

healthclaims  
unpacked



research, analytics  
& consumer insights

# Report on the 'Research, Analytics & Consumer Insights' platform

An output of the Health Claims Unpacked  
project

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- **Disclaimer:** Note that the wordings of claims that will feature throughout this report and on the online platforms associated with the project are based on consumer preference and cannot be guaranteed to be compliant with the Nutrition and Health claims regulation. It is always important to check the [general principles on flexibility of wording for health claims agreed by 17 Member States](#), as well as consulting more detailed national recommendations provided by relevant authorities within Member States, such as guidance documents from the [Advertising Standards Authority \(ASA\)](#) for the UK, and to seek legal advice before using any alternative wording for health claims.

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# Introduction

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Welcome to the Health Claims Unpacked project's 'Research, Analytics & Consumer Insights' report!

This report will give you information about our project and the development of our [digital platform](#), as well as an overview of the results from our analysis of the data gathered throughout our project.

You will also learn about the 'Consumer Preference Prediction Engine' and how this can inform you about:

- 1) the kinds of wording that consumers prefer to see for health claims;
- 2) how this relates to official guidance on what is and is not permitted.

Continue reading to learn more about the project, or [click here](#) for a video introduction.





# Project Overview

Our primary goal is to improve the communication of scientific health claims on food packages.

Legislation around health claims aims to ensure that consumers have access to useful and reliable information to help them choose a healthy diet, but research has shown that many European and UK consumers don't fully understand or trust the health claims that they see on food packages.

This project seeks to address this problem by gathering insights from consumers to discover:

- 1) what they understand about nutrition and health;
- 2) how the way health claims are worded affects the way they perceive them;
- 3) how this affects their purchasing behaviour;
- 4) how they would like health claims to be worded.

## Our Methods

To do this, we began in 2019 by inviting a number of consumers from different backgrounds to take part in focus groups, where we talked to them about health information on packaging and what sorts of things matter to them. We also talked to a number of representatives from the food industry – in marketing, research and development, legal, and other departments, as well as representatives from regulatory bodies such as the UK’s Advertising Standards Authority (ASA) – to get their perspectives on what could be done to make sure that the legislation was meeting its aims.

This led us to develop the [Health Claims Unpacked digital toolkit](#), a platform which engages consumers in a number of activities to find out what existing knowledge they have about relationships between food and health, their perceptions of how much changing the wording of a health claim changes its meaning, how this affects their intention to purchase a particular product, and how they prefer health claims to be worded. The platform was initially released in English. See the sections that follow for more information about these activities and to see the results.

In 2020 and 2021, we refined the digital platform based on feedback from consumers, and also adapted it to reach consumers in Germany, France, Poland, Romania and Hungary. In adapting the platform for consumers in these different countries, we again held focus groups with consumers and talked to local food industry representatives and regulators. This gave us insights not only into how health claims are perceived differently across linguistic and cultural contexts, but also into the challenges that manufacturers face in marketing products in more than one country.

For more information about the development of our digital platform, see [our article published in Nutrition Bulletin](#).



# What we found out

The Health Claims Unpacked project has been collecting data since 2019.

Since that time, we have been gathering data about the how consumers who speak different languages respond to health claims, as well as the challenges manufacturers in different countries face in using them. We have also gathered information about how the wording of health claims affects consumers' perceptions of their meaning and their willingness to pay more for a particular product.

Continue reading the following sections for a broad overview of our results.





# Consumer Perspectives

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In 2019 and 2020 we held focus groups with consumers to find out what they thought about health claims on food packages.

Our 2019 focus groups in the UK were held in person with consumers from a number of different backgrounds: students aged 18-25, mums of children aged 7-12, and older adults above the age of 55. In 2020, the same demographic groups were targeted in Germany, France and Poland, although the sessions were held online due to the Covid-19 pandemic.

During the sessions, we began by asking consumers about their general thoughts and purchasing behaviour relating to healthy food, before presenting them with some products and asking them to judge which they considered healthy and which unhealthy and how the words on the packages affected their evaluations. We then asked them more specifically about *health claims* on the packages: what they thought about them, whether they understood



them, if they believed them, and how the language of the claims affected their understanding and beliefs.

Across the focus groups in all of the countries, five broad themes emerged:

## 1. Consumers found health claims difficult to understand

One of the clearest trends that emerged across all demographics and countries is that consumers do not like the way that health claims are worded, finding it “not accessible” and “weird”. In part, this can be attributed to the fact that many of the authorized claims use language that is quite scientific, referring to nutrients, processes and concepts that may be unfamiliar to readers. Consider the authorized claim that *Olive oil polyphenols contribute to the protection of blood lipids from oxidative stress* – to understand what this means, the consumer needs to know a) what polyphenols are, b) what blood lipids are, c) what oxidative stress is, and d) why blood lipids need protecting from it. That’s quite a lot of knowledge to expect of the typical shopper. Consumers were more amenable to claims about nutrients that they were familiar with – calcium, iron, and omega-3 to name a few. To quote one of our focus group participants, “Who knows what selenium is?!”

But sometimes it was not the individual words in authorized claims that caused a problem, but the way the claim was contextualized or elaborated upon by food manufacturers. A lot of products, for example, use the phrase *clinically proven* to highlight the reliability of a claim, and others clarify that an effect is beneficial only *as part of a balanced diet* – but consumers said that such phrases further confuse them and make them less sure that the claims are true.

## 2. Consumers lacked trust in the accuracy and source of health claims

For most consumers, one result of not being able to understand what health claims mean is that they do not trust them. One of our participants, who felt confused by some of the scientific terms that were used on one product, said, “I feel like they just put big words on to impress you”, while others expressed

feelings that claims were “marketing tricks”, “more marketing than anything else”, and “manipulative”.

There is, of course, some truth to this – after all, food manufacturers *do* want to sell more of their products, and probably wouldn’t include health claims if they didn’t think it would help them achieve this. But it seems that the use of both confusing scientific wording in authorized claims and unclear phrases added by manufacturers actually cause consumers to be more sceptical, because their lack of understanding is interpreted as the result of a deliberate attempt to hide something from them. This is related to our next main theme: the fact that it can sometimes be a lot of work for the consumer to identify and extract the health information from a package.

### 3. Consumers interpreted health claims in relation to other aspects of the packaging

Although the focus of our project is health claims, these claims are always interpreted by consumers in the context of the whole package that they are looking at. The way consumers understood and evaluated health claims was often affected by other information or design elements on the package. Even something as simple as the colour can have an effect on a consumer’s perception of its healthiness, and is one of the first things that they notice. Generally speaking, green, white or blue packages tended to be seen by our focus group participants as healthier, although it is important that the colour is quite pale or understated as bright, bold colours can imply artificiality. Participants were sceptical about the health claims about iron and energy that appeared on a box of cereal, partly, they said, because of the chocolate brown colour of the box, which made associate the product with sugar (although the cereal in question had a fairly low sugar content compared to other brands).

There is also among some the feeling that too many messages about health on a package can be a bad thing – as one participant said, “Trying quite hard is a slight warning”, as it implies that the manufacturer is trying to distract from negative qualities of their product. Indeed, in a more general sense, it can be very off-putting for a consumer when presented with a package that is very busy, with all kinds of information and claims all over it. One challenge for consumers was understanding how different pieces of information were related to one another – how, for example, does the traffic light system relate



to the health claim? Is a product healthy when it has a health claim even though it also has some “red lights”?

Where the claim is placed on the package also had an effect on how consumers interpreted, or even whether or not they read it. Indeed, the placement of authorized health claims on packages presents a particular challenge for manufacturers. For example, one method that a lot of food manufacturers use to avoid foregrounding the confusing scientific language of an authorized claim is to present the claim in some other, more accessible way on the front of the packaging alongside an asterisk (\*), and then present the authorized claim (which they are required by law to include on the package) on the back of the package in very small text. Unfortunately, it seems that the majority of consumers don't go looking to see where the asterisk leads; instead they just assume that “it's a caveat”, some qualifying phrase that means the product doesn't really do what it's claiming to do.

#### **4. The way consumers interpreted health claims depended on their particular goals, interests or situations**

Different consumers read health claims differently based on their different perspectives, needs and goals. Parents, for instance, often evaluated the healthiness of products through the lens of how it might affect their children's health, or how their children might interpret the messages on the package. While one consumer was especially interested in a claim about vitamin B12 because he had previously been diagnosed with a deficiency, another said, “I just look at the calories”. Still others may bypass the health information altogether, being more concerned about the product's environmental impact and the sustainability of the manufacturing process; this was the case for a lot of participants in the focus groups in Germany, although it was also found to be particularly true of the groups of students in other countries. Students were also the most concerned about price of products, with a number saying that they were unlikely to be swayed by a health claim on a product if another similar product (without a health claim) was significantly cheaper.



## 5. Consumers from different countries approached the issue of health claims slightly differently

The issue of goals and interests that are particular to certain groups of consumers is especially relevant when looking at consumers' different attitudes across the countries we examined (UK, Germany, France and Poland). As we have observed, participants from our focus groups in Germany were notably more concerned with environmental and sustainability issues than those in other countries, although this is likely to become more of a concern for consumers in other countries as environmental issues become more publicized and politicized.

However, there were also some very interesting differences arising from long-established features of the food cultures in different countries. One example is that, among participants from France, where there is a great emphasis placed on the importance of deriving pleasure and enjoyment from the taste of the food and the company that is kept while having a meal, the nutritional content and health benefits of specific products was seen as less important. In Poland, however, the pleasure associated with food often comes more from cooking than from eating, and thus participants from Poland view food, nutrition content, and achieving a balanced diet in a much more functional way. Consumers in the UK were among the most interested in health information on food packages, and this interest often manifested in targeting approaches to reading food packages such as paying attention to the sugar, fat and calorie content of products for consumers interested in losing weight.



# Industry Perspectives

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In addition to our focus groups with consumers, we also conducted a number of interviews with representatives from the food industry.

These included food manufacturers themselves (working in areas such as product development, marketing, and legal advice), nutritionists, consultants, and NGOs. These came mostly from the four countries we were focusing on – the UK, Germany, France and Poland – but we also spoke to a handful of people from other countries across Europe (such as Denmark and the Netherlands) who had multinational interests in health claims.

We asked our interviewees about the role they played in their organization, their perspectives on health claims, and also their views on the usefulness of the consumer toolkit that we were developing and the possibility of making the results available in an online platform such as this. As with the consumer

focus groups, we found a number of broad themes emerged from the representatives we talked to, and these are detailed below.

## **1. Manufacturers were sometimes reluctant to use health claims because they thought they might be confusing or unattractive to consumers**

What was immediately clear from our interviews was that this is not a case of ‘consumers vs. manufacturers’, even though a lot of consumers place the blame on the manufacturer and accuse them of trying to deliberately mislead them in order to sell more products. In fact, many representatives from the food industry experience the same frustration with the wording of authorized health claims as consumers do, acknowledging how unattractive and “unintelligible” they can be to consumers. One person we spoke to said that the wording was “tortuous” and “doesn’t talk to consumers”, while another simply said that they were “just horrible”.

And it’s not just the complexity of the scientific wording that can put people off – some of the claims themselves, while they may be true for products that meet the right criteria, are not worded in a way that manufacturers believe would inspire positive responses from consumers. Consider the authorized claim *Wheat bran fibre contributes to an acceleration of intestinal transit*, or *Oat grain fibre contributes to an increase in faecal bulk* – these are generally not the sort of topics people would like to think about when shopping for food! On the other hand, talking about improvements to the digestive system or ‘gut health’ would likely be more welcomed by consumers – but then the issue becomes whether or not this change in wording would be permitted by the regulatory bodies (in many jurisdictions it would not).

## **2. Manufacturers were reluctant to change the wording of health claims for fear of inviting legal challenges**

Although there are better and worse ways to word health claims from the point of view of the consumer, the problem for manufacturers is finding a balance between what consumers prefer and understand and what is permitted by law and by those tasked with enforcing the law. The European





Commission's regulation on health claims (EC 1924/2006) states that wording *can* be altered so long as the meaning remains the same and that it can be understood by the average consumer, but these are vague requirements that are open to different interpretation by regulatory bodies and their agents. Representatives from the food industry found that they were either having to constantly keep up with the latest judgements and guidelines from local enforcers, such as the Advertising Standards Authority (ASA) in the UK, or otherwise undertake their own market research to learn what wordings would be acceptable and attractive to the average consumer – a practice that can be extremely costly and even entirely impractical for smaller businesses. Similarly, consultants and other advisory groups found it difficult to advise manufacturers on the best way to word health claims on their products in the absence of clear and consistent guidelines from the authorities, and this was the case in each of the countries that we examined.

While the focus of our project is on the wording of health claims, and this is certainly one of the biggest challenges faced in terms of health claims, it is worth noting that authorities are also concerned with *implied* health claims associated with non-verbal elements such as images. One manufacturer we spoke to, for example, described how an advertisement showing their product package personified as engaging in various sporting activities was challenged because it implied a link between the product and health, and this was not permitted because the product did not feature any health claims. Given such cases, it is clear that any verbal or non-verbal, direct or indirect reference to health on a food package is seen by manufactures as potentially putting them in legal jeopardy.

### **3. Manufacturers used a variety of strategies in order to be able to communicate the health benefits of their products more clearly**

It seems that, once a food package has a health claim on it, it opens up a wider range of possibilities for the manufacturer to include other material that states or implies that the product is healthy while reducing the likelihood of legal challenge. Several representatives told us that, by including a health claim on the *back* of their product, they were able to bring in more creative strategies (such as using images like those mentioned above or using a name for their



product that had an association with health) without running as big a risk, because a clear link had now been drawn between their product and health through their use of the health claim – even though the claim was placed on a part of the package where consumers were less likely to see it. As one of our interviewees observed, “The front [of the pack] is for the consumer, the back is for us”. In such cases, manufacturers felt more comfortable with simplifying the wording of a claim, for example, transforming *Alpha-linolenic acid contributes to the maintenance of normal blood cholesterol levels* to *Omega-3 is good for your heart* – provided there is a link to the authorized wording somewhere else on the package.

The need to make an authorized health claim somewhere on the package in order to include *any* information about health leads some manufacturers to fortify products with one nutrient or another just so that they can include such a claim and then develop the rest of the packaging to be more appealing to consumers.

#### **4. Manufacturers in different countries faced different kinds of challenges when using health claims, including different enforcement practices by local authorities and different expectations from consumers in their countries**

The previous section discussed how differences across cultures lead to differences in the way that consumers interpret health claims, and this naturally has an effect on the way in which manufacturers employ them. It was clear not just from our interviews but also from the databases we compiled of health claims appearing on packages in different countries that there was considerable variation in the frequency with which health claims were used. A great many more examples of health claims can be found on packages in the UK than in any other country, with packages in France and Germany featuring notably fewer. On the one hand, this reflects the different attitudes of the consumers in those countries: in Germany, for example, the focus is much more on environmental impact and sustainability, and hence there is less reason for a manufacturer to want to include a health claim on their packages, especially on smaller products where space is very limited. On the other hand, it may also reflect differences in the way that the regulation is enforced in each country. In France in particular, where the regulatory process is especially



strict, enforcement bodies may themselves actively seek out products that are not following the rules, and so manufacturers told us that they were more reluctant to use any claims whose wording deviated even slightly from the authorized wording. Conversely, in the UK and Germany, it is more commonly the case that a complaint is made to the enforcement body by a third party. (The result of this, of course, is that quite often it is a competitor who raises the complaint.)

## 5. Manufacturers marketing their products in multiple jurisdictions faced additional linguistic and cultural challenges

The fact that the regulation on health claims is enforced differently in different countries creates particular challenges for manufacturers who market their products across multiple markets, as they must either design different packages for each location (involving time, money and resources), or simply adhere in all cases to whichever location has the strictest enforcement policies, which may not be the most desirable option. This latter option also means featuring health claims in several languages on the same package, which can be very difficult when there is limited space.

But there are other problems with featuring the same health claim in several different languages. In a lot of places, users may be multilingual and able to understand the health claim in more than one language, which is fine until a situation arises where one translation is not quite the same as the other. One of the issues with permitting a change in wording so long as the overall meaning is the same is that, especially when claims are translated into other languages, it may not be possible to capture the *precise* meaning in the same way. For example, in English, just over two-thirds of authorized health claims use the word 'normal' (as in *Calcium is needed for the maintenance of normal bones*), and guidance from the European Union states that this word "should be retained in adapted wording"; however, in Polish *normal* has a much more negative meaning and in many claims the word *zdrowy* ('healthy') is used in the *authorized translation*. Given that our research shows a strong preference for the word *healthy* among most consumers, this may give manufacturers marketing their products in Polish an advantage when it comes to crafting health claims that appeal to their audience.





There is also the issue of the same language being used across multiple countries where it is one of the national languages. Given that the Health Claims Unpacked project has found variation across cultures when it comes to how consumers interpret health claims, it is possible that the French-language authorized health claims may be interpreted differently, for example, by French speaking Belgian consumers, and perhaps differently again by Belgian consumers speaking primarily Dutch, but who also speak French. It is clear that, while our project has the goal of making health claims more understandable to consumers, there is still a long way to go when it comes to the multilingual implications of marketing food products with health claims across the EU.



# Consumer Profiles

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After sign-up to the consumer platform, users are asked a number of questions to give us an idea of their demographics.

We ask them for their gender and age, which allows us to identify any trends in health claim knowledge, understanding or preference that is based on these factors, which may be relevant to food manufacturers who want to market their products to particular audiences. We also wanted to see how many of our users were the main shopper for food in their household to give us an idea of how often they may be exposed to health claims on food packages.

Our focus groups showed that a major factor in consumers' approach to health claims is whether or not they have any special interest in a particular aspect of health, either because they suffer from a particular condition themselves or because they have a goal in mind to improve their health. We therefore asked



them to choose from a range of health conditions and goals, which can tell us if any of the data is especially skewed towards a certain kind of user.

### Key Points

1. More than three quarters of users are female, and around 80% identify themselves as the person responsible for shopping in their household.
2. The country with the most males participating is Germany, and with the fewest participating is France.
3. While in the English sample all age groups are almost equally represented, the German, French and Polish samples tend to include more younger people (below the age of 44).
4. Across samples, fatigue, constipation and food allergies are the most commonly-reported health conditions, with Polish speakers most often reporting fatigue and German speakers most often reporting constipation.
5. Across samples, increasing energy levels, supporting the immune system and losing weight are the most commonly-reported health goals. Users from the Polish- and English-speaking samples also often report a goal of improving their gut health, while French-speaking users were less concerned with this.





# Consumer Insights

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Consumers in the UK, Germany, France and Poland have been taking part in the activities on our digital platform since 2020.

These activities have been designed to capture essential data from consumers about their preferences when it comes to health claims wording as well as their perceptions of similarity and difference of meaning as the wording changes. We also examined consumers' existing knowledge of nutrition and their understanding of what counts as a health claim, as well as how changing the wording of a health claim can affect the amount of money they are willing to spend on particular products.

The sub-sections below give a broad overview of the key findings from the analysis of the data from each activity on the digital platform. Once live, the 'Research, Analytics & Consumer Insights' platform will feature *dynamic results* in graphic format, which will be regularly updated as more consumers

complete the activities on the digital platform in order to generate up-to-date results.

## Consumer knowledge

The purpose of this activity is to understand what consumers know about the relationship between food and health and to teach them about the legal definition of a health claim.

In ‘Activity 1A: What’s good for what?’, users match seven nutrients to their health benefits according to existing authorized health claims – for example, matching *Omega-3* to *Cholesterol levels* or *Selenium* to *Immune system*. In this way, this activity bypasses the wording of health claims and focuses strictly on what consumers know about nutrients in their food and how they can affect their health.

In ‘Activity 1B: What is a health claim?’ we introduce users to the definition of a health claim according to the EU (Reg. EC 1924/2006) and present them with a series of six statements. They have to identify which are health claims and which are not. As they engage with the activity, users gain knowledge about health claims that they will use in subsequent activities.

[Click here](#) to watch a walkthrough video of these activities.

### Key Points

1. Across all samples, users display a high degree of knowledge of the health benefits of different nutrients, with Polish-speaking users answering the most questions correctly and French-speaking users answering the least correctly.
2. The nutrient-benefit combination that users are most familiar with is the positive impact of wheat bran fibre on gut health. The nutrient-benefit combination that they are least familiar with is the relationship between calcium and digestion.
3. Users over 55 years of age are the most familiar with the nutrient-benefit combinations presented, whereas users under 25 are the least knowledgeable.
4. Most users across all samples are able to distinguish health claims from other kinds of claims, with Polish-speaking users performing the best.



## Consumer perceptions of similarity and difference of meaning

In this activity ('1C: Similar or different?'), we present users with twelve pairs of health claims and ask them to tell us how similar or different in meaning they think they are. Users drag a marker along a sliding scale between -3 'very different' and 3 'very similar'.

This activity can tell us which linguistic features in sentences affect how similar or different consumers perceive them to be.

[Click here](#) to watch a walkthrough video of this activity.

### Key Points

1. Across languages, the changes to the authorized health claim that consumers perceive as making the least difference to its meaning included addressing the consumer (using 'you' or 'your') and using another word instead of 'normal' (for example 'healthy', 'strong' or 'proper') to describe the health benefit.
2. Using metaphorical or figurative language is perceived by German-speaking users as affecting the meaning of the claim, while this is less so for French- and Polish-speaking users.
3. For English-speaking users, simplifying the grammar of the claim is seen to have little effect on its meaning, whereas using intensifying words (such as 'essential' instead of 'necessary') is seen to alter the meaning.

## The effect of health claim wording on purchasing behaviour

In this activity, users go on a mock shopping trip to buy four products: granola, orange juice, yogurt, and frozen spinach. They are presented with five different options for each product, which vary in terms of their price and the wording of the health claim that is attached to them, although all health claims describe the same nutrient/benefit relationship. This gives us insight into how the wording of a claim might affect the overall price that consumers are willing to pay for a particular product.

[Click here](#) to watch a walkthrough video of this activity.



## Key Points

1. In general, consumers are willing to pay slightly more for products with shorter health claims written in simpler language (using verbs like ‘helps’ rather than ‘contributes to’).
2. Health claims containing the word ‘healthy’ tend to perform better than other health claims, especially in English and German.
3. Across all samples, the product that benefits most from having a health claim on it is juice; while spinach, granola and yogurt also benefit from having a health claim, the effect was not as large.
4. There is considerable variation in consumers’ willingness to pay for different health claims on different kinds of products, e.g. yogurt, juice or spinach. Versions of health claims deemed attractive on one product are not necessarily deemed attractive on another.
5. For German-speaking users, products with shorter, simpler health claims (often even deleting the verb) perform better; for example, *Vitamin C zur Unterstützung der Abwehrkräfte* (‘Vitamin C for the support of the immune system’).

## Consumer-generated health claims

In this activity (‘Design your own pack’) users design their own food packs. This includes constructing health claims by selecting from a range of linguistic choices based on strategies used by manufacturers in their respective countries. This gives insights into the kinds of wordings consumers prefer.

[Click here](#) to watch a walkthrough video of this activity.

**Verbs** are the ‘action’ or ‘doing’ words of a sentence. This is the first element to be chosen by consumers following the name of the nutrient. **Adjectives** are used to describe something – in this case, the part of the body that the nutrient affects. This is usually the last element of a health claim before the affect part itself. **Noun phrases** include everything connected with the main noun itself, such as articles (the/a) and descriptors. In this case, the noun phrases represent the part of the body that the nutrient affects.

## Key Points

1. For all products, English-speaking consumers show a consistent preference for more ‘everyday’ verbs, such as *helps* rather than the





more scientific-sounding *contributes to*, and similarly like to transform complex noun phrases such as *the maintenance of* into simple verbs like *to maintain*. There is also a strong preference for the adjective *healthy* rather than *normal* or *proper* in descriptions of the health benefit.

2. German-speaking users overwhelmingly prefer the adjective *gesund* ('healthy') to describe the benefit of a nutrient on the body. When it comes to verbs, there is some evidence to suggest that consumers are happy with the phrase *trägt zu <x> bei* ('contributes to') that appears in many authorized versions, although there is also a liking for some more strongly-worded versions such as *ist wichtig für* ('is important for').
3. In French health claims, users tend to opt for verbs that are used in the authorized versions, such as *contribue*. However, the choice of adjective is not as important; instead, users seem to prefer more metaphorical noun phrases when referring to the benefit of a health claim, with for example *la force* ('strength') over *les muscles*.
4. Polish-speaking users, more than speakers of other languages, seem to prefer claims that are either identical to the authorized versions or contain much of the same wording, such as the choice of adjective. They also prefer a wide range of verbs, in particular *wspiera* ('supports'), *pomaga* ('helps') and longer phrases such as [needed for] and *wpływa korzystnie na* ('positively influences').



# Discussion and recommendations

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The aim of the Health Claims Unpacked project was to find out how to improve the communication of health claims to consumers.

In addition, we sought to help food manufacturers adapt the wording of health claims so that they more effectively communicate the health benefits of their products. It is also hoped that the results will be useful for regulators in making decisions about the appropriateness of different wordings and to formulate guidance for manufacturers.

However, regardless of the findings from our own research, it must be stressed that it is always important to check the [general principles on flexibility of wording for health claims agreed by 17 Member States](#), as well as consulting



more detailed national recommendations provided by relevant authorities within Member States, such as guidance documents from the [Advertising Standards Authority \(ASA\)](#) for the UK, and to seek legal advice before using any alternative wording for health claims.

It is clear from our focus groups, interviews and wider research that many consumers find authorized health claims difficult to understand and lack trust in their validity. Because consumers are also generally unaware of the legislation around health claims, they tend to believe manufacturers are to blame when they are unable to understand health claims, but the reality is a lot more complex. Food manufacturers themselves also face challenges when it comes to using health claims on their products, because guidelines about the extent to which they can change the wording of a claim without changing its meaning are sometimes unclear or inconsistent, especially across different regions in the EU. There is therefore the need for new guidelines that take into account consumers' preferences alongside linguistic and cultural differences between different EU jurisdictions.

The consumer-generated health claims that we have gathered via our [online platform](#) give insight into the kinds of wordings that consumers prefer. Across English- and German-speaking users, there is evidence to suggest that users prefer claims with simplified grammatical structures; in English, for example, users turn complex noun phrases (*contributes to the maintenance of*) into simpler verb formations (*helps to maintain*), while in German users prefer similarly less-scientific-sounding verbs, or even the removal of the verb altogether, such as *Kalzium für den Erhalt starker Knochen* ('Calcium for the maintenance of strong bones'). Although it was less evident through verb choice, French users also display a preference for less-scientific terms such as *la force* ('strength') rather than *la masse musculaire* ('muscle mass'). While Polish-speaking users tend to prefer wordings that more closely resemble authorized versions of health claims, our research has revealed that the Polish translations of authorized claims already incorporate many of these simplifications and consumer-friendly word choices. One way in which this is evident is through the choice of adjectives: although English and German users overwhelmingly prefer the word *healthy* over *normal*, *normal* appears in about two thirds of English and German authorized versions of health claims and *healthy* appears in none; in Polish, however, the word *zdrowy* ('healthy') is used in many of the authorized translations, which means that they already are more appealing to consumers.



While these results teach us about the kinds of wordings that consumers prefer to see, it does not take into account whether these altered wordings accurately represent the meanings of authorized claims; consumers may like the claim *Omega-3 is great for a healthy heart*, but it may not accurately reflect the same meaning as *ALA contributes to the maintenance of normal blood cholesterol levels*. It is therefore also necessary, along with examining consumers' preferences for different wordings, to examine their perceptions regarding how much changes in wording affect the meaning of health claims.

The results relating to consumer perceptions of similarity and difference provide this essential link between consumers' preferences and the accuracy of reworded health claims. One of the most important findings is that many of the changes that consumers prefer most strongly are also judged by them to have little effect on the meaning of the claim. For instance, simplifying the claim's grammatical structure goes a long way in making a claim easier to understand and more appealing, but does not change the meaning of the claim very much from the perspective of consumers; for example:

*Zinc contributes to the maintenance of normal skin*



*Zinc helps maintain normal skin*

*Potassium contributes to the maintenance of normal muscle function*



*Potassium keeps muscles functioning normally*

Similarly, simply personalizing a health claim by addressing the consumer directly with 'you' or 'your' (e.g. *Folate contributes to the normal function of your immune system*) also makes a claim much more appealing but does not have much effect on meaning. One area where consumer judgements seem to be at odds with those of regulators is the replacement of the word *normal* with *healthy*. Although regulatory guidelines in many jurisdictions advise manufactures to retain the word *normal*, consumers in our study think that *healthy* and *normal* mean essentially the same thing (as, apparently, do translators of the official Polish versions – see above).

On the other hand, there are changes that consumers think do affect the meaning of a health claim. For instance, while consumers think that replacing a word or phrase with alternatives that intensify the meaning (such as the





examples below) made claims more appealing, they also deemed such changes to have a considerable impact on the meaning of the claim.

*Calcium is needed for the maintenance of normal bones*

→ *Calcium is essential for the maintenance of normal bones*

*ALA helps maintain normal blood cholesterol levels*

→ *ALA helps lower blood cholesterol levels*

The use of metaphoric language to describe the action of the nutrient on the body – for example, *fighting fatigue* or *soaking up cholesterol* – was somewhat more ambiguous across the different languages studied. For English-, German- and Polish-speaking users, using such language is generally considered to change the meaning significantly. On the other hand, French-speaking users feel that the use of *La vitamin B6 booste l'énergie* ('Vitamin B6 boosts energy') is very similar in meaning to *La vitamin B6 contribue à une bonne utilisation de l'énergie* ('Vitamin B6 contributes to a good use of energy'). Nevertheless, one of the problems with analysing metaphoric language in this way is that one metaphor can be very different in nature to another, and this makes it difficult to justify the use of a metaphor to a regulatory body unless it has been specifically researched beforehand.

The question that remains is whether or not – and to what extent – the use of health claims that are worded differently has an effect on consumers' purchasing behaviour. Our results on this topic are somewhat inconclusive. There are tendencies that suggest consumers are willing to pay a little more on average for products with health claims that incorporate some of the preferred wording changes discussed above– e.g. simplified grammar and the use of the word *healthy*. However, such tendencies are not entirely consistent across the product types which we investigated, nor are they consistent across languages. Clearly it is difficult to make too many generalizations about the wording of health claims across different product types and across languages. This is why gathering data, as we have done, on multiple product types in multiple languages can be useful for both manufacturers who are selling their products in different countries and regulators working in different jurisdictions.

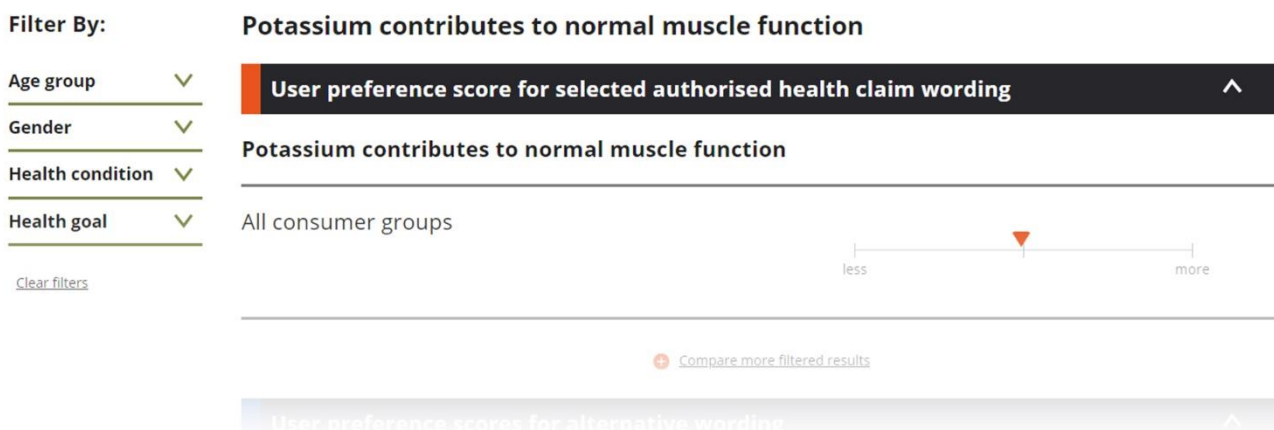


## Recommendations

1. **When considering altering the wording of a health claim, be aware of the relationship between consumer preference *and* consumer perceptions of similarity.** Sometimes changing the wording can be beneficial to consumers' understanding of a health claims, while having little effect on the perceived meaning of the claim. At other times, however, claims can be made more appealing or easier to understand, but the accuracy of the claim might be compromised.
2. **Avoid wordings that consumers have judged to be very different in meaning, and take particular care with metaphorical language.** Although consumers may prefer such wordings, they cannot be justifiably said to retain the meaning of the authorized claims. While some metaphoric language is deemed similar in meaning in some contexts, it is a very difficult to generalize.
3. **Increase the consistency of regulation across local enforcement bodies, and be aware that regulation prohibiting the rational alteration of the wording of claims usually discourages health claim use altogether.** Currently there are some regions in which food manufacturers generally choose not to use health claims because local regulatory bodies discourage any changes in wording at all, and this has a negative effect on consumers who are less likely to get the information they need about food products and health. This is especially difficult for manufacturers operating across many European markets, as they must adapt packaging and health claims to suit the particular regulatory practices of each region.
4. **Invest in further research into the effects of health claim wording.** This project has shown that the issue of health claim communication and understanding is complex and multifaceted, and there is a great deal of scope for further research. In particular, the effect of health claim wording on purchasing behaviour should be examined in more detail.
5. **Encourage more dialogue among regulators, manufacturers and consumers.** The aim of regulating health claims is both to protect consumers against inaccurate information and to increase their ability to use health information to make smart dietary choices. More dialogue among regulators, manufactures and consumers around the *cross-cultural and cross-linguistic communicative* dimension of health claims would contribute to making the regulation more effective.

## Consumer preference analysis

The analysis shows the likely consumer preference for the authorised health claim and for different possible wordings.\*



# Consumer preference prediction engine

This tool uses the power of artificial intelligence to make predictions about how consumers might react to different wordings of authorized health claims in English.

Once the 'Research, Analytics & Consumer Insights' platform goes live, you will be able to search for authorized versions of health claims in order to discover other possible ways of wording the claim (based on real UK manufacturers' usages) with a 'User Preference' (UP) score for each calculated by extrapolating from data from our consumer platform. [Click here](#) for technical information on how this tool works and how the UP score is obtained.

Note that the wordings of claims that will feature on this site are based on consumer preference and cannot be guaranteed to be compliant with the



Nutrition and Health claims regulation. It is important to check the [general principles on flexibility of wording for health claims agreed by 17 Member States](#), as well as consulting more detailed national recommendations provided by relevant authorities within Member States, such as guidance documents from the [Advertising Standards Authority \(ASA\)](#) for the UK, and to seek legal advice before using any alternative wording for health claims.





# Who we are

## A dedicated and diverse group of experts.

Health Claims Unpacked is a consortium of partners including universities, industries, and non-profit organizations, with the primary aim of enhancing the communication of scientific health claims on food packaging across the UK and European Union. Our team has a wide range of expertise from areas such as nutrition, linguistics, computer science, behavioural economics, graphic design and industry.

### EIT Food

EIT Food is the funder for the Health Claims Unpacked project, and provides direction and guidance on the workplan throughout its development via a structured system of tasks, outputs and key performance indicators.

Established by the European Institute of Innovation & Technology (EIT), EIT Food is building an inclusive and innovative community of diverse food sector partners, to drive innovation and entrepreneurship across Europe.

## University of Reading

The University of Reading is the lead partner on the Health Claims Unpacked project, providing academic expertise in linguistics, computer science, behavioural economics and graphic design. Reading has also had responsibility for liaising with various stakeholders in the community, such as consumers, manufacturers and regulators.

The University is recognized as one of the top 200 Universities in the world, and one of the foremost research-led universities in the UK. The University features more than 50 research centres, many of which are recognized as international centres of excellence in many areas including food sciences.

## Foodmaestro

Foodmaestro is responsible for the technical development and support of the Health Claims Unpacked project website, Unpacking Health Claims consumer toolkit website, and the Research, Analytics, and Consumer Insights website, as well as the adaption of these sites into additional languages. Foodmaestro's dietitian leads the technical project management.

Foodmaestro is on a global mission to enable people to make informed decisions about the food they consume. With food transparency and personalization at the core, they have developed a world class platform that supports digital interaction with consumers, manufacturers, and tier-1 retailers across UK, Europe and North America.

## British Nutrition Foundation

The British Nutrition Foundation's role in the project has been to provide nutrition science expertise; to establish and maintain contact between Activity

partners and a variety of stakeholders in the UK and the EU including the food industry (both multinational companies and SMEs), nutritionists and other technical advisors working with the food industry, academics, organisations working in public health, teachers, consumers and the media in order to gain valuable input into the project; and additionally to disseminate project outputs through different means and channels including website content, resources, videos, blogs, newsletters, social media, press releases, press briefings, engagement with PR companies, publications and webinars.

The British Nutrition Foundation is a leading UK nutrition charity, connecting people, food and science for better nutrition and healthier lives. BNF works with experts across the nutrition and food community to provide impartial, evidence-based information, education and expertise, motivating people to adopt healthy, sustainable diets – for life. BNF also brings together a network of scientists, specialists and leading academics across the food and health community, to address the crucial challenges faced by institutions, industry, policymakers and people.

## Technical University of Munich

The Munich Center for Technology in Society (MCTS) is an integrative research centre at the Technical University of Munich (TUM), the Entrepreneurial University, is responsible for hosting the Health Claims Unpacked platforms, and has undertaken research in user-testing.

As one of the most prominent centres for Science and Technology Studies (STS) in Germany, MCTS is dedicated to understanding and reflexively shaping the multiple interactions between science, technology and society. TUM's mission is to spearhead the education of top-talents, the development and marketing of new technologies and innovative solutions and services.

## Institute of Animal Reproduction and Food Research, Polish Academy of Sciences

In the Health Claims Unpacked project, the Institute of Animal Reproduction and Food Research of the Polish Academy of Sciences (IARFR PAS) engages

with consumers and consumer-oriented organizations in Poland to determine how they understand, interact with and trust health claims featured on food packaging.

IARFR PAS is an interdisciplinary team of researchers that investigates the environmental impacts, including food, on the health of humans and animals. Nationally recognized as a leader in science-to-society endeavours, it translates scientific findings to lay people and initiates dialogue to keep abreast of public concerns and maintain mutual trust.

## Maspex

Maspex's role while working on RACI was to outline the direction of the platform's development in order to meet the needs of business experts as well as to evaluate specific functions of the platform.

Maspex is the largest private Polish company in the food industry and one of the largest in Central and Eastern Europe. The company meets the highest world standards in the field of production processes and quality management. They guarantee safety and enable the selection of the best raw materials. Taking care of every detail in the manufacturing process translates into consumer confidence. The quality of Polski Lek products is reflected in numerous awards granted to the company's brands.