Ipsos MORI
Social Research Institute

Global Lung Cancer Coalition 2013 Survey

Final report

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GLOBAL LUNG CANCER COALITION

Legal notice

Contents

1. Introduction

1. Introduction

1.1 Background and objectives

This report presents the findings from a multi-national study conducted by Ipsos MORI on behalf of the Global Lung Cancer Coalition (GLCC). A quantitative survey was conducted across 21 different countries including: Argentina, Australia, Bulgaria, Canada, Denmark, Egypt, France, Germany, Great Britain, Ireland, Italy, Japan, Mexico, Norway, Portugal, Slovenia, Spain, Sweden, Switzerland, the Netherlands, and the USA.

In 2010 Ipsos MORI undertook a survey across sixteen countries exploring perceptions of which cancers kill the greatest number of people; and attitudes towards lung cancer specifically. This project forms part of this programme of research and seeks to understand the following across the countries included in the research:

- smoking prevalence – i.e. the approximate percentages of smokers, former smokers and non-smokers in each country; and
- spontaneous awareness of the signs and symptoms of lung cancer in each country.

The purpose of this report is to summarise the key findings from each country and overall on these indicators, and to place them in the context of existing data where possible.

1.2 Methodology

A nationally representative quota sample of respondents was interviewed in each country between 2nd June and 16th August 2013. The same two questions were asked of respondents in each nation to enable comparisons to be drawn. Two different methodologies were utilised to interview respondents: face-to-face in-home interviewing and telephone interviewing (CATI – Computer Aided Telephone Interviewing). Due to this mixed-mode approach, strictly speaking, results from individual countries should not be compared with each other. However, both questions were designed to be asked unprompted, reducing the possible impact of this. The age of participants interviewed also varied slightly between countries. Details of the interview methodology and the age range of those interviewed across the 21 countries can be found overleaf.

Data have been weighted to the known adult population profile of each country. Please also note that additional surveys took place in Mexico, Norway, Sweden and Slovenia to boost the number of smokers in order to allow robust comparisons. In each of these countries, data

were weighted back to the original profile of smokers and non-smokers to ensure that smokers were not over-represented.

Country	Sample Size	Sample Age	Method of data collection	Fieldwork dates	Additional field dates
Australia	1000	18+	Telephone (CATI)	1-8 June 2013	
Argentina	500	15+	Telephone (CATI)	2-5 June 2013	
Bulgaria	1148	18+	Telephone (CATI)	10-24 June 2013	
Canada	1005	18+	Face-to-face (CAPI)	6-10 June 2013	
Denmark	650	18+	Telephone (CATI)	10-16 June 2013	
Egypt	1009	20+	Telephone (CATI)	5-30 June 2013	
France	953	18+	Face-to-face (CAPI)	3-18 July 2013	
Great Britain	957	18+	Face-to-face (CAPI)	28 June – 4 July 2013	
Germany	1073	14+	Face-to-face (CAPI)	24-30 June 2013	
Ireland	1000	15+	Telephone (CATI)	5-14 June 2013	
Italy	510	18+	Telephone (CATI)	21 June – 26 July 2013	
Japan	1204	20+	Telephone (CATI)	5-15 July 2013	
Mexico	600	15+	Telephone (CATI)	2-5 June 2013	15-18 August 2013
Netherlands	1004	18+	Telephone (CATI)	8-19 July 2013	
Norway	529	15+	Telephone (CATI)	10-16 June 2013	5-8 August 2013
Portugal	1203	18+	Face-to-face (PAPI)	14-25 June 2013	
Slovenia	580	18+	Telephone (CATI)	24 June – 5 July 2013	25-29 July 2013
Spain	500	18+	Face-to-face (CAPI)	1-14 July 2013	
Sweden	550	17+	Telephone (CATI)	17-24 June 2013	5-11 August 2013
Switzerland	510	18+	Telephone (CATI)	10-15 June 2013	
USA	1000	18+	Telephone (CATI)	5-10 June 2013	

1.3 Presentation and interpretation of data

The figures quoted in all graphs and tables are percentages. The size of the sample base, from which the percentages are derived, is indicated in the bottom left hand corner of all graphs and table. Please apply caution when comparing responses with a smaller sample size (i.e. fewer than 100).

Please note that percentage figures for the various sub-samples or groups will need to differ from each other by a certain number of percentage points for the difference to be statistically significant and to be reported on accordingly. This number will depend on the size of the samples being compared, and the percentage finding itself – as noted in the appendices to this report.

Where an asterisk (*) appears it indicates a percentage finding of less than half of one per cent, but greater than zero. Where percentages do not add up to 100% this could be due to a number of reasons, such as multiple responses, the removal of don't know responses from charts, or computer rounding.

1.4 Publication of data

Our standard Terms & Conditions apply to this, as they do to all studies we carry out. Compliance with the MRS Code of Conduct and our advance clearance is necessary of any copy or data for publication, web-siting or press releases which contain any data derived from Ipsos MORI research. This is to protect our client's reputation and integrity as much as our own. We recognise that it is in no-one's best interests to have survey findings published which could be misinterpreted, or could appear to be inaccurately, or misleadingly, presented.

2. Smoking prevalence

2. Smoking prevalence

2.1 Background

The World Health Organisation reports that one billion people worldwide can be considered smokers and approximately six million people a year are killed as a consequence of smoking directly or through breathing in second-hand smoke. While consumption of tobacco products in some high-income and upper-middle income countries is decreasing, the overall number of smokers is steadily rising[1].

The link between smoking and cancer has been well documented. Tobacco smoke contains more than 70 different cancer causing substances which increase the risk of over a dozen different cancers, particularly lung cancer. Additionally, smoking is reported to be the most preventable cause of lung cancer and yet it is responsible for 71% of lung cancer deaths worldwide each year[2].

For this reason, smoking prevalence figures are of real interest and importance, as is developing an understanding of patterns of smoking across, and within, countries. The remainder of this section will therefore outline the findings when respondents were asked if they were a current smoker, a former smoker, or someone who had never smoked.

2.2 Where is smoking prevalence highest?

As noted above, across each of the 21 countries people were asked if they are a current smoker (i.e. someone who is a regular smoker at the present time), a former smoker, (i.e. someone who used to smoke regularly but has quit), or someone who has never smoked (i.e. someone who has never smoked at all, or only very occasionally in the past).

Of the countries surveyed, Bulgarians are significantly more likely to currently smoke than respondents elsewhere; with around two in five (41%) stating this is the case. Spain and France also have a relatively high proportion of smokers (33% and 30% respectively). Most other countries are closely aligned, with around one in five people saying they smoke. Sweden has the lowest proportion of current smokers (12%), closely followed by Australia (13%).

[1] http://www.who.int/mediacentre/factsheets/fs339/en/
[2] http://www.who.int/mediacentre/factsheets/fs297/en/

In almost all participating countries, more than half of respondents have never smoked. Bulgaria and Spain are exceptions to this, with fewer saying they have never smoked (46% and 41% respectively).

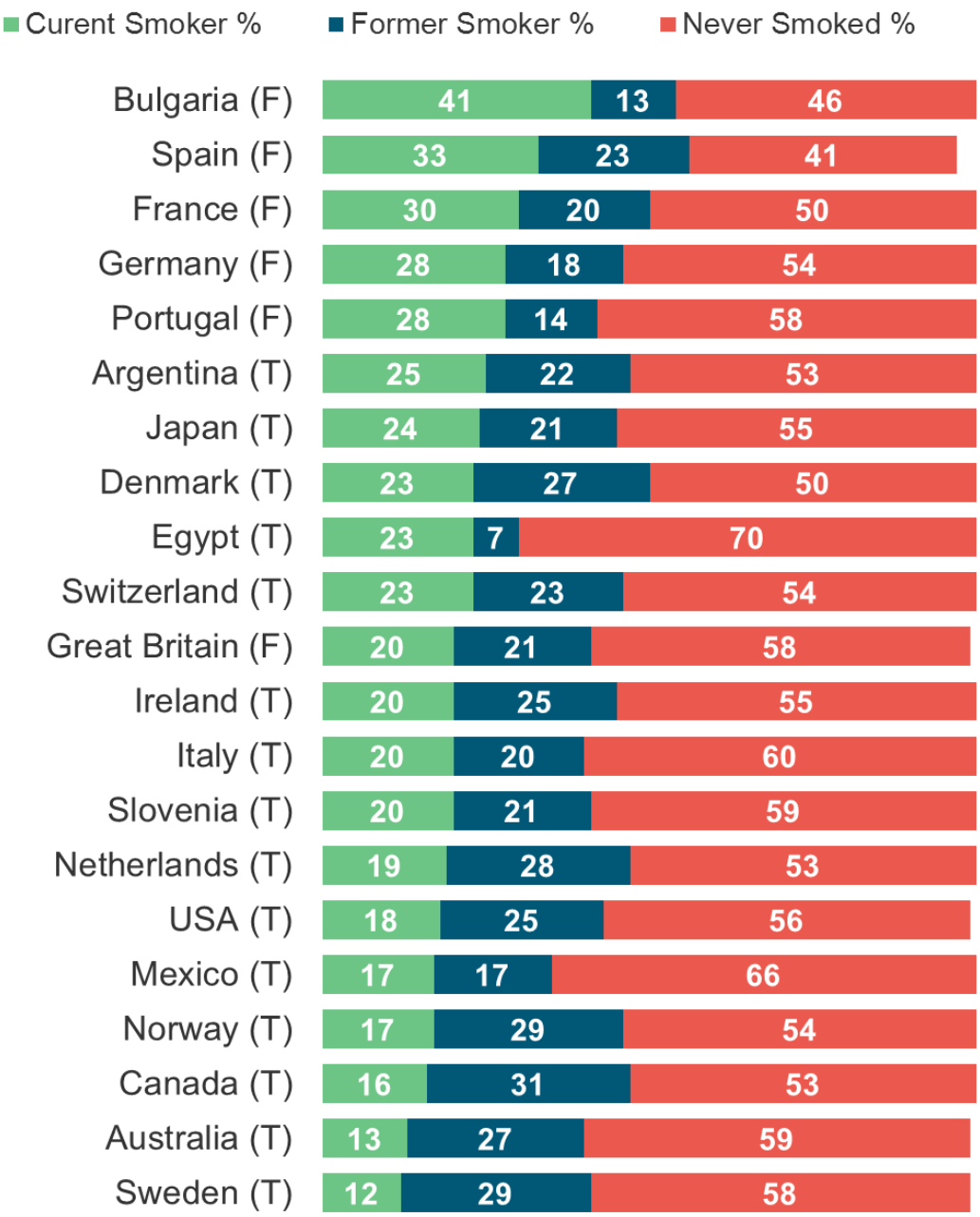
Egypt has the highest prevalence of people who have never smoked regularly (70%). This seems largely to be explained by an analysis of smoking habits by gender. The vast majority of Egypt women have never smoked (91%), compared to approaching half of men (49%). A similar pattern is evident in Mexico, which also has a particularly high proportion of non-smokers (66%), as well as a greater proportion of women than men saying they have never smoked (76% versus 55%), and also in Italy (60% of Italians have never smoked regularly, which comprises 68% of women and 51% of men).

Canada, Norway, and Sweden are among the countries with the greatest proportion of former smokers who used to smoke regularly but have now quit (31%, 29% and 29% respectively). According to the World Health Organisation's statistics on tobacco control policies, since 2010 these countries have all introduced relatively high level policies to control tobacco[3]. Whilst we cannot draw definitive conclusions on the impact these policies have had, it may be that these campaigns have led to more people quitting smoking.

[3] http://apps.who.int/gho/data/node.main.1241

Smoking habits across countries

Do you consider yourself to be a . . . ?



Base: 500 - 1,204. T = Telephone interviews; F = Face-to-face interviews

Fieldwork dates: June – August 2013

Source: Ipsos MORI

Ipsos MORI

2.3 Demographic differences in smoking prevalence

As has been discussed previously, smoking prevalence varies by country and also by key demographics. Differences by age and gender overall and by country are therefore explored in more detail below.

Age

Age appears to be a key discriminator in relation to whether respondents identify themselves as a current smoker, a former smoker, or someone who has never smoked regularly. As may have been hypothesised, younger respondents (aged 24 or younger) are most likely to state that they have never smoked (70% vs. an overall average of 55%). Older people (aged 65 or older), are more commonly former smokers who used to smoke regularly but have quit (33% vs. an overall average of 21%), and those aged 25-54 identify themselves as current smokers with greater regularity than their older and younger counterparts (29% vs. an overall average of 23%).

These findings are fairly consistent across the 21 countries. However, in Bulgaria, France, Germany and Portugal, older people (aged 65 or more) are more likely than average to have *never* smoked regularly.[4]

Gender

Gender appears to be a significant factor when analysing differences in smoking prevalence. In most countries, men are more likely than women to be current or former smokers, and this is reflected in the aggregate data (28% of men compared to 18% of women are current smokers, and 26% of men compared to 17% of women are former smokers). Correspondingly, women are more likely to have never smoked regularly or at all (64% vs. 46%). This difference is particularly pronounced in countries such as Egypt, Mexico and Italy, as well as Japan, where 38% of men say they are a current smoker compared to 10% of women, and 80% of women have never regularly smoked compared to 28% of men.

There are exceptions to this trend though, as in Canada, the Netherlands, Norway, Sweden and Switzerland there is no significant difference between males and females with regard to smoking habits. This may be linked to a relatively new trend identified by the World Health

[4] Proportion of those aged 65+ who identify themselves as someone who has never smoked: Bulgaria 67%, France 58%, Germany 67%, and Portugal 72%.

Organisation, that smoking prevalence amongst females in Europe and other Western countries is increasing while male prevalence has peaked[5].

[5] http://www.who.int/mediacentre/factsheets/fs339/en/

3. Spontaneous awareness of the symptoms of lung cancer

3. Spontaneous awareness of the symptoms of lung cancer

3.1 Background

Previous research conducted by Ipsos MORI in 2010 for GLCC found that in the majority of countries surveyed, respondents identified lung cancer as the cancer that kills the most people in their country. This finding reflects international statistics which show that lung cancer is one of the leading causes of cancer deaths worldwide, killing 1.37 million people in 2008 (the latest year available)[6].

Lung cancer sufferers have a very low survival rate and this has been attributed largely to the late detection of the disease. Research has shown that many people often fail to go to the doctor when they first present with symptoms of the disease, as they often mistake them for other health related issues or hope that their health concerns will clear up on their own[7]. Indeed, consulting doctors at a late stage has been shown to have serious repercussions for patients. Research in the USA has shown that survival rates drop from a 53.5%, down to a 3.9% chance of survival as the diagnosis of lung cancer moves from the early stages of the disease to the later stages[8].

For the reasons discussed above, health professionals and policy makers are tending to increase their efforts to educate people of the symptoms of lung cancer and to encourage them to go to a doctor when they first experience any one of its symptoms.

Cancer Research UK and other prominent national and international health organisations[9] have suggested the main symptoms of lung cancer can be considered as follows:

- Having a cough most of the time
- A change in a cough you have had for a long time
- Being short of breath
- Coughing up phlegm (sputum) with signs of blood in it

[6] http://globocan.iarc.fr/factsheet.asp
[7] http://www.cancerresearchuk.org/prod_consump/groups/cr_common/@nre/@hea/documents/generalcontent/cr_043915.pdf
[8] http://seer.cancer.gov/statfacts/html/lungb.html
[9] http://www.cancerresearchuk.org/cancer-info/healthyliving/smokingandtobacco/

- An ache or pain when breathing or coughing
- Loss of appetite
- Tiredness (fatigue)
- Losing weight
- A hoarse voice
- Difficulty swallowing
- Changes in the shape of your fingers and nails called finger clubbing
- Swelling of the face caused by a blockage of a main blood vessel (superior vena cava obstruction)
- Swelling in the neck caused by enlarged lymph nodes
- A constant ache or pain in your chest or shoulder that has lasted some time
- Pain or discomfort under your ribs on your right side (from cancer cells in the liver)
- Shortness of breath caused by fluid around the lungs (called a pleural effusion)

Given the range of symptoms and the importance of early diagnosis for people's chances of surviving lung cancer, the second survey question explored respondents' spontaneous, unprompted awareness of the symptoms of lung cancer.

3.2 Overall awareness of symptoms

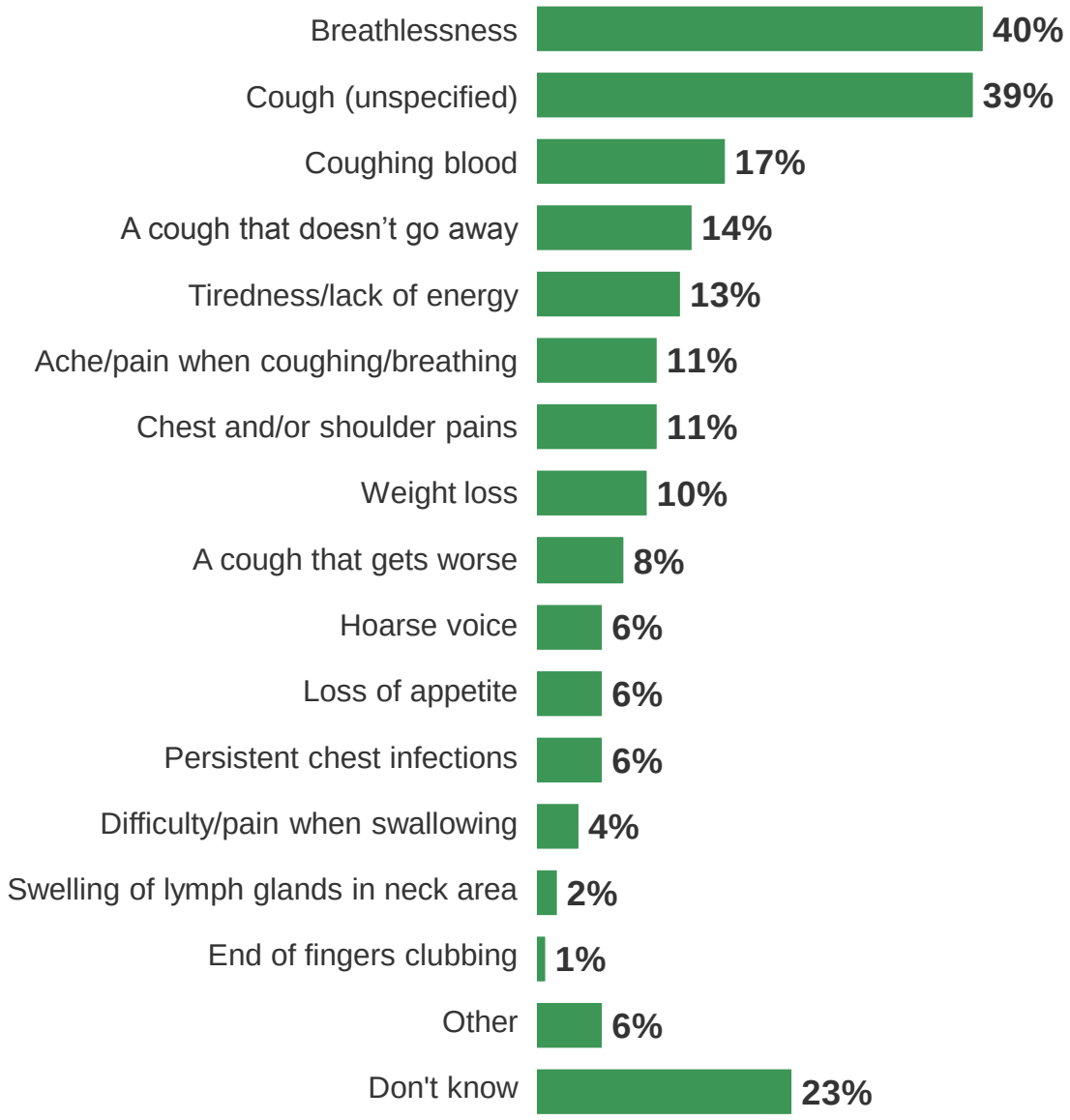
As shown in the following chart, breathlessness was the most commonly identified symptom of lung cancer (40% of respondents mentioned it spontaneously) but a similar proportion identified a cough or coughing without specifying further as a symptom (39%). Other symptoms relating to coughing, as well as general or unspecified coughing, are also amongst the most commonly mentioned symptoms: coughing blood (17%), a cough that doesn't go away (14%), and a cough that gets worse (eight per cent). In addition, tiredness or a lack of energy (13%) and an ache or pain when coughing or breathing (11%), are all recognised by more than one in ten people. In terms of the symptoms of lung cancer respondents are least aware of, very few mentioned the ends of fingers clubbing (one per cent) or a swelling of the lymph glands in the neck area (two per cent).

It is also important to note that approaching one in four respondents are not able to identify any symptoms of lung cancer (23% say they don't know any). There is a great deal of variation between countries in terms of the proportion of respondents saying that they don't know any symptoms. Egyptian (48%), Argentinian (42%), Mexican (35%) and Portuguese (33%) respondents are particularly likely to say this, whilst at the other end of the spectrum, fewer than one in ten French (seven per cent) and Irish (nine per cent) people are unable to name any symptoms.[10]

[10] Please note that these figures are based on all respondents, not the average proportions across the countries.

Awareness of symptoms of lung cancer overall

There are many warning signs and symptoms of lung cancer. Please name as many symptoms of lung cancer as you can think of.



Base: All respondents (17,385). Fieldwork dates: June – August 2013 Source: Ipsos MORI

Ipsos MORI

3.3 Awareness of symptoms of lung cancer by country

Spontaneous awareness of the symptoms of lung cancer varies significantly by country. As can be seen in the following table, breathlessness is one of the top three most frequently mentioned symptoms across all 21 countries, and in 15 countries is the most frequently mentioned symptom. General or unspecified coughing emerges most frequently in the other six, and in an additional 12 countries is the second most frequently mentioned symptom. Indeed, only in Bulgaria is general or unspecified coughing not found amongst the top three most commonly mentioned symptoms. Bulgarians tend to mention specifics instead; coughing blood and a cough that gets worse.

Whilst breathlessness and general or unspecified coughing are the most commonly identified symptoms, the degree to which respondents are aware of them diverges considerably between the 21 countries, and this variation is reflected across all symptoms. For example, more than half of Irish and Slovenian respondents' state that breathlessness is a symptom (56% and 52% respectively), whilst only one in five Japanese respondents spontaneously mention it (22%).

The varying degrees of awareness of the symptoms of lung cancer shows that it will be extremely difficult to raise awareness of them all, particularly given that there are many potential symptoms. Instead it may be more effective to focus and tailor public awareness campaigns on building knowledge of some of the more commonly recognised symptoms in each country, and to develop messaging and information provision in specific nations around these.

There appears to be little uniformity regarding other symptoms of lung cancer emerging among the three most frequently listed in each country. In eight of the 21 countries surveyed, coughing blood is the second or third most common symptom, and in a further nine, other symptoms relating to coughing emerge. Additionally, in Egypt a persistent chest infection is the second most commonly recognised symptom (23%), whilst in Argentina, the Netherlands, Portugal, Spain and Sweden, tiredness or a lack of energy is the third most commonly recognised.

The three most frequently mentioned symptoms of lung cancer in each country

Country	Most frequently mentioned	Second most frequently mentioned	Third most frequently mentioned
Argentina	Breathlessness (31%)	A cough (26%)	Tiredness or lack of energy (12%)
Australia	Breathlessness (53%)	A cough (37%)	Coughing blood (32%)
Bulgaria	Breathlessness (50%)	Coughing blood (37%)	A cough that gets worse (30%)
Canada	Breathlessness (49%)	A cough (45%)	Coughing blood (20%)
Denmark	Breathlessness (51%)	A cough (48%)	An ache or pain when coughing or breathing (20%)
Egypt	Breathlessness (25%)	Persistent chest infections (23%)	A cough (15%)
France	A cough (54%)	Breathlessness (37%)	A cough that doesn't go away (25%)
Germany	Breathlessness (36%)	Coughing blood (34%)	A cough that doesn't go away (31%)
Great Britain	Breathlessness (46%)	A cough (43%)	Coughing blood (27%)
Ireland	Breathlessness (56%)	A cough (56%)	Coughing blood (27%)
Italy	Breathlessness (42%)	A cough that doesn't go away (32%)	A cough (29%)
Japan	A cough (50%)	Breathlessness (22%)	A cough that doesn't go away (21%)
Mexico	A cough (33%)	Breathlessness (27%)	An ache or pain when coughing or breathing (10%)
Netherlands	Breathlessness (45%)	A cough (45%)	Tiredness or lack of energy (13%)
Norway	Breathlessness (47%)	A cough (40%)	Chest and/or shoulder pains (9%)
Portugal	Breathlessness (35%)	A cough (33%)	Tiredness or lack of energy (18%)
Slovenia	A cough (52%)	Breathlessness (31%)	Coughing blood (10%)
Spain	A cough (29%)	Breathlessness (25%)	Tiredness or lack of energy (20%)
Sweden	A cough (46%)	Breathlessness (42%)	Tiredness or lack of energy (10%)
Switzerland	A cough (53%)	Breathlessness (43%)	An ache or pain when coughing or breathing (12%)
USA	Breathlessness (38%)	A cough (37%)	Coughing blood (14%)

3.4 Comparing the mean number of mentions of symptoms within each country by respondents' current smoking status

The following table highlights the mean number of symptoms mentioned by self-defined current smokers, former regular smokers who have now quit and people who have never smoked regularly within each country. People who said that they did not know any symptoms have been excluded from this analysis[11].

However, it is worth noting that former smokers are more likely to have named at least one symptom of lung cancer than current smokers and people who have never smoked regularly (20% of former smokers don't know any symptoms, compared with 25% of current smokers and 24% of people who have never smoked regularly). Additionally, in Australia and Great Britain current smokers are less aware of the symptoms of lung cancer than former smokers and people who have never smoked regularly (Australia: 33% of smokers, 18% of former smokers and 15% of people who have never smoked don't know any. Great Britain: 22% of smokers, 9% of former smokers and 15% of people who have never smoked don't know any). This indicates that, in these countries, the most at risk people (current smokers) are also the least aware of the potential symptoms of lung cancer.

The shading in the following table highlights which of the three groups have the highest mean score in each nation (i.e. the most average mentions of symptoms per respondent). The key finding from this is that current smokers often mention fewer symptoms of lung cancer than former smokers, or people who have never smoked.

In three countries (France, Ireland and Portugal), current smokers appear to have greater awareness of potential symptoms, whilst in Sweden, current and former smokers have the same mean score. Additionally, in the majority of countries the mean number of symptoms mentioned is between two and three.

[11] Please note that this includes other responses that were not included in the original pre-coded list of symptoms – i.e. respondents may have mentioned things that are not known symptoms of lung cancer.

Mean number of mentions of symptoms of lung cancer per respondent (who named at least one symptom)[12]

Country	Current smokers	Former smokers	Never smokers
Argentina	1.97	1.97	2.11
Australia	2.04	2.47	2.28
Bulgaria	3.63	4.18	3.97
Canada	2.57	2.53	2.77
Denmark	2.39	2.34	2.43
Egypt	3.09	3.32	3.32
France	2.54	2.53	2.40
Germany	3.02	3.66	3.69
Great Britain	2.77	2.89	2.75
Ireland	3.21	2.99	2.94
Italy	2.46	2.53	2.43
Japan	2.41	2.55	2.67
Mexico	1.98	1.84	2.00
Netherlands	1.99	2.19	2.24
Norway	1.86	2.14	2.18
Portugal	2.61	2.54	2.43
Slovenia	2.35	2.46	2.16
Spain	2.13	2.30	2.13
Sweden	1.98	1.98	1.89
Switzerland	1.94	2.31	2.23
USA	1.93	1.97	2.01

[12] Please note that due to the different modes of data collection utilised in countries, the mean scores of different nations should not be compared.

3.5 Demographic differences in awareness of the symptoms of lung cancer

It is also important to review whether knowledge of the symptoms of lung cancer differs by key demographics like age and gender.

Age

The age of respondents seems to influence their spontaneous awareness of symptoms of lung cancer, as those aged 25-54 tend to name more symptoms than those aged 24 or younger and 65 or older. Indeed, mean scores by different age groups are as follows:

- 14-24 years: 2.05
- 25-34 years: 2.24
- 35-44 years: 2.26
- 45-54 years: 2.33
- 55-64 years: 2.36
- 65 or more years: 2.13

Additionally, younger people (aged 24 or younger) are less likely to be able to name any symptoms than other age groups (30% say they don't know any, compared with 23% overall).

Gender

Women are more likely than men to spontaneously name symptoms relating to lung cancer. Overall, the mean number of symptoms women identify is 2.66 while for men it is 2.57. This difference is particularly evident in Argentina, where there is an eight percentage point difference between the proportion of women and the proportion of men stating breathlessness as a symptom (35% vs. 27%). This pattern is also evident across a number of other countries, and in relation to many other symptoms. However, focussing on the most frequently mentioned symptoms there are some other substantial differences in awareness by gender as follows:

- Australia, breathlessness: 59% of women mention this compared to 48% of men;
- Bulgaria, breathlessness: 52% of women vs. 47% of men;

- Denmark, breathlessness: 56% vs. 46%;
- Netherlands, breathlessness: 49% vs. 40%;
- Norway, breathlessness: 52% vs. 41%
- Japan: 55% of women note general or unspecified coughing, compared to 44% of men; and
- Sweden: 54% of women are aware of general or unspecified coughing as a symptom compared to 38% of men.

Subsequently, overall, men are more likely to say that they don't know any symptoms of lung cancer (26% vs. 21% of women). Indeed, in ten of the countries surveyed a significantly higher proportion of men don't know any of the symptoms than among women (Argentina, Australia, Bulgaria, Canada, Denmark, Ireland, Japan, Netherlands, Norway and Sweden).

4. Headline findings by country

4. Headline findings by country

Some key findings that stand out for each country are summarised below.

Argentina – One in four Argentinians are current smokers (25% - compared with 23% overall), and women are significantly more likely to say they have never smoked regularly than men (58% and 48% respectively). Compared to other countries, Argentinians are amongst the most likely to say they don't know any of the symptoms of lung cancer (42%), and among those who are aware of at least one symptom, the mean number mentioned is relatively low (2.04).

Australia – In comparison to the other 20 countries surveyed, respondents in Australia are amongst the least likely to smoke, with only 13% identifying themselves as current smokers. There is fairly high recognition of breathlessness as a symptom of lung cancer (53%), though women tend to know this more commonly than men (59% vs. 48%). Current smokers are less aware of the symptoms of lung cancer than former smokers and people who have never smoked regularly (33% of smokers, 18% of former smokers and 15% of people who have never smoked, don't know any).

Bulgaria – Bulgarians are more likely than other nationalities to be current smokers (41%). Whilst this is primarily driven by people aged 25-54, those aged 24 or younger are more likely than respondents in this age bracket elsewhere to currently smoke (39%). Indeed, Bulgarians aged 65 or older are more frequently non-smokers than other age groups (67% identify themselves as having never smoked regularly). Also unlike other countries, when asked to name symptoms of lung cancer, general or unspecified coughing is not one of the top three most frequently mentioned; instead coughing blood is the second most frequently recognised (37%), and a cough that gets worse is the third (30%)..

Canada – Canada has a relatively low proportion of current smokers (16%), but has the highest proportion of former smokers (31%). Those aged 18-24 are significantly less likely to say they are current smokers than other age groups, given that 79% have never smoked regularly. There is little variation when comparing smoking prevalence between genders. Awareness of the symptoms of lung cancer is broadly in-line with overall trends, with around half identifying breathlessness as a symptom (49%).

Denmark – Respondents aged 65 or older in Denmark are more likely to be former smokers than any other age group (44%), whilst men are more likely than women to be current

smokers (28% vs. 18%). However, women tend to be more likely to identify symptoms of lung cancer (for example, 56% of women compared to 46% of men identify breathlessness).

Egypt – Egypt has the greatest proportion of respondents saying they have never smoked (70%). This appears to be driven by a very high proportion of women who are non-smokers (91% vs. 49% of men). Egyptians are also more likely than respondents from other countries not to know any symptoms of lung cancer (48%) and consequently only one in four are aware of even the most commonly mentioned symptom in the country, breathlessness (25%).

France – Current smoking prevalence in France is relatively high compared to other countries (30%). Half of those surveyed in France say they have never smoked (50%), with people aged 65 or older particularly likely to fall into this category (58%). Current smokers on average identify more symptoms, with a mean score of 2.54 – an exception to the general trend of former or non-smokers having greater awareness. Additionally, French people tend to identify general or unspecified coughing as a symptom of lung cancer more commonly than elsewhere (54%). However, those aged 65 or older are less likely to be aware of this than other age groups (40% vs. 54% on average). Finally, French respondents are more commonly aware of at least one symptom of lung cancer than other nations (only seven per cent say they don't know any).

Germany – When comparing smoking prevalence across countries, Germany has a relatively high proportion of current smokers (28%). In terms of German non-smokers, they are particularly likely to be older (67% of those aged 65 or older have never smoked regularly, compared to 54% on average). Germans are more likely than average to say the following are symptoms of lung cancer: a cough that doesn't go away (31%), coughing blood (34%), a swelling of lymph nodes (glands) in the neck area (11%) and the ends of fingers becoming larger or more rounded (2%).

Great Britain – One in five (20%) Britons say they are current smokers and those aged 65 or older are more likely to be former smokers than other age groups (39% vs. 21% on average). When asked to identify the symptoms of lung cancer, breathlessness and a cough were the most commonly stated symptoms (46% and 43%), in line with many other countries surveyed. Current smokers are less aware of the symptoms of lung cancer than former smokers and people who have never smoked regularly (22% of smokers, 9% of former smokers and 15% of people who have never smoked don't know any).

Ireland – Irish men are more likely to be current smokers than women (24% of men compared with 17% of women). Younger people (aged 15-25) are more likely to have never smoked (73% have not), but older people (65+) are more likely to be former smokers (47% used to smoke regularly but have quit). Respondents from Ireland are more likely to say that breathlessness and unspecified or general coughing are symptoms of lung cancer than the other countries surveyed (both 56%). In addition, the second highest proportion of respondents able to name at least one symptom is found in Ireland, with only nine per cent saying they don't know any.

Italy – In comparison with the other countries surveyed, Italians are the third most likely to say that they have never smoked (60%) and women are the primary drivers of this (68% compared to 51% of men). Unlike other countries, a cough that doesn't go away is the second most frequently recognised symptom of lung cancer in Italy (32%), after breathlessness (42%). The vast majority of Italians are also aware of at least one symptom (only 11% don't know any).

Japan – Approaching one in four Japanese respondents are current smokers (24%). The gap in prevalence between men and women is particularly large in Japan as 38% of men say they are a current smoker compared to 10% of women, and 80% or women have never smoked vs. 28% of men. General or unspecified coughing is comfortably the symptom of lung cancer Japanese people are most aware of (50%), and there is a 28 percentage point gap to the next most frequently recognised symptom (breathlessness, 22%), with a cough that doesn't go away closely following (21%).

Mexico – Respondents in Mexico are some of the most likely to say they are non-smokers (66%). Men in Mexico are more commonly current and former smokers (21% and 24% respectively compared to 13% and 11% of women). While older respondents (65 or older) are more frequently former smokers (31%), they are also more likely to say they don't know any symptoms of lung cancer (61%). Overall, the nation has the third greatest proportion of people saying they don't know any symptoms (35%).

Norway – Compared to other countries, relatively few respondents in Norway are current smokers (17%) and a fairly high proportion of them are former smokers who have now quit (29%). Norwegians aged 15-24 are particularly likely to say that they have never smoked (80%). There is little difference by gender with regard to smoking habits or by key demographics in relation to Norwegian's awareness of symptoms of lung cancer. However, chest and/or shoulder pain is the third most frequently recognised symptom in the country

and as such Norway is the only nation where it makes the top three (nine per cent mention it – though greater proportions of people mention this symptom elsewhere).

Portugal – Portugal has one of the highest proportions of current smokers (28%) and echoing the overall trend, men in Portugal are more likely to be smokers (41% vs. 17% of women). However, unlike most other countries, older respondents (65 or older) are less likely than average to be current smokers (8%). Awareness of the symptoms of lung cancer is broadly in line with most other countries, although tiredness or a lack of energy is Portugal's third most frequently acknowledged symptom (18%), and Portuguese respondents are amongst those least likely to be able to name any symptoms spontaneously (33%).

Slovenia – One in five Slovenians surveyed say they are current smokers, and echoing the overall trend, women are more likely never to have smoked regularly (65% vs. 50% of men). Recognition of general or unspecified coughing is particularly high, with 52% naming it as a symptom of lung cancer spontaneously. Former smokers name more symptoms of lung cancer than current and non-smokers, on average noting 2.46 symptoms.

Spain – Respondents from Spain are among the most likely to say they currently smoke (33%), and are least likely to say they have never smoked regularly (41%). Spanish respondents also show some of the lowest levels of awareness of the symptoms of lung cancer with the top mentioned symptoms recognised by fewer than three in ten people (a cough 29% and breathlessness 25%). Linked to this, a relatively high proportion of Spaniards are not aware of any symptoms (29%).

Sweden – Swedish respondents are the least likely to smoke (12%) and the prevalence of former smokers is particularly high (29%). Former smokers are more likely to be older (55 or older), and unlike most other countries, smoking habits are closely aligned by gender. However, women show a greater level of awareness of the symptoms of lung cancer than men, saying on average 2.03 symptoms compared to a mean score of 1.79 among men. Finally, a relatively high proportion of Swedish respondents are not aware of any of the symptoms of lung cancer (28%).

Switzerland – In Switzerland, more than half of people have never smoked regularly (54%), in line with the aggregate prevalence figure of 55%. Unlike most other countries there is little variation by age or gender regarding smoking prevalence. Whilst there is fairly strong recognition of a cough (53%) or breathlessness (43%) as symptoms of lung cancer, there is a major gap between awareness of these and other symptoms, with the third most commonly

stated, an ache or pain when coughing or breathing, acknowledged by a little over one in ten (12%).

The Netherlands – Approaching one in five respondents from the Netherlands currently smoke (19%). Older respondents (55 or older) are more likely to be former smokers, while younger people (aged 18-34) more commonly say they have never smoked. There is little variation in smoking prevalence by gender, though women are more likely to be aware of the symptoms of lung cancer. Indeed, Dutch women state more frequently than Dutch men that the following are potential symptoms of the disease: a cough; a cough that doesn't go away; breathlessness; weight loss; loss of appetite; persistent chest infections; chest and or shoulder pains.

USA – Findings from the USA are broadly reflective of overall results. For instance, overall in the USA, 18% are current smokers and 56% have never smoked regularly, with American women more likely to say that they have never smoked than men (62% vs. 50%). When asked what the symptoms of lung cancer are, those who have never smoked appear most aware, citing on average 2.01 symptoms. However, in comparison with other countries, a fairly high proportion of Americans are unable to spontaneously identify any symptoms of lung cancer when asked (26%).

5. Appendices

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5.1 Statistical reliability

The sampling tolerances that apply to the percentage results are given in the table below. This table shows the possible variation that might be anticipated because a sample, rather than the entire population, was interviewed. As indicated below, sampling tolerances vary with the size of the sample and the size of the percentage result. For example, on a question where 50% of the people in a sample of c.1,000 respond with a particular answer, the chances are 95 in 100 that this result would not vary by more than 3 percentage points, plus or minus, from a complete coverage of the entire population using the same procedures (i.e., between 47% and 53%).

Approximate sampling tolerances applicable to percentages at or near these levels

	10% or 90%	20% or 80%	30% or 70%	40% or 60%	50%
Size of sample on which survey result is based					
C. 1,000	2	3	3	3	3

Source: Ipsos MORI

Tolerances are also involved in the comparison of results from different parts of the sample. A difference, in other words, must be of at least a certain size to be considered statistically significant. The following table is a guide to the sampling tolerances applicable to comparisons.

Strictly speaking these tolerances are based on perfect random samples, and design effects such as clustering and weighting are likely to increase them. In practice, good quality quota sampling has been found to be as accurate as random samples with a similar design.

Approximate differences required for significant at or near these percentages

Circa.	10% or 90%	20% or 80%	30% or 70%	40% or 60%	50%
Ireland vs. USA (1,000 vs. 1000)	**3**	**4**	**4**	**4**	**4**
Men vs. Women in GB (467 vs. 490)	4	5	6	6	6
25-34 year olds vs. 55-64 year olds in Japan (158 vs. 223)	6	8	9	9	9

Source: Ipsos MORI

5.2 Survey questionnaire

1. Can I just check, do you consider yourself to be…
READ OUT. SINGLE CODE ONLY

a) **A current smoker** – i.e. someone who is a regular smoker at the present time
b) **A former smoker** – i.e. someone who used to smoke regularly but has quit
c) **Someone who has never smoked** – i.e. someone who has never smoked at all, or only very occasionally in the past (less than 100 cigarettes in your lifetime)
d) Don't know

2. There are many warning signs and symptoms of lung cancer. Please name as many symptoms of lung cancer as you can think of.

READ OUT ONLY IF ASKED: **Please think about lung cancer only.**

PROBE UNTIL THE RESPONDENT CANNOT THINK OF ANY MORE SIGNS OR SYMPTOMS: **Can you think of any others?**

DO NOT PROMPT. MULTICODE OK

a) A cough (unspecified)
b) A cough that doesn't go away
c) A cough that gets worse
d) Coughing blood
e) An ache or pain when coughing or breathing
f) Breathlessness
g) Hoarse voice
h) Difficulty or pain when swallowing
i) Weight loss
j) A loss of appetite
k) Tiredness or lack of energy
l) Persistent chest infections
m) Chest and/or shoulder pains
n) Swelling of lymph nodes (glands) in the neck area
o) Ends of fingers becoming larger or more rounded (clubbing)

p) Other (write in)
q) Don't know