

# **Evolution 1998-2002 of the antidepressant consumption in France, Germany and the United Kingdom**

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## Evolution 1998-2002 of the antidepressant consumption in France, Germany and the United Kingdom

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### Abstract

The aim of this paper is to compare the evolution of antidepressant consumption in France, Germany and the United Kingdom between 1998 and 2002. Commercial databases (IMS Health) have been used in conjunction with administrative data (PACT for the UK, GKV for Germany and Afssaps for France) to estimate antidepressant consumption in Daily Defined Doses. The main results are: (1) Antidepressant consumption has increased significantly over the last decade in France (x2), Germany (x2.4) and the UK (x3.8); (2) SSRIs are the most heavily consumed drugs in France (67%) and the UK (60%); (3) Germany is distinguished by an overall level of antidepressant consumption twice as low as the other two countries and a relatively low use of SSRI antidepressants (31%), in favour of TCAs. In conclusion, the combined use of administrative and commercial data is possible for an evaluation of the volume of consumption. This study sheds both medical and economic light on the differences in both the level and structure of consumption in these three countries.

**Keywords:** antidepressant consumption, SSRI, France, UK, Germany

**Codes JEL:** I11 et L65

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According to the WHO, depression is the leading cause of Years Lost due to Disability<sup>2</sup> in Europe[1]. In all these countries, the rise in the consumption of antidepressants, and particularly selective serotonin reuptake inhibitors (SSRIs), raises both economic questions and public health problems[2-10]. The fact that SSRIs have a better clinical tolerance than other antidepressants encouraged many doctors to widely prescribe them. The downside of such a behaviour is that it contributes to increasing unnecessary expenditures in situations where the clinical and economic benefits have not been established[11]. , In 2004, the Food and Drug Administration began issuing warnings about the risk of suicide or worsening depression in patients treated with SSRIs[12]. Moreover, questions have often been raised about their efficacy, the appropriateness of prescriptions in relation to the diagnosis and the duration of treatment [13-15].

A survey carried out in 1992 comparing France, the United Kingdom, Germany and Italy showed that France was by far the largest consumer of antidepressants[16]. The situation appeared to be the same in 1998, despite growing use of these drugs in the United Kingdom[7]. More recently, the ESEMeD 2000 survey showed that the prevalence of the use of antidepressants remained higher in France, 6% over one year, than in the other European countries studied - Belgium, Germany, Spain, the Netherlands and Italy – where it only reached 3.5%[17]. This French pre-eminence can be considered within the broader context of the consumption of psychotropic drugs, which is also higher than that of other European countries[18-20].

In Europe, some national surveys have highlighted the growing consumption of antidepressants. In France, data from the *Agence française de sécurité sanitaire des produits de santé* (Afssaps) show an increase of 58% in the number of antidepressant units sold to pharmacies between 1994 and 2004[21] and a doubling in the turnover linked to these products (+ 210%). Amar *et al.* note the multiplication by a factor of 6.7 of sales in Euros between 1980 and 2001[22]. In the United Kingdom, the number of prescriptions of antidepressants has considerably increased over the last decades[4,23], even doubling over the period from 1975-1998[6]. According to the authors of these studies, this increase, estimated to be + 732% between 1990 and 1995[24], is mainly due to the introduction of SSRIs on the market. In Germany between 1990-1998, global consumption of SSRIs and antidepressants also rose.

However, this review of the literature also shows a lack of recent comparative data on antidepressant consumption in Europe. Differences in the indicators and methodologies between countries make it difficult to compare results from studies based on national data. To our knowledge, only one study covering antidepressants as a whole compares five European countries for the period 2000-2004. It shows high rates of consumption growth in Italy and Germany, though the overall level was only half the level of that in the United Kingdom or France, but this study provides no information on each therapeutic sub-classes[25]. The aim of our study is to compare antidepressant consumption as a whole and by therapeutic sub-class, together with changes in consumption, in three countries:

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<sup>2</sup> "Years lost due to disability" (in this case depression) corresponds to the duration of the disability, weighted by a coefficient of its severity determined by the WHO.

Germany, France and the United Kingdom. Using the Daily Defined Dose, we seek to explain the evolution in consumption between 1998 and 2002 and the different types of antidepressant used in each country.

## Method

Comparing the overall antidepressant consumption in each of these three countries requires the use of data covering the widest possible population in each country, together with all the treatments prescribed to patients both in and out of hospital.

Data for France meet these criteria. They consist of the annual sales recorded by the Afssaps and were transmitted to us free of charge. Information comes from sales that pharmaceutical companies declare annually for tax purposes. These data cover all pharmaceutical preparations sold in France (excluding French overseas departments) between 1998 and 2002. They specify the number of packages sold, distinguishing between community and hospital, and are available for each antidepressant.

For Germany and England, we used two types of data: commercial databases and publicly available administrative data. The commercial databases were acquired from IMS Health, a commercial company which collects drug utilisation data in many countries. The data we bought concern quarterly sales of SSRIs in Germany and the United Kingdom from the first quarter of 1998 to the last quarter of 2002. For each type of packaging, these data give the number of packages sold to hospitals, primary care physicians, community pharmacists and pharmaceutical wholesalers.

IMS Health data were used to compare the data from France as they are the most comparable data available. Unfortunately, the data we bought only cover SSRIs and we had to extrapolate our results to obtain comparable estimations for the whole antidepressant class. This extrapolation was done using the data published by GKV and PACT, which cover all antidepressants, but in limited populations.

For Germany, we used the annual data on reimbursement drawn up by the *Gesetzliche Krankenkasse* (GKV), the national health insurance scheme from 1998 to 2002. These data are published in an annual report called 'Arzneiverordnungs-Report'[26] and are specified by substance in Daily Defined Doses<sup>3</sup> (DDD) for each antidepressant, including imports. The GKV covers about 90% of the German population and only covers drugs prescribed to outpatients.

For England, we used the annual prescription data of the *Prescribing Analysis and Cost Tabulation* (PACT) published on-line by the Prescription Pricing Authority of the National Health Service for the

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<sup>3</sup> The DDD (daily defined dose) is the assumed average maintenance dose per day for a drug used for its main therapeutic use in adults.

period from 1998 to 2002; these data come from prescriptions delivered by community pharmacists and appliance contractors, dispensing doctors and prescriptions submitted by prescribing doctors for items personally administered in England (<http://www.dh.gov.uk/en/Publicationsandstatistics/> consulted on 22 October 2007). The data do not cover drugs dispensed in hospital or private prescriptions. Only the public data for England, which represents 84 % of the UK population, enable the number of DDD to be calculated for each antidepressant. We obtained the data for Scotland, calculated in DDD, from the site of the Scottish Minister of Health for the same period<sup>4</sup>. For Northern Ireland and Wales, the data do not allow calculation of consumption in DDD and has not been included in this study (table 1).

<<Insert table 1>>

In detail, for Germany and the UK, we first calculated in DDD the share of SSRIs in the whole class of antidepressants, on the basis of GKV or PACT data, respectively. We then extrapolated the number of DDDs for SSRIs obtained in the IMS Health data from this share. In doing so, we estimated the number of DDDs for a whole class of antidepressants for each country. The results were expressed in DDD/1000 inhabitants/year. The number of inhabitants in each country was drawn up from OECD Health Data (<http://www.ecosante.fr/>)..

The classification used follows the Anatomical Therapeutic Chemical (ATC) classification system of the WHO (<http://www.whooc.no/atcddd/>, consulted on 22 October 2007). Drugs belonging to the class of antidepressants (N06A) in 2002 were studied. For our purposes, three drug sub-classes were derived from the five items provided by the ATC classification (table 2):

- non-selective monoamine reuptake inhibitors, also called tricyclic antidepressants or TCAs (ATC class N06AA);
- selective serotonin reuptake inhibitors, or SSRIs (ATC class N06AB);
- 'other antidepressants', which groups together the ATC class of monoamine oxydase inhibitors (MAOIs) (ATC classes N06AF and N06AG) and other antidepressants (N06AX).

<<Insert table 2>>

In order to take into account the existing differences between doses and packaging across countries, sold quantities of antidepressants (number of packages) have been expressed in DDD. DDD is established by a committee of experts (Nordic Council on Medicines) on the basis of the main therapeutic use of the main active ingredient [27]. Note that calculations based on WHO standards have been carried out when the DDD was not available.

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<sup>4</sup> [http://www.isdscotland.org/isd/information-and-statistics.jsp?pContentID=3671&p\\_applic=CCC&p\\_service=Content.show&](http://www.isdscotland.org/isd/information-and-statistics.jsp?pContentID=3671&p_applic=CCC&p_service=Content.show&), consulted on 22 October 2007

## Results

In 2002, the number of DDD/1000 inhabitants/year of antidepressants was estimated to be 18,479 for the United Kingdom, 16,490 for France and 8,188 for Germany. From 1998 to 2002, the consumption of antidepressants showed constant growth in all three countries, but it increased most in Germany, where consumption rose by a factor of 1.7, followed by the United Kingdom with a factor of 1.5 and France with a factor of 1.3 (table 3). Over ten years, on the contrary, growth appeared higher in the United Kingdom (x3.8) than in the other two countries (x2.4 for Germany and x2 for France).

<<Insert table 31>>

In 2002, the number of DDD/1000 inhabitants/year for SSRIs was 11,115 per 1000 inhabitants in France and 11,012 per 1000 inhabitants in the United Kingdom. In Germany, this figure was only 2,565 per 1000 inhabitants, *i.e.* four times less. Both in France and the United Kingdom, SSRIs represented two-thirds of the units consumed (France, 67%; UK, 60%). The remaining third was distributed differently in each country. In France, TCAs constituted 12% of DDDs and other antidepressants 21%, whereas in the United Kingdom, these molecules represented 27% and 13% of DDDs, respectively. In Germany, SSRIs only represented 31% of DDDs and TCAs were the most widely used molecules, with 50% of DDDs. The structure of consumption is therefore totally different between Germany and the other two countries (figure 1).

<< Insert figure 1 >>

The evolution of the structure of antidepressant consumption has been the same in all three countries; we have seen an increase in the proportion of treatments with SSRIs and 'other antidepressants', combined with a substantial fall in the use of TCAs. Despite the low consumption of SSRIs in Germany, this was the country in which their share increased most between 1998 and 2002 (+ 68% compared to 13% in France and 11% in the UK).

Within the sub-class of TCAs, amitriptyline remained the most commonly consumed antidepressant in all 3 countries in 2002 (46% of DDDs for TCAs in England, 41% in France and 34% in Germany). The second-most used substance varied from one country to another: clomipramine with 32% of DDDs for TCAs in France, dosulepine in England (26%) and doxepine in Germany (22%). According to the *Rote Liste®* of 2006 (<http://www.rote-liste.de>, consulted on 22 October 2007), doxepine, very seldom used in France and the United Kingdom, appears to benefit from wider indications for use in Germany than in the other two countries (for example, for sleeping disorders, whereas in France and the United Kingdom, in 2006, it was only indicated for severe depressive episodes).

Among the SSRIs, German doctors clearly preferred sertraline, with 41% of DDDs for SSRIs, followed by paroxetine (27%) and fluoxetine (19%). French and English doctors preferred fluoxetine and paroxetine (32% and 29%, respectively, in England; 30 and 33% in France).

## Discussion

The two major findings of the present study are the huge increase in the consumption of antidepressants over the last decade in France, Germany and the United Kingdom and the differences in the consumption patterns between Germany and the other countries. Consumption reached comparable levels in France and the UK whether in terms of overall antidepressant or in terms of SSRIs. SSRIs were the most consumed antidepressants in France and in the United Kingdom, followed by 'other antidepressants' in France and by TCAs in the United Kingdom. Germany was more atypical with an overall level of antidepressant consumption that was twice as low and a relatively low use of SSRI antidepressants, in favour of TCAs.

The level of antidepressant consumption depends on the prevalence of depression in each country, the prevalence of diagnosed depressions and the frequency of drug treatments within the context of other treatments, especially psychotherapy. Several factors help explain the low consumption in Germany. First, there is a low prevalence of severe depression as evaluated by the modified Mini-International Neuropsychiatric Interview (MINI): 4% over 6 months in 1995[28] (according to the same source, the prevalence of severe depressions is estimated to be 9% in France and 10% in the United Kingdom). Second, these depressions are often poorly diagnosed[29] because of the low utilisation of the health care system by patients suffering from depression – only 23%[28]. Treatments are also under-used, with only 35% of severe depression receiving drug treatment[30]. This under-use is particularly noticeable in the elderly: more than 9 out of 10 depressed elderly patients in Germany are not treated, especially in institutions[31]. Finally, Gandjour *et al.* observe a high rate of treatments that are inappropriate in terms of duration and/or dose: 65% of patients suffering from severe depression receive inadequate treatment in Germany, compared with 47% in the United Kingdom; in Germany, 43% of treatments for severe depression are of inappropriate duration (30% in England), 9% involve an unsuitable dose (13% in England) and 13% combine both factors (4% in England) [15].

In line with a recent study, we found that the low level of antidepressant consumption in Germany is partly offset by high consumption of herbal medicines[32]. Consumption of plants with antidepressant properties, for example St John's wort or Kava-Kava, represent 70% of the consumption of SSRIs and 20% of the whole class of antidepressants in our data for 2002. The consumption of herbal medicines has, however, decreased considerably over the last few years.

On the contrary, France, is characterised by a higher prevalence of depression, 9% of severe depression over 6 months in 1995[16] and more frequent treatment with drugs: 51% of diagnosed severe depression is treated with drugs[30]. In 1998, a report by the Afssaps observed that the

duration of treatment was too long with regard to current recommendations [33]. More recently, Lecadet *et al.* showed that the increase in antidepressant consumption is connected to an extension in the duration of treatments[34] and several authors have pointed out elsewhere the inappropriate use of antidepressants. Thus, SSRIs are prescribed in 22% of cases in the absence of psychiatric pathology and 32% of patients interrupt their treatment prematurely[14]. Furthermore, several studies point out the high frequency of off-label prescriptions: Kuhn *et al.* show that one-third of new SSRI treatments are off-label and Olié *et al.* record off-label prescriptions for 46% of patients taking antidepressants[35].

Finally, in the United Kingdom, in 1995, the prevalence of severe depression over 6 months was higher than in France, at 10%[28], but, as in Germany, only 35% of diagnosed severe depressions are treated with drugs[30]. The frequency of inappropriate treatments for severe depression, although lower than that observed in Germany, still reaches 47%: 30% are of inappropriate duration, 13% of unsuitable dose and 4% combine both factors[15].

The differences observed in each country between the different classes of antidepressants may be the result either of national recommendations and reservations or of economic constraints. Germany is characterised by a low rate of SSRI use, despite current recommendations (1997), which consider them to be as effective as TCAs or moclobemide (MAOIs) as first-line treatments. However, German studies stressed haemorrhagic complications linked to SSRIs[36,37] and the German licensing authority, the *Bundesgesundheitsamt*<sup>5</sup>, expressed a number of reservations about the high number of suicides under fluoxetine, delaying authorisation for the German market for two years (The Guardian, 30/10/1999). The cost of SSRIs did not appear to have an impact on their use, first because co-payment in Germany was a contribution based solely on the size of the packaging and not on the price of the drug and, secondly, because the price of almost all antidepressants was below the reference price and therefore completely reimbursed (except the co-payment). However, it should be noted that German doctors are subject to prescription budgets which tend to direct their choice towards the least expensive drugs.

In France, the recommendations of 1996 do not express a preference for any particular substance, but the criteria of choice specify that tolerance should be taken into account; the revised recommendations, published in 2002, clearly define the substances that should be prescribed as first-line treatments: SSRIs and 'other antidepressants'. Unlike Germany, French recommendations underlined the good tolerance of SSRIs and doctors are not subject to any budget constraints, which may help explain the high proportion of SSRIs consumed. Finally, current English recommendations (drawn up in 2000) include SSRIs among the substances to be used for first-line treatment.

SSRIs have seen the strongest rise in consumption within all classes of antidepressants in the three countries. This growth can be partly explained by their greater tolerance compared with the older antidepressants, TCAs and MAOIs. The numerous extensions to the indications for use from which

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<sup>5</sup> Now the 'Bundesinstitut für Arzneimittel und Medizinprodukte'.



they have benefited since their introduction on the market in 1984 have also contributed to this growth: obsessive compulsive disorders, panic disorder, general or social anxiety disorders, bulimia nervosa and post-traumatic stress disorders.

Over the last ten years, antidepressant consumption has more than doubled in the United Kingdom, where a major national information campaign, 'The Defeat Depression Campaign' was conducted between 1992 and 1996 by the Royal College of Psychiatrists and the Royal College of General Practitioners. This campaign was aimed at both health professionals, to improve the accuracy of their diagnoses, and patients, to de-stigmatise depression and encourage them to seek treatment [38]. An overall increase of 33% in the number of antidepressant prescriptions by GPs, 134% for SSRIs and 12% for TCAs, was observed after this campaign [39]. This was followed, from 1998 to 2003, by another campaign: the 'Changing Minds Campaign' (<http://www.rcpsych.ac.uk/campaigns/changingminds.aspx> consulted on 22 October 2007).

## Methodological discussion

The first limitation in our study lies in the use of data sources whose comparability may be debatable. Using the SSRIs data from IMS Health that we obtained for Germany and the United Kingdom, we verified that the volume of SSRI consumption was similar to national administrative sources (PACT data for the UK and GKV data for Germany). In both cases, the IMS Health data give a higher volume of consumption in DDD, by 10% for the United Kingdom and 17% for Germany (figure 2).

<<Insert figure 2>>

In the two countries, the lower figure obtained from administrative data is essentially due to the lack of hospital data in the PACT and GKV data, although they are included in the IMS Health data (see table 1). The missing population in both the PACT data (8 %) and the GKV data (10%) could also affect the SSRI consumption level, if this population did not have the same pattern of consumption. In Germany, for example, the exclusion of people with high incomes, not affiliated to the GKV, may lead to an overestimation in the GKV data, linked to the lower consumption of people from a higher socioeconomic class[40]; however, this factor does not call into question the large difference observed between the two countries.

The German and British data also appear to be comparable to those in France. The IMS Health data measure wholesaler sales and direct sales to pharmacies, whereas the Afssaps data are based on pharmaceutical companies' sales on the domestic market; stocks held by wholesalers are the only possible cause of divergence. Moreover, with the exception of IMS Health UK data, which only cover 97% of the market, the German IMS data [41], like those of the Afssaps in France, are exhaustive.

The extrapolation of the number of DDDs for SSRIs obtained from the IMS Health data, based on the structure of consumption observed in the PACT or GKV data, is subject to several hypotheses and constitutes the second limitation to this study. Firstly, it assumes that the share of SSRIs consumed in hospitals is the same as that sold in pharmacies. In the French data, the share is, in fact, slightly lower in hospitals, but over the years this gap has tended to narrow (3% in 2003). In addition, for Germany, we assume that people not affiliated to the GKV (10%) have the same pattern of consumption by class of antidepressants as those who are affiliated. We have tested the impact on our extrapolation of two reverse hypotheses: that the non-affiliated 10% have a higher or lower consumption. Even under the hypothesis that they consume twice as much as those affiliated to the GKV, the extrapolation results in a rise of 10% in total antidepressant consumption, meaning that consumption in Germany is still far lower than that in the United Kingdom and France. Finally, for the United Kingdom, the implicit hypothesis in our calculation is that the structure of antidepressant consumption in DDD in Wales and Northern Ireland is the same as that observed in the rest of the UK. The data for each county of the UK are only available as net ingredient cost and show a quite similar cost structure in each country, suggesting that the structure in terms of the number of DDDs is also relatively similar<sup>6</sup> (table 4).

<<Insert table 4>>

Lastly, the third methodological limitation lies in the use of DDD to measure consumption. Although it makes it possible to overcome the problem of differences in packaging and doses in different countries, the DDD is no more than a standard measure relating to the main indication of the product. As a consequence, it fails to take the prescribed daily dose (PDD) into account. A study of lipid-lowering drugs has shown that, depending on the drug, the PDD can differ very markedly from the DDD, and that the PDD varies strongly from one country to another[42]. Similar divergences are possible for antidepressants. In addition, Donoghue has shown that for some antidepressant molecules, the prescribed doses (PDD) do not conform with the recommended doses[43].

## Conclusion

Our results not only concur with those obtained in a certain number of national studies, they above all shed light on antidepressant consumption differences in space (France, Germany and the United Kingdom) and time (1992-2002). This study underlines a clear increase in the number of DDDs for antidepressants, and particularly for SSRIs, over a specific period. Contrary to data from 1992, France now shares the highest level of antidepressant use with the United Kingdom, while Germany remains at a distinctly lower level of consumption. Our study also highlights the substantial use of SSRIs in France and the UK, whereas Germany still favours TCAs. For these three countries, the combined use of administrative and commercial data is possible for an evaluation of the volume of consumption. Future studies should examine other European countries and refine the measurement of consumption

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Here, this hypothesis assumes that there is no great price difference between the different UK counties.

by means of average prescribed doses; they should also include the use of psychotherapy as a means of studying global methods for treating depression.

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**Table 1: List of sources for the data used**

		Community pharmacists and hospitals confounded	Community pharmacists	Hospital	SSRIs	All antidepressants	Whole population	Sub-population
France	AFSSAPS		X	X		X	X	
Germany	GKV		X			X		90% of the population
Germany	IMS Health	X			X		X	
UK	PACT		X			X		England and Scotland <sup>a</sup>
UK	IMS Health	X			X		X	

<sup>a</sup> For Northern Ireland and Wales, PACT data are only available at an aggregate level and only for a few years; they do not allow for the calculation of DDD.

**Table 2: Antidepressant substances available in the British, French and German markets in 2002.**

<b>TCAs (N06AA)</b>	France	Germany	UK
amineptine			
amitriptylline	x	x	x
amitriptylinoxid		x	
amoxapine	x		x
clomipramine	x	x	x
desipramine	x		
dibenzepin		x	
dosulepine (dothiepin)	x		x
doxepine	x	x	x
imipramine	x	x	x
lofepramine hydrochloride			x
maprotiline	x	x	x
nortriptyllin		x	x
opipramol		x	
protriptyline hydrochloride			
quinupramine			
timipramine	x	x	x

<b>SSRIs (N06AB)</b>	France	Germany	UK
citalopram	x	x	x
escitalopram	x		x
fluoxetin	x	x	x
fluvoxamin	x		x
paroxetin	x	x	x
paroxetine mésilate	x		
sertraline	x	x	x

<b>Other antidepressants</b>	France	Germany	UK
<b>N06AF</b>			
iproniazide	x		
Isocarboxazid			x
nialamide			
phenelzine sulphate			x
tranylcypromin		x	x
<b>N06AG</b>			
moclobémide	x	x	x
toloxatone	x		
<b>N06AX</b>			
medifoxamine			
mianserine	x	x	x
milnacipran	x		
minaprine			
mirtazapine	x	x	x
nefazodon			x
oxaflozane			
reboxetin		x	x
tianeptine	x		
trazadone		x	x
tryptophan			x
venlafaxine	x	x	x
viloxazine	x		

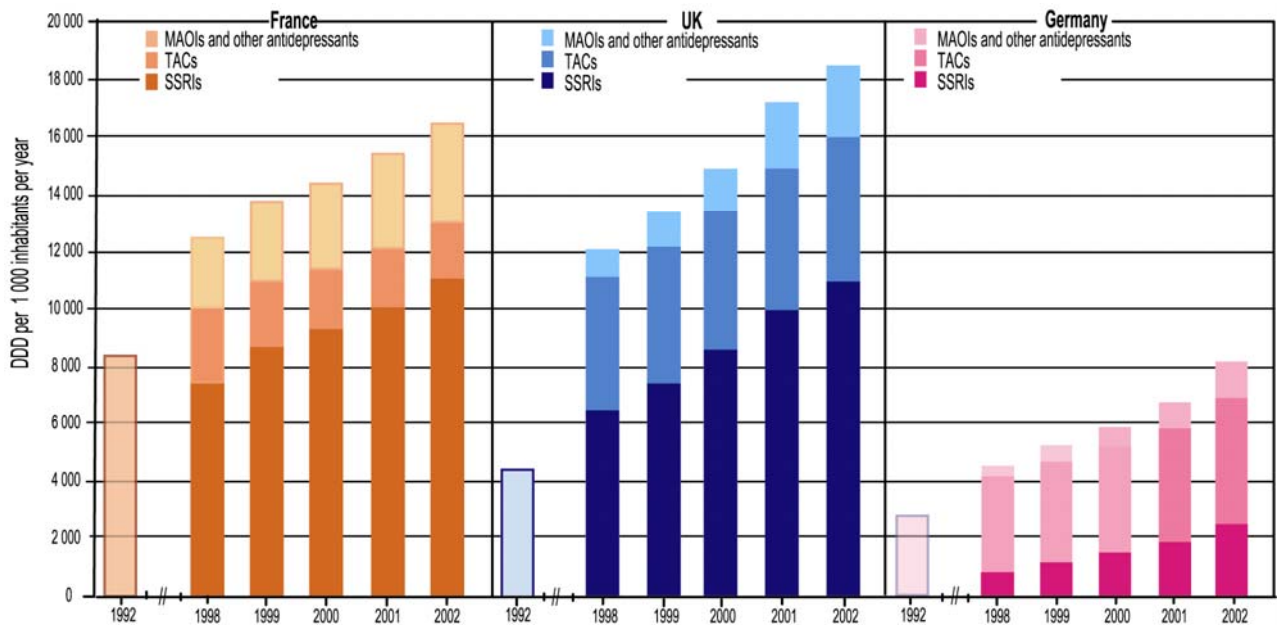
**Table 3: Number of DDD per 1000 inhabitants and per year for antidepressants in Germany, France and the United Kingdom**

DDD per 1000 inhabitants per year	Germany	United Kingdom	France
1992 [16]	3 406	4 816	8 145
...			
1998	4 681	12 059	12 495
1999	5 253	13 364	13 769
2000	5 891	14 884	14 398
2001	6 769	17 203	15 437
2002	8 188	18 479	16 490
Evolution 2002/1992	2.4%	3.8%	2.0%
Evolution 2002/1998	1.7%	1.5%	1.3%

**Table 4: Share of SSRIs in total antidepressant consumption in Net Ingredient Cost, per country of the United Kingdom**

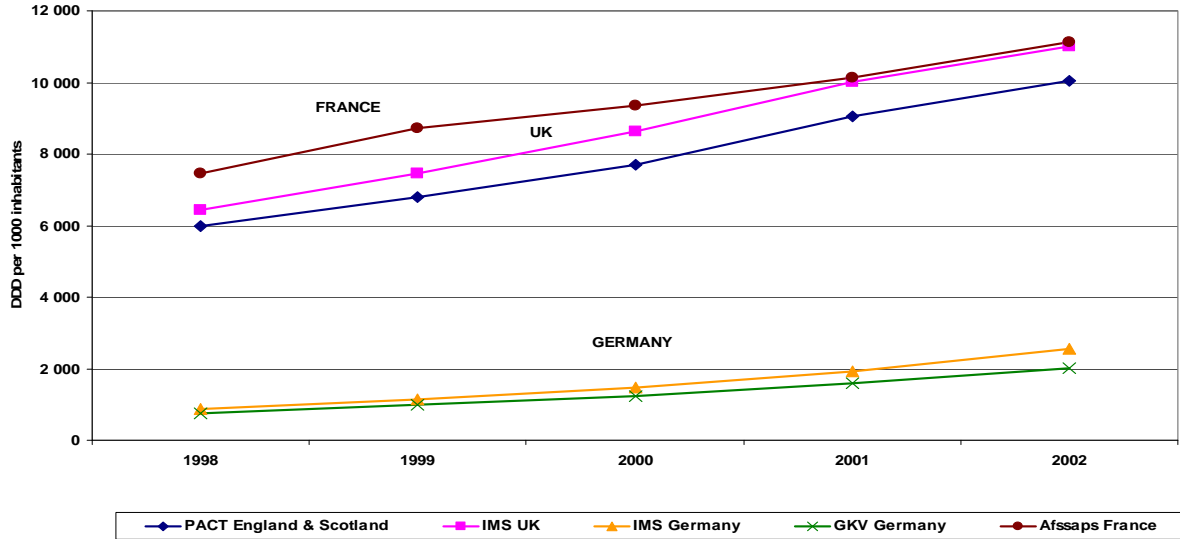
	England & Scotland	Wales	N. Ireland	UK total
Percentage of the population	92.3%	4.9%	2.8%	100%
<b>Share of SSRIs in total antidepressant consumption in Net Ingredient Cost</b>				
<b>2000</b>	68.34%	66.24%	66.77%	68.15%
<b>2001</b>	66.36%	65.80%	61.95%	66.14%
<b>2002</b>	63.61%	63.12%	56.65%	63.27%

**Figure 1: Number of DDDs per 1000 inhabitants and per year by class of antidepressants in Germany, France and the United Kingdom**



**Figure 2 : Number of DDDs per 1000 inhabitants per year for SSRIs according to different sources of data available in France, the United Kingdom and Germany from 1998 to 2002.**





## **Evolution 1998-2002 of the antidepressant consumption in France, Germany and the United Kingdom**

Nathalie Grandfils (Irdes), Catherine Sermet (Irdes)

The aim of this paper is to compare the evolution of antidepressant consumption in France, Germany and the United Kingdom between 1998 and 2002. Commercial databases (IMS Health) have been used in conjunction with administrative data (PACT for the UK, GKV for Germany and Afssaps for France) to estimate antidepressant consumption in Daily Defined Doses. The main results are: (1) Antidepressant consumption has increased significantly over the last decade in France (x2), Germany (x2.4) and the UK (x3.8); (2) SSRIs are the most heavily consumed drugs in France (67%) and the UK (60%); (3) Germany is distinguished by an overall level of antidepressant consumption twice as low as the other two countries and a relatively low use of SSRI antidepressants (31%), in favour of TCAs. In conclusion, the combined use of administrative and commercial data is possible for an evaluation of the volume of consumption. This study sheds both medical and economic light on the differences in both the level and structure of consumption in these three countries.

## **Evolution 1998-2002 de la consommation d'antidépresseurs en France, Allemagne et Royaume-Uni**

Nathalie Grandfils (Irdes), Catherine Sermet (Irdes)

Cet article compare l'évolution de la consommation d'antidépresseurs en France, Allemagne et Royaume-Uni entre 1998 et 2002. Nous avons utilisé conjointement des sources de données administratives (données de PACT pour le RU, de la GKV pour l'Allemagne et de l'Afssaps pour la France) et des bases de données commerciales (IMS Health) pour estimer la consommation d'antidépresseurs en dose quotidienne définie (daily defined dose ou DDD). Les principaux résultats sont : (1) une augmentation notable de la consommation au cours de la dernière décennie en France (x2), en Allemagne (x2.4) et au Royaume-Uni (x3.8) ; (2) les molécules les plus consommées en France (67%) et au Royaume Uni (60%) sont les inhibiteurs sélectifs de la recapture de la sérotonine (ISRS) ; (3) l'Allemagne se distingue par un niveau de consommation global d'antidépresseurs deux fois plus bas et par une utilisation relativement faible des ISRS au profit des tricycliques. En conclusion, sur ces trois pays, l'utilisation conjointe de données administratives et de données commerciales est possible pour une évaluation de la consommation en volume. Ce travail apporte un éclairage à la fois médical et économique sur les différences de consommation constatées entre ces trois pays, en niveau comme en structure.