SOCIOECONOMIC DISPARITIES IN AGE OF INITIATION AND EVER TOBACCO SMOKING: FINDINGS FROM ROMANIA

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SUMMARY

Aim: Smoking initiation is considered the fundamental behaviour that determines the future health burden of tobacco smoking in a society. The aim of the study was to evaluate the socio-demographic factors associated with initiation of regular smoking among adults.

Methods: The data source was the 2011 Global Adult Tobacco Survey Romania (GATS), which is a cross-sectional, nationally representative study. Multivariate logistic regression model was applied for relevant analysis.

Results: Among males, the regular smoking initiation rate was significantly higher compared to females (52.4% vs. 18.5%; $p < 0.001$). Mean age of smoking initiation was lower in men compared to women (18.4 ± 4.8 vs. 21.5 ± 6.8; $p < 0.001$). Age in men, awareness of environmental tobacco smoke consequences and place of living for women as well as educational attainment and employment status in both genders were associated with ever regular smoking. Moreover, cohabitation with a smoker was associated with greater odds for initiating smoking among both genders.

Conclusions: GATS revealed a significant but diverse role of socioeconomic factors in initiation of regular smoking among adult Romanians.

Key words: tobacco smoking, smoking initiation, socioeconomic factors, tobacco control, adults, GATS, Romania

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INTRODUCTION

Smoking is in decline in most European countries including Romania (1). In 2008, the overall current daily tobacco smoking was an estimated 27.8% of adult inhabitants (38.6% in men and 17.7% in women) (2). As in 2011, nearly five million Romanians (24.3%) still smoke tobacco with over two times higher smoking prevalence among men compared to women 34.9% vs. 14.5%, respectively (3). Tobacco smoking has been identified as one of the major causes of health inequalities within the Romanian population (4, 5). Huge disparities in morbidity and mortality due to non-communicable diseases including tobacco attributable diseases are observed across genders (5). Evidence shows the earlier the attempts to smoke, the higher the risk of becoming a regular smoker, and the lower the likelihood to quit, and the higher the risk of relapse. Subsequently, research also shows that the earlier the smoking initiation, the longer the smoking exposure and the higher the risk of contracting lung cancer or experiencing a range of risk factors and health problems in adulthood. Smoking initiation is considered the crucial behaviour that determines the future health burden of tobacco smoking in a society (6). Preventing tobacco smoking among young people is critical to ending the tobacco epidemic. Therefore, it appears to be one of the leading challenges of tobacco control (7, 8). The objective of the study was to investigate the association of socio-demographic variables with initiation of ever regular smoking among Romanians.

MATERIALS AND METHODS

The data source was the 2011 Global Adult Tobacco Survey Romania (GATS). GATS is a nationally representative household survey. The target population of GATS includes all non-institutionalized men and women 15 years of age or older. In Romania, similarly to other GATS countries, a multistage cluster sample design was employed with households selected proportional to population size. GATS methodology was described in detail elsewhere (6, 9−11).

Study Variables

The main outcome variable was ever regular smoking. Regular smoking refers to smoking at least one cigarette per day, every day, during at least one year period in a lifetime. The category for ever smokers covered current and former smokers. Current tobacco smoking was defined as current daily smoking based on the question: "Do you currently smoke tobacco on a daily basis, less than daily, or not at all". Former tobacco users were defined as the number of ever tobacco smokers who currently do not smoke. Never tobacco users were defined as adults who reported that they never smoked in their life time. Less than daily smokers were not taking into consideration in the analysis. Age at smoking onset information was analyzed as well. Age at smoking onset was regarded as the age at which respondents started to smoke

tobacco on a regular basis. Some of the variables included in the analyses were gender (male/female), and age of the respondents. We also used the data on educational attainment of all subjects in our analysis. Education level was reported as primary education including primary or less education including no formal education, primary school completed (4 grades), secondary school (gymnasium, grades 5–8) completed, and vocational school. Secondary education includes grades 9–10 or high school completed and post-high school completed. High education includes college (short-term study), university and post graduate degree completed.

The measure of occupational activity considered four categories: economically not active (pupils, students, persons occupied with household keeping, retired, and pensioners due to disability), employed (currently with permanent job), unemployed (unemployed – able to work, unemployed – unable to work). Furthermore, for the place of residence we distinguished two types of dwelling: rural or urban area. We also assessed the awareness of the adverse health consequences of tobacco smoking. We categorized study participants as aware (those who answered "yes" to the question: "Do you think that tobacco smoking causes serious diseases?") and not aware (those who answered "no" and "do not know"). Similarly, study participants were categorized as being aware or not aware of ever tobacco smoking (ETS) health consequences. We also considered cohabitation with a smoker (family members smoke: yes, no). Socioeconomic circumstances including ownership of different household items were also evaluated. The variable called "asset index" was created based on summative score of possession of the following assets: functioning electricity, flush toilet, home phone, cell phone, television, radio, refrigerator, car, washing machine, computer, and internet access. The summative score was then divided into high, medium and low.

Statistical Analyses

The STATISTICA Windows XP version 8.0 program was used for the statistical analyses. All analyses were performed separately for men and women. The chi square test was used for analyzing the differences between subgroups and trend calculation. Logistic regression model – "Enter" method was used to calculate odds ratios (ORs) and 95% confidence interval (CI) of the selected socio-demographic variables on the initiation of regular smoking cigarettes. First univariate analysis of unweighted data to estimate odds ratios (ORs) and 95% confidence interval (CI) of each indicator on regular smoking initiation were calculated. Then multifactorial analysis considering the simultaneous effect of statistically significant variables on the smoking initiation was implemented.

RESULTS

Of the 5,629 sampled households, 4,601 completed the household interview (household response rate was 89.9%). Among persons randomly drawn from the screened households, 4,517 completed the individual interview and the individual response rate was 98.4%. The total response rate was 88.5%. Characteristics of the study population are presented in Table 1. Among 4,517 respondents there were 1,015 male and 436 female ever regular smokers, and 921 male as well as 1,910 female never smokers. Men were more likely to be ever smokers compared to women (52.4% vs. 18.5%; $p<0.001$). The proportions of ever smokers varied across selected socio-demographic groups (Table 1).

Based on the mean age of smoking initiation, women tend to start smoking later than men (18.38 ± 4.85 among men, and 21.48 ± 6.82 among women; $p<0.001$). The mean age of smoking initiation was lower in men than women among all indicators except smokers that were less than 25 years old, those with primary education and unaware of smoking or ETS adverse health consequences (Table 2). Male and female smokers younger than 25 years of age also started smoking at approximately the same age (14.17 ± 1.59 vs. 14.83 ± 1.94; $p>0.05$). Men and women with primary education started smoking almost at the same age (18.14 ± 7.02 vs. 18.83 ± 7.89, respectively; $p>0.05$). Furthermore, the mean age of smoking initiation differed across certain characteristics (Table 2). For instance, age of starting smoking changed in selected age subgroups from 20.34 ± 7.32 in the oldest subgroup over the age of 60 years to 14.39 ± 1.69 in the youngest age subgroup (p for trend <0.001). This trend was observed among male and female study participants while the reduction was much higher among women. Moreover, respondents with lower education, unemployed, with low asset index started to smoke at a younger age than those with better socioeconomic positions (p for trend <0.001). Also, study participants unaware of smoking (p for trend <0.01) or ETS health consequences (p for trend <0.01) and having family members smoking (p for trend <0.05) had lower mean age of smoking initiation compared to subjects with the opposite characteristics.

Results from the univariate and multivariate logistic regression for male and female smokers are presented in Table 3.

According to the univariate analysis, age was associated with smoking initiation in men and women. Education seemed to have minimal effect on smoking initiation. Nevertheless, male smokers in secondary school and high school seemed to take up the smoking habit faster than those in primary school. Similarly, female smokers in high school have higher initiation probability than those in primary school. Occupation also had a significant association with smoking initiation. Unemployed male smokers have higher odds of smoking onset. Male smokers that are unaware of smoking health consequences meet greater odds of smoking initiation than those who are aware, but these results did not show any significant relationship with female smokers. Alternatively, male and female smokers unaware of ETS consequences have an increased probability of initiating smoking relative to those unaware of ETS consequences. Another significant indicator of smoking initiation among both genders was living with a smoker. Among female smokers, and having a high asset index increased one's likelihood to start smoking. Place of residence and asset index had no significant effects on smoking initiation among male smokers.

There were a few differences observed in the multivariate analysis. Results showed that age had no significant effect on smoking onset among female smokers, but male smokers aged 60 and above had a higher possibility of becoming ever smokers relative to those aged 29 and below. On the other hand, our study highlighted over two times higher odds of ever smoking among women from urban dwelling while this association was not found in men. Being unaware of ETS consequences signaled higher

Table 1. *Characteristic of the study population – Global Adult Tobacco Survey Romania 2011*

Variable	Male total N = 1,936		Male ever smoker N = 1,015			Female total N = 2,346		Female ever smoker N = 436		
	n	%	n	%	95% CI	n	%	n	%	95% CI
Overall	1,936	100.0	1,015	52.4	50.2–54.6	2,346	100.0	436	18.5***	16.9–20.1
Age (years)										
< 25	80	4.1	12	15.0	7.2–22.8	75	3.2	6	8.0	1.9–14.1
25–29	235	12.1	123	52.3	45.9–58.7	207	8.8	60	29.0***	22.8–35.2
30–39	290	15.0	168	57.9	52.2–63.6	315	13.4	95	30.2***	25.1–35.3
40–49	343	17.7	215	62.7	57.6–67.8	329	14.0	100	30.4***	25.4–35.4
50–59	340	17.6	231	62.6	57.5–67.7	421	17.5	99	23.5***	19.5–27.6
≥ 60	648	33.5	284	43.8	40.0–47.6	999	42.6	74	7.4***	5.8–9.0
Missing data	–	–	–	–		–	–	–	–	
Education										
Primary	174	9.0	73	41.9	34.6–49.2	418	17.9	30	7.2***	4.7–9.7
Secondary	1,488	77.3	801	53.8	51.3–56.3	1,634	70.0	322	19.7***	17.8–21.6
High	263	13.7	137	52.1	46.1–58.1	283	12.1	78	27.6***	22.4–32.8
Missing data	11	0.6	4	0.4		11	0.5	4	0.9	
Occupational classification										
Economically not active	828	43.0	355	42.9	39.5–46.3	1,239	52.9	110	8.9***	7.3–10.5
Employed	907	47.1	520	57.3	54.1–60.5	1,005	42.9	296	29.5***	26.7–32.3
Unemployed – able to work	179	9.3	127	70.9	64.3–77.6	92	3.9	25	27.2***	18.1–36.3
Unemployed – unable to work	13	0.7	9	69.2	44.1–94.3	4	0.2	0	0.0***	0.0–0.0
Missing data	9	0.5	4	0.4		6	0.3	3	0.7	
Place of residence										
Rural	856	44.2	437	51.1	47.7–54.5	1,131	48.2	141	12.5**	10.6–14.4
Urban	1,080	55.8	578	53.5	50.5–56.5	1,215	51.8	293	24.1**	21.7–26.5
Missing data	–	–	–	–		–	–	–	–	
Asset index										
High	1,017	53.5	526	51.7	50.8–52.6	1,099	47.3	261	23.7**	21.2–26.2
Middle	628	32.9	347	55.3	51.4–59.2	828	35.7	120	14.5**	12.1–16.9
Low	266	13.9	130	48.9	42.9–54.9	395	17.0	44	11.1**	8.0–14.2
Missing data	25	1.3	12	1.2		24	1.0	9	2.1	
Awareness of smoking health consequences										
Yes	1,852	96.2	961	51.9	49.6–54.2	2,269	97.4	415	18.3***	16.7–19.9
No	73	3.8	47	64.4	53.4–75.4	60	2.6	16	26.7**	15.5–37.9
Missing data	11	0.6	7	0.7		17	0.7	3	0.7	
Awareness of smoking ETS consequences										
Yes	1,802	94.3	926	51.4	49.1–53.7	2,203	95.5	396	18.0***	16.4–19.6
No	110	5.8	71	64.5	55.6–73.4	104	4.5	31	29.8**	21.0–38.6
Missing	24	1.2	18	1.8		39	1.7	7	1.6	
Family smoke										
Yes	684	35.4	572	83.6	80.8–86.4	495	21.1	261	52.7***	48.3–57.1
No	1,249	64.6	441	35.3	32.7–37.9	1,848	78.9	173	9.4***	8.1–10.7
Missing data	3	0.1	2	0.2		3	0.1	0	0.0	

**p < 0.01 men ever smoking vs. women ever smoking
***p < 0.001 men ever smoking vs. women ever smoking

Table 2. *Mean age of smoking initiation in men and women ever smokers by selected characteristics – Global Adult Tobacco Survey Romania 2011*

Variable	Romania			Male vs. female p
	Overall N = 1,451	Male N = 1,015	Female N = 436	
	Mean ± SD	Mean ± SD	Mean ± SD	
Overall mean age of smoking initiation	19.31 ± 5.69	18.38 ± 4.85	21.48 ± 6.82	p < 0.001
Age (years)				
< 25	14.39 ± 1.69	14.17 ± 1.59	14.83 ± 1.94	p > 0.05
25–29	16.82 ± 2.50	16.54 ± 2.62	17.40 ± 2.12	p < 0.05
30–39	18.05 ± 3.87	17.56 ± 3.67	18.93 ± 4.08	p < 0.01
40–49	19.27 ± 4.84	18.53 ± 4.52	20.86 ± 5.15	p < 0.001
50–59	20.98 ± 6.23	19.82 ± 4.97	23.45 ± 7.79	p < 0.001
≥ 60	20.34 ± 7.32	18.66 ± 5.92	26.76 ± 8.53	p < 0.001
p for trend	p < 0.001	p < 0.001	p < 0.001	
Education				
Primary	18.34 ± 7.25	18.14 ± 7.02	18.83 ± 7.89	p > 0.05
Secondary	19.20 ± 5.69	18.22 ± 4.70	21.64 ± 7.06	p < 0.001
High	20.26 ± 4.65	19.47 ± 4.27	21.65 ± 5.00	p < 0.001
p for trend	p < 0.001	p < 0.001	p < 0.01	
Occupational classification				
Economically not active	19.92 ± 6.78	18.60 ± 5.68	24.15 ± 8.17	p < 0.001
Employed	19.24 ± 5.09	18.56 ± 4.45	20.44 ± 5.88	p < 0.001
Unemployed – able to work	17.98 ± 4.90	17.30 ± 3.84	21.44 ± 7.65	p < 0.001
Unemployed – unable to work	15.63 ± 2.26	15.63 ± 2.26	–	–
p for trend	p < 0.001	p < 0.001	p < 0.001	
Place of residence				
Rural	18.84 ± 5.86	18.08 ± 4.99	21.19 ± 7.53	p < 0.001
Urban	19.62 ± 5.56	18.61 ± 4.73	21.62 ± 6.46	p < 0.001
p for trend	p < 0.001	p < 0.05	p < 0.05	
Asset index				
High	19.58 ± 5.15	18.86 ± 4.91	21.05 ± 5.31	p < 0.001
Middle	19.21 ± 6.07	18.04 ± 4.68	22.60 ± 8.07	p < 0.001
Low	18.12 ± 6.87	17.22 ± 4.92	20.75 ± 10.35	p < 0.01
p for trend	p < 0.001	p < 0.001	p < 0.05	
Awareness of smoking health consequences				
Yes	19.40 ± 5.70	18.47 ± 4.86	21.54 ± 6.84	p < 0.001
No	17.49 ± 5.19	16.91 ± 4.61	19.19 ± 6.46	p > 0.05
p for trend	p < 0.01	p < 0.05	p > 0.05	
Awareness of smoking ETS consequences				
Yes	19.40 ± 5.67	18.41 ± 4.82	21.66 ± 6.76	p < 0.001
No	18.68 ± 6.21	18.14 ± 5.31	19.90 ± 7.86	p > 0.05
p for trend	p < 0.01	p > 0.05	p < 0.01	
Family smoke				
Yes	18.98 ± 5.36	18.21 ± 4.71	20.66 ± 6.24	p < 0.001
No	19.77 ± 6.09	18.62 ± 5.02	22.71 ± 4.46	p < 0.001
p for trend	p < 0.05	p > 0.05	p < 0.01	

Table 3. *Odds ratios (OR) and 95% confidence intervals (CI) for ever smoking in Romania – Global Adult Tobacco Survey 2011*

Variable	Male (N = 1,015)						Female (N = 436)					
	Total	Smoking initiation rate	Univariate logistic regression		Multivariate logistic regression[a]		Total	Smoking initiation rate	Univariate logistic regression		Multivariate logistic regression[a]	
	n	%	OR	95% CI	OR	95% CI	n	%	OR	95% CI	OR	95% CI
Age (years)												
< 25	80	15	0.68*	0.49–0.95	0.26***	0.17–0.41	75	8	2.72***	1.74–4.27	0.86	0.49–1.51
25–29	235	52	1.61*	1.09–2.38	0.57*	0.33–1.00	207	29	6.61***	3.83–9.90	1.41	0.71–2.78
30–39	290	58	1.76***	1.33–2.34	0.71	0.45–1.11	315	30	5.40***	3.85–7.57	1.55	0.90–2.66
40–49	343	63	2.15***	1.64–2.82	0.90	0.59–1.38	329	30	5.46***	3.91–7.62	1.50	0.89–2.54
50–59	340	63	2.15***	1.64–2.81	1.24	0.86–1.78	421	24	3.84***	2.77–5.33	1.52	0.97–2.38
≥ 60	648	44	1.00	reference	1.00	reference	999	7	1.00	reference	1.00	reference
Education												
Primary	174	42	0.66*	0.45–0.98	0.63*	0.39–1.01	418	7	0.20***	0.13–0.32	0.37**	0.20–0.69
Secondary	1,488	54	1.07	0.82–1.39	1.00	0.73–1.37	1,634	20	0.65**	0.48–0.86	0.83	0.57–1.20
High	263	52	1.00	reference	1.00	reference	283	28	1.00	reference	1.00	reference
Occupational classification												
Economically not active	828	43	0.56**	0.46–0.68	0.77	0.55–1.08	1,239	9	0.23***	0.18–0.30	0.43***	0.29–0.64
Employed	907	57	1.00	reference	1.00	reference	1,005	30	1.00	reference	1.00	reference
Unemployed	192	70	1.81***	1.29–2.53	1.72**	1.16–2.57	96	26	0.84	0.52–1.36	0.81	0.46–1.43
Place of residence												
Rural	856	51	1.00	reference			1,131	13	1.00	reference	1.00	reference
Urban	1,080	54	1.10	0.92–1.33			1,215	24	2.23***	1.79–2.78	2.40***	1.78–3.22
Asset Index												
High	1,017	52	1.00	reference			1,099	24	1.00	reference	1.00	reference
Middle	628	55	1.15	0.94–1.41			828	15	0.54***	0.43–0.69	1.08	0.79–1.47
Low	266	49	0.89	0.68–1.14			395	11	0.40***	0.29–0.57	1.32	0.81–1.15
Awareness of smoking health consequences												
Yes	1,852	52	1.00	reference	1.00	reference	2,269	18	1.00	reference		
No	73	64	1.68*	1.03–2.73	1.20	0.64–2.23	60	27	1.62	0.91–2.91		
Awareness of smoking ETS consequences												
Yes	1,802	51	1.00	reference	1.00	reference	2,203	18	1.00	reference	1.00	reference
No	110	65	1.72**	1.15–2.57	1.34	0.81–2.20	104	30	1.94**	1.26–2.99	2.30**	1.35–3.91
Family smoke												
Yes	684	84	9.36***	7.41–11.82	9.80***	7.60–12.64	495	53	10.80***	8.53–13.68	10.49***	8.05–13.66
No	1,249	35	1.00	reference	1.00	reference	1,848	9	1.00	reference	1.00	reference

[a]Model adjusted for all statistically significant associates
*p < 0.05, **p < 0.01, ***p < 0.001

initiation rates for women (OR = 2.30; 95% CI: 1.35–3.91), but showed no significance among men. As in the univariate analysis, male and female smokers in high school have the highest initiation rates. Unemployed men are also more likely to start regular smoking (OR = 1.72; 95% CI: 1.16–2.57), while women that are economically inactive have a lower likelihood of smoking initiation (OR = 0.43; 95% CI: 0.29–0.64). Also, living with smoker(s) was associated with greater odds for initiating smoking among both genders. Men and women cohabiting with smokers have an approximate ten times increased probability of ever starting smoking compared to those who are not.

DISCUSSION

GATS findings have several implications for strengthening tobacco control policies in Romania. First, information regarding age at initiation of regular smoking provides some very interesting evidence. In the European countries the average age of initiating smoking is the lowest in Ireland (16.4), followed by Denmark (16.6), Malta (16.8), and the UK (16.8). Consequently, the highest proportions of smokers and ex-smokers saying they started before 15 are registered in the same group of four countries. The highest average ages are recorded in Slovenia, Poland

and Romania (12). In Romania, the mean age of regular smoking initiation was 19.3 ± 5.7 and was considerably lower among men compared to women ($p < 0.01$). This observation can explain existing evidence and contribute to possible increased prevalence of tobacco-induced diseases in the male population (13). Such an increase also leads to broadening male/female disparities in tobacco related morbidity and mortality. As in the results from GATS Poland, there were still differences in age of smoking onset among men and women, but a positive difference was that Romanian women began smoking a year later than Polish women (10). Also, daily smoking prevalence is lower among Romanian women compared to Polish women, in which a large part can be explained by socio-cultural differences. However, the percentage of smokers in Romania is higher than average in EU countries and Romania belongs to ten EU countries with the highest prevalence of daily smoking. The highest proportions of smokers are observed in Greece, Bulgaria, Latvia, Austria, and Spain. Fewest smokers are reported in Sweden, followed by Portugal and Slovakia (12, 14). As previously documented, mean age at smoking initiation varies across countries, age cohort and socioeconomic characteristics (15–19). Variations in age at smoking uptake by country may reflect different stages of the tobacco epidemic between countries, and may also reflect effective implementation of tobacco control measures (20). Similarly, other surveys also revealed an earlier age of smoking initiation among respondents from younger subgroups in men and women (16–18, 21, 22). An interesting observation is that in addition to the changes in the mean age of smoking uptake reaching its lowest level in the youngest group, there is also a diminishing difference in age of smoking onset as age decreases among both genders. For example, the difference between genders in the oldest age group was 8 years, then 4 years in the group of 50–59, then it reduced to 2 years, until there was no such difference between men and women in younger age groups. In younger age groups women start smoking at the same age as men do. This may be evidence of changing social norms and increasing interest in smoking initiation among women. Moreover, we found that, as in other countries, younger age of smoking initiation was related to the respondent's deprived socioeconomic situation (10, 23–25). The mean age of smoking initiation differed by education level and was lowest among subjects having primary education. Asset index was also an important factor and those with the lowest asset index started smoking earlier than those from the upper class. Due to an earlier age at smoking uptake in the lower socioeconomic groups compared to the upper class, health inequalities in smoking-related mortality may increase among Romanians.

Contrary to reports from other more economically developed countries and GATS Poland, low educational attainment was negatively associated with regular smoking initiation among men and women in Romania (10, 23, 26, 27). However, based on age groups, the smoking initiation pattern in eastern Europe is diverse; for example the opposite pattern was found in Lithuania among females aged 40–59 (26). Women aged 60 years and more who were less educated were less likely to have ever smoked in all countries, except Norway and England. It may be hypothesized that diffusion of the smoking epidemic among people from higher to lower socioeconomic groups has not yet occurred in Romania. Due to the cross-sectional methodology of the study, we should treat this result with caution because information on health awareness of subjects at the time of smoking onset is not available. However, studies conducted in Romania showed a low exposure of Romanian adolescents to anti-smoking school education and poor quality lessons among those that learnt (28). Considering this deficiencies, it can be assumed that these smokers are not fully aware of the risks associated with smoking and ETS consequences. These gaps in knowledge may indicate insufficient knowledge unless they claim to have started smoking despite being aware of these consequences. There may also be other ways to explain this problem. It was also found that more than two-thirds of school personnel in Romania had ever smoked tobacco, and more than one-thirds of them are current smokers, over a quarter of respondents reported they smoked on school premises in spite of school policies prohibiting it. In general, these may negatively influence their students (29).

Study Limitations

A well-known study limitation of the GATS data is self-reporting. GATS Romania questionnaire did not cover some important questions, including questions on personality, family and friends which may have improved our ability to make conclusions. In addition, respondents were not asked to give reasons for initiating smoking, and this may have highlighted some additional risk factors. Finally, GATS data uses a cross-sectional design which collects information at one point in time. With this system, we are unable to deduce characteristics that may have changed over time and may have some impact on smoking initiation. Based on all these facts, further GATS studies should consider including more in-depth data to improve the possibility of making firm conclusions, creating relevant policies and implementing effective programmes.

CONCLUSIONS

GATS revealed a significant but diverse role of socio-demographic factors on initiation of regular smoking among male and female adult Romanians. Results indicated that policies dedicated to prevent smoking initiation must be carefully tailored and address disparities in smoking initiation and take into account different needs of selected subgroups. An alarming observation is decreasing age of smoking initiation among younger age groups and women in particular. The smoking-tolerant environments together with tobacco industry efforts encourage early smoking initiation. Comprehensive tobacco control measures focused on denormalizing tobacco smoking behaviour in the community are urgently needed in preventing smoking initiation and reducing ever regular smoking. In Romania, it seems that little attention is paid to these issues and there are many areas for improvement using well-known effective solutions and strategies (30–35). Achieving high compliance with the Framework Convention on Tobacco Control is essential for curbing tobacco epidemic in Romania (36). The WHO MPOWER policy package may serve as an example. It is intended to assist implementation of effective interventions on a country level, leading to decrease in tobacco use (36–37).

Conflict of Interests
None declared

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