

# **Psychotropic medications**

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## Reference points

### *Sales*

During the 1990s, the sales of **psychotropic medications** increased, a trend which was most marked for antidepressants (+ 70%).

In 1999, these sales represented 6% of the total city market, amounting to a turnover of approximately seven billion francs.

### *Consumption*

In the **general adult population**, the consumption indicators have remained relatively stable over the last ten years for anxiolytic agents and hypnotics. On the other hand, there was an upward trend in the consumption of antidepressants.

14% of men and 25% of women had recently used psychotropic medications. Regular consumption of sleeping tablets and tranquillisers alone was recorded for 9% of adults.

Medications stand out from all the other psychoactive drugs due to the fact that they are consumed more frequently by women than by men. For both genders, consumption increases with age.

Among **young persons**, experimentation with these drugs outside the medical prescription framework showed a very clear increase during the 1990s, particularly for boys. Consumption levels nevertheless remained higher for girls: at 17 years of age, 29% of girls had already experimented (11% for boys), and 13% of girls had consumed during the previous month (4% for boys).

The majority of consumption is done in the context of a medical prescription. In the general population, as among young people, self-prescription from the family medicine cupboard is found in a little more than 15% of cases; voluntary misuse “to drug oneself” is very rare. However, the consumption of some of these medications by problematic drugs users is frequently reported by observers in the field.

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## Consumption of psychotropic medications by the French population

The consumption of [psychotropic medications](#) in the French population is described on the basis of survey results from representative samples of the young or adult populations.

Three main classes were studied in the surveys of the general population: hypnotics (sleeping tablets or sedatives), anxiolytic agents (tranquillisers) and antidepressants.

The 1990s saw the appearance, on the antidepressant market, of serotonin and noradrenaline uptake inhibitors (the best known of which is Prozac®). As neuroleptics are rarely the subject of a question in surveys of the general population, they are excluded from the psychotropic medications in this part, except where they were explicitly referred to (as will be seen their prevalence is low).

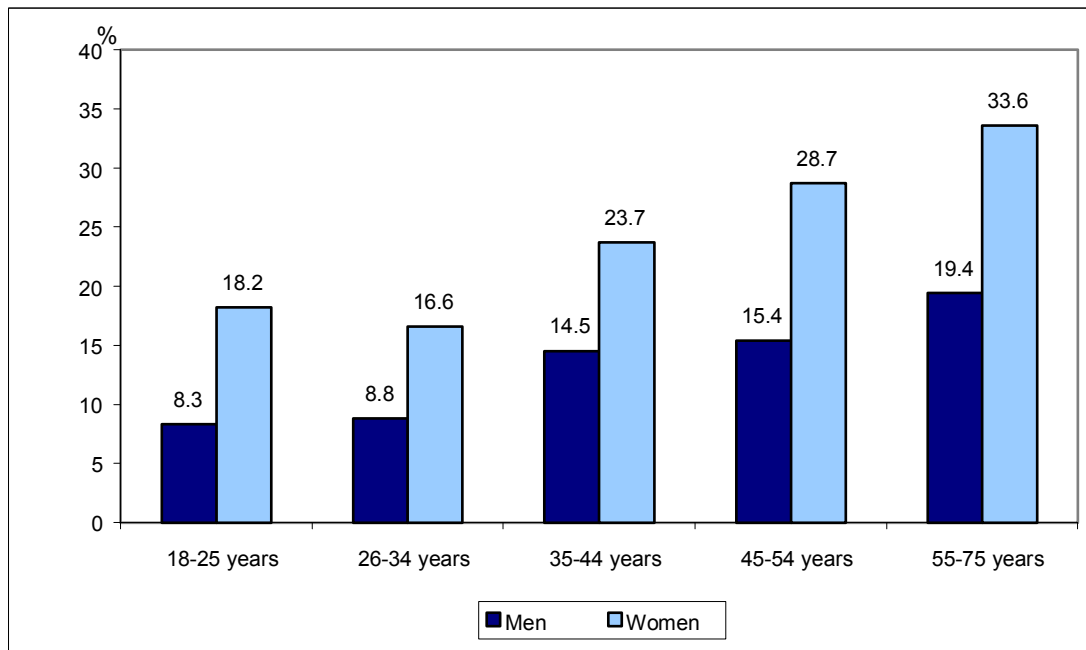
The uses covered here are recent use (having consumed a psychotropic medication during the last twelve months) and regular use (having consumed at least once per week for at least six months (Guignon *et al.*, 1994); having consumed within the last seven days [2] or at least once per week during the last thirty days [3]). The question of experimentation (having consumed a psychotropic medication during life) is only asked in surveys on adolescents.

### Consumption by the general adult population

#### *Recent use*

In the general adult population, the recent use of psychotropic medications involved 14.1 % of men and 25.3 % of women. More precisely, 6.0% of men and 12.4% of women had recently used antidepressants, the figures being 11.7% and 20.3% respectively for the category covering hypnotics and anxiolytic agents. This type of consumption increases with age, while always remaining higher among women. Among 55-75 year-olds, approximately one woman in three had consumed psychotropic medications during the previous twelve months, against one man in five [3].

**Frequency of use of psychotropic medications in the general adult population in 2000, by gender and age {361a}**



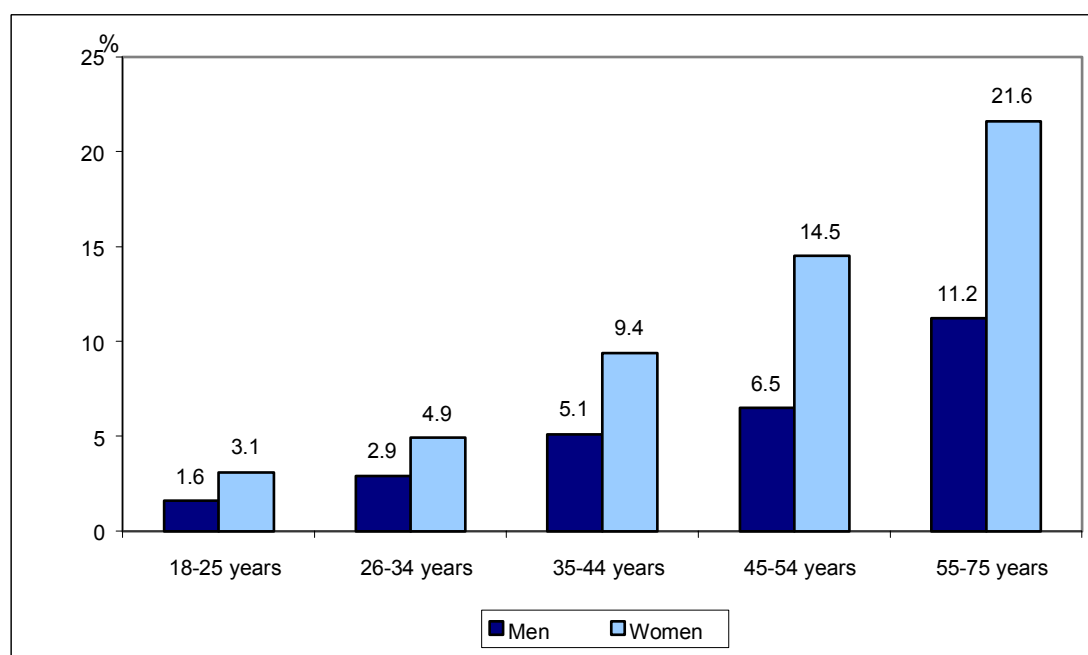
**Source: Health Barometer 2000, CFES, OFDT production**

Among the individuals who had consumed a hypnotic or anxiolytic agent during the year, 70.5% had also taken them during the previous thirty days, and half of those had taken them on a daily basis [3].

**Regular use**

In 1999, 9.1% of adults from 18-75 years admitted having consumed hypnotics or anxiolytic agents during the week preceding the survey. The difference between feminine and masculine consumption is accentuated after 45 years. Among 55-75 year-olds, approximately one woman in five had consumed hypnotics or anxiolytic agents once a week in the last thirty days, against one man in ten. [3].

**Frequency of the regular consumption of hypnotics or anxiolytic agents in the general adult population in 2000, by gender and age {361b}**



Source: Health Barometer 2000, CFES, OFDT production

In 1991, information on regular use by type of psychotropic medication was more detailed. The most consumed medications belonged to the anxiolytic class (7.3% of adults). Hypnotics were used by 3.6% of adults and more especially by older persons, while antidepressants were used by 2.0% of adults, particularly by women and younger persons. Neuroleptics, consumed by 0.7% of adults, were mostly consumed by men. Regular consumers of psychotropic medications therefore represent 11.3% of the population (the sum of the proportion of users of each type of drug being greater than the global proportion because some persons consume a number of types of drug) (Guignon *et al.*, 1994).

Of all the prescriptions established on a given day in 1996, approximately 11% included the prescription of at least one psychotropic medication. This consumption had been taking place for at least five years for 57% of these users [26].

In 1996, anxiolytic agents were present in two-thirds of the prescriptions which included at least one psychotropic medication. This was followed by hypnotics and antidepressants (34% and 30% of prescriptions) and then by neuroleptics (8%). Almost one quarter of the prescriptions included at least two types of drug.

Anxiolytic agents are most often prescribed by general practitioners, who represent approximately 85% of the prescribers of psychotropic medications and who initiate the treatment in 50% to 60% of cases. Psychiatrists are mainly at the origin of prescriptions for neuroleptics and antidepressants. This result is also shown by the analysis of the prescriptions reimbursed by the *Caisse nationale d'assurance maladie des travailleurs salariés* (CNAMTS: National illness insurance fund for salaried employees, 2000) which provides information on prescribers. As for all medications, those examined here are mainly prescribed by general practitioners (between 85% and 90% of them). However, antidepressants are also prescribed by psychiatrists: 11.7% for Prozac and 13.5% for Deroxat. These two proportions are high, as the proportions for all other medications are lower than 1%.

**Problematic or non-prescribed use.**

Although it is difficult to distinguish excessive use, or use which reveals dependence for all use, a number of methods can be explored. The first is based on the appropriateness between pathologies and prescriptions. In 1996, those doctors who had issued prescriptions which included at least one psychotropic medication on

the day of the survey were asked, by questionnaire, as to the pathologies at the origin of the prescription of psychotropic medications. Psychotropic medications were used in more than 80% of cases for psychological problems, associated in 17% of cases with an organic context (for example cardiac problems resulting in anxiety). In 13% of prescriptions, no organic or psychological context was recorded.

On the question of dependence, if the duration of the prescriptions is mainly complied with, it is essential that the prescriptions are renewed often and the cessation of this treatment is considered in fewer cases when the person is old and an attempt at withdrawal may result in failure [26].

The context in which hypnotic or anxiolytic agents, consumed during the last twelve months, were acquired, gives an indication of the type of use. In three-quarters of cases, they had been prescribed by a doctor. They may also have come from the remainder of an old prescription for that person (12.1%) or for a member of the family (4.7%) or have been provided by a pharmacist (7.3%). Hypnotic sleeping tablets or tranquillising anxiolytic agents are very rarely obtained from another person (2.2%) [3].

Some medications are sometimes taken to “drug oneself”; 0.7% of adults had done so during their lives (among these, one-third had used an anxiolytic agent, one-third a hypnotic, 13% an antidepressant, 12% codeine and 6% a neuroleptic) and 0.1% had done so during the year [3].

The consumption of antidepressants appears to be very often linked to a diagnosis of depression (only 0.5% of those who take them had no apparent reason) and part of the population is not treated although, without doubt, they should be. In effect, among the persons who admitted to being depressed, half admitted having consumed an antidepressant the night before the survey and among those who felt they were not depressed, but were recorded as such by the answers to specific questions, only 13% had. (Le Pape and Lecomte, 1999).

#### *Profile of recent consumers*

Widows and persons seeking employment are more frequently users of psychotropic medications than the overall population. Conversely to that which is seen for all medications, fewer persons with a higher level of education are found among users of psychotropic medications (Guignon *et al.*, 1994).

The use of psychotropic medications is often associated with the use of alcohol and tobacco among men and is much rarer among women. Three-quarters of masculine users of psychotropic medications also consume alcohol and tobacco, while only four women in ten do so (Guignon *et al.*, 1994).

#### *Developments*

Between 1993 and 1999, the regular use of hypnotic or anxiolytic agents has proved to be stable, with the same population structure, the proportion of interviewees haven taken them during the last seven days increasing from 8.9% (1993) to 9.2% (1995), and then reducing to 8.7% (1999) for those having taken them at least once a week during the last thirty days [1] [2] [3]. In 1995, between 18 and 34 years of age, the percentage of female consumers was barely greater than male consumers, while above 35 years of age, there were at least twice as many women as men. The difference between the genders is accentuated among the youngest adults, as it now exists from 18 years onwards [2] [3].

Comparison of the results of the health survey of 1991 with that conducted on out-patients in 1996 confirms that the percentage of persons using hypnotics, anxiolytic agents and neuroleptics was of the same order in both surveys. On the other hand, there was a clear upward trend in the consumption of antidepressants: 17% in 1991 (Guignon *et al.*, 1994) against 30% in 1996 [26].

## **Experimentation and consumption by adolescents**

### *Experimentation*

Experimentation with psychotropic medications is relatively common behaviour at the end of adolescence, insofar as it is ahead of that for all drugs, except alcohol, tobacco and cannabis. As is the case for adults, experimentation is clearly more feminine (29% among girls against 10.6% among boys, at 17 years of age).

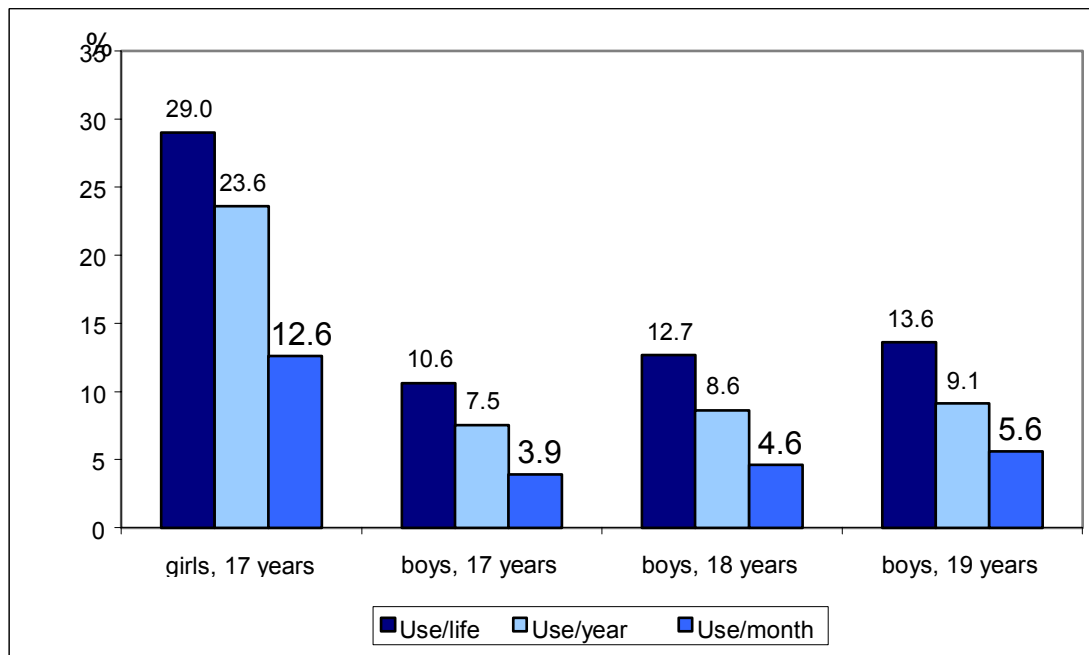
At that age, psychotropic medications are experimented with, on average, at 15 years of age by girls and at 14.6 years of age by boys [8].

Among girls, between 14 and 18 years of age, the proportion of experimenters of psychotropic medications increases with age, while among boys, it is stable [6] [7]. This age effect among girls is found particularly when the medication is taken without medical advice [7].

#### Current use

At 17 years of age, the difference between the genders remains steady for recent use [8].

#### Frequency of experimentation and recent use of psychotropic medications among young people at the end of adolescence in 2000, by gender and age {361c}



Source: ESCAPAD 2000, OFDT

At 17 years of age, almost three times as many girls as boys had taken “medications for the nerves”, irrespective of the period of reference. On the other hand, the breakdown of the number of uses during the year is identical for both genders: 40% of those who consumed during the year admit to one or two uses, and 30% to more than ten. With age, gender and school year repetition checked, the fact of having left the school system has no influence on the consumption of medications, neither during life nor during the year. Among young people who have left the school system, only gender is associated with consumption, while among students, the channel and school year repetition are important: pupils in the professional channel, with all other thing being equal, are approximately 20% less likely to have experimented or used, with school year repetition, to the contrary, increasing the chances by almost 15% [8].

In 1997, 8.7% of 12-19 year-olds had taken a psychotropic medication during the month (7% an anxiolytic agent, 3.5% a hypnotic) [6].

#### Developments

Since the beginning of the 1990s, there appears to have been an increase in the declarations of the use of psychotropic medications, seen among boys whether they had a prescription or not, and among girls for non-prescribed use [5] [7]. The survey conducted in 1997 did not allow a distinction to be made between these two types of use, but showed that 10% of pupils had taken such medications more or less regularly, and 20% had done so on an exceptional basis (Ballion, 1999).

**Frequency of experimentation with psychotropic medications among school-going young persons in 1993 and 1999, by gender**

(in %)

	1993		1999	
	Girls	Boys	Girls	Boys
Prescribed	27.1	11.5	23.7	15.8
Non-prescribed	7.7	2.6	17.4	11.0
Total	29.0	12.1	28.9	20.0

NB: the question asked in 1993 related to the last twelve months and that asked in 1999 related to life. These figures include all pupils irrespective of age. The totals are not the sum of the two practices, as the same individual can be involved in both.

Sources: INSERM 1993 ; ESPAD 1999, INSERM/OFDI/MENRT

## Observations in the field

There are a large number of psychotropic medications which are likely to be misused. The brand names frequently referred to by the TREND (*Tendances récentes et nouvelles drogues*: Recent trends and new drugs) structure are Tranxene® (dipotassic clorazepate), Stilnox® (zolpidem), Imovane® (zopiclone), Rivotril® (clonazepam), Artane® (trihexyphenidyle), Rohypnol® (flunitrazepam) and Valium® (diazepam). They are mostly drugs of the benzodiazepine family.

Three medications for which the recording structure allowed the collection of pertinent information are covered here: two benzodiazepines (Rohypnol® and Valium®) and Artane®, an anti-Parkinson's drug.

### *Rohypnol® and Valium®*

Rohypnol® (a hypnotic) and Valium® (an anxiolytic agent) are two medications which are used outside the medical context by very marginalized drug users with serious social difficulties (squatters, prostitutes, the homeless and wanderers) Rohypnol® is sought on the one hand, for its uninhibiting and invincibility effects (the "Rambo" effect<sup>1</sup>), and on the other as a drug associated with the use of opiates (buprenorphine, heroin) and/or alcohol. Valium® is used for similar reasons (coming down, sedation).

The main method of administration observed for Rohypnol® and Valium® is oral consumption. Cases of injection of Valium® have also been reported.

While Rohypnol® appears to be freely available in the majority of the TREND sites, the same is not true for Valium®, whose availability is much more variable. New, more restrictive measures in relation to the prescription and supply of Rohypnol® – which came into effect in February 2001 – will probably change the availability of this psychotropic medication.

### *Artane®*

The use of Artane®<sup>1</sup> is rarely observed, with the exception of three sites covered by the TREND structure (Paris, Seine-Saint-Denis and the Island of Réunion).

The profile of user of this medication is similar to that of benzodiazepine users, essentially marginalized persons. The effects sought are euphoria, hallucinatory delirium and the absence of inhibitions. Artane® is often associated with alcohol, which maximises the effects. The main method of administration is oral. Rare cases of injection have, nevertheless, been reported.

It should be noted that in Paris, Artane® is obtained directly from persons for whom this medication had been prescribed or from small traffickers, as is the case for other medications. In Reunion, however, more substantial cases of trafficking have been observed, from the neighbouring island of Madagascar.

<sup>1</sup> Trihexyphenidyle is a synthetic anticholinergic anti-Parkinson's drug whose two therapeutic indications are Parkinson's disease and Parkinson's neuroleptic syndrome.



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## Sales of psychotropic medications

Aside from surveys of the general population, the use of medications can be approached through sales data, which come directly from the manufacturers [10], or the city pharmacies [11]. The latter data, which is the only regionalised data, is used for the geographic analysis. We have limited ourselves here to an examination of the four classes of psychotropic medications used: hypnotics, anxiolytic agents, antidepressants and neuroleptics.

The limitations of the sales data are the same as in the case of alcohol and tobacco, as they do not allow a differentiation between exceptional consumption by regulars and those uses which resulted in dependence.

For psychotropic medications normally provided under medical prescription, it is possible to refer to the data resulting from the examination of the prescriptions presented to the social security organisations for reimbursement (*CNAMTS (Caisse nationale d'assurance maladie des travailleurs salariés: Salaried Employees National Illness Insurance Fund), 2000*).

### Out-patient or hospital sales in 1999

Due to the counting methods, in units of sale, which is heavily dependent on the packaging of each drug, the comparison of the sales of one category of drug with another is not possible. For this reason, the analysis is essentially centred on developments in sales.

In 1999, the turnover for the four classes of psychotropic medications examined reached more than 6 billion francs for sales in city pharmacies and almost 500 million francs for sales in hospital [10].

The sales in city pharmacies of anxiolytic agents, hypnotics and, to a lesser degree, antidepressants are not of the same order as those for neuroleptics. The latter appear to be most often prescribed in hospital. In terms of turnover, the order is different as it is antidepressants which generate the largest turnover (more than 3 billion francs in 1999), almost three times more than that for neuroleptics or anxiolytic agents. They are also more expensive drugs.

### Sales of psychotropic medications and turnover in 1999, by class of drug

(in thousands of units and francs)

	Units of sale		Turnover	
	in city pharmacies	in hospital	in city pharmacies	in hospital
Antidepressants	53,832	1,595	3,044,194	73,097
Neuroleptics	29,234	3,648	1,095,952	254,666
Anxiolytic agents	74,683	2,792	1,096,150	61,512
Hypnotics	73,094	2,766	877,321	105,502

Due to the different packaging sizes, it is not appropriate to add the units sold in city pharmacies to those sold in hospitals

Source: AFSSAPS

Analysis of the prescriptions reimbursed by the *Caisse nationale d'assurance maladie des travailleurs salariés* (CNAMTS: Salaried Employees National Illness Insurance Fund, 2000) also confirms the importance of the situation of antidepressants in the list of medications consumed in France.

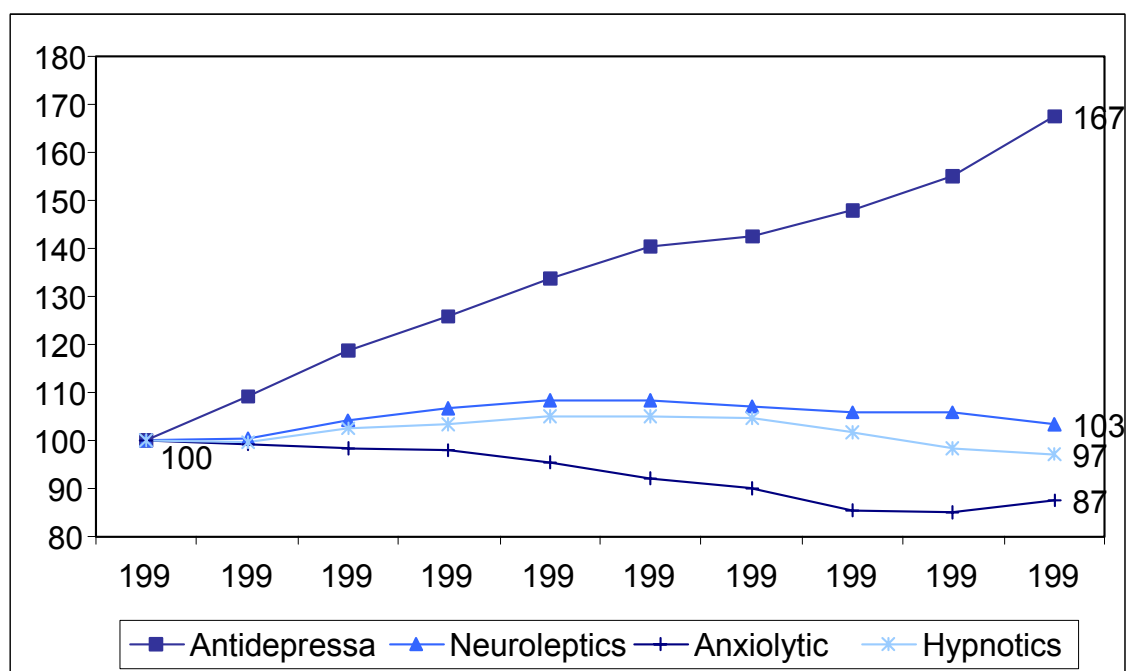
Two antidepressants appear among the ten drugs most frequently presented for reimbursement in 1999: Prozac® and Deroxat®<sup>2</sup>. The first was already classified among the first five drugs in 1993 (CNAMTS, 2000, p. 6).

## Developments in sales since 1990

The last decade was marked by the strong increase in the volume of sales of antidepressants (+67%). After a period of minor increase during the first half of the decade, the sales of neuroleptics and hypnotics have been reducing and have virtually reached the 1990 level. Finally, sales of anxiolytic agents have shown an opposite trend; reducing until 1998, they increased by approximately 3% in 1999, but are still, however, below the 1990 level.

### Sales of psychotropic medications in city pharmacies from 1990 to 1999, by class of drug {364a}

(base of 100 in 1990; in thousands of units of sale)



Source: Sales of psychotropic medications, AFSSAPS

The variations in sales may be related to very different factors such as the developments in packaging, prices or even the placing on the market of new molecules. The withdrawal of a drug, the launch of another or recommendations of moderation are also factors that may influence sales.

Thus, the increase in hypnotics during the first half of the 1990s was due to the placing on the market of new packaging with fewer tablets (a box of seven instead of twenty). This measure related to benzodiazepines or related drugs and was encouraged by the health authorities to encourage better use of these drugs. The other psychotropic medications were not subject to packaging modifications which were likely to result in an automatic increase in the number of boxes sold.

The increase in the sales of antidepressants was largely related to the placing on the market of a new type of antidepressant, which was more expensive than the preceding ones. Selective serotonin uptake inhibitors moreover amounted, in 1999, to 57% of the sales of antidepressants in units of sale and to 69% of turnover. As a reminder, these proportions were 15% and 30% in 1990.

Finally, an increase in the price of neuroleptics and the arrival of new specialities favoured the growth in this class of medication, at least until 1997 (ONPCM, (Observatoire national des prescriptions et

<sup>2</sup> At the same level as Vastarel®, Tahor® or Di-Antalvic®.

consommations des médicaments: National Observatory of prescriptions and the consumption of medications) 1998, p. 22).

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## Health and social consequences of the use of psychotropic medications

The consumption of [psychotropic medications](#) may be accompanied in some patients by misuse, abuse and addiction. Persons in these situations may seek assistance from professionals in the healthcare structures or in free practice. The only available figures come from the surveys on the care of drug users in the healthcare institutions. The measurement of care in the city medical services is very difficult as the borderline between the therapeutic uses of psychotropic medications on the one hand, and misuse, abuse and addiction on the other hand, is difficult to establish.

By comparison with the previous data (surveys and sales), the care data is closer to the subject examined in this report, which is the misuse of psychotropic medications (excluding medications with an opiate base), that is to say use which takes place outside the strict context of a medical prescription. This approach does not exclude, however, the cases of problematic use under prescription, due, in particular, to the potential for dependence on these substances.

### **Demands for treatment**

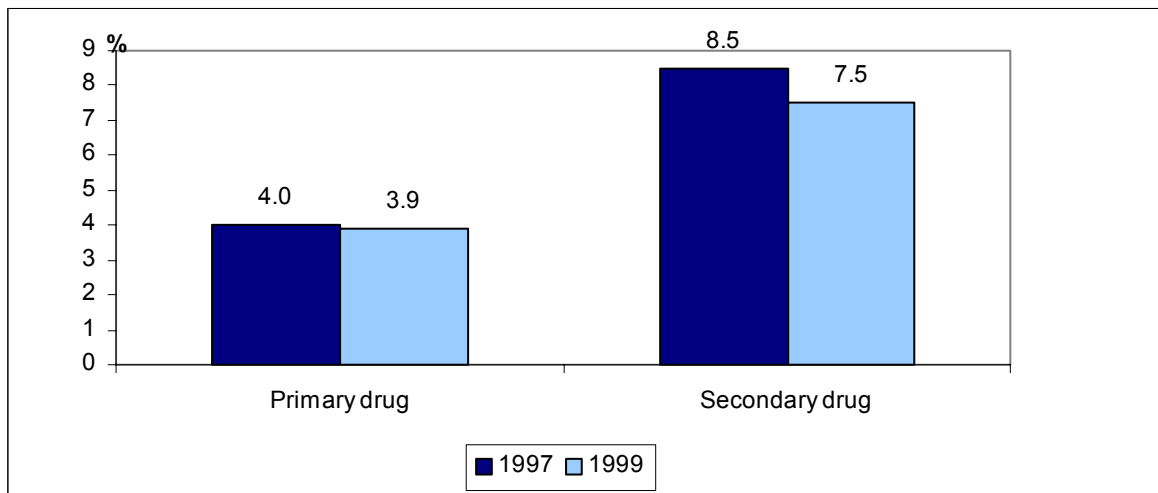
In November 1999, psychotropic medications (excluding those with an opiate base) were at the origin of a little less than 4% of care cases related to the use of drugs as a [primary drug](#) and 7.5% as a [secondary drug](#) [17]. The great majority of the drugs in question were benzodiazepines (70% to 80% of care cases for this group of drugs<sup>3</sup>). Much more often referred to as secondary drugs than as primary drugs, medications are, as are all drugs, very often associated with opiates in care cases, due to the overall weight of opiates in the reasons for care.

The trend between 1997 and 1999 was toward the stabilisation, even reduction, of the share of these care cases in the entirety of care cases.

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<sup>3</sup> The other medications referred to were barbiturates, with a small representation, antidepressants and the category of other tranquilisers.

### Share of psychotropic medications in the entirety of drug user care cases in 1997 and 1999 {363a}



This is the entirety of care cases in the specialist establishments and the healthcare establishments, excluding double counting, with at least one drug referred to as the origin of care (see methodological appendix).

N = 18,075 in 1997 and N = 19,564 in 1999

Source: Survey on the care of drug addicts in November 1997 and 1999, DREES/DGS

While the share of medications as the primary drug in care cases is relatively low, the recent consumption of medications (during the last seven days) appears much more often in the consumption of users. Taking the example of benzodiazepines, the consumption of these substances is reported among 25% of users attending the healthcare structures included in the coverage of the OPPIDUM (Observation des produits psychotropes ou détournés de leur utilisation médicamenteuse: Observation of psychotropic medications or those diverted from their medicinal use) survey in October 1999, a figure which has remained almost stable since 1995 [18]. These medications were prescribed by doctors in almost four out of five cases.

Having regard to the extent of the consumption of psychotropic medications in France, the number of care cases related to medications in the healthcare institutions seems low. General practitioners, the main prescribers of psychotropic medications, are probably the first involved in the care of patients having difficulty with their consumption of psychotropic medications. However, there is no data that allows precise measurement of this.

### Characteristics of persons in care.

As for all the drugs dealt with in this report, the characteristics of users are drawn from the cases of care for a primary drug. Psychotropic medications at secondary product level are dealt with in the chapters covering each of the different drugs.

#### *In November 1999*

The users taken into care in the healthcare institutions for the use of medications as the primary drug have the specificity of being, on average, a little older than the others and above all of forming the group with the greatest proportion of women (almost 40%). This strong feminine representation is consistent with the results of the surveys on the consumption of psychotropic medications in the whole population which show that more women than men consume these substances. They remain, nevertheless, a minority of the care cases related to medications.

It must also be underlined that the proportion of persons with paid employment is particularly low in these cases, a characteristic found equally among men as among women.

***Profile of care cases related to psychotropic medications and opiates (as a primary drug) in 1999***

	Medications	Opiates
Number of care cases (primary drug)	766	13,613
% of first-care cases	32.4	28.7
Average age	32.5	31.5
% under 25 years	17.3	12.8
% of men	60.6	75.9
% of persons sent by the justice	4	6.2
% of persons employed	22.6	38.9
% of pupils and students	5.5	2
% of persons receiving Minimum Insertion Income (RMI)	26.9	30.9
% of persons with opiates as a secondary drug	13.2	-
% of persons receiving substitution treatment	29	74.9
% of persons having used the intravenous duct (currently or previously)	35.5	73
% of persons having used the intravenous duct within the last 30 days	9.5	18.7

**Source:** *Survey on the care of drug addicts in November 1999, DREES/DGS*

The most frequently mentioned secondary drugs in these cases were alcohol (25% of cases), medications (13.5%), opiates (13%) and cannabis (10%).

The characteristics of this group of persons taken into care for the use of benzodiazepines are therefore substantially different to those of opiate users.

### *Developments*

The characteristics of persons taken into care for their use of psychotropic medications have not, overall, developed between the months of November 1997 and 1999, except for an increase in the proportion of persons receiving substitution treatment, which increased from 20% to 29% between these two dates, and a minor increase in the share of men (from 58.2% to 60.6%). Among the secondary drugs associated with psychotropic medications as the primary drug, the share of alcohol has tended to increase while that of medications and opiates has reduced.

### **Morbidity and mortality**

The taking of benzodiazepines in association with other substances, in particular, with high-dosage buprenorphine or methadone, may cause respiratory problems which are likely to result in death. According to the OCRGIS (Office central pour la répression du trafic illicite des stupéfiants: Central Office for the Repression of Drug-related Offences) statistics on overdoses detected by the police services, 35 deaths were related to the use of medications. These were essentially substitution medications (Subutex® or methadone) or opiate-based medications (Skenan®, Temgesic®), used alone or together. These cases are covered in the chapter on opiates. The deaths for which toxicological analysis revealed the presence of benzodiazepines are therefore of the order of ten in 2000 (of a total of 120 deaths). Benzodiazepines always appear as an associated drug, either with other medications, or, more rarely, with narcotics [29].

Tranquillisers prescribed to relieve stress or anxiety generally have the effect of removing inhibitions, which may lead users to take uncalculated risks, and in some cases to appear aggressive. As in the case of alcohol, they encourage acting out and may have consequences in terms of delinquent behaviour (particularly when driving). Longer term use of tranquillisers may also result in depression. In the absence of data on these aspects, the consequences of the use of tranquillisers in healthcare and social terms cannot be measured.

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# Geography showing the consumption and sales of psychotropic medications

## Regional approach

The geographic data on consumption are drawn from the Health Barometer [3], and the survey conducted on young people at the end of adolescence, during the Defence Preparation Day [8]. This analysis can be completed by that of the sales by city pharmacies [11]. As regards cases of care in the regions for the use of psychotropic medications, the figures are so low that it would be risky to comment on their regional breakdown.

### *Consumption in the general population*

Among 15-44 year-olds, the use of psychotropic medications during the last twelve months appears to be relatively uniform throughout French territory. Only the Provence-Alpes-Côte d'Azur (with Corsica) and the Franche-Comté regions are higher than the rest of France, while the Ile-de-France is lower. Among those over 45 years of age, only Basse-Normandie and Bretagne appear to consume less than the others.

### *Consumption at the end of adolescence*

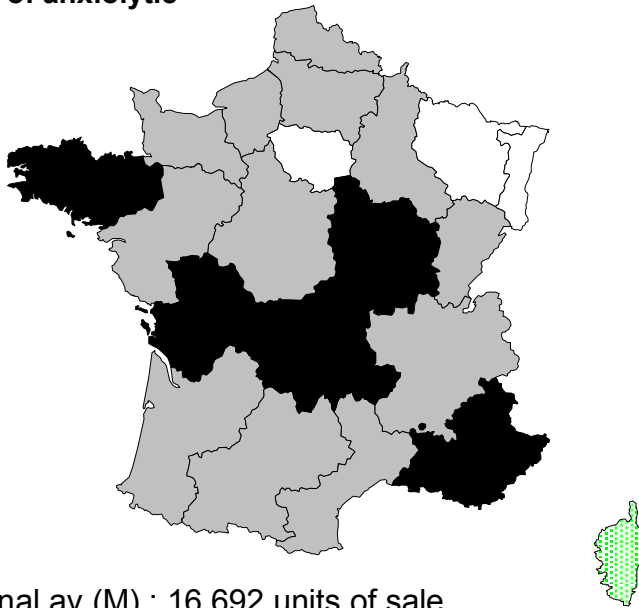
Experimentation with psychotropic medications at 17 years of age is fairly uniform throughout French territory, in particular among girls where no region differs significantly from any other. It appears to be at a minimum in the North-West region (25.2% against 28.1% for all the regions), while for boys, the difference here is significant (7.1% against 10.0% for all the other regions). The highest proportions are recorded in the Centre-East for both boys (12.3%) and girls (33.0%), while the Parisian region is distinctive only for boys [8].

### *Sales*

Some similarities, but mostly geographic contrasts were observed between the sales of anxiolytic agents, hypnotics and antidepressants in the city pharmacies in France during 2000:

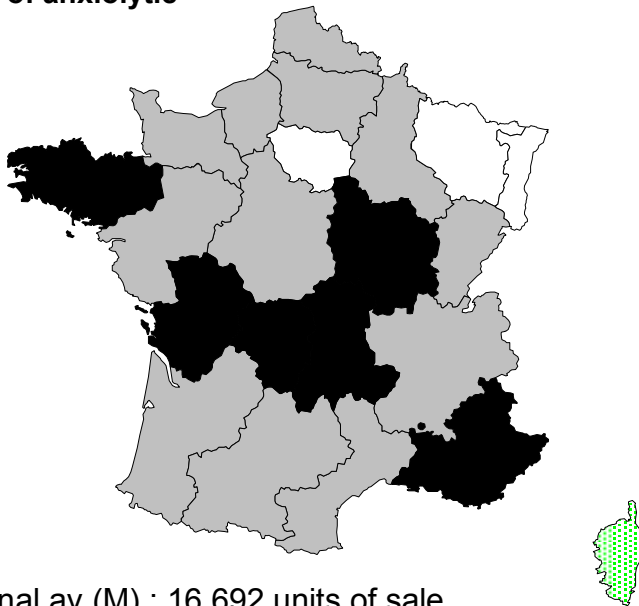
**Sales of anxiolytic agents in 2000, by region {365a}**

**Sales of anxiolytic**



national av.(M) : 16 692 units of sale

**Sales of anxiolytic**



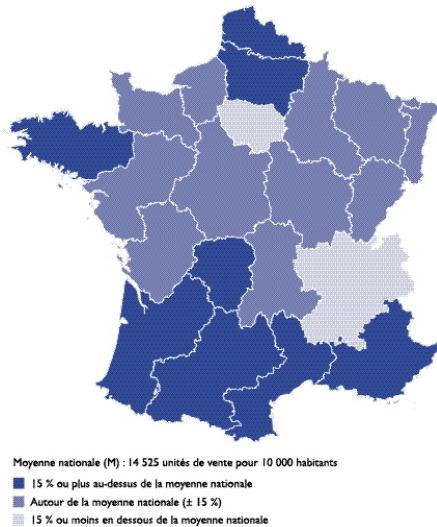
national av.(M) : 16,692 units of sale

*National average: 16.692 units of sale of anxiolytic agents for 10,000 inhabitants from 15 to 75 years of age.*

**Source: Sales in city pharmacies 2000, IMS-Health [11]**



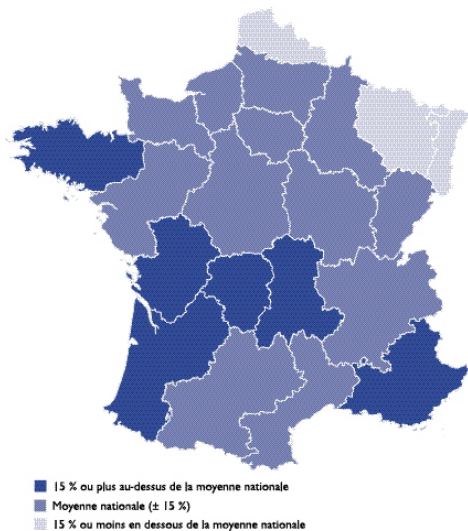
### Sales of hypnotics in 2000, by region {365b}



National average: 14,525 units of sale of hypnotics for 10,000 inhabitants from 15 to 75 years of age.

Source: Sales in city pharmacies 2000, IMS-Health [11]

### Sales of antidepressants in 2000, by region {365c}



National average: 13,405 units of sale of antidepressants for 10,000 inhabitants from 15 to 75 years of age.

Source: Sales in city pharmacies 2000, IMS-Health [11]

Irrespective of the category of psychotropic medications examined, the region of Limousin is characterised by strong sales, probably related to the size of the population of older persons in this region. It is followed by Bretagne and Provence-Alpes-Côte-d'Azur, regions which also appear among the large consumers of medications, irrespective of the class considered. At the opposite end of the scale, Alsace, Lorraine and the Ile-de-France region record relatively low sales of psychotropic medications when compared with their population [11].

In a more general way, the strong similarities between the sales situation for antidepressants and for anxiolytic agents must be noted, with substantial regional disparities. Sales of hypnotics are distributed more throughout the territory.

## European approach

In order to compare the situation in France with those of its European neighbours, from the point of view of cocaine consumption and its consequences, the data was taken from specific analyses or from the ESPAD (European School survey Project on Alcohol and other Drugs) survey on school-going young people in thirty European countries (Hibell *et al.*, 2001).

France is one of the countries with the highest consumption of medications (Chambaretaud, 2000). Psychotropic medications are not exempt from this rule, with France ahead of all of its neighbours, particularly Germany, the Benelux countries, the United Kingdom, Spain and Italy. It was, however, behind Denmark in 1994 (Legrain *et al.*, 1997).

Within the school-going population and among the thirty countries covered by the ESPAD survey, use during life of tranquillisers or sleeping tablets by French students of 16 years of age placed France among the leading countries, with or without prescription, for both boys and girls. When use with a prescription is examined, France, with 18%, is situated in second place behind the Czech Republic (25%) and at the same level as Croatia. The European Union countries are around the average of 10%. For tranquillisers or sleeping tablets taken without a prescription, the situation is little different, with France, at 12%, being situated in third position behind the Czech Republic and Poland (18%) and at the same level as Lithuania (Hibell *et al.*, 2001).

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## For further information

BALLION (R.), THE DEVIANT BEHAVIOUR OF PUPILS, PARIS, OFDT/CADIS, 1999, P. 243

BAUDIER (F.), ARÈNES (J.) (DIR.), ADULT HEALTH BAROMETER 95/96, VANVES, CFES, 1997, P. 288

BAUDIER (F.), JANVRIN (M.-P.), ARENES (J.), YOUNG PERSONS HEALTH BAROMETER 97/98, VANVES, CFES, 1998, P. 328

BECK (F.), LEGLEYE (S.), PERETTI-WATEL (P.), A LOOK AT THE END OF ADOLESCENCE: CONSUMPTION OF PSYCHOACTIVE DRUGS IN THE ESCAPAD 2000 SURVEY, PARIS, OFDT, 2000, P. 220

BECK (F.), LEGLEYE (S.), PERETTI-WATEL (P.), "ILLICIT DRUGS: PRACTICES AND ATTITUDES", IN GUILBERT (P.), BAUDIER (F.), GAUTIER (A.) (DIR.), HEALTH BAROMETER 2000, VANVES, CFES, 2001, (TO BE PUBLISHED).

BECK (F.), LEGLEYE (S.), PERETTI-WATEL (P.), ALCOHOL, TOBACCO, CANNABIS AND OTHER ILLICIT DRUGS AMONG COLLEGE AND SECONDARY SCHOOL STUDENTS: ESPAD 1999 FRANCE, VOLUME II, PARIS, OFDT, 2001, (TO BE PUBLISHED).

CAVALIE (P.), RAUSS (A.), ANALYSIS OF THE SALES OF MEDICATIONS TO PHARMACIES AND HOSPITALS IN FRANCE. 1988-1999, SAINT DENIS, AFSSAPS, DEPARTMENT OF MEDICAL-ECONOMIC STUDIES AND SCIENTIFIC INFORMATION, 2001, P. 86

CHAMBARETAUD (S.), "THE CONSUMPTION OF MEDICATIONS IN THE MAIN INDUSTRIALISED COUNTRIES", DREES STUDIES AND RESULTS, NO. 47, 2000, P. 1-8.

CHOQUET (M.), LEDOUX (S.), HASSLER (C.), ALCOHOL, TOBACCO, CANNABIS AND OTHER ILLICIT DRUGS AMONG COLLEGE AND SECONDARY SCHOOL STUDENTS: ESPAD 1999 FRANCE, VOLUME I, PARIS, OFDT, 2001, (TO BE PUBLISHED).

CAISSE NATIONALE DE L'ASSURANCE MALADIE DES TRAVAILLEURS SALARIÉS (CNAMTS: SALARIED EMPLOYEES NATIONAL ILLNESS INSURANCE FUND), MEDICAM: MEDICATIONS REFUNDED BY THE GENERAL ILLNESS INSURANCE SYSTEM IN 1999, PARIS, CNAMTS, 2000, P. 33

GUIGNON (N.), MORMICHE (P.), SERMET (C.), " THE REGULAR CONSUMPTION OF PSYCHOTROPIC DRUGS" , INSEE PREMIÈRE, NO. 310, 1994, P. 1-4.

HIBELL (B.), ANDERSSON (B.), AHLSTROM (S.), BALAKIREVA (O.), BJARNASSON (T.), KOKKEVI (A.), MORGAN (M.), THE 1999 ESPAD REPORT: ALCOHOL AND OTHER DRUG USE AMONG STUDENTS IN 30 EUROPEAN COUNTRIES, STOCKHOLM, CAN, 2000, 362 P.

LE MOIGNE (P.), ANXIOLYTIC AGENTS, HYPNOTICS : THE SOCIAL FACTORS OF CONSUMPTION, 1999, P. 50 (GDR DOCUMENTS PSYCHOTROPIC DRUGS, POLICY AND SOCIETY, N° 1).

LE PAPE (A.), LECOMTE (T.), PREVALENCE AND MEDICAL CARE OF DEPRESSION IN 1996-1997, PARIS, CREDES, 1999, P. 100 P. (COLLECTIVE REPORT NO. 1277).

LEGRAIN (M.), LECOMTE (T.), "THE CONSUMPTION OF PSYCHOTROPIC DRUGS IN FRANCE AND SOME EUROPEAN COUNTRIES", BULLETIN OF THE NATIONAL ACADEMY OF MEDICINE, VOL. 181, NO. 6, 1997, P. 1073-1087.

LEMOINE (P.), " PSYCHOTROPIC MEDICATIONS: THE BIG DEAL? ", TOXIBASE REVIEW, NO. 1, MARCH 2001, P. 2-12.

ONPCM (OBSERVATOIRE NATIONAL DES PRESCRIPTIONS ET CONSOMMATIONS DES MÉDICAMENTS: NATIONAL OBSERVATORY OF PRESCRIPTIONS AND THE CONSUMPTION OF MEDICATIONS), STUDY OF THE PRESCRIPTION FOR AND CONSUMPTION OF ANTIDEPRESSANTS BY OUT-PATIENTS, PARIS, MEDICINES AGENCY, PHARMACOLOGICAL-ECONOMIC STUDIES AND INFORMATION DIVISION, 1998, P. 33.

TELLIER (S.), THE CARE OF DRUG ADDICTS IN THE HEALTHCARE AND SOCIAL STRUCTURES IN NOVEMBER 1999, PARIS, DREES, 2001, 47 P. (WORKING DOCUMENT NO. 19).

ZARIFIAN (E.), THE PRICE OF WELFARE: PSYCHOTROPIC DRUGS AND SOCIETY, PARIS, ODILE JACOB, 1996, P. 282

ZARIFIAN (E.), GENERAL MISSION IN RELATION TO THE PRESCRIPTION AND USE OF PSYCHOTROPIC MEDICATIONS IN FRANCE, PARIS, MINISTRY OF SOCIAL AFFAIRS, HEALTH AND THE CITY, 1996, P. 402.