

# **AUDIT and Czech population**

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# **Reducing the Negative Health Impact of Alcohol:**

## **Brief Intervention by General Practitioners**

- The study conducted in 2005 was based on scientific findings on the effectiveness of brief interventions.
- The focus and main objective of the project was to pilot implementation of brief interventions within the scope of treatment by general practitioners.
- The target population for conducting the study consisted of GP patients who achieved total scores in the screening questionnaire in a range from 8 to 19 points. These subjects were indicated for a brief intervention.

- The project also included the results of the AUDIT questionnaire obtained from the population study performed in November 2005. The comparison of data collected within the population study with that obtained in the sample of patients of GPs helped to improve the assessment of the psychometric features of a screening tool.
- The main objective of the statistical assessment was to analyse the data collected by means of the AUDIT questionnaire designed as a basic screening tool within the programme used for the selection of subjects for a brief intervention. As already stated, we obtained the data for this analysis from the following two sources: GPs' consulting rooms and AUDIT questionnaires administered to a representative sample of the adult population in the Czech Republic. Basic information on the respective data sets is provided in Table 1.

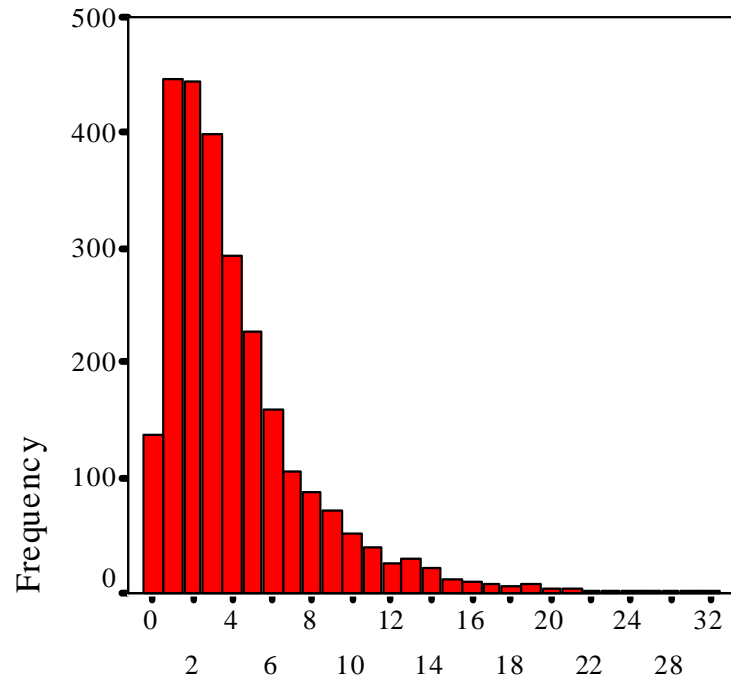
Table 1 - Description of the data sets analysed

	<b>GPs</b>	<b>Population</b>
Total N	2881	1612
N 18 – 64	2589	1326
Sex	Male 1258 (48%)	Male 662 (49,9%)
Average age (s.d.)	42,9 (13,4)	39,2 (13,9)

- Both data sets are relatively numerous and balanced according to gender. As far as age is concerned, the population sample is slightly younger (the difference in the average age is 2.7 years).
- The results were first subjected to an assessment of the distribution of overall scores in both data sets, and the comparison of the average values and standard deviations. The results have shown that the distribution of frequencies in both data sets shows an identical shape, characterized by a significant left-hand skew. This result is in good agreement with our expectations, confirming that consumption of the major part of the population lies in the region of moderate social drinking.
- The population of the patients of GPs showed a score of 4.2 points on average (with an SD of 3.7) while the mean value of the population set was somewhat higher, i.e. 5.0 points (with an SD of 4.7).

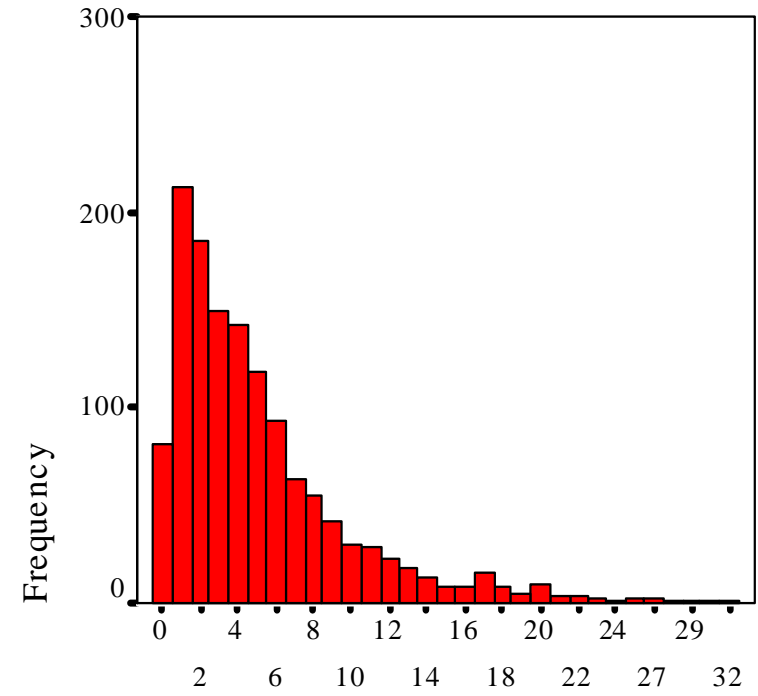
Distribution of the scores on AUDIT

(GP's sample)



Distribution of scores on AUDIT

(Sample of general population)



- With respect to the AUDIT, we concentrated on the incidence rate of scores in a particular range, which is the fundamental indication criterion for including a client for a brief intervention.
- We therefore performed the categorization of the total scores into three groups. The first group included persons with scores ranging from 0 to 7 points; the second group consisted of persons with scores ranging from 8 to 19, i.e. scores that indicate inclusion for a brief intervention.
- The last group consisted of those who reached total scores of more than 19 points. A brief intervention in such persons was unsuitable and they should therefore be referred to a specialist.
- The distribution of the scores categorized according to gender in both monitored samples was summarized in Tables 2a and 2b.

Table 2a Scores achieved in the AUDIT questionnaire according to gender – the GPs' set

		< 8 points	8 to 19 b.	> 19 points	Total
Male	N	965	279	14	1258
	% in rows	76,7%	<b>22,2%</b>	1,1%	100,0%
	% in columns	43,7%	76,9%	82,4%	48,6%
Female	N	1243	84	3	1330
	% in rows	93,5%	<b>6,3%</b>	0,2%	100,0%
	% in columns	56,3%	23,1%	17,6%	51,4%
Total	N	2208	363	17	2588
	% in rows	85,3%	<b>14,0%</b>	0,7%	100,0%
	% in columns	100,0%	100,0%	100,0%	100,0%

Table 2b Scores achieved in the AUDIT questionnaire according to gender – population sample

		< 8 points	8 to 19 p.	> 19 points	Total
Male	N	444	193	25	662
	% in rows	67,1%	<b>29,2%</b>	3,8%	100,0%
	% in columns	42,5%	75,7%	92,6%	49,9%
Female	N	600	62	2	664
	% in rows	90,4%	<b>9,3%</b>	,3%	100,0%
	% in columns	57,5%	24,3%	7,4%	50,1%
Total	N	1044	255	27	1326
	% in rows	78,7%	<b>19,2%</b>	2,0%	100,0%
	% in columns	100,0%	100,0%	100,0%	100,0%

Table 3 Scores achieved in the AUDIT questionnaire according to age groups

Age		< 8 points	8 to 19 p.	> 19 points	Total
18-24	N	170	55	6	231
	% in rows	73,6%	<b>23,8%</b>	2,6%	100,0%
	% in columns	16,3%	21,6%	22,2%	17,4%
25-34	N	237	78	2	317
	% in rows	74,8%	<b>24,6%</b>	,6%	100,0%
	% in columns	22,7%	30,6%	7,4%	23,9%
35-44	N	187	56	7	250
	% in rows	74,8%	<b>22,4%</b>	2,8%	100,0%
	% in columns	17,9%	22,0%	25,9%	18,9%
45-54	N	229	44	7	280
	% in rows	81,8%	<b>15,7%</b>	2,5%	100,0%
	% in columns	21,9%	17,3%	25,9%	21,1%
55-64	N	221	22	5	248
	% in rows	89,1%	<b>8,9%</b>	2,0%	100,0%
	% in columns	21,2%	8,6%	18,5%	18,7%
Total	N	1044	255	27	1326
	% in rows	78,7%	<b>19,2%</b>	2,0%	100,0%
	% in columns	100,0%	100,0%	100,0%	100,0%

## Scores achieved in the AUDIT questionnaire according to age groups:

- The distribution of frequencies in Table 3 is statistically significantly different among age groups. The highest percentage indicated for brief intervention is in the age category consisting of younger and middle-aged adults (18 - 44 years of age).

## Follow-up monitoring

- In the follow-up monitoring six months later, we succeeded in examining 349 patients who were given brief advice (270 men and 79 women). The average age of this group was 43 (with no difference with regard to gender).

	<b>Mean</b>	<b>N</b>	<b>S.d.</b>
Male	<b>43,07</b>	270	14,53
Female	<b>43,03</b>	79	14,49
Total	<b>43,06</b>	349	14,50

## Follow-up monitoring

- The comparison of the difference between the group averages of the first and the follow-up measurements was performed using the pair t-test. The difference ascertained showed that the average AUDIT score from the follow-up measurement was statistically, significantly lower than that from the first measurement, before intervention.
- Paired samples statistics:

	<b>Mean</b>	<b>N</b>	<b>S.d.</b>
AUDIT 1	<b>10,89</b>	349	<b>3,10</b>
AUDIT 2	<b>8,87</b>	349	<b>4,00</b>

## The distribution of scores from the follow-up measurement in individual ranges:

- A total of 37.5% of the patients improved, i.e. their AUDIT scores determined in the second measurement was less than 8 points.
- In 61% of the patients, the score remained in the range of 8 - 19 points and 7 patients showed a shift towards the range above 19 points (2%).

AUDIT score	Frequency	Valid percent
0 – 7	131	<b>37,5</b>
8 - 19	211	<b>60,5</b>
> 19	7	<b>2,0</b>
Total	349	100,0

The shift to the category of less than 8 points was more noticeable in women (48%), as compared to men (34%).  
 ( $\chi^2 = 6.32$ , df. = 2,  $p < 0.05$ )

	0 - 7	8 - 19	> 19	Total
Male	<b>93</b>	170	7	270
	<b>34,4%</b>	63,0%	2,6%	100,0%
Female	<b>38</b>	41	-	79
	<b>48,1%</b>	51,9%	-	100,0%
Total	131	211	7	349
	37,5%	60,5%	2,0%	100,0%

## **Conclusions:**

- Our analysis of AUDIT data on two large samples confirmed the practical usability of this tool in the Czech context and helped us determine the optimal indication range for brief intervention.
- In order to launch a broad implementation of the program, it is necessary to ensure on-going systematic education of General Practitioners.
- In cooperation with the Professional Society of General Practitioners, these research results will contribute to the execution of methodological recommendations for brief intervention in cases of high-risk and harmful drinking.
- Our recommendation is to include brief interventions as part of the regular courses offered as post-gradual life-time education for GPs.