

A brief tour of nordic aggregate drug statistics



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<http://www.medstat.dk/>

Medstat report builder

Home Groups of medicines ATC code Product name [Data basis and description](#)

ATC code	Year	Region
Enter specific ATC code press ENTER	2017	Entire Denmark
	2016	Hovedstaden
	2015	Nordjylland
	2014	Midtjylland
	2013	Sjælland
	2012	Syddanmark

Gender	Age group (change)
Gender, combined	All
Male	0 - 17 y.o.
Female	18 - 24 y.o.
	25 - 44 y.o.
	45 - 64 y.o.
	65 - 79 y.o.

Sector
Primary sector
Hospital sector
Total

Search variable
Turnover
Paid reimbursement
Volume sold
Volume sold per 1,000 inhabitants per day
Number of users
Number of users per 1,000 inhabitants

ATC code

Enter specific ATC code press ENTER

- All medicines
- 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 prep, excl sex hormones)
- J (General antiinfectives for systemic use)
- L (Antineoplastic and immunomodulating agents)
- M (Musculo-skeletal system)
- N (Nervous system)
- P (Antiparasitic products, insecticides and repellants)
- R (Respiratory system)
- S (Sensory organs)
- V (Various)

Designing a report – 1

Home Groups of medicines ATC code Product name [Data basis and description](#)

ATC code **Year** **Region**

Enter specific ATC code press ENTER

- N03 (Antiepileptics)
- N04 (Anti-parkinson drugs)
- N05 (Psycholeptics)
- N06 (Psychoanaleptics)
 - N06A (Antidepressants)
 - N06AA (Non selective monoamine reuptake inhibitors)
 - N06AB (Selective serotonin reuptake inhibitors)
 - N06AB03 (Fluoxetine)
 - N06AB04 (Citalopram)
 - N06AB05 (Paroxetine)
 - N06AB06 (Sertraline)
 - N06AB08 (Fluvoxamine)
 - N06AB10 (Escitalopram)
 - N06AF (Monoamine oxidase inhibitors, non-selective)
 - N06AG (Monoamine oxidase type a inhibitors)
 - N06AX (Other antidepressants)
- N06B (Psychostimulants, agents used for adhd and nootropics)
- N06B (Psychostimulants, agents used for adhd and nootropics)
- N06D (Anti-dementia drugs)

- N07 (Other nervous system drugs)
- P (Antiparasitic products, insecticides and repellants)
- R (Respiratory system)

Gender **Age group (change)**

Gender, combined
Male
Female

All
0 - 17 y.o.
18 - 24 y.o.
25 - 44 y.o.
45 - 64 y.o.
65 - 79 y.o.

Sector

Primary sector
Hospital sector
Total

Search variable

Turnover
Paid reimbursement
Volume sold
Volume sold per 1,000 inhabitants per day
Number of users
Number of users per 1,000 inhabitants

Show result Show result in Excel

ATC code: **N06AB, N06AB03, N06AB04, N06AB05, N06AB06, N06AB08, N06AB10**

Search variable: **Number of users per 1,000 inhabitants per day**

Age groups: **18 - 24 y.o., 25 - 44 y.o.**

Gender: **Male, Female**

Sector: **Primary sector**

Region: **Syddanmark, Entire Denmark**

ATC code: N06AB (Selective serotonin reuptake inhibitors)

Region: Syddanmark

		2015	2016	2017
		Share of prescription sales to individuals of total primary sales		
		>99%	>99%	>99%
Prescription sales to individuals		Number of users per 1,000 inhabitants		
18 - 24 y.o.	Male	18.72	17.66	16.38
	Female	39.61	37.90	37.14
25 - 44 y.o.	Male	35.88	35.98	34.55
	Female	66.25	64.02	61.42

ATC code: N06AB (Selective serotonin reuptake inhibitors)

Region: Entire Denmark

		2015	2016	2017
		Share of prescription sales to individuals of total primary sales		
		>99%	>99%	>99%
Prescription sales to individuals		Number of users per 1,000 inhabitants		
18 - 24 y.o.	Male	18.26	17.26	17.21
	Female	39.12	36.60	36.33
25 - 44 y.o.	Male	32.49	31.55	30.70
	Female	59.09	56.75	54.57

Designing a report - 2

Home Groups of medicines ATC code Product name [Data basis and description](#)

ATC code	Year	Region
<input type="text" value="Enter specific ATC code press ENTER"/>	2017	Entire Denmark
	2016	Hovedstaden
	2015	Nordjylland
	2014	Midtjylland
	2013	Sjælland
	2012	Syddanmark

Gender	Age group (change)
Gender, combined	All
Male	0 - 17 y.o.
Female	18 - 24 y.o.
	25 - 44 y.o.
	45 - 64 y.o.
	65 - 79 y.o.

Sector
Primary sector
Hospital sector
Total

Search variable
Turnover
Paid reimbursement
Volume sold
Volume sold per 1,000 inhabitants per day
Number of users
Number of users per 1,000 inhabitants

Show result Show result in Excel

ATC code

- N03 (Antiepileptics)
- N04 (Anti-parkinson drugs)
- N05 (Psycholeptics)
- N06 (Psychoanaleptics)
- N06 (Psychoanaleptics)
- N06A (Antidepressants)
 - N06AA (Non selective monoamine reuptake inhibitors)
 - N06AB (Selective serotonin reuptake inhibitors)**
 - N06AB03 (Fluoxetine)
 - N06AB04 (Citalopram)
 - N06AB05 (Paroxetine)
 - N06AB06 (Sertraline)
 - N06AB08 (Fluvoxamine)
 - N06AB10 (Escitalopram)
 - N06AF (Monoamine oxidase inhibitors, non-selective)
 - N06AG (Monoamine oxidase type a inhibitors)
 - N06AX (Other antidepressants)
 - N06B (Psychostimulants, agents used for adhd and nootropics)
 - N06B (Psychostimulants, agents used for adhd and nootropics)
 - N06D (Anti-dementia drugs)
- N07 (Other nervous system drugs)
- P (Antiparasitic products, insecticides and repellants)
- R (Respiratory system)
- C (Chemotherapy)

ATC code: **N06AB, N06AB03, N06AB04, N06AB05, N06AB06, N06AB08, N06AB10**

Search variable: **Volume sold per 1,000 inhabitants per day**

Age groups: **18 - 24 y.o., 25 - 44 y.o.**

Gender: **Male, Female**

Sector: **Primary sector**

Region: **Syddanmark, Entire Denmark**

ATC code: N06AB (Selective serotonin reuptake inhibitors)

Region: Syddanmark

		2015	2016	2017
		Share of prescription sales to individuals of total primary sales		
		>99%	>99%	>99%
Prescription sales to individuals		Volume sold (DDD) per 1,000 inhabitants per day		
18 - 24 y.o.	Male	18.1	16.8	17.5
	Female	40.4	39.9	41.0
25 - 44 y.o.	Male	39.2	40.5	40.6
	Female	73.4	73.2	72.5

ATC code: N06AB (Selective serotonin reuptake inhibitors)

Region: Entire Denmark

		2015	2016	2017
		Share of prescription sales to individuals of total primary sales		
		>99%	>99%	>99%
Prescription sales to individuals		Volume sold (DDD) per 1,000 inhabitants per day		
18 - 24 y.o.	Male	18.0	17.7	18.3
	Female	39.8	39.4	40.3
25 - 44 y.o.	Male	35.3	35.4	35.0
	Female	63.7	63.3	62.7



<http://www.socialstyrelsen.se/statistik/statistikdatabas/lakemedel>

Läkemedelsgrupper och ATC koder för samtliga åldrar
Läkemedelsgrupper för barn 0-17 år

*Läkemedelsgrupper: 0 st av 65 **i** [ta bort alla](#)

Välj läkemedelsgrupp

- ACE-hämmare inkl. kombinationer **i**
- Adhd-medel **i**
- Adhd-medel - centralstimulantia **i**
- Adhd-medel - icke-centralstimulantia **i**
- Adrenergika för systemiskt bruk **i**
- Adrenergika och övriga medel vid obstruktiva luftvägssjukdomar inkl. kombinationer **i**
- Aknemedel **i**
- Allergimedel **i**

Valda läkemedelsgrupper

*ATC-koder: 7 st av 2671 **i** [ta bort alla](#) Sökord: [Sök](#)

Välj ATC-kod

- N06AB Selektiva serotoninåterupptagshämmare
 - N06AB03 Fluoxetin
 - N06AB04 Citalopram
 - N06AB05 Paroxetin
 - N06AB06 Sertralin
 - N06AB08 Fluvoxamin
 - N06AB10 Escitalopram
- N06AF MAO-hämmare, icke-selektiva
- N06AG MAO-hämmare, selektiva typ A-hämmare

Valda ATC-koder

- N06AB Selektiva serotoninåterupptagshämmare
 - N06AB03 Fluoxetin
 - N06AB05 Paroxetin
 - N06AB04 Citalopram
 - N06AB06 Sertralin
 - N06AB08 Fluvoxamin
 - N06AB10 Escitalopram

*Regioner: 1 st av 22 **i** [välj alla](#) [ta bort alla](#)

Riket

- Stockholms län
- Uppsala län
- Södermanlands län
- Östergötlands län
- Jönköpings län
- Kronobergs län
- Kalmar län
- Gotlands län
- Blekinge län

*Ålder: 4 st av 18 **i** [välj alla](#) [ta bort alla](#)

0-4 år

5-9 år

10-14 år

15-19 år

20-24 år

25-29 år

30-34 år

35-39 år

Visa åldersgrupperna separat

*Kön: 3 st av 3 [välj alla](#) [ta bort alla](#)

Båda könen

Män

Kvinnor

*Mått: 2 st av 8 [välj alla](#) [ta bort alla](#)

- Antal patienter **i**
- Patienter/1000 invånare **i**
- Antal recept **i**
- Recept/1000 invånare **i**
- Antal DDD **i**
- DDD/1000 invånare och dag **i**
- DDD/1000 invånare **i**
- Befolkning **i**

*År: 10 st av 12 [välj alla](#) [ta bort alla](#)

2015

2014

2013

2012

2011

2010

2009

2008

2007

2006

Antal celler: 7350 (max antal 70 000)

[Rensa formulär](#) [Välj nytt ämne](#) [Visa resultat](#)

Tabell

Trend

Stapel

Karta

Ändra urvalet

Välj nytt ämne

Spara tabellen som: [csv](#) | [excel](#)

Visa i kolumner: Mått

Läkemedelsstatistik

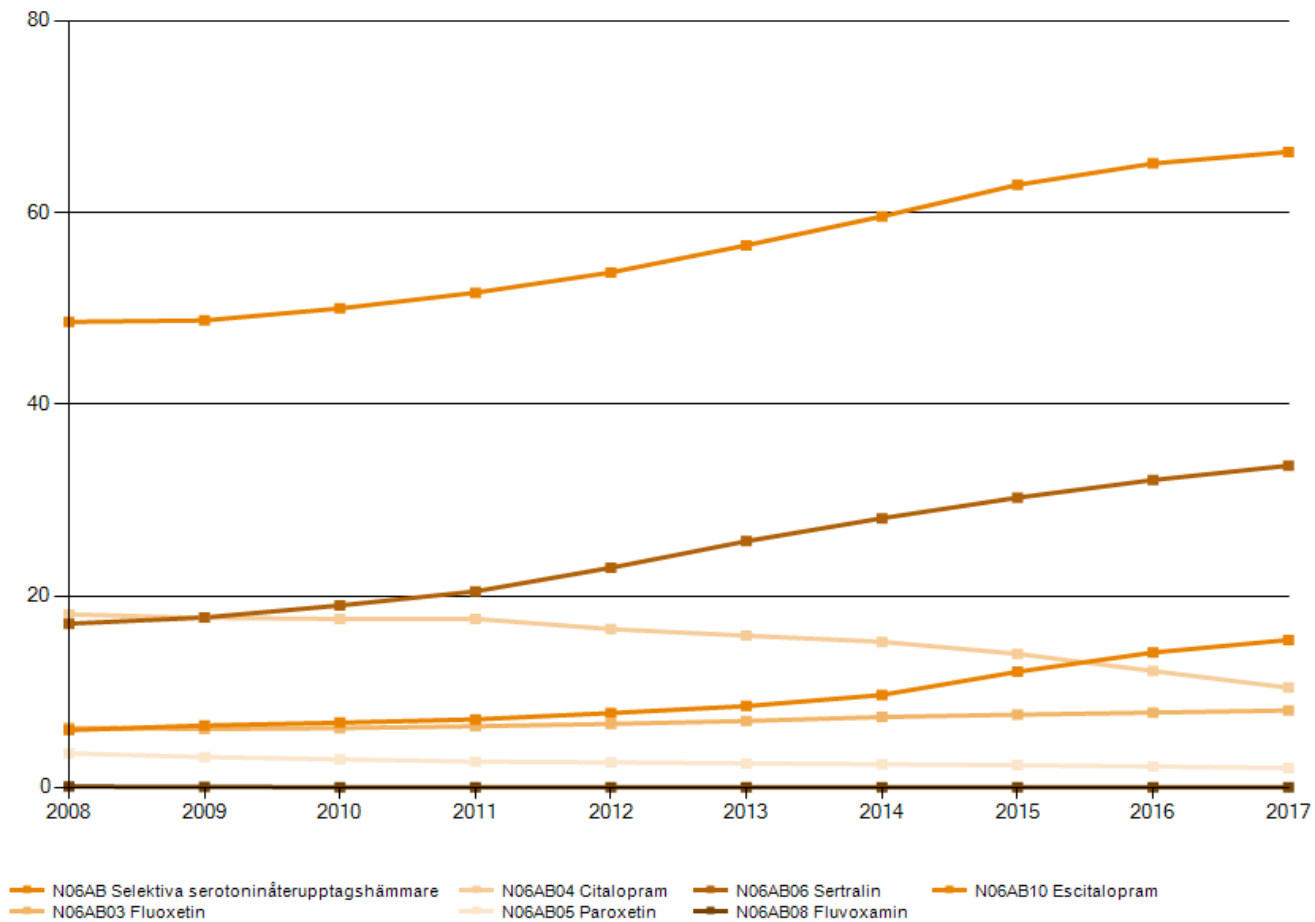
År	Läkemedel	Region	Kön	Ålder	Patienter/1000 invånare	DDD/1000 invånare
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Män	20-24	33,38	11 125,33
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Män	25-29	42,84	14 943,29
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Män	30-34	45,46	16 844,36
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Män	35-39	49,02	18 990,21
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Män	20-39	42,60	15 421,11
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Kvinnor	20-24	73,55	25 021,43
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Kvinnor	25-29	87,74	30 827,02
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Kvinnor	30-34	97,68	35 740,12
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Kvinnor	35-39	107,58	40 283,62
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Kvinnor	20-39	91,44	32 865,90
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Båda könen	20-24	52,78	17 836,10
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Båda könen	25-29	64,70	22 675,95
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Båda könen	30-34	70,77	26 005,40
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Båda könen	35-39	77,64	29 397,86
2017	N06AB Selektiva serotoninåterupptagshämmare	Riket	Båda könen	20-39	66,33	23 896,45
2017	N06AB03 Fluoxetin	Riket	Män	20-24	3,98	1 265,96
2017	N06AB03 Fluoxetin	Riket	Män	25-29	3,69	1 261,08
2017	N06AB03 Fluoxetin	Riket	Män	30-34	3,57	1 259,17
2017	N06AB03 Fluoxetin	Riket	Män	35-39	3,75	1 384,08
2017	N06AB03 Fluoxetin	Riket	Män	20-39	3,74	1 290,74
2017	N06AB03 Fluoxetin	Riket	Kvinnor	20-24	13,37	4 350,43
2017	N06AB03 Fluoxetin	Riket	Kvinnor	25-29	12,48	4 372,01

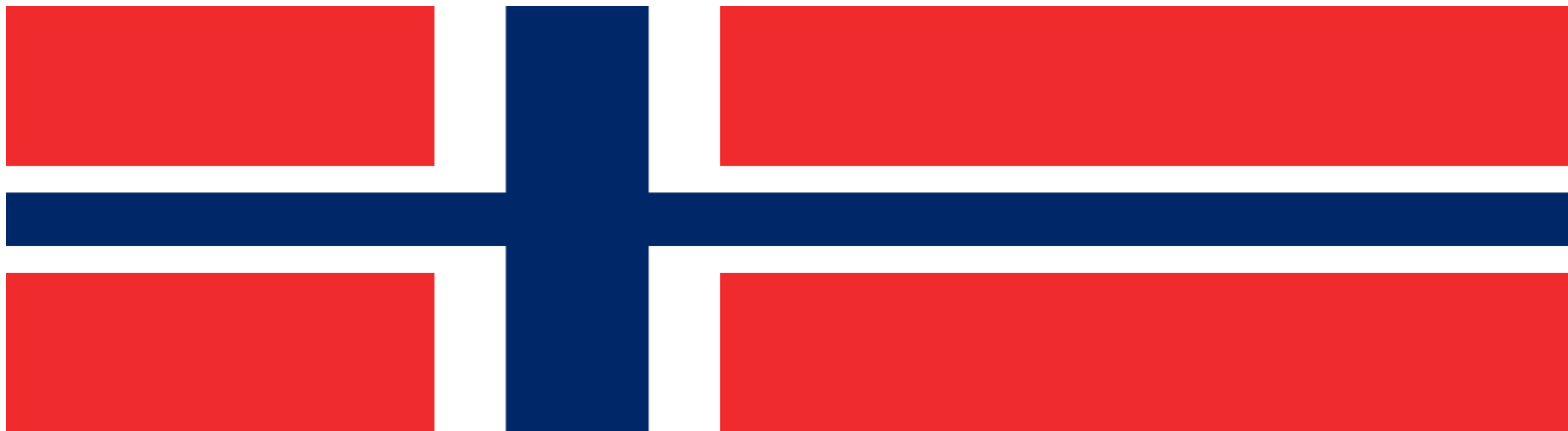
Filtrera

Mått: Patienter/1000 invånare Läkemedel: ----- Kön: Båda könen
 Ålder: Totalt 20-39

Visa värdet:

Läkemedelsstatistik, Patienter/1000 invånare, Riket, Ålder: Totalt 20-39, Båda könen





<http://www.norpd.no/>

Statistics from the Norwegian Prescription Database

ATC/DDD-version: 2018

Select drugs using drug categories [i](#)

- ADHD, drugs for
- Analgesics excluding opioids
- Analgetics
- Antibacterials
- Anti-dementia drugs

Select drugs using the ATC-system [i](#)

Clear

- Non-selective monoamine reuptake inhibitors
N06AA
- Selective serotonin reuptake inhibitors
N06AB
 - N06AB03 Fluoxetine
 - N06AB04 Citalopram
 - N06AB05 Paroxetine
 - N06AB06 Sertraline
 - N06AB08 Fluvoxamine
 - N06AB10 Escitalopram
- Monoamine oxidase inhibitors, non-selective
N06AF
- Monoamine oxidase a inhibitors
N06AG
- N06AX Other antidepressants
- Psychostimulants, agents used for adhd and nootropics
N06B

Unit of measurement [i](#)

- Number of users
- Users per 1000 inhabitants
- Population base
- Turnover by value
- Turnover by dosage (DDD)

Period [i](#)

- 2017
- 2016
- 2015
- 2014
- 2013
- 2012
- 2011
- 2010
- 2009
- 2008
- 2007
- 2006
- 2005
- 2004

Sex [i](#)

- Both sexes
- Women
- Men

Age [i](#)

- 15 - 19
- 20 - 24
- 25 - 29
- 30 - 34
- 35 - 39
- 40 - 44

Check all

Clear

Residence [i](#) 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
- Finnmark
- Hedmark
- Hordaland
- Møre og Romsdal
- Nordland
- Nord-Trøndelag
- Oppland
- Oslo
- Rogaland
- Sogn og Fjordane

Select drugs by product name and/or active ingredient [i](#)

Active ingredient

Product name

Search

Choose format:

Excel

Get report

Clear





Norwegian Prescription Database

Report date: 01/11/2018 10:44

<http://www.norpd.no>
The Norwegian Institute of Public Health

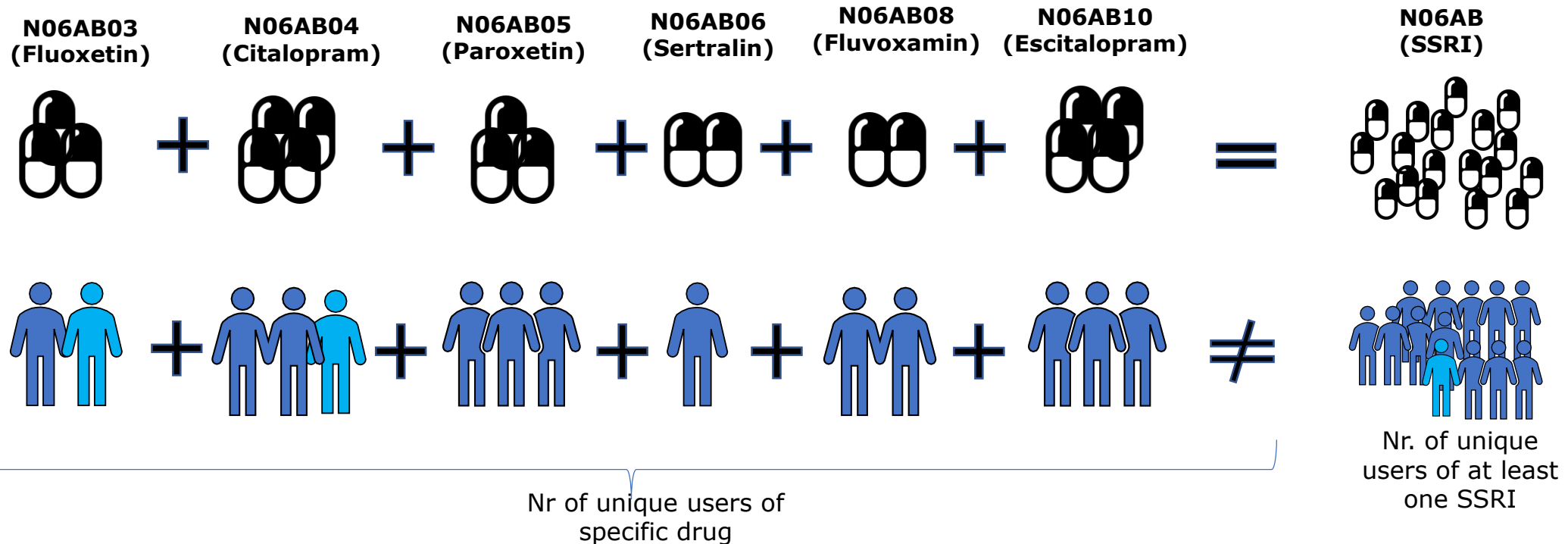
					Users per 1000 inhabitants	Turnover by dosage (DDD)
9	N06AB	2006	20 - 24	Both sexes	Entire country	24,33 1 774 000
10				Men	Entire country	16,30 590 157
11				Women	Entire country	32,70 1 183 843
12			25 - 29	Both sexes	Entire country	30,58 2 584 494
13				Men	Entire country	23,20 979 234
14				Women	Entire country	38,06 1 605 261
15			30 - 34	Both sexes	Entire country	34,74 3 501 555
16				Men	Entire country	26,34 1 309 603
17				Women	Entire country	43,32 2 191 951
18			35 - 39	Both sexes	Entire country	41,01 4 877 728
19				Men	Entire country	28,86 1 734 332
20				Women	Entire country	53,56 3 143 396
21		2007	20 - 24	Both sexes	Entire country	25,26 1 871 766
22				Men	Entire country	16,87 620 813
23				Women	Entire country	34,02 1 250 953
24			25 - 29	Both sexes	Entire country	31,65 2 760 232
25				Men	Entire country	23,67 1 013 527
26				Women	Entire country	39,79 1 746 704
27			30 - 34	Both sexes	Entire country	35,68 3 571 741
28				Men	Entire country	27,00 1 339 522
29				Women	Entire country	44,59 2 232 220
30			35 - 39	Both sexes	Entire country	41,35 5 031 455
31				Men	Entire country	29,51 1 794 202
32				Women	Entire country	53,64 3 237 254
33		2008	20 - 24	Both sexes	Entire country	25,43 1 993 677
34				Men	Entire country	17,49 678 466
35				Women	Entire country	33,72 1 315 211
36			25 - 29	Both sexes	Entire country	31,65 2 806 783
37				Men	Entire country	24,00 1 017 000
38				Women	Entire country	39,30 1 789 783

Side by side comparison

				
Coverage	Prescriptions	YES	YES	YES
	OTC	Aggregate use by year and region only	NO	NO
	Hospital	Aggregate use by year and region only	NO	NO
Report filters / strata	Druggroup	YES	YES	YES
	ATC	YES	YES	YES
	Year	1996 – 2017 (Sex & age from 1999)	2004-2017	2006-2017
	Sex	YES	YES	YES
	Age resolution	1 year	5 year (1 year in downloaded raw data)	5 year
	Region resolution	Region (from 2007)	County (Fylke)	County (Lán)
	Sector	Primary and hospital	Primary	Primary
	Statistics	Users	YES	YES
prescriptions		YES	YES	NO
Usage (DDD)		YES	YES	YES
Value		YES	NO	YES
Report results	Table view	YES	YES	NO
	Graph view	NO	YES	NO
	Download	YES	YES	YES
	Data representation	Wide – pivoted 	Long	Long
Programmatic access	API	No	Yes	No
	Download raw data	Yes (1GB)	Yes (8 GB)	No

Think before you sum

Unlike a dose, a person can be counted in more than one ATC. Exact person counts are only available for individual ATC nodes (or for available predefined druggroups such as "weak analgetics")



Question

How many unique users of N06AB03?

How many unique users of any SSRI?

How many unique users of N06AB03 or N06AB04?

Answer

2

13

≤ 5

Use the right denominator

ATC code: N06AB04 (Citalopram)

2017	
Share of prescription sales to individuals of total primary sales	
	>99%
Prescription sales to individuals	Number of users per 1,000 inhabitants
18 - 24 y.o.	3.09
25 - 44 y.o.	9.15

2017	
Share of prescription sales to individuals of total primary sales	
	>99%
Prescription sales to individuals	Number of users
18 - 24 y.o.	845
25 - 44 y.o.	6,648

How many male users per 1,000 inhabitants age **18-44?**

$$3.09 + 9.15 = 12.24$$

VERY WRONG!

$$(3.09 + 9.15)/2 = 6.12$$

STILL WRONG!

$$(845 + 6648) / N_{18-44} * 1000 = 7493 / 1,000,721 * 1000 = 7.48 \quad \text{CORRECT!}$$

Population in agegroup 18-44

Don't sum standardized data values (persons or DDD pr 1000) from different demographic strata! Sum absolute counts (persons or DDD) **and then** standardize using the right denominator (matching age, sex and region)

It is useful to download population census data from the national statistics bureau and calculate the correctly stratified denominators from those.

SE and NO actually provides the denominator count as a column in the results

Links

- <http://www.socialstyrelsen.se/statistik/statistikdatabas/lakemedel>
- <http://www.norpd.no/>
- <http://www.medstat.dk/>

Population Statistics (census data)

- [Sweden](#)
- [Norway](#)
- [Denmark](#)

Raw data download

- <http://www.medstat.dk/da/download>
- <http://www.socialstyrelsen.se/statistik/forutvecklare>