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Norwegian Prescription Database = NorPD

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March 2009

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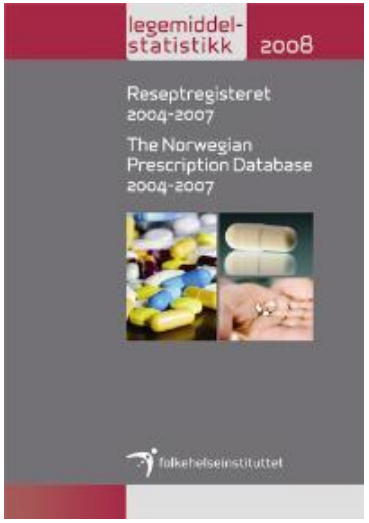
Sources of drug use in Norway

- Norwegian Drug Wholesalers Database (NorDWD)
  (cover all sales of drugs from wholesalers to pharmacies and to non-pharmacy outlets)

- Populationbased health surveys with questions on drug use

- Norwegian Prescription Database (NorPD)
  - From January 2004
  - www.norpd.no



Data flow – dispensed drugs into NorPD

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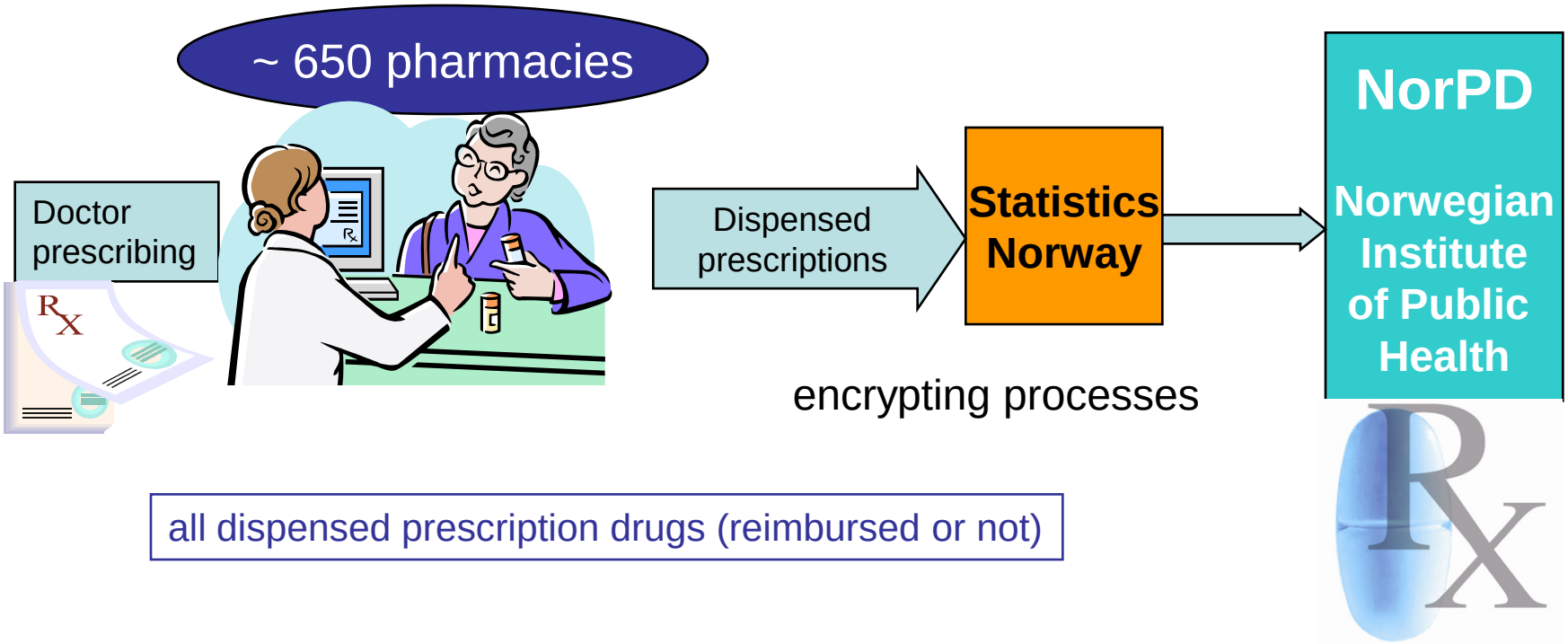

all dispensed prescription drugs (reimbursed or not)

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The main objectives of NorPD

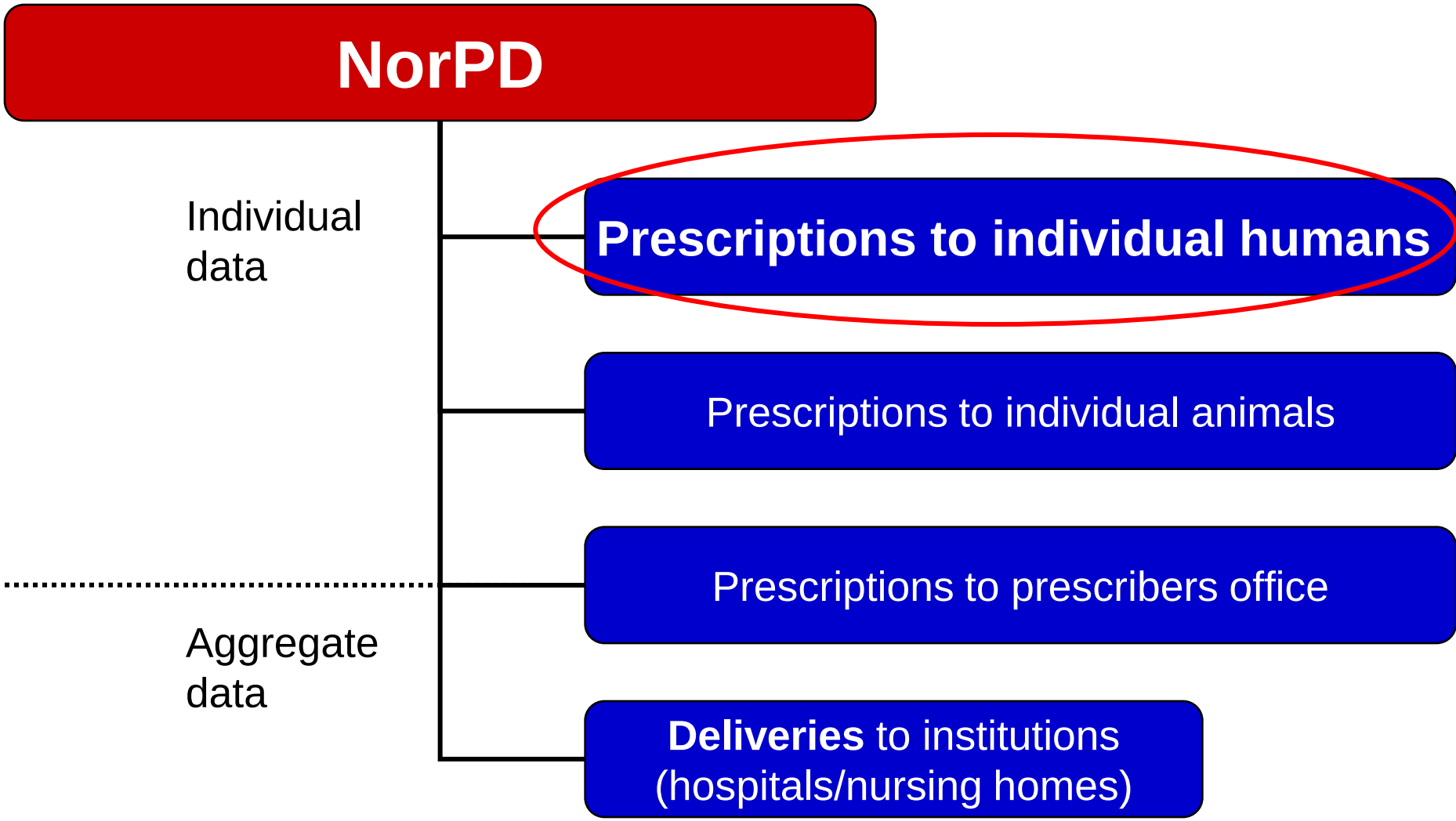
authoritative regulations: http://www.lovdata.no/for/sf/hd/hd-20031017-1246.html

are to collect and prepare data on drug use in individuals in order to:

- describe drug utilisation patterns, incl. changes over time
- promote and form a basis for research and review of the safety and effectiveness of drug use
- serve as a management tool for the authorities in order to assure quality of prescribing, in addition to general surveillance, control and planning
- feedback to prescribers as a basis for internal control, as a part of an audit method to improve quality of prescribing practices

Different kind of data

All prescribed drugs dispensed from all pharmacies in Norway to individuals and institutions



Variables in NorPD

Based on information on the prescriptions

+ information from administrative registers

Patient

- Person-identifier, age, gender, date of death (emigration), place of residence

Prescriber

- Person-identifier, age, gender, profession, speciality

Variables continued

Drug

- Nordic article number
  (brand name, strength, package size)
- Classified by ATC code
- Defined Daily Doses (DDD)
- Number of packages
- Code of reimbursement (from March 2008: ICD10 or ICPC)
- Area of application & and prescribed dose (freetext)
- Dispensing date
- Price

Pharmacy

- Licence number, name, location area (municipality, county)

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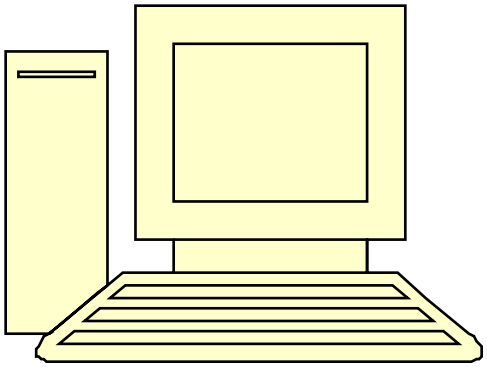
Missing information in the NorPD



- Over-the-counter drugs
- Individual drug use in hospitals and nursing homes
- Indication for use
- Prescribed dose (only in free-text)

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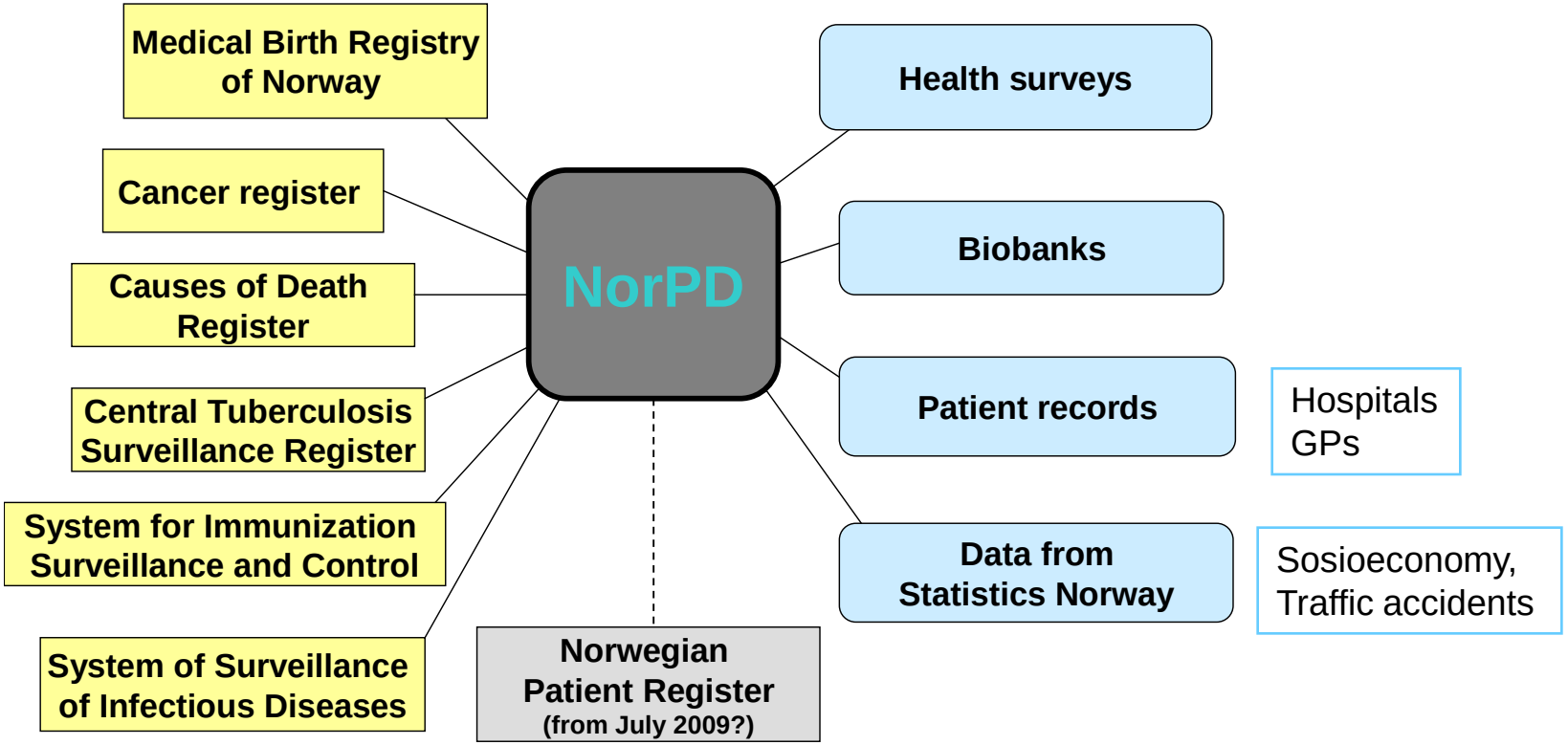
Linkage of NorPD to other registers and data sources

Record-linkage



Central personal health data filing systems

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Data access

- All applications should be sent to datatilgang@fhi.no
- Some data are accessible online www.norpd.no

Skjermbilde 1 av 9

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S601E Application Form

Access to data from the Norwegian Institute of Public Health (NIPH)

Please submit one form for each application to:	*Norwegian Institute of Public Health* *EPUT* *P.O.Box 4404 Nydalen* *0403 Oslo* *Datatilgang@fhi.no*	For NIPH internal use only Archive nr. (FHI): Project database nr: Project ref. nr:

I. GENERAL INFORMATION

Submission date: ____

Number of attachments: ____ List of attachments, see article 13

1. PROJECT TITLE

Skjermbilde 2 av 9

2. PRINCIPAL INVESTIGATOR (PI)

Name:			Position / academic degree:
Institution:			
Department/Institute:			
Work Address :			Country:
Telephone:	Telefax:	Mobile/cell:	Email :

3. MASTER, Ph.D or POST DOC PROJECT

Name of student:			
Students place of study (University / Institution):			
Address:		Postcode:	Country:
Telephone:	Telefax:	Mobile:	Email:

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Access to data from NorPD

All applications should be sent to datatilgang@fhi.no

- The aim of the research project has to be in accordance to the objectives of NorPD
- Details about the applicant and the institution, the names of participants, protocol for the study
- Licence/notification from the the Data Protection Officer/ Norwegian Data Inspectorate (Personvernombudet/Datatilsynet) needed when NorPD is linked to other registers or data sources
- Ethical approval: not usually needed
- Costs: ~815 NOK/hour +mva (= ~100 Euro/hour)

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Publications

- Per March 2009: ~ 50 publications with data from NorPD
- More details about the NorPD: *Nor J Epidemiol* 2008; 18(2):129-36

Norsk Epidemiologi 2008; **18** (2): 129-136

Establishment of the nationwide Norwegian Prescription Database (NorPD) – new opportunities for research in pharmacoepidemiology in Norway

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ABSTRACT

Objectives: To give an overview of the data collection and content of the Norwegian Prescription Database (NorPD). In addition, key figures and results from different studies using data from NorPD are presented.

Methods: From 1st January 2004 the Norwegian Institute of Public Health receives monthly data on prescriptions dispensed and collected at all Norwegian pharmacies.

Results: Overall, during the four year period (2004-2007) over 4.2 million unique individuals have been recorded in NorPD with at least one prescription medication dispensed from a pharmacy. In each year about two-third of the entire Norwegian population had at least one prescription dispensed, 75% of the women and 61% of the men. The age-specific prevalence was lowest in both genders in those aged 10-14 years. Among 0-17 years old children and adolescents 45% had one or more prescriptions issued in 2007. About 30% of the girls and 38% of the boys had a prescription issued before they were 1 year old. About 90% of individuals aged 70 years and older received prescription medications.

Conclusion: NorPD covers the entire nation, 4.75 million inhabitants, and is a valid and reliable data source for studying use of prescription drugs. New areas for pharmacoepidemiological research in Norway are made possible with NorPD, like doing longitudinal studies and record-linkage studies with health sur-

Information about the Norwegian Prescription Database are available on the home page (English and Norwegian)

Welcome to the Norwegian Prescription Database - Windows Internet Explorer provided by Nasjonalt Folkehelseinstitutt

http://www.norpd.no/

File Edit View Favorites Tools Help

Welcome to the Norwegian Prescription Database

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Kunnskap for folkets helse

Home page Prescription Database

- About the Database
- Create report
- Definitions
- Regulations
- Norwegian
- Publications
- Contact us

Welcome to the Norwegian Prescription Database

The NorPD contains data about dispensed drugs in Norway. You can find information about the users of a particular drug or drug category. The data can be split by sex, age and geography.

Use of Data

The Norwegian Institute of Public Health (NIPH) permits that reports from this website may be stored electronically, printed, reproduced and further processed as long as the source "Norwegian Prescription Database" is cited on every report, table or figure – see About the Database for full details.

Data from the Prescription Database is intended for general scientific research purposes, statistical analysis and planning. The privacy of the individual is strictly protected and data is anonymous.

NIPH is not responsible for interpretation or analysis performed by third parties.

Create report

External web-site to make your own statistics

www.norpd.no

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NorPD: Prevalence statistics - Windows Internet Explorer provided by Nasjonalt Folkehelseinstitutt

http://www.norpd.no/Prevalens.aspx

Edit View Favorites Tools Help

NorPD: Prevalence statistics

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Kunnskap for folkets helse

Home page Prescription Database

Statistics from the Norwegian Prescription Database

Select drugs using drug categories

- [x] ADHD, drugs used for
- [ ] Analgesics excluding opioids
- [ ] Analgetics
- [ ] Antibacterials
- [ ] Anti-dementia drug

ADHD, drugs used for - Comprises the ATC codes
N06BA01 - Amfetamine
N06BA02 - Dexamfetamine
N06BA04 - Methylphenidate
N06BA09 - Atomoxetine

Select drugs using

- [ ] A Alimentary tract and metabolism
- [ ] B Blood and blood forming organs
- [ ] C Cardiovascular system
- [ ] D Dermatologicals
- [ ] G Genito urinary system and sex hormones
- [ ] H Systemic hormonal preparations, excl. sex hormones and insulins
- [ ] J Antiinfectives for systemic use

Unit of measurement

- [x] Number of users
- [x] Users per 1000 inhabitants
- [ ] base
- [ ] value
- [ ] dosage (DDD)

- [x] 2007
- [ ] 2006
- [ ] 2005
- [ ] 2004

Sex

- [ ] Both sexes
- [x] Women
- [x] Men

Age Check all Clear

- [ ] All ages
- [x] 0 - 9
- [x] 10 - 19
- [x] 20 - 29
- [ ] 30 - 39

Residence Check regions / counties Clear

- [ ] Entire country
- [ ] Health region Midt-Norge
- [ ] Health region Nord-Norge
- [ ] Health region Sør-Øst
- [ ] Health region Vest
- [ ] Akershus
- [ ] Aust-Agder
- [ ] Buskerud

Select drugs by product name and/or active ingredient

Active ingredient | Product name | Search

Show Report

Show report in Excel

Clear

Number of users – proportion of users in the population

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Reportab35ddef-8f27-41aa-9fea-7d41c203409d - Windows Internet Explorer provided by Nasjonalt Folkehelseinstitutt

about:blank

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Page Tools

Norwegian Prescription Database

Report date: 23/06/2008 09:59
http://www.norpd.no
The Norwegian Institute of Public Health

				Number of users	Users per 1000 inhabitants	Turnover by dosage (DDD)
ADHD, drugs used for	2007	0 - 9	Men	1 734	6,04	536 571
			Women	443	1,61	120 712
		10 - 19	Men	9 168	28,40	3 788 973
			Women	3 278	10,73	1 171 734
		20 - 29	Men	1 860	6,38	760 946
			Women	1 139	4,03	415 965

Selected unit of measurement:
Number of users

Users per 1000 inhabitants
Turnover by dosage (DDD)

Selected search criteria:
Drug: - ADHD, drugs used for comprises "N06BA01 - Amfetamine, N06BA02 - Dexamfetamine, N06BA04 - Methylphenidate, N06BA09 - Atomoxetine".
Period: 2007
Age: 0 - 9, 10 - 19, 20 - 29
Sex: Women, Men

Not selected search criteria:
Residence: the numbers in the report are for Norway

Norwegian Prescription Database celebrates 5 years

Invitation to seminar
Thursday 23rd April 2009