# Alcohol Use in Jindřichovice, a Municipality in the Karlovy Vary Region

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Abstract | : In addition to individual negative health and social consequences, heavy drinking also affects alcohol users' social environment. Such harm increases with the quantity of ethanol consumed. The aim of this study was to explore the level and patterns of alcohol use in the small municipality of Jindřichovice in the Karlovy Vary region. METHOD: Questionnaire survey among all adult inhabitants: 267 addressed, 53 participated (32 men, 21 women). RESULTS: 37.8% of the respondents, of whom 52.4% were men and 18.8% women, had drunk alcohol every day or almost

every day, which is approx. five times more than in the general Czech population. The quantity of pure alcohol consumed weekly per respondent reached 287.8 g, on average 49.8 g daily in the men and 26.1 g daily in the women, which is approx. double and triple, respectively, the amounts consumed among the general Czech population. The largest quantities were consumed by retired men, the lowest by retired women. **CONCLUSION:** The levels of alcohol consumption found in Jindřichovice are risky and suggest that alcohol use is strongly embedded in the lifestyle of its inhabitants.

### **Keywords** | Alcohol – Hazardous drinking – Problem drinking

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### 1 INTRODUCTION

While some 266 million European adults (73%) engage daily in low-volume drinking (i.e. up to 20 g of pure ethanol per day for women and up to 40 g for men), 58 million (15%) use alcohol in doses exceeding this level, with 23 million of these being dependent on alcohol (5% of men, 1% of women) (Anderson & Baumberg, 2006). Amounting to over 16 litres of pure alcohol per person aged 15+ on a yearly basis, the consumption of alcohol in the Czech Republic is one of the highest within the EU (many comparisons suggest that the Czech Republic even shows the highest level of alcohol consumption in Europe (Csémy & Winkler, 2012). Alcohol is consumed regularly or very often (daily or every other day) by 13% of the adult Czech population, and it is estimated that up to 26% of men and 13% of women engage in hazardous drinking (Csémy & Winkler, 2012). Recent population surveys indicate that only 3% of adults are lifetime abstainers, with another 10% reporting no alcohol use in the last year. 11% of the abstainers did not drink because of their alcohol issue, with the most common reasons for non-drinking being medical conditions (Sovinová & Csémy, 2011). 6.6% of the adult population in the Czech Republic drinks daily or almost daily. Frequent drinking was found among 10.24% of men and 3.14% of women. A Czech citizen drinks an average of 16.07 grams of alcohol on a daily basis, with women and men consuming 8.79 grams and 23.7 grams, respectively (Csémy & Sovinová, 2013).

Hazardous drinking is associated with over 60 different diseases and other health, psychological, and social issues. It is also a common cause of disability and mortality (Rehm et al., 2003). Given its both chronic and acute effects, including the psychotropic ones and toxicity, alcohol has become the third riskiest factor in the global, and, particularly, European disease burden (Lim et al., 2012; Vondráčková & Šťastná, 2012).

The present paper seeks to estimate the level of alcohol consumption among the population of a small municipality in the Czech Republic. The use of alcohol on different days of the week was also assessed.

### 2 METHODOLOGY

Detailed enquiring about alcohol consumption in the last week (seven-day recall) was used to estimate the level of alcohol use in a sample comprising the population of Jindřichovice, a municipality near the town of Sokolov, in the Karlovy Vary region, near the border with Germany (as of 15 June 2015 there were 336 permanent residents in the municipality). All the reachable adult inhabitants of the municipality (267 individuals) were addressed. Recruitment for the study took place in the public places with the greatest concentration of the population (such as the kindergarten, football field, outpatient medical centre, and the municipal authority); it is worth noting that a GP comes to the village twice a week and children are taken to kindergarten predominantly by younger middle-aged people. The study

sample consisted of 53 (32 men and 21 women) individuals who responded to the questionnaire. The data was collected from 23 to 29 March 2015. In addition to general sociodemographic items, the questionnaires included two tables intended for the collection of data about alcohol consumption. One contained days from Monday to Sunday, where the respondents were asked to indicate when they went to work and what kind of shift they were on. Also having a Monday-to-Sunday structure, the other table was used for the respondents to indicate how much alcohol they had consumed (there was a row for each type of alcoholic beverage under study: beer, wine, spirits, and flavoured beer). The volume of alcohol consumed was converted to the amount of pure alcohol using the following clue: 0.5 L of beer, 0.2  $\boldsymbol{L}$  of wine, and 0.05  $\boldsymbol{L}$  of spirits were considered to contain 18 g, 19.2 g, and 13 g, respectively, of pure alcohol.

## 3 RESULTS

It was found that 46.9% of the men in the study sample engage in high-volume drinking (more than 40 g of pure alcohol per day) at least four times per week. The proportion of women who consume excessive amounts of alcohol (more than 20 g of pure alcohol per day) at least four times per week is smaller - 28.6% (Figure 1). The total amount of pure alcohol consumed within seven days reached 15,252.8 g per sample, i.e. 287.8 g per respondent. The largest quantity of alcohol was consumed on Friday - 37 individuals consumed a total of 3,342.6 g of pure alcohol, which corresponded to 63 g per respondent in the entire sample and 90.34 g per Friday drinker. The amount of alcohol drunk from Monday to Thursday was smaller (1,904.6 g per day on average, i.e. an average of 35.9 g per drinker), and an average of 30 people used alcohol on each of these days. With 24 individuals engaging in alcohol use (30.2 g consumed per drinker), Sunday is the day with the lowest level of drinking (1,598.8 g). The greatest amount of alcohol was consumed by retired men (an average of 77.8 g per respondent per day), while retired women reported the lowest levels of alcohol use (an average of 12.4 g per respondent per day). The study also looked into the differences between alcohol use on weekdays and at the weekend. The men's levels of consumption were almost the same, with slightly higher levels of drinking on weekdays (an average of 50.5 g on weekdays and 48.1 g on Saturday and Sunday). The women displayed a reverse pattern (an average of 21.6 g on weekdays and 37.6 g on Saturday and Sunday). While their level of consumption was lower than that of the men, the figures are indicative of hazardous drinking.

# 4 DISCUSSION

Despite the sample of 54 individuals being small and non-representative, it made it possible to provide reasonable coverage of the entire population structure in terms of gender and age. As the first author lives in the municipality where the study sample was recruited, the respondents were his neighbours. This may have led to their underre-

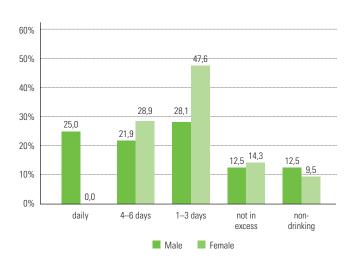


Figure 1 | Drinking among the study sample by the number of days of the week on which alcohol consumption exceeded the dose of 20 g of pure alcohol for women and 40 g for men, and by gender (%)

porting their alcohol consumption levels because of information bias provoked by the social sensitivity of the issue. On the other hand, efforts were made to reduce the information bias using the recall technique. Personal structured interviews were administered in which the respondents were asked to report their consumption of specific alcoholic beverages on the days of the previous week.

The highest levels of alcohol consumption were reported by retired men, with significantly high levels of drinking also recorded for men of productive age (including on working days). However, the volume of alcohol consumed was large among all the respondents, which indicates that alcohol use is generally socially acceptable and is deeply embedded in the lifestyles of the majority of the inhabitants of Jindřichovice. With the exception of two individuals, none of the respondents regarded their drinking as potentially harmful. On the contrary, when asked, the respondents were often proud of how much alcohol they can consume during a single drinking session and of continuing to do so on the following days. High levels of alcohol use among working men raise additional concern. Given the location of Jindřichovice, the majority of them work as professional drivers in the farming industry and get behind the wheel every morning.

While the results need to be assessed with caution, given the limited representativeness of the sample, it must be pointed out with concern that the average levels of frequency of alcohol use and the amount of pure alcohol consumed measured in the study location were multiples of the national average and reached high-risk levels. These findings apply to both genders, with older men being at the greatest risk. Alcohol was found to be strongly embedded into the population's lifestyle. In conclusion, a prevention programme is needed to address hazardous alcohol use among adults at the community level.

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