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**Press release**

**Psychotropic drugs: consumption and drug dependency**

*A collective expert opinion from Inserm*

The term 'psychotropic drug' is used to define medication that acts on the central nervous system by modifying certain mental processes. Generally speaking, these are medicines used to treat mild or serious mental illness and to alleviate pain.

Due to their psychoactive properties, psychotropic medicines may cause dependency if used chronically or if abused. Psychotropic medication is sometimes consumed outside any medical context and may be misappropriated or even trafficked in the same way as illegal drugs.

France's Interministerial Mission to Combat Drugs and Drug Addiction (MILDT) asked Inserm to produce a collective expert opinion on the consumption of psychotropic medication and the misuse and drug dependency associated therewith so that a scientific light can be thrown on these phenomena, with the addition of useful recommendations for improving the regulations and current prevention and care arrangements in France.

To comply this request, Inserm has created a multi-disciplinary group of 11 experts in the fields of epidemiology, drug monitoring, public health, sociology, anthropology, toxicology, psychiatry and neurobiology. The group analysed more than 1100 international scientific publications, making it possible to report on the main findings concerning the French situation.

## Psychotropic Drugs

The best-known psychotropic drugs are tranquillisers or anxiolytics, sleep-inducing or hypnotic, neuroleptic or antipsychotic drugs, antidepressants and thymoregulators.

Benzodiazepines for frequent use belong to the first two categories of psychotropic medication and are high-risk dependency drugs if taken chronically.

Other medication acting on mental activity have also been taken into consideration in this expert opinion. They include psycho-stimulants (methylphenidate, etc.), opiate analgesics and opiate substitutes.

### Principal classes of psychotropic drugs

| Class of psychotropic drugs    | Family (examples)                        | Molecule (examples)                        |
|--------------------------------|--|--|
| Anxiolytics or tranquillisers  | Benzodiazepines                          | Diazepam, bromazepam                       |
|                                | Antihistamines                           | Hydroxyzine                                |
|                                | Carbamates                               | Meprobamate                                |
| Hypnotics or sleeping pills    | Benzodiazepines                          | Flunitrazepam, nitrazepam                  |
|                                | Benzodiazepine- related drugs            | Zolpidem, zopiclone                        |
| Neuroleptics or antipsychotics | Typical neuroleptics typiques            | Chlorpromazine, haloperidol                |
|                                | Atypical neuroleptics                    | Olanzapine, risperidone                    |
| Antidepressants                | Inhibitors of serotonin reuptake         | Fluoxetine                                 |
|                                | Inhibitors of noradrenaline reuptake     | Trimipramine, mianserine                   |
|                                | Inhibitors of serotonin catabolism (MAO) | Moclobemide                                |
| Thymoregulators                |  | Lithium carbonate                          |
| Psychostimulants               | Sympathomimetics                         | Methylphenidate                            |
| Analgesic opiates              | Opium alkaloids                          | Morphine sulfate                           |
| Opiate substitutes             | Morphinomimetics                         | High Dosage Buprenorphine (HDB), methadone |

# Consumption of psychotropic drugs in France

## In the general population

- A slight increase in the prevalence of psychotropic drug consumption was observed between 2005 and 2010 (Health Barometer1) ;
- The number of consumers increases progressively with age, stabilising at around the age of fifty.
- About 18% of the population aged 18-75 admitted to having taken at least one psychotropic drug during the year, according to the 2010 Health Barometer survey;
- Regardless of age, those taking psychotropic drugs are mostly women: 23% versus 13% of men.

## Among drug-users

- Almost 30% of drug-users<sup>2</sup> admit to having taken psychotropic drugs (excluding treatment for opiate substitutes - TSOs) during the previous month;
- Psychotropic drugs issued on prescription are frequently accompanied by misuse and a high proportion of psychotropic drugs are taken without prescription. The prevalence of psychotropic drug misuse varies depending on the populations of the drug-users investigated and the type of medication they are on. For example, about 30% of users monitored at healthcare centres admit to having obtained clonazepam (benzodiazepine) illegally. Psychotropic drug misuse intensifies in the context of taking multiple drugs or when the method of administration is by injection;
- In France, 130,000 people are being treated with opiate substitutes, with a clear predominance of high-dosage buprenorphine (HDB) (80%), more than with methadone. About 15% of users under treatment are misusing HDB's through injection<sup>3</sup>. Of the HDB and methadone users questioned, the proportion of users who obtained the drug through street-sellers is 35% and 20% respectively;
- Misuse of opiate substitutes is less frequent among drug-users who are regularly monitored in healthcare facilities and by general practitioners.

## In France, the prevalence of psychotropic drug dependency is unknown

It is important to remember that by no means all psychotropic drugs result in dependency. In France, there is no data concerning the prevalence of dependency in the general population. Only an indirect approach via the length of time for which these drugs are taken chronically would reveal the various psychotropic drug dependency situations.

- In the general population, according to data available in the United States and Canada, 1% to 2% of the North American population is dependent on psychotropic drugs;
- Among those with psychiatric disorders who are monitored in general practice, a study in France shows that one out of two people are dependent on benzodiazepines;
- Dependence on certain psychotropic medications (for example, benzodiazepines or opiate analgesics, these being the commonest) involve the same neurological circuits as those of dependency, activated by other substances that are liable to be abused, such as alcohol, cocaine or heroin.

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1 Health Barometer, a declarative survey conducted in France among the general population every five years.

2 Drug-user' is defined here as anyone who consumes illegal psychotropic substances (excluding experimentation), with the exception of non-problematic cannabis users.

3 Estimate initially reported in the collective expert report entitled "Reduction des risques infectieux chez les usagers de drogues" [Reduction of the Risks of Infection among Drug-users] (Inserm, 2010)

- Prior exposure to legal or illegal drugs can increase the risk of dependency on psychotropic drugs (for example, the risk of dependency on antidepressants in people dependent on opiates or alcohol).

### **The phenomenon of the misappropriation of psychotropic drugs in France**

- The main sources of supply of misappropriated medication are: medical nomadism<sup>4</sup>, the street market and cyberpharmacies;
- Among drug-users, the two main sources of illegal supply are the street market (77%) and gifts from peers (17%). The main medications obtained in this way are buprenorphine, methadone and benzodiazepines (clonazepam, flunitrazepam);
- The emerging phenomenon of misappropriation is more marked in the case of certain psychotropic drugs and in certain regions. For instance, anaesthetics (ketamine, GHB) and methylphenidate are more likely to be misappropriated in the Provence-Rhône-Alpes-Côte d'Azur region and trihexyphenidyle on the Island of Reunion.

### **France's position in relation to its European neighbours**

#### **Selling/manufacturing data**

According to 2010 data for sale and manufacture provided by the INCB<sup>5</sup>, in the case of certain psychotropic drugs, France is one of the European countries with the highest consumption:

- In the case of hypnotics, France is in second place after Belgium;
- In the case of anxiolytics, especially those in the benzodiazepine family, France is in fourth place in Europe after Belgium, Portugal and Spain;

On the other hand, the situation in France appears to be in decline in the case of:

- psycho-stimulants, such as methylphenidate, for which the level of use in France is 40 times lower than in the country with the highest consumption – Iceland;
- opiate substitutes, such as buprenorphine, of which the level is well below that of Great Britain and Belgium; and methadone, for which the level of use is five times less than that of Switzerland.

#### **Declarative surveys of reference**

- According to the ESEMED<sup>6</sup> investigation, the prevalence of consumption in France is greater than the prevalence of average consumption in the six countries that participated in the study (Germany, Belgium, Spain, France, Italy, Netherlands):

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<sup>4</sup> Source of supply, the aim of which is to obtain a larger quantity of the medication through multiple simultaneous prescriptions over a specified period of time.

<sup>5</sup> INCB: International Narcotics Control Board. Interpretation of the comparison of different levels of use is sometimes difficult due to the fact that these are aggregated data. Information about the manufacture and trade provided by countries may be incomplete or it may not cover all of the substances.

<sup>6</sup> ESEMED (European Study of Epidemiology of Mental Disorders): a European study conducted between 2001 and 2003 of the epidemiology of mental disorders in the general population of six countries (Germany, Belgium, Spain, France, Italy and the Netherlands).

- anxiolytics or hypnotics: prevalence of 18% versus 10% (average prevalence in the six countries);
- antidepressants: prevalence of 6% versus 3.5% (average prevalence in the six countries).
- According to the ESPAD7 conducted in 2011 among sixteen-year-old Europeans still at school, experimentation (at least one use during their lifetime) with anxiolytics or hypnotics without a medical prescription affects 11% of 16-year-old schoolchildren in France versus 6% (average prevalence for the 36 countries in the study).

## Principal recommendations of the group of experts

### Prevention in the general population

- Sensitising and informing the general population as to the risks connected with the inappropriate use of psychotropic drugs through:
  - national information campaigns;
  - initiatives in school and university environments;
  - reinforced information at general practitioners' clinics and pharmacies (leaflets, posters, etc.).
- Informing patients, as soon as they receive their first prescription, of the risks of drug-dependency and methods for ending treatment.

### Treating patients with psychotropic drug dependency

- Encouraging networking among the various professionals, consultations and specialist care structures, and orientation of the patient in a coordinated course of care adapted to his/her needs and the severity of the dependence (and even multiple dependence), especially in the case of alcohol dependency or drug use under substitution treatment.

### Regulatory action

- Maintaining access to psychotropic drugs solely on medical prescription as well as a requirement for medication to be dispensed by a pharmacist, regardless of any changes to European and international regulation in this respect;
- Strengthening the supervision of the delivery of psychotropic drugs by experimenting with:
  - an extension of the safety regulations to all list I and II psychotropic drugs;
  - introducing a remote prescription service between doctor and pharmacist;
  - proposing a prescription contract between doctor, patient and pharmacist;
  - making data available to healthcare professionals about all previous prescriptions (for the preceding three months), to enable them to identify and inform patients who are at risk.

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7 ESPAD (European School Survey Project on Alcohol and Other Drugs) : a European study concerning the consumption of substances in schoolchildren aged 16, conducted every four years, in 36 countries. The results available for this collective expert opinion were those of the 2007 ESPAD. Experimentation with anxiolytic or hypnotic drugs without a medical prescription involved 15% of 16-year-old pupils in France versus 6% (average prevalence for the countries included in the study).

- Assessing the danger of misuse leading to the misuse of a potentially more dangerous substance, before any regulatory decision is taken to restrict access to a medication.

## **Vigilance and observation**

- Reconsider the entire observation process and better coordinate the various initiatives, programmes and surveillance networks;
- Improving pharmaco-epidemiological monitoring of psychotropic drugs by assigning the task to an organisation independent of the pharmaceutical industry, under the aegis of the public health authorities.

## **Research:**

- Developing a public health policy appropriate for psychotropic drugs based on multi-disciplinary research and assessments, prioritising:
  - the prevalence of psychotropic drug dependency, especially in the general population;
  - the health and social impact of psychotropic drug misuse among drug-users;
  - the long-term, neuro-developmental consequences of exposure to psychotropic drugs during childhood and adolescence, as well as during pregnancy. In France, 6% of pregnant women take psychotropic drugs of which 3% are anxiolytics and/or hypnotics in the benzodiazepine family.

The group of experts formulated recommendations through the collective expertise process. The entire summary and recommendations may be consulted online: [www.inserm.fr/](http://www.inserm.fr/)

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### **Scientific coordination of the expert opinion**

Inserm's Collective Expert Opinion Centre

#### **What is Inserm's Collective Expert Opinion Centre?**

Collective expertise has been an Inserm initiative since 1994. More than seventy collective expert opinions have been produced in numerous healthcare fields.

Inserm's Collective Expert Opinions throw scientific light on a given healthcare subject based on critical analysis and a summary of the international scientific literature. It is performed at the request of institutions that need recent data produced from research to help them in their decision-making process with respect to public policy. The Expert Opinion should be considered as the initial stage necessary to result in decision-making in the long term.

In response to the issue in question, Inserm brings together a multidisciplinary group of recognised experts consisting of scientists and doctors. These experts meet, analyse scientific publications and summarise them. The salient points are extracted and recommendations are often made.

The conclusions obtained through the collective effort of experts contributes to the debate of healthcare professionals involved and the social debate.

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