

# Precautionary Allergen

## Labelling:

Insight from UK micro, small and medium sized food businesses and consumers

A report for the Food Standards Agency by Basis Social and Bright Harbour

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# Table of Contents

Table of contents.....	2
Executive summary .....	3
Part a: introduction .....	11
Part b: food business perspectives .....	19
Part c: consumer perspectives .....	46
Part d: conclusions .....	81
Appendices.....	84

# Executive Summary

## 1. Introduction

This report presents the findings from qualitative research with 60 SME food businesses that are micro, small and medium sized enterprises (hereafter 'SMEs') and 30 consumers with food hypersensitivities, including allergies and intolerances. Research explored experiences, interpretations and views of precautionary allergen labelling and information in order to understand and improve how it is applied in future.

Precautionary allergen labelling (PAL) and precautionary allergen information aims to communicate that one or more of the fourteen allergens regulated in the UK could be unintentionally present in a food product - for example, via 'may contain' or 'produced in a factory which' statements. PAL should only be provided where there is an unavoidable risk of allergen cross-contamination that cannot be sufficiently controlled through risk management actions.

Existing FSA evidence suggested that consumers are often uncertain about the meaning of PAL statements. At the same time, business use of PAL is rising - and the extent to which businesses are applying this in line with guidance is uncertain. The FSA commissioned Basis Social, in partnership with Bright Harbour, to understand current interpretation, experiences, and usage of PAL by both SMEs and consumer audiences.

## 2. Method and sample

### **Qualitative research with 62 businesses:**

Online interviews of 1 hour each with business owners or key staff involved in oversight and management of food, exploring the interplay between business size, role in supply chain, and different types of food preparation in PAL understanding and usage. See Appendix for more details. The sample comprised an even split between:

- Manufacturers (15)

- Retailers (including two wholesalers) (15)
- Caterers (17)
- Institutions (for example, those providing catering services in schools and hospitals) (15)

### **Qualitative research with 30 consumers, conducted in 3 phases:**

Qualitative participants were recruited using a sample quota screener agreed by the FSA team, built to ensure inclusion of a range of different contexts in needs – for example in terms of the food consumers were hypersensitive to; the severity of reaction; as well as demographic factors such as age, gender, ethnicity, life-stage and so on (see Appendix).

- Phase 1: **Exploration** - Six 1.5-hour group discussions of c. 5 participants each to explore the consumer context in which PAL operates, plus interpretation and usage of PAL specifically
- Phase 2: **Co-creation** - Four 1.5 hour mini-groups of c. 3-4 participants each (all of whom participated in Phase 1) to develop concepts for ways to improve the consumer experience of PAL
- Phase 3: **Testing** - Four 1.5 hour mini-groups of 3-4 participants each (all of whom participated in Phase 1) to validate findings and further refine co-created concepts

The COM-B (Capability - Opportunity - Motivation - Behaviour) framework, developed by the UCL Centre for Behaviour Change, was used to structure analysis.

## **3. SMEs' understanding, interpretation and use of PAL**

### **The influence of the wider business and regulatory context:**

- SMEs tended to think about allergen risk management and communication, including the use of PAL, in the context of wider food hygiene practices and especially microbiological risk management. Allergen advice and training was often subsumed within these broader food safety practices.

- Additionally, the introduction of allergen labelling for Pre-Packed for Direct Sale foods (commonly known as Natasha Law) was the dominant frame of reference for the risk communication of allergens. Overall, PAL is an area of much lower SME understanding and confidence. Distinctions between allergen labelling and PAL, and their different regulatory requirements, were not clear for a wide range of SMEs across all sectors, and especially for caterers.
- Risk assessment processes for allergens cross-contamination were limited and piecemeal across most SMEs, though tended to be more comprehensive in manufacturers and institutions. Only in very limited instances (notably in schools) was there a systematic appraisal of allergen risks and the critical points for cross contact.
- SME risk management processes were generally focused on microbiological risk management rather than allergen and cross-contamination management. In this context, the adoption of certain practices, particularly around cleaning and the use of separate boards and utensils for food preparation, were routinely adopted for allergen cross contact management. However, food delivery, storage and serving are all weaker spots of cross-contamination management for many SMEs.

### **Challenges around delivering PAL as intended by the regulator**

- Informal heuristics often shaped decision making and practice in relation to allergenic ingredients, with peanuts, gluten milk, and eggs readily coming to mind and being perceived as 'riskier' than other allergenic ingredients (especially celery and lupin). Moreover, it was relatively common for smaller and micro catering businesses to focus on particular allergens due to knowledge of individuals with a condition (e.g., someone with coeliac disease), rather than an assessment of ingredients. These heuristics often serve as substitutes for formal risk analysis, driving inconsistent practice and raising the likelihood that cross-contamination risks will be missed.
- PAL guidance was not well understood in general or seen as an area of high regulator interest. Manufacturers, institutions and certain retailers, together

with more established businesses typically had a better understanding of PAL than caterers, newer, and small or micro businesses. Key confusion areas:

- that use of PAL is voluntary
  - that PAL should only be used following a thorough a risk assessment, and where effective processes are put in place to manage allergen cross contact
  - the distinction between PAL and free-from, particularly an issue for manufacturers in relation to thresholds.
- PAL was generally applied because businesses were not sure that their food was without any cross-contamination risk (particularly in the absence of testing or standards). Uncertainty increased through the supply chain, and PAL labels on ingredients were taken at face value and passed on to consumers. In catering establishments, the risk of cross contact was seen by participants as almost inevitable due to the wide variety of ingredients used and the busy nature of kitchens.
  - There were a wide range of barriers to more effective PAL adoption including:
    - poor knowledge of PAL
    - a lack of common standards for risk analysis
    - an easy and inexpensive means of measuring thresholds
    - limited expertise and confidence in decision making around cross contamination management (greater for caterers)
    - practical issues such as the ability to print labels
  - All of these reinforce one another and serve to undermine consistent and effective adoption and use of PAL. It is unlikely that SMEs will invest the attention and energy needed to improve practice so long as PAL continues to be perceived as low priority by regulators.

### **SMEs' considerations for the future of PAL:**

- Businesses are sympathetic to the need for PAL and eager to support customers. However, there are wide barriers to change that need to be considered.
- Businesses are wary about the costs involved in change and their unintended consequences (for example, in terms of new friction points in business

practice), limited access to training and information that is clear and accessible; and about the practical barriers to providing further information on labels. Businesses also need more support on when to use a label and help to understand thresholds for when PAL would be appropriate to use.

- Easy access to good guidance is key. Standardised, business-type specific checklists would be welcomed – this would need to be sector specific, given differences between catering, institutions, retail, and manufacturing establishments. There was a significant need for simplification of advice, and scope for greater integration of allergen cross contact risk analysis into HACCP and Food Safety Management System protocols particularly in catering establishments, given their powerful role in shaping kitchen practice. Further support for SMEs from the FSA – ideally, from business perspective, in the form of a ‘one stop shop’ for information on PAL - was also a key need.

## **4. Consumers’ understanding, interpretation and use of PAL**

### **The influence of consumers’ wider allergen management context:**

- Consumers vary widely in terms of their approach to allergen and cross-contamination management, driven by differences in severity of response, length since diagnosis, health status, personality, and other factors.
- Consumers who are more risk conscious and knowledgeable around cross-contamination risks, and around the potential consequences of cross-contamination exposure for their health, often put tremendous energy into allergen management, and also face wide negative impacts. These include: cognitive and time drain; anxiety and fear; reduced pleasure around food and social eating; missing out on social occasions; and restricted nutrition and dietary variety. Consumers often experience allergen communications to be confusing or contradictory.
- Less risk conscious and knowledgeable consumers often ‘don’t know what they don’t know’ and are more at risk of cross-contamination exposure. They may be less conscious of this risk overall and know less about what they need

to know to determine whether a food is safe for them. Often, the approach to risk management becomes more stringent over time as consumers learn more about cross-contamination risks.

- Determining cross-contamination risk when eating out is often a highly stressful experience. Consumers find it difficult to get accurate information they can trust and feel that the burden for avoiding exposure risk unfairly falls on their shoulders. Some feel that the rising number of people avoiding ingredients for lifestyle reasons has also made it harder to ensure their needs are taken seriously.

## **Consumer understandings, interpretations and assumptions of PAL**

- Although most consumers are aware of PAL, understanding of what it is meant to communicate is low. PAL is widely judged to be 'confusing' and vague, with 'may contain' wording proving most frustrating for consumers to interpret.
- Some were not even aware that PAL communicates cross-contamination risk. Others are frustrated that it does not adequately communicate risk likelihood or potential impact. PAL does not help consumers decide 'is this safe to eat' and adds stress.
- In general, consumers judge PAL not as communications meant to benefit the public, but as legal 'cover' for businesses in the case of accidental consumer harm. This perception applies both to PAL for packaged food products as well as PAL used in restaurant and catering environments. This reduces trust in businesses, creates fear and frustration, and erodes trust in food regulation more widely.
- Consumers assume that PAL is mandatory. When they discover this is not the case, this erodes trust even further - making them feel it is impossible for them to get the information they need about potential exposure risk.
- This widespread assumption that PAL is mandatory creates a dangerous outcome: consumers assume that if a product does not include a PAL notice, it has been determined that it is without cross-contamination risk. This may be



leading to some consumers taking on more exposure risk than is comfortable or safe for them.

## **Consumer considerations for the future of PAL**

- Consumers with hypersensitivities expect PAL to provide clarity about cross-contamination risk in a consistent way. They want PAL language to signal care for consumers with allergies and other food hypersensitivities, and to feel that PAL is provided for consumer rather than business benefit. They want PAL to make their decisions easy, including via clarity about who messaging is for: whether it is for people with serious hypersensitivities - or people avoiding certain ingredients for lifestyle reasons or dietary preferences rather than health risk.
- They are highly interested in adjustments that would enable the provision of more information - for example, on labelled products, via the introduction of a 'two tier' system consisting of minimal information on label plus more information provided off-label about specific cross-contamination risks involved. Interventions to improve PAL experiences when eating out, for example check lists about how cross-contamination risks are managed by the business, are also welcomed.
- Consumers with food hypersensitivities also have a strong expectation that PAL should be mandatory. They see this as the foundation for ensuring access to clear, trustworthy information for informed decision-making.

## **5. Conclusions:**

- At present, PAL does not support informed decision making for food hypersensitive consumers and may actively increase exposure to risk in some cases.
- More effective guidance is needed for SMEs to remove existing ambiguity and confusion, to better support businesses who are eager to do the right thing, and to ensure a more consistent and helpful consumer experience of PAL.
- The voluntary status of PAL causes confusion for businesses, undermines efforts to deliver standardised and effective cross-contamination

communication, and is reducing consumer trust in food businesses and regulation.

- Any evolution of PAL guidance would need to consider the consequences of application for businesses, ensuring each aspect of risk assessment, risk management, training, and ultimately application and enforcement works together in an integrated, clear, and straightforward way. Involving SMEs and consumers in co-creating is important in this process to minimise risk of ambiguity, unintended consequences, or difficulty in real-life application.

# 1. Part A: introduction

## Introduction to this research

### Background: Precautionary Allergen Labelling or Precautionary Allergen Information

Precautionary Allergy Labelling (PAL) is a voluntary statement that food businesses can choose to apply to food products where there is a risk of allergen cross contamination. It is commonly seen as “may contain allergen x” or “not suitable for someone with x allergy” on pre-packaged food products. For non-prepacked foods (including loose or prepacked for direct sale (PPDS) foods), precautionary allergen labelling may not necessarily be on a label, but information relating to the risk of allergen cross-contamination that can be provided verbally, by staff, or visually on signs at the premises.

Officially, the phrase ‘PAL’ applies to on-product precautionary allergen labelling; advisories on non-prepacked food (e.g., in restaurants or shops) are ‘precautionary allergen information’. However, note for reader ease we have generally used ‘PAL’ as a short-hand for both in this report.

PAL is currently a key focus for the FSA’s hypersensitivity programme, as part of its wider mission to protect UK consumers from the health risks posed by food hypersensitivity (including food allergies, intolerances and coeliac disease). More broadly, the FSA aims to ensure UK consumers have high quality information to enable informed decision making around food.

The use of precautionary allergen labelling is voluntary and there is no legislative framework for its application, other than it must not mislead the consumer, be ambiguous or confusing, and where appropriate be based upon scientific data, according to the Food Information to Consumers Regulation. However, if precautionary allergen labelling is not applied and a consumer has an adverse

reaction to an allergen present due to cross-contamination, there could be a breach of General Food Law.

Existing FSA evidence suggests that consumers can be uncertain about the meaning of PAL statements and find they can be vague and unclear, conveying few details about why a product has an allergen cross-contact risk.<sup>1</sup> In addition, a recent FSA funded study<sup>2</sup> with food businesses found that the use of PAL by businesses has increased over the last few years. The study found that more than half (55%) of businesses selling non-prepacked foods used PAL, such as “may contain”, on these foods. In 2012, just three in ten (29%) businesses used “may contain” labelling specifically.”

The FSA are concerned about how this increased use of PAL may impact consumer experience and choice, and whether consumers find the information provided meaningful and useful – conveying risk in a useful way that enables informed decision making and trust. Impact on business was also relatively unknown. Food businesses may want to fulfil their regulatory requirements and serve safe food to their customers, but lack the knowledge, understanding, or confidence in managing and communicating risks of allergen cross-contamination. In particular, it is unclear whether food businesses understand and apply current guidance that PAL should only be applied following risk assessment, and only in cases in which cross-contamination risk cannot be sufficiently controlled.

## 1.1 Aims and objectives of research

In order to understand and improve the use of PAL, the FSA commissioned this qualitative insight from small and mid-size businesses (SMEs) and consumers with food hypersensitivities. It wanted to understand how and why SMEs apply PAL, and to assess consumers' understanding, usage and trust, in order to guide 2022 PAL consultation activity and future policy development.

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<sup>1</sup> [Consumers and allergen labelling literature review | Food Standards Agency](#)

<sup>2</sup> [The food industry's provision of allergen information to consumers | Food Standards Agency](#)

### **1.1.1 Specific objectives for SME audiences:**

- What do small and medium food businesses understand by precautionary allergen labelling?
- Are small and medium food businesses aware that PAL is voluntary food information under the Food Information for Consumers Regulation (FICR) but there could be a breach of General Food Law if not applied and allergens are unintentionally present.
- What do small and medium food businesses know about the guidance on precautionary allergen labelling?
- What factors influence decision-making on when, and how PAL is used among small and medium food businesses? To what extent does this vary among different types of business (e.g. sector, size, type of food sold or produced)?
- To what extent is decision-making on PAL usage determined by risk assessment of allergen cross-contact and risk management actions taken to control any risk identified?
- What barriers and levers influence usage of PAL by small and medium food businesses, so that it communicates an identified risk?

### **1.1.2 Specific objectives for consumer audiences:**

- How do food hypersensitive consumers interpret and use precautionary allergen labelling and information?
- What assumptions or expectations shape views and behaviour in this space? What do consumers assume business' decision-making processes include? What do they assume the regulatory requirements are for PAL??
- What are the impacts (emotional, practical, health, financial) of any confusion or misinterpretation of PAL communications?
- How do consumers prefer the allergen cross-contact risk to be communicated on PAL? (for example, what is their preferred form of wording?) To what extent does this vary in different contexts?
- How could PAL be improved to enhance food hypersensitive consumer experiences of this form of allergen labelling?

## **1.2 Research methods**

Research with SME food businesses and consumers with food hypersensitivities was undertaken in Autumn/Winter 2021. See Appendix for full sample details.

Research with both audiences was undertaken concurrently, helping the research team to place insights from each within a wider contextual picture. Exploring

business and consumer views in tandem also helped to more easily identify any potential mis-alignment between regulatory intent around PAL - business understanding and usage - and consumer understanding and use. Participants for research were selected using specialist public recruiters, using a carefully developed screener agreed with the FSA team.

Note that for ease of reading 'businesses' or 'SMEs' have been used as short-hand throughout. This phrase should be read in this context to reference the SME participant base included in research.

### 1.2.1 Methods for the SME research:

- **62 online interviews** of c. 1 hour each with business owners or key staff involved in the oversight and management of food.
- Our **sample** was developed to enable identification of different typologies of businesses, exploring the interplay between size, sector, and different types of food preparation (prepacked for direct sale, prepacked and non-prepacked foods) in PAL understanding and usage. It included a range of different business sizes (micro, small and medium) across the following sectors:
  - Manufacturing
  - Retail - these establishments often included foodservice, such as a bakery or deli. We also spoke to two wholesalers as part of this group.
  - Catering and hospitality
  - Institutions – for example, businesses providing catering services in schools, care homes, hospitals and universities.
- SMEs were **recruited** through a free-find process and paid an incentive to take part in the research.
- **Interviews explored** current general practice around allergens and cross-contamination management and communication; understanding of PAL guidance and regulation; any issues or challenges around PAL usage; and drivers of decisions to use/not use PAL guidance.
- Given the potential for social desirability bias through interviews, **projective techniques** were used to help elicit businesses owners' views in a way that enables them to speak more freely on the issue. For example, where needed

interviewers asked businesses to talk about ‘how businesses their size typically manage allergens cross-contamination risk’, or ‘what businesses like them might find difficult about interpreting or applying PAL guidance.’

### 1.2.2 Methods for the consumer research

The consumer research was conducted in three phases: initial exploration via group discussions, co-creation sessions and communications testing workshops. The sample included (see Appendix for detail):

- A mix of food hypersensitivities (e.g., milk, shellfish, peanuts and so on)
- 20 people with hypersensitivities themselves; 10 people caring for children with hypersensitivities
- A mix of ages (18-68), geographies (urban, rural, suburban), and socio-demographic group (AB/C1C2/DE)
- A mix of hypersensitivity severity (severe, moderate, mild)

#### Phase 1: Exploration:

- **Qualitative research with 30 consumers began with an auto-ethnographic exercise** with each respondent making a short film to capture real life moments of PAL use, in both home/takeaway and eating out settings. This was used for analytical purposes to explore differences in use across food settings, and also to make a short film as stimulus for the group sessions.
- We then conducted **6 1.5-hour group discussions** with 30 consumers in total to explore wider contexts around label use, trust in the food and allergen labelling systems, beliefs around the motivations for business and regulators, and understanding/preferences around different ways of communicating precautionary allergen labelling information.
- **All consumer participants had/cared for someone with hypersensitivities** - primarily focused on consumers who describe their hypersensitivities as ‘allergies’ (the majority of the sample), and some who described them as ‘serious intolerances’ (a minority of participants). Our sample was carefully developed to represent a spread of allergenic ingredients (including 13/14

major allergens currently regulated for food business management in the UK<sup>3</sup>), age, gender, income, and length since diagnosis.

Participant discussions included exploration of:

- General contexts of managing allergens and cross-contamination, and the impact of this management generally and in terms of any exposure impact specifically
- Understanding, interpretation and use of PAL labels, including how easy or hard consumers found this currently and any points of confusion or frustration
- Understanding/expectations around regulatory and business intent around PAL use: why consumers thought PAL labels were used, and what they expected they were trying to communicate
- Regulatory intent and typical business use were then summarised in brief to enable consumer reflection, highlighting any gaps between consumers *they* thought PAL labels communicated versus what regulators intended and how businesses used them in practice. The current status of PAL regulation (for example, that PAL use is optional rather than mandatory) was also explored.
- Impact of the above on their interpretation of and needs from PAL communications.

## Phase 2: Co-creation:

- Working with colleagues within the FSA, findings from these group discussions supported the development of a **range of potential communications adjustments** to support clear, useful and accessible precautionary allergen labelling and information provision. These interventions, whilst potentially useful in their own right, were also used to help us explore views and needs more deeply.
- We then conducted **four mini-groups of c. 3 participants each (total = 12 participants)** to help develop more effective wording for PAL labels and in-restaurant notices and explore potential interventions that might improve

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<sup>3</sup> Although attempts were made to include consumers with lupin allergies or hypersensitivities in the sample, given low incidence this did not prove possible within the project time frames.



consumer experiences in terms of accessing precautionary allergen labelling information.

- Our sample for this phase was composed of Phase 1 participants who had already reflected on their PAL experiences and needs.
- **Co-creation stimulus** enabled exploration of:
  - Summary findings to date - so that we could validate and extend our understanding of consumer expectations and needs around PAL
  - Different wording options for PAL notices (on label and in-restaurant) and layers of information to be provided
  - Communications concepts aimed at enhancing accessibility of PAL information on-label and in-restaurant – for example, multi-layered information provision about cross-contamination risk via an app or QR code, and a cross-contamination checklist to aid communication with restaurant staff.
- **Stimulus for these co-creation sessions was iterated** throughout this phase of work with FSA colleagues as we learned more about what consumers wanted and needed – for example, adding new wording options for PAL communication, or clarifying communications ideas.

### **Phase 3: Testing:**

- Research closed with **four mini-groups of 3 participants each (total = 12 participants)** to test updated stimuli developed from the co-creation sessions and to validate and extend findings to date. Stimuli were again iterated across testing sessions with the support of FSA colleagues.
- Our sample for this phase was composed of Phase 1/2 participants who had already reflected on their PAL experiences and needs.
- Developed materials from these sessions were helpful in gathering more detailed feedback on potential communication interventions and confirming consumer preferences around PAL regulation and communications.
- Materials developed via these testing sessions should not be considered 'ready for public use' given small sample sizes, and the likelihood that communications interventions will be adjusted following business feedback via the FSA's 2022 PAL consultation.

In this report, participants have been roughly segmented into 'High Risk', 'Medium Risk' and 'Lower Risk' groups for the purposes of quotation attribution, based on their own self-report of hypersensitivity status (e.g. severity of response) and on experiences shared within the group discussions. These categorisations, though imperfect, have been included to provide readers with a rough sense of varying hypersensitivity severity across the sample:

- **High:** severe anaphylaxis, hospitalisation risk, risk of serious/long term harm;
- **Moderate:** urgent and/or anaphylactic reaction not necessarily requiring hospitalisation;
- **Lower Risk:** intolerances and non-urgent reactions.

### 1.2.3 Analysis approach and use of the COM-B framework

All interviews were recorded with participant permission and findings were documented using a structured pro-forma analysis document, using the project objectives plus a behavioural framework as the foundation for analysis.

Behavioural frameworks that help structure complex behavioural drivers are particularly useful when exploring complex contexts like precautionary allergen labelling. Breaking down behaviour into its constituent drivers is critical to help understand why certain behaviours are happening currently, and to inform effective interventions or communications shifts.

To help structure our exploration and analysis for this work, we used the COM-B behavioural framework, developed by UCL's Centre for Behaviour Change<sup>4</sup>. The COM-B model was chosen because it is a simple, practical and flexible behavioural framework with an extensive history of useful application in shaping public sector services and communications, particularly within the domains of public health, UK Government and charity-sector initiatives.

This framework posits that behaviour is driven by three things: Capability (C) – Opportunity (O) – and Motivation (M).

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<sup>4</sup> University College London. Centre for Behaviour Change.

For example, a business could potentially struggle to apply PAL as intended for a variety of reasons. There may be Capability barriers around PAL use: e.g., good knowledge of the regulation, how to manage cross-contamination within a kitchen, and risk assessment and management processes. There may be barriers in the form of Opportunity drivers (e.g., beliefs that other restaurants are not undertaking risk assessment of allergens, so it was not seen as the norm). Motivation might be complex; for example, businesses obviously don't want to hurt their customers, but may find PAL difficult to implement correctly within the busy kitchen environment with frequently changing menus and staff, making providing up-to-date PAL information more complex and time-intensive.

A structured analysis framework was used to map findings from each individual research session, documenting data against each key project objective and COM-B drivers. Following this structured analysis, a series of brainstorming sessions amongst the research team and our FSA colleagues were undertaken in order to identify key themes and insights across the sample. Findings were then verified during final data review, with verbatims being checked to verify all key points made in reporting.

## 2. Part B: Food Business

### Perspectives

#### Business Context

For businesses, there were two main regulatory contexts of relevance in terms of understanding SME views around and usage of PAL, discussed in turn below.

It should be noted that fieldwork with SMEs was undertaken during October 2021, the period in which the Pre-packed for Direct Sale Legislation (commonly known as Natasha's Law) came into effect.<sup>5</sup> This influenced how businesses conceptualised

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<sup>5</sup> This required any business that produces PPDS food to label it with the name of the food and a full ingredients list, with allergenic ingredients emphasised within the list. For details, see [Introduction to Allergen labelling changes PPDS](#)

and discussed their responsibilities around cross contamination risk, as discussed in more detail below.

## **PAL in the context of wider food hygiene management**

First and foremost, SMEs tended to think about allergen risk management and communication, including the use of PAL, in the context of wider food hygiene practices and especially microbiological risk management. Allergen advice and training was often subsumed within these broader food safety practices.

Notably, general hygiene management processes were seen as adequate to manage allergen cross-contamination risks.

This will lead to poorly managed risk within businesses solely or primarily focusing on microbiological management. For example, whilst not common, there were business that:

- believed the cooking process could also help control the cross-contamination risks posed by allergens
- stated that they 'only do what their Environmental Health Officer (EHO) told them to' – despite EHOs not having responsibility for PAL and differences in the extent to which allergen management was looked at by EHOs within the Food Hygiene Rating Score (FHRS) process.

Likewise, descriptions of kitchen and staff training within SMEs tended to focus on food hygiene management, with risk assessment and management procedures generally aligned to Hazard Analysis and Critical Control Point (HACCP) protocols which are predominantly designed to manage microbiological, chemical, and physical hazards. Note that allergens and cross-contamination management are not fully accounted for in these general kitchen safety management and training approaches, and though HACCP protocols can be used for allergen management, this was not commonly reported.

## **PAL in the context of wider allergen management**

The second context in which businesses considered cross-contamination requirements and risks was general allergen management and labelling.

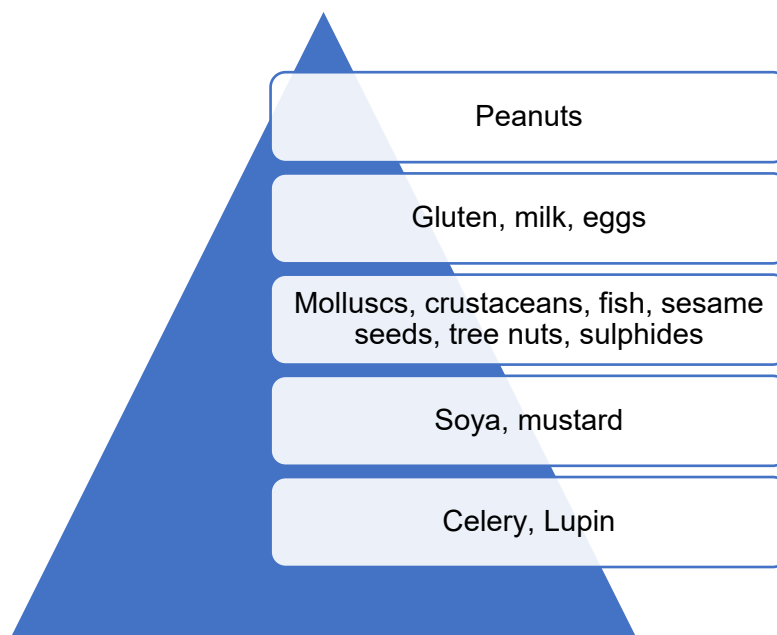
Prepacked for direct sale (PPDS) legislation (Natasha's Law), the media coverage surrounding it, and the guidance that businesses had accessed to understand their responsibilities were influential in this area. While sale of PPDS products were less common for catering establishments, most SME participants were aware of the need to ensure that such foods provide label information comprising the name of the food and a full ingredients list, with allergenic ingredients emphasised within the list.

For those selling PPDS (45 establishments in the sample), distinctions between general allergen labelling and PAL were not clear. For example, some felt confident speaking about general allergen labelling or communicating the presence of allergenic ingredients in their products to customers. However, they had not considered how best to communicate 'may contain' risk in depth – and were far less confident speaking about how they 'should' or would approach this.

## **How allergen type shapes perceptions of risk**

All allergens were not seen to be equal, and businesses perceived an implicit hierarchy of allergen severity. These 'risk heuristics' regarding different allergens had significant implications for how food was handled to prevent cross contamination risk, and the extent to which PAL was applied (see figure 1).

**Figure 1 Perceptions of allergen risk by SMEs**



Peanuts (often referred to as nuts, though this did not include tree nuts) were the exemplar of an allergenic ingredient, commonly associated with anaphylactic shock, and a particular concern for children. SMEs would often avoid using peanuts or having them on site during manufacturing. They were also more likely to use a PAL label to warn of cross contamination risks from peanuts.

Gluten and milk were also well known, though associated more with intolerances than allergies, and with the rise of gluten and lactose free products. Gluten cross contact was particularly common in retail establishments with bakeries. Eggs were also cited as an allergen risk, particularly in catering kitchens. Again, PAL use to warn of cross contact risks from these ingredients was relatively common.

Molluscs, crustaceans, fish, sesame, tree nuts and sulphites were recognised more in specific instances depending on the manufacturing process or the menu of a food business. PAL use for these ingredients was mixed, with greater use for sesame and tree nuts. PAL use for sulphides was greater for manufacturers. Use of PAL for fish, crustaceans and molluscs was varied. For instance, in butcher or deli type counters in retail outlets, PAL was not often used. This may possibly be as they are seen more in terms of microbiological risks, though this was not explored in depth.

Soya and mustard were less commonly mentioned as allergens. Celery, despite routinely being used in catering kitchens, was not seen as a significant risk and it was relatively common for businesses to remark that they often forgot it was an allergen. Lupin was not well known or used by kitchens. Risks from these ingredients were not generally communicated in PAL.

Moreover, for those apathetic towards the use of PAL, the inclusion of ingredients such as lupin served to undermine faith in the overall system – giving the impression that regulators were creating needless amounts of bureaucracy and not attuned to the daily demands of running a business.

Related to the above, and based on these heuristics and ‘gut-feel’ rather than a risk assessment, certain businesses believed that different allergens had different propensities for cross-contamination - this not only related to airborne contamination such as flour or peanut dust, but also the risk of cross-contamination on cooking surfaces.

Where you’re cooking something with nuts, a nut residue may actually get into something else and therefore it may contain. I don’t see eggs and milk as the same. Many kitchens will have eggs and milk and not every label will have ‘may contain egg’ or ‘may contain milk’ so I don’t really see that it would be appropriate. Nuts is a different category. Maybe I’m wrong but I don’t think I see all allergens as the same ilk.” – Small Business, Retailer, Deli

## **Implications of these contextual drivers for PAL**

It is important to remember that SMEs may rarely think about or plan around PAL in isolation.

The collective complexity of allergen labelling and food hygiene management systems – each with different regulatory force, standards for compliance, and authorities for inspection – often created confusion around the purpose and requirements for PAL use specifically. In developing and updating business and

regulator guidance and further policies around PAL, it is critical that this wider context is considered.

Moreover, there is a significant need to provide advice and encourage the adoption of risk assessment processes for allergens. Currently, given a lack of formal assessment and reliance on the heuristics mentioned above is likely to create blind spots, where either an allergen or a critical point for cross contamination is missed, which in turn will influence the effective use of PAL statements.

## **3. Business Understanding of PAL**

### **3.1 Factors shaping business understanding of PAL**

There was mixed understanding of PAL in terms of regulator intention and guidance for business usage across the SMEs interviewed, influenced by business size, maturity, and sector. Generally, manufacturers and more established businesses had greater understanding of PAL in contrast to newer, micro businesses focused on catering or hospitality.

#### **3.1.1 Business understanding of PAL – and confusion points**

Despite businesses being broadly aware that PAL statements related to the unintentional presence of an allergen, rather than those intentionally present as part of the ingredients, PAL was often confused with allergen labelling during the interviews, in terms of legal status and labelling requirements, particularly for those selling pre-packed foods.

Other significant areas of confusion and misunderstanding included:

- ambiguity over the voluntary status of PAL (all sectors)
- that risk analysis processes should be adopted in order for a PAL statement is used (all sectors, and awareness of this point was particularly low)



- Whether PAL vs free-from should be used: specifically, if effective risk management processes were in place to prevent cross-contamination, whether the food can be classed as ‘free from’ an allergen rather than ‘may contain’ (a particular issue for manufacturers).

Whilst infrequent, there were instances where SME participants had no awareness of PAL. These were generally micro catering businesses that had been set up during the pandemic lockdown, and had not accessed guidance in general around how to operate a food business beyond managing basic microbiological risks

As will be explored later, a central problem with PAL related to a lack of common standards guiding when it should be used, plus an easy and inexpensive means of measuring thresholds to support assessment. Consequently, PAL use lacked any real meaning.

Despite a lack of allergen risk assessment, SMEs commonly adopted risk management processes focused on HACCP plans. Nonetheless, PAL was ultimately applied as a business couldn’t be sure a product did not contain an allergen. This was less of a factor for manufacturers, but a greater concern for retail and especially catering establishments. For the latter group, given allergens were generally present in a kitchen, use of PAL became almost inevitable and if applied would require effectively mean all products sold have some cross-contamination risks.

These factors, tied to ambiguity over the voluntary/required status of the labelling, created a perception that PAL wasn’t a priority for regulators, and used with the aim of protecting a business from legal challenge as much as guiding safer food choices for consumers.<sup>6</sup>

“We adopt [PAL] to keep people safe and the business safe. Would there be a comeback on me [if a consumer had a reaction allergen from cross contact]?”

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<sup>6</sup> While PAL use in conjunction with a thorough risk assessment may afford legal protection, many SMEs did not undertake this when applying PAL.

Possibly, I really don't know". - Micro Business, Catering, Cafe

### **3.1.2 Implications for PAL**

Basic knowledge about regulatory intent and guidance around PAL is a major barrier to consistent and effective use; this area is generally one of great confusion for businesses. Understanding of the circumstances it is meant to be applied and how it is meant to be interpreted is low – and this ‘upstream’ confusion means almost inevitable confusion and lack of clarity of the ‘downstream’ consumer experience. Amidst the other challenges that SMEs need to manage, it is also an unlikely area for SMEs to focus more attention on so long as it is perceived of low priority to regulators.

## **3.2 Business motivations for using PAL**

The primary reason businesses gave for using PAL was to protect customers from the risk of an allergic reaction. While the seriousness of food allergies was generally well understood, the risk from specific allergens was limited. Nonetheless, there was genuine concern about accidentally harming customers, with potentially fatal consequences. Small businesses, particularly those in hospitality, catering, and retail settings, felt deeply connected to the communities they serve. The grief and anguish that could be caused through a serious allergic reaction was unconscionable.

A second reason, and remarkably common across interviews, was knowing a friend or family member with an allergy. This was cited as a key trigger to putting in policies and procedures around PAL – which, given the businesses size, was predominantly driven by an individual. Whilst a powerful motivator, one issue arising from this was that certain businesses were more focused on the risks of a particular allergen, rather than undertaking an assessment of risk overall. There were several instances of owners taking extensive steps to manage, for example, gluten cross-contamination whilst underplaying other risks, because “my mother-in-law is a coeliac”.

A final reason for using PAL was to protect the owner from legal liability in the event of an adverse reaction. There was a common, but mis-held belief that the use of PAL

placed a legal responsibility onto the consumer to judge whether the product was safe to eat, given their health circumstances.

Overall, the motivation for businesses to want to apply PAL statements in a way which helped consumers make informed choices was strong. Consequently, there would not appear to be a significant requirement to persuade SMEs of the importance of allergens relative to other food safety risks – though there were notable exceptions to this, which are discussed later.

Of greater concern was the practical experience of applying PAL. This was influenced by a wide range of factors including:

- level of knowledge about the regulations
- sector, position in the supply chain and the nature of food produced
- confidence in assessing and managing allergen risk effectively
- ability to execute PAL guidance given the above

It should be noted that a third of businesses interviewed did not use PAL. There were a variety of different reasons given for this, including:

- Products were tested and believed to be safe (Manufacturing)
- Verbal confirmation by customers of their allergies was felt to be sufficient (Catering and Retail)
- Products were very simple, so cross-contamination risk is negligible (Manufacturing)
- Food is cooked from scratch, so there is no need for 'may contain' labels (Institution, Care Home)
- Effective management eliminated the risk (Retail, Catering)
- 'May contain' is too vague and not helpful for consumers (Catering)
- Statement perceived as meaningless – everything in the kitchen would need a 'may contain' label if an allergen is used as an ingredient (Catering)
- Children can't read the labels (Institution, School)

Though not common, there was a view from a small number of SMEs that the risk from food allergies were overblown and PAL was not used in this context.

## 3.3 SME typologies and the use and attitude to PAL

When considering the application of PAL by SMEs, there were four broad typologies that emerged, as shown in Table 1.

**Table 1: SME typologies around PAL application**

<b>Typology</b>	<b>Attitudes and behaviours towards PAL</b>	<b>If using PAL, where applied</b>	<b>Typical sector and type of food business</b>
Assured	Confident using PAL, though use mixed. Undertake quantitative risk assessment	PAL label on pre-packed goods Verbal and sign information.	Manufacturers, generally selling business to business, though some selling direct to consumers
Judicious	Reasonably confident using PAL. Manage allergen cross contact, but do not undertake quantitative risk assessment	Verbal, menu and sign information. PAL label on pre-packed goods.	Institutions, medium sized retailers, and small caterers. Selling directly to consumers.
Unconfident	Less confident using PAL. Want to do the right thing, but not clear how.	Verbal, menu and sign information. PAL label on pre-packed goods.	Micro retailers and caterers. Selling directly to consumers.
Apathetic	Do not want to use PAL. Seen as a burden and disproportionate.	Tend not to use PAL, though will pass on info through the supply	Small but established caterers and retailers. Selling

		chain. Some instances of verbal communication.	directly to consumers.
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### 3.3.1 Views and experiences of ‘Assured’ businesses

SMEs that were assured in their application of PAL represented one of the smallest groups in the sample. Their defining characteristic was undertaking a quantitative risk assessment to identify any allergen cross-contamination. They were manufacturers, using a few raw ingredients in their products to manage risks effectively; with certain ingredients avoided due to cross-contamination risks – notably peanuts or tree nuts. Manufacturing was often, though not always, undertaken in very controlled, hygienic environments using stainless steel machinery and equipment. Separation (time and space) was used to manage cross-contamination, together with the cleaning of equipment between different product lines.

It should be noted that as the processes to manage cross-contamination were so effective and the risk quantified, several of these businesses did not use PAL. Effectively, they saw their products as free from cross-contamination.

“We may do a brew with lactose and then clean down, do a test on the kit and test the final product. We are well below the legal critical limit. It either does contain or it doesn’t, so we don’t use PAL. It’s a definite yes or no. Though the information we get on thresholds has changed in the past two years”. - Micro business, Manufacturer, Brewery

In this context, there was some uncertainty as to whether a PAL or ‘free from’ claim should be used – as threshold standards are not in place for most allergens. It will be important to reflect both these factors – use of PAL below in relation to thresholds and differences in use of PAL vs ‘free from’ – in future guidance for these types of businesses.

### 3.3.2 Views and experiences of ‘Judicious’ businesses

SMEs that were judicious in their use of PAL were one of the two most common groups (in the sample of businesses interviewed). While they did not test products quantitatively, their defining characteristic was being confident in their understanding and training around how to manage cross-contamination risk.

Institutions, in particular schools and care homes, were predominantly in this group and often had sophisticated procedures to manage food safety risk. This included catering for the needs of individual allergy sufferers – including separate preparation, food storage areas and equipment for people in their care.

“We have separate fridges and preparation areas. For any boys with serious allergies, there will be complete separate food storage areas and sealed containers for their foods, which are labelled, and colour coded. We keep detailed paperwork on ingredients used in the kitchens, and any student with an allergy is passed on to the kitchen. We have separate areas and utensils when preparing foods, including separate plates and cups for serving in the most severe cases. One boy with very serious allergies even has his own chef to prepare his meals.” - Medium business, Institution, School Caterer

In addition to institutions, there were a range of SMEs across retail, catering, and hospitality that were judicious in their use of PAL. Common across such businesses was an individual who took food hygiene and food allergies very seriously and had undertaken a range of training in this area (often over many years). These individuals were the driving force behind developing policies, procedures, and training to manage the risk effectively in the business. For restaurants in this group, staff were encouraged to ask consumers directly about their allergies, and electronic ordering systems were often in place to prompt staff to do so.

Given this range of effective controls within the business, there was a greater perceived risk of allergen cross-contamination from food that had been manufactured by others. Whilst the ability to manage this risk was seen as limited, several institutions (particularly schools) had assurance processes to assess suppliers, and procedures governing which supplier may be used.

“Our parent company vets suppliers to ensure risk is managed in the supply chain. We are only allowed to use their approved list. We will also double check their food labelling relates to description of allergens on the website when using suppliers”.

Small Business, Institution, School Caterer

The use of PAL by this group of SMEs was generally high, as there was no testing of allergen cross-contamination risk together with uncertainty concerning how effective cleaning techniques were. In short, these SMEs used PAL because, despite their best efforts, they couldn't be sure risk had been sufficiently controlled. As one business owner noted “you feel forced into putting it on there”.

It should be noted that, while the risk was effectively managed, PAL statement use was mixed in schools, particularly for younger age groups – as it was felt that children would not be able to easily read and/or understand the message.

### **3.3.3 Views and experiences of ‘Unconfident’ businesses**

SMEs that were unconfident in their use of PAL was the second relatively common group. Whilst they wanted to do the right thing, their defining characteristics were being uncertain about when and how it should be applied. Whilst having reasonable processes in place to manage cross-contamination risk particularly during food preparation, they were anxious as to the adequacy of these and needed reassurance.

“I'm doing the allergen training, but I still, I don't know why but I still don't feel confident that I'm doing the right thing”.

Micro business, Catering, Sandwich Bar

These businesses tended to be very small or micro businesses, working in retail, catering, and hospitality; and often involved the owner trying to understand and navigate the complexity of the food regulation system. Technical language used around PAL and any process that might involve the quantification of risk was of particular concern for this group.

In addition to the management of risk, the rules around PAL vs allergen labelling (though conflated by many businesses) were especially confused by this group. Specifically, it related to what information needed to be put onto a label when using multiple manufactured ingredients in a food product.

For example, one SME made cakes which, in addition to a range of raw ingredients, were decorated with a variety of sweets. They were not only confused as to what ingredients they needed to include on the label list (the list on each constituent product was already long), but also uncertain how to communicate PAL in relation to this.

“The cakes we do are all different sizes, and we use many flavours – chocolate, orange, mint, vanilla, ginger, lemon, carrot etc. We can top them with things like Maltesers or Smarties. With Natasha Law coming out, it’s hard to know how much detail we need to give on ingredients. Do I need to put in all the ingredients from each supplier? And what about ‘may contain’ [labels]? Do I need this for all products and every allergen? There are so many grey areas. We are still learning about it” - Micro business, Retail, Cake Shop

PAL use for this group was generally high and used as a catch all in the absence of any certainty about real risk to consumers. Where PAL information was provided from suppliers, it was generally passed on to consumers without any broader discussion or assurance of the processes in place to manage risk. While this was to some extent based on trust (particularly for more established suppliers), it was also due to a lack of understanding around the questions to ask and resources to undertake such due diligence.

### **3.3.4 Views and experiences of 'Apathetic' businesses**

SMEs apathetic towards the application of PAL were a small, but significant group in the sample. Their attitudes ranged from resigned to hostile, with current guidance for food labelling influenced by views concerning how the business was run in the past.



Apathy was related to a perceived growth in bureaucracy around food safety management in general, the perceived minor risk posed by their business, and the implications of using PAL (from creating more paperwork to needless complexity) for their business and customers.

“I think it's excessive. I think if the people have been trained in your business well enough, [PAL use] is not a necessity. I can understand when people employ kids who don't really care. So that's basically an insurance policy just to cover their back. The menu just looks messy. It just doesn't look as appealing. If you've got that all that on there and you've got like lupins and words that people don't understand, mollusks or anything like that, they will be put off” -  
Small business, Catering, Fish and Chip shop

Apathetic businesses tended to be in retail or catering and had been trading for many years. They often held slightly anachronistic views on the seriousness of allergies. Lack of time and the busy nature of food service were also cited by this group as barriers to using PAL.

PAL use was limited for the apathetic group. Generally, it was not used by those vexed by a perceived growth in food labelling and, where applied, was used as a catch all to protect the business from liability. Rather, the responsibility for communicating and managing allergen risk fell more on the consumer rather than the business, and they felt that ultimately it was a customer's choice whether or not to eat in the establishment.

“I don't think it's the norm. I'm probably putting down a couple of restaurants that do that level of detail. I think in London you may need that level of information. People are adults and they can always formulate their own decision. Everyone knows what's good for them and what's bad for them”. - Small business, Catering, Indian Restaurant

### **3.3.5 Views and experiences of Wholesalers**

In addition to the groups above, we spoke to two wholesalers as part of our retail sample. They were distinctive in their approach to PAL. Overall, they viewed their role in managing cross-contamination risks as minimal – food was generally prepacked, and scope for cross contamination generally related to packaging spills. Allergen risks were also seen as low in the context of other (especially microbiological) risks from the delivery and storage of food:

“When we are out making deliveries, we are asked to do all sorts of things. We have refrigerated goods and we’re asked to leave it around the back of a pub because it couldn’t be unpacked until the chef turned up.” - Medium business, Wholesaler

One wholesaler noted they had undertaken Safe and Local Supplier Approval (SALSA) training, which had significantly improved processes and practice. But even in this context, allergen risk was not top of mind (relative to other food safety concerns), PAL knowledge often limited to one or two people in the business and a wider culture supportive of food safety was lacking.

Nonetheless, these wholesalers did undertake some processing and/or repackaging of foods. Additionally, the quantities of ingredients they work with and their critical role in the supply chain means the cross-contamination risk from these businesses may be more significant than believed. Despite this, PAL use was limited by these wholesalers and generally related to passing on information from suppliers.

### **3.4 Implications for PAL**

There are distinctive PAL advice needs for different types of food businesses, together with levels of confidence which may require different types of support.

Manufacturers are distinctive as a group and have specific needs relating to testing, thresholds and risk analysis standardisation. Support on how such information is passed through the supply chain may also be of use.

Retailers (particularly those who also provide foodservice) and institutions generally have reasonable risk management processes in place, though could benefit from advice on effective risk assessment, potentially through closer integration with HACCP. Guidance on label wording may also be helpful for retailers.

Caterers (especially micro businesses) need most support, specifically looking at how to assess and manage allergen cross contact in kitchens, as well as understand risk through the supply chain. Guidance on good practice on PAL information is also a need for this group.

## **4. Businesses' considerations for the future of PAL**

Businesses were broadly sympathetic to the need for PAL and wanted to develop a better system for regulation. However, there were a series of considerations that need to be addressed in any development of a new system. These focused on:

- how risk was assessed, managed and measured, including training
- how risk was communicated and how labelling was applied.

Each is now explored below.

### **4.1 Risk assessment, management, and training**

There were three main findings in relation to risk assessment and risk management.

#### **4.1.1 Allergen risk assessment was patchy**

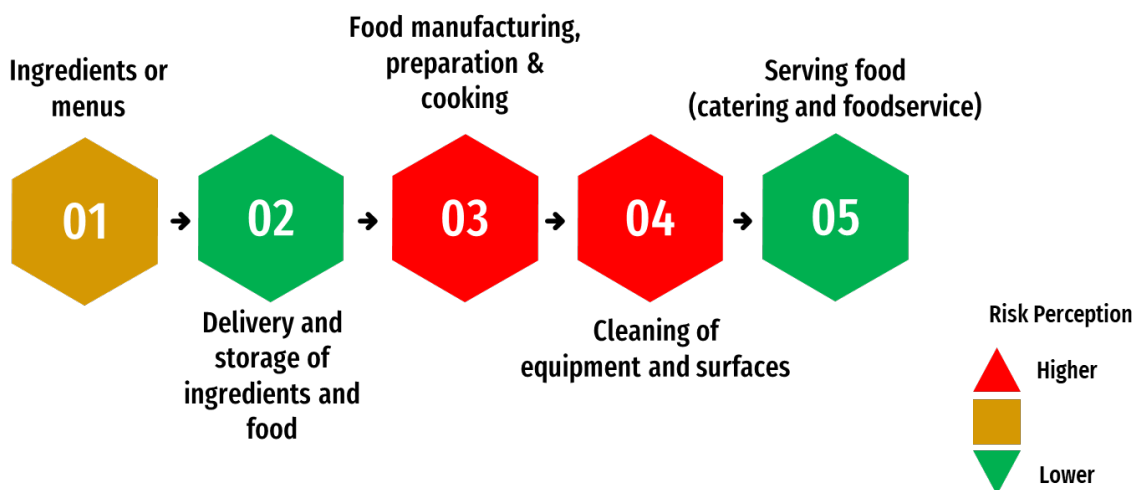
Whilst businesses would often mention that a risk assessment process was undertaken prior to applying PAL, there was limited detail on what this comprised,

and discussion generally focused more on risk management than assessment activities.

Based on our evidence, it is likely that practice here is mixed, intuitive (rather than as part of a formal assessment process) and, where done, related to HACCP processes for microbiological contamination. Whilst practices were seen as adequate for both, it was acknowledged that allergens risks may not have been fully considered.

Overall, though not formally described as a procedure, five critical points for assessing allergen risks emerged from our analysis.

**Figure 2. Critical points and associated risks**



1. Ingredients or the menu defined the overall allergen risk for the business.
2. Delivery and storage of food was seen as a less significant risk, and mainly associated with spillage.
3. Food manufacturing and preparation was seen as a high risk, cooking less so though there was awareness of cross contamination from reusing oils in catering establishments.
4. The inadequate cleaning equipment, from machinery in manufacturing, to boards, utensils and kitchen equipment was seen as the primary risk for allergen cross-contamination.

5. Serving food (in catering and retail foodservice) was less commonly identified as a risk and may indicate this area is inadequately assessed.

As noted above, risk assessment across the supply chain was limited, with instances of quality assurance occurring more frequently in larger institutions (especially schools) and certain manufacturers. Additionally, in schools and care homes, risk assessments were undertaken concerning the dietary needs of children and residents.

Finally, while not common, there were instances where businesses stated no risk assessment was undertaken and there was no awareness of the necessity to do so, despite discussing it with authorities.

“We do not have and I’ve not been instructed to do a risk assessment for allergens. That has never come up in any of my discussions with the Trading Standards or even on my food hygiene course.” - Micro business, Catering, Deli owner

#### **4.1.2 Allergen risk management was relatively comprehensive**

While risk assessment was patchy, risk management processes linked to the critical points identified above were more comprehensive.

Allergenic ingredients and foods were routinely reported as stored separately and labelled. This is one of the few areas where distinctive practices for allergen cross-contamination management was highlighted. Additionally, it was relatively common for manufacturers to avoid certain ingredients to manage risks.

Reflecting the perceived risk, the greatest focus on management reflected food preparation, and the cleaning of equipment and utensils. These processes followed good hygienic practice to prevent cross-contamination (cleaning equipment between use, food separation (time and space), the use of separate boards, coloured coded utensils and so on. All of these were reported as routine practices, were centred on HACCP and developed predominantly to manage microbiological risks.

The factors limiting the ability to adequately manage allergen risks included:

- the space available for food preparation and cleaning
- uses of allergens with airborne risk, such as flour
- the “chaotic nature” of catering kitchens
- the use of contract workers who may not be fully aware or engaged with a business’s safety protocols, particularly in institutions.
- changing suppliers

Managing risks associated with serving foods was less common. When described, it was particularly linked to the potential for cross-contamination of take-aways and keeping dishes apart from one another at point of dispatch.

In terms of supply chain risks, as noted, small businesses generally took ingredient lists at face value and did not have resources to undertake due diligence to manage the risk. While this was less of an issue for manufacturers (though mentioned in limited contexts), it was a significant concern for small and micro catering establishments.

‘We ultimately have to trust the manufacturer and retailers to give us the proper information. We’re a charity and we don’t have the expertise or resources to do any proper checks ourselves, so we’re reliant on them listing every possible allergen they have, so that when we serve something, I can pass that information onto our service users. I don’t think small businesses can be expected to do more than this’ - Micro business, Catering, Food charity

#### **4.1.3 Allergen advice and training was subsumed in broader food safety practice**

Allergen training was generally undertaken by SMEs as part of wider food hygiene training courses (notably a module in Level 2 Food Safety and Hygiene for Catering).

Good practice around allergen management also focused on the job training, including refresher sessions. Culture was an important driver of both training provision and practice; the presence of an owner or manager that was committed to food safety was one of the most notable differences between businesses in terms of the effective application of PAL.

While advice from the Food Standards Agency was noted as helpful, this generally focused on the either general food hygiene advice in Safer Foods Better Business or allergen checklists, which related to general allergen labelling rather than PAL specifically. When business had specific queries on allergen cross-contamination, gaining advice was complicated. Information on websites was often out of date, and advice from local authorities was patchy and inconsistent.

“I think the key for any information or tool is for it to come through the relevant trade body. Anything that comes straight from the government you have to read 20 times before you understand it all. And so much of it isn't relevant. When information comes through the Cheese Makers Association it's directly relevant to us and we don't have to waste time doing other things”. - Small business, Cheese manufacturer.

Given this complexity and ambiguity, businesses often relied on trade bodies and other industry advisors to help them navigate the perceived bureaucracy and do the right thing. Simple guidance produced by the FSA on allergen management, working through trade bodies, is likely to be used.

## 4.2 Risk communication

Overall, while there was support for greater standardisation around the use of PAL statements, and understanding of a need for change, businesses were wary about what this might entail.

Experiences from the introduction of Natasha's Law were frequently cited as examples of how small changes to food labels can have big implications. In this context, several issues were identified for the FSA to consider when setting out guidance for business:

- Costs
- Unintended impacts
- Access to training and information
- The amount of information on a label
- Thresholds and support on when to use a PAL label
- Signs and verbal communication

Each is now briefly explored.

### **4.2.1 Costs**

Margins were tight in small food businesses, and catering establishments were reeling from the impact of the pandemic. Changes introduced to PPDS foods had variously involved investment in new printers, labels, and time spent finding out the full range of allergens and ingredients from suppliers.

There was concern that changes to PAL would mean further investing in food labelling at a time when businesses could least afford it. Moreover, as PAL was not enforced, businesses could be effectively penalised for doing the right thing.

“I just feel that if they're making small businesses go to all this effort – we're not Tesco who can just swallow the cost in a day's takings. It's a lot of time and money for us, and it's really important to know that it's worth the effort. I'd feel really annoyed if three years down the line it wasn't being enforced and we'd just forked all of this money for nothing.” - Small business owner, Retail, Bakery

### **4.2.2 Unintended consequences**

Interviewees stated that there needed to be greater appreciation from the FSA of the practical implications of seemingly small changes to labelling. There were several



examples of this in the context of Natasha's law – each creating friction points on routine food service practice, which undermined faith in the system. In the following quote, a school now took steps to avoid PPDS classification of a children's jelly, due to the associated costs:

“On Fridays we make the kids packed lunches as we finish at 12:30. Normally they get some jelly in their packed lunch, but now because of Natasha's law, if we put a lid on the jelly, we need to put a label on it too. But the catering company doesn't want to charge this extra cost to the school because we're in quite a deprived area, so we just keep the lids off. But the lunch supervisors have been really annoyed about the whole thing because they have to carry it all in on trays and it makes things complicated. They just can't see the point in it, but I just tell them, it's not me who makes the decisions, we just do it to make sure everyone is safe”. - Kitchen manager, Institution, Children's primary school

### **4.2.3 Access to training and information**

As a consequence of the food safety and hygiene focus of most training, certain courses were reported as not covering the risks from allergens adequately and “feeling out of date”. While trade bodies were trusted sources of information, interviewees noted more could be done to ensure the information and support they provide is focused on the right areas.

Support around risk assessment and management also needed simplifying. Making it easy for SMEs to do the right thing was vital in this context, with step-by-step guides and frameworks for businesses seen as potential enablers:

“If I was gonna do an allergy risk assessment, the first thing I would do is Google allergic risk assessment. And I'd be met with a ton of PDFs and documents that aren't specific to my business, and they're in hundreds of different formats. If, however, the Food Standards

Agency emailed and said, hey, it's probably about time, you should do a risk assessment, here's a template we recommend, then I would absolutely print out and do it" - Small business, Catering, Restaurant

Across all information and training, clear non-technical language was cited as key: accessible to everyone from the manager to the shop floor.

#### **4.2.4 The amount of information provided**

Businesses selling PPDS products, in particular manufacturers and retailers, felt there was limited scope for additional information on a label and any changes resulting from new PAL guidance needs to be seen in the context of the detailed information already provided on allergen labelling.

"You can keep adding to your labels over time, but there comes a point where people are less and less likely to read them. It's already quite crowded on the back of our packaging and we don't have anything on there that is unnecessary. I wouldn't want to do anything that might be misleading." - Small business, Cheese Manufacturer.

We produce 24 different chocolates – and now need to provide a full ingredient list and allergen list for each. This will probably need to be a separate sheet print out sheet. It's very time consuming. Do we need to add PAL on top of this?'. - Small business owner, Chocolate retail

Beyond labels, there were mixed views as to the potential role of images or icons on menus and websites in catering establishments. While they were noted as having the potential to communicate more clearly than text, the costs, ability to print and the "busyness" of menus were a barrier to use.

#### **4.2.5 Thresholds and support on when to use a label**

For the PAL system to work more effectively, there was a need for an objective and standardised way of understanding its use.

'May contain' was viewed as meaningless, as there was always some risk of presence of an allergen given the complexity of manufacturing, supply chains and food preparation in most businesses.

If you are using different areas but someone then chops an egg on the same chopping board, is that then a may contain even if that board has been washed and sanitised or is it may contain because it might have not been dish washed properly?" - Small business, Catering, Café

In this context, clarity on how risk assessment and management procedures adopted by a food business related to the use of a PAL statement would be extremely useful.

The idea of an FSA tool to provide an objective standard for when to use a PAL label based upon the amounts of ingredients used was broadly welcomed by institutions, catering and retail establishments, though concerns were raised by certain businesses that this felt an unnecessary complication.

To support this process, the establishment of thresholds for the use of PAL by manufacturers was seen very important, though measurement was seen as complex for certain product ranges (for instance, where an allergen distribution within a product is random rather than homogeneous, or where there were occasional risks of cross contamination with larger particles).

#### **4.2.6 Signs and verbal communication**

In catering and foodservice establishments, customers were seen to play a key role in risk assessment. The use of signs in this context were commonplace, though it was less usual for a business to ask customers directly about allergies or

intolerances. Rather, there was a greater emphasis within the catering SMEs for customers to inform staff of any allergies, together with cases of businesses refusing to serve customers due to concerns around allergy risk.

“I believe it is the responsibility of my customer to speak about their allergies, they know what allergies and intolerances they have, so they need to ask us”

Micro business, Catering, Deli

“Usually if anyone comes in with an allergy I just ask them to leave the shop because I get worried, especially nut allergies because it is such a worry”.

Small business, Retailer, Confectionary

Given the above, the overall needs for business in relation to PAL are:

- **Simplify:** the current food regulation system is seen as complex and arcane, with different systems for food hygiene, allergen labelling and PAL leaving businesses struggling to distinguish the distinctive elements of each.
- **Integrate:** bringing together different aspects of food regulation would be welcomed – for instance, scope for closer alignment for the risk assessment, management and communication of allergens risk alongside microbiological risks within HACCP
- **Standardise:** provide a common framework for the use of PAL, where the label, risk management and thresholds work together to provide clear expectations for business and meaningful information to consumers
- **Educate:** Work with trade bodies and other providers to ensure commonly used training programmes account for allergen cross contamination
- **Communicate:** ensure all guidance is written clear, simple and accessible language
- **Make it easy:** bring PAL information together in one place and provide a means for business to gain additional advice as required.

As one of the businesses we interviewed noted:

I'm not a massive fan of adding extra burden, but as long as it's very clear, straightforward, then we're happy to do it. It's when you have to just go and try and figure stuff out for yourself and just hope that you're along the right lines. That's the bit that I just that's what stresses us out." - Small business, Catering

## 4.3 Implications for PAL

Businesses desire greater standardisation to guide their use of PAL. However, there is nervousness around any potential changes to guidance in terms of cost, complexity and unintended consequences. There is also a need to ensure greater consistency in training (particularly working with trade bodies), as well as processes to assess and manage risk from allergen cross contamination.

In terms of risk analysis, for manufacturers, while there is a need for thresholds to guide the use of PAL, it is tempered with concerns over the complexity of measuring risk for certain types of products.

For foodservice retailers, institutions and caterers, clear and simple ways to assess and managing cross contact risk during food preparation, especially in busy kitchens, was paramount.

For PAL labelling, on PPDS products, practical issues such as label space, ability to print, and the potential complexity and length of labels with multiple ingredients and cross contamination risks were significant concerns.

For PAL information, the range of allergens present in a kitchen meant cross contact was almost inevitable. Support on how to communicate this meaningfully, especially through verbal communication and discussion with a customer on how risks are managed, is likely to be of use.

# 5. Part C: Consumer Perspectives

## Consumer Context

As for businesses, consumers' attitudes, behaviours and experiences around allergen and cross contamination management were highly influential in shaping their understanding and usage of PAL notices. Before exploring consumers' understanding of and response to PAL specifically, we thus explore these wider contextual factors, including audience differences in general approaches to allergen management.

### 5.1 Audience differences in consumer experience

Although all participants felt that allergen and cross-contamination management was a critical business responsibility, their own handling of allergen management - and the emotional and cognitive 'weight' of this management - varied significantly.

#### Drivers of audience differences

Differences in consumer approach and knowledge around allergen management - beyond PAL specifically - were primarily driven by the following factors. These factors were summarised from consumer discussions, rather than assessed formally.

**Figure 4: Drivers shaping consumer cross-contamination approach**

<b>Less risk conscious and less knowledgeable</b>	<b>More risk conscious and more knowledgeable</b>
Less severe response history	More severe response history
More recently diagnosed	Longer since diagnosis
Generally, good overall health	More fragile overall health
More risk optimistic personality	Multiple allergies/intolerances
-	Parents and carers

For more risk conscious participants, avoiding allergenic ingredients (including via cross contamination) was a greater worry. They had often amassed a high degree of knowledge about how to avoid allergenic exposure, including via cross-contamination. For example, some participants had extensive systems in place both in and out of home, often supported by loved ones, to ensure that the foods they were eating were safe and allergen free – or ate highly restricted diets of proven ‘safe’ foods, with little variation. One couple divided responsibilities to ensure a strict ‘double count’ on labels: one partner would check all labels at point of shopping, the other would double-check labels before food was prepared.

Less risk conscious participants might enact general measures to reduce exposure risk (such as label scanning, menu checking or having a ‘safe foods’ and ‘safe restaurants’ list) but prioritise enjoyment of food and participation in social situations over their allergen risk. Risks around allergen exposure were sometimes taken as long as they had a fail-safe close to hand (EpiPen/antihistamine) or were close to home. Or consumers may simply not know what risks they should be monitoring and be taking it on faith that businesses are managing risks on their behalf. While not common, this group did include participants with histories of anaphylactic reaction requiring hospitalisation.

Each is explored in more detail below.

### **Severity of response**

Some participants had more moderate or mild allergies/hypersensitivities, typically involving allergen response that felt less ‘severe’ to them - for example, not requiring hospitalisation, and/or not involving a life-threatening degree of restricted breathing. These participants seemed more likely to weigh up risk vs reward and take calculated risks where possible, to limit the influence of allergies on their life. For example, such participants would worry less about cross-contamination risks when engaging in social events, or even if they simply ‘really wanted the food!’, simply keeping treatment close to hand.

However, those who had experience of very severe reactions - for example, requiring hospitalisation, involving very restricted breathing, or otherwise posing serious harm to health - were more likely to take a far more cautious approach. They also tended to be more aware of the range of cross-contamination risks that needed monitoring to fully minimise exposure risk, and would put greater effort into gaining the information they needed for allergen management.

“I don’t chance it because it can cause my neck to swell up and breathing problems, so it can be quite dangerous and cause my lips to swell up... for that reason alone I am out.” – High Risk Consumer

“We went through immuno-therapies so my daughter can now take peanuts, and before it was very severe; before the therapy we were very worried. We stopped eating a lot of things, and we even avoided going out to eat.” – High Risk Consumer (Child)

“My allergy has been diagnosed and I’ve used the EpiPen a couple of times, last one was out at the pub. But I just carry it with me. I’m not that worried about it, not as worried as some of the other people in the group to be honest. If they say it doesn’t have eggs in it, that’s good enough for me.” – Moderate Risk Consumer

### **Multiple hypersensitivities and/or other health issues**

Participants managing multiple hypersensitivities often found this very challenging as it required constant close monitoring of allergen and cross-contamination risk.

Participants in this category tended to be highly risk averse: constantly scanning food packaging and menus, scrutinising wording; even ‘chasing’ additional information from businesses to clarify ingredients lists and cross-contamination risk. Some also had rarer hypersensitivities not currently requiring labelling, meaning it was extremely difficult to fully confirm that a food was ‘safe’ before eating.



For example, one participant had several severe allergies, plus a range of other hypersensitivities (in his words, 'intolerances') that although not as 'serious' in terms of overall risk could have profound impact on his overall physical health. For example, exposure to these 'intolerances' had exacerbated a range of long-term chronic conditions that had become worse over time in part due to allergen exposure. His overall level of functioning declined over time, resulting in a highly reduced quality of life.

As his immune system became more and more compromised, this participant also found himself intolerant of an increasing array of ingredients, making risk minimisation exceedingly difficult. He noted that it was almost impossible to trust food that anyone else had prepared, and expended an enormous amount of energy trying to obtain cross-contamination risk data from suppliers of packaged goods.

### **Time since diagnosis**

Participants tended to report that their approach to navigating and interpreting allergen information shifted as they gained more experience after diagnosis – typically, becoming more rather than less stringent over time.

For example, many participants took a fairly relaxed approach when first diagnosed, only focusing on avoiding named allergenic ingredients. Often, their awareness of cross contamination risks then grew over time due to negative reactions when trying new products or via conversations with other allergy sufferers. For some, exposure contributed to worsening health or major reactions incidents, raising risk consciousness over time.

"For me, it's wheat I can't eat, and a lot of places say, 'gluten free' and when I first got diagnosed I thought YAY every time I saw a gluten free menu because that shouldn't have wheat. But actually, sometimes it's on the gluten free and someone messes up, and there's bread on the plate. Or it uses the same fryer as the wheat things. And that's not actually safe for me." – Moderate Risk Consumer

## Personality and risk orientation:

The seriousness with which participants tackled cross-contamination risk also varied according to personality and general risk appetite. Some participants with quite serious allergic response histories reported that they simply valued their freedom and didn't want to allow themselves to be too restricted. They took an optimistic view: 'It probably won't happen if I'm reasonably cautious, without going over the top - and if it does happen, I'll get help.'

"What my hospital have said to me is that there's two people with allergies: people that read every label and eat nothing and whatever, and people like me who just get on with that. And I've made mistakes, I've had the tingling and I know what to do and you just... you can't let it live your life for you." - Moderate/High Risk

## Caring for somebody else with a hypersensitivity

Risk aversion tended to be high amongst parents and guardians of children with hypersensitivities, particularly regarding younger children, and/or those caring for vulnerable dependents. Many of these participants reported that they felt they were always on guard, shouldering the weight of keeping their loved one safe, and trying to do the best job they could.

"It's the fear that comes along with a reaction that is hard for me. I think if it was me, perhaps I'd be willing to have a may contain or made in a factory that handles but I'm not willing to put my son through that risk because it's my job to protect him, I'm his mother."  
– High Risk Consumer

As children aged, independence and increasing social exposure meant minimising risk became harder to achieve and less in the control of parents or caregivers. Some parents reported that after being enormously careful to minimise exposure risk and manage cross-contamination risk for years, it became less feasible to fully 'manage'

risk on their children’s behalf. Some eventually ‘gave up’ and just kept EpiPens to hand.

### **Audience typologies**

Overall, the above factors combined to form the four rough consumer typologies below, varying in terms of overall risk awareness (how conscious consumers were of cross-contamination risk), knowledge levels (their understanding of how to manage this risk), and attitudes and behaviours around cross-contamination management.

These typologies are related to more general consumer management around allergens rather than PAL per-se - but as we explore in Chapters to follow largely dictate understanding and usage of PAL specifically.

**Figure 5: Typologies of consumers’ cross-contamination approaches**

<b>Typology of consumer</b>	<b>Risk Awareness</b>	<b>Knowledge levels</b>	<b>Attitudes around cross contamination management</b>	<b>Behaviours around allergens and cross contaminations</b>
<b>Worried manager</b>	High	High	It’s my job to keep myself safe, and I’m going to do it right and put the work in to figure this out.	Dedicate checking systems. Always ask the manager. Safe foods, safe places list.
<b>Resigned and restricted</b>	High	High	It’s not worth navigating the gray areas all the time and putting myself at risk – it’s easier to just say no.	Restricted diet, restricted eating out. Say no if at any risk at all.
<b>Freedom focused</b>	Medium/low	Variable	“I know it matters, but life’s too short – I can’t let this dictate my life.	Indulging in favourites Epi-pen as risk

Typology of consumer	Risk Awareness	Knowledge levels	Attitudes around cross contamination management	Behaviours around allergens and cross contaminations
			It's not worth the hassle to worry too much about cross-contamination, even if I get in trouble now and then.	management. Testing risk boundaries.
<b>Unaware and at risk</b>	Variable	Low	I've been told not to eat X, so long as I don't eat that...I'm good right? Businesses will take care of the rest.	Focusing on ingredients relying on menu information not asking many questions.

## 5.2 Consumer expectations around business practice

Although most participants had not thought about cross-contamination regulation and rules in depth, discussions generally reflected consumer beliefs that 1) businesses had a duty to minimise risk of allergen exposure as far as possible, and 2) that cross-contamination management was probably an established and extensive focus of food business regulation.

Most were aware of regulatory inspections and enforcement schemes such as the Food Hygiene Rating Scheme and assumed that in order to operate in the UK, food businesses had to regularly prove safe handling of food and clear, honest consumer communication. Much like food businesses themselves, consumers assumed that allergen and cross-contamination management existed as a specific element of this wider set of responsibilities for safe practice. This meant that most participants also

had a latent assumption that allergen and cross contamination risks were covered within the wider inspections and enforcement regime.

As we explore in Chapter 8, participants often became upset when understanding that businesses weren't actually legally obligated to provide a PAL. Their (incorrect) baseline assumptions around mandatory risk reporting sometimes influenced interpretation and use of PAL in ways that were often unhelpful, sometimes dangerous; consumers assumed that foods not labelled with PAL were 'safe' and allergen free.

## **5.3 Experiences with allergens in-home and out of home**

In general, consumers with hypersensitivities find the risk communication landscape around allergens quite confusing. They reported typically needing to navigate multiple 'layers' of information in order to assess the risk status of the foods they eat, and often feeling left unsure whether that information is accurate enough to support good decision-making. Participants found this process taxing – feeling the burden of keeping safe is very much on their shoulders.

### **5.3.1 Experiences with on-product allergen information**

In general, participants reported that they found allergen information on labels hard to read, hard to find, and/or inconsistent. They found it frustrating that there were many different ways of talking about the same ingredients (e.g., milk powder; milk; cheese; cheese powder), all of which would be 'bolded' as allergens but requiring more care and attention when scanning. Some participants (particularly but not only older participants) also mentioned the difficulty of reading labels, with some having to take measures like viewing them through their phone cameras (set on 'magnify').

Participants also noted that without checking it was difficult to know what product would be 'safe'; there were often 'unexpected' ingredients in products such as gluten in soy sauce, or even 'contradictory' labelling such as foods marked 'vegan' also noting 'may contain milk'. Lack of notification when ingredients changed was also frustrating: a food considered 'safe' might have a change in formulation that

introduced new risk. In general, consumers felt it took a lot of their effort and attention to monitor allergenic risk via labelling information – especially ‘Worried Manager’ consumers.

### **5.3.2 Allergen management in restaurant/out of home**

On the whole, eating out experiences were highly uncomfortable for many managing allergen risk. In the restaurant and catering environment, participants often felt it was difficult to ‘get a clear answer’ around allergens status of food in general.

Experiences were particularly stressful for ‘Worried Manager’ consumers. Often, ‘Resigned & Restricted’ consumers had found the process of getting the information they needed so difficult that they had decided it was better not to try at all.

Participants reported that staff often didn’t have the answers they needed or didn’t seem to ‘know what they were talking about’. Many had experienced notifying restaurants about allergen needs and receiving allergenic foods on-plate regardless. Even where the process went well, having to signal risk and engage in a risk-assessment conversation with staff was experienced as cumbersome, embarrassing and time-intensive.

Some participants also noted that the rising number of people avoiding ingredients because of milder intolerances or lifestyle preferences had made it harder for their needs to be taken seriously (although others felt that the general rise in awareness was positive).

“Often you’ll ask does this have this allergen in and they have absolutely no idea. They go and ask the chef and sometimes the chef has no idea, it’s an absolute pain” - Moderate/High Risk Consumer

A couple of (less risk focused) participants found this process so taxing that they chose not to tell food businesses about their allergen at all; it was easier to scan menu ingredients, accept cross-contamination risk, and bring the EpiPen in case of a reaction than to bear the inconvenience and stigma.

“Sometimes now I don't even say I have an allergy because I really can't cope with the 10-minute wait for somebody to come over, and also being made to feel like there's something slightly wrong with me because I've specified that I've got this nut allergy.” – High Risk Consumer

### 5.3.3 Impact of hypersensitivities and cross-contamination management

For most participants, negative impacts of living with and managing their hypersensitivities were serious and multiple. Participants reported impacts in terms of:

- **Cognitive and time drain** – double-checking labels (including for PAL information) and interrogating staff on handling practices took energy and time
- **Anxiety and fear** – including hypervigilance responses shaped by constant monitoring and making ‘guesses’ about hidden cross-contamination risk
- **Reduced pleasure in food and social eating** - unable to ‘simply’ eat out with others without ‘work’ and ‘checking’ because the business was not proven (to be?) ‘safe’
- **Missing out on social occasions** (birthdays; office parties; etc.) because they couldn't ensure allergen safety
- **Restricted nutrition/reduced dietary variety** with some participants missing out on whole categories of food (for example, baked goods; ‘Chinese food’) due to perceived increased allergen cross-contamination risk, and the most severely impacted restricted to a very small ‘safe list’ of foods with proven low cross-contamination
- **Strong feelings of social stigma and/or shame** – feeling judged by friends, co-workers, restaurant staff, etc.

“It's just constant. It's not any fun, you feel like an alien when you go out, you feel like you're guessing all the time and wondering if you're going to get ill again, and how bad it's going to be.” – High Risk Consumer

“The anxiety I have from my allergies has a big impact on my life, I have panic attacks etc. and it appears to have gotten worse over the years. I have an increasing set of allergies and intolerances and the chronic stress of it catches up with you – you can never have a day off.” – High Risk Consumer

Although outside of the focus of this research, it is also important to note that participants reported serious challenges for individuals with hypersensitivities to ingredients outside of the 14 allergens that are regulated in the UK.

For example, one participant with a serious allergy to mango noted that they were wary of any foods listing ‘natural flavourings’ as mango was sometimes used as a sweetener; they had no way of actually understanding if mango had been used or not. Others with less common hypersensitivities reported that eating out ‘was a nightmare’, because staff were generally less aware of and less used to monitoring cross-contamination risks for foods beyond the 14 that are regulated in the UK, and thus couldn’t give sufficient information to ensure safety in ingredient management.

## 5.4 Implications for PAL

Consumers with hypersensitivities are typically encountering allergen information - including but also beyond PAL - within a wider context of confusion, frustration, overwhelm and anxiety. Most are doing the best they can to interpret ‘confusing’ and ‘contradictory’ labelling within limited time and energy.

It was striking that those most likely to be concerned about allergen and cross-contamination risk are also those for whom allergenic management is probably already taking a toll – physically, cognitively, and/or emotionally. ‘Worried Managers’ are taking on an enormous amount of cognitive and emotional effort to do their best; ‘Resigned & Restricted’ consumers have accepted that others won’t keep them safe, and it is easier to go without.

It is these consumers who are most in need of allergen information to support informed decision making because the stakes are high – but who are also most likely to need very clear, supportive guidance to ensure that additional information feels



genuinely useful rather than simply adding to the confusion. Note that ‘Freedom Focused’ consumers have decided it is preferable to take a gamble than navigate this confusion, reflecting how difficult this can be currently.

Finally, it is important to recognise the unique challenges presented by ‘Unaware and At Risk’ consumers – who simply don’t know what they don’t know and have less ability to make informed decisions about risk. These consumers are not primed to use PAL and don’t have the foundation of cross-contamination knowledge needed to use it well.

## 6. Consumer understanding and interpretation of PAL

Consumers’ understanding and interpretation of PAL varied widely, but confusion and frustration was widespread across audience groups. Below we explore levels of exposure and awareness of PAL; consumers’ summary understanding and detailed interpretations of PAL; and key assumptions around business intent and usage.

### 6.1 General consumer exposure to PAL

The vast majority of participants were aware of and had at least occasionally used on-product PAL guidance - and had also encountered precautionary allergen labelling in restaurants and cafes. ‘May contain’ PAL was the most top of mind for most participants, with quite a few participants spontaneously noting that it felt as if usage was rising.

“It feels like it’s on everything now, doesn’t it? It wasn’t like that – but now your ketchup has a ‘may contain’, the biscuits have a ‘may contain’. It can be frustrating, it seems to be everywhere, especially with nuts which is what I’m allergic to.” – Medium Risk Consumer

Awareness of PAL varied across consumer groups. In general, participants who had more severe allergic reactions or who were generally more risk averse in their allergen management (‘Worried Managers’ and ‘Resigned & Restricted’) were more

familiar with PAL. PAL was one of many allergen communications these consumer groups were already monitoring.

Awareness of PAL notices was typically lower amongst those taking a more relaxed approach ('Freedom Focused' and 'Unaware and At Risk'). This was likely because on-product PAL labels and out-of-home precautionary allergen information had been ignored, or because consumers weren't really thinking about cross-contamination risks at all.

## 6.2 Baseline understanding of PAL

Most consumers were often confused about how to interpret PAL information.

Some less knowledgeable participants (e.g., 'Unaware and at Risk') didn't understand that PAL was signalling cross-contamination risk. Some of these participants questioned why anything not included in the ingredients list could possibly be included in the product. When other participants explained potential cross-contamination risks, 'Unaware and at Risk' participants sometimes became confused or frustrated - suddenly realising that their approach of simply checking ingredients might not be sufficient.

“All you want to know if it does or doesn't have it in it, and it's not definitive so how do you know? - Lower Risk Consumer

Even consumers who understood the general intent of PAL found them confusing and difficult to interpret in practice. Consumers shared frustrations and questions around:

- **Likelihood:** Is the risk of this ingredient likely – improbable but possible – or unlikely but worth flagging?
- **Risk elimination:** If this is a risk, why hasn't it just been managed by the business on my behalf? If we are seeing so many 'may contain' notices, does that mean that no one is actually adequately managing allergen risk? How is

that allowed to happen?

- **Impact:** If there is a risk that the food includes an allergen, or traces of an allergen, what does that actually mean for me? Is it enough of an allergen to harm me? Are we talking 'a whole corn flake' or 'a microscopic amount'? How am I supposed to differentiate and make a decision?
- **Avoidance?** Some consumers worried that PAL statements were used as a way for businesses to avoid undertaking any cross-contamination risk management at all and imagined that these businesses might be employing very unsafe practices.

“It adds unnecessary stress for people because they can’t get a clear answer. I should be able to look at it and simply say ‘that’s great, I’ll eat it’, or not.” – Moderate Risk Consumer

## 6.3 ‘May contain’ v. ‘produced in a factory which’ v. ‘due to manufacturing methods’

Consumers were unsure whether there was any difference in risk signalled by these three versions of PAL wording, and found it taxing to imagine what each one might be trying to communicate. Most felt that wordings mentioning ‘factories’ and ‘manufacturing methods’ were clearest, as they gave them some indication of the source of potential cross-contamination risk. For example, imagining peanut dust moving through a factory helped them understand why the cross-contamination risk might be hard to contain.

However, whilst having the advantage of being less abstract, ‘factory’ and ‘manufacturing methods’ wording often simply made participants’ confusion more pointed. They gave participants just enough detail to imagine the circumstances in which cross-contamination might be taking place, but not enough detail to understand how big the risk was.

“I’m just imagining this factory, and I don’t know what to think. Are they just throwing peanuts around the place all day? Is it like there’s peanuts on this side of the factory but not that but it might be in the air or on the lines or something? Or is it all gleaming and clean and careful but maybe one day one person makes a mistake somewhere and there’s just this tiny speck? This doesn’t help me decide anything, it’s just covering their bum.” – Moderate Risk Consumer

In contrast, ‘may contain’ was almost universally judged to be unhelpful, because it felt vague and uncertain. This wording made consumers ask: ‘why don’t they know if it contains it or not?’

This reaction reflected low awareness about the ways that cross-contamination might occur, particularly for products with complex, global supply chains. For example, one participant mentioned that perhaps ‘may contain’ reflected the difficulty of knowing whether trace allergens in products might be present in ingredients given differences in global allergens labelling rules and requirements. This sparked surprise and confusion for others. Surely all companies knew exactly what was going into their food?

## **6.4 Consumer assumptions of business intent and behaviour**

Given widespread confusion about the exact meaning that PAL was meant to convey, consumers often drew on assumptions about business intent and regulatory context to inform their decision making.

Most assumed that PAL was a mandatory measure (for consumer benefit). However, most also assumed that businesses were using PAL not as a genuine consumer communication measure, but as legal ‘cover’ in case of any allergic response incidents (not for consumer benefit).

These conflicting assumptions added to consumers’ general sense of confusion. More concerningly, these assumptions were ultimately misleading; because they

assumed PAL was mandatory, they interpreted the absence of PAL as meaning 'there is no risk of cross contamination.

## 6.5 Consumer assumptions around business intent when using PAL

A minority of participants (across all 4 consumer typologies) reported appreciation that businesses were trying to signal any risk of cross-contamination, however small. They appreciated that PAL tried to communicate this to them.

In particular, the use of precautionary allergen information provided out-of-home made sense to consumers. They understood that with the best cross-contamination practices, there is always a risk of human error, and appreciated that PAL provided a way to flag this risk for consumers that were more risk conscious.

However, the perceived lack of clarity provided to consumers by PAL resulted in very cynical understandings of business intent. PAL was perceived primarily as 'protecting businesses' rather than supporting consumers with allergen needs. It did not offer enough information to support an assessment of risk – rather, it seemed to serve as a blanket statement that businesses could not guarantee customer safety. These negative assumptions about business intent were reinforced by the wording used, perceived as cold and unhelpful.

"My husband says 'It may as well contain bunny rabbits'... I think the companies have to cover themselves" – Lower Risk Consumer

Perhaps unsurprisingly given this interpretation, many participants expressed real and deep anger about business use of PAL. PAL felt like a particularly stark declaration from businesses that providing accurate information to allergenic consumers was 'not my problem.' They again felt that they were unfairly left responsible for managing risk of harm.

"I see those 'may contain' notices and I think – with any other disability, there would be a requirement for clear and inclusive communication to help people live their life safely. Why is it

acceptable to not give me, as a consumer with allergies, the information that I can actually use to keep myself safe? Why is it ok that all of the work is on me? Why is it not up to a business - who wants to trade - to prove that they are providing food that is safe and that won't harm people, including people with allergies?" – High Risk Consumer

For some, this frustration around PAL raised questions around the efficacy of food regulation into question in general: if this food risk wasn't managed 'properly', what else wasn't?

## 6.6 Consumers assume that PAL is mandatory

Although participants had generally not considered PAL or allergen regulation in depth prior to the research sessions, there was a latent assumption that PAL was a mandatory measure: that all businesses were legally obligated to evaluate their own cross contamination risks and clearly communicate these to consumers, without exception.

One striking and potentially dangerous outcome of this core assumption was the belief that if a product or dish did NOT include a PAL notice, it had been determined by the business that there was no cross-contamination risk. Faced with the choice of one product that included a PAL such as 'may contain' or 'produced in a factory which', versus another product which did not include PAL, they assumed a clear 'winner' in terms of which one was safest.

As explored further in Chapter 10, when participants were given more information about current PAL regulation, they were surprised and often angry to learn that PAL is currently not mandatory. 'Worried Managers' and 'Resigned & Restricted' consumers were most upset to learn this, frustration and concerned on three levels:

- **It eroded their trust** that allergen risk was taken seriously by either businesses or regulators. This was particularly upsetting for consumers given the wider context of perceived burden of allergen management already falling

on their shoulders.

- **It made them feel it was impossible to make a genuinely ‘safe’ decision** around cross-contamination risk management. If ‘blank’ labels (or menus) without PAL might present as much or more risk as PAL-labelled ones, how could they make an informed choice?
- **It made consumers feel that the time they had spent trying to navigate PAL had been ‘wasted effort’.** This was particularly frustrating for consumers who were heavily investing in cross contamination risk management (‘Worried Managers’). If PAL wasn’t used in the way they expected, why had they put the effort into all that difficult decision-making?

“I don’t really understand this. What is the point of all of this if they don’t even have to do it?” – Moderate Risk Consumer

## 6.7 Implications for PAL

Currently, consumers’ awareness of and exposure to PAL is mixed, with those who are more risk conscious and knowledgeable tending to be more aware (‘Worried Managers’ and ‘Resigned & Restricted’). Others may be missing PAL notices completely, meaning this group is de facto not receiving cross-contamination risk notices in many cases.

Additionally, the general consumer understanding of PAL is a fairly cynical one: that it is for business rather than consumer benefit. This is a point of serious frustration for many consumers, especially those most eager for meaningful cross-contamination information.

At present, PAL does not adequately support informed decision-making for allergenic and hypersensitive consumers, and consumers feel burdened in managing the risk. This is for three reasons: 1) because the wording used and level of information provided does not provide sufficient detail for consumers to assess fit with their personal risk tolerance, 2) because they do not trust the information provided in

absence of mandated use, and 3) because PAL is voluntary, meaning consumers can't assume that 'no PAL' means 'no cross-contamination risk'.

PAL thus currently not only fails to provide needed information for informed decision making, it actively erodes trust in food businesses and food regulation.

## **7. How PAL is used and experienced by consumers**

### **7.1 Audience differences shaping likelihood of use**

As explored previously, consumers vary in their risk management approach, knowledge around cross-contamination, and awareness of PAL – in ways that shape the likelihood of PAL usage. Usage is understandably less likely for consumers who are less risk conscious, less knowledgeable, and/or less aware of PAL.

In terms of the four consumer typologies:

- 'Worried Managers' and 'Resigned & Restricted' have a good theoretical foundation for PAL usage: more risk conscious and knowledgeable - and more aware of PAL
- 'Freedom Focused' have a less solid foundation for potential usage: less risk conscious - with variable knowledge – and with variable awareness of PAL
- 'Unaware and At Risk' have a fairly poor foundation for potential PAL usage: variable risk consciousness – low knowledge – and low awareness of PAL.

### **7.2 Consumer experiences of on-product PAL**

On-product PAL was more used by 'Worried Manager' and 'Resigned and Restricted' consumers, although differently by each group, and less or not at all by 'Freedom Focused' and 'Unaware and At Risk' groups.



For **'Worried Managers'** PAL notices tended to function as a risk flag that sparked further consideration and sometimes information seeking. For example, this consumer group might consider previous experiences with the brand or product: had they used other similar items from this supplier without issue? Had they used this product before the PAL was applied without adverse reaction? Those who were most risk-conscious in this group, usually those with lower general health and/or highest risk of harm from exposure risk, sometimes even sought further information by contacting the company directly to seek more information.

"It's been a total nightmare, to be honest. There's not a lot I can eat because my health is poor, and I have quite a lot of allergies and intolerances, so I really do have to try to find things that work for me. I've had things where a 'may contain' is on the bottom and I'm calling the company trying to get more information, and it's impossible. They don't answer emails or calls, or if they do they just say, 'I don't know.' You can't get an answer." – High Risk Consumer

For **'Resigned and Restricted'** consumers, on-product PAL notices had a very clear meaning and impact: 'DO NOT EAT'. If they saw PAL on a product, they'd simply avoid it.

"Even if it says 'may contain' I just don't have it – I probably don't have much of a varied diet. It's probably just me but I'm just really worried about having something like that (allergic reaction and hospital visit) happen to me ever again. It was so scary. I'm probably over the top with it but it's just how I am. I just don't want to put myself in that position." - High Risk Consumer

For **'Freedom Focused'** consumers, PAL notices were generally ignored - although some did report occasional use. For example, some in this group said they would sometimes be more mindful of PAL notices if they had taken on more cumulative exposure risk recently, or if their health was low. However, even then they were less likely to take notice of on-product PAL notices if the food was something that they really wanted to eat.

"Well, if it is like 'may contain nuts' my immediate thought is well, what is it? Does it look nice enough? Eh, not bothered I've got a random antihistamine in my bag. Yeah, I would risk it for a chocolate biscuit." – Lower Risk Consumer

In general, **'Unaware and At Risk'** consumers were not using PAL regularly, largely because they didn't know to look for it. If they did come across it they often weren't sure what to make of it, given their low foundational knowledge about cross-contamination. Given uncertainty about how to interpret PAL, they would default to other decision-making cues: how much they wanted the food; whether the brand 'seemed' safe; whether it 'felt' like the allergen would actually be in the product, etc.

## 7.3 Consumer experiences of precautionary allergen information

Experiences of precautionary allergen information in restaurants and out-of-home eating were similarly received: appreciated by a minority, ignored by many, and widely sparking distrust, frustration and confusion.

### 7.3.1 Precautionary allergen information prompts further information seeking

Because of the general sense that precautionary allergen information is confusing and provided to 'cover business risk' rather than support customers, many consumers simply ignored them – particularly 'Freedom Focused' and 'Unaware and at Risk' consumers. 'Resigned and Restricted' consumers often simply used these notices as an indication that they should not eat in the establishment.

However, some 'Worried Manager' consumers used precautionary allergen information as a prompt for information seeking, for example as an additional reminder to ask staff about cross-contamination risk. This was appreciated by some: it was always helpful to have a reminder.

Usage varied according to the tone and wording of the messages used, and according to whether precautionary allergen information took the form of a 'general

notice' (e.g., our kitchen handles allergenic ingredients) or more targeted on-menu information.

On-menu information often contained additional detail about cross-contamination risk (e.g., whether separate fryers were used for gluten-free dishes; how staff made the kitchen aware of consumers' allergen needs) that consumers found more useful in their decision-making. This kind of additional information provision was gratefully received, particularly by 'Worried Managers' who would otherwise have to seek this information themselves. It gave them a sense that staff understood that allergen management needed to be taken seriously, including in terms of trace exposure risk.

Often, on-menu statements were also perceived as warmer – being, for example, infused with consumer-oriented brand tone, or inviting a 'conversation' about cross-contamination risk and how the business could help manage this. On-menu statements that welcomed customers with allergens to ask questions of staff were particularly gratefully received, signalling that consumers might face less stigma and more understanding from staff in the establishment. It 'opened the conversation' to allow them to communicate their needs and suggested that the business was a willing partner in finding what was safe to eat, together.

### **7.3.2 Consumers don't know what they don't know – and don't ask about it**

Although as noted above precautionary allergen information plays a potentially useful role in flagging the need for consumers with hypersensitivities to ask for more information, this does not necessarily translate to more informed decision making. Many consumers, in particular the 'Unaware and At Risk' group, did not have the knowledge they needed to follow up precautionary allergen information and ask the questions they needed to determine whether the level of cross-contamination risk was acceptable to them.

For less knowledgeable consumers, precautionary allergen information was also less compelling than other allergen information provided by the businesses - in ways that sometimes increased exposure risk.

For example, many participants talked about how excited they were when seeing menu allergen information - for example, 'gluten free' or 'vegan' menus, or 'listed ingredients' lists - and finding foods 'they could eat' without worry. This focus on ingredients information made foods feel 'safe', to the detriment of focus on cross-contamination risk. Precautionary allergen information often held less sway than these communications, making them even less likely to be used.

#### 11. Consumer considerations for future PAL

The below section details consumers' expectations around how PAL should be regulated and communicated in future. It is drawn from all phases of consumer research including:

- Phase 1 - general discussions around PAL
- Phase 2 - more detailed communications testing, discussion of real-life examples of PAL notices, and co-creation of concepts to improve PAL in future
- Phase 3 – further testing of co-created concepts to improve PAL

Consumers have strong views in terms of what they expect from PAL to make it useful, meaningful and safe for them. This includes changes both to the wording of PAL, but also more widely – in terms of how it is used and applied by businesses, but also how use is guided and regulated.

## 7.4 How consumers expect PAL to communicate risk

When participants were asked to describe their priorities in terms of how PAL communicates risk to consumers in future, they were fairly united in their expectations. Consumers want PAL to communicate in a way that makes it easy for them to understand the risks involved and make a decision.

In practice, this means 5 things – the '5Cs' of PAL communication:

### Figure. 6 The '5 Cs' of PAL communication

This framework was developed on the basis of consumer views and insights, and then validated with consumers in Phase 3 of research. Consumers want PAL to deliver:

The 5 Cs	Explanation
CLARITY	<p>Most important for consumers was that PAL information clearly communicates cross-contamination risk, in a way that helps them easily make decisions about whether a product was right for them.</p> <p>It was important that PAL help them understand whether cross-contamination was probable, unlikely or almost eliminated. They want help to make a simple decision: eat it, or don't.</p>
CONSISTENCY	<p>Consumers want standardised format and language to be used across PAL to minimise the risk of confusion and reduce cognitive load.</p> <p>They want to know that a given way of flagging risk always means the same thing, across different products or brands.</p>
CARE	<p>Consumers want language that demonstrates care for communities affected by allergen risk, and not to be made to feel burdensome or difficult for needing business' cooperative support in managing risk.</p> <p>Seeing that businesses had made a genuine effort to manage risk was also viewed as a signal of care.</p>
REDUCED COGNITIVE LOAD	<p>Consumers want to be given information in a wording and format that makes it easy for them to understand risk and make decisions, without a lot of extra effort.</p> <p>They don't want to be left seeking more information to assess personal risk – to have to 'chase' to get information they need – or to have to work hard to interpret information.</p>

The 5 Cs	Explanation
CLEAR ON COMMUNITY	<p>Consumers want clarity about the intended audience for PAL notices. They want to be certain that information is for people with serious hypersensitivities – not lifestyle preferences.</p> <p>In other words, they want to be able to easily distinguish between ‘risk information to prevent serious harm for people like me’, from general ingredient or menu information for anyone who might be interested.</p>

## 7.5 How consumers expect PAL to be regulated and applied

Consumers also had strong views about PAL’s regulatory context, and about what the ‘rules’ should be for businesses that want to apply it.

As participants learned that PAL was not mandatory, they reacted with frustration and anger. Many began to question the ‘point’ of this form of communication at all, expressing negativity on several levels:

- they didn’t feel it was a reliable indicator of risk (because it is not consistently used)
- they were angry about effort spent trying to use an indicator they now felt was faulty
- they felt ‘misled’, because they had assumed that absence of PAL meant they didn’t have to worry about the presence of cross-contamination.

This response was particularly pronounced for ‘Worried Managers’ but other groups expressed similar sentiments. In their view, leaving cross-contamination management and communication in the realm of guidance rather than mandatory business behaviour was disrespectful to and dangerous for consumers with allergens. It made it so much harder for consumers to make informed decisions and keep themselves safe.

“The real problem is that I could look at two products that had exactly the same risk in terms of cross-contamination, but one is labelled, and one is not. One chooses to declare, one chooses not to. And I make a decision that is inaccurate and potentially extremely unsafe, that could have a huge impact on my health which is very vulnerable, because they couldn’t be bothered to put anything on the label.” – High Risk Consumer

Participants were very clear that even if PAL wording or format changes, they will continue to find it unclear, difficult to use, and potentially even unsafe so long as business use is not mandatory. In particular, it was not considered acceptable that ‘saying nothing’ was an option; consumers believed that all businesses should have to make a clear statement about whether food was safe to eat and free of cross-contamination risk, or not.

## 7.6 Further guidance and regulation desired by consumers

Consumers also expressed strong views around allergens regulation more widely (beyond PAL). Although beyond the scope of this specific research, these are worth reporting given that they affect the wider landscape in which consumers manage allergen and cross-contamination risk.

A few of our highest risk participants raised strong concerns about allergen management that were making it difficult for them to stay safe and minimise exposure risk. In order to help them effectively manage their exposure risk, these participants wanted:

- **A requirement for businesses to respond to consumers** seeking more information about allergen or cross-contamination risk – or ways to make that more accessible. For example, participants with allergens beyond the 14 that are regulated found that even if they contacted businesses to understand whether allergenic ingredients were included (e.g., via ‘natural flavourings’) businesses often simply didn’t respond or said, ‘I don’t know’.

- **More clarity around the exact ingredients in preservatives and flavourings** (for example, ‘natural flavourings’ and ‘herbs and spices’ labels) to help them assess allergenic response risk. Participants raised that even if PAL is improved and made more meaningful for consumers, it still provides no cross-contamination risk information to consumers who have hypersensitivities to ingredients outside of the ‘top 14.’

“This isn’t just an allergens issue – although it is very important to this community. But it’s about transparency. And anyone in the general public deserves transparency from food businesses.” – High Risk Consumer

## 8. Consumer co-created communications

Phases 2 and 3 of the qualitative research involved co-creation of potential adjustments of PAL – in terms of wording, format and method of delivery of information to consumers – that could help overcome some of the challenges outlined above. This process aimed to help clarify what consumers would find more useful and their priorities for future adjustments to PAL, to be taken into consideration alongside the 2022 PAL consultation.

The ‘5 Cs’ were used as our assessment criteria when exploring any potential shifts to PAL wording or communications.

Given the small scale of co-creation and testing research, the suggested materials should be viewed as an indicative steer on how to communicate participant needs and priorities rather than finished communications. It is also worth repeating that participants did not think that the interventions developed below would obviate the need for PAL to be made mandatory.

### 8.2 Concept A: Triple-Tiered PAL Communications



In response to consumer concerns that PAL does not provide enough detail or clarity about cross-contamination risk, co-creation sessions explored options for how to provide additional information for on-product PAL.

In doing so, we had three key design constraints:

- Additional detail needed to be provided without further complicating already full labels
- We needed to manage the risk that ‘no on-product PAL’ would be interpreted by consumers as ‘there is no cross-contamination risk to worry about’.

### 8.2.1 Co-creating the Triple-Tiered PAL concept

To address these challenges, consumers developed the idea of a ‘tiered’ PAL system, imagining that information could be provided in two forms:

- **On-Package PAL:** A small statement provided on-package to flag the potential for cross-contamination risk, but no further detail (similar to present)
- **Additional detail provision:** Further information to be provided separately about cross-contamination risks and any mitigations taken – for example, available via text, an app, numeric code or QR.

Ideas evolved over the course of Phase 2 and Phase 3 research. Mock-ups were used to help consumers think about how they would use and interpret this kind of tiered system in practice. This included mock-ups of what on-package PAL could look like to signpost additional information availability, and examples of what information might be provided:

**Figure. 7 Co-creation mock-ups of the tiered PAL system concept**

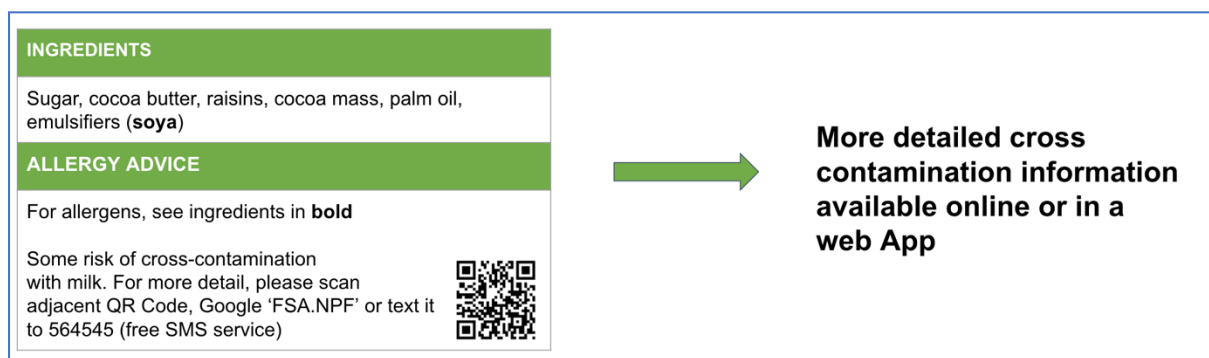
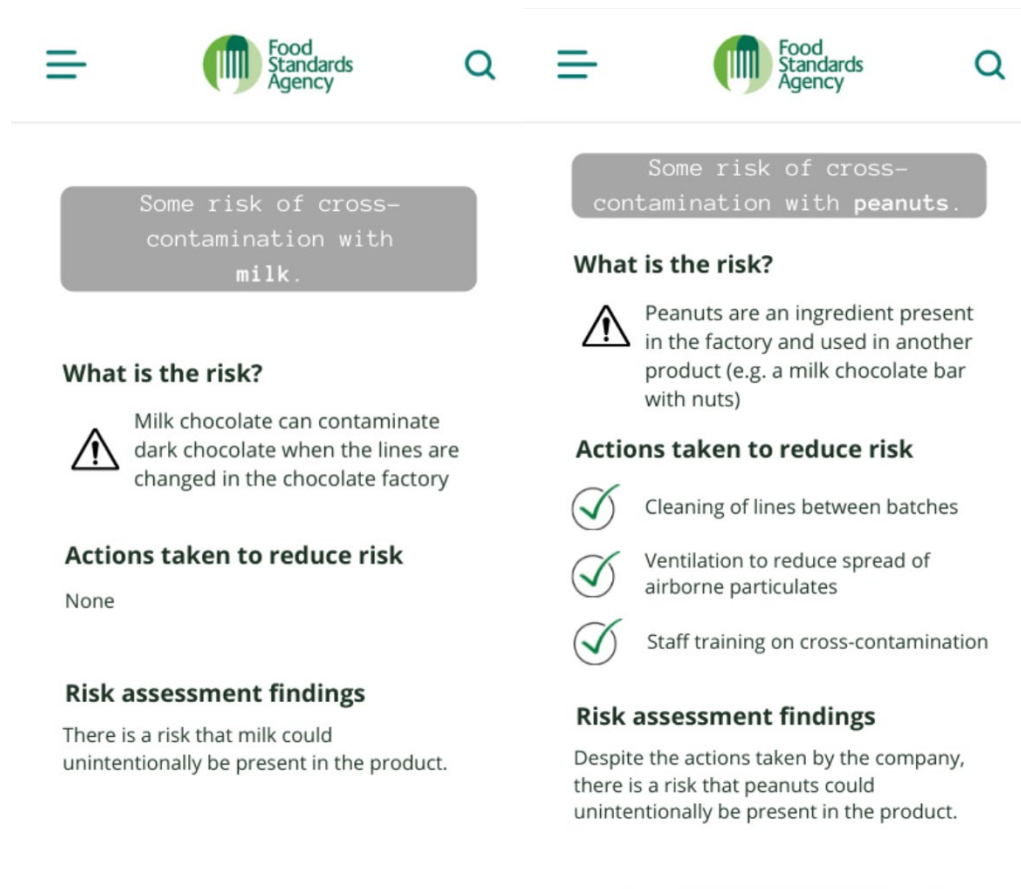


Figure. 8 Co-creation mock-ups of additional detail provision



As consumers' ideas developed, it became clear that they also wanted some differentiation in On-Package PAL, essentially creating three 'tiers' of information<sup>7</sup>:

1. **On-Package PAL – high risk flag:** A statement that would indicate that cross-contamination risk was either quite high or that information had not been provided about risk by the business (so cross contamination risk could not be adequately assessed).
2. **On-Package PAL – some risk flag:** A statement that would indicate that some cross-contamination risk was present, signposting how to easily access further information.

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<sup>7</sup>Participants also expressed interest in a third 'level' of communication that would indicate there was no risk of cross-contamination present, but this was deemed as being confusing and potentially overlapping with 'Free From' communications and was discarded in Phase 3.

3. **Additional detail provision:** Further information to be provided separately about cross-contamination risks and any mitigations taken for the product in question – for example, available via text, an app, numeric code or QR.

### 8.2.2 Concept appeal

This concept appealed widely to consumers, particularly those who were currently more invested in cross-contamination management (e.g. 'Worried Managers, 'Resigned & Restricted'), but also more widely, including to those who find this process too burdensome to engage in currently (e.g., 'Freedom Focused').

Access to additional detail was seen as delivering on business' requirements to communicate transparently with the public, and particularly as supporting those at risk of severe health impact to help avoid harm. Seeing that mitigations often were already in place often helped engender trust both in the specific product/business and in the food system in general.

"It's really good that you could look up more information but not be overwhelmed by information on the label itself. It's nice and neat. And I could start to learn – ok that's too much because I had to use my Epi-Pen after trying it, but that kind of risk is probably ok for me. Maybe I wouldn't have to cut so much out!" – Moderate Risk Consumer

However, as elsewhere, exact wording mattered enormously. Simpler language was preferred and felt less 'legalese', helping obviate concerns that notices were meant to cover business risk rather than support allergenic consumers. Words like 'unavoidable risk' raised fears about the likelihood of cross-contamination which was out of proportion to the actual risk of harm. The examples shown above reflect participants' 'ideal' wording.

## 8.3 Concept B: Cross-contamination menu checklists

### 8.3.1 Co-creating the menu checklist concept

Responding to reports of unhelpful, frustrating and stigmatising experiences eating out-of-home, consumers co-created a 'mock' communications intervention designed to help:

- Minimise stigma and the sense of being a 'burden' to staff when asking about allergens and cross-contamination risk
- Make it easier for customers to open up the 'conversation' about allergens needs
- Help safeguard cross contamination risk for less knowledgeable consumers with allergens, who 'don't know what they don't know' and therefore may not ask questions that enable more informed decision making about risk
- Reduce the time and energy that serving staff would need to spend getting information from kitchens around more detailed cross-contamination questions (for example, do you have a separate gluten free fryer?)

The co-created concept was that businesses, in addition to any more general allergens notices or menu information, could provide a **simple checklist of cross-contamination measures taken in the business**. This list would be provided to any customers who indicated allergens and/or cross contamination concerns. Mocked up examples were developed to support consumers' brainstorm:

**Figure. 9 Co-creation mock-ups of menu checklist**



### 8.3.2 Concept appeal

Participants thought that this kind of proactive, tailored business communication would make their experience more comfortable, help them make more informed and accurate risk decisions, and engender trust in business.

The menu checklist performed well in terms of all '5 Cs' for communication outlined previously: providing more Clarity, Consistency (if widely adopted), Care, Cognitive load reduction (although still requiring some work for consumers) and obviously aimed at the food hypersensitive Community.

It seemed most emotionally impactful for those experiencing more stress and anxiety around allergen risk management ('Worried Managers' and 'Resigned & Restricted'); some participants became visibly emotional when discussing the concepts. Those who were less knowledgeable ('Unaware and At Risk') also found it very useful as a learning tool.

**"This would be fantastic for me. I wouldn't feel so paranoid and on-edge about being that annoying customer. You feel all eyes on you**

and you'll be judged. If this could become a reality, that would be amazing." – High Risk Consumer (Child)

Others were somewhat more neutral, though they thought the concept would be useful for others ('Freedom Focused'). Some participants (especially 'Worried Managers' and 'Resigned & Restricted') also cautioned that the menu checklist wouldn't and shouldn't eliminate conversation with staff altogether. Confirming that the information was accurate and seemed to be taken seriously was still important for those who were more heavily managing cross-contamination risk. Some also worried that even though the checklist would show what practices were 'intended' in the kitchen, that processes (and staff) are never perfect; errors can still happen.

For some, this conversation also brought attention back to the wider regulatory environment for cross-contamination and allergens risk beyond PAL notices or potential interventions like the menu checklist. If they had to rely on a business' 'word' that cross-contamination had been adequately managed, was this really adequate in the absence of dedicated allergens inspection and enforcement?

"Yes, this is great – but it's also only as good as a kitchen's response. They need the training to actually do the things they've said here." – Moderate Risk Consumer

"Unless this is standardised and policed, will it really carry any weight?" – Moderate Risk Consumer

### **8.3.3 Priority information for inclusion**

The key information that consumers wanted to be communicated by this kind of 'menu checklist' included the following.

- All staff involved with preparing the meal of a customer will be made aware of the customer's allergen requirements
- All staff are trained on allergens and food hypersensitivity.
- We regularly check in on staff practice and provide allergen training for any new staff

- Allergenic ingredients and foods are stored separately on the premises and labelled clearly
- Separate utensils and equipment (e.g., spatulas, trays, cutting boards) are used for customers with a food allergy
- Separate fryers are used for gluten-free items
- Separate toasters are used for gluten-free bread
- Allergenic foods for other people at your table will be labelled to avoid confusion
- Where possible, foods are prepared in order of least allergenic to most allergenic to manage cross-contamination
- We welcome feedback from customers about how well we've met your allergen needs. Please contact [Name and role in business].

The expectation was not that every kitchen/business would not necessarily be doing all of the below – rather, these were the kinds of details that consumers were most likely to ask themselves, and thus priority for inclusion.

In an ideal world, participants wanted checklists to show both what businesses DID and DID NOT do in their establishment to manage risk (e.g., via ‘ticks’ for actions taken and crosses for actions not taken). However, they appreciated this might not be feasible for businesses.

## **8.4 Concept C: Adjusted wording for in-restaurant precautionary allergen information**

Consumer feedback was that the standard phrases used to provide precautionary allergen information in restaurants often felt unwelcome or unhelpful, for example:

- “We cannot guarantee any products are free of allergens.”
- “Any of our dishes may contain allergens.”

- “Our kitchen handles allergenic ingredients and we cannot guarantee that our food is allergen-free.”

In the Phase 3 testing sessions we sought feedback about adjustments that make them feel more supported or provide more meaningful information.

Participants wanted to hear positive, warm words like ‘happy’ or ‘welcome’, and invitations to speak to staff to communicate their needs. They co-created standard phrases like:

- “Our staff will be happy to talk to you about what we do in the kitchen to reduce risks of allergen cross-contamination.”
- “Our servers are happy to talk to you about any allergen needs.”
- “We understand that customers with allergens may need more information to manage risk and are happy to help.”

Although these should not be taken as ‘finished’ communications interventions, they do provide some indication of consumer priorities around what precautionary allergen information in food businesses should communicate and how they should feel.



# 9. Part D: Conclusions

The current PAL system was generally recognised as not working for businesses and consumers alike.

## 9.1 For Consumers:

- PAL is commonly mis-interpreted or found too difficult to interpret, with consumers finding 'may contain' PAL in particular too vague to support informed decision making. PAL is largely assumed to support business interests, not consumer interests, in ways that reduce trust in regulation overall.
- Assumptions that PAL is mandatory, and that businesses have carefully chosen to apply or not apply PAL to reflect cross-contamination risk, is highly problematic. Consumers assume that the absence of a PAL means that a product is free from cross-contamination risk. This may be leading to increased cross-contamination exposure risk.
- When consumers understand that this assumption is incorrect and PAL is not mandatory, this leads to strong feelings of anger and frustration, plus reduced trust in food regulation.
- Consumers desire the provision of additional detail about cross contamination beyond a simple PAL statement. This additional detail would enable more informed decision making by enabling more understanding of the nature and context of the risks involved.
- Consumers also desire additional detail for precautionary allergen information provided in restaurants and catering environments, which would help open up conversations between consumers and staff to understand kitchen cross-contamination management practice.
- Consumers are also clear that although these measures would improve their experience and be welcomed, they would not be sufficient to enable safe informed decision making so long as PAL is not mandatory.

## 9.2 For SMEs:

- Understanding of regulator intent for PAL is low amongst SMEs, for example that PAL is voluntary, and that it should be undertaken following risk assessment. This reduces the likelihood of consistent practice and communication around PAL, creating downstream confusion for consumers. It is not considered to be an area of regulator priority.
- PAL is considered as part of larger business safety and hygiene management, and to a slightly lesser extent of allergen management protocols. This can lead to confusion that safety and hygiene management is sufficient to control cross-contamination risk.
- Smaller/micro businesses and less established businesses have less knowledge overall. Larger food businesses and manufacturers have more knowledge and are more likely to be working in line with regulatory intent.
- At present formal risk analysis is typically not undertaken by most SMEs. Risk assessment is often informal, relying on heuristics that often do not drive practice in line with regulatory intent. For example, management of peanuts and tree nuts is typically stricter than for other allergenic ingredients.
- Support is needed to reduce the ambiguity around regulatory intent of PAL. Businesses “keen to do the right thing” would like better support on how to apply PAL consistently and safely.

### 9.3 Next steps and considerations:

- SMEs and consumers should be close partners in any further evolutions of PAL, testing how proposed changes would be experienced in practice. This is a space of widespread confusion and misinterpretation, and unless changes are tested with SMEs and consumers to ensure they deliver ease and clarity misinterpretation and confusion is likely to continue.
- Small changes can make a big difference to business practice, and there is a need to understand how assessment, management, training application and enforcement processes will work together in an integrated, clear, straightforward way.
- In particular, there is risk that changes to PAL, if not well supported and executed, could further reduce choice for consumers due to executional rather than risk management factors (i.e., because a business has struggled to provide information, rather than because it has not managed the risk). If *not*

*suitable for* type labels become more commonplace, this could have the perverse effect of lowering allergen risk management standards.

- Thresholds may need to be developed to make PAL workable and meaningful for consumer and SME audiences.
- In this context, the voluntary status of PAL is confusing for businesses and consumers and undermines the ability to develop a standardised and consistent governance process through the supply chain, where it's clear what the presence or absence of a label specifically means.

# 10. Appendices

## 10.1 Participant Sample Details

### SME sample

<b>Business Characteristic</b>	<b>Detail</b>	<b>Achieved sample (n=62)</b>
Sector	Catering	17
Sector	Institutions	15
Sector	Retail (includes 2 wholesalers)	15
Sector	Manufacturers	15
Business size	Medium (less than 51-250 staff)	15
Business size	Small (less than 11-50 staff)	20
Business size	Micro (less than 10 staff)	27
How food prepared	Any food is put into packaging before being placed on sale	23
How food prepared	Foods are prepared on the same premises as they are being sold	22
How food prepared	Food is not pre-packed	17
Location	Wales	8
Location	NI	7
Location	NW England	12
Location	NE England	7
Location	Midlands	8
Location	London and SE	13
Location	SW England	7
Adoption of PAL	Adopting PAL	41
Adoption of PAL	Not adopting PAL	21

<b>Business Characteristic</b>	<b>Detail</b>	<b>Achieved sample (n=62)</b>
Food hygiene score	4-5	52
Food Hygiene score	1-3	10

## **Consumer sample**

<b>Consumer Characteristic</b>	<b>Detail</b>	<b>Achieved sample (n=30)</b>
Household hypersensitivity status (self or parent of child with hypersensitivity)	Self	20
Household hypersensitivity status (self or parent of child with hypersensitivity)	Dependent child	10
Hypersensitivity (food type)	Milk	7
Hypersensitivity (food type)	Shellfish	6
Hypersensitivity (food type)	Peanuts	6
Hypersensitivity (food type)	Tree nuts	9
Hypersensitivity (food type)	Cereals containing gluten	5
Hypersensitivity (food type)	Eggs	3
Hypersensitivity (food type)	Sesame	1
Hypersensitivity (food type)	Celery/Celeriac	1
Hypersensitivity (food type)	Sulphur dioxide/Sulphates	1

<b>Consumer Characteristic</b>	<b>Detail</b>	<b>Achieved sample (n=30)</b>
Hypersensitivity (food type)	Soya	1
Hypersensitivity (food type)	Mustard	1
Hypersensitivity (food type)	Fish	1
Hypersensitivity (food type)	Multiple hypersensitivities	10
Diagnosis status	Formal diagnosis	18
Diagnosis status	Non-diagnosed	12
Hypersensitivity severity	Severe	18
Hypersensitivity severity	Moderate	7
Hypersensitivity severity	Mild	5
Location	Wales	5
Location	NI	5
Location	NW England	3
Location	NE England	3
Location	Midlands	3
Location	London and SE	4
Location	SW England	3
Age	16-24	6
	25-44	6
Age	45-60	6
Age	60+	6
Ethnicity	White	21
Ethnicity	Ethnic minority	9

## 10.2 Topic Guides: SME Interviews

Timings	Content
5 mins	Introduction

	<p>Thank you for making the time to speak to me today.</p> <p>My name is XX, and I work for Basis/Bright Harbour, an independent research agency that is conducting a study on behalf of the Food Standards Agency. The FSA are an independent government department responsible for making sure that food is safe, and that food is what it says it is.</p> <p>They have asked us to explore the experiences of small and medium sized businesses about their use of <i>May contain...</i> food allergy labels and statements. These are also known as precautionary allergen labels. The work will inform future advice to businesses on the use of such statements.</p> <p>While the research is being conducted on the behalf of the Food Standards Agency, this interview remains strictly confidential to the research team and all findings will be reported anonymously.</p> <p>Nothing you say will be attributed to you directly and we really encourage you to be honest with us in your responses. If you do not wish to answer any questions, feel free to ask us to move on.</p> <p>There are strict regulations regarding data protection, and we take these very seriously. We hold your details securely, anonymise what you share with us, and delete all identifying information from any published materials.</p> <p>We would like to record this discussion but only if you are happy with this. The recording is used to ensure we have an accurate record of the discussion for analytical purposes. We don't share transcripts with FSA.</p> <p>Do I have your permission to record the interview?</p> <p>Finally, Basis are a company partner of a body called the Market Research Society and abide by their code of conduct. Participation in this discussion is completely voluntary and you can withdraw your consent to participate at any point in the process. This includes during this discussion, or up until the report is written at the beginning of October.</p> <p>Do you have any questions before we start?</p>
5 mins	<p>About them and the business</p> <ul style="list-style-type: none"> <li>● To begin, can you say a few words about yourself and your role?</li> <li>● Tell me more about your business. <ul style="list-style-type: none"> <li>○ How would you describe the business?</li> <li>○ How many people work here?</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Who are your main customers?</li> <li>● What types of food does the business sell?</li> <li>● How many products/dishes do you prepare?</li> <li>● [Ask manufacturers producing more than one type of food ONLY: Are these foods produced in the same factory or same production line?]</li> <li>● What ingredients do you use? How are these sourced?</li> <li>● Roughly, how many suppliers do you have? <ul style="list-style-type: none"> <li>○ Have you needed to change suppliers recently?</li> </ul> </li> <li>● How often do you change your menu/range of foods sold?</li> </ul>
10 mins	<p>Food management</p> <p>I now want to touch on the processes you have in place to manage food storage and preparation within the business.</p> <ul style="list-style-type: none"> <li>● How do you store foods and ingredients? <ul style="list-style-type: none"> <li>○ Probe whether they: <ul style="list-style-type: none"> <li>▪ Label foods/ingredients with allergens</li> <li>▪ Store foods/ingredients with allergens separately</li> </ul> </li> </ul> </li> <li>● Can you tell me more about how foods are prepared? <ul style="list-style-type: none"> <li>○ What food is prepared on the premises?</li> <li>○ Do you use separate workspaces/production lines/utensils for different food types?</li> </ul> </li> <li>● How do you manage cross contamination of allergens in the business?</li> <li>● What procedures are in place?</li> <li>● Do you provide training to staff on these procedures?</li> <li>● Are there any other ways in which your staff are made aware of risks from allergen cross contamination?</li> <li>● Can I confirm: <ul style="list-style-type: none"> <li>○ who has overall responsibility for the provision of food allergen information (on labels, signs, and verbally)?</li> <li>○ who has overall responsibility for managing allergen cross-contamination?</li> </ul> </li> </ul>
10 mins	<p>PAL Knowledge</p> <ul style="list-style-type: none"> <li>● What do you know about precautionary allergen (PAL) labelling and statements? [If not heard of the term, probe <i>May contain</i> labelling]</li> </ul>



	<ul style="list-style-type: none"> <li>○ Probe <ul style="list-style-type: none"> <li>▪ awareness of voluntary nature of the statements</li> <li>▪ the standards for business using PAL, including regulations around use</li> </ul> </li> <li>● Have you ever sought information about PAL labelling? <ul style="list-style-type: none"> <li>○ Where do they get information from? (e.g., training courses, online guidance)</li> <li>○ To what extent have you used guidance from local authorities on PAL?</li> </ul> </li> <li>● What do they feel is the purpose of PAL? <ul style="list-style-type: none"> <li>○ What does it mean for them? <ul style="list-style-type: none"> <li>▪ Probe perception around legal protection for the business should a customer experience an adverse reaction</li> </ul> </li> <li>○ For their customers?</li> </ul> </li> <li>● What do they think the regulator is trying to do by using such statements?</li> <li>● What do you think a local authority would be looking for if PAL was included in an inspection review?</li> <li>● Do you use PAL in your business?</li> </ul>
<p>Either 20 mins</p>	<p>FOR THOSE BUSINESS <u>ADOPTING</u> PAL ONLY</p> <ul style="list-style-type: none"> <li>● What motivates you to use PAL? <ul style="list-style-type: none"> <li>○ Probe</li> <li>○ How relates to knowledge of PAL discussed earlier</li> <li>○ Risk to consumers</li> <li>○ Risk to their own business</li> <li>○ Whether other businesses they know use PAL</li> <li>○ Media reports</li> </ul> </li> <li>● Do you have any concerns about using PAL?</li> <li>● What is the process involved? <ul style="list-style-type: none"> <li>○ What allergens are potentially present in the kitchen?</li> <li>○ Is PAL applied to all of these or just select ones? Why?</li> </ul> </li> <li>● Do you undertake a risk assessment as part of the process for applying PAL?</li> </ul> <p>IF UNDERTAKING A RISK ASSESSMENT, ASK:</p> <ul style="list-style-type: none"> <li>● What are the steps involved in the assessment?</li> <li>● Probe how they calculate: <ul style="list-style-type: none"> <li>○ the levels of allergens that may be in the final product</li> <li>○ the amount of product that will be eaten</li> <li>○ the amount of allergen needed to cause an allergic reaction</li> </ul> </li> </ul>

- Does your business use any publicly available guidelines or software tools to help you assess allergen risks? If so, which ones?
- Does your business test food samples for allergens?
  - If so
    - What samples do you test?
    - Which allergens are tested for?
- Who does these assessments? How often?
  - Probe whether reviewed when changing recipe/supplier etc.
- When assessing risk:
  - What is in your control?
  - What involves you relying on others?
    - Do your suppliers provide information on the allergens in their food? How?
- After the risk assessment, do you take any actions to manage the risks identified? What are they?

IF NOT UNDERTAKING A RISK ASSESSMENT, ASK:

- Have you ever considered undertaking a risk assessment?
- What are the barriers to you doing a risk assessment?
  - Probe
  - Expense,
  - expertise,
  - lack of guidance/standards
- What informs your use of PAL if you're not undertaking a risk assessment?
- What do they think would happen if they got PAL wrong?

FOR ALL BUSINESSES ADOPTING PAL

- Thinking now about the use of PAL by your customers
  - What information do you provide? How was this decided?
  - What wording do you use and why?
  - How is this information displayed?
  - Where is information displayed (menus/flyers/signage/website)

FOR THOSE SELLING DIRECTLY TO CONSUMERS ONLY

- Do your staff ask customers about allergies when taking orders?
- Do customers tend to ask about allergens when placing their orders?
- How is the information shared with kitchen?

Or  
20 mins

FOR THOSE BUSINESS NOT ADOPTING PAL ONLY

- Do you use food containing any of 14 regulated allergens in the business?  
Which ones?
  - [NB for reference they are as follows]
    - Celery
    - Cereals containing gluten (e.g. barley, oats)
    - Crustaceans (e.g. prawns, crabs and lobsters)
    - Eggs
    - Fish
    - Lupin (an ingredient found in some flours)
    - Milk
    - Mollusks (e.g. mussels and oysters)
    - Mustard
    - Tree Nuts (e.g. almonds, hazelnuts, walnuts, cashews etc.)
    - Peanuts
    - Sesame
    - Sulphur dioxide (sometimes known as sulphites)
    - Soya
- Do you adopt any allergen labelling?
- Can you tell me about why you chose not to use PAL in the business?
  - Probe
  - How relates to knowledge of PAL discussed earlier
  - Whether activity considered
  - Risk to consumers
  - Risk to their own business
  - Whether other businesses they know use PAL
- Do you have any concerns about not using PAL?
- Have you ever assessed the risk of allergen cross contamination in the business? If so, how?
  - Probe how they calculate:
    - the levels of allergens that may be in the final product
    - the amount of product that will be eaten
    - the amount of allergen needed to cause an allergic reaction
  - Does your business use any publicly available guidelines or software tools to help you assess allergen risks? Which ones?
- How easy do you think it would be to use PAL?
  - What's in their control?
  - What relying on others?
    - Do your suppliers provide information on the allergens in their food? How?
  - What do they think would happen if they got PAL wrong?

	<ul style="list-style-type: none"> <li>Do you think using PAL would be helpful to your customers? Why?</li> </ul> <p>FOR THOSE SELLING DIRECTLY TO CONSUMERS ONLY</p> <ul style="list-style-type: none"> <li>Do your staff ask customers about allergies when taking orders?</li> <li>Do customers tend to ask about allergens when placing their orders?</li> <li>How is the information shared with kitchen?</li> </ul>
10 mins	<p>Improving PAL</p> <ul style="list-style-type: none"> <li>How do you think other businesses are dealing with PAL? <ul style="list-style-type: none"> <li>What would be the characteristics of a business doing this well? What would they have in place?</li> <li>What kinds of businesses might be finding it harder? What is driving this?</li> </ul> </li> <li>If the use of the guidance to business on the use of PAL was to be changed, what would you like to see? <ul style="list-style-type: none"> <li><b>[For business <u>adopting</u> PAL]</b> What would make it easier for you to use PAL more effectively?</li> <li><b>[For those <u>not adopting</u> PAL]</b> What might encourage you to use PAL?</li> </ul> </li> <li>If the FSA provided you with a tool which recommended whether or not to use PAL on a given food product based on numerical information from suppliers and your knowledge of portion sizes, would this help/encourage your use of PAL? <ul style="list-style-type: none"> <li>Probe <ul style="list-style-type: none"> <li>Would they use this tool?</li> <li>What are the barriers? (e.g., skills, information, capacity)</li> <li>What could help overcome these?</li> </ul> </li> </ul> </li> <li>Are there any further points they would like to raise?</li> </ul> <p>Thank you. We're speaking to a range of businesses throughout September and will be drafting our reports in October. This will inform a consultation on this issue by the FSA which will take place later this year.</p> <p>Moderator to reiterate confidentiality points, thank and close.</p>

## 10.3 Topic Guides: Consumer Phase 1

### Discussions (Exploration)

Timings	Content
6.30 – 6.35 pm	Purpose: to set the stage for discussion, remind participants of their rights, provide reassurance and the opportunity to ask questions and confirm consent

## Welcome

Thank you all so much for joining us today and giving us some of your valuable time to be a part of this.

My name is XX, and I work for Basis/Bright Harbour who are an independent research agency. We are conducting this research on behalf of the Food Standards Agency (FSA).

The Food Standards Agency is the bit of Government that is responsible for making sure that food is safe, and that food is what it says it is.

They are really interested in how the UK public use and understand labels that provide information about allergens, and this project specifically is about understand something called 'precautionary allergen labelling', which is the kind of labelling we had you explore as part of your pre-task.

So, the kinds of information we're most interested in today are labels or signs that tell us that an allergen **MIGHT** be present in a product, not the ones that say an allergen definitely is present. So, for example, that might be labels that say, 'may contain,' or 'produced in a factory where X is present' – that kind of thing.

**IF FSA PRESENT:** We actually have a colleague from the FSA here today to listen in, because they know the best way to listen to the public is to actually be in the room to listen! X, can you wave and introduce yourself?

**Explain:** After completing the pre-tasks, we're now keen to hear a bit further about some of your own individual experiences. We are keen to hear more about your views, experiences and also what you want from businesses and the Food Standards Agency in this space.

**Reassure them:** We are just seeking your experiences and views – there are no right or wrong answers! Don't worry if this is something you've never thought about before completing the pre-task, or something you have really strong views about. Don't worry if you feel really confident about allergen labelling, or if it's something that frustrates and confuses you.

It's also really important that you can feel free to be honest, and that you know that nothing you say will offend us. We've seen in the pre-tasks that everyone has different experiences around this, and that's totally ok – the whole point is that if any of you have frustrations or concerns, others will too, and we want to hear about those so that we can make it better.

### **(Re)explain their rights.**

There are strict regulations regarding data protection, and we take these very seriously. We hold your details securely, anonymise what you share with us, and delete all identifying information once the report from this work is public.

	<p>The session will be recorded and used for our notes only, but we don't share full transcripts with FSA.</p> <p>We will be writing a report, but your name will never be included, and no one will know that you have taken part. All data, including the recordings, are destroyed after a period of time. Your videos will only be used in the report if you told us in the consent form that this was ok with you.</p> <p>Only answer questions you are comfortable with, and only share what you are happy to share. If you need a break, take a break, if you need the bathroom just go, and if you want to stop you just let us know.</p> <p><b>Check if they have any questions for us? Confirm permission to record</b></p> <p>Note to moderators: adjust your questioning throughout based on the level of comfort you're getting from participants. Feel free to use projectives and less direct methods wherever it feels necessary to go softer. Do watch for emotional moments and ensure that participants are cared for.</p>
6.35 – 6.50pm	<p><b>Group introductions and hand signals introductions</b></p> <p>Purpose: to help warm up participants, get an early check on participant dynamics, and introduce hand signals for use in the remainder of the session</p> <p><b>Group introductions</b></p> <p>Great. To get us started, let's get to know each other a little bit. I'd love you all to introduce yourselves using:</p> <ul style="list-style-type: none"> <li>• Your name</li> <li>• Who lives in your household</li> <li>• Who has allergies in the house and what they are allergic to</li> </ul> <p><b>Moderator to model an introduction, including pronouns.</b></p> <p>Lovely, great to get to know you. Before we get started, I also want to introduce a tool we'll be using today which helps us all sense how people are feeling and what they are thinking, which is a little bit harder when we're all working remotely like we are today.</p> <p>We're going to use some hand signals to help us do that. So, if you hear something you agree with that really resonates with you, use a <b>thumbs up</b>. If you hear something and you have a really different view, or it doesn't quite resonate with you, use a <b>waggle hand</b>. If you want to share your view on something, put your <b>hand up</b>.</p> <p>Hands up is pretty obvious, but let's try out our thumbs up and waggle hands. So, what would you say if I said....</p>

	<ul style="list-style-type: none"> <li>• I love the weather where I live today</li> <li>• Food isn't that interesting or important to me</li> <li>• It's really easy to figure out if foods might contain allergens...</li> </ul> <p>Great you've got the hand of it. Let's go.</p>
<p>6.50 – 7.10 pm</p>	<p><b>Living with allergies: blob tree discussion</b></p> <p>Purpose: to explore the real-life context of living with allergies for our participants, using a projective technique that elicits more honest feedback with minimal vulnerability.</p> <p>So, one thing we tend to hear when we talk to people about allergies is that living with allergies means lots of different things to different people. Before we talk about labelling, I'd love to hear a little bit about what that means for you all.</p> <p>To help us talk about it, we're going to use this lovely <b>blob tree</b>. I'd like you to find one or two images on this blob tree that resonates with you about what managing allergies is like for you and the people you share your home with.</p> <p>Put your <b>hand up</b> when you've found one or two that speak to you and we'll talk about them.</p> <p>Slide 1 - Moderator to share screen with <u><a href="#">blob tree image</a></u>:</p> <p><b>Moderator to let participants talk through their picks, exploring what they feel and why, and encouraging other participants to use hand signals to indicate when something resonates.</b></p> <p><b>Probe to understand:</b></p> <ul style="list-style-type: none"> <li>• How confident do people feel currently about avoiding allergenic foods?</li> <li>• When/in what situations are people likely to feel more or less confident around allergen information provided?</li> <li>• What is making it harder for people to live with and navigate allergies currently?</li> <li>• What is the impact of this (navigating/questioning/wondering)? Practically? Emotionally? Socially? In terms of food choices or restrictions? In terms of health?</li> </ul> <p>Does how you are feeling vary and change at different times? Are there times you are more conscious about allergen labelling, and times you are less so?</p> <p><b>Probe to understand:</b></p> <ul style="list-style-type: none"> <li>• How needs and experiences vary according to eating context – e.g. weekly shop; eating out; on the go; supermarket shop; delivery or take-away; etc.</li> </ul>

	<ul style="list-style-type: none"> <li>• If time: if ordering a take-away, does it make any difference if you're ordering via the restaurant's own platform, versus a deliver company like Just Eat or Deliveroo?</li> <li>• How needs and experiences change in relation to health status; social context; mood or emotional state; etc.?</li> <li>• When does it matter most to them to get allergen labelling 'right'? When are they most likely to be concerned?</li> </ul>
7:10 – 7:25	<p><b>Using PAL and other allergen labelling: overview responses</b></p> <p>Purpose: to explore experiences of using PAL labelling, what is working more and less well for them, and immediate understandings and interpretations of PAL</p> <p>So, before this session all of you did a pre-task to help us understand what it was like to use Precautionary Allergen Labels – or PAL labels - in real life. Again, this is those labels that say things like 'may contain wheat...' or 'produced in a factory which handles celery...'. It's NOT for example the bolded allergens notices you get as part of ingredients lists on labels.</p> <p>I'm going to show you a little bit of what that was like for everyone in a moment, but first I'm curious about:</p> <ul style="list-style-type: none"> <li>• Whether PAL labelling is something you've noticed or used before?</li> <li>• How useful you have found it?</li> <li>• Whether you tend to use labels like this to decide whether food is safe, or other things? (e.g., the brand, having bought it before, etc.?)</li> <li>• How much do you trust these labels?</li> <li>• What, if anything, has been confusing about it for you?</li> </ul> <p>Great. We'll talk more about all of that in a minute. First, I just want to play a very short video that shows a bit of how you found it when you were trying to use the labelling in real life.</p> <p>I'm going to ask you to use those hand signals again please. If someone shares an experience that really resonates with you give me a big thumbs up.</p> <p><b>Moderator to show short video.</b></p> <p>What resonated for you all there? Did anyone have similar experiences too?</p> <p><b>To explore a few examples from the group, briefly probing to understand:</b></p> <ul style="list-style-type: none"> <li>• What's working well/less well about labelling for most participants</li> <li>• Any points of confusion/misinterpretation/worry/challenge</li> <li>• Listen out for and potentially probe for milk/egg allergies folks: products marked as 'vegan' but containing PAL information regarding milk/eggs</li> </ul>



	<ul style="list-style-type: none"> <li>• Impact of this on behaviour (e.g. not purchasing, double-checking, asking for more information, etc.)</li> <li>• Whether information feels clearer/more useful for product labelling versus restaurant/catering/out of home foods and why</li> </ul> <p>Ok, one thing we're also hearing is that some labels are clearer than others for you. Overall, I'd love to know which kinds of PAL information was clearest for you all, and which ones were less clear?</p> <p><b>Slide 2 - Moderator to show 4 in-home examples at once (taken from pre-task) and ask each participant to vote in the chat function on which is clearest – from most clear to least clear. Then to probe for each:</b></p> <ul style="list-style-type: none"> <li>• What each one is assumed to mean?</li> <li>• How participants might use this information: avoid it completely? Consider alongside other factors? (e.g., time, cost, how hungry they are, how much they trust the provider, etc.).</li> <li>• Would how they use them vary in their 'most important moment' scenarios previous? (e.g. during a health scare – when buying food for children – etc.).</li> <li>• Points of confusion, mistrust, misinterpretation, etc.</li> <li>• What would happen next (e.g., not buying, buying, asking for more information, etc.).</li> <li>• Overall, would they feel comfortable getting the information they need if they saw this?</li> </ul> <p><b>Slide 3 - Moderator to show 4 out of home examples (at once (taken from pre-task) and ask each participant to vote in the chat function on which is clearest – from most clear to least clear – from most clear to least clear. Then to probe for each:</b></p> <ul style="list-style-type: none"> <li>• What each one is assumed to mean</li> <li>• How participants might use this information. Would this vary in their 'most important moment' scenarios previous? (e.g. during a health scare – when buying food for children – etc.).</li> <li>• Points of confusion, mistrust, misinterpretation, etc.</li> <li>• What would happen next (e.g., not buying, buying, asking for more information, etc.).</li> <li>• Overall, would they feel comfortable getting the information they need if they saw this?</li> </ul>
7:25-7:55	<p><b>Regulator and business perspectives</b></p> <p>Purpose: to explore consumers assumptions about PAL intent, how PAL is regulated, and what businesses are doing before using PAL labelling. We want to identify any disconnect between assumptions around regulation and business action and what is happening in practice.</p>

So far, we've mostly been talking about these labels as if you just saw them in everyday life – because it matters a lot to the FSA whether everyday consumers can actually use this information and find it helpful and clear.

But I want to flip this around for a minute and ask you to think about this not as a consumer, but in terms of why regulators might use this, and what you think businesses are doing before they write these labels.

When I talk about regulator, I mean not food businesses, but someone like the Food Standards Agency – who is in charge of making sure that food is what it says it is, and that consumers have the information they need to make informed decisions.

What do you think the **regulator** is trying to do with these PAL labels?

- What is the purpose of their use?
- What are they hoping these labels communicate to customers?
- What do you think they expect of businesses when using these labels?
- Do you think that what the regulator intends is working? Does it help protect consumers? Does it help them feel confident making food choices?

And what about **businesses**?

- What do you think businesses see as the 'point' of PAL labels?
- What do you think businesses' motivation is for using these labels?
- What do you think they have to do in practice before they use labels like this?
- What would you HOPE businesses do in practice before they use labels like this?

**Moderator to then provide clarification about how PAL currently works in practice:**

**Precautionary allergen labelling like 'might contain' or 'produced in a factory which...' should only be used by companies after they have carried out a thorough risk assessment. PAL should only be used if the risk of allergen cross-contamination is real and cannot be removed.**

**However, in practice this is not always the case, e.g. due to inadequate information from suppliers or a misunderstanding as to the purpose of PAL.**

**Then probe to explore:**

- What are your feelings about this?
- Knowing this, does it change anything about how you feel about PAL information?
- Knowing this, does it change anything about how you would use them?

	<p>So, the FSA is really interested in your ideas about how to make things better. In fact, we're going to do a whole set of research sessions just on that, based on what you all have shared with us today. But we'd love to hear your ideas too:</p> <ul style="list-style-type: none"> <li>• What if anything would they like to see happen to make PAL clearer, more useful, or increase their confidence in use?</li> <li>• Changes to label wording?</li> <li>• Standardisation of label working? EG it always saying exactly the same thing?</li> <li>• Changes to label formatting e.g. minimum font size; standard font type.</li> <li>• Changes to label information?</li> <li>• Changes to what businesses need to do before using labels?</li> <li>• Other consumer education that they would want provided?</li> <li>• What else?</li> </ul>
<p>7.55 – 8:00</p>	<p><b>Close</b></p> <p>Thank you all for your time again this evening and over the course of this dialogue. It's been a pleasure to meet you and have the opportunity to hear your thoughts on this important subject.</p> <p>Is there anything else that people haven't had a chance to say that they'd like to share, or any final questions for me?</p> <p>Before we go I just wanted to invite our colleague from the Food Standards Agency to say a few words.</p> <p>FSA representative to thank and highlight next steps. <b>Moderator to reiterate confidentiality points, thank and close.</b> Thanks again everyone and have a great evening.</p>

## 10.4 Topic Guides: Consumer Phase 2

### Discussions (Co-Creation)

Timings	Content
<p>6.00 – 6.05 pm</p>	<p>Purpose: to set the stage for co-creation, remind participants of their rights, provide reassurance and the opportunity to ask questions and confirm consent</p> <p><b>Welcome:</b> Thank you all so much for joining us today and giving us some of your valuable time again.</p> <p>My name is XX, and I work for Basis/Bright Harbour who are an independent research agency. As you know, we are conducting this research on behalf of the</p>

Food Standards Agency (FSA) – as a reminder this is the bit of Government that is responsible for making sure that food is safe, and that food is what it says it is.

Today we are going to continue our discussion about ‘precautionary allergen labelling’ also referred to in the industry as PAL – the labels or signs that tell us that an allergen **MIGHT** be present in a product, not the ones that say an allergen definitely is present. So, for example, ‘may contain,’ or ‘produced in a factory where X is present’.

**IF FSA PRESENT:** We actually have a colleague from the FSA here today to listen in, because they know the best way to listen to the public is to actually be in the room to listen! X, can you wave and introduce yourself?

**Explain:** Today we are focussing on one part of the puzzle, and that is the communications that are needed to address the needs that people have for PAL labelling and signage. We understand there are many other elements, such as regulation of what business should be doing behind the scenes of this labelling - rest assured this is also being explored in other parts of the project.

We will start by replaying some of the key insights that came out of the focus groups a few weeks ago - we would like to sense-check these with you and get your feedback. Then we will explore some communication concepts - they are very early stage ideas off the back of the research groups.

We will be using rough mock-ups to get you thinking about and discussing how this cross-contamination allergen information should be communicated to you; whether that’s on packaging, in restaurants, on websites and so on. We want to hear your ideas and build out the concepts we have.

**Reassure them:** There are no right or wrong answers! It’s also really important that you can feel free to be honest, and that you know that nothing you say will offend us. If something we show you doesn’t work for you, it is really important that you let us know, so we can understand why and see what might work better.

**(Re)explain their rights:** There are strict regulations regarding data protection, and we take these very seriously. We hold your details securely, anonymise what you share with us, and delete all identifying information once the report from this work is public. So, your name will never be included in what we write, and no one will know you have taken part.

	<p>The session will be recorded and used for our notes only, but we don't share full transcripts with FSA. All data, including the recordings, are destroyed after a period of time.</p> <p>Only answer questions you are comfortable with, and only share what you are happy to share. If you need a break, take a break, if you need the bathroom just go, and if you want to stop you just let us know.</p> <p>Check if they have any questions for us? Confirm permission to record</p> <p>Note to moderators: adjust your questioning throughout based on the level of comfort you're getting from participants. Feel free to use projectives and less direct methods wherever it feels necessary to go softer. Do watch for emotional moments and ensure that participants are cared for.</p>
<p>6.05 – 6.15pm</p>	<p>Group introductions and hand signals introductions</p> <p>Purpose: to help warm up participants, get an early check on participant dynamics, remind on hand signals and create a collaborative atmosphere</p> <p>Group introductions</p> <p>Great. To get us started, let's get to know each other a little bit. I'd love you all to introduce yourselves using; your name, who lives in your household + who has allergies in the house and what they are allergic to</p> <p>Moderator to model an introduction, including pronouns.</p> <p>Lovely, great to get to know you. Before we get started, I also want to remind you of some hand signals that we would like you to use.</p> <p>So if you hear something you agree with that really resonates with you, use a <b>thumbs up</b>. If you hear something and you have a really different view, or it doesn't quite resonate with you, use a <b>waggle hand</b>. If you want to share your view on something, put your <b>hand up</b>.</p> <p>Hands up is pretty obvious, but let's try out our thumbs up and waggle hands. So what would you say if I said....</p> <ul style="list-style-type: none"> <li>• I love the weather where I live today</li> <li>• I learned something at the research session</li> <li>• I'm up for feeding back honestly today - whether I love an idea or hate it!</li> </ul>

	<p><b>Team creation:</b> Our shared goal for today is to identify the best opportunities for developing a new standard of PAL labelling and signage that better serves you.</p> <p>So before I present you with some ideas, I need you to come up with a team name! You along with three other teams will be helping us with the PAL labelling challenge this week, so I'm going to give you one minute to chat together and come up with a name...</p> <p><b>So to confirm, our team name is xxx?</b> [moderator to add this to the top of the shared screen stim document]</p>
<p>6.15pm - 6.25pm</p>	<p>Sense checking the four challenges and needs for PAL labelling</p> <p>Purpose: to get their feedback on the four challenges that are informing our co-creation today</p> <p>Moderator will share the screen at this point.</p> <p><u>So there are four challenges</u> I will be presenting today with two key concepts on how to address them. As I share each challenge, please use the hand gestures to give me an idea of whether any of them resonate with you, ok let's go:</p> <p>Moderator to remind: we know these aren't the only challenges but the focus for today</p> <ul style="list-style-type: none"> <li>• <b>Challenge one:</b> Current PAL labelling doesn't always make it clear that it is talking about risk of cross-contamination</li> <li>• <b>Challenge two:</b> Vague language used can make it hard to really understand the level of risk</li> <li>• <b>Challenge three:</b> Concise nature of label means many feel there isn't enough information to make a decision, leaving them with unanswered questions - <i>e.g. is it likely that it contains a small amount or unknown that it contains any, or that it sometimes contains none or loads...? Do they have lots of measures in place, or none...? What has happened before it got to me?</i></li> <li>• <b>Challenge four:</b> language used on PAL signage doesn't help people understand the cross-contamination measures in place when eating from/in a restaurant/take-away/café and staff don't always help/support, leading to highly negative experiences</li> <li>• Moderator play back their hand signals and explore: <ul style="list-style-type: none"> <li>○ How much do these resonate? Do they chime with their experiences?</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ Listen out for them questioning challenge one as this was an interpretation from analysis instead of what was explicitly said</li> <li>○ Do they feel there is a ranking of importance for these four challenges? Or are they on the same level?</li> </ul> <p>Playback the 5 c's needed for PAL labelling (5 c's): our research with you has also shown five key needs for PAL labelling:</p> <p>As before, ask them to use the hand signals to show how they feel about each need, then discuss what does vs doesn't resonate.</p> <ol style="list-style-type: none"> <li>1. <b>Consistency</b> - ensuring a standardised format and language is used across labels</li> <li>2. <b>Clarity</b> - that the information given communicates the risk of cross-contamination in a way that is useful to people reading it</li> <li>3. <b>Care</b> - that the language used demonstrates care for the communities the labelling serves</li> <li>4. <b>Cognitive load reduction</b> - it must help, not hinder confident decision making and not add to cognitive load</li> <li>5. <b>Clear on the community they are they talking to</b> - being explicit about who the label is for - e.g. those with hypersensitivities or allergies, versus those who don't eat an ingredient for other reasons</li> </ol> <p>Specific probes:</p> <ul style="list-style-type: none"> <li>• Is there anything they would like to add to any of the c's? For example should clarity/consistency apply to anything else on PAL labelling?</li> </ul> <p>Before we get stuck into developing the ideas for PAL labelling and signage. We have one quick question:</p> <ul style="list-style-type: none"> <li>• Before this research, if a product label had no PAL labelling, what did that mean to you?</li> <li>• What did that tell you about the safety of the product?</li> <li>• What did you think/do when there is no PAL labelling?</li> </ul>
6.25 – 7.15 pm	<p>Co-creating the concepts for addressing the four challenges</p> <p>Purpose: to get their feedback and suggestions for each concept. What is working well vs less well to aid understanding and more confident decisions after encountering PAL labelling and signage.</p>

Moderator to go through each concept one by one using the stim pack shared on the screen. Encourage participants to annotate the screen when prompted.

For each concept, explore:

1. Gut responses – *call them out*
2. Their understanding of the concept and what it would mean for them – *call out*
3. Any questions/confusion/clarification – *annotate and discuss*
4. What would they do as a result of seeing it? –*discuss*
5. Language preferences that best meet the challenge(s) – *annotate and discuss*
6. Ask them to consider the idea through different lenses; emotional states like tired, anxious, etc. and a context like eating out, takeaway, etc.
7. How well they feel it meets the challenge and tweaks/suggestions to improve the concept – *discuss*
8. Probe against the five c's - how well does the idea deliver to these?
9. How they would feel about business that used this. Does this differ depending on the type of business? For example a food manufacturer vs a restaurant?

Moderator to share each concept directly from the stim pack, the 'nutshells' below are just for reference in this guide.

The first concept has taken the first three challenges into consideration, so let's keep those in mind as we discuss.

Here are some examples of existing PAL labelling that demonstrates these challenges...

Now let's take a look at our first concept:

In a nutshell: A tiered PAL labelling system that clearly communicates the level of cross-contamination risk with instant access to further information using a QR code, google searchable code or text service

Specific probes:

- What alternate language could we use? [refer to other existing labels for inspo if needed]
- Would they want to know about how these tiers are allocated? Where would they expect to find this information? **Listen out for mention of**



knowing about the processes such as risk assessments – probe if not spontaneously mentions

- When probing against 5 c's ensure you get a read on clarity, community and consistency in particular
- How would you feel about seeing more packaging with 'not suitable for' where before they would have said 'may contain...'
- For the 'no risk' tier, how do they feel about this being handed over to 'free from' labelling instead of through PAL, keeping PAL for the high and medium risk categories
- If PAL remains mandatory for the time being, what else do they need to hear/see on PAL labelling in this tiered approach?
- What do you expect on the QR/code web page/app? What do you want to know?
- What should it say alongside the PAL wording to alert you to this further detail?
- **Additional detail to explore:** at the moment we are just talking about text based labelling, how would they feel if it was accompanied by a traffic light visual system? So a green circle for free from, an orange for 'may contain' and red for 'not suitable for'

**The second concept** takes all of the challenges into consideration, specifically in restaurants/cafes and on their websites

In a nutshell: a leaflet and website page that explains what they do in the kitchen to mitigate risk

Specific probes:

- What would you want to see on this list? For example...
  - are staff aware that some people have serious reactions to allergens (not just 'lifestyle' choices or sensitivities)
  - Are allergenic foods prepared in a separate fryer?
  - Is separate cutlery used for preparing food for customers with allergens?
  - Is a separate toaster used for customers eating gluten-free bread?
  - Will the chef be made aware if I have an allergy?

Alternative channel to explore: 'An app that holds all PAL related information'

Intro: So we have discussed packaging, websites and leaflets – another way to provide further PAL information is through an app...

	<ul style="list-style-type: none"> <li>• Gauge interest</li> <li>• What would their expectations be in a nutshell?</li> <li>• What key features + info would they want to access on the app?</li> <li>• What is the most important information for it to have?</li> <li>• Do they use any allergy focussed apps that the FSA could learn from? What is it about them that they like?</li> </ul>
<p>7:15 – 7:25</p>	<p>Frankenstein exercise</p> <p>Purpose: to pull together the best elements of each concept to check off all four challenges. This will include original concept elements and crucially, participant suggestions/builds that make it better.</p> <p><b>Explain:</b> Our final exercise is to bring together the key elements across the concepts, including your own ideas that you feel best address the challenges we have discussed today on a communications level. While you discuss as a team, I will copy and paste the parts you want to bring and build this team's 'Frankenstein'. You are the architects and I am the builder, so tell me what to do!</p> <p>Ok now that is done, let's check we are all happy, or if there is anything else we need to add/tweak. <b>If nothing else, let's check it together against the five c's.</b></p> <p>Note to moderator, if you do not have time, you can tweak this exercise into a 5 minute round-up as follows:</p> <ul style="list-style-type: none"> <li>• Let's go back to the 5 c's - across all the ideas we have spoken about this evening, including anything you have come up with, what are the key things that are meeting these 5 c's and your own needs? <ul style="list-style-type: none"> <li>○ Explore and discuss why</li> </ul> </li> </ul>
<p>7:25-  7:30</p>	<p>Session close</p> <p>Thank you all for your time again this evening. It's been a pleasure to meet you and have the opportunity to hear your feedback and ideas for the various PAL labelling challenges that have come up in this research so far.</p> <p>Is there anything else that people haven't had a chance to say that they'd like to share, or any final questions for me?</p> <p>Before we go I just wanted to invite our colleague from the Food Standards Agency to say a few words.</p>

	<i>FSA representative to thank and highlight next steps. Moderator to reiterate confidentiality points, thank and close.</i> Thanks again everyone and have a great evening.
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## 10.5 Topic Guides: Consumer Phase 3

### Discussions (Testing)

Timings	Content
6.00 – 6.05 pm	<p>Purpose: to set the stage for co-creation, remind participants of their rights, provide reassurance and the opportunity to ask questions and confirm consent</p> <p><b>Welcome:</b> Thank you all so much for joining us today and giving us some of your valuable time again.</p> <p>My name is XX, and I work for Basis/Bright Harbour who are an independent research agency. As you know, we are conducting this research on behalf of the Food Standards Agency (FSA) – as a reminder this is the bit of Government that is responsible for making sure that food is safe, and that food is what it says it is.</p> <p>Today we are going to continue our discussion about ‘precautionary allergen labelling’ also referred to in the industry as PAL – the labels or signs that tell us that an allergen <b>MIGHT</b> be present in a product, not the ones that say an allergen definitely is present. So for example, ‘may contain,’ or ‘produced in a factory where X is present’.</p> <p><b>IF FSA PRESENT:</b> We actually have a colleague from the FSA here today to listen in, because they know the best way to listen to the public is to actually be in the room to listen! X, can you wave and introduce yourself?</p> <p><b>Explain:</b> Today we are focussing on one part of the puzzle, and that is the communications that are needed to address the needs that people have for PAL labelling and signage. We understand there are many other elements, such as regulation of what business should be doing behind the scenes of this labelling - rest assured this is also being explored in other parts of the project.</p> <p>We will start by replaying some of the key insights that came out of the focus groups a few weeks ago - we would like to sense-check these with you and get your feedback. Then we will explore some communication concepts - they are very early stage ideas off the back of the research groups.</p> <p>We will be using rough mock-ups to get you thinking about and discussing how this cross-contamination allergen information should be communicated to you; whether</p>

	<p>that's on packaging, in restaurants, on websites and so on. We want to hear your ideas and build out the concepts we have.</p> <p><b>Reassure them:</b> There are no right or wrong answers! It's also really important that you can feel free to be honest, and that you know that nothing you say will offend us. If something we show you doesn't work for you, it is really important that you let us know, so we can understand why and see what might work better.</p> <p><b>(Re)explain their rights:</b> There are strict regulations regarding data protection, and we take these very seriously. We hold your details securely, anonymise what you share with us, and delete all identifying information once the report from this work is public. So your name will never be included in what we write and no one will know you have taken part.</p> <p>The session will be recorded and used for our notes only, but we don't share full transcripts with FSA. All data, including the recordings, are destroyed after a period of time.</p> <p>Only answer questions you are comfortable with, and only share what you are happy to share. If you need a break, take a break, if you need the bathroom just go, and if you want to stop you just let us know.</p> <p>Check if they have any questions for us? Confirm permission to record</p> <p>Note to moderators: adjust your questioning throughout based on the level of comfort you're getting from participants. Feel free to use projectives and less direct methods wherever it feels necessary to go softer. Do watch for emotional moments and ensure that participants are cared for.</p>
<p>6.05 – 6.15pm</p>	<p>Group introductions and hand signals introductions</p> <p>Purpose: to help warm up participants, get an early check on participant dynamics, remind on hand signals and create a collaborative atmosphere</p> <p>Group introductions</p> <p>Great. To get us started, let's get to know each other a little bit. I'd love you all to introduce yourselves using; your name, who lives in your household + who has allergies in the house and what they are allergic to</p> <p>Moderator to model an introduction, including pronouns.</p> <p>Lovely, great to get to know you. Before we get started, I also want to remind you of some hand signals that we would like you to use.</p>

	<p>So if you hear something you agree with that really resonates with you, use a <b>thumbs up</b>. If you hear something and you have a really different view, or it doesn't quite resonate with you, use a <b>waggle hand</b>. If you want to share your view on something, put your <b>hand up</b>.</p> <p>Hands up is pretty obvious, but let's try out our thumbs up and waggle hands. So what would you say if I said....</p> <ul style="list-style-type: none"> <li>• I love the weather where I live today</li> <li>• I learned something at the research session</li> <li>• I'm up for feeding back honestly today - whether I love an idea or hate it!</li> </ul> <p><b>Team creation:</b> Our shared goal for today is to identify the best opportunities for developing a new standard of PAL labelling and signage that better serves you.</p> <p>So before I present you with some ideas, I need you to come up with a team name! You along with three other teams will be helping us with the PAL labelling challenge this week, so I'm going to give you one minute to chat together and come up with a name...</p> <p><b>So to confirm, our team name is xxx?</b> [moderator to add this to the top of the shared screen stim document]</p>
6.15pm - 6.25pm	<p>Sense checking the four challenges and needs for PAL labelling</p> <p>Purpose: to get their feedback on the four challenges that are informing our co-creation today</p> <p>Moderator will share the screen at this point.</p> <p><u>So there are four challenges</u> I will be presenting today with two key concepts on how to address them. As I share each challenge, please use the hand gestures to give me an idea of whether any of them resonate with you, ok let's go:</p> <p>Moderator to remind: we know these aren't the only challenges but the focus for today</p> <ul style="list-style-type: none"> <li>• <b>Challenge one:</b> Current PAL labelling doesn't always make it clear that it is talking about risk of cross-contamination</li> <li>• <b>Challenge two:</b> Vague language used can make it hard to really understand the level of risk</li> <li>• <b>Challenge three:</b> Concise nature of label means many feel there isn't enough information to make a decision, leaving them with unanswered questions - <i>e.g. is it likely that it contains a small amount or unknown that it contains any, or that it sometimes contains none or loads...? Do they have lots of measures in place, or none...? What has happened before it got to me?</i></li> <li>• <b>Challenge four:</b> language used on PAL signage doesn't help people understand the cross-contamination measures in place when eating from/in a</li> </ul>

	<p>restaurant/take-away/café and staff don't always help/support, leading to highly negative experiences</p> <ul style="list-style-type: none"> <li>• Moderator play back their hand signals and explore : <ul style="list-style-type: none"> <li>○ How much do these resonate? Do they chime with their experiences?</li> <li>○ Listen out for them questioning challenge one as this was an interpretation from analysis instead of what was explicitly said</li> <li>○ <b>Do they feel there is a ranking of importance for these four challenges? Or are they on the same level?</b></li> </ul> </li> </ul> <p>Playback the 5 c's needed for PAL labelling (5 c's): our research with you has also shown five key needs for PAL labelling:</p> <p>As before, ask them to use the hand signals to show how they feel about each need, then discuss what does vs doesn't resonate.</p> <ol style="list-style-type: none"> <li>1. <b>Consistency</b> - ensuring a standardised format and language is used across labels</li> <li>2. <b>Clarity</b> - that the information given communicates the risk of cross-contamination in a way that is useful to people reading it</li> <li>3. <b>Care</b> - that the language used demonstrates care for the communities the labelling serves</li> <li>4. <b>Cognitive load reduction</b> - it must help, not hinder confident decision making and not add to cognitive load</li> <li>5. <b>Clear on the community they are they talking to</b> - being explicit about who the label is for - e.g. those with hypersensitivities or allergies, versus those who don't eat an ingredient for other reasons</li> </ol> <p><b>Specific probes:</b></p> <ul style="list-style-type: none"> <li>• <b>Is there anything they would like to add to any of the 5 C's? For example should clarity/consistency apply to anything else on PAL labelling?</b></li> </ul> <p>Before we get stuck into developing the ideas for PAL labelling and signage. We have one quick question:</p> <ul style="list-style-type: none"> <li>• Before this research, if a product label had no PAL labelling, what did that mean to you?</li> <li>• What did that tell you about the safety of the product?</li> <li>• What did you think/do when there is no PAL labelling?</li> </ul>
6.25 – 7.15 pm	Co-creating the concepts for addressing the four challenges

Purpose: to get their feedback and suggestions for each concept. What is working well vs less well to aid understanding and more confident decisions after encountering PAL labelling and signage.

Moderator to go through each concept one by one using the stim pack shared on the screen. Encourage participants to annotate the screen when prompted.

For each concept, explore:

1. Gut responses – *call them out*
2. Their understanding of the concept and what it would mean for them – *call out*
3. Any questions/confusion/clarification – *annotate and discuss*
4. What would they do as a result of seeing it? – *discuss*
5. Language preferences that best meet the challenge(s) – *annotate and discuss*
6. Ask them to consider the idea through different lenses; emotional states like tired, anxious, etc. and a context like eating out, takeaway, etc.
7. How well they feel it meets the challenge and tweaks/suggestions to improve the concept – *discuss*
8. Probe against the five c's - how well does the idea deliver to these?
9. How they would feel about business that used this. Does this differ depending on the type of business? For example a food manufacturer vs a restaurant?

Moderator to share each concept directly from the stim pack, the 'nutshells' below are just for reference in this guide.

The first concept has taken the first three challenges into consideration, so let's keep those in mind as we discuss.

Here are some examples of existing PAL labelling that demonstrates these challenges...

Now let's take a look at our first concept:

In a nutshell: A tiered PAL labelling system that clearly communicates the level of cross-contamination risk with instant access to further information using a QR code, google searchable code or text service

Specific probes:

- What alternate language could we use? [refer to other existing labels for inspo if needed]
- Would they want to know about how these tiers are allocated? Where would they expect to find this information? Listen out for mention of knowing about the processes such as risk assessments – probe if not spontaneously mentions
- When probing against 5 c's ensure you get a read on clarity, community and consistency in particular

- How would you feel about seeing more packaging with 'not suitable for' where before they would have said 'may contain...'
  - For the 'no risk' tier, how do they feel about this being handed over to 'free from' labelling instead of through PAL, keeping PAL for the high and medium risk categories
  - If PAL remains mandatory for the time being, what else do they need to hear/see on PAL labelling in this tiered approach?
  - What do you expect on the QR/code web page/app? What do you want to know?
  - What should it say alongside the PAL wording to alert you to this further detail?
- 
- Additional detail to explore: at the moment we are just talking about text based labelling, how would they feel if it was accompanied by a traffic light visual system (consumer idea from previous group)? So a green circle for free from, an orange for 'may contain' and red for 'not suitable for'

**The second concept** takes all of the challenges into consideration, specifically in restaurants/cafes and on their websites

In a nutshell: a leaflet and website page that explains what they do in the kitchen to mitigate risk

Specific probes:

- What would you want to see on this list? For example...
  - are staff aware that some people have serious reactions to allergens (not just 'lifestyle' choices or sensitivities)
  - Are allergenic foods prepared in a separate fryer?
  - Is separate cutlery used for preparing food for customers with allergens?
  - Is a separate toaster used for customers eating gluten-free bread?
  - Will the chef be made aware if I have an allergy?

Alternative channel to explore: 'An app that holds all PAL related information'

Intro: So we have discussed packaging, websites and leaflets – another way to provide further PAL information is through an app...

- Gauge interest
- What would their expectations be in a nutshell?
- What key features + info would they want to access on the app?
- What is the most important information for it to have?



	<ul style="list-style-type: none"> <li>• Do they use any allergy focussed apps that the FSA could learn from? What is it about them that they like?</li> </ul>
<p>7:15 – 7:25</p>	<p>Frankenstein exercise</p> <p>Purpose: to pull together the best elements of each concept to check off all four challenges. This will include original concept elements and crucially, participant suggestions/builds that make it better.</p> <p><b>Explain:</b> Our final exercise is to bring together the key elements across the concepts, including your own ideas that you feel best address the challenges we have discussed today on a communications level. While you discuss as a team, I will copy and paste the parts you want to bring and build this team’s ‘Frankenstein’. You are the architects and I am the builder, so tell me what to do!</p> <p>Ok now that is done, let’s check we are all happy, or if there is anything else we need to add/tweak. If nothing else, let’s check it together against the five C’s.</p> <p>Note to moderator, if you do not have time, you can tweak this exercise into a 5 minute round-up as follows:</p> <ul style="list-style-type: none"> <li>• Let’s go back to the 5 c’s - across all the ideas we have spoken about this evening, including anything you have come up with, what are the key things that are meeting these 5 c’s and your own needs? <ul style="list-style-type: none"> <li>○ Explore and discuss why</li> </ul> </li> </ul>
<p>7:25- 7:30</p>	<p>Session close</p> <p>Thank you all for your time again this evening. It’s been a pleasure to meet you and have the opportunity to hear your feedback and ideas for the various PAL labelling challenges that have come up in this research so far.</p> <p>Is there anything else that people haven’t had a chance to say that they’d like to share, or any final questions for me?</p> <p>Before we go I just wanted to invite our colleague from the Food Standards Agency to say a few words.</p> <p><i>FSA representative to thank and highlight next steps. Moderator to reiterate confidentiality points, thank and close.</i> Thanks again everyone and have a great evening.</p>