

European Code Against Cancer Awareness Survey:

Results from a multi-country omnibus online survey

Association of European Cancer Leagues (ECL)

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Link: http://europeancancerleagues.org/images/European_Code_Against_Cancer/ECAC_awareness_survey_report_3011

Omnibus survey conducted by:



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1. Executive Summary

The European Code Against Cancer (ECAC) is a set of recommendations designed to provide individuals in Europe with clear advice on measures they can take to reduce their risk of cancer. The latest edition of the Code was published in October 2014 containing 12 evidence-based recommendations.

Little research has been conducted to understand the levels of awareness of the Code amongst the general population in Europe. Where efforts have been made in recent years to analyse the awareness of the Code as a single entity, the research suggests that there is likely to be an insufficient knowledge of the ECAC amongst the general public.

In order to provide an updated picture on the awareness of the Code in Europe, the Association of European Cancer Leagues (ECL) commissioned a short-scale survey, with a representative population sample, conducted in 5 EU Member States: **Finland; France; Poland; Spain; and the United Kingdom (UK).**

Aim

The primary aim of this survey was to collect baseline data on the awareness levels of the European Code Against Cancer in the general population, which could be revisited over time to appreciate the impact of planned ECAC dissemination activities.

A total of **6,109 respondents contributed to this survey**. Respondents were recruited from YouGov's online research panel and participated via an omnibus online survey method. A representative sample of all adults (aged 18+) were reached in each surveyed country.

Results

The main results arising from this survey are:

- **10% of all respondents had previously heard of the European Code Against Cancer.** Only 10% of all respondents (N. 6,109) indicated that they had heard of the European Code Against Cancer prior to taking part in the survey;
- **Substantial variation was found in awareness levels amongst the surveyed countries.** Awareness of the Code ranged from just 1% of those surveyed in the United Kingdom, to 17% in Poland. This suggests that country of residence is a key determining factor on awareness of the Code. Minimal variation was apparent according to other key factors such as gender, age, and highest level of education achieved;
- **52% of respondents indicated are either fairly or very likely to change their behaviour as a result of reading the Code.** A majority of all respondents indicated it was likely that the Code would prompt them to modify their behaviour in order to reduce their cancer risk. This increased to 75% amongst those who indicated they had previously heard of the Code;



- **A social gradient is suggested in terms of perception of cancer risk and likelihood to act to reduce this risk.** A gradient according to highest education level achieved was evident in the responses to several questions related to the perception of cancer prevention and risk reduction, and likelihood of making lifestyle modifications in order to reduce cancer risk. This may suggest that there is a lower degree of health literacy amongst those with the lowest level of education attainment, which should therefore be addressed as a public health policy priority;
- **Age is a contributing factor to knowledge and awareness of cancer prevention messages.** Variation according to age was present in regards to the pre-existing knowledge of the Code's recommendations. 57% of respondents under-35 indicated they learned something new as a result of reading the Code. Whereas, in the over-55 group, 46% indicated they had learned something new. This suggests that young people should be prioritised as a target group for the dissemination of the Code. However, as all respondents were aged 18 and over, further work is needed on the awareness and impact of the Code and cancer prevention amongst children aged 17 and under.

Conclusions

Overall, the survey provides a useful snapshot of the awareness levels of the Code from a representative sample of several countries with large and diverse populations. The survey findings can help focus on possible weak spots, or target groups, for the dissemination of the Code, and appreciate better the population's knowledge and awareness of general cancer prevention messages.

Factors contributing factors to the degree of awareness seem likely to be the extent to which the ECAC 'brand' is promoted at a national or local level, and the proximity of the survey fieldwork to the publication of the Code in the respective national languages.

Consequently, given the importance of country of residence to awareness of the Code, further work is required to appreciate the contributing factors and mitigating factors in each country. Further research is also required to investigate the impact of the Code as a product to promote health and provoke behavioural change.



2. Introduction

2.1 Background

The European Code Against Cancer is a set of recommendations designed to provide individuals in Europe with clear advice on measures they can take to reduce their risk of cancer.

The first edition of the Code was developed in 1987 and subsequently revised in 1994. A 3rd edition followed in 2003, which has subsequently been succeeded by the 4th edition published in October 2014. The current edition contains 12 specific recommendations.

Each edition of the Code has focused on primary and secondary preventative measures that are aimed broadly at the general public, as opposed to specific target groups (e.g. high risk or vulnerable populations). The process of updating the Code for the latest edition was coordinated by the International Agency for Research on Cancer (IARC) and supported financially via a grant agreement with the European Commission.

In preparing for the publication of the 4th edition, a series of working groups were established by independent scientific experts to review the evidence and formulate the precise phrasing of each recommendation that appears in the updated edition of the Code (Minozzi, et al., 2015).

Part of this preparatory work included small-scale studies to explore public attitudes towards the Code and assess the impact of the draft recommendations on behavioural intentions. This work identified that there had been few scientific studies looking at the Code as a single product (Winstanley & Wardle, 2014). Where efforts have been made to analyse the awareness of the Code as a single entity, researchers have concluded that insufficient knowledge of the ECAC (Lopez et al., 2003).

Following the publication of the 4th edition of the Code in 2014, the Association of European Cancer Leagues (hereafter, ECL) was awarded operational grant funding from the 3rd Health Programme (2014-2020) of the European Union, which included a specific mandate to communicate the 4th edition of the European Code Against Cancer in collaboration with the national and regional Cancer Leagues in Europe.

Representatives of member leagues were involved in the development of the new Code, as was the case during the last Europe Against Cancer Programme. Cancer leagues were instrumental in communicating the previous (3rd revision) of the European Code Against Cancer. The continued commitment of ECL members to promote the Code is officially stated in ECL's official Strategy document, which identifies a fundamental activity under its Strategic Goal 2: Promote Cancer Prevention to "Communicate and promote implementation of the European Code Against Cancer among member leagues and across Europe."



2.2 *Aim and objectives*

Ahead of the systematic dissemination of the Code, it is necessary to establish a baseline against which the dissemination activities to communicate the Code can be measured.

In order to achieve this, ECL commissioned a survey that was conducted amongst a representative population sample in 5 EU Member States with the aim of collecting baseline data on the awareness levels of the European Code Against Cancer amongst the general population.

This method will be reproduced near to the conclusion of ECL's initial ECAC dissemination activities, which is provisionally foreseen as taking place during October/November 2017.

The key objective of this survey is to appreciate the general levels of awareness, in the selected countries, of the European Code Against Cancer as a cohesive set of recommendations. Consequently, emphasis is placed upon learning about the awareness of the Code as a 'brand', rather than the 12 individual recommendations contained within the Code.

Supplementary objectives include: understanding attitudes in the general population towards cancer prevention; appreciating the personal intention of individuals to change behaviour in order to prevent cancer; exploring the extent to which the Code provides new information about cancer prevention to the general population; and whether the Code prompts individuals to want to change their behaviour.



3. Method

3.1 Methodology

The questions selected for the survey focus on knowledge and awareness of the Code as a product, based on an informal consultation with colleagues from ECL members, the WHO's International Agency for Research on Cancer, and the European Commission's Directorate for Health and Food Safety (DG Santé). Several of the questions were adapted from those of an earlier study that was conducted during the process of updating the Code (Winstanley & Wardle, 2014).

An initial pre-testing of the questions was carried out during the European Cancer Congress 2015, during which 40 delegates were approached and asked to complete a printed copy of the survey. This pre-testing was useful for logical and content validation, along with checking the suitability of the available responses to each question.

The methodological approach taken was to administer the survey questions via an 'omnibus' online survey. In light of the limited financial resources and time available, the omnibus online survey is an appropriate method for this survey given that it offers a quick and reliable method to reach a representative population sample at low cost.

Three quotes for an omnibus online survey service were received from three leading research agencies. YouGov were selected against the criteria of price, quality, and speed at which the results could be delivered. The final list of questions in the survey were amended slightly by YouGov reflecting their standard practice. *Annex 1* shows the questions posed to respondents, and includes a rationale for the inclusion of said questions.

3.2 Participant sample

As the resources were not available to run the omnibus survey in all 28 EU Member States, 5 Member States were selected on the basis of achieving a balanced geographical scope, and acknowledging the markets available to the research company.

These countries are: Finland (Northern Europe); France (Western Europe) Poland (Central and Eastern Europe), Spain (Southern Europe), and the United Kingdom (primary language of the 4th edition – launched October 2014).

A representative sample of all adults aged 18+ were reached in each country. Respondents were recruited from YouGov's online research panel. A quota sample was used to obtain a reflection of the general adult population in each country.

The sample size in each country was at least 1,000. The sample size in the UK was 2,000 as this is the standard sample size of the research company. In total, this gave a combined sample of 6,109.



3.2 Data collection and analysis

This survey was conducted using an online process administered to members of the YouGov population panels of the respective countries.

Emails are sent to panellists selected at random from the base sample. The e-mail invites them to take part in a survey and provides a generic survey link. Once a panel member clicks on the link they are sent to the survey that they are most required for, according to the sample definition and quotas. Invitations to surveys don't expire and respondents can be sent to any available survey.

The responding sample is weighted to provide a representative reporting sample. The profile is normally derived from census data or, if not available from the census, from industry accepted data. This process was replicated in each of the five countries.

All questions were administered in the national language of the respective countries. The questions were released in the selected countries immediately following completion of the translation of the survey questions. The collection was closed once the quota samples had been met. Fieldwork took place between: 21st October 2015 – 2nd November 2015.

Both the data collection and analysis was performed by YouGov, who provided results for each country that was surveyed. These results provided a break down by age, gender, and region, and were weighted to represent the adult populations (aged 18+) of the respective countries. Percentages are provided according to the weighted data and, in some instances, are rounded to the nearest whole number for presentation purposes. To enrich the analysis, a further question was asked on the highest education level achieved. This was chosen in order to act as a proxy indicator of socio-economic status.



4. Results

The results of the survey can be categorised according to three areas:

1. Attitude towards cancer prevention (questions 1 – 3)
2. Awareness of the Code (question 4)
3. Learning and impact of the Code (questions 5 & 6)

In order to facilitate a simple analysis and quick understanding of the results, the findings from the surveyed countries are combined and summarised in this report according to above-mentioned three areas.

Table 1 provides an overview of the demographic break down of respondents, illustrating gender, age, country of residence and the highest educational level achieved.

Table 1: Demographics of survey respondents (weighted and unweighted figures) all (country) adults (6,109)

	<i>Unweighted figures</i>	Weighted figures: All (Country) Adults 18+	% (weighted)
Gender			
Male	3000	2993	49%
Female	3109	3116	51.0%
Age			
18 - 24	674	690	11.3%
25 - 34	1012	1132	18.5%
35 - 44	1039	1058	17.3%
45 - 54	1156	1090	17.8%
55+	2228	2139	35.0%
What is your highest level of education?			
I did not complete secondary/ high school	443	447	7.3%
High school or baccalaureate or A-levels	1781	1720	28.2%
Professional qualification	1525	1580	25.9%
Bachelor's degree or similar	1416	1369	22.4%
Masters or Doctoral degree	944	993	16.3%
Country			
UK	2092	1222	20.0%
Finland	1008	1222	20.0%



France	1009	1222	20.0%
Poland	1000	1222	20.0%
Spain	1000	1222	20.0%
Total	6109	6109	

4.1 Attitude towards cancer prevention

The three questions asked in this category were:

- Q1. *Thinking about all types of cancer today (e. g. lung, bowel, breast, prostate etc.), which one of the following is closest to the percentage of all types of cancer that you think can be prevented?*
 - Respondents were offered a single choice of percentages in deciles (0%-100%), or they could indicate “don’t know”.
- Q2. *Thinking generally about the risk of getting any type of cancer in the future, which one of the following best applies to you?*
 - Respondents could answer: “I think people could reduce their risk ...”; “I don’t think people could reduce their risk ...”; or “don’t know”.
- Q3. *Thinking now about your risk of getting any type of cancer in the future, how likely, if at all, do you think you will be to ever make changes to your lifestyle in order to reduce your risk of getting cancer?*
 - Respondents could choose one of the following answers: “very likely”; “fairly likely”; “not very likely”; “not at all likely”; “don’t know”.

Figure 1 illustrates the combined responses to question 1 from all respondents in each surveyed country. 5.44% of all respondents indicated that they believed that “no types of cancer can be prevented.” Taking into account the 15% of all respondents who answered “don’t know”, this gives a net figure of almost 80% of respondents who do believe that (to at least some degree) cancer can be prevented.

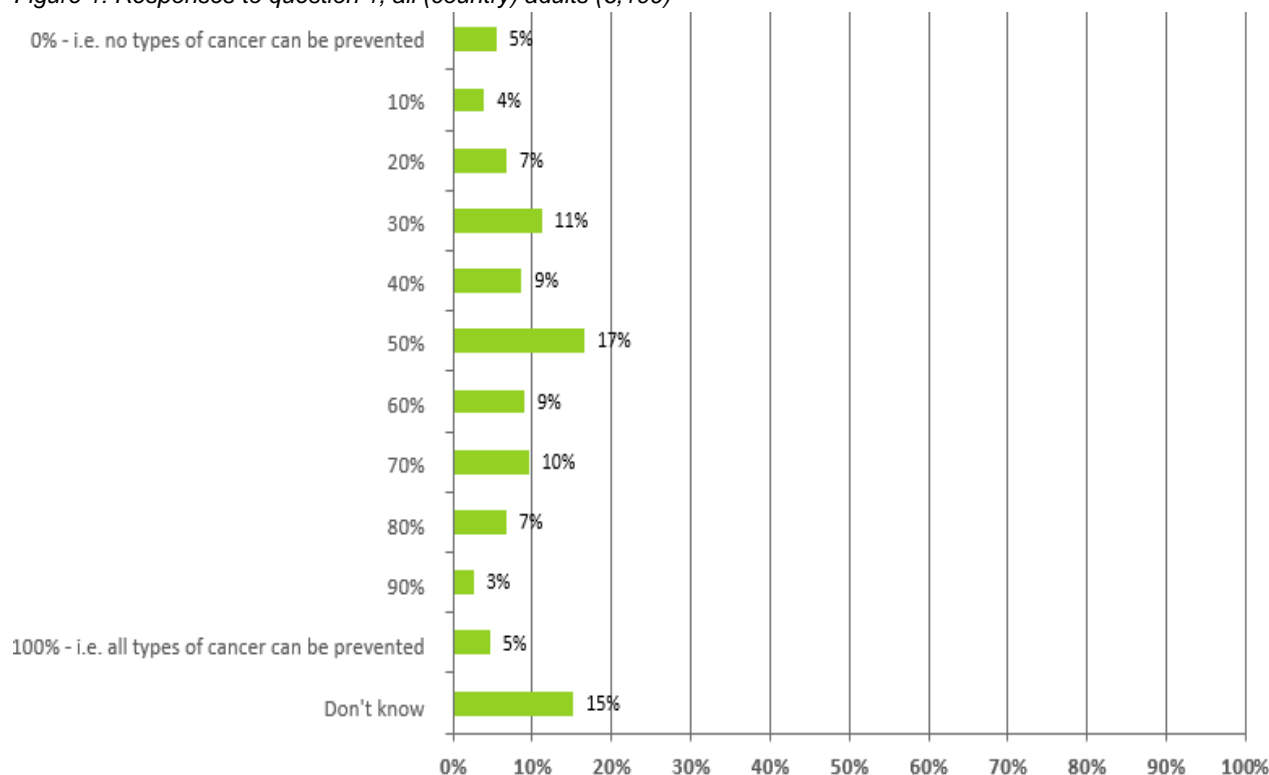
Of the respondents who indicated that they had previously heard of the Code, only 6.96% answered “don’t know” to question 1, suggesting that knowledge of the Code increases the ability to provide an answer for this question. However, 4.56% of those who had previously heard of the Code chose the response “no types of cancer can be prevented,” which is equivalent to the average answer from all respondents surveyed.

A clear gradient according to education level was evident amongst all respondents who indicated that they could not provide an answer. 24.16% of respondents who did not complete secondary education or high school responded answered “don’t know”. In comparison, this fell to 12.95% for



those whose highest education level is a bachelor's degree, and 11.33% for those whose highest education level is a masters degree or doctorate.

Figure 1: Responses to question 1, all (country) adults (6,109)



Question 2 served as both internal validity for the survey (as the percentage answering affirmatively to question 2 should be roughly equal to the net figure who indicated that they believe cancer can be prevented in question 1) and a gateway for question 3: only those responding positively to question 2 were subsequently asked question 3.

77.55% of all respondents indicated that they think 'people' can take action to reduce their cancer risk. This figure is broadly similar to the aforementioned net positive response to question 1 (79.4%). Question 2 was phrased in this way in order to be general and make respondents think about the wider population.

As with question 1, a gradient in education level was apparent in terms of those respondents answering affirmatively to question 2. This ranged from 61.31% for those with a secondary or high school education only, to 84.09% for those with a masters degree or doctorate.

At a national level, a considerable range is evident amongst those participants answering positively to question 2. In France, 64.15% answered that they think people can reduce their risk of cancer, whilst in Poland this rose to 84.77%.

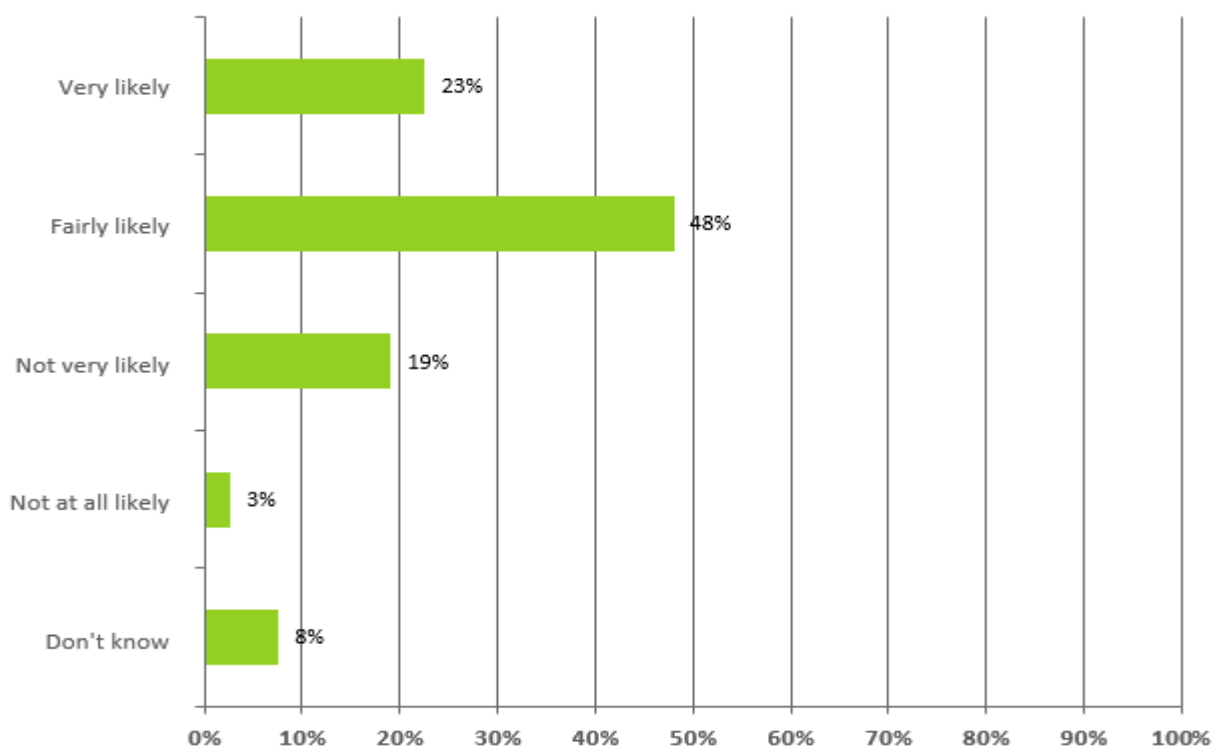


Question 3 was presented only to those respondents who answered positively to the previous question (77.55%, N. 4,750). This question focused on the individual respondent's perception as to their likelihood of making lifestyle changes in order to prevent cancer.

Figure 2 illustrates the responses from all adults in the surveyed countries who were presented with this question. Combining the responses of those who indicated that they were fairly or very likely to make lifestyle changes gives a net figure of 70.62%. This figure rises to 79.57% amongst those respondents who indicated that they had previously heard of the Code.

In addition, respondents who had previously heard of the Code, and who were asked question 3, provided the highest percentage response indicating that they are "very likely" to make lifestyle changes to prevent cancer (35.74% compared to 22.6% amongst all adults who were asked this question).

Figure 2: Responses to question 3, all (country) adults who think people could reduce their risk of getting cancer in the future by making changes to their lifestyle (4,750)



4.2 Awareness of the Code

This category deals exclusively with the question on prior knowledge of the Code:

- Q4. Before taking this survey, had you heard of the 'European Code Against Cancer'?
 - Respondents were offered a choice between: "Yes, I had" or "No, I hadn't."



The combined results demonstrates that 10% of the respondents indicated that they had previously heard of the European Code Against Cancer.

Table 2 presents the demography of respondents (percentages rounded to nearest whole number). According to gender, 11% of Male respondents had heard of the Code, in comparison to 10% of Female respondents, which represents a marginal difference according to gender. Likewise, little variation in awareness of the Code is evident reported according to education level.

Table 2: Responses to question 4, all (country) adults (6,109)

	Yes: I had heard of the European Code Against Cancer	No: I had NOT heard of the European Code Against Cancer
Gender		
Male	11%	89%
Female	10%	90%
Age		
18 - 24	12%	88%
25 - 34	12%	88%
35 - 44	10%	90%
45 - 54	8%	92%
55+	10%	90%
What is your highest level of education?		
I did not complete secondary/ high school	10%	90%
High school or baccalaureate or A-levels	8%	92%
Professional qualification	11%	89%
Bachelor's degree or similar	11%	90%
Masters or Doctoral degree	12%	88%
Country		
UK	1%	99%
Finland	10%	90%
France	9%	91%
Poland	17%	83%
Spain	13%	87%
Total	10%	90%



Differences were, however, visible in the awareness levels according to country. The country with the lowest awareness is the United Kingdom, with 1% of respondents indicating that they had heard of the Code. This rises to 17% in Poland.

4.3 *Learning and impact of the Code*

The final category includes the remaining questions:

- Q5. *Thinking about the 12 recommendations that you have just read from the European Code Against Cancer, have you learnt anything new about cancer prevention as a result of reading these?*
 - Respondents were offered a single choice: “Yes, I have”; “No, I haven’t”; or “don’t know”.

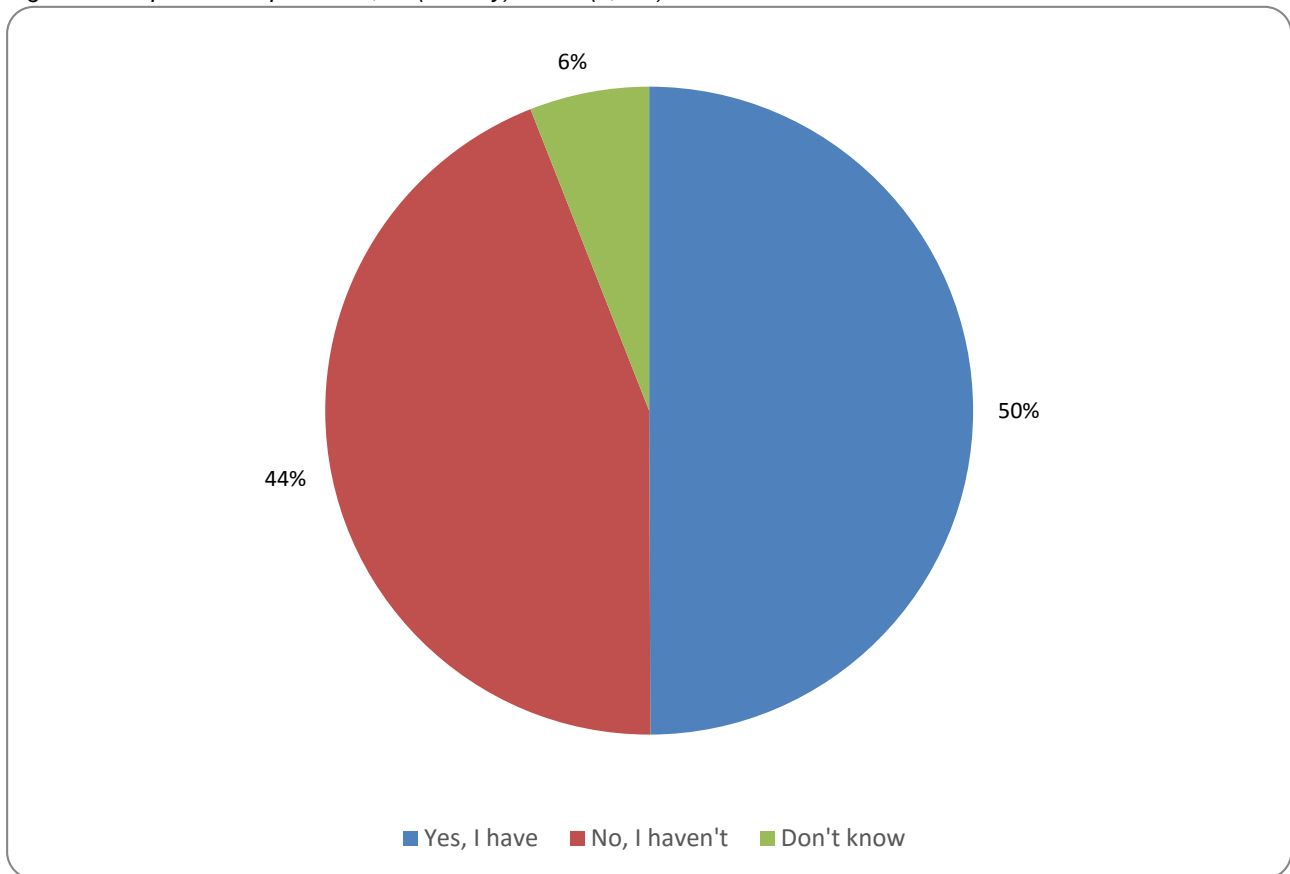
- Q6. *How likely, if at all, are you to make changes to your lifestyle as a result of reading the European Code Against Cancer?*
 - Respondents could choose one of the following answers: “very likely”; “fairly likely”; “not very likely”; “not at all likely”; “don’t know”.

Question 5 was asked to all participants immediately after they had been presented with a screen showing the Code in their national language.

The combined responses to question 5, illustrated in Figure 3, show that 50% of respondents had learned something new about cancer prevention as a result of reading the Code. Interestingly, amongst those who had previously heard of the Code, 65% indicated they had learned something new.



Figure 3: Responses to question 5, all (country) adults (6,109)



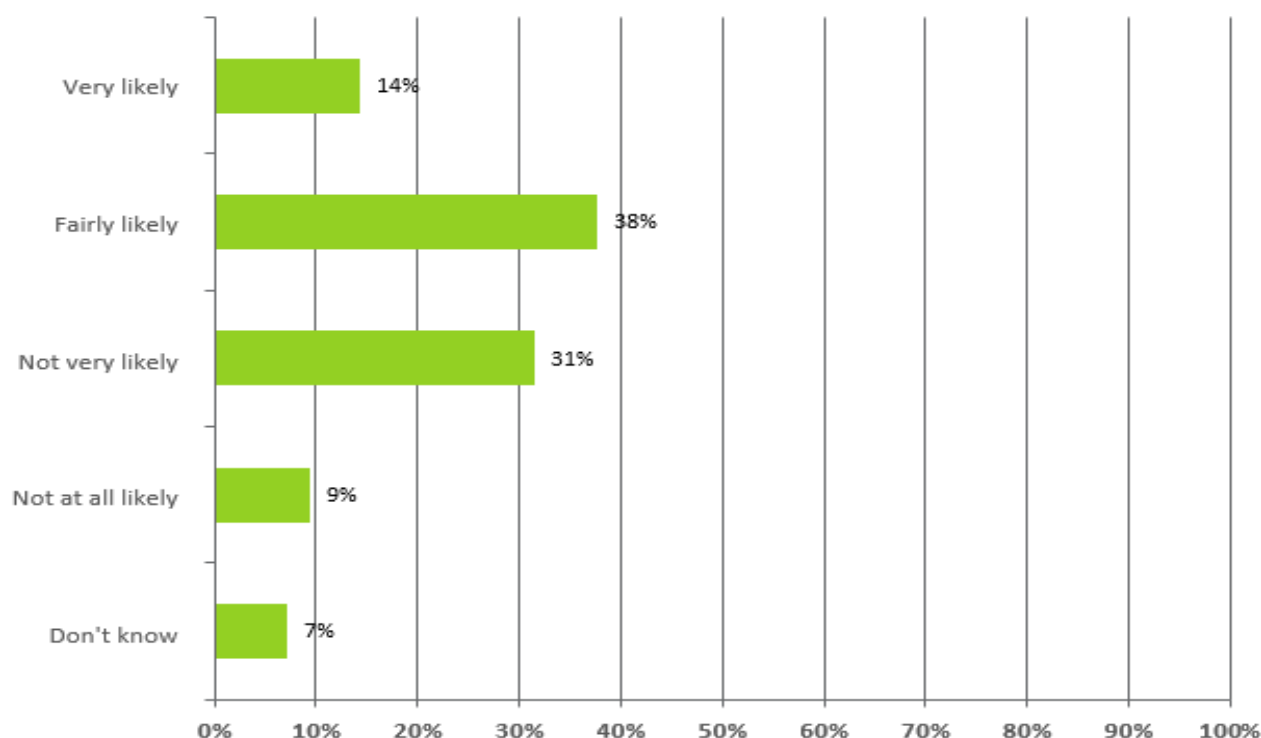
A gradient according to age of the respondent was apparent, as a higher percentage of younger respondents reported that they had learned something new (56.16% - aged 18-24), when compared with the oldest age range (45.64% - aged 55+).

Differences were also evident between countries. In the UK, 32.82% of respondents answered that they had learned something new, whereas in Spain this increased to 69%.

The responses to question 6 are indicated in Figure 4. For this question, 51.98% of respondents indicated that they were either very or fairly likely to make changes to their lifestyle as a result of reading the European Code Against Cancer.



Figure 4: Responses to question 6, all (country) adults (6,109)



From amongst the respondents who had previously heard of the Code, 74.98% indicated that they were either fairly or very likely to change their behaviour as a result of reading the Code. This includes 30.83% indicating that they were very likely to change behaviour (compared to average of 14.3% for all respondents). This may suggest that familiarity with the concept of the European Code Against Cancer translates into intention to act upon the Code's recommendations.

Once again, visible differences were apparent between the surveyed countries. In the United Kingdom, 34.84% indicated that they were either fairly likely or very likely to change their behaviour as a result of reading the Code. This rises to 63.04% and 67.88% in Poland and Spain respectively.



5. Discussion

The aim of this survey was to establish the awareness of the European Code Against Cancer amongst a representative population sample. This survey does not aim to evaluate the effectiveness of the Code as a tool to prompt behaviour change towards healthier lifestyles, nor does it try to evaluate the factors influencing knowledge of the Code. Moreover, the survey considers the Code as a single entity and, as such, does not attempt to explore attitudes and awareness to the individual recommendations contained within the 4th edition.

In light of this, the key findings of this survey relate to the prior awareness of the European Code Against Cancer (in particular, question 4 of the survey) for which the headline figure amongst all survey respondents is 10% (both sexes, all (country) adults).

This result reflects the findings of previous studies that have looked at the awareness and understanding of the Code amongst the general population. In Spain, a recent study reported that 15% of women and 11% of men were aware of the Code (Pérula-de-Torres, et al., 2014), which compares reasonably with the combined result for Spain in the present survey (13.38%).

In the UK, the preparatory study for the revision of ECAC indicated that 1% of participants had prior knowledge of the Code (Winstanley & Wardle, 2014), a result which mirrors that of all UK respondents (1.39%) to the present survey.

These findings demonstrate that greatest variation in prior knowledge of the Code is attributed to country of residence. In contrast, minimal variation was apparent according to other key factors such as gender, age and highest level of education attained.

This observation could be explained by a number of reasons. Firstly, the 4th edition was published originally in English during October 2014, whereas the official translations were launched in September 2015, just a few weeks prior to the fieldwork for this survey. This could mean that knowledge of the Code is fresher in the mind of the public who may only recently have been exposed to the Code.

Secondly, it is possible that the dissemination of the Code in the UK has failed to foreground or reference the existence of the Code itself, choosing to focus on the individual messages or rebranding and adapting the tool as a product.

Finally, the vast number of cancer-related societies in the UK (many focussing on site cancers, funding research, or providing patient support) could entail that the dissemination of the Code is crowded out in this landscape.

The situation is markedly different in Poland where extensive efforts have been made since the period prior to Poland's accession to the European Union in 2004 to promote the Code as a health promotion tool. These considerable and impressive public health campaigns involved are likely to explain the elevated awareness levels in Poland (Zatonski, 2014).



Nonetheless, it is important to note that these results are still considerably below the reported awareness levels of the Code during the period of the first edition (1987-1993), in which awareness levels reached 56% of the population in some countries (Boyle, 1990).

Questions 5 and 6 of the survey move beyond gauging the awareness of the Code, and as such offer an insight into how the Code can be used as a tool to improve health literacy and prompt behavioural change towards healthier living.

The key variation in responses to these questions were apparent according to the age group of the respondents. The youngest age groups (ages 18-24 & 25-34) reported the highest percentage of responses indicating that they had learned something new as a result of reading the code (56.16% & 56.74%, respectively).

This could be explained by the fact that respondents from older age groups have been exposed to health promotion and disease prevention messages over a longer period of time. Therefore, they are logically more likely to have heard the messages of the Code at some point beforehand than respondents from younger age groups.

Encouragingly, there was little variation according to age amongst the respondents who were either fairly or very likely to modify their behaviour after the reading the Code. This implies that the Code has a consistent appeal across all adult age groups. As all respondents were aged 18 and over, further work is needed on the awareness and impact of the Code amongst children aged 17 and under.

Although the results did not report an apparent variation in the levels of awareness of the Code according to highest education level achieved (which was taken as a proxy socio-economic indicator in this survey), a gradient according to education level was evident in the responses to several questions.

These questions were related to the respondent's personal perception of cancer prevention, namely questions 1 to 3. Respondents with the lowest level of educational attainment reported the highest percentage of responses indicating "don't know" to questions 1 & 2 (24% & 20%), and reported the highest percentage of responses indicating they were not likely or not at all likely to modify their behaviour in order to prevent cancer: question 3 (28.26%).

These results point to a possible lower level of health literacy amongst those with the lowest educational attainment level. Consequently, concerted action may be required to boost knowledge of cancer prevention and general health promotion amongst this target group.

Cross-referencing prior knowledge of the Code against the responses given to other questions of the survey raises some interesting possible associations that could form the basis for further research. For example, those respondents who had prior knowledge of the Code expressed the



highest levels of intention to modify their behaviour in order to prevent cancer (question 3 - 36%; question 6 - 31% [rounded figures]).

This may indicate that knowledge of the Code influences the desire to adopt healthy lifestyles in line with the messages of the Code. On the other hand, these results may also be explained by the fact that those already aware of the Code are offering a socially desirable and expected answer, which may not in fact reflect their actual beliefs. Further research is, therefore, needed to explore in depth of the possible associations. Such research could be useful for understanding the effectiveness of the Code as a tool to promote good health and prompt behavioural change.

Despite the suitability of the methodological approach to the survey's aims, a number of key limitations must be acknowledged. Firstly, the answers were self-reported online with no potential for follow-up with respondents. This would have been particularly useful for question 4 (awareness of the Code) in order to verify that they were not confusing ECAC with other possibly similar products, and to gather intelligence on the communication channels through which they learned of the Code.

A number of questions on cancer prevention perception and behavioural intention may tend to skew towards socially desirable answers. This could have been improved with the addition of supplementary questions to assess actual behavioural patterns.

The survey was launched and completed in a short timeframe (21st October - 2nd November 2015). Responses from the UK were delivered more than one week earlier than the other surveyed countries, due to the time required for translation. In the intervening time, the IARC Monographs on the carcinogenicity of red meat and processed meat became a lead story in the mass media across Europe. This may have had some impact on the awareness levels of the Code (as the Code references this issue in its recommendation 'have a healthy diet') and on perceptions of cancer prevention in a number of the surveyed countries.

The methodological approach entailed that the data analysis focused on providing responses to each question from a representative population sample. Therefore, the data analysis did not focus on examining the statistical significance of the relationship between key variables in the survey. As a result, further research is required to appreciate the factors underpinning the successful dissemination and appreciation of the Code, and its effectiveness as a tool to provoke behavioural change.

Finally, due to financial resource limitations, only 5 EU Member States were surveyed. Therefore, care must be exercised before generalising the results of this survey to the population of the rest of the European Union.

Despite the acknowledged limitations, the survey provides a useful snapshot of the awareness levels of the Code from a representative population sample of several countries with large and diverse populations. The survey findings can help focus on possible weak spots, and target groups, for the dissemination of the Code, and offer a sound basis from which to conduct further in-depth research.



6. Conclusions

This survey finds that 10% of the surveyed population were aware of the European Code Against Cancer prior to completion of the survey. Awareness levels differ amongst the surveyed countries, ranging from 17% in Poland to 1% in the UK. Only minimal variation is evident in the awareness levels according to age and educational level.

As country of residence appears to be the key factor in determining the extent of the awareness of the Code amongst the general population, it is reasonable to assume that awareness of the Code is influenced by the extent to which national and regional cancer societies and health promotion agencies foreground the Code in their promotional materials.

Although awareness of the Code itself did not differ substantially according to age, clear variation was noticeable in terms of prior knowledge of the Code's recommendations, suggesting that young people should be prioritised as a target group for the dissemination of the Code.

This survey has proved a useful and timely in providing a snapshot of public awareness of the European Code Against cancer, which can serve as a baseline from which ECL's activities can be measured over the coming years.

Comparing the awareness levels of the present edition with those of earlier editions indicates the scale of the challenge and sets a benchmark for the outcome of disseminating the current edition of the Code.

Dissemination of the Code must also contend with the fact that levels of public awareness are affected by how recent and fresh the information is, suggesting a diminishing influence on public awareness following publication. Those promoting and disseminating the Code must therefore associate the Code with relevant and timely news stories and events in order to keep ECAC high on the public agenda.

A more systematic study is required to investigate further the factors influencing knowledge and appreciation of the Code and its current recommendations. Further work is also required to investigate the impact of the Code as a product to promote health and provoke behavioural change.



References

P. Boyle, SEARCH programme of the international agency for research on cancer, *European Journal of Cancer and Clinical Oncology* (1990), 26(5), 547-549

M. L Lopez., et al., Validation of a questionnaire to evaluate the attitude towards primary prevention advice from the European Code against Cancer. *European Journal of Cancer Prevention* (2003), 12(2), 157-164

S. Minozzi, et al., European code against cancer 4th edition: Process of reviewing the scientific evidence and revising the recommendations, *Cancer Epidemiology* (2015), <http://dx.doi.org/10.1016/j.canep.2015.08.014>

L. A. Pérula-de-Torres, et al, European Code Against Cancer: what does the Spanish population know and think about its recommendations?, *European Journal of Cancer Prevention: The Official Journal of The European Cancer Prevention Organisation* (2014), 69-75

K. Winstanley and J. Wardle, Exploring attitudes towards the European Code Against Cancer (ECAC) - for the International Agency for Research on Cancer (2014), *unpublished study*

W. Zatonski, presentation on The European Code Against Cancer in a National Context: The Case of Poland, December 2014 (Brussels), <http://docplayer.pl/2155630-The-european-code-against-cancer-in-a-national-context-the-case-of-poland.html>



Annex 1: ECAC awareness survey questions and rationale for inclusion

	Question	Response	Rationale
1.	Thinking about all types of cancer today (e. g. lung, bowel, breast, prostate etc.), which one of the following is closest to the percentage of all types of cancer that you think can be prevented?	Respondents were offered a single choice of percentages in deciles (0%-100%), or they could indicate “don’t know”.	This question is designed to understand the perception of cancer prevention. The choice of responses in deciles allows for deeper analysis.
2.	Thinking generally about the risk of getting any type of cancer in the future, which one of the following best applies to you?	Respondents could choose one of the following: “I think people could reduce their risk ...”; “I don’t think people could reduce their risk ...”; or “don’t know”.	This question looks more at risk reduction, validating the previous question and acting as gateway for the following question.
3.	Thinking now about your risk of getting any type of cancer in the future, how likely, if at all, do you think you will be to ever make changes to your lifestyle in order to reduce your risk of getting cancer?	Respondents could choose one of the following: “very likely”; “fairly likely”; “not very likely”; “not at all likely”; “don’t know”.	<p>This question focuses on the individual’s intention to modify their lifestyle and is only asked to those answering affirmatively to the previous question.</p> <p>This questions attempts to link general perceptions (previous questions) with individual intention.</p>
4.	Before taking this survey, had you heard of the 'European Code Against Cancer'?	Respondents were offered a choice between: “Yes, I had” or “No, I hadn’t.”	This is key question of the survey and is restricted to “yes” or “no” response in order to provide greater certainty in the results



Respondents were shown the Code in their national language after question 4.			
5.	Thinking about the 12 recommendations that you have just read from the European Code Against Cancer, have you learnt anything new about cancer prevention as a result of reading these?	Respondents were offered a single choice: “Yes, I have”; “No, I haven’t”; or “don’t know”.	This question tries to gauge the educational value of the Code, which links to the primary objective of communicating ECAC.
6.	How likely, if at all, are you to make changes to your lifestyle as a result of reading the European Code Against Cancer?	Respondents could choose one of the following: “very likely”; “fairly likely”; “not very likely”; “not at all likely”; “don’t know”.	This question attempts to assess the value of the Code as a behaviour change tool, which is a further objective of communicating ECAC.



Annex 2: ECAC awareness survey complete results 'merged' and by country

Contained hereafter are the data provided by YouGov corresponding to the responses to the online omnibus survey.

In total, 6 sets of data are available:

- the merged data (all respondents);
- Finland data;
- France data;
- Poland data;
- Spain data; and
- the United Kingdom data.

The data is presented in two forms: the first indicating responses as rounded percentages (%), and the second with the absolute numbers (N).

The data is aggregated according to the following variables:

- Gender (Male/Female);
- Age (18-24, 25-34, 35-44, 45-54, 55+);
- Response to question 4 of the survey (Before taking this survey, had you heard of the 'European Code Against Cancer'?);
- Highest level of education (Did not complete high school, high school/baccalaureate or A Levels, Professional qualification, Bachelor degree, Masters or Doctoral degree);
- Country (Finland, France, Poland, Spain, UK).

As a result, the full data disaggregated to the individual respondent is not available.

