

# Knowledge and Beliefs about the Inclusion of Health Warnings on Waterpipe Tobacco Packaging in Jordan

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## Abstract

**Background:** Article 11 of WHO-FCTC strategies emphasize the need for countries to include health warnings on packages of tobacco products. This study aims to assess Jordanian people, aged 13 years and above knowledge and beliefs about the inclusion of health warning labels on waterpipe tobacco packages.

**Methods:** A descriptive cross-sectional approach was conducted among youth and adults aged 13 years and above. The sample was recruited from public schools, universities, and a governmental public service agency. Data collection was done through an electronic survey using Tablets.

**Results:** A total of 1067 participated in the study, with ages ranging between 13– 63 years old with a mean (20.9, SD= ± 6.1). Study participants mainly consisted of students making (86.7%) of the total sample. These students were in secondary education school (19.3%) or attending university (67.4%). Findings indicated that participants tobacco smoking status were non-smokers, single type smoker, dual smoker, and triple smokers (67.8%, 21.6%, 6.8%, and 3.7% respectively). In comparison the prevalence of smoking single tobacco type, dual smoking, and triple smokers tobacco products was statistically higher among males than females (11.1%–10.6%, 5.1%–1.8%, and 3.1%–0.7% respectively). Eighty-seven percent knew that waterpipe smoking is harmful and would support the inclusion of health warnings on the tobacco packet. Thirty percent indicated that the inclusion of health warnings will greatly improve their knowledge of the harmful effects of tobacco smoking.

**Conclusion:** The current study shows that participants believe including health warnings on waterpipe tobacco package would help smokers to think about quitting.

**Keywords:** waterpipe; beliefs; health warning, smoking, knowledge, tobacco

## 1. Introduction

Worldwide waterpipe tobacco smoking prevalence increased dramatically over the past decade (WHO World Health Organization, 2003). Waterpipe smoking involves flavored tobacco where a burning charcoal is put on top of the flavored tobacco and the smoke produced is drawn through the water and is inhaled by the user or users through a hose (C. O. Cobb, Khader, Nasim, & Eissenberg, 2012). Reports from the last two decades showed that waterpipe smoking continues to increase in high numbers in both developing (Abu-Rmeileh et al., 2018; Akl et al., 2011; W. Maziak et al., 2004; Tucktuck, Ghandour, & Abu-Rmeileh, 2017) and developed countries (Aljarrah, Ababneh, & Al-Delaimy, 2009; C. Cobb, Ward, Maziak, Shihadeh, & Eissenberg, 2010). Early reports indicated that waterpipe smoking prevalence was higher among males (Smith-Simone, Maziak, Ward, & Eissenberg, 2008; Sterling & Mermelstein, 2011). However, in recent years a growing number of studies have shown that female waterpipe smokers are also high and sometimes equal in numbers to male smokers (Alzyoud, Weglicki, Kheirallah, Haddad, & Alhawamdeh, 2013; Wasim Maziak, 2011; Tamim et al., 2007; World Health Organization Advisory note, 2015).

Waterpipe smoking has become a global health problem spreading from Middle Eastern to Western societies (Wasim Maziak, 2011; Wasim Maziak et al., 2015). Based upon 2005-2008 reports, frequency of use (from past 30 days to regular and occasional use) varied by country and age of waterpipe smoker (youth or young adult) with highest use among Lebanese youth (37%), Iranian university aged students (16.3%), and Egyptian youth (10.4%),

respectively. A recent systematic review analyzing 129 waterpipe smoking studies among young adults, showed that university students had the highest prevalence estimates of waterpipe smoking worldwide (Jawad et al., 2018). This continuing and disturbing increase in tobacco use among the world youth and young adult population prompted the World Health Organization (WHO) to declare waterpipe smoking as a growing public health concern in 2015 (Waziry, Jawad, Ballout, Al Akel, & Akl, 2016; World Health Organization Advisory note, 2015). Several researchers demonstrated that waterpipe smoking, exposes the person to volatile aldehydes, polycyclic aromatic hydrocarbons and carbon monoxide, which can all lead to the development of respiratory diseases and cancer (Shihadeh & Saleh, 2005; Shihadeh et al., 2015). The effects are exacerbated by the addiction caused by nicotine leading to nicotine dependence (Aboaziza & Eissenberg, 2015; Bahelah et al., 2017; Chaouachi, 2006). Furthermore, studies have linked waterpipe smoking to depressive symptoms among youth (Abbadi et al., 2020; Alzyoud & Massoud, 2020).

In the last few years, tobacco use in Jordan has been reported to be among the highest in the world (WHO World Health Organization, 2018). Waterpipe smoking in Jordan is high among both sexes (Abu-Rmeileh et al., 2018; Alzyoud et al., 2013) with a prevalence of 17.9% (24.6% for males, 11.2% for females) (Center for Disease Control and Prevention, 2017). Another study reported the total prevalence for waterpipe smoking to be 41% among Jordanian youth and young adults when gender is combined (Abu-Rmeileh et al., 2018). These alarming prevalence's call for serious actions for tobacco prevention and control efforts in order to reduce the well-established harmful effects of waterpipe smoking (Haddad et al., 2016; Waziry et al., 2016; World Health Organization Advisory note, 2015). Such actions could be in the shape of educating the public about the harms of tobacco use. The World Health Organization Framework Convention on Tobacco Control (WHO-FCTC) covers a wide range of tobacco control strategies that obliges ratifying parties to comply with its provisions. Among these WHO-FCTC strategies, Article 11, specifically addresses packaging and labelling of tobacco products to include health warnings that should cover at least 50% the front and back of the package.

Jordan, in 2004, was among the first countries to ratify the FCTC; however, there was slow and minimal progress made in relation to the inclusion of health warning on tobacco products packaging. Currently, four pictorial health warnings are included on cigarette packages (Bader, Shihab, Al-Rimawi, & Hawari, 2017), while only one pictorial health warning is inserted on waterpipe tobacco packages (Jordan Standards and Metrology Organization, 2014). In their cross-sectional study of 1250 youth and young adults, 17-26 years of age, Bader and colleagues reported that one-third of cigarette smoking participants noted pictorial health warning labels and that these labels triggered consideration of quitting. Moreover, when they were shown the health warning labels on cards similar in size to the one added to the cigarette packet, both cigarette smokers and non-smokers sustained the ability to motivate quitting and staying smoke-free. A previous study (Hawari et al., 2011) tested Jordanian 17 to 26 year old's perceptions towards introducing health warning labels on cigarette packages. Their results showed that health warning labels significantly motivated around 30% of smokers to consider quitting. Both studies were conducted among those aged 17 to 26 years, and excluded adolescents and those older than 26 years of age, where waterpipe smoking prevalence is known to be high in Jordan.

The use and impact of health warning labels on the cigarette packet on smokers quitting has important implications for examining whether the effects of health warning labels on waterpipe packaging would have the same use and impact. Over the years, researchers measured a wide range of variables impacting the implementation of health warnings on tobacco packages (Francis, Hall, Noar, Ribisl, & Brewer, 2017; Girisken, Eser Telci, Arikan, & Kefallonitis, 2017; Ratneswaran et al., 2014). A systematic review by Francis et al., (2017) demonstrated that when participants perceive health warnings as effective in communicating the harmful effects of smoking, the warning labels could be more effective in changing attitudes, intentions, and behaviors toward smoking.

Furthermore, health warnings that includes consequences of smoking such as diseases were found to be effective in changing people beliefs about smoking (Ratneswaran et al., 2014). In a recent collaboration between the WHO-Country Office and Jordanian Ministry of Health efforts to propose a policy for the expansion of health warning labels on waterpipe tobacco packages a study was conducted aiming to assess Jordanians, aged 13 years and above about their knowledge and beliefs about the inclusion of health warning labels on waterpipe tobacco (also called "Moa'ssal") packages regardless of their smoking status.

## **2. Methodology**

### *2.1 Study Design and Sample*

A descriptive cross-sectional study design was conducted to assess Jordanian's knowledge and beliefs about the inclusion of health warning labels on waterpipe tobacco "Moa'ssal" packages.

The study was conducted among the youth and adults aged 13 years and above of the Jordanian population: adolescents 13–18 years, young adults 19–35 years, and adults above 35 years. Our sample was recruited from public and private schools in Amman Governorate, public and private universities, and civil service departments. Eligible participants who were able to read Arabic, use smart device “Tablet”, meet study age group were recruited from schools in Amman Governorate, Civil Services Departments CSDs in Amman Governorate, and Five universities [3 public, 2 privates] that cover all three regions (North, Center, South) of the country.

Prior to data collection, a list of all Amman governorate schools was obtained from the Ministry of Education (MOE). The next step was to make two lists one for boys’ and one for girls’ schools. After that, the researchers randomly selected boys’ school and girls’ schools for data collection. The inclusion criteria were being a school that compasses the age group 13–18 and being in Amman. Schools were limited to the Amman governorate because it comprises more than 40% of the Jordanian population (Department of Statistics, 2019). According to the MOE number of schools was almost equal for sex.

The CSD receive an average of 200–300 individuals on a daily basis. These departments were selected to recruit participants in the adult age group. The research team selected the CSD to access the age category 35 years or in one sitting. The CSD is visited daily by individuals for various essential civil services such as issuing and/or renew National ID cards, passports, birth and marriage certificates. This department provide services for nationals and non-nationals. CSD clients change daily and represent different social, educational, and economic backgrounds. Power analysis was conducted to determine the required sample size. Setting the power at 0.8 and alpha at 0.05, the total sample size was estimated to be a total of 1500 participants. However, due to logistic reasons such as weak internet connection, device deficiency, conflict with official holidays and school breaks the final sample recruited was 1067 participant.

## *2.2 Measures and Data Collection*

The current study was approved for human protection concerns by the Institutional Review Board (IRB) committee of Hashemite University, and approved by the Ministry of Education and Ministry of Health in Jordan. Participants were asked to complete an electronic survey using “Google Forms” to assess knowledge and beliefs about the inclusion of health warning labels on waterpipe tobacco packages. Participants were approached by the research team and asked if they would like to participate in the study, then a brief description of study purpose was provided if they agree. The instrument used for this study was developed by the research team to address the youth and adults knowledge and beliefs toward health warnings on “Moa’ssal” packages. The survey asked participants about their age, sex, job, educational level, smoking behavior (type of tobacco they use and frequency of waterpipe smoking daily, weekly, and monthly which refers to times smoking tobacco during the last 30 days as defined by the Center for Disease Control) and opinions on the harms of smoking. For the purpose of this study tobacco smoking status was measured for current smoking and divided the participants as non-smoker (never smoked any type of tobacco products), single type smoking (smoking one product only cigarette, waterpipe, or e-cigarette even if once during the last month), dual type smoking (smoking any two of the three previous mentioned products even if once during the last month), and triple smoking (smoking all three products even if once during the last month). The measure also asks participants if the inclusion of health warning labels on waterpipe tobacco package would improve their knowledge of the health effects of tobacco smoking. Participants were asked about their beliefs toward adding health warning labels on tobacco package. They were also asked to report how the inclusion of health warning labels would affect a person’s beliefs toward tobacco. This was measured with the inclusion of five sentences were the participants would indicate their beliefs about them by three-point Likert-scale type choices [less likely, make no difference, more likely]. These statements were drawn from the literature as the most frequently reported reactions of exposure to health warnings: (a.) make you think of the health risk of waterpipe smoking, (b.) It will convey the potential unhealthy and negative effect of waterpipe smoking effectively, (c.) It will arouse fear of waterpipe smoking, (d.) it will encourage waterpipe smokers to quit, (e.) It will encourage none smokers, in general, to think not to initiate smoking.

To increase the efficiency of data collection, trained research assistants (males & females) were present in all study locations during recruitment and consenting. Participants were asked if they would like to volunteer to participate in a research study on tobacco product labeling and pictorial health warnings. For school aged students, the lead researcher approached school officials and teachers who then distributed information letters and consent forms, which were sent to students’ parents with the students, who provided written consent for their child’s study participation. Following consenting, eligible student participants completed the survey in the classroom using Tablets. Students took, on average, 30 minutes time to complete the electronic survey.

For participants aged 18 years or older the research team recruited them by approaching them personally at the

above-mentioned settings from universities and governmental service departments. The research team then obtain interested participants written consent form to participate in the study. All participants were assured that participation is anonymous, and they will not be identified. This was assured through not asking any identifying information from participants. All consent forms are safely locked in a file cabinet in the lead researcher research office.

Survey data was only accessible by the lead researcher and no one else had access to it. All collected data was stored on a secured server at the lead researcher institution with high cyber security measures.

### 2.3 Statistical Analysis

The Statistical Package for the Social Science (SPSS) version 23 was used to analyze the data. Analysis of frequency (chi-square test) was used to determine the relationship between participants age, sex, educational level, occupation and tobacco use status. Backward elimination multiple logistic regression was performed to assess the relationship between smoking status and participants' demographics, knowledge and beliefs about health warnings.  $P$ -values  $< 0.05$  were considered significant. The collinearity was checked for in the logistic regression model.

### 3. Results

The final sample consisted of 1067 participants (see Table 1 for sample characteristics). Participants ages ranged between 13– 63 years old with a mean (20.9,  $SD = \pm 6.01$ ). More than half of the sample was female participants (54.5%). Participants mainly consisted of students (86.7%) who were in secondary education school (19.3%) or attending university (67.4%).

Table 1. Sample Characteristics n= 1067

Variable	N	%
<b>Age</b>		
13-18 years	235	22
19-35 years	774	72.5
> 35 years	58	5.4
<b>Sex</b>		
Female	581	54.5
Male	486	45.5
<b>Education Level</b>		
11-12 Grade	295	27.6
8-10 Grade	134	12.6
BA or higher Ed Degree	605	56.7
Community college	33	3.1
<b>Occupation</b>		
white-collar job	93	8.7
Home maker	16	1.5
Labor worker	4	.4
Private business	20	1.9
Student	925	86.7
Unemployed	9	.8
<b>Tobacco smoking status</b>		
Non Smokers	723	67.8
Single type smoker	231	21.6
Dual Smoker	73	6.8
Triple type smoker	40	3.7

<b>WP Smoking Frequency</b>		
Do not smoke WP	720	67.5
Monthly WP smoker (past 30 days)	214	20.1
Weekly WP smoker (past 7 days)	92	8.6
Daily WP smoker	41	3.8

Participants were asked if they used any of the following tobacco products: cigarette, waterpipe, and/or electronic cigarette. The results showed (Table 1) that tobacco smoking status (*as defined in section 2.1. Assessment method*) were non smokers, single type smoker, dual smoker, and triple smokers (67.8%, 21.6%, 6.8%, and 3.7% respectively). Monthly waterpipe smoking (smoking waterpipe tobacco during the past 30 days) was the highest frequency (20.1%) followed by weekly waterpipe smoking. The chi-squared test was used to test the difference of smoking status and participants sex, education level, and occupation. A significant difference was found between the number of males and females who smoked tobacco products (Table 2). The prevalence of smoking single tobacco type, dual smoking, and triple smokers tobacco products was statistically higher among males than females (11.1%, 5.1%, and 3.1% respectively), ( $p < 0.05$ ).

Table 2. Association between sample sex and smoking status

			<b>None smoker</b>	<b>Single type smoker*</b>	<b>Dual smoker**</b>	<b>Triple smoker***</b>	<b>P-Value*</b>
Sex	Female	#	442	113	19	7	<0.05
		%	41.4%	10.6%	1.8%	0.7%	
	Male	#	281	118	54	33	
		%	26.3%	11.1%	5.1%	3.1%	

\*  $p < .05$ , \*\*Smoking one of the following Cigarette, or waterpipe, or e-cigarette, \*\*\* Smoking any two of the three previous mentioned products, \*\*\*\* Smoking all three products.

Table 3 present results for knowledge and beliefs toward health warnings. The majority (87%) knew that waterpipe smoking is harmful and would support the inclusion of health warnings on Mo'assal packet. When asked if they are aware of any health warnings on the Mo'assal packet (40.9%) identified that there are no health warning on the packet. Thirty percent indicated that the inclusion of health warnings will greatly improve their knowledge of harmful effects of tobacco smoking (see Table 3).

Table 3. Participants Knowledge and beliefs toward health warnings

	N	%
<b>Would you support adding health warnings on Mo'assal packs similar to cigarette packages</b>		
No	139	13
Yes	928	87
<b>Would you say that the inclusion of health warnings and health information on Mo'assal packs will improved your knowledge of the health effects of tobacco consumption</b>		
A little	423	39.6
A lot	330	30.9
Don't know	106	9.9
makes no difference	208	19.5
<b>Are you aware of any health warnings on Mo'assal packs?</b>		
Front of Mo'assal pack	486	45.5

Side of Mo'assal pack	76	7.1
Back of Mo'assal pack	69	6.5
There are no warning messages	436	40.9
<b>What do you think the effect of buying a Mo'assal packet that include health warning would be on the individual</b>		
<b>Make you think of the health risk of waterpipe smoking</b>		
Less likely	281	26.3
Makes no difference	406	38.1
More likely	380	35.6
<b>It will convey potential unhealthy and negative effect of waterpipe smoking effectively</b>		
Less likely	335	31.4
Makes no difference	384	36.0
More likely	348	32.6
<b>It will arouse fear of waterpipe smoking</b>		
Less likely	301	28.2
Makes no difference	392	36.7
More likely	374	35.1
<b>It will encourage waterpipe smokers to quit</b>		
Less likely	345	32.3
Makes no difference	427	40.0
More likely	295	27.6
<b>It will encourage none smokers in general to think not to initiate smoking</b>		
Less likely	270	25.3
Makes no difference	405	38.0
More likely	392	36.7
<b>How important is it that Jordan has health warnings on packs of Mo'assal.</b>		
Important	346	32.4
No difference	228	21.4
Unimportant	56	5.2
Very Important	379	35.5
Very unimportant	58	5.4
<b>Do you think printing pictorial health warnings about harmful effects on Cigarettes and or waterpipe packs will be/is an effective way to reduce its smoking among young people</b>		
Helps to prevent smoking	147	13.8
Helps to smoke	23	2.2
Helps to stop	500	46.9
No effect	397	37.2

More than one third (35.5%) of participants believe it is very important to include health warning labels on Moa'ssal packet, with (46.9%) believing that health warning labels would be effective in making smokers to reduce smoking. Participants also believed that adding health warning will likely affect a person's thinking about the health risks of waterpipe smoking (35.6%), to encourage none smokers not to initiate smoking (36.7%) and arouse fear of waterpipe smoking (45.1%). When asked if they believe that it could encourage smokers to quit, only (27.6%) said that it would.

The logistic model was performed to examine the relationship between the outcome variables smoking status with participants' age, sex, knowledge of health warnings, and beliefs about health warnings (see Table 4).

Males were about two times more likely to be smokers compared to females (Odd Ratio [OR], 95% C.I.: 2.23, 1.69 - 2.95). Participants who identified that there are no health warning on Mo'assal were significantly more likely to be smokers than who did not (OR, 0.60, 95% C.I.: 0.44–0.81). When asked if they think adding health warning would make them think of the harmful effects of tobacco, participants who answered “more likely” were significantly more likely to be none-smokers (OR, 0.49, 95% C.I.: 0.34-0.71). Believing that it is “very important” to add health warning on Mo'assal packets was more likely among none-smokers (OR, 0.52, 95% C.I.: 0.36 – 0.75).

Table 4. Association of smoking status and knowledge and beliefs toward health warnings

Variable	OR†	95% C.I.
<b>Sex (Male)</b>	2.23	1.69 - 2.95*
<b>Current knowledge of health warnings on Mo'assal packs</b>		
Front of Mo'assal pack	1 <sup>^</sup>	
Side of Mo'assal pack	1.35	0.79-2.30
Back of Mo'assal pack	1.39	0.80-2.41
There are no warning messages	0.60	0.44-0.81*
<b>What do you think the effect of buying a Mo'assal packet would be on the individual</b>		
Make you think of the health risk of waterpipe smoking		
less Likely	1 <sup>^</sup>	
Makes no difference	0.88	0.62-1.24
More likely	0.49	0.34-0.71*
<b>How important is it that Jordan has health warnings on packs of Mo'assal</b>		
Important	1 <sup>^</sup>	
No difference	1.35	0.91-2.00
Not important	0.93	0.49-1.74
Very important	0.52	0.36-0.75*
Very unimportant	1.41	0.76-2.62
<b>Do you think printing pictorial health warnings about harmful effects on Cigarettes and or waterpipe packs and device will be/is an effective way to reduce its smoking among young people?</b>		
Helps to prevent smoking	1 <sup>^</sup>	
Helps to smoke	0.82	0.52-1.29
Helps to stop	1.92	0.73-5.03
No effect	1.24	0.77-1.99

†OR means Odds Ratio, CI means Confidence Interval, \* p< .05, ^ Reference category.

#### 4. Discussion

Our study reinforces the importance of adding health warning labels on waterpipe tobacco packages to help in the efforts of increasing the public knowledge and knowledge of the harmful effects of smoking. Our results also indicated that participants believe that including health warnings on Mo'assal packets in Jordan would help individuals to think about the harmful effects of waterpipe smoking. Additionally, participants believed that including health warning labels will be effective in assisting smokers to think about quitting.

Our results showed that tobacco smoking is more prevalent among males. Moreover, Males were times more likely to be smokers compared to females. These results are consistent previously reported studies among Jordanians and other parts of the world (Akl et al., 2011; Alzyoud et al., 2013; Bader et al., 2017; Khabour et al., 2012).

Researchers demonstrated that this difference could be related to a combination of physiological, cultural, and behavioral factors (al'Absi, Nakajima, Allen, Lemieux, & Hatsukami, 2015; Cosgrove et al., 2014; Sieminska & Jassem, 2014). From neuroimaging studies Cosgrove and colleagues (Cosgrove et al., 2014) suggested that smoking activates male's reward pathways more than female's. This relate to the idea that males smoke for the reinforcing effects of nicotine, whereas females smoke to regulate mood or in response to tobacco-related cues. This indicate that the problem of smoking and particularly as our results indicate waterpipe smoking is a persisting health problem in need of serious efforts in prevention and smoking cessation.

Our findings indicate support for the inclusion of health warnings on Mo'assal package with a belief it would be effective for smokers to think about quitting. These findings are congruent with the existing evidence from both cigarette and waterpipe warning effectiveness studies (Borland et al., 2009; Francis et al., 2017; Francis, Mason, Ross, & Noar, 2019; Giriskan et al., 2017; Mostafa et al., 2018; Ratneswaran et al., 2014). Emery and colleagues (Emery, Romer, Sheerin, Jamieson, & Peters, 2014) argued that when the person is exposed to health warnings on tobacco package it elicits high rates of cognitive processing such as perceived risk, they found that lower risk perceptions were associated with a desire to smoke, and feelings toward quitting especially among non-smokers. According to Emery and colleagues (Emery et al., 2014) cognitive reactions to health warnings are key mediators of the person subsequent behavioral responses.

In a recent systematic review of experimental studies (Francis et al., 2019) reported that health warnings on smokeless tobacco led to strong cognitive and affective reactions, negative pack attitudes and smoking attitudes, and increased intentions not to use tobacco products. Furthermore, Ratneswaran and colleagues (Ratneswaran et al., 2014) reported that they were more motivated to quit smoking when they were exposed to health warnings of the harmfulness of smoking to health particularly diseases such as heart disease, stroke, blindness, mouth and throat cancer, and lung cancer. Another factor of health warnings impacted people to think about quitting or not to smoke is negative affective reactions such as fear (Francis et al., 2017; Ratneswaran et al., 2014). Similarly, participants in our study believed that adding health warning will likely affect a person's thinking about the health risks of waterpipe smoking, will encourage none smokers not to initiate smoking, and arouse fear of waterpipe smoking. Among their tobacco control efforts policymakers should consider endorsing regulations to require tobacco companies to include health warnings on waterpipe tobacco packages similar to cigarettes.

Similar to any other project, the current study has limitations. The use of self-report measures could be considered as one of the current study limitations as this type of measurement relies on the recall and memory of the participants and grounded in subjectivity. Another limitation is the use of simple random and convenience samples, which limit representation of the population and generalizability of our results to the rest of the country.

## **5. Conclusions**

In conclusion the current study shows that smokers were more likely to be aware of no health warnings on waterpipe tobacco packets. Additionally, participants believed that including health warnings on waterpipe tobacco package will help people to think about the harmful effects of waterpipe smoking. Another significant finding is that this study provides a picture that waterpipe smoking is a persisting serious problem among Jordanians. In agreement with previous studies, males were more likely to be waterpipe smokers, which indicate the need for an increase effort of education campaigns about harmful effects of waterpipe smoking. Since the current study only assess knowledge and beliefs of including health warnings on waterpipe packages future studies can be conducted with exposing participants to graphical health warning labels. We also recommend that future studies focus on the reactions and perceived effectiveness of exposure to warnings which could provide evidence for the impact of health warnings.

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## **Competing Interests Statement**

The authors declare that they have no conflict of interest. The authors alone are responsible for the views expressed in this article and they do not necessarily represent the views, decisions, or policies the WHO. The study was approved by Institutional Review Board (IRB) committee of Hashemite University.

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