











Total knowledge score	Univariate Models Coefficient (95% CI)	p-value	Multivariate Model Coefficient (95% CI)	p-value
Primary/Secondary/High/Technical-vocational high school *	4.02 (3.86, 4.19)	0.155		
TEI/HEI	0.19 (-0.03, 0.42)			
Postgraduate studies	-0.04 (-0.36, 0.28)			
<b>Individual net monthly income (in EUR)</b>				
<800 *	3.96 (3.78, 4.14)	0.099		
801-1200	0.20 (-0.06, 0.47)			
>1200	0.28 (0.01, 0.56)			
<b>BMI Status</b>				
Normal *	3.99 (3.84, 4.14)	0.107		
Overweight	0.25 (0.01, 0.48)			
Obese	0.16 (-0.11, 0.44)			
<b>Which of the following categories do you belong to regarding your smoking status?</b>				
Current Smoker *	3.83 (3.68, 3.98)	< 0.001		< 0.001
Ex-smoker	0.39 (0.16, 0.62)		0.38 (0.15, 0.61)	
Non-smoker	0.73 (0.45, 1.01)		0.56 (0.27, 0.86)	
<b>Pack years</b>				
Baseline *	3.93 (3.78, 4.07)	0.086		
10-Pack-year Increase	0.05 (-0.01, 0.10)			
<b>Do you work/live in an environment with smokers (passive smoker)?</b>				
Yes *	3.86 (3.71, 4.03)	< 0.001		0.181
No	0.41 (0.20, 0.61)		0.15 (-0.07, 0.37)	
<b>Do you work or live in an environment exposed to smoke, dust, or fumes?</b>				
Yes *	3.95 (3.74, 4.15)	0.069		
No	0.42 (-0.02, 0.45)			
<b>Do you have a family history of lung cancer?</b>				
Yes *	4.43 (4.17, 4.69)	0.009		0.004
No	-0.38 (-0.67, -0.10)		-0.42 (-0.70, -0.14)	

\*Reference; TEI, Technological Educational Institute; HEI, Higher Educational Institute; BMI, Body Mass Index; CI: Confidence Interval

### Attitudes regarding lung cancer and lung cancer screening

Descriptive statistics regarding attitudes toward LC and LC screening are presented in Table 4. Approximately 72% of participants (71.9%) mentioned that they disagree/strongly disagree that cough alone wouldn't activate them to seek medical advice since they believed that they would waste the physician's time. Most of the participants agreed/strongly agreed that LC can be detected before the first symptoms appear through proper screening (75.7%); in addition, 77.9% believed that seeking immediate medical consultation

upon the appearance of symptoms is associated with longer survival, in case of LC diagnosis. A strong majority (87.7%) believed that LC screening should be a priority for the state, and it should be offered for free to all citizens (91.1%). Only 22.2% concurred that LC screening should only be recommended for smokers and/or ex-smokers over the age of 50 (and not for all adults over this age), whereas 47.6% believed that screening costs affect the LDCT participation rate. Finally, it seems that almost 70% support that it is a great need for educating the general public about what screening is, when it is used, which are the benefits and/or risks and who, where and when someone can be subjected to screening.

**Table 4:** Descriptive statistics of questions regarding attitudes (N=1,000).

Question	I agree / I strongly agree N (%)	Neutral N (%)	I disagree / I strongly disagree N (%)
<i>I would not want to know if I had lung cancer</i>	392 (39.2%)	233 (23.3%)	375 (37.5%)
<i>I believe that, if I consult my doctor immediately when the first symptoms appear, I may live longer if I am diagnosed</i>	779 (77.9%)	152 (15.2%)	69 (6.9%)
<i>In the event that I only had a cough, I would not visit my doctor because I would be concerned about wasting his time</i>	126 (12.6%)	155 (15.5%)	719 (71.9%)
<i>I believe that lung cancer can be detected before the first symptoms appear through proper screening</i>	757 (75.7%)	205 (20.5%)	39 (3.9%)
<i>I would be so concerned about what might be discovered at a lung cancer screening that I would prefer not to go</i>	181 (18.1%)	155 (15.5%)	664 (66.4%)
<i>It makes sense to undergo lung cancer screening because it will impact whether and how long you will live</i>	721 (72.1%)	182 (18.2%)	97 (9.7%)
<i>I believe that LDCT without findings suggesting lung cancer can help reduce the worry and anxiety associated with the development of lung cancer</i>	767 (76.7%)	157 (15.7%)	77 (7.7%)
<i>I believe that lung cancer screening should be a priority for the state</i>	877 (87.7%)	101 (10.1%)	21 (2.1%)
<i>I believe that lung cancer screening should only be recommended for smokers and/or ex-smokers over the age of 50 and not for all adults over the age of 50</i>	222 (22.2%)	174 (17.4%)	604 (60.4%)
<i>I believe that screening costs play an important role in my decision to have a LDCT</i>	476 (47.6%)	208 (20.8%)	316 (31.6%)
<i>I believe that lung cancer screening should be offered free of charge to all citizens</i>	911 (91.1%)	76 (7.6%)	13 (1.3%)
<i>I believe there is a general need to inform citizens about the following (select as many as you want):</i> (Select as many of the following as apply)			
What screening is			
Conditions for which screening is used		833 (83.3%)	
Pros and cons of screening		865 (86.5%)	
Who, where and when can undergo screening		833 (83.3%)	
All of the above		818 (81.8%)	
None of the above		695 (69.5%)	
		24 (2.4%)	

LDCT: Low-dose computed tomograph

### Practices regarding lung cancer and lung cancer screening

Practices toward LC screening are presented in Table 5. Only 13 3% of participants mentioned that they have been subjected to LC screening in the past, with the most used screening method being the chest x-ray. 84 2% were willing to undergo LDCT screening if recommended by their doctor, and 81 7% would do so if they received a telephone

text message letting them know that they are eligible to be subjected to LDCT free of charge. Only 68% of participants mentioned that a physician has recommended them to undergo screening with LDCT over the past 18 months and among them only 47 1% mentioned that they did. Finally, 79 0% stated that they would not be afraid to be subjected to LDCT due to exposure to radiation.

**Table 5:** Descriptive statistics of questions regarding practices (N=1,000).

Question	N (%)
<b><i>I have undergone screening for lung cancer before</i></b>	
Yes	133 (13.3%)
No	867 (86.7%)
<b><i>If yes, with which method? (N=131)</i></b>	
Sputum cytology	12 (9.1%)
Chest x-ray	105 (80.3%)
LDCT	65 (49.3%)
Other	6 (4.6%)
I do not recall	2 (1.7%)
<b><i>I would be willing to undergo LDCT screening for lung cancer if my doctor recommended it</i></b>	
Yes	842 (84.2%)
No	158 (15.8%)
<b><i>I would be willing to undergo lung cancer screening using LDCT scan if the state sent me a message suggesting that I do it and it was free</i></b>	
Yes	817 (81.7%)
No	183 (18.3%)
<b><i>I would be afraid to have a LDCT because of my exposure to radiation</i></b>	
Yes	210 (21.0%)
No	790 (79.0%)
<b><i>During the past 18 months, has your doctor recommended that you undergo lung cancer screening with LDCT?</i></b>	
Yes	68 (6.8%)
No	932 (93.2%)
<b><i>If yes, did you undergo it? (N=68)</i></b>	
Yes	32 (47.1%)
No	34 (50.0%)
I do not recall	2 (2.9%)
<b><i>During the past 18 months, have you undergone pre-symptomatic screening for any other form of cancer, such as...</i></b>	
Breast cancer-mammography (only for women) (N=513)	213 (41.5%)
Cervical cancer- Pap test or HPV test (only for women) (N=513)	235 (45.9%)
Prostate cancer-PSA (only for men) (N=487)	117 (23.9%)
Colorectal cancer - Colonoscopy	89 (8.9%)
Other	2 (0.2%)
No, I have not undergone	559 (55.9%)
I do not recall	14 (1.4%)
LDCT: Low-dose computed tomography; HPV: Human Papillomavirus; PSA: Prostate Specific Antigen	



**Table 6:** Factors associated with selected practices towards lung cancer screening.

F1. I have undergone screening for lung cancer before	Univariate Models OR (95% CI)	p-value	Multivariate Model OR (95% CI)	p-value
<b>Sex</b>				
Female vs. Male	1.07 (0.74, 1.54)	0.710		
<b>Age (years)</b>				
30-39 vs. 18-29	0.81 (0.40, 1.66)	<b>0.001</b>	0.63 (0.29, 1.37)	<b>0.580</b>
40-49 vs. 18-29	0.97 (0.49, 1.94)		0.67 (0.31, 1.45)	
50-59 vs. 18-29	1.28 (0.65, 2.51)		0.84 (0.37, 1.88)	
60-69 vs. 18-29	1.85 (0.95, 3.62)		1.01 (0.42, 2.43)	
70+ vs. 18-29	2.53 (1.39, 4.61)		1.31 (0.54, 3.15)	
<b>The area in which household I have now called belongs to which of the categories I am about to read to you in terms of population?</b>				
Thessaloniki vs. Athens	1.33 (0.72, 2.44)	<b>0.154</b>		
Urban area (over 10.000 inhabitants) vs. Athens	0.99 (0.65, 1.52)			
Semi-urban area (2.000 - 10.000 inhabitants) vs. Athens	0.28 (0.08, 0.95)			
Rural area (up to 2,000 inhabitants) vs. Athens	1.35 (0.71, 2.59)			
<b>Marital status</b>				
In cohabitation/Married - civil partnership vs. Unmarried	2.03 (1.19, 3.49)	<b>0.028</b>	1.53 (0.80, 2.90)	<b>0.310</b>
Divorced - In dimension/Widower vs. Unmarried	2.23 (1.09, 4.58)		1.11 (0.45, 2.71)	
<b>Professional status</b>				
Non-workers vs. Workers	1.47 (1.02, 2.11)	<b>0.040</b>	1.15 (0.67, 1.98)	<b>0.604</b>
<b>Educational status</b>				
TEI/HEI vs. Primary/Secondary/High/Technical-vocational high school	1.24 (0.83, 1.84)	<b>0.502</b>		
Postgraduate studies vs. Primary/Secondary/High/Technical-vocational high school	0.99 (0.55, 1.78)			
<b>Individual net monthly income (in EUR)</b>				
801-1200 vs. <800	1.41 (0.87, 2.27)	<b>0.064</b>		
>1200 vs. <800	1.77 (1.10, 2.85)			
<b>BMI Status</b>				
Overweight vs. Normal	1.41 (0.92, 2.14)	<b>0.125</b>		
Obese vs. Normal	1.56 (0.97, 2.49)			
<b>Which of the following categories do you belong to regarding your smoking status?</b>				
Ex-smoker vs. Current Smoker	1.18 (0.80, 1.76)	<b>0.242</b>		
Non-smoker vs. Current Smoker	0.73 (0.42, 1.27)			
<b>Pack years (10-pack years)</b>	<b>1.16 (1.07, 1.25)</b>	<b>&lt; 0.001</b>	<b>1.12 (1.02, 1.22)</b>	<b>0.014</b>
<b>Do you work/live in an environment with smokers (passive smoker)?</b>				
No vs. Yes	1.00 (0.69, 1.44)	<b>0.981</b>		
<b>Do you work or live in an environment exposed to smoke, dust, or fumes?</b>				
No vs. Yes	0.70 (0.47, 1.03)	<b>0.070</b>		
<b>Do you have a family history of lung cancer?</b>				
No vs. Yes	0.55 (0.35, 0.85)	<b>0.008</b>	0.50 (0.30, 0.84)	<b>0.008</b>
<b>Total knowledge score (1-Point)</b>	<b>1.14 (1.02, 1.28)</b>	<b>0.020</b>	<b>1.08 (0.94, 1.23)</b>	<b>0.291</b>
<b>I believe that, if I consult my doctor immediately when the first symptoms appear, I may live longer if I am diagnosed</b>				

**Citation:** Georgia Kourlaba, Christos Triantafyllou, Dimitra Ioanna Lampropoulou, Ifigenia Faropoulou, George Gounelas, Maria Gamvrouli, Sofia Zyga, Nikos Rikos, Pavlos Myrianthefs. Knowledge, Attitudes and Practices regarding Lung Cancer and Lung Cancer Screening in Greece: A Cross-sectional Study. Archives of Clinical and Biomedical Research. 8 (2024): 399-414.

F1. I have undergone screening for lung cancer before	Univariate Models OR (95% CI)	p-value	Multivariate Model OR (95% CI)	p-value
<b>Sex</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	1.98 (1.17, 3.34)	<b>0.010</b>	1.37 (0.75, 2.48)	0.302
<b>I believe that lung cancer can be detected before the first symptoms appear through proper screening</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	2.13 (1.28, 3.55)	<b>0.004</b>	1.39 (0.77, 2.50)	0.270
<b>I would be so concerned about what might be discovered at a lung cancer screening that I would prefer not to go</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	1.47 (0.95, 2.27)	0.085		
<b>It makes sense to undergo lung cancer screening because it will impact whether and how long you will live</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	2.23 (1.37, 3.63)	<b>0.001</b>	1.88 (1.06, 3.33)	<b>0.031</b>
<b>I believe that LDCT without findings suggesting lung cancer can help reduce the worry and anxiety associated with the development of lung cancer</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	1.39 (0.88, 2.21)	0.162		
<b>I believe that lung cancer screening should only be recommended for smokers and/or ex-smokers over the age of 50 and not for all adults over the age of 50</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	1.16 (0.76, 1.77)	0.503		
<b>I believe that lung cancer screening should be offered free of charge to all citizens</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	1.51 (0.73, 3.12)	0.272		
<b>I believe that lung cancer screening should be a priority for the state</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	0.97 (0.56, 1.68)	0.905		
<b>F2. I would be willing to undergo LDCT screening for lung cancer if my doctor recommended it</b>	<b>Univariate Models OR (95% CI)</b>	<b>p-value</b>	<b>Multivariate Model OR (95% CI)</b>	<b>p-value</b>
<b>Sex</b>				
Female vs. Male	0.96 (0.68, 1.34)	0.791		
<b>Age (years)</b>				
30-39 vs. 18-29	1.19 (0.69, 2.05)	0.226		
40-49 vs. 18-29	1.28 (0.74, 2.23)			
50-59 vs. 18-29	2.01 (1.07, 3.80)			
60-69 vs. 18-29	1.61 (0.85, 3.06)			
70+ vs. 18-29	1.01 (0.59, 1.71)			
<b>The area in which household I have now called belongs to which of the categories I am about to read to you in terms of population?</b>				
Thessaloniki vs. Athens	1.72 (0.86, 3.43)	0.427		
Urban area (over 10.000 inhabitants) vs. Athens	1.01 (0.69, 1.49)			
Semi-urban area (2.000 - 10.000 inhabitants) vs. Athens	1.07 (0.53, 2.15)			
Rural area (up to 2,000 inhabitants) vs. Athens	1.58 (0.76, 3.27)			
<b>Marital status</b>				

**Citation:** Georgia Kourlaba, Christos Triantafyllou, Dimitra Ioanna Lampropoulou, Ifigenia Faropoulou, George Gounelas, Maria Gamvrouli, Sofia Zyga, Nikos Rikos, Pavlos Myrianthefs. Knowledge, Attitudes and Practices regarding Lung Cancer and Lung Cancer Screening in Greece: A Cross-sectional Study. Archives of Clinical and Biomedical Research. 8 (2024): 399-414.

F1. I have undergone screening for lung cancer before	Univariate Models OR (95% CI)	p-value	Multivariate Model OR (95% CI)	p-value
<b>Sex</b>				
In cohabitation/Married - civil partnership vs. Unmarried	2.07 (1.40, 3.04)	<b>0.001</b>	1.32 (0.84, 2.09)	0.336
Divorced - In dimension/Widower vs. Unmarried	1.44 (0.79, 2.60)		0.95 (0.48, 1.87)	
<b>Professional status</b>				
Non-workers vs. Workers	0.69 (0.49, 0.97)	<b>0.031</b>	0.60 (0.40, 0.89)	<b>0.011</b>
<b>Educational status</b>				
TEI/HEI vs. Primary/Secondary/High/Technical-vocational high school	1.18 (0.81, 1.71)	0.361		
Postgraduate studies vs. Primary/Secondary/High/Technical-vocational high school	0.84 (0.51, 1.37)			
<b>Individual net monthly income (in EUR)</b>				
801-1200 vs. <800	1.16 (0.77, 1.77)	0.410		
>1200 vs. <800	1.36 (0.86, 2.13)			
<b>BMI Status</b>				
Overweight vs. Normal	1.04 (0.70, 1.54)	0.643		
Obese vs. Normal	0.84 (0.54, 1.30)			
<b>Which of the following categories do you belong to regarding your smoking status?</b>				
Ex-smoker vs. Current Smoker	1.02 (0.70, 1.49)	0.647		
Non-smoker vs. Current Smoker	1.25 (0.77, 2.04)			
<b>Pack years (10-pack years)</b>	0.98 (0.91, 1.06)	0.671		
<b>Do you work/live in an environment with smokers (passive smoker)?</b>				
No vs. Yes	1.27 (0.91, 1.79)	0.163		
<b>Do you work or live in an environment exposed to smoke, dust, or fumes?</b>				
No vs. Yes	1.26 (0.87, 1.82)	0.230		
<b>Do you have a family history of lung cancer?</b>				
No vs. Yes	0.97 (0.60, 1.57)	0.910		
<b>Total knowledge score (1-Point)</b>	1.48 (1.33, 1.65)	<b>&lt; 0.001</b>	1.20 (1.06, 1.36)	<b>0.004</b>
<b>I believe that, if I consult my doctor immediately when the first symptoms appear, I may live longer if I am diagnosed</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	3.68 (2.57, 5.28)	<b>&lt; 0.001</b>	2.06 (1.32, 3.20)	<b>0.001</b>
<b>I believe that lung cancer can be detected before the first symptoms appear through proper screening</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	3.51 (2.46, 5.01)	<b>&lt; 0.001</b>	1.40 (0.89, 2.22)	0.145
<b>I would be so concerned about what might be discovered at a lung cancer screening that I would prefer not to go</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	0.30 (0.21, 0.44)	<b>&lt; 0.001</b>	0.29 (0.19, 0.45)	<b>&lt; 0.001</b>
<b>It makes sense to undergo lung cancer screening because it will impact whether and how long you will live</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	3.62 (2.55, 5.14)	<b>&lt; 0.001</b>	1.93 (1.26, 2.95)	<b>0.002</b>
<b>I believe that LDCT without findings suggesting lung cancer can help reduce the worry and anxiety associated with the development of lung cancer</b>				

F1. I have undergone screening for lung cancer before	Univariate Models OR (95% CI)	p-value	Multivariate Model OR (95% CI)	p-value
<b>Sex</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	3.08 (2.16, 4.41)	< 0.001	1.31 (0.83, 2.08)	0.252
<b>I believe that lung cancer screening should only be recommended for smokers and/or ex-smokers over the age of 50 and not for all adults over the age of 50</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	0.62 (0.42, 0.91)	0.014	0.70 (0.45, 1.07)	0.098
<b>I believe that lung cancer screening should be offered free of charge to all citizens</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	6.64 (4.20, 10.50)	< 0.001	2.09 (1.09, 4.00)	0.027
<b>I believe that lung cancer screening should be a priority for the state</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/Neutral	5.66 (3.75, 8.53)	< 0.001	1.64 (0.90, 2.96)	0.104
<b>F3. I would be willing to undergo lung cancer screening using LDCT scan if the state sent me a message suggesting that I do it and it was free</b>	<b>Univariate Models OR (95% CI)</b>	<b>p-value</b>	<b>Multivariate Model OR (95% CI)</b>	<b>p-value</b>
<b>Sex</b>				
Female vs. Male	0.99 (0.72, 1.37)	0.957		
<b>Age (years)</b>				
30-39 vs. 18-29	0.62 (0.35, 1.08)	0.032	0.51 (0.27, 0.97)	0.003
40-49 vs. 18-29	0.63 (0.36, 1.11)		0.36 (0.19, 0.70)	
50-59 vs. 18-29	1.04 (0.55, 1.97)		0.62 (0.30, 1.25)	
60-69 vs. 18-29	0.75 (0.40, 1.42)		0.45 (0.22, 0.91)	
70+ vs. 18-29	0.46 (0.26, 0.79)		0.27 (0.14, 0.53)	
<b>The area in which household I have now called belongs to which of the categories I am about to read to you in terms of population?</b>				
Thessaloniki vs. Athens	1.35 (0.73, 2.51)	0.907		
Urban area (over 10.000 inhabitants) vs. Athens	1.02 (0.70, 1.48)			
Semi-urban area (2.000 - 10.000 inhabitants) vs. Athens	1.00 (0.52, 1.92)			
Rural area (up to 2,000 inhabitants) vs. Athens	1.06 (0.57, 1.98)			
<b>Marital status</b>				
In cohabitation/Married - civil partnership vs. Unmarried	1.29 (0.88, 1.89)	0.361		
Divorced - In dimension/Widower vs. Unmarried	1.03 (0.58, 1.84)			
<b>Professional status</b>				
Non-workers vs. Workers	0.64 (0.47, 0.89)	0.007	0.75 (0.48, 1.17)	0.205
<b>Educational status</b>				
TEI/HEI vs. Primary/Secondary/High/Technical-vocational high school	1.49 (1.05, 2.11)	0.074		
Postgraduate studies vs. Primary/Secondary/High/Technical-vocational high school	1.08 (0.67, 1.73)			
<b>Individual net monthly income (in EUR)</b>				
801-1200 vs. <800	1.02 (0.69, 1.52)	0.228		
>1200 vs. <800	1.43 (0.92, 2.20)			
<b>BMI Status</b>				
Overweight vs. Normal	1.39 (0.95, 2.02)	0.184		
Obese vs. Normal	0.98 (0.65, 1.48)			
<b>Which of the following categories do you belong to regarding your smoking status?</b>				

F1. I have undergone screening for lung cancer before	Univariate Models OR (95% CI)	p-value	Multivariate Model OR (95% CI)	p-value
<b>Sex</b>				
Ex-smoker vs. Current Smoker	0.87 (0.61, 1.25)	0.678		
Non-smoker vs. Current Smoker	0.85 (0.55, 1.32)			
<b>Pack years (10-pack years)</b>	0.96 (0.89, 1.03)	0.246		
<b>Do you work/live in an environment with smokers (passive smoker)?</b>				
No vs. Yes	1.04 (0.75, 1.44)	0.805		
<b>Do you work or live in an environment exposed to smoke, dust, or fumes?</b>				
No vs. Yes	1.11 (0.78, 1.59)	0.572		
<b>Do you have a family history of lung cancer?</b>				
No vs. Yes	0.98 (0.63, 1.53)	0.925		
<b>Total knowledge score (1-Point)</b>	1.43 (1.29, 1.58)	<b>&lt; 0.001</b>	1.26 (1.12, 1.41)	<b>&lt; 0.001</b>
<b>I believe that, if I consult my doctor immediately when the first symptoms appear, I may live longer if I am diagnosed</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	2.67 (1.89, 3.78)	<b>&lt; 0.001</b>	1.39 (0.91, 2.14)	0.128
<b>I believe that lung cancer can be detected before the first symptoms appear through proper screening</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	3.04 (2.17, 4.27)	<b>&lt; 0.001</b>	1.32 (0.77, 2.03)	0.199
<b>I would be so concerned about what might be discovered at a lung cancer screening that I would prefer not to go</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	0.61 (0.41, 0.89)	<b>&lt; 0.001</b>	0.57 (0.37, 0.88)	<b>0.011</b>
<b>It makes sense to undergo lung cancer screening because it will impact whether and how long you will live</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	3.47 (2.49, 4.84)	<b>&lt; 0.001</b>	2.10 (1.42, 3.12)	<b>&lt; 0.001</b>
<b>I believe that LDCT without findings suggesting lung cancer can help reduce the worry and anxiety associated with the development of lung cancer</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	2.78 (1.97, 3.91)	<b>&lt; 0.001</b>	1.36 (0.89, 2.08)	0.153
<b>I believe that lung cancer screening should only be recommended for smokers and/or ex-smokers over the age of 50 and not for all adults over the age of 50</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	0.69 (0.48, 1.002)	0.051		
<b>I believe that lung cancer screening should be offered free of charge to all citizens</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	3.78 (2.40, 5.97)	<b>&lt; 0.001</b>	1.05 (0.54, 2.06)	0.889
<b>I believe that lung cancer screening should be a priority for the state</b>				
I agree/I strongly agree Vs. I strongly disagree/I disagree/ Neutral	5.27 (3.53, 7.88)	<b>&lt; 0.001</b>	2.51 (1.42, 4.42)	<b>0.002</b>

TEI, Technological Educational Institute; HEI, Higher Educational Institute; BMI, Body Mass Index; LDCT: Low-dose computed tomography; OR: Odds Ratio; CI: Confidence Interval

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Table 6 presents significant associations between practice questions and participants' sociodemographic characteristics, as well as attitude questions and the total knowledge score. Multivariate logistic regression revealed that participants with LC family history ( $p=0.008$ ), those with more pack-years ( $p=0.014$ ) and those believing that screening might impact how long they will live ( $p=0.031$ ), were more likely to have been subjected to screening for LC in the past. Moreover, participants with higher total knowledge score ( $p=0.004$ ), those believing that LC screening might prolong their life ( $p=0.002$ ), those believing that seeking medical advice immediately after the first symptoms might prolong their life ( $p=0.001$ ), and those believing that LC screening should be offered free of charge ( $p=0.027$ ), were more likely to undergo LDCT if recommended by their doctor. Similar results were found for the question assessing the willingness of the general population to undergo LDCT if they receive a state-issued text message.

## Discussion

The objective of this work was to present the knowledge, attitudes and practices of the general population in Greece regarding LC and LC screening, as well as the parameters that may influence these aspects. To the best of our knowledge, this is the first study conducted in Greece aiming to assess general population's knowledge, attitudes and practices.

Our research revealed that although most participants acknowledged active and passive smoking as risk factors for LC, only 53.2% identified all of the risk factors. Our results are partially in line with those from other studies that evaluated the knowledge of risk factors associated with LC [21-24]. Based on existing literature, active smoking has been a highly recognized risk factor [21-24] as opposed to passive, which has been identified by less than 50% of responders [23]. Our results (80.9% of participants identified passive smoking as a risk factor) indicate that Greek adults may be more conscious about the impact of passive smoking in lung physiology, compared to other populations.

Moreover, in the current study, cough that worsens or persists, shortness of breath and hemoptysis were the three most recognized symptoms, while only 1 out of 4 participants were found to identify the symptoms overall. Regarding screening, although a high percentage of general population seems to know what screening is and almost 70% of them correctly mention LDCT as a screening tool for LC, it seems that general population is not familiar with the concepts of "false positive" and "false negative".

The average total knowledge score pertaining to LC and LC screening was 4.1 out of 8, suggesting a moderate level of knowledge among participants. Indeed, this finding indicates a significant gap in community awareness, consistent with previous studies that have reported a similar deficiency in

understanding [16,17,19]. An integrated interpretation of this finding reveals that the current public health campaigns and education systems may not be sufficiently effective in disseminating this critical information [25,26]. This highlights the need for more competent education strategies and health policy initiatives to improve overall alertness, thereby promoting better preventative and screening practices among the population at risk [27,28]. More importantly, our study revealed a general willingness of public population to learn more about LC screening procedures, an attitude that should be considered by health policy makers in order to promote relevant health campaigns.

Furthermore, another interesting finding was that younger people, current smokers as well as those without LC family history had poor knowledge. This aligns with prior research showing that family history of disease can influence health-related knowledge, since individuals with a positive family history tend to be more familiar with the disease's risk factors and consequences [29]. In addition, the fact that current smokers have lower level of knowledge, in combination with the high percentage of current smokers (45.8%) in our sample raises potential concerns about the future incidence of LC in our country and highlights the importance of preventative measures such as LC screening [30]. Besides, it also underlines the necessity to tailor public health measures in order to address this high-risk group's specific needs and misconceptions, enhancing their understanding of the relationship between smoking and LC and promoting LC screening practices [31,32].

Interestingly, a significant number of participants believed that LC screening should be a priority for the state, and it should be offered free of charge. This observation demonstrates the expectation of Greek population for the inclusion of LC screening in public health services.

As for participants' practices regarding LC screening, a small percentage reported having already been subjected to LC screening (13.3%), while it seems that more than 80.0% are willing to undergo LDCT if recommended by their doctor, or if they received a telephone text message letting them know that they are eligible for LDCT for free. Last, we found that the total knowledge score of the participants was statistically significantly associated with willingness to undergo LDCT screening for LC if recommended by a doctor, and if suggested by a state-issued message, supporting that knowledge is strongly associated with the adoption of better prevention practices. Similar trends have been previously reported, showing that physician's recommendation greatly influences patients' decisions about LDCT in the context of screening, with better knowledge acting as an auxiliary factor [33]. Comparable results were found with state-issued messages, where higher knowledge scores have been linked



with a greater likelihood of acting upon health information disseminated by trusted authorities [34,35]. These findings together stress the necessity to promote knowledge about LC and LC screening, in order to facilitate informed decision-making among general population.

The strength of this study lies in its design. In previous knowledge, attitudes and practices (KAP) studies, data were collected using paper-based or online self-reported questionnaires, a method that often excludes vulnerable groups, such as the illiterate and rural populations with no access to the internet or online health information resources. In contrast, our survey employed a mixed-method-approach for data collection, utilizing both CATI and CAWI, ensuring a randomly selected sample with greater generalizability in terms of age, gender, and area of residence. Moreover, to the best of our knowledge, this is the first study conducted in European population, indicating that there is significant need to increase public awareness towards LC and LC screening even in developed countries.

Despite the strengths of this study, several limitations must be acknowledged. First and foremost, telephone and web-based surveys typically have a lower response rate than face-to-face interviews, which can affect the sample's representativeness. However, by using weights, we ensured representation in terms of age and gender. Furthermore, this type of survey may suffer from lower response quality compared to face-to-face interviews due to potential reporting bias.

## Conclusions

In conclusion, the study reveals considerable awareness and positive attitudes towards LC screening among the Greek population, yet gaps in knowledge, influenced by various demographic factors. Moreover, the importance of knowledge in the general population's willingness to adopt better prevention strategies was revealed. These findings illustrate the need for development and implementation of public health interventions to increase community awareness regarding the risk factors, symptoms and benefits of screening and early detection of LC, as well as policy measures to make LC screening more accessible.

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