11.6. Antidepressant medication (MH-6, MH-7, MH-8)

11.6.1. Documentation sheet

Description	There are three indicators to assess the appropriateness of antidepressants prescription 1. The total volume prescribed per day (defined daily dosage of antidepressants per 1000 inhabitants per day); 2. Percentage of 15 or older persons with antidepressants prescribed 3. Percentage of very short antidepressant treatment episodes for adult patients (18 years or older)
Calculation	**Number of Defined Daily Doses (DDD) of antidepressants (ATC code=N06A) per 1000 inhabitants per day** Numerator: Total DDDs of antidepressants per day (=total number of DDD on the year divided by 365 days) delivered; Denominator: Number of insured population. **Percentage of adults with antidepressants prescribed** Numerator: Number of persons (≥18 years) with at least 1 prescription of antidepressant; Denominator: Number of insured persons (≥18 years). **Percentage of very short antidepressant treatment episodes for adult patients (18 years or older)** Numerator: a. Number of adults (≥18 years) with at least 1 antidepressant delivered, for which the treatment episode is less than or equal to 3 months; b. Number of adults (≥18 years) with at least 1 antidepressant delivered, for which the treatment episode is less than or equal to 6 months. Denominator: Number of adults (≥18 years) with at least 1 antidepressant delivered. Both in case a and b, the percentage is measured each year, except for the first and last available years, which are considered "buffer years" to be able to measure 6 months treatments spreading over two years. A treatment is considered over if no prescription is found 6 months after the last prescription date.
Rationale	The use of antidepressant drugs increases year by year. The DDDs for antidepressants provided by community pharmacies, for instance, increased between 2001 & 2009, from 157 to 262 million. [1] The reasons for this and other increases (e.g. antipsychotics), however, are unclear. Several Belgian reports[2,3] have pointed out that there is an inappropriate use (wrong indication; wrong duration; wrong type of medication) of the psycho-pharmaceutical drugs which not only causes a risk for public health but also results in unnecessary societal costs. Antidepressants are indicated for the treatment of severe depression, panic and anxiety disorder and obsessive compulsive disorder. Yet, to be effective, long-term use (at least 6 months), in combination with high-intensity psychological intervention, is required. [4] In this report, we will use a proxy to measure adherence to this guideline. Since we have no data about the diagnosis we will consider all treatment episodes less than 3 or 6 months as inappropriate. The inappropriate use will as such include patient groups for which the use of antidepressants is not indicated (e.g. mild depression) and for whom the treatment episode is inappropriate (e.g. major depression with a treatment episode of 1 month). What is more the duration of use can only be estimated. It is assumed that patients to whom a package of drugs is delivered also take all doses included in the package at a uniform defined daily dose (DDD) regimen and at 100% adherence. [5]
Primary data source	RIZIV – INAMI (Pharmanet – Farmanet) for indicator 1, EPS (IMA – IAM, calculation: INAMI – RIZIV) for indicator 2, IMA –AIM data for indicator [3]

Technical definitions	The medications studied are classified into the following ATC classe:
	Antidepressant: N06A
Limitations	Data do not include medicines provided by hospital pharmacies.
International comparability	Only for the DDD antidepressants per 1000 inhabitants international comparable data are available. [6]
Dimension	Quality (appropriateness in mental healthcare)

11.6.2. Results

11.6.2.1. DDD antidepressants

The consumption of antidepressants (N06A) increased from 42 DDDs per 1000 inhabitants per day in 2002 to 79.0 DDDs per 1000 inhabitants per day in 2016, with large differences between regions (higher from Wallonia than in Brussels and Flanders), as shown in Figure 166. This trend of increasing use is also seen internationally (see Figure 167 right hand-side) but Belgium is consistently above the EU average (e.g. in 2016: 79.0 in Belgium compared to 70.2 for the EU-15).[6] A significant difference is observed between the consumption of persons aged 75 and over in nursing home who receive 362.2 DDDs per 1000 inhabitants per day and those of the same category not in nursing homes, who received 134.5 DDDs per 1000 inhabitants per day in 2016.

Table 108 – Defined Daily Doses (DDDs) of antidepressants per 1000 inhabitants per day, by patient characteristics (2016)

Variable	Category	Total DDDs/ 1000 inhabitants per day
Data 2013 by categories		
Age (years)	00-14	0.4
	15-34	27.3
	35-49	91.4
	50-64	131.8
	65-74	134.6
	75-84	154.1
	85+	174.7
Gender	Female	104.1
	Male	53.0
Province	Antwerpen	61.7
	Brabant Wallon	91.8
	Bruxelles-Capitale	62.3
	Hainaut	97.3
	Liège	100.2
	Limburg	78.5
	Luxembourg	109.4
	Namur	99.2
	Oost-Vlaanderen	71.9
	Vlaams Brabant	72.1
	West-Vlaanderen	82.4

Source: IMA – AIM (EPS): Pharmanet – Farmanet; calculation:INAMI – RIZIV

Figure 166 – Defined Daily Doses (DDDs) of antidepressants per 1000 inhabitants per day, by patient region (2008-2016) and district (2013)
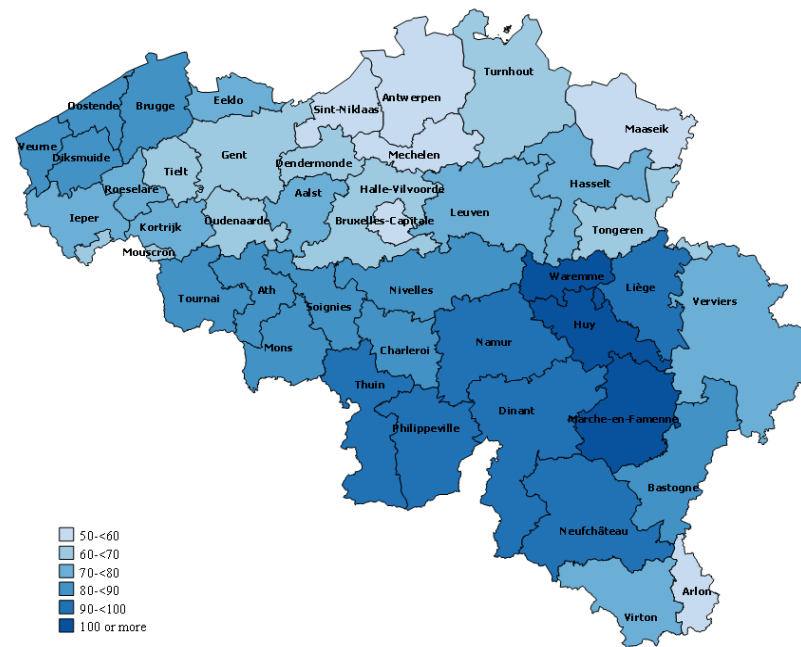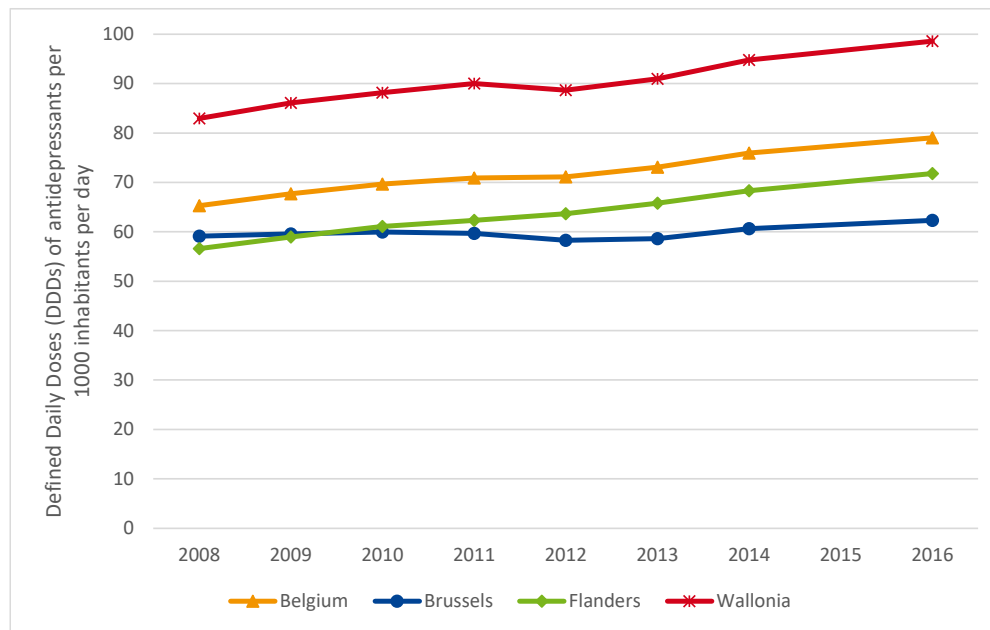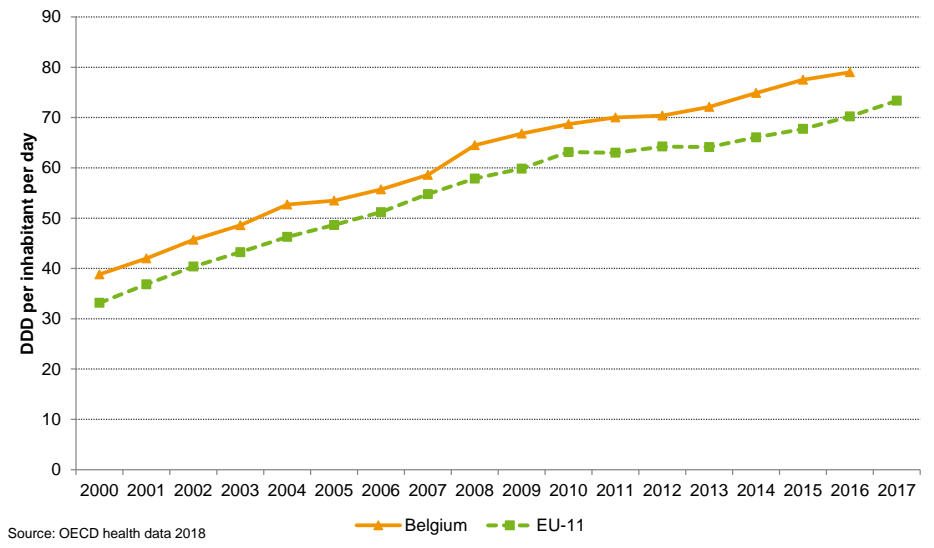

National daily consumption per 1000 inhabitants = 71.4 DDD
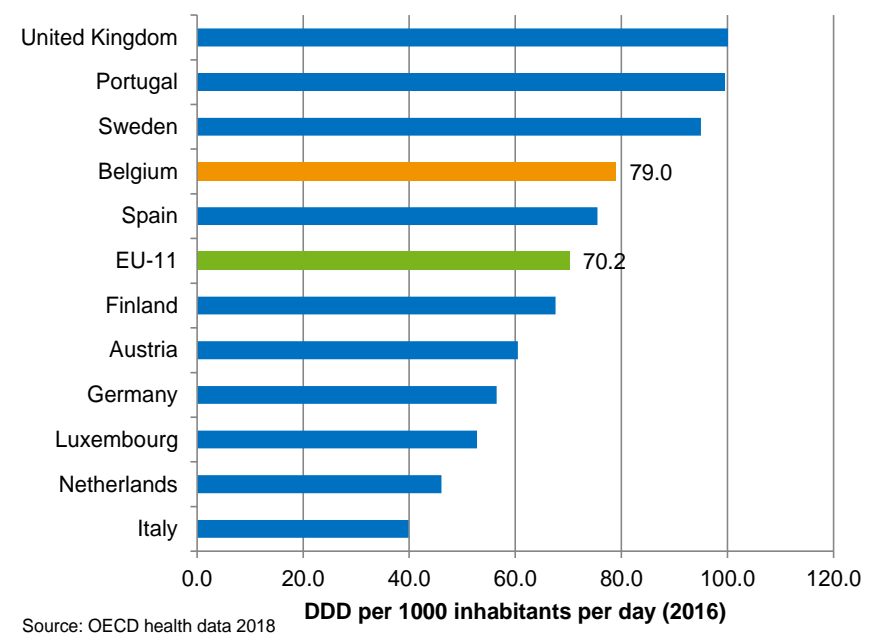
Source: Pharmanet – Farmanet ; calculation: INAMI – RIZIV

Figure 167 – DDDs of antidepressants: international comparison (2000- 2016)

Source: OECD health data 2018

Source: OECD health data 2018

Source: OECD Health statistics 2018

11.6.2.2.Percentage of adults with antidepressants prescribed

In contrast with the DDD per 1000 inhabitants per day, the percentage of adults only slightly increased: from 12.3% in 2006 to 13.1% in 2016 (males: 9.1%; Females: 16.9%). There are, however, large differences between the regions: Flanders: 11.9%; Wallonia: 16.2%; Brussels: 11.2%. From Table 109, it is clear that this percentages increases with age with 20% or more of adults with delivered antidepressants for patients of ≥75 years old. There is also a large difference in patients of 75 years or older regarding the type of care they receive: nursing homes (48.6%) or not (18.9%).
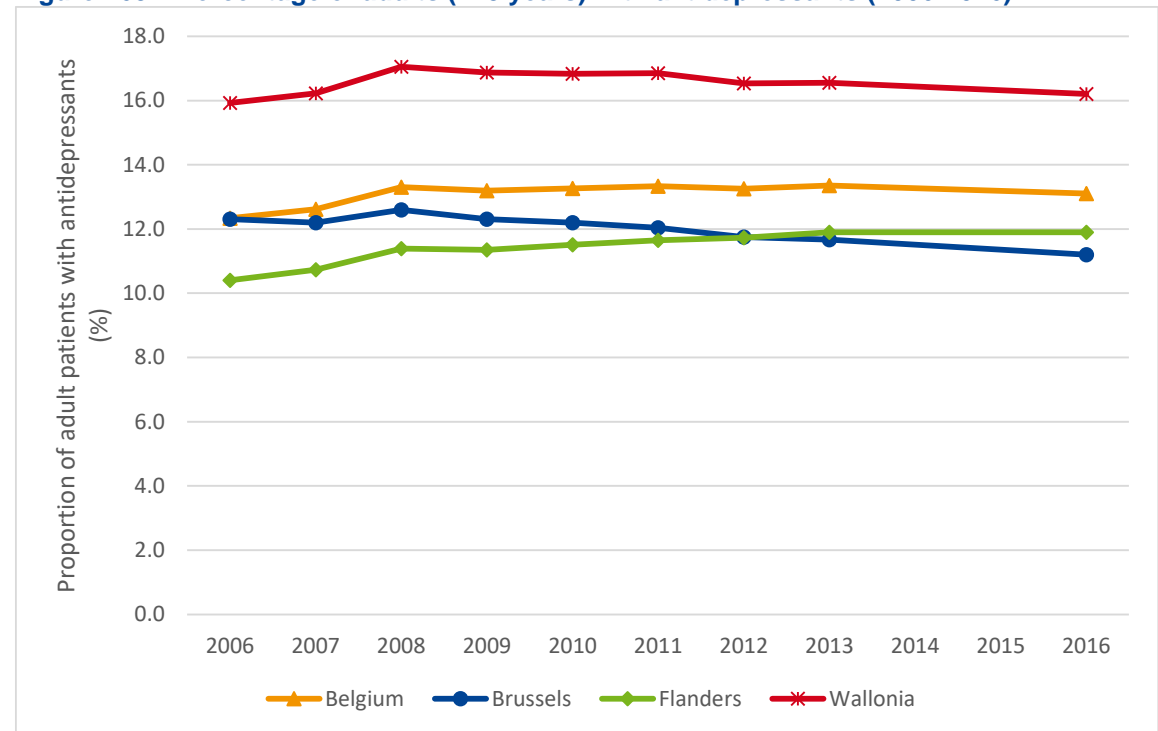
Table 109 – Percentage of adults with antidepressants prescribed, by patient characteristics (2016)

Variable	Category	Percentage with antidepressants
Data 2013 by categories		
Age (years)	18-34	5.2%
	35-49	12.2%
	50-64	16.3%
	65-74	17.1%
	75-84	20.9%
	>=85	25.5%
Gender	Female	16.9%
	Male	9.1%
Long term care (75 years or +)	Institutions	48.6%
	no institutions	18.9%
Province	Antwerpen	10.4%
	Brabant Wallon	14.9%
	Bruxelles-Capitale	11.2%
	Hainaut	16.1%
	Limburg	12.9%
	Liège	16.1%
	Luxembourg	17.4%
	Namur	17.0%
	Oost-Vlaanderen	11.9%
	Vlaams Brabant	12.0%
	West-Vlaanderen	13.2%

Source: EPS (IMA – AIM), calculation: INAMI – RIZIV

Figure 168 – Percentage of adults (≥18 years) with antidepressants (2006-2016)

Source EPS (IMA – AIM), calculation: INAMI – RIZIV

11.6.2.3. Percentage of very short antidepressant therapies

After a stable period from 2009 to 2012, the percentage of adults with a very short term antidepressant therapy (<3 months) decreased from 46.9 % in 2013 to 42.6% in 2016 (Figure 169). In 2016, the percentage of short therapies is higher among men (<6 months: 60.3%; <3 months 42.4%) compared to women (<6 months: 56.9%; <3 months 41.5%), see Table 110.

The highest percentages of short therapies (<6 months) can be observed among the younger age groups with ≥65% in the age groups 90 or more years. There are no large differences for very short term therapy (<3 months) between regions: Flanders 43.2%, Wallonia 41.3% and Brussels 43.7%. There are differences for patients of 65 years or older regarding the type of care they receive: no long-term care (43.5%); home care (39.3%); nursing homes (49.5%).

Table 110 – Percentage of adults with short-term antidepressants prescribed, by patient characteristics (2016)

Variable	Category	Numerator (<3 months)	Numerator (<6 months)	Denominator	Percentage with antidepressants < 3 months	Percentage with antidepressants < 6 months
Age (years)	18-19	1960	2713	4385	44.7%	61.9%
	20-24	6789	9437	15205	44.7%	62.1%
	25-29	9916	13612	22052	45.0%	61.7%
	30-34	11779	16356	27389	43.0%	59.7%
	35-39	13888	19381	33434	41.5%	58.0%
	40-44	15037	20929	36546	41.2%	57.3%
	45-49	16853	23131	40730	41.4%	56.8%
	50-54	17980	24471	43283	41.5%	56.5%
	55-59	16785	22829	40333	41.6%	56.6%
	60-64	13310	17995	31323	42.5%	57.5%
	65-69	11833	15926	27603	42.9%	57.7%
	70-74	10041	13517	23363	43.0%	57.9%
	75-79	9382	12578	21840	43.0%	57.6%
	80-84	8404	11300	19549	43.0%	57.8%
	85-89	5729	7787	12679	45.2%	61.4%
	90-94	2293	3084	4649	49.3%	66.3%
	95-99	444	587	817	54.4%	71.9%
	>=100	27	39	51	52.9%	76.5%
Gender	Female	105 186	144 232	253 439	41.5%	56.9%
	Male	69 977	95 211	157 936	44.3%	60.3%
Entitlement to increased reimbursement	No	130 280	177 992	307 043	42.4%	58.0%

Variable	Category	Numerator (<3 months)	Numerator (<6 months)	Denominator	Percentage with antidepressants < 3 months	Percentage with antidepressants < 6 months
	Yes	44 785	61 314	104 134	43.0%	58.9%
Long term care (65 years or +)	Home care	4116	5564	10 479	39.3%	53.1%
	Institutions	4497	6510	9078	49.5%	71.7%
	no LT care	39 540	52 744	90 994	43.5%	58.0%
Province	Antwerpen	23 960	32 028	55 245	43.4%	58.0%
	Brabant Wallon	6332	8828	15 729	40.3%	56.1%
	Bruxelles-Capitale	16 166	22 067	37 035	43.7%	59.6%
	Hainaut	25 840	36 150	60 679	42.6%	59.6%
	Limburg	12 856	17 854	31 209	41.2%	57.2%
	Liège	17 721	25 420	44 583	39.8%	57.0%
	Luxembourg	3890	5373	9571	40.6%	56.1%
	Namur	9637	13 274	22 881	42.1%	58.0%
	Oost-Vlaanderen	22 594	29 839	51 096	44.2%	58.4%
	Vlaams Brabant	15 716	21 042	36 800	42.7%	57.2%
	West-Vlaanderen	19 514	26 203	44 502	43.9%	58.9%

Source: IMA – AIM

Figure 169 – Short-term antidepressant use per region: treatment < 3 months and treatment < 6 months (2012-2016)
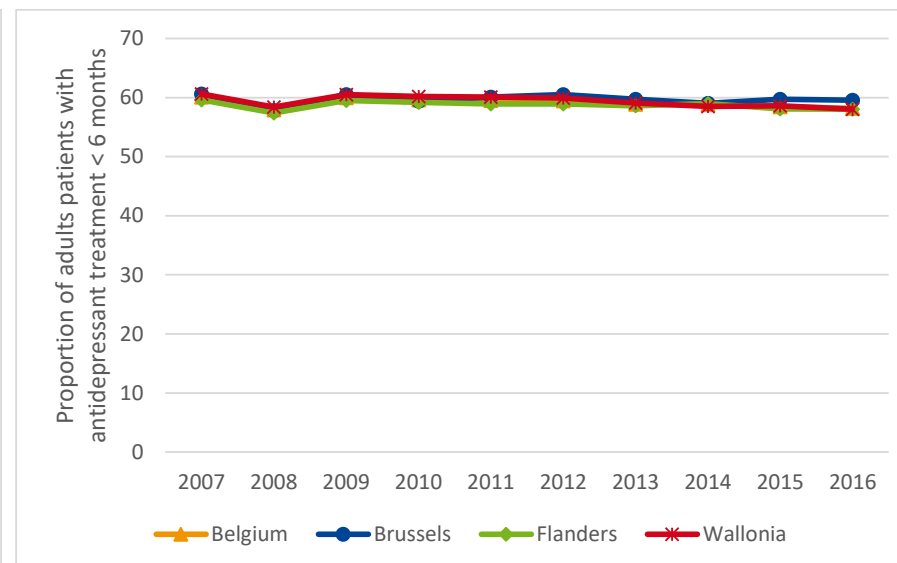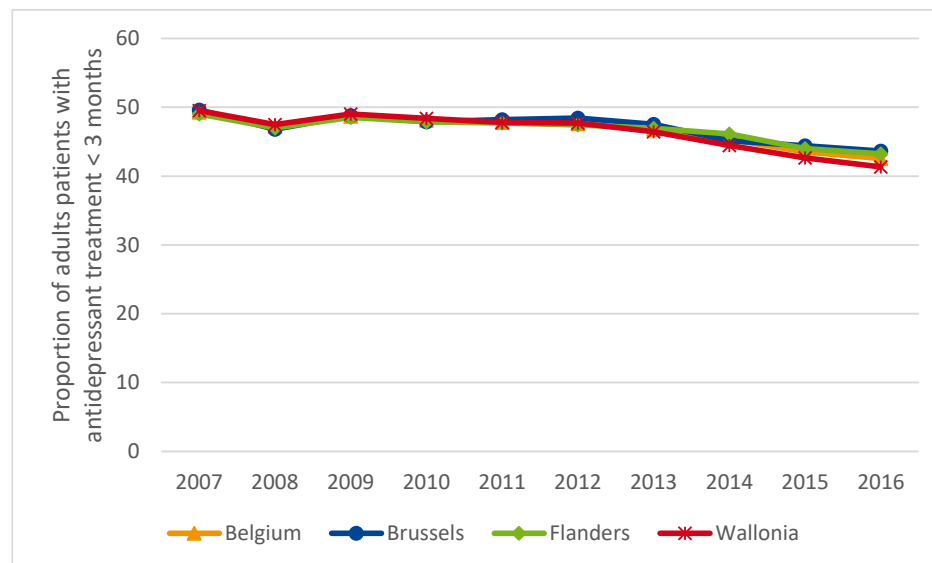
Source: IMA – AIM

Key points

- The prescription of antidepressant medication increased from 42 DDDs per 1000 inhabitants per day in 2002 to 79 DDD per 1000 inhabitants per day in 2016, with large differences between regions (higher in Wallonia than in Brussels and Flanders).

- The same increasing trend is observed in all European countries. With 79 DDDs / 1000 pop. / day, Belgium is above the European average of 70 DDDs / 1000 pop. / day.

- Yet, the number of adults with antidepressant medication increased only from 12.3% in 2006 to 13.1% in 2016 but with the same large variation between regions (higher in Wallonia than Brussels and in Flanders, but slightly decreasing in Wallonia and Brussels since 2009).

- Especially among the elderly (≥ 75 years old) in nursing homes, the proportion of persons with antidepressants is high: 48.6% (vs 18.9%)

- A high percentage of adults receive only antidepressant therapy for very short periods (<3 months): 42.6% in 2016, but the situation is getting better (49.3% in 2007); there are no regional differences.

References

[1]   RIZIV - INAMI. Farmaceutische kengetallen, Farmaceutische verstrekkingen, Ambulante praktijk 2009. Brussel: 2011.

[2]   Superior Health Council. De impact van psychofarmaca op de gezondheid met een bijzondere aandacht voor ouderen. Brussel: Hoge Gezondheidsraad; 2011. nr. 8571

[3]   Casteels M, Danckaerts M, De Lepeleire J, Demyttenaere K, Laekman G, Luyten P, *et al.* Het toenemend gebruik van psychofarmaca: visietekst werkgroep metaforum Leuven. Leuven: KULeuven; 2010. Metaforum

[4]   Karyotaki E, Smit Y, Cuijpers P, Debauche M, De Keyser T, Habraken H, *et al.* The long-term efficacy of psychotherapy, alone or in combination with antidepressants, in the treatment of adult major depression Good Clinical Practice (GCP). Brussels: Belgian Health Care Knowledge Centre (KCE); 2014 02/10/2014. KCE Reports 230

[5]   Cleemput I, Devos C, Devriese S, Farfan-Portet M-I, Van de Voorde C. Principles and criteria for the level of patient cost sharing: Reflections on value-based insurance. Health Services Research (HSR). Brussels: Belgian Health Care Knowledge Centre (KCE); 2012. KCE Reports 186

[6]   OECD. OECD Health Statistics 2018 [Web page]. [updated 8 November 2018; cited 22 November 2018]. Available from: http://www.oecd.org/els/health-systems/health-data.htm