Classification)

[Compulsory and pre-school education](#) (CESSDA Topic Classification)

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

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

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

[Demography \(population, vital statistics, and censuses\)](#) (CESSDA Topic Classification)

[Economics](#) (CESSDA Topic Classification)

[Health](#) (CESSDA Topic Classification)

[Income, property and investment/saving](#) (CESSDA Topic Classification)

[Higher and further education](#) (CESSDA Topic Classification)

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

[Health care services and policies](#) (CESSDA Topic Classification)

[Medication and treatment](#) (CESSDA Topic Classification)

[Diet and nutrition](#) (CESSDA Topic Classification)

[Specific diseases, disorders and medical conditions](#) (CESSDA Topic Classification)

[Wounds and injuries](#) (CESSDA Topic Classification)

[Language and linguistics](#) (CESSDA Topic Classification)

[Equality, inequality and social exclusion](#) (CESSDA Topic Classification)

[Family life and marriage](#) (CESSDA Topic Classification)

[Gender and gender roles](#) (CESSDA Topic Classification)

[Minorities](#) (CESSDA Topic Classification)

[Social and occupational mobility](#) (CESSDA Topic Classification)

[Media, communication and language](#) (CESSDA Topic Classification)

[Labour and employment](#) (CESSDA Topic Classification)

[Social conditions and indicators](#) (CESSDA Topic Classification)

[Social welfare policy and systems](#) (CESSDA Topic Classification)

[Censuses](#) (CESSDA Topic Classification)

[Economic conditions and indicators](#) (CESSDA Topic Classification)

[Labour and employment policy](#) (CESSDA Topic Classification)

[Public health](#) (CESSDA Topic Classification)

## Keywords

[Health](#), [Census data](#), [Demography](#), [Socioeconomic factors](#), [Child](#), [Registries](#), [Longitudinal research](#), [National register](#)

## Publications

Chaparro MP, de Luna X, Häggström J et al. Childhood family structure and women's adult overweight risk: A longitudinal study. *Scandinavian Journal of Public Health*, 2017; 45 (5) : 511-519. DOI: 10.1177/1403494817705997

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[BMJ Journals](#)

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**DOI:** <https://doi.org/10.1136/bmjopen-2015-010004>

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[European Journal of Public Health](#)

**DOI:** <https://doi.org/10.1093/eurpub/ckw186>

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Holowko N, Chaparro MP, Nilsson K et al. Social inequality in pre-pregnancy BMI and gestational

weight gain in the first and second pregnancy among women in Sweden. *Journal of Epidemiology and Community Health* 2015; 69 (12) : 1154-1161. DOI:10.1136/jech-2015-205598

[NCBI](#)

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Urban Lindgren, Karina Nilsson, Xavier de Luna, Anneli Ivarsson; Data Resource Profile: Swedish Microdata Research from Childhood into Lifelong Health and Welfare (Umeå SIMSAM Lab), *International Journal of Epidemiology*, Volume 45, Issue 4, 1 August 2016, Pages 1075-1075g,

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[SAGE journals](#)

**DOI:** <https://doi.org/10.1177/1403494815579478>

Mosquera PA, San Sebastian M, Waenerlund AK et al. Income-related inequalities in cardiovascular disease from mid-life to old age in a Northern Swedish cohort: a decomposition analysis. *Social Science and Medicine*, 2016; 149 : 135-144. DOI: 10.1016/j.socscimed.2015.12.017

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**DOI:** <https://doi.org/10.1080/1088937X.2016.1148794>

**Link to publication list:**

## [Publication list at SIMSAM](#)

If you have published anything based on these data, [please notify us](#) with a reference to your publication(s). If you are responsible for the catalogue entry, you can update the metadata/data description in DORIS.

### **Polygon (Lon/Lat)**

10.986722, 69.0625

10.986722, 55.337112

24.163279, 55.337112

24.163279, 69.0625

10.986722, 69.0625

### **Accessibility level**

Access to data through an external actor

Access to data is restricted

### **Homepage**

[SIMSAM Lab](#)

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

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