



## Exposure to Environmental Tobacco Smoke and Tobacco-free Homes among Pregnant Women

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## Abstract

**Introduction:** According to the British Medical Association, there is no safe level of exposure to secondhand smoke. Passive smoking can cause difficulties in getting pregnant, low birth weight, and premature births. Children exposed to environmental tobacco smoke have an increased risk of asthma, lower respiratory tract infections, bronchitis, middle ear disease, bacterial meningitis and sudden infant death syndrome, as well as overall reduced respiratory function.

**Aim:** The aim of the study was to assess exposure to passive smoking and to analyze socioeconomic correlations associated with passive exposure to tobacco smoke among pregnant women.

**Material and methods:** A cross-sectional study was conducted among pregnant women receiving antenatal care at the Poviát Health Care Complex in Piotrków Trybunalski in 2018. The research tool was a questionnaire. The study design received a positive opinion of the Bioethics Committee at the Medical University of Lodz RNN/ 386/17/EC of December 19, 2017 and the consent of the head of this unit.

**Results:** Over 30% of the respondents were exposed to passive smoking. The most common exposure was at home (23.5%), at work (22.5%) and in the car (18.8%). Former and current smokers were more likely to be exposed to secondhand smoke (OR=2.09, 95% CI: 1.00-4.38  $p<0.05$  and OR=19.48 95% CI: 6.53-58, 20  $p<0.001$ ). Women whose partner smoked were at more than six times greater risk of exposure to tobacco smoke (OR=6.44 95% CI: 2.57-16.16,  $p<0.01$ ). Women with very low monthly income were at almost twice the risk of passive smoking (OR=1.66, 95% CI: 1.08-2.81  $p<0.05$ ) compared to high-income respondents. Smokers more often lived in homes where complete smoking bans were not introduced (OR=1.71, 95% CI: 1.32-2.21;  $p<0.001$ ).

**Conclusions:** *There is a need for interventions to encourage smoking bans in pregnant homes, together with arrangements enabling policy makers to develop measures to effectively implement interventions to introduce tobacco-free home policies.*

**Key words:** *passive smoking, pregnancy, socioeconomic status, smoke-free homes.*

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## Introduction

Passive smoking, also known as exposure to environmental tobacco smoke, is the inhalation of smoke generated by other people during cigarette smoking. The American Environmental Protection Agency (EPA) classifies environmental tobacco smoke as a class A carcinogen (known to man) along with asbestos, arsenic, benzene and radon gas [1]. According to the British Medical Association, there is no safe level of exposure to secondhand smoke [2]. Non-smoking women who are exposed to secondhand smoke during pregnancy are more likely to give birth to children with lower weights [3]. Infants born by non-smoking women whose partners smoke weigh less than babies born by non-smoking couples [4]. Exposure to passive smoking is also significantly associated with preterm labor [5]. Other studies suggest that non-smoking women at risk of secondhand smoke are at greater risk of difficulties in becoming pregnant, premature or stillbirth, miscarriage and childbirth with birth defects [6,7]. In addition, some evidence suggests that female fertility may be impaired during utero if the woman's mother was exposed to secondhand smoke during pregnancy [8]. It was found that exposure to secondhand smoke may also be harmful in terms of successful pregnancy outcomes in women undergoing in vitro fertilization (IVF) or other assisted reproductive technology (ART) [9]. Lack of attention, ability to concentrate and attention deficit hyperactivity disorder have also been associated with exposure to passive smoking at home, in addition to smoking by the mother during pregnancy [10]. Exposure to secondhand smoke at home is strongly associated with middle ear disease in children [11]. Some studies suggest that prenatal and postnatal exposure to tobacco smoke induces leukemia, especially acute lymphoblastic leukemia. In 2010, The Royal College of Physicians published a groundbreaking report entitled "Secondhand smoke and children". The report recognizes the importance of smoking ban legislation in reducing exposure to passive smoking in the workplace but notes that the main source of exposure for non-smokers is home, and children are particularly at risk [12]. The authors conclude

that, secondhand smoke at home poses a serious health risk to millions of UK children living with smokers' and that, secondhand smoke is a significant cause of infant morbidity and mortality'. The report confirms that a child exposed to SHS is at an increased risk of developing asthma, lower respiratory tract infections, bronchitis, ear diseases, bacterial meningitis and sudden infant death syndrome, as well as overall reduced respiratory function [13].

## Material and methods

Study was conducted among pregnant women receiving antenatal care at the Poviát Health Care Complex in Piotrków Trybunalski in 2018. The respondents were recruited at the outpatient clinic of the Poviát Health Care Team in Piotrków Trybunalski. The study design received a positive opinion of the Bioethics Committee at the Medical University of Lodz RNN/386/17/EC of December 19, 2017 and the consent of the head of this unit. All women agreed to participate in the study. For women under 18 years of age after obtaining the written consent of a parent or legal guardian were included in the study. The study was conducted from January 2018 to December 2018. The research tool was a questionnaire. The questions in the questionnaire cover the following issues: sociodemographic data, smoking and use of e-cigarettes by both pregnant woman and her partner, smoking intentions, exposure to secondhand smoke.

## Results

The study involved 600 pregnant out of 1,326 patients receiving antenatal care at the Poviát Health Care Center in Piotrków Trybunalski in 2018 – the response rate is 45.2%. The detailed characteristics of the subjects are given in Table 1.

Over 30% of respondents were exposed to second hand smoke, 65.5% were not exposed. In the group exposed to passive smoking, 14.3% were non-smokers, 4.2% declared to quit smoking and 16% continued smo-

king during pregnancy (Table 2). Home (23.5%), car (18.8%), work (22.5%) were mentioned as the most common place of exposure, 28% of respondents indicated another place (Table 3). The average number of hours of exposure to tobacco smoke was  $5.1 \pm 3.4$ /day, which gives  $35.5 \pm 23.9$  hours per week. Complete regulations regarding smoking ban were adopted only in 26.3% ( $n=158$ ) of the study participants. The respondents were also asked how often tobacco is smoked in their homes, regardless of the smoking ban: at least once a week, at least once a month, less often than once a month, 10.0%, 21.3%, 32.5%, 14.7%, 21.5% of respondents respectively (Table 4).

Passive exposure to tobacco smoke was significantly associated with factors such as respondent smoking status, education, employment, living with a smoking partner, and monthly income per family member. Former and current smokers were significantly more likely to be exposed to secondhand smoke OR=2.09, 95% CI: 1.00-4.38  $p < 0.05$  and OR = 19.48 95% CI: 6.53-58, 20  $p < 0.001$ . The probability of passive exposure to tobacco smoke in pregnant women with basic education was three times higher (OR=2.91, 95% CI: 1.17-7.21,  $p < 0.05$ ) compared to people with higher education. Women who are not working because of taking care for a child or other family member have a higher risk of passive smoking compared to those who are active (OR=1.12, 95% CI: 1.11-2.84  $p < 0.01$ ). Compared with women living with a non-smoking partner, those whose partner smoked were at more than a six-fold greater risk of passive exposure to tobacco smoke (OR=6.44 95% CI: 2.57-16.16,  $p < 0.01$ ). In addition, women declaring a very low monthly income below PLN 700 were at almost twice the risk of passive smoking (OR=1.66, 95% CI: 1.08-2.81  $p < 0.05$ ) compared to respondents whose income exceeded 2000 PLN per month (Table 5).

In comparison with non-smokers, smokers more often lived in homes where complete smoking bans were not introduced (OR=1.71, 95% CI: 1.32-2.21;  $p < 0.001$ ). Odds ratios (OR) and 95% confidence intervals (CI) for not introducing a total smoking ban at home have shown that respondents who were unaware of the risks of exposure to ETS had a much gre-

ater chance of not entering a smoking ban at home compared to people who are aware of such threats (OR=1.28, 95% CI: 1.00-1.65,  $p<0.05$ ). Other variables in the analysis were not significantly associated with the lack of introduction of smoke-free home rules (Table 6).

## Discussion

In the study of Adamek et al. 32% of pregnant women were exposed to secondhand smoke [14]. In his subsequent works, Adamek also shows that exposure to passive smoking occurs in 30% of pregnant women, especially in their place of residence [15]. Similarly, in Jędrzejczyk's study, 32% of non-smoking pregnant women were exposed to secondhand smoke [16]. Bilar et al. noted that just over a half of pregnant women were not exposed to tobacco smoke. On the other hand, non-smoking but passively exposed women constituted about 19% of the respondents [17]. A study by Do et al. showed that 23% of pregnant women were exposed to tobacco smoke [18]. In a study by Balwicki et al. from 2007, it was observed that about 45% of pregnant women were exposed to secondhand smoke. In this group, 31.4% were non-smokers, 14.9% declared smoking cessation during pregnancy, and 30.7% respectively continued smoking during pregnancy. Pregnant women indicated home as the main place of exposure – home, then public places and the workplace in third place [19]. In 2017, 12% of Poles admitted that in their homes there was permission to smoke tobacco without any restrictions. About 7% of respondents declared that cigarettes were smoked in their homes in locked rooms designated for this purpose. In about 20% of the respondents' homes, tobacco was smoked, but only outside, e.g. on a terrace or balcony. About 87% of smokers said they smoke at home. In addition, around 36% of them said they smoke without any restrictions, i.e. all over the house. In 76% of homes of non-smoking respondents, smoking was strictly forbidden. In addition, 13% of Poles indicated exposure to passive smoking in their place of residence. The smoking percentage of women exposed to tobacco smoke at home was 22%, and men 27%. While

11% non-smoking women and 8% non-smoking men were exposed to secondhand smoke. The results from all previous editions of the study carried out by Kantar Public show that the percentage of people exposed to secondhand smoke in their workplace in the last few years has been systematically decreasing from 14% in 2009 to about 8% in 2013-2017. Admittedly in 2015 there was an increase in the frequency of exposure to passive smoking in the workplace, but in 2017 its level returned to the level of 2013 – 8%. The percentage of households in which a total smoking ban was introduced was relatively low and only 26.3% of pregnant respondents residing in the Piotrków powiat declared introducing a smoking ban at home. Earlier data based on the GATS survey conducted in 2009-2010 say a percentage of 37.1%. As with ETS exposure, there is no previous comparative data covering rural population or current surveys available for the entire population that would illustrate the total percentage of households with total smoking ban. Passive exposure of pregnant women to tobacco smoke was significantly associated with factors such as the status of smoking respondents, education, employment, living with a smoking partner, monthly income per family member. The following features were associated with the lack of a complete ban on smoking in the place of residence: smoking status, education, concern about the harmfulness of smoking to the fetus, trimester of pregnancy. Analyses based on the results of previous studies also showed significant relationships regarding smoking at home, i.e. smoking and lack of awareness about the risks associated with ETS exposure. Stronger relationships, e.g. permitting smoking in the homes of smokers (compared to non-smokers) seem obvious and confirmed by other research in this field [20,21]. In the study by Milcarz et al. overall 19.4% of respondents were exposed to ETS at home, including 17.1% men and 20.4% women. In the non-smoking group 15.5% of respondents (6.6% men and 18.3% women) were exposed to ETS at their place of residence ( $p < 0.0001$ ). In the smokers group 25.0% of respondents (25.1% men and 25.5% women) were exposed to ETS in the last month ( $p > 0.05$ ). However, total smoking bans were adopted by 22.1% of study participants. In the non-smoking group 25.5% of respon-



dents implemented a total ban on smoking in their place of residence. Among smokers 16.5% of respondents (17.3% men and 15.9% women) implemented a complete smoking ban at home [22]. In Poland, Kaleta et al. showed that at the smokers' home the risk of not introducing a total smoking ban was twice as high compared to non-smokers [20]. Similarly, Heck et al. showed that the introduction of a complete smoking ban at home is correlated with the household's smoking status and the demographic characteristics of respondents [23]. In the study of Kaleta et al., the lack of knowledge about negative health effects related to passive smoking was an important factor reducing the frequency of introduction of smoking bans at respondents' homes. Respondents who were not aware of the harmful effects of passive smoking were at about twice the risk of not introducing the smoking bans at home, compared with respondents perceiving exposure to passive smoking as harmful [20].

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Table 1. Characteristics of the study population (n=600)

Characteristic		N	%
<b>Age in years</b>			
	min-max	19-41	
	average	26	
	median	5.6	
	<19	10	1.7
	20-24	120	20.0
	25-29	243	40.5
	30-34	159	26.5
	35-39	65	10.8
	40-44	3	0.5
	45+	0	0.0
Week of pregnancy at the time of the study		$\bar{x}$ 31.5; median 35.0 SD 9.5	
<b>Trimester of pregnancy</b>			
	I trimester	32	2.0
	II trimester	128	15.9
	III trimester	440	82.1
<b>Education</b>			
	basic	129	21.5
	professional	153	25.5
	average	231	38.5
	higher	87	14.5
<b>Currently pregnancy</b>			
	1	270	45.0
	2	210	35.0
	3	85	14.2
	4	20	3.3
	5	10	1.7
	6	5	0.8
<b>Delivery</b>			
	one delivery	270	45.0
	many deliveries	330	55.0

Number of deliveries			
	0	270	45.0
	1	245	40.8
	2	60	10.0
	3	15	2.5
	4	5	0.8
	5	5	0.8
Employment			
	employed	465	77.5
	unemployed	35	5.8
	other	90	15.0
	no answer	10	1.7
Type of work			
	physical work (predominance of physical effort)	180	38.7
	intellectual work (predominance of mental effort)	285	61.3
Marital status			
	married	474	79.0
	single	117	19.5
	widow/divorced	9	1.5
Living with a partner			
	Yes	562	93.7
	No	38	6.3
Subjective income assessment "makes ends meet"			
	with great difficulty	0	0.0
	with difficulty	25	4.2
	with some difficulty	248	41.3
	fairly easy	206	34.3
	easily	88	14.7
	very easy	33	5.5
Monthly income			

	up to 500 PLN	20	3.3
	over 500 to 700 PLN	49	8.2
	over 700 to 1000 PLN	213	35.5
	over 1000 to 1500 PLN	188	31.3
	over 1500 to 2000 PLN	86	14.3
	over 2000 to 2500 PLN	17	2.8
	over 2500 PLN	27	4.5
<b>Subjective assessment of health condition</b>			
	very good	245	40.8
	good	275	45.8
	neither good nor bad	70	11.7
	bad	5	0.8
	very bad	5	0.8
<b>Family help and support</b>			
	at all	30	5.0
	sometimes	110	18.3
	often	85	14.2
	always	375	62.5

Table 2. Exposure to environmental tobacco smoke among pregnant women (N=600)

Exposure to environmental tobacco smoke	N	%
not exposed to secondhand smoke	393	65.5
exposed to secondhand smoke		
- non-smoking during pregnancy	86	14.3
- quit smoking during pregnancy	25	4.2
- continues smoking during pregnancy	96	16.0
Sum	600	100%

Table 3. Passive exposure to tobacco smoke of pregnant women (N=600)

Answer	N	%
<b>Where are you most often exposed to tobacco smoke:</b>		
at work	135	22.5
at home	141	23.5
in the car I travel	113	18.8
other place	168	28.0
No data	43	7.2
<b>Does your husband/partner smoke cigarettes?</b>		
Yes	253	42.2
No	347	57.8
<b>Did your parents smoke cigarettes?</b>		
none of them	124	20.7
only father	195	32.5
only mother	57	9.5
both	224	37.3
<b>Do your friends smoke cigarettes?</b>		
none of them	103	17.2
some of them	422	70.3
most or all of them	75	12.5



Table 4. Implementation of smoking bans at respondent homes (N=600)

Answer	N	%
<b>Which of the following best describes your smoking policy at home?</b>		
smoking is allowed	122	20.3
smoking is prohibited, although there are exceptions to this rule	157	26.2
smoking is completely prohibited	158	26.3
no rules	163	27.2
lack of total protection against tobacco smoke	442	73.7
<b>How often are cigarettes smoked inside your home (regardless of applicable rules)?</b>		
every day	60	10.0
at least once a week	128	21.3
at least once a month	195	32.5
less than once a month	88	14.7
never	129	21.5

Table 5. Odds Ratios (OR) and 95% Confidence Intervals (CI) for passive exposure to tobacco smoke in the studied group (n=600) depending on selected features

Characteristic	Sum (n)	Women exposed to secondhand smoke N=207 (34,5%)		Univariate logistic regression		Multivariate logistic regression <sup>a</sup>	
		n	%	OR	95%CI	OR	95%CI
<b>Age (years)</b>							
19-24	130 (21.7)	59	45.4	1.43	0.78-2.61		
25-29	243 (40.5)	73	30.0	0.74	0.42-1.30		
30-34	159 (26.5)	50	31.5	0.79	0.43-1.43		
35-44	68 (11.3)	25	36.8	1.00	reference		
<b>Smoking status</b>							
never smoking	316 (52.7)	62	19.6	1.00	reference	1.00	reference
smoking in the past	165 (27.5)	49	29.7	1.73*	1.11-2.67	2.09*	1.00-4.38
smoking currently	119 (19.8)	96	80.7	17.10***	10.02-29.17	19.48***	6.53-58.20

<b>Education</b>									
basic	129 (21.5)	55	42.6	3.88***	1.98-7.58	2.91*	1.17-7.21		
professional	153 (25.5)	55	35.6	2.93***	1.51-5.67	2.30	0.82-6.47		
secondary	231 (38.5)	83	35.9	2.92***	1.55-5.51	1.11	0.46-2.67		
higher	87 (14.5)	14	16.1	1.00	reference	1.00	reference		
<b>Employment</b>									
employed	465 (78.8)	146	31.4	1.00	reference	1.00	reference		
unemployed (seeking and not working)	35 (5.9)	16	45.7	1.84	0.92-3.69	1.04	0.63-1.93		
other (does not work because of taking care of a child or other family member)	90 (15.2)	41	45.6	1.82**	1.15-2.90	1.12**	1.11-2.84		
<b>Marital status</b>									
married	474 (79.0)	153	32.3	1.00	reference	1.00	reference		
single, widow, divorced	126 (21.0)	54	42.8	1.57*	1.05-2.35	1.20	0.62-2.32		
<b>Partner smokes</b>									
Yes	253 (42.2)	147	58.1	6.63***	4.56-9.64	6.44**	2.57-16.16		
No	347 (57.8)	60	17.3	1.00	reference	1.00	reference		

<b>Other people (parents, friends) smoke</b>							
Yes	563 (93.8)	198	35.2	1.69	0.78-3.65		
No	37 (6.2)	9	24.3	1.00	reference		
<b>Household income assessment</b>							
very high	33 (5.5)	12	36.4	1.00	reference		
high	88 (14.7)	31	35.2	0.95	0.41-2.23		
average	206 (34.3)	65	31.5	0.81	0.37-1.76		
low	248 (41.3)	85	34.3	0.91	0.42-1.97		
very low	25 (4.2)	14	56.0	2.23	0.76-6.50		
<b>Income</b>							
very low <700 PLN	69 (11.5)	37	53.6	3.47**	1.51-7.97	1.66*	1.08-2.81
low, above 700 to 1000 PLN	213 (35.5)	71	33.3	1.50	0.71-3.15	1.28	0.74-2.08
average, above 1000 to 1500 PLN	188 (31.3)	55	29.3	1.24	0.58-2.63	1.13	0.69-3.14
high, above 1500 to 2000 PLN	86 (14.3)	33	38.4	1.88	0.83-4.20	1.29	0.39-4.23
very high >2000 PLN	44 (7.3)	11	25.0	1.00	reference	1.00	reference

<b>Subjective health assessment</b>									
very good	245 (40.8)	89	36.3	1.00	reference				
good	275 (45.8)	90	32.7	0.85	0.59-1.23				
neither good nor bad	70 (11.7)	24	34.3	0.91	0.52-1.60				
bad or very bad	10 (1.7)	4	40.0	1.17	0.32-4.27				
<b>Concern about the harmful effects of smoking</b>									
Yes	355 (59.2)	104	29.3	1.00	reference	1.00	reference	1.00	reference
No	245 (40.8)	103	42.0	1.75***	1.24-2.46	1.66	0.98-2.81		
<b>Concern about the harmful effects of smoking on the fetus</b>									
Yes	293 (48.8)	81	27.6	1.00	reference	1.00	reference	1.00	reference
No	307 (51.2)	126	41.0	1.82***	1.29-2.57	1.73	0.97-3.12		
<b>Trimester</b>									
I trimester	32 (2.0)	13	40.6	1.48	0.71-3.09	1.10	0.35-3.43		
II trimester	128 (15.9)	55	43.0	1.63*	1.09-2.44	1.10	0.60-2.01		
III trimester	440 (82.1)	139	31.6	1.00	reference	1.00	reference	1.00	reference

<b>Having children</b>									
Yes	270 (45.0)	79	29.3	1.00	reference	1.00	reference	1.00	reference
No	330 (55.0)	128	38.3	1.53*	1.09-2.16	1.34	0.75-2.38		
<b>The use of e-cigarettes</b>									
in the past	137 (22.8)	58	42.3	1.66**	1.12-2.46	1.04	0.56-1.92		
currently	23(3.8)	14	60.9	3.51**	1.48-8.33	3.52	0.92-13.41		
never	440 (73.3)	135	30.7	1.00	reference	1.00	reference		

<sup>a</sup> The model includes all statistically significant variables in univariate logistic regression \*\*\* p≤0.001 \*\* p≤0.01 \* p ≤0.05.

Table 6. Odds ratios and confidence intervals for not introducing a total smoking ban in pregnant women' places of residence depending on selected features

Characteristic	Sum (n)	No smoking ban N=442 (73.7%)		Univariate logistic regression		Multivariate logistic regression a	
		n	%	OR	95% CI	OR	95% CI
<b>Age (years)</b>							
19-24	130(21.7)	102	78.5	1.86	0.97-3.58		
25-29	243(40.5)	188	77.4	1.75	0.97-3.14		
30-34	159(26.5)	107	67.3	1.05	0.58-1.92		
35-44	68 (11.3)	45	66.2	1.00	reference		
<b>Smoking status</b>							
never smoking	316 (52.7)	223	70.6	1.00	reference	1.00	reference
smoking in the past	165 (27.5)	121	73.3	1.15	0.75-1.75	1.04	0.42-1.63
smoking currently	119 (19.8)	98	82.4	1.95**	1.14-3.31	1.16*	1.02-1.96
<b>Partner smokes</b>							
Yes	253 (42.2)	195	77.1	1.36	1.94-1.98		
No	347 (57.8)	247	71.2	1.00	reference		

<b>Other people (parents, friends) smoke</b>							
Yes	563 (93.8)	420	74.6	2.00**	1.01-3.97		
No	37 (6.2)	22	59.5	1.00	reference	1.00	reference
<b>Education</b>							
basic	129 (21.5)	82	63.6	2.05**	1.18-3.57	1.78*	1.00-3.21
professional	153 (25.5)	125	81.7	5.25***	2.91-9.46	4.65***	2.40-8.93
secondary	231 (38.5)	195	84.4	6.36***	3.66-11.07	6.01***	3.26-11.07
higher	87 (14.5)	40	46.0	1.00	reference	1.00	reference
<b>Employment</b>							
employed	465 (78.8)	336	72.4	1.00	reference		
unemployed (seeking and not working)	35 (5.9)	28	80.0	1.54	0.65-3.61		
other (does not work because of caring for a child or other family member)	90 (15.2)	69	76.7	1.26	0.74-2.14		
<b>Marital status</b>							
married	474 (79.0)	356	75.1	1.14	0.91-2.16		
single, widow, divorced	126 (21.0)	86	68.3	1.00	reference		



<b>Household income assessment</b>							
very high	33 (5.5)	23	69.7	1.00	reference		
high	88 (14.7)	50	56.8	0.57	0.24-1.35		
average	206 (34.3)	153	74.3	1.26	0.56-2.81		
low	248 (41.3)	196	79.0	1.64	0.73-3.66		
very low	25 (4.2)	20	80.0	1.74	0.51-5.96		
<b>Income</b>							
very low <700 PLN	69 (11.5)	53	76.8	2.29**	1.01-5.22	1.08	0.43-2.73
low, above 700 to 1000 PLN	213 (35.5)	170	79.8	2.74**	1.37-5.45	1.27	0.58-2.26
average, above 1000 to 1500 PLN	188 (31.3)	134	71.3	1.72	0.87-3.39	1.21	0.66-2.83
high, above 1500 to 2000 PLN	86 (14.3)	59	68.6	1.51	0.71-3.22	1.14	0.51-2.56
very high >2000 PLN	44 (7.3)	26	59.1	1.00	reference	1.00	reference
<b>Subjective health assessment</b>							
Very good	245 (40.8)	175	71.4	1.00	reference		
Good	275 (45.8)	207	75.3	1.22	0.82-1.80		
Neither good nor bad	70 (11.7)	52	74.3	1.16	0.63-2.12		
Bad or very bad	10 (1.7)	8	80.0	1.60	0.33-7.75		

<b>Concern about the harmful effects of smoking</b>							
Yes	355 (59.2)	271	76.3	1.40	0.97-2.02		
No	245 (40.8)	171	69.8	1.00	reference		
<b>Concern about the harmful effects of smoking on the fetus</b>							
Yes	293 (48.8)	202	68.9	1.00	reference	1.00	reference
No	307 (51.2)	240	78.2	1.61**	1.12-2.33	1.69**	1.12-2.55
<b>Trimester</b>							
I trimester	32 (2.0)	24	75.0	1.27	0.56-2.91	1.54	0.61-3.89
II trimester	128 (15.9)	109	85.2	2.43***	1.43-4.13	2.30**	1.30-4.02
III trimester	440 (82.1)	309	70.2	1.00	reference	1.00	reference
<b>Having children</b>							
Yes	270 (45.0)	195	72.2	1.00	reference		
No	330 (55.0)	247	74.8	1.15	0.79-1.65		
<b>The use of e-cigarettes</b>							
in the past	137 (22.8)	106	77.4	1.31	0.83-2.06		
currently	23 (3.8)	18	78.3	1.38	0.50-3.81		
never	440 (73.3)	318	72.3	1.00	reference		