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# LICIT AND ILLICIT DRUG USE IN AMSTERDAM II

## *Report of a household survey in 1994 on the prevalence of drug use among the population of 12 years and over*

**J.P. SANDWIJK, P.D.A. COHEN, S. MUSTERD, & M.P.S. LANGEMEIJER**

# 8

# Pharmaceutical drugs

## 8.1 Introduction

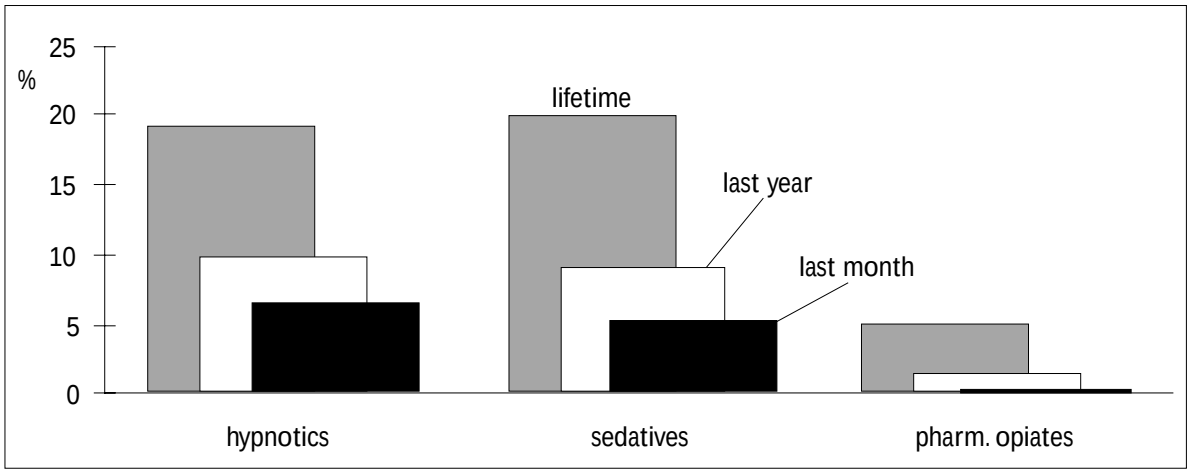
This chapter is about hypnotics, sedatives and pharmaceutical opiates[1]. As a group we will call them 'pharmaceutical drugs'. These are licit drugs, but mostly available on medical prescription only. In this chapter, it is extremely important that the reader bear in mind that it may have been difficult for some respondents to answer the questions in the survey correctly. Lack of pharmaceutical knowledge may have caused incomplete or erratic mention of individual drugs and possibly confusion on the question of whether a drug is a sedative, hypnotic, or neither.

## 8.2 Prevalence

Lifetime prevalence of any pharmaceutical drug is 33.3 percent. Use was generally limited to a single drug (22.8%), but some respondents had, at some time, used two (9%), three (1.3%) or more (0.2%) drugs.

In the year preceding the interview, 17 percent of the population took one or more pharmaceutical drugs. The last month prevalence was 11 percent. In these cases,

*Figure 8.1 Lifetime, last year and last month prevalence of hypnotics, sedatives and pharmaceutical opiates*



use of more than one distinct drug was rare (3.6% and 1.7% respectively). Figure 8.1 summarizes lifetime, last year and last month prevalence for pharmaceutical drugs separately.

Sedatives and hypnotics both had a lifetime prevalence of about 20 percent. Around ten percent of the population had taken sedatives or hypnotics in the year preceding the interview, and the last month prevalence was 6.7 percent for hypnotics and 5.5 percent for sedatives.

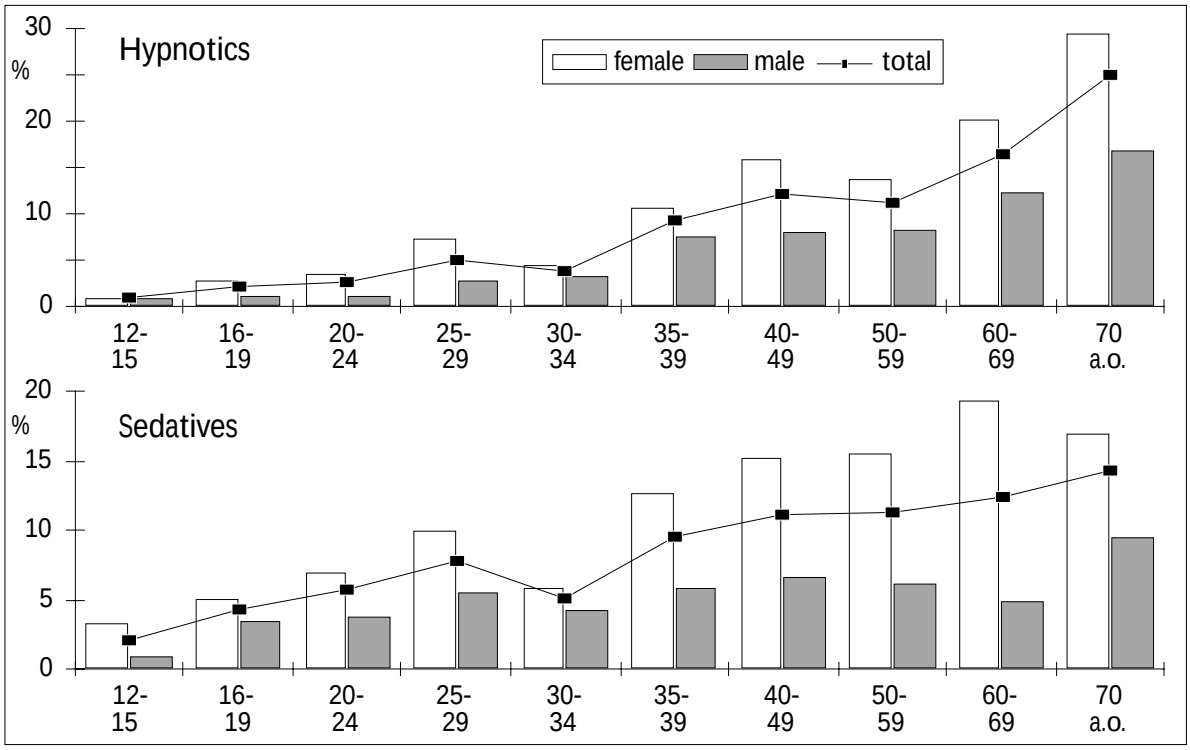
Approximately half of the user group had never used hypnotics and sedatives more than 25 times (53% and 56% respectively). This means that many users never become 'experienced' according to our standards. Furthermore, most of the recent users (73% of all last month users) of any pharmaceutical drug, used one substance. A small group (19%) had used two distinct substances in the preceding month; the remaining eight percent used more than that.

Most hypnotics and sedatives were taken on medical prescription, which is not very surprising since many substances were not available without prescription. Some users, however, used these drugs on their own initiative - in most cases, mild substances requiring no prescription, such as products based on valerian. Surprisingly, some respondents reported using a pharmaceutical drug without a prescription, a drug obtainable only with a prescription. It is not clear whether this finding was due to incorrect responses to the questions or whether these substances were acquired in some alternative way, e.g. through someone else with a prescription or by buying outside the regular channels.

Use of pharmaceutical opiates (morphine, codeine and palfium) was rare. Five percent of the population had, at some time, used one of the opiates studied in this chapter. Last year and last month figures were marginal: 1.6 and 0.4 percent used one of the opiates. Continuation rates were quite high, at least for hypnotics and sedatives. Half of all hypnotics users continued using into the year preceding the interview; 35 percent into the preceding month. For sedatives users, the percentages were 46 and 27 percent respectively. Use of pharmaceutical opiates is generally presented in the course of time: 30 percent of all users had engaged in use during the year preceding the interview, and 7 percent in the preceding month. Last month users were asked to name the particular hypnotic or sedative that they were using. Together, they produced a long list of different hypnotics and sedatives. Of these, the most commonly used were[2]:

| Hypnotics | | Sedatives | |
|---|---|---|---|
| temazepam/normison | 29.7% | valerian/calmolan | 17.5% |
| nitrazepam/mogadon | 20.4% | oxazepam/seresta | 17.1% |
| oxazepam/seresta | 9.7% | diazepam/valium | 15.0% |
| flurazepam/dalmadorm | 5.7% | | |

*Figure 8.2 Lifetime prevalence of hypnotics and sedatives, by age group and gender*




## 8.3 Social demographic aspects of pharmaceutical drug use

Age and gender proved to be very important determinants for use of pharmaceutical drugs. Looking at Figure 8.2, the difference between men and women is striking. In all of the age groups, more women used pharmaceutical drugs than men. It is obvious that age, for both the women and the men, was positively correlated with the use of sedatives and hypnotics. In other words, as the age increased, so did the use of pharmaceutical drugs. We were surprised by the score for women in the age group 30-34, which is lower than the scores for adjoining age groups. We have no clear explanation for this, but the reason may very well be a greater concern for health in relation with (intended) pregnancy.
On average, we found that use of pharmaceutical drugs started between the late twenties and late thirties. Variations, however, were enormous. Initial use of hypnotics, for example, varied between 4 and 92 years of age.

The relation with ethnicity is by now a familiar one: as was the case in former chapters, people of Dutch origin, other Europeans and US citizens had higher scores than people from Surinam, the Dutch Antilles, Morocco and Turkey. However, the scores of the latter groups were relatively high on recent use of sedatives.

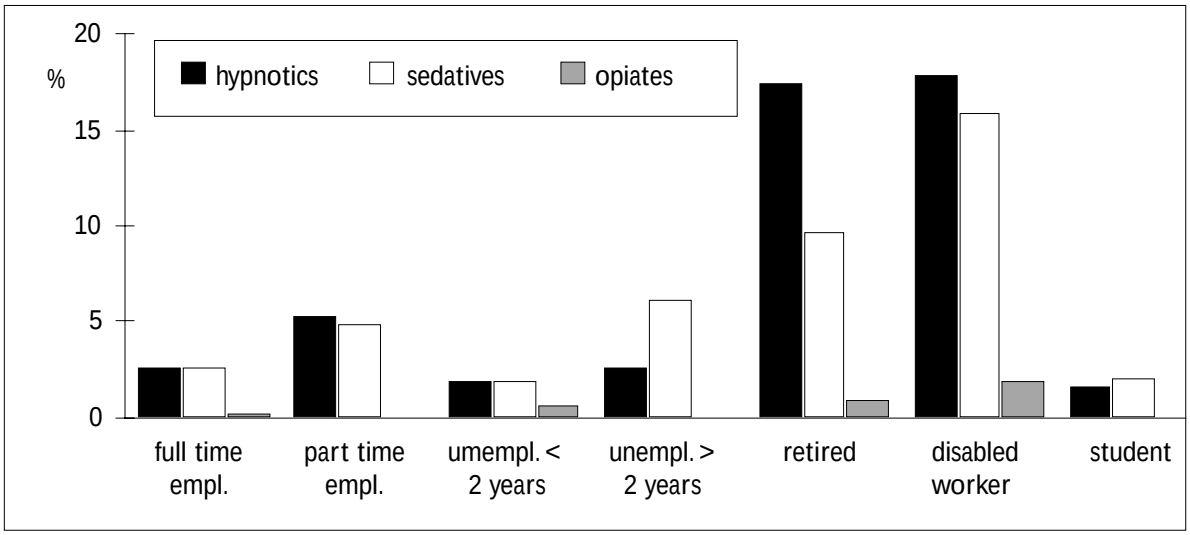
Use of pharmaceutical drugs was lowest in families with two adults and children. Both the parents and the children seldom used hypnotics, sedatives and opiates. Singles and single parents had relatively high scores.

## 8.4 Socio-economic aspects of pharmaceutical drug use

The use of sedatives and hypnotics can be associated with low levels of education. On lifetime, last year and last month prevalence this group clearly stood out with high figures. As mentioned before, this can be ascribed to the composition of the lowest educational group. It contained only women and/or older people, the very groups that are known for high prevalence rates. In addition, people with a high level of education scored high on (1) lifetime prevalence of hypnotics and (2) lifetime prevalence of pharmaceutical opiates. The high prevalence of hypnotics was not repeated in more recent periods. Last month prevalence of pharmaceutical opiates fell short in number of users, which makes it difficult to interpret the figures.

Employment or a lack of it did not make the difference. It was mainly the termination of employment seemed to cause a rise in levels of prevalence. Of course, this is strongly related to age. With very few exceptions, all of the retired respondents were over 65 and there were only very few people that had had to give up their job because of a handicap. The retired and those unable to work due to a handicap scored higher on use of sedatives and hypnotics. The latter group also seems to stand out for use of pharmaceutical opiates, but here too, absolute figures were too low to be sure of this conclusion. At any rate, it would not be a very unexpected observation, since people that are not fit to work should logically have a history of illness or handicap that was the both the reason for ending the employment as well as for taking pharmaceutical opiates.
The relation between income and use of pharmaceutical drugs is obvious where it concerns the higher income groups, that clearly showed lower levels of use. Explaining differences between lower income groups is more difficult. Lifetime as well as last year prevalence was lower for the lowest income group, but this relation disappears when looking at last month prevalence.

*Figure 8.3 Last month prevalence of hypnotics, sedatives and pharmaceutical opiates, by position on the labour market*



## 8.5 Summary

Characteristics of the users of pharmaceutical drugs differed very much from the familiar picture of the drug-user that was drawn in earlier chapters. The users of pharmaceutical drugs were older, less well educated, absent from the labour force and very often female. Together, those variables indicate a certain low position on the socio-economic ladder, which seems to determinate the higher level of prevalence. Although not studied explicitly here, it is important to note that health situation is also an important additional factor. In the next chapter we will pay attention to this relationship. We found that most pharmaceutical drugs were taken on prescription, which means that, at one point in time, a doctor found a medical cause to prescribe the drug. Of course, medical condition is strongly related to age, and to a lesser extent to socio-economic status and gender.

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1 The pharmaceutical opiates in question are palfium, morphine and codeine.

2 Total number of cases that answered the question was taken as the base for percentages. This was 279 for hypnotics and 240 for sedatives.

## 8.6 Tables regarding the use of pharmaceutical drugs

*Table 8.1 Use of pharmaceutical drugs by age group and gender*

| **hypnotics** | lifetime | | | last year | | | last month | | | N | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| age group | male | female | total | male | female | total | male | female | total | male | female | total |
| 12-15 yrs | 1.9 | 4.6 | 3.1 | 1.0 | 1.1 | 1.0 | 1.0 | 0.0 | 0.5 | 105 | 87 | 192 |
| 16-19 yrs | 3.6 | 6.1 | 4.9 | 1.2 | 3.0 | 2.2 | 0.0 | 1.0 | 0.5 | 83 | 99 | 182 |
| 20-24 yrs | 5.2 | 10.7 | 8.4 | 1.3 | 3.6 | 2.6 | 0.0 | 0.0 | 0.0 | 155 | 225 | 380 |
| 25-29 yrs | 5.6 | 16.4 | 11.1 | 2.8 | 7.4 | 5.1 | 1.8 | 3.7 | 2.7 | 285 | 299 | 584 |
| 30-34 yrs | 11.9 | 16.4 | 14.1 | 3.3 | 4.5 | 3.9 | 1.5 | 3.3 | 2.4 | 270 | 269 | 539 |
| 35-39 yrs | 18.3 | 25.1 | 21.9 | 7.8 | 10.7 | 9.3 | 3.7 | 4.9 | 4.3 | 219 | 243 | 462 |
| 40-49 yrs | 16.7 | 30.6 | 23.8 | 8.1 | 16.1 | 12.2 | 6.4 | 8.9 | 7.7 | 359 | 372 | 731 |
| 50-59 yrs | 16.8 | 28.1 | 22.9 | 8.4 | 13.8 | 11.3 | 5.3 | 8.3 | 6.9 | 190 | 217 | 407 |
| 60-69 yrs | 22.2 | 33.3 | 28.0 | 12.4 | 20.4 | 16.6 | 8.6 | 15.9 | 12.4 | 185 | 201 | 386 |
| 70 yrs a.o. | 27.7 | 40.4 | 35.9 | 16.9 | 29.6 | 25.1 | 14.7 | 25.6 | 21.8 | 177 | 324 | 501 |
| total | 14.0 | 24.0 | 19.3 | 6.7 | 12.8 | 10.0 | 4.6 | 8.5 | 6.7 | 2 028 | 2 336 | 4 364 |
| sign. T-test | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | | | |

| **sedatives** | lifetime | | | last year | | | last month | | | N | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| age group | male | female | total | male | female | total | male | female | total | male | female | total |
| 12-15 yrs | 2.9 | 3.4 | 3.1 | 1.0 | 3.4 | 2.1 | 0.0 | 1.1 | 0.5 | 105 | 87 | 192 |
| 16-19 yrs | 4.8 | 12.1 | 8.8 | 3.6 | 5.1 | 4.4 | 1.2 | 1.0 | 1.1 | 83 | 99 | 182 |
| 20-24 yrs | 7.1 | 17.8 | 13.4 | 3.9 | 7.1 | 5.8 | 1.3 | 2.7 | 2.1 | 155 | 225 | 380 |
| 25-29 yrs | 11.9 | 25.1 | 18.7 | 5.6 | 10.0 | 7.9 | 2.1 | 4.3 | 3.3 | 285 | 299 | 584 |
| 30-34 yrs | 13.7 | 17.1 | 15.4 | 4.4 | 5.9 | 5.2 | 1.9 | 3.3 | 2.6 | 270 | 269 | 539 |
| 35-39 yrs | 21.0 | 25.5 | 23.4 | 5.9 | 12.8 | 9.5 | 3.7 | 5.3 | 4.5 | 219 | 243 | 462 |
| 40-49 yrs | 15.6 | 31.7 | 23.8 | 6.7 | 15.3 | 11.1 | 4.2 | 10.8 | 7.5 | 359 | 372 | 731 |
| 50-59 yrs | 16.8 | 35.5 | 26.8 | 6.3 | 15.7 | 11.3 | 5.3 | 8.8 | 7.1 | 190 | 217 | 407 |
| 60-69 yrs | 17.8 | 32.3 | 25.4 | 4.9 | 19.4 | 12.4 | 3.8 | 14.4 | 9.3 | 185 | 201 | 386 |
| 70 yrs a.o. | 18.6 | 27.5 | 24.4 | 9.6 | 17.0 | 14.4 | 6.8 | 13.3 | 11.0 | 177 | 324 | 501 |
| total | 14.3 | 25.1 | 20.1 | 5.6 | 12.2 | 9.1 | 3.3 | 7.4 | 5.5 | 2 028 | 2 336 | 4 364 |
| sign. T-test | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | | | |

| **opiates** | lifetime | | | last year | | | last month | | | N | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| age group | male | female | total | male | female | total | male | female | total | male | female | total |
| 12-15 yrs | 1.9 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 105 | 87 | 192 |
| 16-19 yrs | 1.2 | 2.0 | 1.6 | 1.2 | 2.0 | 1.6 | 0.0 | 1.0 | 0.5 | 83 | 99 | 182 |
| 20-24 yrs | 1.3 | 2.2 | 1.8 | 0.6 | 0.9 | 0.8 | 0.0 | 0.0 | 0.0 | 155 | 225 | 380 |
| 25-29 yrs | 5.6 | 5.4 | 5.5 | 2.1 | 1.7 | 1.9 | 0.0 | 0.3 | 0.2 | 285 | 299 | 584 |
| 30-34 yrs | 5.9 | 5.9 | 5.9 | 1.1 | 1.5 | 1.3 | 0.0 | 0.4 | 0.2 | 270 | 269 | 539 |
| 35-39 yrs | 4.1 | 8.2 | 6.3 | 0.9 | 3.3 | 2.2 | 0.0 | 0.0 | 0.0 | 219 | 243 | 462 |
| 40-49 yrs | 5.0 | 8.3 | 6.7 | 0.6 | 3.0 | 1.8 | 0.0 | 0.0 | 0.0 | 359 | 372 | 731 |
| 50-59 yrs | 6.3 | 10.1 | 8.4 | 2.1 | 3.2 | 2.7 | 1.1 | 0.9 | 1.0 | 190 | 217 | 407 |
| 60-69 yrs | 4.3 | 5.5 | 4.9 | 1.1 | 1.5 | 1.3 | 0.0 | 0.5 | 0.3 | 185 | 201 | 386 |
| 70 yrs a.o. | 4.0 | 3.7 | 3.8 | 2.3 | 0.6 | 1.2 | 0.0 | 0.0 | 0.0 | 177 | 324 | 501 |
| total | 4.5 | 5.8 | 5.2 | 1.2 | 1.9 | 1.6 | 0.1 | 0.3 | 0.2 | 2 028 | 2 336 | 4 364 |
| sign. T-test | n.s. | p<.05 | p<.05 | n.a. | n.a. | n.s. | n.a. | n.a. | n.a. | | | |

*Table 8.2 Use of pharmaceutical drugs by ethnicity*

| | lifetime | | | last year | | | last month | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ethnicity | hypn. | sedat. | opiates | hypn. | sedat. | opiates | hypn. | sedat. | opiates | N |
| Dutch | 20.9 | 22.0 | 5.9 | 10.9 | 9.7 | 1.8 | 7.3 | 5.7 | 0.5 | 3 543 |
| Sur./Ant. | 14.0 | 11.7 | 2.9 | 6.0 | 5.7 | 0.9 | 3.7 | 4.3 | 0.0 | 349 |
| Moroccan | 9.9 | 9.9 | 0.7 | 5.9 | 7.2 | 0.0 | 3.9 | 5.3 | 0.0 | 152 |
| Turkish | 12.7 | 11.8 | 1.0 | 6.9 | 9.8 | 1.0 | 4.9 | 7.8 | 0.0 | 102 |
| Europ./USA | 18.2 | 21.8 | 3.6 | 9.1 | 12.7 | 0.0 | 7.3 | 5.5 | 0.0 | 93 |
| other | 6.5 | 5.6 | 1.9 | 2.8 | 1.9 | 0.9 | 0.9 | 1.9 | 0.0 | 125 |
| total | 19.3 | 20.1 | 5.2 | 10.0 | 9.1 | 1.6 | 6.7 | 5.5 | 0.4 | 4 364 |
| signif. Chi-square | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | n.a. | p<.05 | n.s. | n.a. | |

*Table 8.3 Use of pharmaceutical drugs by type of household*

| | lifetime | | | last year | | | last month | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| type of household | hypn. | sedat. | opiates | hypn. | sedat. | opiates | hypn. | sedat. | opiates | N |
| single | 25.2 | 25.3 | 6.3 | 14.3 | 11.2 | 2.1 | 9.6 | 6.6 | 0.5 | 1 355 |
| single parent | 22.2 | 23.4 | 5.2 | 11.7 | 11.7 | 1.2 | 6.0 | 6.9 | 0.4 | 248 |
| couple | 21.4 | 21.2 | 4.4 | 10.9 | 9.1 | 1.5 | 7.6 | 6.1 | 0.3 | 957 |
| couple with children | 15.8 | 16.6 | 5.7 | 6.6 | 7.7 | 1.5 | 4.5 | 4.6 | 0.5 | 861 |
| living at home | 4.9 | 7.2 | 1.4 | 1.6 | 4.3 | 0.6 | 0.6 | 1.2 | 0.2 | 485 |
| other | 18.1 | 20.5 | 6.3 | 9.4 | 9.6 | 1.5 | 7.0 | 6.3 | 0.0 | 458 |
| total | 19.3 | 20.1 | 5.2 | 10.0 | 9.1 | 1.6 | 6.7 | 5.5 | 0.4 | 3 009 |
| signif. Chi-square | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | n.s. | p<.05 | p<.05 | n.a. | |

*Table 8.4 Use of pharmaceutical drugs by level of education*

| | lifetime | | | last year | | | last month | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| level of education | hypn. | sedat. | opiates | hypn. | sedat. | opiates | hypn. | sedat. | opiates | N |
| elementary | 25.6 | 19.7 | 4.3 | 16.9 | 11.5 | 1.6 | 14.6 | 9.0 | 0.3 | 609 |
| vocational (low) | 18.9 | 21.0 | 3.5 | 8.8 | 9.0 | 1.2 | 6.4 | 6.2 | 0.7 | 566 |
| secondary (low) | 16.8 | 19.6 | 5.5 | 8.5 | 8.5 | 1.0 | 6.1 | 4.0 | 0.3 | 602 |
| vocational (middle) | 18.0 | 21.8 | 4.9 | 8.5 | 8.5 | 1.7 | 4.9 | 5.1 | 0.5 | 412 |
| second. (middle/high) | 17.8 | 20.4 | 5.6 | 8.0 | 10.4 | 2.0 | 4.8 | 5.4 | 0.3 | 662 |
| voc. (high)/University | 21.2 | 21.8 | 7.0 | 10.2 | 8.6 | 1.9 | 5.5 | 4.3 | 0.4 | 1 181 |
| other | 11.4 | 10.8 | 2.1 | 6.6 | 6.3 | 0.9 | 3.9 | 5.4 | 0.0 | 332 |
| total | 19.3 | 20.1 | 5.2 | 10.0 | 9.1 | 1.6 | 6.7 | 5.5 | 0.4 | 4 364 |
| signif. Chi-square | p<.05 | p<.05 | p<.05 | p<.05 | n.s. | n.s. | p<.05 | p<.05 | n.a. | |

*Table 8.5 Use of pharmaceutical drugs by position on the labour market*

| position at labour market | lifetime | | | last year | | | last month | | | N |
|---|---|---|---|---|---|---|---|---|---|---|
| | hypn. | sedat. | opiates | hypn. | sedat. | opiates | hypn. | sedat. | opiates | |
| employed full time | 13.6 | 15.6 | 5.5 | 5.7 | 5.5 | 1.4 | 2.6 | 2.7 | 0.2 | 1 363 |
| employed part time | 19.8 | 21.2 | 6.5 | 7.6 | 10.9 | 1.3 | 5.4 | 4.9 | 0.0 | 551 |
| unemployed < 2 years | 17.7 | 26.6 | 4.4 | 6.3 | 7.6 | 1.7 | 1.9 | 1.9 | 0.6 | 158 |
| unemployed > 2 years | 21.2 | 23.9 | 6.2 | 8.0 | 11.5 | 3.5 | 2.7 | 6.2 | 0.0 | 113 |
| retired | 32.1 | 23.3 | 4.9 | 20.8 | 12.6 | 1.6 | 17.5 | 9.7 | 0.9 | 549 |
| work disability | 42.8 | 41.8 | 10.9 | 23.9 | 19.4 | 5.0 | 17.9 | 15.9 | 2.0 | 201 |
| student | 9.6 | 11.2 | 2.1 | 4.8 | 5.3 | 0.5 | 1.6 | 2.1 | 0.0 | 188 |
| other | 17.6 | 19.7 | 3.9 | 10.1 | 9.8 | 1.3 | 6.9 | 6.2 | 0.2 | 1 241 |
| total | 19.3 | 20.1 | 5.2 | 10.0 | 9.1 | 1.6 | 6.7 | 5.5 | 0.4 | 4 364 |
| signif. Chi-square | p<.05 | p<.05 | p<.05 | p<.05 | p<.05 | n.a. | p<.05 | n.s. | n.a. | |

*Table 8.6 Use of alcohol by household income*

| income (Dutch guilders) | lifetime | | | last year | | | last month | | | N |
|---|---|---|---|---|---|---|---|---|---|---|
| | hypn. | sedat. | opiates | hypn. | sedat. | opiates | hypn. | sedat. | opiates | |
| < 750 | 17.9 | 15.5 | 1.2 | 11.9 | 9.5 | 1.2 | 8.3 | 7.1 | 0.0 | 84 |
| 750-1250 | 25.7 | 25.1 | 4.9 | 15.6 | 12.4 | 1.6 | 11.7 | 9.4 | 0.0 | 307 |
| 1250-1500 | 20.8 | 24.4 | 3.9 | 12.9 | 12.5 | 2.2 | 9.0 | 7.9 | 0.7 | 279 |
| 1500-2000 | 21.9 | 23.5 | 4.6 | 10.6 | 10.8 | 1.6 | 6.9 | 5.7 | 0.4 | 548 |
| 2000-2500 | 21.5 | 21.3 | 5.3 | 11.0 | 9.0 | 1.3 | 8.3 | 5.0 | 0.4 | 456 |
| 2500-3000 | 22.2 | 19.8 | 5.7 | 10.9 | 9.6 | 1.7 | 6.4 | 4.7 | 1.0 | 405 |
| 3000-4000 | 19.0 | 20.4 | 7.3 | 9.0 | 9.2 | 1.5 | 5.0 | 5.6 | 0.2 | 480 |
| 4000-5000 | 15.1 | 18.5 | 6.5 | 6.0 | 6.3 | 2.3 | 2.9 | 3.1 | 0.0 | 384 |
| >5000 | 17.6 | 18.0 | 7.7 | 8.3 | 7.2 | 1.8 | 5.0 | 3.2 | 0.2 | 444 |
| unknown | 16.1 | 16.7 | 3.4 | 8.8 | 8.1 | 1.1 | 6.7 | 5.8 | 0.4 | 977 |
| total | 19.3 | 20.1 | 5.2 | 10.0 | 9.1 | 1.6 | 6.7 | 5.5 | 0.4 | 4 364 |
| signif. Chi-square | p<.05 | p<.05 | p<.05 | p<.05 | n.s. | n.s. | p<.05 | p<.05 | n.a. | |