Alcohol, tobacco and psychotropic drugs

in seniors

The uses of legal psychoactive substances between the ages of 60 and 75

The levels of use of alcohol, tobacco and psychotropic drugs do not come within the same context and do not even have the same history. However these three substances have at least two points in common: their use is legal and they are the only psychoactive products still used beyond the age of 60 years. Among 60-75 year olds (the seniors), the use of alcohol is more of a generation matter: for these individuals, alcohol is a product of everyday consumption, often part of the day's meals. The use of psychotropic drugs is more a matter of age, as part of medical treatment following health problems. In addition, the health consequences of use of these legal drugs are important and more serious than those for illicit drugs: in France, alcohol and tobacco are the cause of nearly 100,000 premature deaths each year, while consumption of drugs in general, and psychotropic drugs in particular, is one of the highest in the world.

After a description of the levels of use of these substances for the whole adult range (18-75 year olds), the study will then focus on the 60-75 year olds, grouping them into different use profiles, then examining their state of health. The seniors, often neglected in favour of adolescents and young adults, are in fact very concerned by these levels of use and their consequences because of their greater vulnerability and the fact that their declared use is often a continuation of a former habit.

The results are from the processing by OFDT of a general population survey, the Baromètre Santé 2000, carried out by the French Board for Health Education (CFES), under the scientific supervision of P. Guilbert and F. Baudier.

Use of legal psychoactive substances in the adult population
Alcohol and tobacco are the most widely-used psychoactive substances in the adult population: 97.5% and 82.0% respectively of 18-75 year olds have experience of them (have already used them once in the course of their lifetime). Moreover, approximately one adult in five states that they have taken psychotropic drugs during the last twelve months (no questions were asked about the experience). Subsequently, only recent use is considered, so that former users are not involved.

**Some definitions:**

**Current use of tobacco:** stating that you are a smoker, even an occasional one

**Positive in the Fagerström mini-test:** smoking at least 20 cigarettes a day or smoking the first in the 30 minutes after waking. This test identifies potential dependence.

**Regular use of alcohol:** having drunk alcohol at least three time in the course of the week

**Positive in the Deta\(^1\) test:** answering yes to at least two of the following questions:

- *Have you ever felt the need to cut down on your consumption of alcoholic drinks?*
- *Have your friends ever made remarks about your alcohol consumption?*
- *Have you ever had the impression that you drink too much?*
- *Have you ever needed alcohol in the morning to make you feel on form?*

The Deta test identifies potential dependence.

**Recent use of psychoactive drugs:** having taken antidepressants, sleeping tablets or tranquillisers in the course of the year.

**Regular use of sleeping tablets or tranquillisers:** having taken these at least once a week during the month preceding the survey.

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1 Known as CAGE test in English [Tr.]
<table>
<thead>
<tr>
<th></th>
<th>Current tobacco use</th>
<th>Positive in Fagerström mini-test</th>
<th>Regular use of alcohol</th>
<th>Positive in Deta test</th>
<th>Recent use of psychotropic drugs</th>
<th>Regular use of sleeping tablets or tranquillisers</th>
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<tbody>
<tr>
<td>Men</td>
<td>18-25 yrs.</td>
<td>50.3</td>
<td>13.5</td>
<td>25.8</td>
<td>9.3</td>
<td>8.3</td>
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<tr>
<td></td>
<td>26-34 yrs.</td>
<td>51.9</td>
<td>21.9</td>
<td>30.3</td>
<td>12.3</td>
<td>8.8</td>
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<tr>
<td></td>
<td>35-44 yrs.</td>
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<td>17.9</td>
<td>42.2</td>
<td>16.2</td>
<td>14.5</td>
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<td>45-59 yrs.</td>
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<td>12.9</td>
<td>58.6</td>
<td>19.2</td>
<td>16.2</td>
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<tr>
<td></td>
<td>60-75 yrs.</td>
<td>18.4</td>
<td>5.5</td>
<td>67.6</td>
<td>12.4</td>
<td>19.8</td>
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<tr>
<td>Total men</td>
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<td>38.6</td>
<td>14.2</td>
<td>47.1</td>
<td>14.6</td>
<td>14.1</td>
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<tr>
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<td>10.2</td>
<td>9.1</td>
<td>3.6</td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>26-34 yrs.</td>
<td>42.5</td>
<td>15.2</td>
<td>11.4</td>
<td>4.4</td>
<td>16.6</td>
</tr>
<tr>
<td></td>
<td>35-44 yrs.</td>
<td>38.6</td>
<td>14.9</td>
<td>17.2</td>
<td>4.9</td>
<td>23.7</td>
</tr>
<tr>
<td></td>
<td>45-59 yrs.</td>
<td>23.6</td>
<td>10.3</td>
<td>24.9</td>
<td>5.2</td>
<td>29.7</td>
</tr>
<tr>
<td></td>
<td>60-75 yrs.</td>
<td>9.2</td>
<td>3.9</td>
<td>37.0</td>
<td>1.8</td>
<td>33.9</td>
</tr>
<tr>
<td>Total women</td>
<td></td>
<td>30.3</td>
<td>10.9</td>
<td>21.0</td>
<td>4.1</td>
<td>25.3</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>34.3</td>
<td>12.5</td>
<td>33.8</td>
<td>9.2</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Example for interpretation: 38.6% of men stated that they currently smoke (at the time of the survey).

Source: Baromètre Santé 2000, CFES, OFDT processing.

Current use of tobacco and regular use of alcohol affect approximately 1 adult in 3 and recent use of psychotropic drugs, 1 in 5. These are contrasted: tobacco broadly speaking is shared, but alcohol is more masculine, as opposed to drugs. Men are more often potentially dependent, on tobacco and especially on alcohol. In total, these levels of use relate to approximately one adult in ten.

The proportions of users change in a contrasting way with age according to the substance for the two sexes: current use of tobacco diminishes continuously with age although potential dependence is more frequent between 26 and 44 years of age. On the contrary, regular use of alcohol and use of psychotropic drugs increases continuously with age: so in 60-75 year olds regular use of alcohol concerns two third of men and a little more than a third of women, recent use of psychotropic drugs one man in five and one women in three. The division by age of individuals who were positive in the Deta test is however concentrated around 50 years of age.

User profiles
The diversity of levels of use of tobacco, alcohol and psychotropic drugs by 60-75 year olds may be summarised in five quite distinct profiles².

\(\sqrt{\text{Moderate use of alcohol:}}\) the first profile covers 63% of seniors (almost as many men as women). Their alcohol use is often daily (for 42% of them) or weekly (28%), but moderate: they drink on average less than 2 glasses on each occasion and none of them shows signs of dependence. This level of use is characteristic of this generation, which associates alcohol with everyday meals. Levels of use of other products are low: 5% smoke daily (without signs of dependence), 6% occasionally take tranquillisers and none of them had taken antidepressants in the course of the year.

\(\sqrt{\text{Signs of dependence on alcohol:}}\) the second profile covers 11% of senior, 9 times out of 10 men. Their alcohol consumption is high (on average around 5 glasses on each occasion), daily for three quarters of them; half (49%) are positive in the Deta test. Their level of use of tobacco is within the average for 60-75 year olds (12% smoke daily) but more than half are former daily smokers. This very masculine profile corresponds to quite low levels of use for psychotropic drugs.

\(\sqrt{\text{Signs of dependence on tobacco:}}\) the third profile is the one most in the minority, with 6% of seniors, the majority of them men (6 out of 10). They all smoke daily, on average 20 cigarettes a day, and the majority (84%) show signs of dependence on tobacco. More than three quarters started to smoke regularly before the age of 25. These individuals are also distinguished by a relatively high consumption of alcohol: drinking on average more than 3 glasses on each occasion, 95% state that they use it daily and 16% are potentially dependent. To a certain extent, these individuals tend to use tobacco and alcohol at the same time. On the

² These profiles originate from a hierarchical ascending classification using the following 6 indicators: score in Deta test, average number of glasses drunk in the week, time between waking and the first cigarette, average number of cigarettes smoked each day, taking antidepressants during the year and frequency of taking tranquillisers during the month.
other hand, their use of antidepressants and tranquillisers is within the average for their age class.

√ **Regularly taking tranquillisers:** the fourth profile covers 10% of seniors, with a large majority of women (7 out of 10). These people have not taken antidepressants in the course of the year, but have all taken tranquillisers at least once a week (72% daily or thereabouts). Only 5% smoke daily, 39% drink alcohol every day (on average 1.5 glasses on each occasion).

√ **Use of more than one psychotropic drug:** the last profile also covers 10% of the seniors, with again 7 women out of 10. All had taken antidepressants in the course of the year and most had also taken tranquillisers, 57% of them each day or thereabouts. Only 1 in 3 drinks alcohol every day (one glass on average on each occasion) but 9% smoke daily.

**State of health of users according to their profile**

Comparison of these user profiles with each other according to their physical, social and mental health scores (taken from the Duke scale, see methodological references) shows important differences.

<table>
<thead>
<tr>
<th>Reference profile score (moderate alcohol use)</th>
<th>physical</th>
<th>mental</th>
<th>social</th>
</tr>
</thead>
<tbody>
<tr>
<td>69/100</td>
<td>79/100</td>
<td>69/100</td>
<td></td>
</tr>
<tr>
<td><strong>User profile:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>signs of dependence on alcohol</td>
<td>-7</td>
<td>-7</td>
<td>-3</td>
</tr>
<tr>
<td>signs of dependence on tobacco</td>
<td>-8</td>
<td>-9</td>
<td>-7</td>
</tr>
<tr>
<td>taking tranquillisers regularly</td>
<td>-15</td>
<td>-12</td>
<td>-3</td>
</tr>
<tr>
<td>use of more than one psychotropic drug</td>
<td>-18</td>
<td>-24</td>
<td>-5</td>
</tr>
</tbody>
</table>

*All the coefficients are significant at the 5 % threshold. Example for interpretation: for comparable sex and age the "signs of dependence on alcohol" profile corresponds to a physical health score 7 points below that of the reference profile, "moderate use of alcohol".*

*Source: Baromètre Santé 2000, CFES, OFDT processing.*
**The physical health score**, once the effects of age and gender have been controlled, relative to the reference profile (moderate use of alcohol), is on average 7 or 8 points lower for 60-75 year olds who show signs of dependence on alcohol or tobacco. This low score most of all is due to difficulties in moving (these individuals often consider they would have difficulty in climbing up a flight of stairs or running a hundred metres). These two user profiles are opposed from the point of view of weight and height: those interviewed who exhibited signs of alcohol dependence have the highest average body mass index (BMI) (15% are above the threshold marking obesity, i.e. BMI>30), while on the contrary those who exhibited signs of dependence on tobacco have the lowest average BMI and are the most likely to have skipped a meal in the course of the last 7 days. Besides the calorific impact of alcohol and the appetite-depressant effect of tobacco, these poor scores are probably the result of different eating habits.

The relationship between use of tranquillisers and/or antidepressants and physical health is even clearer, but should actually be interpreted in the opposite way, since it is probable that health problems are the reason for medicinal treatments. So in the two profiles of interviewees who regularly take such medicines, in the course of the last 8 days more than 70% had had sleep problems (against less than half of the rest of the seniors) and almost 80% had felt some pain (against a third). In addition, those who have suffered a pain which was difficult to bear in the course of the last 12 months are also twice as numerous.

**Mental health** is mainly measured by questions on depressive or anxious states. Here again, the different user profiles are associated with a significantly lower score than those for moderate alcohol users. It is the drug users, and in particular those who combine tranquillisers and antidepressants, who score the lowest. For those exhibiting signs of dependence on alcohol or tobacco, this relationship undoubtedly is more a sign of a "vicious circle" than a simple causal link: although some anxious or depressive individuals sometimes
find relief in use of these products, conversely, some studies suggest that they may encourage or at least support these conditions. Moreover mental and physical health are not independent: comparing the mental health of interviewees who have the same physical health score, the estimated coefficient for regular users of tranquillisers goes to – 6, just as those obtained for the profiles exhibiting signs of dependence on alcohol or tobacco. On the other hand, even with comparable physical health, the profile of the seniors who combine taking tranquillisers and antidepressants is distinct from the others: two thirds had felt sad or depressed in the course of the last 8 days, three quarters tense or nervous. These problems are most probably the reason for prescription of psychotropic drugs, without this appearing to be panacea: declared levels of use undoubtedly go back far beyond the 8-day period, and had therefore not resolved the anxious and depressive states (even though they had certainly contributed to relieving them).

Still in regard to the social health score, the estimated coefficients remain significant but are lower. This score incorporates evaluations made by the interviewee of his relationships with others and more factual questions about his leisure activities in the past week. It is the 60-75 year olds exhibiting signs of dependence on tobacco who stand out, with the highest estimated coefficient in absolute value. These people are distinguished above all by their poor sociability: in the course of the last 8 days, 26% had seen neither family nor friends, 56% had had no group or leisure activity (against 18 and 44% respectively in the rest of the seniors).

At an age where nicotine addiction occurs more rarely, where individuals are even more aware of its health consequences, tolerance for smokers is undoubtedly lower, which has an impact on their social lives: so tobacco, use of which in adolescence has often been described as an important element in socialisation, could on the contrary easily become a factor for exclusion from a certain age.
Obviously social and physical health are not independent, since difficulties in moving around may limit outings and therefore meetings with others. Once the effect of physical health is controlled, only the profile exhibiting signs of dependence on tobacco remains significantly linked to a lower score in social health. These individuals, who twice as often as the others live in the Paris urban area, therefore seem the most isolated. Moreover, 25% live alone and 34% have had an emotional break-up (divorce or widowhood), against 20 and 27% respectively of the rest of the seniors.

François BECK, Stéphane LEGLEYE, Patrick PERETTI-WATEL

For further information:

ALIAGA C., Évolution de l'usage de la consommation de tabac, résultats des Enquêtes permanentes sur les conditions de vie des ménages (Changes in the level of tobacco consumption, results of permanent surveys on household living conditions), Paris, first INSEE, 2001, not yet published.


LE MOIGNE P. "Anxiolytiques, hypnotiques : les facteurs sociaux de la consommation" (Anti-anxiety drugs, hypnotics: the social factors for use), Documents du Groupement de Recherche "Psychotropes, politique et société" (Documents of the "Psychotropic drugs, policy and society" research group, no.1, 1999.

Limits of the analysis:

There are marked links between profiles of consumption of alcohol, tobacco and psychotropic drugs and health scores in the 60-75 year olds. It is still very difficult to assign causal links between health and consumption of psychoactive products. First, because of the examination
of use and health is restricted to a short, recent period, and because the influence of some sorts of use on health may be very delayed. In addition, there is no established follow-on from use to health problems. Finally, the relationship between taking drugs and health is complicated by the fact that these are elements of medical treatments.

In addition, a study of this type comes up against a way of selection, since a considerable proportion of 60-75 year olds are missed by this survey: in addition to persons who live in specialised institutions, the proportion of hospitalised or deceased individuals increases with age for a given generation. Now these two last situations may well be linked to tobacco and alcohol, the interaction of the two products multiplying the risks. In this sense, the analysis relates here to relatively minor health problems but problems which provide a good indication of the general state of health.

Methodological references:

*The Baromètre Santé 2000* is a general population telephone survey using a random sample, coordinated by the CFES (French Board for Health Education). The objective is to measure the behaviour and opinions of French people in regard to health.

The survey was carried out by the BVA polling company using the CATI system (*Collecte Assistée par Téléphone et Informatique*) (*Collection by telephone and computer*) which ensures total anonymity, a procedure which has received the endorsement of the National Commission on Computers and Liberty (CNIL). In total, the immediate or deferred refusal rate reaches 25.1% for households and 6.6% for individuals. The survey relates to a representative sample of 13,685 people aged from 12 to 75 years (12,256 adults). The data is weighted by the probability of extension within the household and is adjusted on the data from the last population census.
The Duke health score is a set of questions intended to explore the quality of life. They may be grouped by physical (5 items), mental (5 items) and social (5 items) dimensions. The response terms (not at all, a little, a lot) are coded from 0 to 2, multiplied by 10 and totalled to obtain the score for each dimension. The questions used are as follows:

**Physical health:** I would have difficulty climbing a flight of stairs. I would have difficulty running a hundred metres. In the course of the last eight days, I have had problems sleeping; I have had pain somewhere; I seemed to tire easily. **Mental health:** I'm fine as I am. I get discouraged easily. I find it difficult to concentrate. In the course of the last eight days, I have been sad or depressed; I have been tense or nervous. **Social health:** I am not easy to live with. I am happy with my family life. I am at ease with others. In the course of the last eight days, I have seen relatives or friends, I've done group or leisure activities.