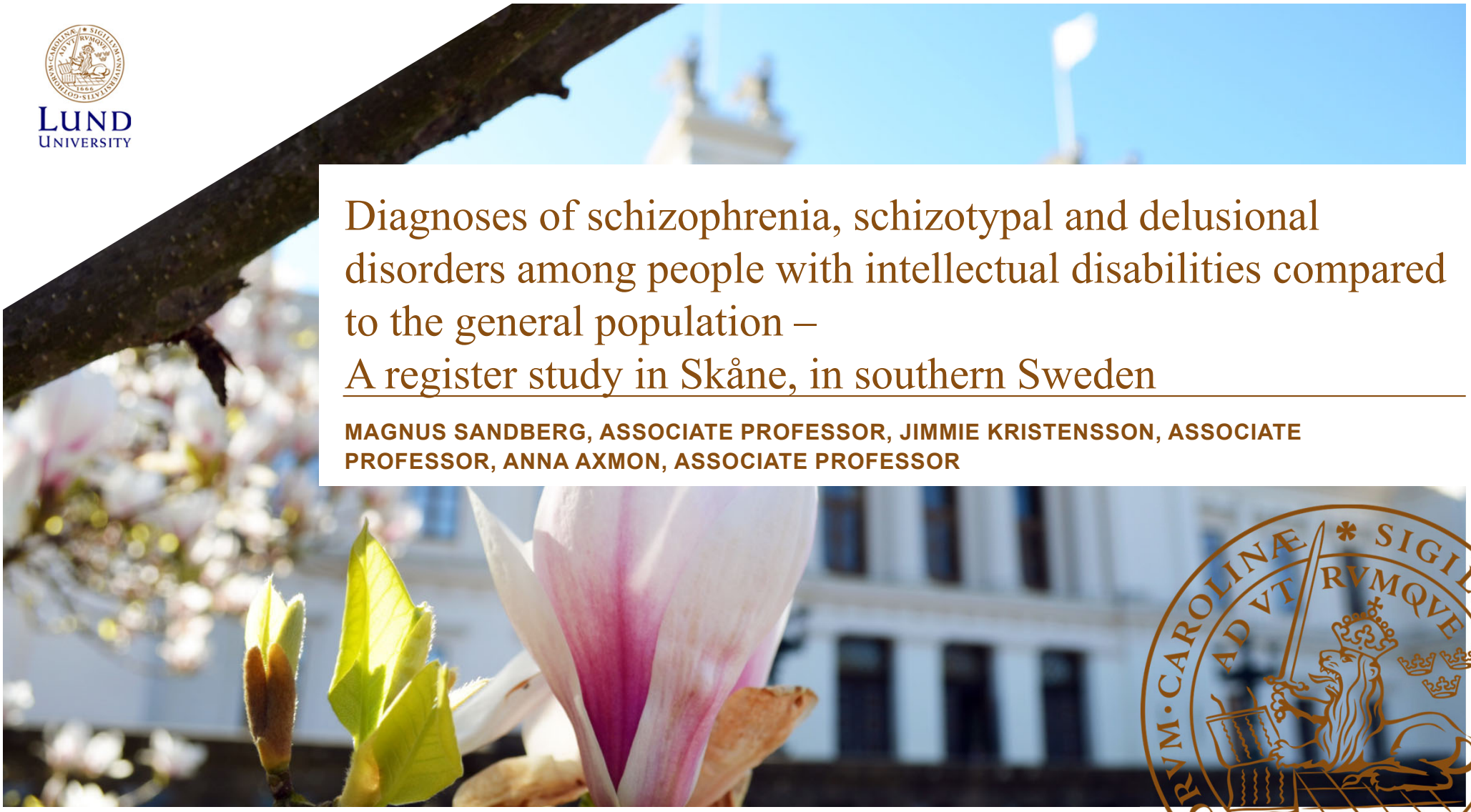


Diagnoses of schizophrenia, schizotypal and delusional disorders among people with intellectual disabilities compared to the general population – A register study in Skåne, in southern Sweden

MAGNUS SANDBERG, ASSOCIATE PROFESSOR, JIMMIE KRISTENSSON, ASSOCIATE PROFESSOR, ANNA AXMON, ASSOCIATE PROFESSOR

Disclosure

- I/we have no conflicts of interest to report

Rationale for this study

- Increased life expectancy, both in the general population and in people with intellectual disabilities (ID)
- Few comprehensive studies, usually small sample sizes, cross-sectional, and/or without control group
- Few studies taking socioeconomic factors into account
- In a previous national project, there were some limitations:
  - No primary care data included
  - Possible selection bias
  - 1:1 matching
  - No socioeconomic variables
  - Only “older” people

Three acts related to health care and services

- the **LSS-Act** for support and service for certain disability (for all ages, municipalities' responsibility)
- the **Health and Medical Services Act** (for all ages, county councils’ responsibility)
- the **Social Services Act** (for persons 65 years old or above, municipalities' responsibility)

Support and services according to LSS

- Counselling and other personal support
- Personal assistance
- Companion service
- Contact person
- Relief service in the home
- Short stay away from home
- Daily activities
- Residence with special services for adults or other specially adapted housing
- Short period of supervision for schoolchildren over the age of 12
- Living arrangements in a family home or in a residence with special services for children and adolescents

Aim

- The aim of this study is to compare diagnoses of schizophrenia, schizotypal and delusional disorders among people with ID compared to the general population accounting for demographic factors.

Sweden

- Population of ~10 million
- ~1600 km from north to south
- 20 different counties
- Welfare state – health care and services funded mostly by taxes

County of Skåne

- Population of ~1,2 million
- ~140 km from north to south
- Rural and urban areas
- 13 cities

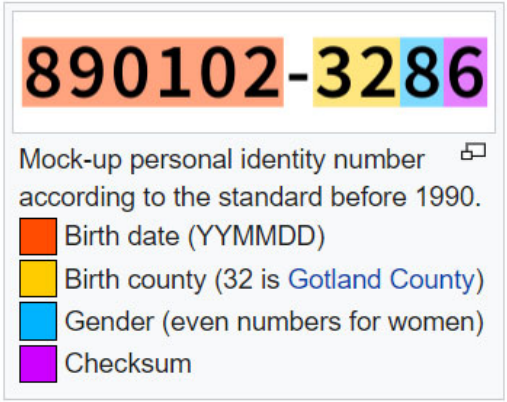
Registries used in this study

- **Skåne health care register - SHR:** Includes all visits to primary care, outpatient specialists, inpatient hospital care, and diagnoses.
- **LSS Register:** Includes for instance information about the services provided, the amount of services, what municipality provided the services. Also includes a three-group classification of the impairment of the receiver, where one is "*developmental disorder, autism or autism-like condition*".
- **Swedish total population register - TPR:** Vital data. Includes place of residence, own and parent origin, age, gender, and vital events.

Linking of data

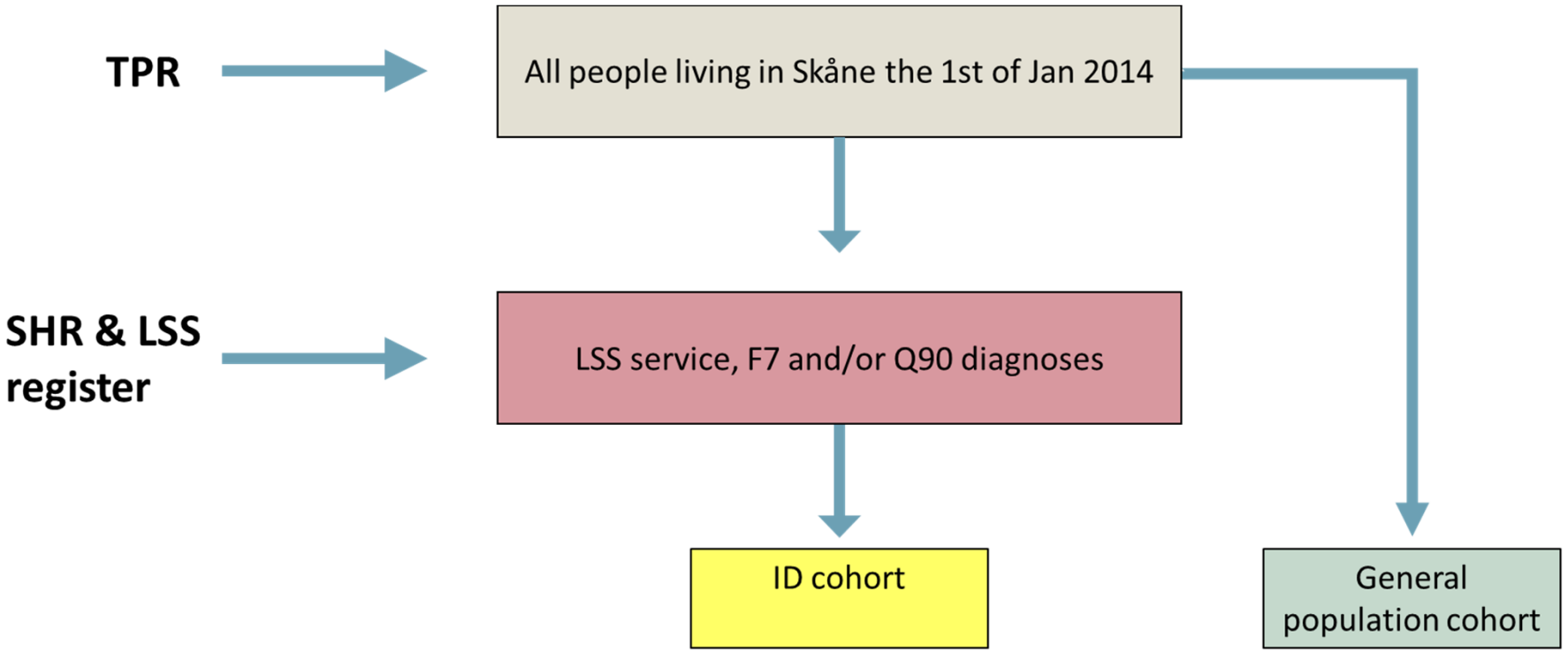
- Everyone who is registered as a resident in Sweden receives a personal identity number as an identifier
- Number based of date of birth and four additional numbers
- Same number whole life
- Used for communication between government authorities, private companies, other organizations, and citizens.

Example

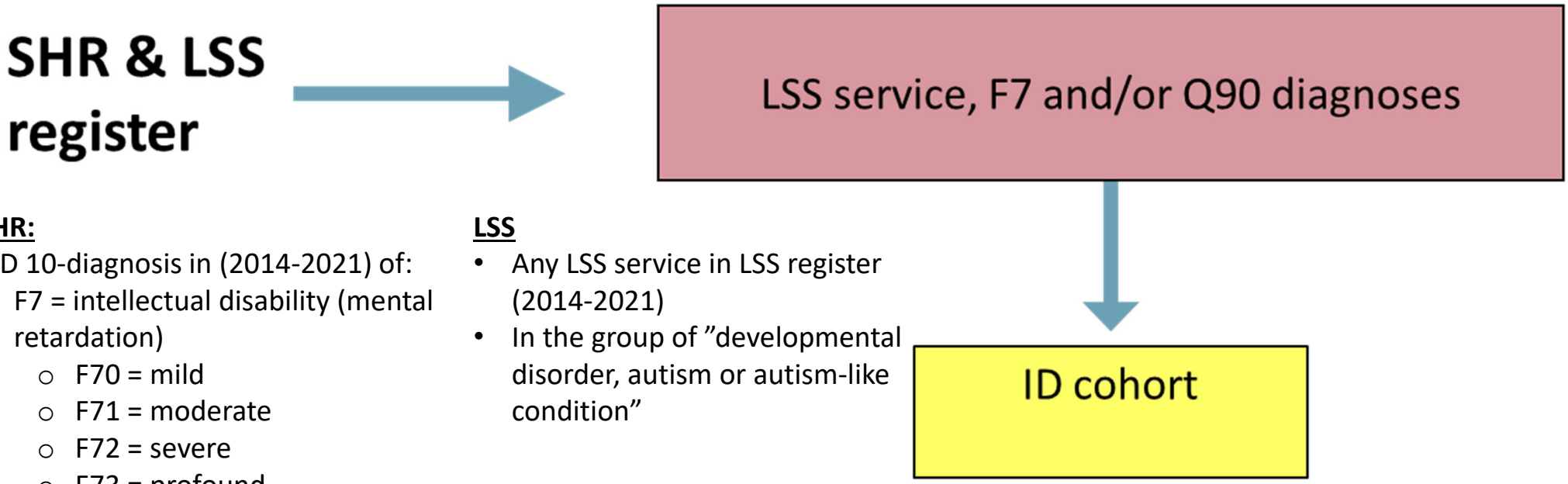


https://en.wikipedia.org/wiki/Personal_identity_number_(Sweden)

Study cohorts



Study cohorts



SHR:

ICD 10-diagnosis in (2014-2021) of:

- F7 = intellectual disability (mental retardation)
  - F70 = mild
  - F71 = moderate
  - F72 = severe
  - F73 = profound
  - F78 = other
  - F79 = unspecified
- Q90 = Down syndrome

LSS

- Any LSS service in LSS register (2014-2021)
- In the group of ”developmental disorder, autism or autism-like condition”

Study cohorts

ID cohort

- Included n= 14 715
- 40 % women (n = 5938)

General population cohort

- Included n = 1 258 644
- 51 % women (n = 636 064)

Study cohorts

		GenPop	ID
Children/adolescents (1996-2014)	Men	129 696	3 623
	Women	124 450	2 014
	Total	254 146	5 637
Adults (1950-1995)	Men	375 107	4 735
	Women	370 963	3 577
	Total	746 070	8 312
Older people (before 1950)	Men	117 777	419
	Women	140 651	347
	Total	258 428	766

Outcomes

F2-diagnoses:

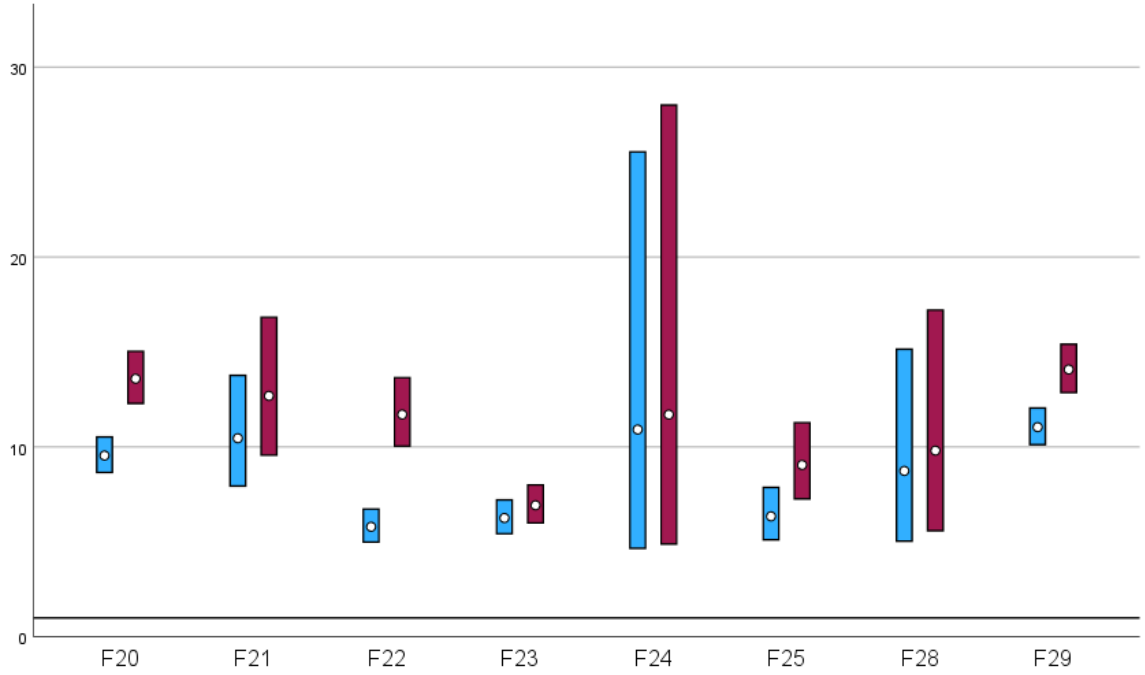
- Schizophrenia (F20)
- Schizotypal disorder (F21)
- Persistent delusional disorders (F22)
- Acute and transient psychotic disorders (F23)
- Induced delusional disorder (F24)
- Schizoaffective disorders (F25)
- Other nonorganic psychotic disorders (F28)
- Unspecified nonorganic psychosis (F29)

Registered at least once in any medical record 2014-2021

Results (1/3) - Prevalence

	GenPop cohort, %(n)	ID cohort, % (n)
Schizophrenia (F20)	0.3 (4022)	3.1 (449)
Schizotypal disorder (F21)	0.0 (466)	0.4 (57)
Persistent delusional disorders (F22)	0.2 (2714)	1.3 (184)
Acute and transient psychotic disorders (F23)	0.2 (2814)	1.4 (206)
Induced delusional disorder (F24)	0.0 (47)	0.0 (6)
Schizoaffective disorders(F25)	0.1 (1199)	0.6 (89)
Other nonorganic psychotic disorders (F28)	0.0 (137)	0.1 (14)
Unspecified nonorganic psychosis (F29)	0.4 (4406)	3.9 (569)

Results (2/3) - Relative Risks (RR)



Crude

Adjusted for year of birth, sex, and own and parent origin

Results (3/3) - Stratified analyses

- Stratified analyses revealed statistically significant ($p<0.05$) interactions:
  - The risk **for women with ID was larger** than men with ID of being diagnosed with Schizophrenia (F20), Schizotypal disorder (F21), and Unspecified nonorganic psychosis (F29)
  - The risk **for women with ID was lower** than men with ID of being diagnosed with Persistent delusional disorders (F22)
  - The risk **for those with both parents born in Sweden with ID was lower** than for those with ID with one parent born abroad, both parents born abroad or if themselves was born abroad of being diagnosed with Persistent delusional disorders (F22)
  - The risk **for Adults with ID was larger** than for children/adolescents and older people with ID of being diagnosed with Unspecified nonorganic psychosis (F29)

Discussion

- Lower reporting rate of diagnoses in outpatient specialist- and primary care
- Registrations connected to reimbursement system -> high validity
- ID cohort identified using 2 registers. However, people with ID without LSS services and care visits not identified.
- The LSS register includes a risk that we have included people with Autism spectrum disorder (ASD)

Conclusions

- People with ID are at higher risks of being diagnosed with all F2-diagnoses
- This was true also after adjusting for socioeconomic variables
- Among those with ID, being women, being an adult and having parents being born abroad or being born abroad themselves were variables associated with particular at risk of some diagnoses
- The reasons for this needs to be further investigated.

LUND
UNIVERSITY

Magnus.Sandberg@med.lu.se
www.lupop.lu.se/idcare