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Brief Report: Epidemiological Survey on Addiction 2021

Volume:
Trends in the Prevalence of (problematic) Use of Tobacco and E-Cigarettes by Gender and Age 1990-2021

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Introduction

The data presented below is based on the surveys conducted as part of the Epidemiological Survey on Addiction (ESA) from 1990 to 2021. A detailed description of the methodology of the penultimate survey can be found in Rauschert et al. (2022). Results on trends in the prevalence of tobacco use and nicotine dependence are presented and discussed for the complete sample in Rauschert et al. (2022) and in Kraus et al. (2022).

Definitions and bases of calculation

30-day prevalence of tobacco use: proportion of persons who smoked conventional tobacco products (cigarettes, cigars, pipes, or cigarillos) in the past 30 days.

30-day prevalence of heavy use: daily smokers who reported an average use of 20 or more cigarettes per day were classified as heavy smokers.

Problematic tobacco use: evidence of problematic use in the past 12 months according to the criteria of the Fagerström Test for Nicotine Dependence (FTND; Heatherton et al., 1991). A threshold score of 4 or more is considered to indicate problematic tobacco use (Breslau & Johnson, 2000).

Statistical analysis: The differences between the survey years were tested for statistical significance using logistic regression, taking into account control variables such as age, gender and survey mode. The current survey year ,2021, was used as the reference year.

Literature

Breslau, N. & Johnson, E. O. (2000). Predicting smoking cessation and major depression in nicotine-dependent smokers. *American Journal of Public Health, 90*(7), 1122–1127. https://doi.org/10.2105/ajph.90.7.1122

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Table 1: Trends in 30-day prevalence of tobacco use, 1990-2021 (total population) (percent).

Age	Survey Year										
	1990	**1995**	**1997**	**2000**	**2003**	**2006**	**2009**	**2012**	**2015**	**2018**	**2021**
Total (n)	**16809**	**7829**	**8010**	**8041**	**7976**	**6964**	**7287**	**7953**	**8238**	**8287**	**8068**
18-59 years	-	35,8*	36,6*	35,0*	33,9*	33,1*	30,3*	27,6*	25,8*	21,4*	20,1
18-24 years	43,0*	42,2*	41,1*	42,6*	40,9*	39,7*	33,8*	26,7*	24,2*	20,8	19,2
25-39 years	45,5*	42,1*	42,1*	38,0*	35,6*	34,5*	33,5*	30,4*	27,5*	22,9	21,1
40-59 years	-	28,6*	30,9*	30,0*	30,8*	30,6*	27,6*	26,2*	25,1*	20,6*	19,7
60-64 years	-	-	-	-	-	19,0	16,6	19,8	19,5	16,1	18,5
Men (n)	**8200**	**3555**	**3723**	**3641**	**3583**	**3074**	**3224**	**3418**	**3692**	**3731**	**3474**
18-59 years	-	42,4*	43,1*	39,2*	37,1*	37,3*	34,1*	30,6*	28,1*	24,2*	23,2
18-24 years	43,8*	50,2*	45,4*	45,4*	42,0*	41,5*	37,4*	29,8	28,5*	24,0	22,6
25-39 years	50,3*	47,2*	47,7*	41,9*	38,9*	40,1*	38,0*	35,9*	30,3	25,6	24,8
40-59 years	-	35,8*	38,9*	34,9*	34,4*	34,5*	31,0*	27,8*	26,7	23,3*	22,2
60-64 years	-	-	-	-	-	21,4	18,1	24,9	21,7	17,7	18,1
Women (n)	**8609**	**4274**	**4287**	**4400**	**4393**	**3890**	**4063**	**4535**	**4546**	**4556**	**4581**
18-59 years	-	29,2*	30,0*	30,6*	30,5*	28,8*	26,4*	24,4*	23,4*	18,5*	17,0
18-24 years	42,0*	33,1*	36,4*	39,6*	39,7*	37,8*	30,1*	23,5*	19,7*	17,1	15,6
25-39 years	40,5*	37,0*	36,6*	33,8*	32,1*	29,1*	28,9*	24,6*	24,7*	20,0	17,3
40-59 years	-	21,5	22,9*	25,1*	27,0*	26,5*	24,0*	24,5*	23,5*	17,9	17,1
60-64 years	-	-	-	-	-	16,1*	15,1*	14,7*	17,4	14,7	18,8

* Statistically significant difference ($p < 0.05$) compared to 2021.
-) was not collected.
Logistic regression to predict prevalences with year (reference: 2021), age, (gender), survey mode.
n for complete sample.

Table 2: Trends in 30-day prevalence of heavy use, 1990-2021 (total population) (percent).

Age	Survey Year										
	1990	**1995**	**1997**	**2000**	**2003**	**2006**	**2009**	**2012**	**2015**	**2018**	**2021**
Total (n)	**16697**	**7797**	**7969**	**7836**	**7841**	**6899**	**7240**	**7882**	**8178**	**8242**	**8000**
18-59 years	-	14,6*	13,9*	11,1*	11,3*	9,5*	7,1*	6,3*	4,4*	3,9*	3,2
18-24 years	13,0*	12,4*	9,2*	7,2*	6,7*	5,7*	3,0*	1,8	1,7	1,4	1,2
25-39 years	19,8*	17,2*	16,8*	12,4*	11,3*	9,8*	7,2*	6,1*	3,4*	3,4*	2,1
40-59 years	-	13,0*	13,5*	11,2*	12,3*	10,2*	8,1*	7,5*	5,7*	4,9	4,4
60-64 years	-	-	-	-	-	6,0	5,7	6,1	4,1	3,9	4,3
Men (n)	**8124**	**3543**	**3705**	**3516**	**3518**	**3032**	**3192**	**3374**	**3653**	**3704**	**3440**
18-59 years	-	19,3*	19,4*	14,4*	14,1*	12,6*	8,8*	8,2*	5,7*	5,5	4,1
18-24 years	15,6*	16,4*	13,0*	7,3*	6,7*	5,9*	3,8*	2,2	2,5	1,9	1,2
25-39 years	25,5*	22,1*	22,0*	16,4*	14,5*	13,5*	9,4*	8,8*	3,9	4,6	3,0
40-59 years	-	17,9*	20,0*	14,6*	15,7*	13,7*	9,8*	9,5	7,7	7,1	5,7
60-64 years	-	-	-	-	-	7,8*	6,3	8,6*	4,7	4,0	5,2
Women (n)	**8573**	**4254**	**4264**	**4320**	**4323**	**3867**	**4048**	**4508**	**4525**	**4538**	**4548**
18-59 years	-	9,8*	8,3*	7,8*	8,3*	6,3*	5,3*	4,3*	3,1*	2,3*	2,2
18-24 years	10,3*	8,0*	5,0*	7,1*	6,6*	5,4*	2,2	1,4	1,0	0,8	1,1
25-39 years	14,0*	12,2*	11,7*	8,3*	8,0*	6,2*	4,9*	3,2*	2,8*	2,1	1,2
40-59 years	-	8,2*	7,1*	7,7*	8,9*	6,7*	6,4*	5,6*	3,8*	2,7	3,1
60-64 years	-	-	-	-	-	3,9	5,1	3,7	3,4	3,7	3,5

* Statistically significant difference ($p < 0.05$) compared to 2021.
-) was not collected.
Logistic regression to predict prevalences with year (reference: 2021), age, (gender), survey mode.
Heavy use: daily smoking with an average consumption of 20 or more cigarettes per day.
n for complete sample.

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Table 3: Trends in problem tobacco use by FTND[1)] in the past 30 days (18 to 59 year-olds), 2000-2021 (percent).

	Survey Year				
	2000	**2003**	**2006**	**2015**	**2021**
Total (n)	**7564**	**7702**	**6774**	**8027**	**7869**
Total population	10,7*	11,5*	10,6*	6,9*	5,5
Consumers [2)]	34,8	36,6	33,9	29,3	30,6
Men (n)	**3353**	**3415**	**2958**	**3551**	**3358**
Total population	13,1*	13,8*	12,8*	8,1	6,4
Consumers [2)]	38,5	40,5	37,0	32,2	31,6
Women (n)	**4211**	**4287**	**3816**	**4476**	**4499**
Total population	8,3*	9,2*	8,3*	5,8*	4,5
Consumers [2)]	30,3	32,0	30,0	26,1	29,2

[1)] FTND: Fagerström test for nicotine dependence; threshold ≥ 4.
[2)] Consumers of cigarettes (or cigars, pipes, or cigarillos) in the past 30 days.
* Statistically significant difference ($p < 0.05$) compared to 2021.
Logistic regression to predict prevalences with year (reference: 2021), age, (gender), survey mode.
n for complete sample.

Table 4: Trends in lifetime prevalence, 12-month prevalence, and 30-day prevalence of e-cigarette use (18- to 59-year-olds), 2015-2021 (percent).

	Survey Year		
	2015	**2018**	**2021**
Total (n)	**8223**	**8025**	**8068**
Lifetime prevalence	12,1*	14,4*	19,4
12-month prevalence	5,9*	14,4*	7,1
30-day prevalence	2,4*	3,7	3,9
Men (n)	**3688**	**3635**	**3477**
Lifetime prevalence	13,5*	17,9*	23,0
12-month prevalence	7,0*	17,9*	8,5
30-day prevalence	3,0*	5,2	4,5
Women (n)	**4535**	**4390**	**4578**
Lifetime prevalence	10,7*	10,7*	15,6
12-month prevalence	4,7	10,7*	5,7
30-day prevalence	1,7*	2,1*	3,3

* Statistically significant difference ($p < 0.05$) compared to 2021.
Logistic regression to predict prevalences with year (reference: 2021), age, (gender), survey mode.
n for complete sample.