

## **Explanatory Memorandum to the Food Information (Wales) (Amendment) (No. 2) Regulations 2020**

This Explanatory Memorandum has been prepared by Food Standards Agency and is laid before the National Assembly for Wales in conjunction with the above subordinate legislation and in accordance with Standing Order 27.1.

### **Minister's Declaration**

In my view, this Explanatory Memorandum gives a fair and reasonable view of the expected impact of the Food Information (Wales) (Amendment) (No. 2) Regulations 2020. I am satisfied that the benefits justify the likely costs.

Vaughan Gething

Minister for Health and Social services

17 March 2020

## **PART 1**

### **1. Description**

The Food Information (Wales) (Amendment) (No. 2) Regulations 2020 amend the Food Information (Wales) Regulations 2014 (the “2014 Regulations”).

Beginning 1 October 2021, these Regulations introduce a requirement for Food Business Operators (FBOs) to ensure that food that is prepacked for direct sale (“PPDS foods”), whether supplied to a final consumer or to a mass caterer, must have the name of the food, and a list of ingredients, including allergen information, provided directly on the package or on a label attached to the package.

### **2. Matters of special interest to the Legislation, Justice and Constitution Committee**

None.

### **3. Legislative background**

The Food Information (Wales) (Amendment) (No. 2) Regulations 2020 are made in exercise of the Welsh Ministers’ powers under sections 16, 26 and 48 of the Food Safety Act 1990 relating to food labelling. These regulations are subject to annulment in pursuance of a resolution of the National Assembly for Wales, pursuant to section 48(3) of the 1990 Act (as read with paragraph 33 of Schedule 11 to the Government of Wales Act 2006).

The EU Food Information to Consumers Regulation (EU) No 1169/2011 (FIC) provides the legislative framework around the provision of food allergen information. Separate but parallel enforcement regulations exist in each of the four countries of the UK – in Wales this is the 2014 Regulations.

FIC contains requirements for Food Business Operators relating to the labelling and provision of allergen information. Food Business Operators are under a duty to ensure that all mandatory food allergen information must be accurate, available and easily accessible to the consumer.

FIC allows for the introduction national measures as to how information is to be made available for non-prepacked foods, including PPDS foods.

Notwithstanding the UK having left the EU at 11pm on 31 January 2020, FIC continues to apply to the UK during ‘the implementation period’ pursuant to Part 4 of the Withdrawal Agreement between the UK and the EU, as implemented by sections 1A and 1B of the European Union (Withdrawal) Act 2018 (“the 2018 Act”) (as inserted by the European Union (Withdrawal Agreement) Act 2020 (“the 2020 Act”). The implementation period ends on ‘IP completion day’ (currently 11pm on 31 December 2020 as defined by section 39 of the 2020 Act). At that point the FIC will, so far as it is operative immediately before IP

completion day, form part of UK domestic law pursuant to section 3 of the 2018 Act (as amended by the 2020 Act). The 2014 Regulations will continue to have effect pursuant to section 2 of the 2018 Act (as amended by the 2020 Act). FIC and the 2014 Regulations will, from IP completion day, be amended by EU Exit SIs in order to correct any deficiencies arising from the withdrawal of the UK from the EU. The provision made by these Regulations will not be affected substantively by any such correction.

In the UK, in recognition of the wide variety of out-of-home eating establishments and following consultation with stakeholders including business and patient groups, the 2014 Regulations introduced a flexible approach for allergen information for non-prepacked foods, including PPDS food, to be made available by any means the food business chooses, including orally by a member of staff. Where the Food Business Operator chooses not to provide food allergen ingredients information on a menu, for example, there must be an indication to speak to a member of staff either on a label attached to the food itself or on a notice, menu, ticket or label that is readily discernible to the customer where the customer chooses the food.

Enforcement of these regulations is undertaken by food enforcement officers within local authorities. The principal enforcement powers are contained in sections 10 (improvement notices) and 32 (powers of entry and investigation) of the Food Safety Act 1990, to which there are associated criminal offences. Regulation 12 of the 2014 Regulations makes provision on the application (with modifications) of the 1990 Act powers to specified provisions of the 2014 Regulations. Regulation 10 of the 2014 Regulations provides that failure to comply with the provisions specified in that Regulation is an offence. Person(s) found guilty of an offence under the 2014 Regulations may be liable, on conviction, to an unlimited fine. Person(s) found guilty of a relevant offence under the 1990 Act (e.g. failure to comply with an improvement notice issued under section 10 of that Act) may be liable, on conviction, to an unlimited fine and/or imprisonment.

#### **4. Purpose and intended effect of the legislation**

The overarching objective of this instrument is to amend the Food Information (Wales) Regulations (2014) to improve the provision of information to consumers about the full ingredients list including food allergens and/or ingredients which cause food hypersensitivity or intolerances and are present in PPDS foods. The intended effect of the policy is to reduce the number of allergen-related incidents in which the provision of allergen information for PPDS foods is considered to be relevant. This instrument places a duty on food businesses to label PPDS foods with the name of the food and full list of ingredients, with allergens emphasised, on the packaging, bringing the provision of allergen information in line with labelling for prepacked food.

#### 4.1. General background on food hypersensitivity

Food hypersensitivity is where people adversely react when eating certain foods and is divided into food allergy and non-allergic food hypersensitivity (food intolerance). In the UK, it is estimated that 1-2% of adults and 5-8% of children have a food allergy. This equates to around 2 million people living in the UK with a food allergy, but this figure does not include those with food intolerances. In addition, it is estimated that 1 in 100 people have coeliac disease, an auto-immune condition which causes damage to the gut lining when gluten is present in food and around ten people in the UK die from allergic reactions to food every year.

There is no cure for food allergies and intolerances. The only way to manage the condition is to avoid food that makes the person ill. Therefore, it is very important that consumers are provided with accurate information about ingredients which can be found in food products and could cause food allergies or intolerances

#### 4.2. Why are the 2014 Regulations being changed?

Continuing fatalities and effects on public health have raised the issue of whether the current regulatory framework for the provision of allergen information for PPDS foods is sufficient to give consumers the necessary information. It is important that consumers are provided with accurate information about allergenic ingredients in products to allow them to make safe choices.

For detailed information on the impact of food allergies in the UK please see Annex H, which provides information and statistics on the following:

- Proportion of population with food allergies
- Hospitalisation due to adverse food reactions
- Potential health benefits to costs in relation to food allergies

The UK Government: the Food Standards Agency (FSA) in Wales, England and Northern Ireland, the Department for Health and Social Care (DHSC) ; and Food Standards Scotland (FSS) have agreed that a review of the current legal framework for allergen information for foods which are prepacked for direct sale to the consumer (PPDS) is necessary.

The UK Government review of allergen information provision for PPDS food followed shortly after the conclusion of the Coroner's inquest into the death of a 15-year-old, who died after eating a PPDS sandwich. The Coroner's report noted that allergens on PPDS products were not labelled adequately or clearly on the packaging, and subsequent campaigning by consumers raised the issue of whether the current regulatory framework for the provision of allergen information for PPDS is sufficient to give consumers the information they need to choose the right product for them.

### 4.3. Consultation

In January 2019 the Department for Environment, Food and Rural Affairs; FSA in England, Wales and Northern Ireland, and the FSS in Scotland issued a 9-week consultation seeking views on non-regulatory and regulatory policy options to improve the provision of allergen information to consumers for PPDS foods.

Four policy options were developed, with the aim to improve the provision of allergen information and were consulted on from 25 January 2019 to 29 March 2019. The options were:

- Option 1: promote best practice (no change in law);
- Option 2: add “ask the staff” stickers to packaging, staff would have to provide information orally and in writing if asked;
- Option 3: label food with the name of the food and list allergens;
- Option 4: label food with name of food, full ingredients list and with allergens emphasised.

Following the UK-wide consultation, there were 143 responses to the consultation that identified themselves as operating or residing in Wales. These included 82 individuals, 37 businesses operating in Wales, 17 non-governmental organisations and 7 public sector bodies. More than 50% of individuals indicated Option 4 was their preferred choice. The analysis of responses showed that consumers indicated that full ingredient labelling would give them most trust in the food they are eating, and it is the only option that will help the significant number of consumers with food allergies and intolerances beyond those mandatorily defined by FIC. There were also three workshops held across Wales during the consultation, led by the Food Standards Agency in Wales, to test the proposals. When compared against the 1,891 UK responses the views expressed by Welsh respondents were generally consistent with and mirroring the rest of the UK's responses.

- Option 1 - all respondent groups saw this as providing little change to the status quo and suggested that best practice should be used in conjunction with the other options;
- Option 2 - was not considered preferable as a standalone option among all respondents, however all groups agreed that it could be used in combination with Options 3 or 4;
- Option 3 - was considered by most public-sector bodies and some consumers and business as a balance between option 2 and 4;
- Option 4 - was the preferred option for the majority of individuals.

For more information regarding summary of responses and government response to the consultation, please access the following link: <https://www.gov.uk/government/consultations/food-labelling-changing-food-allergen-information-laws/outcome/summary-of-responses-and-government-response>

There were also calls from businesses operating across country borders to ensure consistency in the decisions taken across the UK, in order to enable the development of a uniform approach.

The overarching objective of the policy has been to improve the provision of information to consumers about food allergens present in PPDS foods, so they have greater confidence in the safety of these foods. It has therefore been decided to amend the Food Information (Wales) Regulations 2014 to change the way in which food businesses in the Wales are required to provide allergen information on prepacked for direct sale (PPDS) food.

Following the analysis of the responses received to the UK Government's consultation on amending allergen information provisions for PPDS food and in line with FSA advice, this instrument will come into force on the 1st October 2021 in order to allow businesses sufficient time to adapt to this regulatory change.

#### 4.4. What is changing?

In this context, displaying mandatory allergen information means indicating if any of the 14 allergenic substances listed in Annex 2 to Regulation (EU) No 1169/2011 on the provision of food information to consumers ("FIC") are present in a food. The 14 substances listed in FIC are those that are recognised across Europe as the most common ingredients or processing aids causing food allergies and intolerances.

Once these Regulations come into force, Food Business Operators (FBOs) will no longer be able to choose how to provide mandatory allergen information for PPDS foods. Further, FBOs will be required to provide a full list of ingredients for PPDS foods. From 1 October 2021, all PPDS foods, whether supplied to a final consumer or to a mass caterer, must have the name of the food, and a list of ingredients, including allergen information, provided directly on the package or on a label attached to the package.

This change means that allergen information will be found on more packaged foods, providing allergen information in the way consumers who responded to the UK-wide consultation asked for.

The provisions in the 2014 Regulations regarding allergen information in respect of the other two forms of non-prepacked food, namely foods which are loose and those which are packed at the consumer's request, remain unchanged. This instrument brings consistency of allergen information between PPDS and prepacked food.

## **PART 2 – REGULATORY IMPACT ASSESSMENT**

Defra completed a UK-wide analysis of the impacts on businesses and local authorities for all the options set out in the consultation. These costs include the cost to businesses and local authorities in familiarising themselves with the regulations. For those businesses that do not currently label their PPDS products, there will be an initial transitional cost of labelling and then an additional on-going cost for each year. The costs also include the additional enforcement cost for local authorities to account for additional time spent on inspections.

We have considered a wide range of policy options with stakeholders and can confirm that no potentially viable option has been ruled out of detailed appraisal without substantive reasoning. The policy options for strengthening the UK allergen information provision framework are summarised below. Note that each option need not be considered as exclusive; options may be combined, for example, the non-regulatory option may build upon regulatory options in an escalating hierarchy, or different options may be applied to different sizes of businesses in a two-tiered approach.

All options are intended to address the policy objective, through a range of regulatory and non-regulatory means. Each option considers various measures that could be put in place to alleviate consumer concerns related to allergen information provision on PPDS foods. Options 1 to 4 represent a sliding scale moving from non-regulatory measures to increasingly prescriptive regulatory measures. Option 1 is aimed at raising consumer confidence without regulatory intervention, through encouraging changes to business practices around allergens through guidance and training, and campaigns to raise awareness for allergic consumers. Options 2 to 4 consider leveraging regulatory measures in order to achieve the same objective of improving the provision of information to consumers.

To note that following the UK-wide consultation, the FSA Board wrote to the Minister for Health and Social Services in request to adopt Option 4 as per the stakeholders' responses to the consultation.

Option 4 was considered the most appropriate option for improving the provision of information to consumers about food allergens present in PPDS foods, so they have greater confidence in the safety of these foods. Therefore, careful thought was given to the chosen option and more work has been undertaken to provide specific Welsh figures in relation to this option.

## 5. Options

### **Policy Option 1: Do not amend the Food Information (Wales) Regulations 2014 in regard to the allergen provision for PPDS foods and promote best practice instead**

This option would not require a legislative change, but to effect change would entail additional activity to promote best practice within the current framework to encourage businesses and consumers to review their knowledge, skills and actions to ensure a safer environment for consumers. It would encompass best practice for all non-prepacked foods, including PPDS. Options for promoting best practice may include:

- Best practice guidance for the catering sector to be developed by industry in partnership with FSA and allergy support organisations and made available to all local authorities.
- Technical training to be delivered to local authorities by the FSA.
- E-learning training for FBOs and local authorities to be refreshed by the FSA.
- Quick start and technical guidance on allergen information rules to be developed for FBOs and local authorities by the FSA.
- Public information campaign utilising social and traditional media channels to highlight allergen knowledge and awareness for FBOs and the general public to be led by the FSA in partnership with key stakeholders such as OGDs, allergy patient groups, trade bodies, local authorities and caterers.

The main benefits of this option are that it has the potential to be designed and implemented in a shorter timescale than that required for a legislative change and can be adapted to continue to be fit for purpose. It retains maximum flexibility for businesses to make allergen information available on PPDS foods in a way that best suits their business model whilst achieving the policy objectives. Some businesses are already taking action to strengthen their allergen information provision. The FSA and FSS see a public awareness/ best practice campaign as essential, whatever the outcome of this review. In relation to this, FSA have launched the #EasytoAsk campaign and relevant businesses have indicated a willingness to directly support a larger repeat of this campaign



in their approach to allergen labelling, which could significantly increase awareness.

As this is a non-regulatory measure, there is no guarantee that businesses will change their practices.

### **Description and scale of key monetised costs by ‘main affected groups’**

Costs to Government: The main costs to Government centre on the development of best practice materials (including new guidance and training materials). There will likely be costs for local authorities in familiarising staff with any new technical guidance.

Costs to Business: Businesses will also have to familiarise themselves with any new technical guidance, this familiarisation cost will be significantly larger than that those on Government.

### **Policy Option 2: Mandate "ask the staff" labels on packages of PPDS foods**

In the absence of a full list of ingredients, or a list of the allergens contained within the product on the packaging, food prepacked for direct sale would include a label/sticker on the packaging advising consumers to “ask the staff” about allergens. When asked about allergens, staff would have to provide supporting information in writing upon request before the food was purchased. This information would comprise of either:

- A list of any of the 14 allergens contained within the specific product; or
- A full ingredient list with allergens emphasised.

This sticker would not eradicate the need for businesses to clearly indicate to consumers how allergen information is to be made available for other non-prepacked foods.

Of the regulatory options proposed, this option is the least costly to implement and is already being rolled out by a number of businesses. It would ensure that consumers are consistently prompted to be proactive in talking to staff about allergens when choosing PPDS foods. Anecdotal evidence indicates that it would normalise and encourage food allergic consumers to be proactive in talking to staff about their allergy requirements, so they can make safe food choices.

However, risks associated with this option include failure to provide sufficient information for those consumers who are not sufficiently confident to engage with staff, the availability of appropriately trained staff, and the risk which may

ensue if food is taken off the premises and given to a third-party food allergic consumer. Unlike the other regulatory options, this option does not carry the risk of mislabelling on the product packaging, but there is still a risk that the written information provided upon request may be incorrect. This risk applies to all options that put allergen information in writing, including options 3 and 4.

### **Description and scale of key monetised costs by ‘main affected groups’**

Cost to Government: Government (local authorities) will face familiarisation costs associated with new legislation. Local authorities will face an increase in enforcement costs.

Costs to Businesses: Businesses will also face familiarisation costs. Some businesses (such as Quick service restaurants and sandwich shops) will experience transitional costs of new labelling and then the on-going costs of labelling (if they previously did not label). The costs to business are significantly larger than those affecting local authorities

### **Policy Option 3: Mandate name of the food and allergen labelling (i.e. indicate which of the 14 allergens listed in Annex II of FIC are contained in the food) on packages of PPDS foods**

This option introduces a regulatory measure requiring PPDS foods to have a label on the packaging to tell the consumer the name of the food and which of the 14 allergenic ingredients in Annex II of the FIC the product intentionally contains.

This option is less difficult for businesses to implement than full ingredient labelling, but more costly than option 2. It gives consumers clear, product specific information on the food packaging, enabling food allergic consumers to make informed choices when purchasing food products. Also, when the consumer takes the food off the premises to eat later or to give to a third party, the information about food allergens is available on the packaging. This option also allows businesses to make some non-allergenic ingredient substitutions without having to change the label on the packaging.

There may be risks associated with this option and it may be challenging to implement correctly, particularly for small and micro businesses, incurring additional administrative, equipment and training costs. For instance, it will increase costs to business as generic packaging would necessarily disappear or need to be supplemented with another label.

As mislabelling is the most common source of product recall for prepacked goods, adding a label could introduce the risk of mislabelling incidents, particularly in busy kitchen environments where products containing different

food allergens are made simultaneously. As consumers trust labels, this could cause more incidents as consumers may eat wrongly labelled packaged food and may potentially discourage dialogue with staff. In addition, people who are allergic to ingredients that are not on the list of 14 allergenic ingredients laid out in Annex II of the FIC will not benefit from option 3. Overall, the risk of mislabelling is less for this option than the mislabelling risk associated with option 4.

This option may also lead to businesses removing certain foods from their menu or limit changes to menus (e.g. one-off specials), thus reducing consumer choice in general. It may require new labelling processes to be instituted on business premises and would require substantial training of staff, to equip them with the knowledge and skills to implement allergen labelling procedures accurately. This option may prompt changes in business practices, e.g. moving from PPDS foods to packing foods on the premises at the consumer's request or displaying unwrapped food which could increase the risk of cross-contact with allergens.

#### **Description and scale of key monetised costs by 'main affected groups'**

Costs to Government: Government (local authorities) will face familiarisation costs associated with new legislation (larger than that under option 2). Local authorities will face an increase in enforcement costs (again larger than those in option 2).

Costs to Business: The main costs to business will occur due to the initial transitional costs of introducing labelling (this is more substantial than that of Option 2) to PPDS products and the on-going cost of labelling. In addition, business will also experience costs due to familiarisation of the new legislation that is introduced. Costs to businesses are larger than those on Government.

#### **Policy Option 4: Mandate name of the food and full ingredient list labelling on packages of PPDS foods**

This option introduces a regulatory measure requiring PPDS foods to have a label naming the food and listing the full ingredients with allergens emphasised on the packaging.

Labelling will need to be compliant with Article 9 (1) a - c of FIC:

- a. the name of the food
- b. the list of ingredients
- c. any ingredient or processing aid listed in FIC Annex II or derived from a substance or product listed in Annex II causing allergies or intolerances used in the manufacture or preparation of a food and still present in the finished product, even if in an altered form, would be emphasised to stand out from the other ingredients in the list.

This option introduces a consistent approach to labelling of ingredients for food that is prepacked and prepacked for direct sale. It may give food allergic consumers more trust in the food they are eating and help consumers with food allergies and intolerances beyond those mandatorily defined by FIC. It doesn't rely on staff having to provide accurate information on allergens directly to consumers, but a labelling process will be required on the premises, and staff will need to be sufficiently trained to implement labelling procedures accurately.

As with option 3, full ingredient labelling would increase costs to business as generic packaging would necessarily disappear or need to be supplemented with additional labelling. Adding a label may introduce the risk of mislabelling incidents, particularly in busy kitchen environments where products containing different allergens are made simultaneously, and this option carries the greatest mislabelling risk. As consumers trust labels, this could cause more incidents as consumers may eat wrongly labelled packaged food. This option may lead to businesses removing certain foods from their menu or limit changes to menus (e.g. one-off specials), to avoid the costs of extra labelling, potentially reducing consumer choice in general. Additionally, the cost of full labelling may potentially stifle innovation and new product development and may constrain supply chain purchases and availability.

#### **Description and scale of key monetised costs by 'main affected groups'**

Costs to Government: Government (local authorities) will face familiarisation costs associated with new legislation (larger than that under option 3). Local authorities will face an increase in enforcement costs (again larger than those in option 3).

Costs to Business: The main costs to business will occur due to the initial transitional costs of introducing labelling (this is more substantial than that of Option 3 as more businesses will likely be affected) to PPDS products and the on-going cost of labelling (again larger than that in Option 3). In addition, business will also experience costs due to familiarisation of the new legislation that is introduced. Costs to businesses are significantly larger than those on

Government.

The main discernible benefits for options 2, 3 and 4 are the improved and consistent provision of allergen information on all products that are prepacked and PPDS to consumers. This should lead to improved consumer confidence in businesses selling PPDS foods and improve the choice of options (in terms of businesses) for those with food allergies. This could lead to a reduction in the number of food allergen related incidents and fatalities associated with PPDS foods.

## **6. Costs and benefits**

### **Option 1 (Promoting best practice)**

#### **Costs to businesses**

As this option does not involve a change in regulation but improving on the actions that are already undertaken by businesses, it is difficult to quantify the change in costs relative to the baseline scenario.

However, if the government were to provide new technical guidance specific to PPDS, we would expect businesses to familiarise themselves with this new guidance. This is what currently provides businesses with information regarding what is defined as PPDS (and other similar definitions and guidelines).

#### **Familiarisation costs**

This cost has been monetised. There may be a one-off cost for businesses, associated with reading and familiarising themselves with any new guidance (such as new technical guidance) that is produced. Time will be spent acquiring, reading and understanding the implications of the new guidance on their business.

Familiarisation costs are measured in terms of the time spent familiarising and are therefore calculated by multiplying the time it takes for a member of staff to read and understand the guidance, by their hourly wage rate. The relevant average hourly rate (from ONS Annual Survey of Hours and Earnings data<sup>1</sup>) has been uplifted (by 30%) to take into account the non-wage labour costs and overheads (which is the standard methodology).

We assume<sup>2</sup> that all businesses selling PPDS foods will need to familiarise themselves with this new guidance. However, the time taken by each business will vary depending on size (i.e. number of employees) as well as the number of outlets that they have.

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<sup>1</sup> ONS Annual Survey of Hours and Earnings (ASHE) 2018 - <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/regionbyoccupation4digitsoc2010ashtable15>

<sup>2</sup> Our assumptions for time spent for familiarisation are based on discussions with businesses during our stakeholder workshops, as well as consultation responses received.

We assume that for small and micro businesses it would take one member of staff one hour to read and familiarise themselves with any new guidance. For medium and large businesses, we assume that it will take one member of staff 1.5 hours to read and familiarise themselves with any new guidance. In addition, we have assumed that there will be an additional hour of familiarisation cost (per outlet) to reflect the need to disseminate any new understanding/knowledge to other members of staff.

For Supermarkets and Institutional Caterers, we have assumed that a regulatory professional will carry out this familiarisation process. For Specialised Food Retailers we have assumed that a food preparation tradesperson (i.e. head butcher or baker) will do so. While for Quick Service Restaurants and sandwich shops we assume that a manager or proprietor will be responsible for familiarisation.

The average hourly wage for 'Quality assurance and regulatory professionals' is £24.13 according to 2018 ONS: Annual Survey of Hours and Earnings (ASHE) data (see Annex A). This wage rate is then uprated by 30% to £31.37. For small and micro businesses, the familiarisation cost is £31.37, while the cost for medium and large businesses is £47.06. The individual outlet familiarisation cost is also £31.37.

The average hourly wage for 'Food preparation and hospitality trades' is £10.16 according to 2018 ASHE data (see Annex B). This wage rate is then uprated by 30% to £13.21. For small and micro businesses, the familiarisation cost is £13.21, while the cost for medium and large businesses is £19.82. The individual outlet familiarisation cost is also £13.21.

The average hourly wage for 'Restaurant and catering establishment managers and proprietors' is £11.93 according to the 2018 ASHE data (see Annex C). This wage rate is then uprated by 30% to £15.51. For small and micro businesses, the familiarisation cost is £15.51, while the cost for medium and large businesses is £23.27. The individual outlet familiarisation cost is also £15.51.

The average hourly rate for each occupation has been used to calculate a central estimate. In the ONS ASHE data there are lowest decile and highest decile wages for each occupation (see Annex A), these have been used to produce low and high-end estimates of familiarisation costs using the same methodology.

Then the total cost to each type of business was calculated by multiplying the cost per business by the relevant number of businesses, then adding the cost per outlet multiplied by the relevant number of outlets. The total familiarisation costs for all businesses in the scope of this review are shown in table 3.

	<b>Low Estimate Familiarisation Costs (£m)</b>	<b>Central Estimate Familiarisation Costs (£m)</b>	<b>High Estimate Familiarisation Costs (£m)</b>
<b>Total Familiarisation costs</b>	£3.09	£4.97	£6.14

Table 9: Estimated familiarisation costs to business under Option 1

### Costs to consumers

Business may seek to pass any increase in costs on to consumers. The extent to which these costs will be passed on will depend on a number of factors relating to supply and demand of the products. Given the uncertainties, we have not assumed a specific level of pass on and it should be noted that these costs are not additional to those set out above but about the incidence of the costs.

### Costs to Government

What has been defined in this Impact Assessment as 'Best Practice' may not be the exact approach taken by Government should this policy Option be taken forward. However, the following discussion of costs are there to indicate the potential costs which may arise for Government based on what has been suggested as possible methods to achieve 'Best Practice'.

#### Work by Government developing 'Best Practice' materials

In order to deliver the aspects highlighted as potential best practice options, there will need to be work carried out by government officials to prepare the requisite materials. We have assumed that to develop a media campaign, one working time equivalent (WTE) for a period of four months will be required. Similarly, to develop technical guidance one WTE for a period of nine months will be required. Lastly to apply the new guidance that is developed and update the existing FSA training, half of a WTE for a period of 12 months will be required. This results in 1.6 WTE being required to implement this work.

Our assumption is that this work will be undertaken by a team which is comprised of both HEO and SEO grades evenly. Therefore, the associated wage costs for this work will be the average of the two grades (including overheads<sup>3</sup>). A sensitivity analysis (of +/- 20%) has been applied to provide lower and upper estimates.

Finally, to estimate the total labour costs, we multiply the average wage cost by the WTE that is required.

	<b>Low Estimate of Labour Costs (£m)</b>	<b>Central Estimate of Labour Costs (£m)</b>	<b>High Estimate of Labour Costs (£m)</b>
<b>Total labour cost</b>	£0.06	£0.08	£0.09

Table 10: Estimated labour costs associated with developing best practice materials

#### External contractors working with Government

<sup>3</sup> Based on FSA data, we estimate this to be approximately £44,000 and £52,000 for HEO and SEO grades respectively.

In partnership with Government (FSA) external contractors will likely be required to help produce e-learning, marketing campaigns, provide PR services and assist with the development/implementation of some of the best practice materials. It has been estimated that in total, the labour requirement will be two WTEs for a period of 12 months. Despite this work being carried out by non-Government employees, the cost will be met by Government so is counted as such.

Similar to the costs to business for familiarisation, we have used ONS ASHE data to ascertain the average annual wage for these professionals. The average annual salary for 'Public relations professionals' (SOC code – 2472) was £36,191. ONS ASHE data lowest and highest decile salaries for each occupation (see Annex D) have been used to produce low and high-end estimates.

The average annual salary for 'Web design and development professionals' was £33,502 (see Annex E). Due to uncertainty in the how much one role will be required more than the other, the mean of the two annual salaries was calculated. As with previous calculations for familiarisation costs to businesses, the salaries have been uplifted by 30%.

The cost of the external labour required is then estimated by multiplying the mean annual salary of the two occupations by the labour required (two WTE).

	<b>Low Estimate of External Labour Costs (£m)</b>	<b>Central Estimate of External Labour Costs (£m)</b>	<b>High Estimate of External Labour Costs (£m)</b>
<b>External labour costs</b>	£0.04	£0.09	£0.11
Table 11: Estimated cost of external contractor labour			

### Administering training workshops

In addition to developing (or more precisely updating current) training, there would be a need for there to be new face to face training sessions with enforcement officials. This has been carried out previously by the FSA and is the basis of the costs included here.

Previously training was implemented over an 18-month period (during a total of 30 workshops) to approximately 1,500 environmental health officers (EHOs) and trading standards officers (TSOs). The budget for this was estimated at £120,000. This represents the approximate cost per EHO/TSO to be £80.

Currently, according to FSA figures, there are 1,793<sup>4</sup> food hygiene and food standards inspectors. Therefore, assuming that the cost per EHO/TSO to still be representative, the cost of administering training has been estimated by multiplying the cost per EHO/TSO by the number of food hygiene/standards staff.

<sup>4</sup> This figure is based on FSA statistics for UK full time equivalent (FTE) staff for 2017/18.



To provide a range of estimates, a sensitivity analysis of +/- 20% has been applied to the calculated costs.

It is important to note that the administering of training can only happen once the training itself has been updated. Therefore, the cost of administering training will not begin until Year 1, with only two thirds of this cost being felt at this time (as workshops took 18 months to implement previously. The final third of the training costs will fall in Year 2.

	<b>Low Estimate of Training Costs (£m)</b>	<b>Central Estimate of Training Costs (£m)</b>	<b>High Estimate of Training Costs (£m)</b>
<b>Training costs</b>	£0.11	£0.14	£0.17
Table 12: Estimated cost of administering training workshops			

It has been noted that the training workshops could be replaced by the production of an educational video due to the limited focus (primarily on PPDS products) of the update to the training. This would likely only happen if it was assessed to be a more cost effective and efficient method than the face to face workshops that are proposed here.

#### Familiarisation Costs.

Similar to familiarisation costs for business, there will be a one-off familiarisation cost to government. Time will be spent acquiring, reading and understanding the implications of any new guidance on their inspection body (local authority). Again, the current guidance is what defines what PPDS is, so any alteration to it will have implications not just for the businesses who sell PPDS but also those who enforce the current allergen information provisions.

We assume that for Option 1, each Trading Standards Officer (TSO) and Environmental Health Officer (EHO) will take three hours<sup>5</sup> to read and familiarise themselves with the any new guidance. In addition to this, there will be an additional working day (7.4 hours) per local authority for EHO/TSOs to reach a consensus on how to proceed with the new guidance.

According to 2018 ASHE data, the average wage rate for a 'Trading standards officer' (SOC code - 3565) is £17.48 (see Annex F). This is then uprated by 30% to £22.72.

According to 2018 ASHE data, the average wage rate for an 'Environmental health professional' (SOC code - 2463) is £19.00 (see Annex G). This is then uprated by 30% to £24.70. In some local authorities a TSO will carry out inspections and in others an EHO will do so. Accordingly, the average of the two uprated hourly wages has been calculated. The average uprated wage is calculated to be £23.71. Therefore, the cost for familiarisation per EHO/TSO is £71.14 and the familiarisation cost per local authority (inspection body) is £175.47.

<sup>5</sup> Familiarisation time is based on discussions during our workshops with Local Authorities. They felt that the time stated in the previous impact assessment did not reflect the true nature of their work. All times used in this impact assessment aim to reflect the collective thoughts and views of not only those who attended the workshops but those who responded to our consultation as well.

As with the familiarisation cost to businesses, low and high end hourly wages were used (based on the decile data in ASHE) to produce low and high estimates for familiarisation costs.

The total familiarisation cost to government is found by multiplying the cost per EHO/TSO by the number of EHO/TSO (1,793). This is then added to the familiarisation cost per local authority multiplied by the relevant number of local authorities<sup>6</sup> who would be carrying out visits on businesses.

As with the training costs, the costs associated with familiarisation can only come into effect once new guidance is produced. Therefore any cost associated with familiarisation will not be felt until Year 1.

The range of estimates calculated for familiarisation cost to business are listed below in table 13.

	<b>Low Estimate Familiarisation Cost (£m)</b>	<b>Central Estimate Familiarisation Cost (£m)</b>	<b>High Estimate Familiarisation Cost (£m)</b>
<b>Total familiarisation cost for Government</b>	£0.09	£0.13	£0.14
Table 13: Estimated familiarisation costs to Government under Option 1			

#### *Summary of the Total Costs to Government*

	<b>Low Estimates (£m)</b>	<b>Central Estimates (£m)</b>	<b>High Estimates (£m)</b>
<b>Total Labour Costs</b>	£0.10	£0.17	£0.20
<b>Delivery of training</b>	£0.11	£0.14	£0.17
<b>Familiarisation costs</b>	£0.10	£0.14	£0.16
<b>Total costs</b>	£0.32	£0.45	£0.61
<b>Total – Year 0</b>	£0.10	£0.17	£0.20
<b>Total – Year 1</b>	£0.18	£0.2	£0.3
<b>Total – Year 2</b>	£0.04	£0.05	£0.06
Table 14: Estimated total cost to Government			

## **Benefits**

The benefits of this option have not been monetised. The benefits generated by this policy option will depend on several factors, including the level of

<sup>6</sup> Local authority split: England – 353, Wales – 22, Northern Ireland - 11

awareness of the consumer of what allergen information is currently available to them.

We are unable to accurately quantify (and ultimately monetise) the associated benefits. This is due to uncertainty surrounding how effective this policy option will be in improving the provision of information to consumers and therefore the effect that this would have on reducing allergen related incidents in PPDS.

However, we would expect there to be an improvement in the provision of allergen information to consumers as more businesses move towards best practice that is illustrated by others in their industry. This should therefore reduce the number of allergen related incidents and risk of fatalities.

## **Option 2 (“Ask the staff” labelling on packages of PPDS food, with supporting information for consumers in writing)**

### **Costs to businesses**

#### **Familiarisation Costs.**

The methodology used here is similar to that used for the familiarisation costs for businesses under Option 1. We have assumed that the same occupations will undertake the familiarisation as outlined in Option 1.

As before there will be a one-off cost for businesses, associated with reading and familiarising themselves with the new regulations introduced. Time will be spent acquiring, reading and understanding the implications of the new legislation on their business.

For option 2 we assume<sup>7</sup> that for small and micro businesses it would take one member of staff two hours to read and familiarise themselves with new legislation. For medium and large businesses, we assume that it will take one member of staff three hours to read and familiarise themselves with new legislation. In addition, we have assumed that there will be an additional hour of familiarisation cost (per outlet) to reflect the need to disseminate any new understanding/knowledge to other members of staff.

For Supermarkets and Institutional Caterers, the small and micro business familiarisation cost is £62.74, while the cost for medium and large businesses is £94.11. The individual outlet familiarisation cost is £31.37.

For QSR/Cafes/Sandwich Shops the small and micro business familiarisation cost is £26.42, while the cost for medium and large businesses is £39.63. The individual outlet familiarisation cost is £13.21.

For QSR/Cafes/Sandwich Shops the small and micro business familiarisation cost is £31.02, while the cost for medium and large businesses is £46.53. The individual outlet familiarisation cost is £15.51.

Then using the same methodology as that used in option 1, the estimates in table 15 were produced.

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<sup>7</sup> Our assumptions for time spent for familiarisation are based on discussions with businesses during our stakeholder workshops, as well as consultation responses received.

	<b>Low Estimate Familiarisation Costs (£m)</b>	<b>Central Estimate Familiarisation Costs (£m)</b>	<b>High Estimate Familiarisation Costs (£m)</b>
<b>Total Familiarisation costs</b>	£4.34	£6.96	£8.58
Table 15: Estimated familiarisation costs to business under Option 2			

### Labelling Costs.

This cost has been monetised. Under this option businesses will be required to include “Ask the staff” as part of the labelling on PPDS foods. In order to assess these costs, we will address each of our interested sectors in turn.

### Supermarkets

During our consultation and stakeholder workshops, we came to understand that Supermarkets already carry out labelling on their PPDS products to a standard that is very much equitable to what is being proposed as Option 3 in this review. This is particularly true for the large supermarkets, who (as illustrated previously) account for approximately 90% of the sector (both in terms of turnover and employees).

Given that the proposed legislation will allow for any business that already labels their PPDS goods (either with just the allergens or the full ingredients) will not be required to include ask the staff labelling on their PPDS products.

We assume that these businesses would not experience any additional costs as a result of Option 2 being implemented.

### Specialised food retailers

Similar to supermarkets, based on our consultation and workshops, it is our understanding that for PPDS goods that would require labelling many businesses are already providing information similar to Option 3.

Another factor that likely will reduce the likelihood of a need to add this type of label, is the increased prevalence of single ingredient PPDS items ((such as a steak or fillet of fish) compared to other sectors considered here. As the name of these products are the ingredients, these products already provide full ingredient labelling so would be going beyond the requirements of Option 2.

Therefore, we assume that there will be not be any additional costs to these businesses as a result of Option 2.

### QSR, Sandwich Shops, etc.

Unlike as discussed for Supermarkets and Specialised food retailers, we do not have a firm understanding of the extent to which these businesses already provide allergen (or full ingredient) labelling on their PPDS products.

We know that some businesses (in particular the largest) have begun to move towards more intensive labelling options (more akin to Options 3 and 4) but do not know for sure the extent of this across the sector.

For those businesses that do not currently label their PPDS products, there will be an initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### *Institutional caterers*

Similar to QSR, Sandwich shops, etc. we do not have a firm understanding of the extent to which businesses already provide allergen or full ingredient labelling on their PPDS products.

For those businesses that do not currently label their PPDS products, there will be an initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### *Calculation of costs – Transitional Costs: QSR and Sandwich shops*

For these calculations we have combined the two sectors (QSR... and Institutional Caterers).

Based on previous research<sup>8</sup>, we know that for minor labelling changes the range in cost per stock keeping unit (SKU) is £10 - £1,800<sup>9</sup>. Up-rating these to 2019 prices<sup>10</sup>, we then assume that the cost of re-labelling to be the lower estimate per SKU for small and micro businesses, and upper estimate per SKU for medium and large businesses.

Our assumption is that an SKU can be equated to a distinct PPDS food product in these businesses and that the cost to make a label change can be equated to the cost of introducing a brand-new label to the packaging of a PPDS product.

We assume, as the “Ask the staff” label must be added to packaging of all PPDS foods, that we can treat the products sold in each business to be one line (i.e. we do not differentiate between products, including single ingredient items). Therefore, the cost per business is simply the cost per SKU (according to business size).

In order to determine the total labelling costs to business, we have multiplied the cost per SKU by the number of businesses (using those that we stated in the composition of the PPDS market section).

A sensitivity analysis (of +/- 20%) was used to estimate a lower and upper bound for labelling costs to these businesses.

	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>

<sup>8</sup> Costs per SKU were converted to 2018 prices. Source: Developing a Framework for Assessing the Costs of Labelling Changes in the UK - <https://webarchive.nationalarchives.gov.uk/20130404011920/http://archive.defra.gov.uk/evidence/economics/foodfarm/reports/documents/labelling-changes.pdf>

<sup>9</sup> The assumed range in the cost per SKU is due to the complexity of the labelling that businesses will likely choose to implement (smaller businesses more likely to have simple labelling).

<sup>10</sup> Using ‘GDP deflators at market prices, and money GDP March 2018’ - <https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-march-2018-quarterly-national-accounts>

<b>Micro</b>	£0.40	£0.50	£0.59
<b>Small</b>	£0.09	£0.12	£.14
<b>Medium</b>	£1.27	£1.59	£1.91
<b>Large</b>	£0.35	£0.43	£0.52
<b>Total</b>	£2.11	£2.63	£3.16
Table 16: Transitional labelling costs for QSR, Sandwich shops, etc. and Institutional Caterers due to Option 2			

For this impact assessment, we are assuming that for Option 2 there will be a 12-month implementation period (from the introduction of the new legislation) before businesses will be required to have this standard of labelling on their products. Therefore, these labelling costs will not come into effect until the second year of our appraisal.

#### Calculation of Costs – On going costs: QSR and Sandwich shops

In addition to the initial costs of adopting a label on PPDS products, we will also need to account for the on-going cost of labelling these products. In order to calculate this, we have assumed that the average outlet/unit in QSR, Sandwich shops and Institutional catering sell approximately the same number of products. We estimate this to be around 25,000 PPDS products annually per outlet<sup>11</sup>.

We have estimated that the typical FBO outlet will spend approximately £100.00 annually on labels. Based on the cost of a single label being £0.004.

We previously set out the number of outlets by sector. For QSR this was 62,603 and for Institutional catering it was 11,915. Therefore we have calculated the annual on-going cost for each sector by multiplying the cost of labels per outlet by the number of outlets themselves.

Low and High estimates have been calculated based on the range of the number of PPDS products sold across all businesses.

In order to provide estimates by business size, the employment shares from table 4 have been used as a means to attribute these costs by business size.

	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>
<b>Micro</b>	£0.76	£1.67	£2.59
<b>Small</b>	£0.74	£1.65	£2.55
<b>Medium</b>	£0.30	£0.66	£1.02
<b>Large</b>	£1.03	£2.29	£3.54

<sup>11</sup> This figure is estimate is based on information from Horizons Data Services (2015) relating to the number of meals sold per outlet. We have used the information gathered from our consultation on the prevalence of PPDS goods (as a proportion of total goods sold) to estimate the number of PPDS goods sold per outlet.

<b>Total</b>	<b>£2.83</b>	<b>£6.26</b>	<b>£9.69</b>
Table 17: On-going labelling costs for QSR, Sandwich shops, etc. and Institutional Caterers due to Option 2			

These on-going costs would come into effect from the same year as the transitional labelling costs are assessed.

#### Provision of written information

This is currently non-monetised, due to it being unclear the extent to which businesses already provide written allergen information on their premises, as current legislation states they must either already do this or provide the information verbally.

In addition, it has not been defined the medium in which businesses must provide this written information. It could simply be in writing at the time of purchase which would have a near zero additional cost.

Furthermore, as the information that must be provided in writing can be either full ingredients or simply allergens, there would be no additional cost for collating the information necessary (as businesses should already be able to provide this under current legislation).

#### Training Costs.

This has not been monetised. During our consultation we spoke with a variety of businesses (from different industries/sectors). It is now our understanding that a very high proportion of businesses already provide training which includes allergen training. Others even offer specific allergen training modules. Moreover, many make use of the FSA produced training, if they are unable to develop their own (which is often the case for smaller businesses).

Although not explicitly required, businesses may choose to improve staff training practices. It is not clear what specific form of additional training would be necessary to enable businesses to implement this option effectively.

### **Costs to consumers**

Business may seek to pass any increase in costs on to consumers. The extent to which these costs will be passed on will depend on a number of factors relating to supply and demand of the products. Given the uncertainties, we have not assumed a specific level of pass on and it should be noted that these costs are not additional to those set out above but about the incidence of the costs.

### **Costs to Government**

#### Familiarisation Costs.

The methodology used here is similar to that used for the familiarisation costs for government under Option 1.

As before, there will be a one-off familiarisation cost to government. Time will be spent acquiring, reading and understanding the implications of the new legislation on their inspection body (local authority).

We assume that for Option 2, each Trading Standards Officer (TSO) and Environmental Health Officer (EHO) will take one working day<sup>12</sup> (7.4 hours) to read and familiarise themselves with the new regulations. In addition to this, there will be an additional working day (7.4 hours) per local authority for EHO/TSOs to reach a consensus on how to proceed with the new legislation.

Using the same wage rates as outlined under Option 1, the cost for familiarisation per EHO/TSO is £175.47 and the familiarisation cost per local authority (inspection body) is £175.47.

As with the familiarisation cost to businesses, low- and high-end hourly wages were used (based on the decile data in ASHE) to produce low and high estimates for familiarisation costs.

The total familiarisation cost to government was calculated using the same methodology as Option 1.

Unlike Option 1, the cost of familiarisation will occur immediately (i.e. Year 0).

The range of estimates calculated for familiarisation cost to business are listed below in table 18.

	<b>Low Estimate Familiarisation Cost (£m)</b>	<b>Central Estimate Familiarisation Cost (£m)</b>	<b>High Estimate Familiarisation Cost (£m)</b>
<b>Total familiarisation cost for Government</b>	£0.22	£0.32	£0.35
Table 18: Estimated familiarisation costs to Government under Option 2			

### Enforcement Costs.

This new legislation will be enforced during inspections by Trading Standards Officers or Environmental Health Officers. We estimate that for Option 2 the additional time required during an inspection of each outlet would be 15 minutes. It is our assumption that outlets selling PPDS foods are inspected once every 2 years<sup>13</sup>.

We will use the uprated average wage rate of EHOs and TSOs (£23.71) that we calculated for familiarisations cost, as the time cost associated with inspections. Therefore, the additional cost per inspection is £5.93.

The total cost of enforcement is the cost per inspection multiplied by the frequency of inspections per year for each business, finally multiplied by the

<sup>12</sup> Familiarisation time is based on discussions during our workshops with Local Authorities. They felt that the time stated in the previous impact assessment did not reflect the true nature of their work. All times used in this impact assessment aim to reflect the collective thoughts and views of not only those who attended the workshops but those who responded to our consultation.

<sup>13</sup> Trading Standards Wales (accessed 22/11/2018) - <https://www.tradingstandardswales.org.uk/help/foodinspect.cfm>



number of affected outlets that are in scope of this review (approximately 139,143

These costs will be on-going for the entire appraisal period.

	<b>Low Estimate Enforcement Cost (£m)</b>	<b>Central Estimate Enforcement Cost (£m)</b>	<b>High Estimate Enforcement Cost (£m)</b>
<b>Total enforcement costs</b>	£0.28	£0.41	£0.45
Table 19: Estimated enforcement costs to Government under Option 2			

## **Benefits**

The benefits of this option have not been monetised. The benefits generated by this policy option will include those listed under option 1, with there being an assumed improved success rate (with respect to Option 1) in reducing the likelihood of incidents due to allergic reactions from PPDS foods.

It is believed that this policy option will lead to improved dialogue between consumers and food businesses (highlighted by both businesses and consumer groups as a key component of allergen information provision). This approach should raise public awareness of food allergies and empower individuals with a food allergy or intolerance to share their needs before making a food choice. This in turn should help to reduce the number of allergen related incidents further to that seen under option 1.

This then also represents a benefit to consumers. The labelling of “Ask the Staff” (or equivalent) on each PPDS item signals to consumers (those with allergies in particular) that they can shop on those premises. As they will be encouraged to speak with someone directly about allergen content of the foods on sale, to allow them to make an informed choice about what foods are safe for them to eat. Therefore, this option may allow for allergy suffering consumers to have an improved choice of where to buy food from.

This too implies a potential benefit for businesses. By improving the allergen information that they are able to provide, there may be the potential to grow their base of customers. Those with allergies who may have previously stayed away from the PPDS food market due to lack of clear allergen communication, may now choose to buy from the businesses selling these products.

## **Option 3 (Mandate name of the food and allergen labelling on packages of PPDS foods)**

### **Costs to businesses**

#### **Familiarisation Costs.**

The methodology used here is similar to that used for the familiarisation costs for businesses under Options 1 and 2. We have assumed that the same occupations will undertake the familiarisation as outlined in Option 1.

For option 3 we assume<sup>14</sup> that for small and micro businesses it would take one member of staff half a working day (3.7 hours) to read and familiarise themselves with new legislation. For medium and large businesses, we assume that it will take one member of staff 0.75 working days (5.6 hours) to read and familiarise themselves with new legislation. In addition, we have assumed that there will be an additional hour of familiarisation cost (per outlet) to reflect the need to disseminate any new understanding/knowledge to other members of staff.

For Supermarkets and Institutional Caterers, the small and micro business familiarisation cost is £116.07, while the cost for medium and large businesses is £175.67. The individual outlet familiarisation cost is £31.37.

For Specialised Food Retailers the small and micro business familiarisation cost is £48.88, while the cost for medium and large businesses is £73.98. The individual outlet familiarisation cost is £13.21.

For QSR/Cafes/Sandwich shops the small and micro business familiarisation cost is £57.39, while the cost for medium and large businesses is £86.86. The individual outlet familiarisation cost is £15.51.

Then using the same methodology as that used in option 1, the estimates in table 21 were produced.

	<b>Low Estimate Familiarisation Costs (£m)</b>	<b>Central Estimate Familiarisation Costs (£m)</b>	<b>High Estimate Familiarisation Costs (£m)</b>
<b>Total Familiarisation costs</b>	£6.47	£10.34	£12.73
Table 21: Estimated familiarisation costs to business under Option 3			

### Labelling Costs

This cost has been monetised. Under this option businesses will be required to label the allergens (from the list of 14) on PPDS foods. In order to assess this cost, we will address each of our interested sectors in turn.

### Supermarkets

As stated during the costs associated with Option 2. During our consultation and stakeholder workshops, we came to understand that Supermarkets already carry out labelling on their PPDS products to a standard that is very much equitable to what is being proposed as Option 3 in this review. This is particularly true for the large supermarkets, who (as illustrated previously) account for approximately 90% of the sector (both in terms of turnover and employees).

<sup>14</sup> Our assumptions for time spent for familiarisation are based on discussions with businesses during our stakeholder workshops, as well as consultation responses received.

Therefore, we assume that Supermarkets are already implementing Option 3 labelling and would not be subject to any costs as a result.

#### Specialised food retailers

Similar to as stated in Option 2, based on our consultation and workshops, it is our understanding that for PPDS goods that would require labelling many businesses are already providing information similar to Option 3.

Another factor that likely will reduce the likelihood of a need to add this type of label, is the increased prevalence of single ingredient PPDS items ((such as a steak or fillet of fish) compared to other sectors considered here. As the name of these products are the ingredients, these products already provide full ingredient labelling so would be going beyond the requirements of Option 3.

Therefore, we assume that there will be not be any additional costs to these businesses as a result of Option 3.

#### QSR, Sandwich Shops, etc.

As stated in option 2, we do not have a firm understanding of the extent to which these businesses already provide allergen (or full ingredient) labelling on their PPDS products. We know that some businesses (in particular the largest) have begun to move towards more intensive labelling options (more akin to Options 3 and 4) but do not know for sure the extent of this across the sector.

For those businesses that do not currently label their PPDS products, there will be an initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### Institutional caterers

Similar to QSR, Sandwich shops, etc. we do not have a firm understanding of the extent to which businesses already provide allergen or full ingredient labelling on their PPDS products.

For those businesses that do not currently label their PPDS products, there will be in initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### Calculation of costs – Transitional Costs: QSR and Sandwich shops

For these calculations we have combined the two sectors (QSR... and Institutional Caterers). We have used the same costs per SKU as outlined in Option 2.

As part of our consultation we sought to understand the usage of PPDS products by businesses. The results of our attempt to establish the number of PPDS products sold by businesses was outlined in the 'Composition of the PPDS market' section of this impact assessment.

We have continued with our assumption, that an SKU can be equated to a distinct PPDS food product in these businesses and that the cost to make a label change can be equated to the cost of introducing a brand-new label to the packaging of a PPDS product.

Using the results of our consultation, multiplying the number of PPDS products sold by businesses (broken down by business size) by the number of businesses in those size categories, we were able to attain the total number of PPDS products sold in each sector (by business size).

		<b>Lower Estimate</b>	<b>Central Estimate</b>	<b>High Estimate</b>
QSR, etc.	<b>Micro</b>	393,493	789,990	1,186,487
	<b>Small</b>	262,933	516,408	769,883
	<b>Medium</b>	23,904	51,081	78,259
	<b>Large</b>	7,370	17,362	27,353
Institutional Caterers	<b>Micro</b>	17,119	34,369	51,619
	<b>Small</b>	7,278	14,295	21,311
	<b>Medium</b>	1,538	3,286	5,035
	<b>Large</b>	1,361	3,207	5,052
Table 22: Total number of different PPDS products sold by businesses				

In order to determine the total labelling costs to business, we have multiplied the cost per SKU by the number of by the number of PPDS products sold (as defined by business size).

	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>
<b>Micro</b>	£4.63	£9.30	£13.97
<b>Small</b>	£3.05	£5.99	£8.92
<b>Medium</b>	£51.66	£110.39	£169.12
<b>Large</b>	£17.73	£41.76	£65.80
<b>Total</b>	£77.07	£167.44	£257.81
Table 23: Labelling costs for QSR, Sandwich shops, etc. and Institutional Caterers due to Option 3			

It should be noted that due to the fact that we know businesses have already began to move towards improved allergen or ingredient labelling, that the costs listed here likely overestimate the actual costs to business as a result of Option 3.

For this impact assessment, we are assuming that for Option 3 there will be an 18-month implementation period (from the introduction of the new legislation)

before businesses will be required to have this standard of labelling on their products. Therefore, these labelling costs will not come into effect until the second year of our appraisal, at which point we will assess half of the annual cost for this year.

#### Calculation of Costs – On going costs: QSR and Sandwich shops

We assume that this will be the same cost as calculated for option 2, due to the number of total labels required being the same across both of the options.

#### Indirect costs associated with new labelling.

This is a non-monetised cost. Introducing labelling (or increasing labelling requirements) would place restrictions on a business's ability to substitute ingredients without requiring a label change. Businesses currently may look to change ingredients with close alternatives when prices rise as a means to keep costs low. This practice is more likely in smaller businesses, as larger businesses will have contracts with suppliers and other means to absorb fluctuations in costs. Without this option to substitute for cheaper alternatives, some businesses may be forced to raise the price of their products.

If businesses pre-print their packaging with the name and allergen information of a specific food, this then means that said business is restricted in what can be placed in that packaging. A similar issue would arise if businesses were to buy in pre-printed labels for adhering to products after being made. For example, if they were to run out of labels on a given day, they could no longer sell that good as PPDS.

Furthermore, it limits the extent to which a business can alter the ingredients of the product. They would be unable to add ingredients which would require the listing of another allergen (i.e. requiring another label change), or take an ingredient containing an allergen away (as this would then make the labelling inaccurate and again requiring a label change).

With this there is also the potential for an increase in food waste. As highlighted, PPDS can help businesses to sell at a faster rate and to pack goods towards the end of the day. If this practice was limited, then the amount of food being wasted in some businesses could increase.

An additional aspect that may affect businesses is the rate at which they produce new products, or whether they feature seasonal PPDS products. This will be largely driven by the potential cost for having to develop additional new labels that they previously did not have to.

An attempt was made during the consultation stage to establish the rate at which businesses change products and whether they would anticipate allergen labelling to reduce this rate (or reduce the likelihood of seasonal products). We were not able to ascertain this from businesses. However, they did agree that increasing the labelling requirements would be likely to increase their considerations before introducing a new PPDS product.

#### Training Costs.

This has not been monetised. During our consultation we spoke with a variety of businesses (from different industries/sectors). It is now our understanding that a very high proportion of businesses already provide training which

includes allergen training. Others even offer specific allergen training modules. Moreover, many make use of the FSA produced training, if they are unable to develop their own (which is often the case for smaller businesses).

Although not explicitly required, businesses may choose to improve staff training practices. It is not clear what specific form of additional training would be necessary to enable businesses to implement this option effectively.

#### Costs of determining allergens.

We do not anticipate there being any costs associated with determining the allergens present in each PPDS product on sale.

Businesses should currently know which of the 14 allergens are in their food: including those they buy in their basic form (base ingredients such as fruit and vegetables) and the more complex ones that they buy from external suppliers (such as bread).

### **Costs to consumers**

Business may seek to pass any increase in costs on to consumers. The extent to which these costs will be passed on will depend on a number of factors relating to supply and demand of the products. Given the uncertainties, we have not assumed a specific level of pass on and it should be noted that these costs are not additional to those set out above but about the incidence of the costs.

### **Costs to Government**

#### Familiarisation costs.

The methodology used here is similar to that used for the familiarisation costs for government under Option 1.

As before, there will be a one-off familiarisation cost to government. Time will be spent acquiring, reading and understanding the implications of the new legislation on their inspection body (local authority).

We assume that for Option 3, each Trading Standards Officer (TSO) and Environmental Health Officer (EHO) will take three working days<sup>15</sup> (22.2 hours) to read and familiarise themselves with the new regulations. In addition to this, there will be an additional working day (7.4 hours) per local authority for EHO/TSOs to reach a consensus on how to proceed with the new legislation.

Using the same wage rates as outlined in option 1, the cost for familiarisation per EHO/TSO is £526.41 and the familiarisation cost per local authority (inspection body) is £175.47.

The total familiarisation cost to government was calculated using the same methodology as Options 1 and 2.

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<sup>15</sup> Familiarisation time is based on discussions during our workshops with Local Authorities. They felt that the time stated in the previous impact assessment did not reflect the true nature of their work. All times used in this impact assessment aim to reflect the collective thoughts and views of not only those who attended the workshops but those who responded to our consultation also.

As with Option 2, the cost of familiarisation will occur immediately.

The range of estimates calculated for familiarisation cost to business are listed below in table 24.

	<b>Low Estimate Familiarisation Cost (£m)</b>	<b>Central Estimate Familiarisation Cost (£m)</b>	<b>High Estimate Familiarisation Cost (£m)</b>
<b>Total familiarisation cost for Government</b>	£0.65	£0.95	£1.04
Table 24: Estimated familiarisation costs to Government under Option 3			

### Enforcement costs.

The methodology used is the exact same as that used under Option 2, however there has been an adjustment to the assumed increase in enforcement time per visit.

This new legislation will be enforced during inspections by Trading Standards Officers or Environmental Health Officers. We estimate that for Option 3 the additional time required during an inspection of each outlet would be 30 minutes. It is our assumption that outlets selling PPDS foods are inspected once every 2 years<sup>16</sup>.

We will use the uprated average wage rate of EHOs and TSOs (£23.71) that we calculated for familiarisations cost, as the time cost associated with inspections. Therefore, the additional cost per inspection is £11.86.

The total cost of enforcement is the cost per inspection multiplied by the frequency of inspections per year for each business, finally multiplied by the number of affected outlets that are in scope of this review (approximately 139,143 outlets across our sectors of interest).

These costs will be on-going for the entire appraisal period.

	<b>Low Estimate Enforcement Cost (£m)</b>	<b>Central Estimate Enforcement Cost (£m)</b>	<b>High Estimate Enforcement Cost (£m)</b>
<b>Total enforcement costs</b>	£0.57	£0.82	£0.91
Table 25: Estimated enforcement costs to Government under Option 3			

<sup>16</sup> Trading Standards Wales (accessed 22/11/2018) - <https://www.tradingstandardswales.org.uk/help/foodinspect.cfm>

## **Benefits**

The benefits of this option have not been monetised. The benefits generated by this policy option will include those listed under option 2, with there being an assumed improved success rate in reducing the likelihood of incidents due to allergic reactions. This is because Option 2 merely promotes the conversation between consumers and staff (it does not guarantee one will take place), while this option guarantees that the 14 common allergens are always listed on the PPDS food product.

As with option 2, it is expected that this will provide an improved provision of allergen information to consumers than the best practice option. However, we are unable to quantify to what extent this improvement will be.

Similar to option 2, this option represents a benefit to consumers. Due to specific allergen information being visible on each PPDS food product, they can have increased confidence that what they are buying is safe for them to eat. Again, this allows food allergic consumers to have an improved choice of where to eat and the number of goods from which to choose.

As stated in option 2, those with allergies who may have stayed away from the PPDS food market due to lack of clear allergen communication, may now choose to buy from the businesses selling these products.

## **Option 4 (Mandate name of the food and full ingredient list labelling on packages of PPDS foods)**

### **Costs to businesses**

Despite monetised costings in the pre-consultation stage impact assessment indicating there to be no difference between Options 3 and 4, we now [ anticipate there to be substantial additional costs (with respect to Option 3) associated with Option 4 that we cannot fully monetise at this time. As highlighted, have used the consultation to improve our understanding of the extent of the costs of this option.

#### *Familiarisation Costs.*

The methodology used here is very similar to that used for the familiarisation costs for businesses under Options 1, 2 and 3. We have assumed that the same occupations will undertake the familiarisation as outlined in Option 1.

For option 4 we assume<sup>17</sup> that for small and micro businesses it would take one member of staff one working day (7.4 hours) to read and familiarise themselves with new legislation. For medium and large businesses, we assume that it will take one member of staff 1.5 working days (11.1 hours) to read and familiarise themselves with new legislation. In addition, we have assumed that there will

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<sup>17</sup> Our assumptions for time spent for familiarisation are based on discussions with businesses during our stakeholder workshops, as well as consultation responses received. The additional time required compared to Option 3, is due to the addition of different requirements in terms of information that businesses will need to provide and that they will need to assess.



be an additional hour of familiarisation cost (per outlet) to reflect the need to disseminate any new understanding/knowledge to other members of staff.

For Supermarkets and Institutional Caterers, the small and micro business familiarisation cost is £232.14, while the cost for medium and large businesses is £348.21. The individual outlet familiarisation cost is £31.37.

For Specialised Food Retailers the small and micro business familiarisation cost is £97.76, while the cost for medium and large businesses is £146.63. The individual outlet familiarisation cost is £13.21.

For QSR/Cafes/Sandwich Shops the small and micro business familiarisation cost is £114.78, while the cost for medium and large businesses is £172.16. The individual outlet familiarisation cost is £15.51.

Then using the same methodology as that used in option 1, the estimates in table 26 were produced.

Table 26: UK - Estimated familiarisation costs to business under Option 4			
	<b>Low Estimate Familiarisation Costs (£m)</b>	<b>Central Estimate Familiarisation Costs (£m)</b>	<b>High Estimate Familiarisation Costs (£m)</b>
<b>Total Familiarisation costs</b>	£11.10	£17.70	£21.75

Wales specific: Estimated familiarisation costs to business under Option 4			
	<b>Low Estimate Familiarisation Costs (£m)</b>	<b>Central Estimate Familiarisation Costs (£m)</b>	<b>High Estimate Familiarisation Costs (£m)</b>
<b>Total Familiarisation costs</b>	£0.6	£0.9	£ 1.1

### *Labelling Costs.*

This cost has been monetised. Under this option businesses will be required to label PPDS foods with a list of the full ingredients (including the allergens being emphasised). In order to assess this cost, we will address each of our interested sectors in turn.

### Supermarkets

As stated during the costs associated with Option 2 and 3. During our consultation and stakeholder workshops, we came to understand that Supermarkets already carry out labelling on their PPDS products to a standard that is very much equitable to what is being proposed as Option 3 in this review. This is particularly true for the large supermarkets, who (as illustrated previously) account for approximately 90% of the sector (both in terms of turnover and employees).

However, we assume that small and micro Supermarkets (which are likely corner shops or similar establishments) will not sell PPDS foods due to the manner in which they operate. So, for the purposes of assessing the costs for Supermarkets we will only look at medium and large businesses.

#### Specialised food retailers

Based on our consultation and workshops, it is our understanding that for PPDS goods that would require labelling many businesses are already providing information similar to Option 3.

Another factor that likely will reduce the likelihood of a need to add this type of label, is the increased prevalence of single ingredient PPDS items ((such as a steak or fillet of fish) compared to other sectors considered here. As the name of these products are the ingredients, these products already provide full ingredient labelling so would be going beyond the requirements of Option 3.

Therefore we have assumed that this will be treated as the addition of a second label on each PPDS product in this sector, as a result of Option 4. For these businesses, there will be an initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### QSR, Sandwich Shops, etc.

As stated in option 2, we do not have a firm understanding of the extent to which these businesses already provide allergen (or full ingredient) labelling on their PPDS products. We know that some businesses (in particular the largest) have begun to move towards more intensive labelling options (more akin to Options 3 and 4) but do not know for sure the extent of this across the sector.

For those businesses that do not currently label their PPDS products, there will be in initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### Institutional caterers

Similar to QSR, Sandwich shops, etc. we do not have a firm understanding of the extent to which businesses already provide allergen or full ingredient labelling on their PPDS products.

For those businesses that do not currently label their PPDS products, there will be in initial transitional cost of labelling and then an additional on-going cost for each year of this appraisal, from the time it is required to be implemented onwards.

#### Calculation of costs – Transitional costs: Supermarkets and Specialised food retailers

For these calculations we have combined the two sectors (Supermarkets and Specialised food retailers).

We have used the same costs per SKU as outlined in Option 2 for QSR/Cafes/Sandwich shops and Institutional Caterers. As stated in Option 3, we have used the number of PPDS products sold by businesses as outlined in the 'Composition of the PPDS market' section of this impact assessment.

Using the same methodology as outlined in Option 3 (but for Supermarkets and Specialised Food Retailers) we attained the Total number of PPDS products shown in table 27.

Table 27: Total number of different PPDS products sold by businesses				
		<b>Lower Estimate</b>	<b>Central Estimate</b>	<b>High Estimate</b>
Supermarkets	<b>Micro</b>	Not included	Not included	Not included
	<b>Small</b>	Not included	Not included	Not included
	<b>Medium</b>	4,849	10,362	15,875
	<b>Large</b>	1,672	3,940	6,207
Specialised food retailers	<b>Micro</b>	128,249	257,477	386,704
	<b>Small</b>	54,649	107,333	160,017
	<b>Medium</b>	9,136	19,524	29,911
	<b>Large</b>	935	2,202	3,469

Using the same methodology as in Option 3, the transitional labelling cost for Supermarkets and Specialised Food Retailers was calculated.

Table 28: UK - Transitional labelling costs for Supermarkets and Specialised food retailers due to Option 4			
	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>
<b>Micro</b>	£1.45	£2.90	£4.36
<b>Small</b>	£0.62	£1.21	£1.81
<b>Medium</b>	£18.55	£39.64	£60.73
<b>Large</b>	£5.30	£12.47	£19.65
<b>Total</b>	£25.91	£56.23	£86.55

Wales specific - Transitional labelling costs for Supermarkets and Specialised food retailers due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£0.08	£0.15	£0.23
<b>Small</b>	£0.03	£0.06	£0.09
<b>Medium</b>	£0.97	£2.07	£3.17
<b>Large</b>	£0.28	£0.65	£1.02
<b>Total</b>	£1.35	£2.93	£4.51

Calculation of costs – Transitional costs: QSR... and Institutional Caterers

We have assumed that the costs to these businesses due to the implementation of Option 4, will be the same as Option 3 however there will be additional indirect costs (such as substitution flexibility) which are discussed later. Due to the same number of products which will be required to be labelled remaining the same across both scenarios. In addition, as we are assuming that these businesses do not currently label PPDS products then this again simply involves adding a label that was not there previously.

Table 29: Transitional labelling costs for QSR, Sandwich shops, etc. and Institutional Caterers due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£4.63	£9,.30	£13.97
<b>Small</b>	£3.05	£5.99	£8.92
<b>Medium</b>	£51.66	£110.39	£169.12
<b>Large</b>	£17.73	£41.76	£65.80
<b>Total</b>	£77.07	£167.44	£25781

Wales specific: Transitional labelling costs for QSR, Sandwich shops, etc. and Institutional Caterers due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£0.25	£0.49	£0.74
<b>Small</b>	£0.16	£0.32	£0.48
<b>Medium</b>	£2.72	£5.81	£8.90
<b>Large</b>	£0.90	£2.12	£3.34
<b>Total</b>	£4.03	£8.74	£13.46

Total transitional labelling costs for businesses due to Option 4

Therefore, the total transitional labelling cost to business as a result of Option 4 is the sum of the costs to all of our interested sectors.

Table 30: UK - Total transitional labelling costs for businesses due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£6.08	£12.20	£18.33
<b>Small</b>	£3.66	£7.20	£10.73
<b>Medium</b>	£70.21	£150.03	£229.86
<b>Large</b>	£23.02	£54.23	£85.44
<b>Total</b>	£102.97	£223.67	£344.36

Wales specific: Total transitional labelling costs for businesses due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£0.32	£0.65	£0.97
<b>Small</b>	£0.19	£0.38	£0.57
<b>Medium</b>	£3.69	£7.88	£12.07
<b>Large</b>	£1.18	£2.77	£4.36
<b>Total</b>	£5.38	£11.67	£17.97

It should be noted that due to the fact that we know that some businesses have already began to move towards improved allergen or ingredient labelling, that the costs listed here likely overestimate the actual costs to business as a result of Option 4.

For this impact assessment, we are assuming that for Option 4 there will be an 18/19 months implementation period In Wales (from the introduction of the new legislation) before businesses will be required to have this standard of labelling on their products. Therefore, these labelling costs will not come into effect until the third year of our appraisal.

*Calculation of Costs – On going costs: Supermarkets and Specialised Food Retail*

In addition to the initial costs of adopting a label on PPDS products, we will also need to account for the on-going cost of labelling these products. In order to calculate this, we have assumed that the average outlet/unit in Supermarkets and Specialised food retail sell approximately the same total number of PPDS products as QSR, Sandwich shops and Institutional catering. We estimate this to be around 25,000 PPDS products annually per outlet.

We have estimated that the typical FBO outlet will spend approximately £100.00 annually on labels. Based on the cost of a single label being £0.004<sup>18</sup>.

We previously set out the number of outlets by sector. For Supermarkets this was 43,305 and for Specialised Food Retail it was 21,320. Therefore, we have calculated the annual on-going cost for each sector by multiplying the cost of labels per outlet by the number of outlets themselves

Low and High estimates have been calculated based on the range of the number of PPDS products sold across all businesses.

In order to provide estimates by business size, the employment shares from table 4 have been used as a means to attribute these costs by business size. As with the transitional labour costs, we will remove the contribution of micro and small businesses from our total estimates.

Table 31: UK - On-going labelling costs for Supermarkets and Specialised Food Retail due to Option 4			
	Low estimate of labelling costs (£m)	Central Estimate of labelling costs (£m)	High Estimate of labelling costs (£m)
<b>Micro</b>	£0.42	£0.83	£1.24
<b>Small</b>	£0.27	£0.54	£0.81
<b>Medium</b>	£0.12	£0.24	£.36
<b>Large</b>	£2.01	£4.38	£6.74

<b>Total</b>	£2.83	£5.99	£9.16
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Wales specific: On-going labelling costs for Supermarkets and Specialised Food Retail due to Option 4			
	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>
<b>Micro</b>	£0.02	£0.04	£0.07
<b>Small</b>	£0.01	£0.03	£0.04
<b>Medium</b>	£0.01	£0.01	£0.02
<b>Large</b>	£0.11	£0.23	£0.36
<b>Total</b>	£0.15	£0.32	£0.49

Calculation of Costs – On going costs: QSR and Sandwich shops

We assume that this will be the same cost as calculated for option 2, due to the number of total labels required being the same across both of the options.

Total on-going labelling costs for businesses due to Option 4

Therefore, the total on-going labelling cost to business as a result of Option 4 is the sum of the costs to all of our interested sectors.

Table 32: UK - Total on-going labelling costs for businesses due to Option 4			
	<b>Low estimate of labelling costs</b>	<b>Central Estimate of labelling costs</b>	<b>High Estimate of labelling costs</b>
<b>Micro</b>	£1.22	£2.61	£3.99
<b>Small</b>	£1.07	£2.30	£3.53
<b>Medium</b>	£0.45	£0.97	£1.50
<b>Large</b>	£3.45	£7.57	£11.68
<b>Total</b>	£6.20	£13.45	£20.69

Wales specific: Total on-going labelling costs for businesses due to Option 4			
	<b>Low estimate of labelling costs (£m)</b>	<b>Central Estimate of labelling costs (£m)</b>	<b>High Estimate of labelling costs (£m)</b>

<b>Micro</b>	£0.06	£0.13	£0.21
<b>Small</b>	£0.06	£0.12	£0.18
<b>Medium</b>	£0.02	£0.05	£0.08
<b>Large</b>	£0.17	£0.38	£0.59
<b>Total</b>	£0.32	£0.69	£1.05

These costs would come into effect from the year after the transitional labelling costs.

*Indirect costs associated with new labelling.*

As highlighted in Option 3. Introducing labelling (or increasing labelling requirements) would place restrictions on a business's ability to substitute ingredients without requiring a label change. Businesses currently may look to change ingredients with close alternatives when prices rise as a means to keep costs low. This practice is more likely in smaller businesses, as larger businesses will have contracts with suppliers and other means to absorb fluctuations in costs. Without this option to substitute for cheaper alternatives, some businesses they may be forced to raise the price of their products. This restriction would be greater than that experienced under Option 3 where the policy only focuses on what allergens would need to be labelled, while this option would restrict the addition/subtraction of an ingredient.

This is a non-monetised cost. If businesses pre-print their packaging with the name and allergen information of a specific food, this then means that said business is restricted in what can be placed in that packaging. A similar issue would arise if businesses were to buy in pre-printed labels for adhering to products after being made. For example, if they were to run out of labels on a given day, they could no longer sell that good as PPDS.

Furthermore, it limits the extent to which a business can alter the ingredients of the product. They would be unable to add ingredients which would require the listing of another allergen (i.e. requiring another label change), or take an ingredient containing an allergen away (as this would then make the labelling inaccurate and again requiring a label change).

With this there is also the potential for an increase in food waste. As highlighted, PPDS can help businesses to sell at a faster rate and to pack goods towards the end of the day. If this practice was limited then the amount of food being wasted in some businesses could increase.

An additional aspect that may affect businesses is the rate at which they produce new products, or whether they feature seasonal PPDS products. This will be largely driven by the potential cost for having to develop additional new labels that they previously did not have to.

An attempt was made during the consultation stage to establish the rate at which businesses change products and whether they would anticipate allergen labelling to reduce this rate (or reduce the likelihood of seasonal products). We were not able to ascertain this from businesses; however, they did agree that



increasing the labelling requirements would be likely to increase their considerations before introducing a new PPDS product.

#### *Training Costs.*

This has not been monetised. During our consultation we spoke with a variety of businesses (from different industries/sectors). It is now our understanding that a very high proportion of businesses already provide training which includes allergen training. Others even offer specific allergen training modules. Moreover, many make use of the FSA produced training, if they are unable to develop their own (which is often the case for smaller businesses).

Although not explicitly required, businesses may choose to improve staff training practices. It is not clear what specific form of additional training would be necessary to enable businesses to implement this option effectively.

#### *Costs of determining full ingredients.*

As stated in option 3, businesses should know what ingredients are in their food. This information should not be difficult to attain, and suppliers of more complex goods should include ingredients lists when supplying businesses selling PPDS foods.

However, there may be some cost in determining the full list of ingredients that is present in a PPDS product (particularly those containing composite ingredients like sauces). Businesses who do not currently have a system in place to record the full ingredients of each item they sell would need to establish one. Furthermore, they would then need to update (or verify) such information any time a new product is introduced or there is a change in supplier.

During our consultation and stakeholder workshops efforts were made to establish a cost for attaining this information.

### **Costs to consumers**

Business may seek to pass any increase in costs on to consumers. The extent to which these costs will be passed on will depend on a number of factors relating to supply and demand of the products. Given the uncertainties, we have not assumed a specific level of pass on and it should be noted that these costs are not additional to those set out above but about the incidence of the costs.

### **Costs to Government**

#### *Familiarisation costs.*

The methodology used here is very similar to that used for the familiarisation costs for government under Options 1, 2 and 3.

We assume that for Option 4, each Trading Standards Officer (TSO) and Environmental Health Officer (EHO) will take five working days<sup>19</sup> (37 hours) to read and familiarise themselves with the new regulations. In addition to this,

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<sup>19</sup> Familiarisation time is based on discussions during our workshops with Local Authorities. They felt that the time stated in the previous impact assessment did not reflect the true nature of their work. All times used in this impact assessment aim to reflect the collective thoughts and views of not only those who attended the workshops but those who responded to our consultation also.

there will be an additional working day (7.4 hours) per local authority for EHO/TSOs to reach a consensus on how to proceed with the new legislation.

Using the same wage rates as outlined in option 1, the cost for familiarisation per EHO/TSO is £1,228,18 and the familiarisation cost per local authority (inspection body) is £175.47. The total familiarisation cost to government was calculated using the same methodology as Options 1, 2 and 3.

As with Options 2 and 3, the cost of familiarisation will occur immediately (i.e. Year 0).

The range of estimates calculated for familiarisation cost to business are listed below in table 33.

Table 33: UK - Estimated familiarisation costs to Government under Option 4			
	<b>Low Estimate Familiarisation Cost (£m)</b>	<b>Central Estimate Familiarisation Cost (£m)</b>	<b>High Estimate Familiarisation Cost (£m)</b>
<b>Total familiarisation cost for Government</b>	£1.08	£1.58	£1.74

Welsh specific: Estimated familiarisation costs to Government under Option 4			
	<b>Low Estimate Familiarisation Cost (£m)</b>	<b>Central Estimate Familiarisation Cost (£m)</b>	<b>High Estimate Familiarisation Cost (£m)</b>
<b>Total familiarisation cost for Government</b>	£0.06	£0.09	£0.10

#### *Enforcement costs.*

The methodology used is the exact same as that used under Options 2 and 3, however there has been an adjustment to the assumed increase in enforcement time per visit.

This new legislation will be enforced during inspections by Trading Standards Officers or Environmental Health Officers. We estimate that for Option 4 the additional time required during an inspection of each outlet would be one hour. It is our assumption that outlets selling PPDS foods are inspected once every 2 years<sup>20</sup>.

<sup>20</sup> Trading Standards Wales (accessed 22/11/2018) - <https://www.tradingstandardswales.org.uk/help/foodinspect.cfm>

We will use the uprated average wage rate of EHOs and TSOs (£23.71) that we calculated for familiarisations cost, as the time cost associated with inspections. Therefore, the additional cost per inspection is £11.86.

The total cost of enforcement is the cost per inspection multiplied by the frequency of inspections per year for each business, finally multiplied by the number of affected outlets that are in scope of this review (approximately 139,143 outlets across our sectors of interest).

These costs will be on-going from Year 3 of the appraisal period onwards.

Table 34: Estimated enforcement costs to Government under Option 4			
	<b>Low Estimate Enforcement Cost</b>	<b>Central Estimate Enforcement Cost</b>	<b>High Estimate Enforcement Cost</b>
<b>Total enforcement costs</b>	£1.13	£1.65	£1.82

Wales specific: Estimated enforcement costs to Government under Option 4			
	<b>Low Estimate Enforcement Cost</b>	<b>Central Estimate Enforcement Cost</b>	<b>High Estimate Enforcement Cost</b>
<b>Total enforcement costs</b>	£0.06	£0.08	£0.09

## Benefits

The benefits of this option have not been monetised. The benefits generated by this policy option will include those listed under option 3, with there being an assumed better success rate in reducing the likelihood of incidents due to allergic reactions. We would expect that as full ingredients would be listed, those who are allergic to foods/ingredients not part of the listed 14 would also benefit from this option. Therefore, we would expect a further reduction in the likelihood (and ultimately number) of adverse reactions and fatalities with respect to Option 3.

As with options 2 and 3, it is expected that this will provide an improved provision of allergen information to consumers than the best practice option. However, we are unable to quantify to what extent this improvement will be.

Similar to options 2 and 3, this option represents a benefit to consumers. Due to specific allergen information being visible on each PPDS food product, they can have increased confidence that what they are buying is safe for them to eat. Again, this allows food allergic consumers to have an improved choice of where to eat and the number of goods from which to choose from. As option 3 only requires the labelling of the 14 allergens with the biggest public health

impact in the EU, it does not account for those with allergies to foods other than those on the list of 14. Therefore, full ingredient labelling can provide the same level of confidence to consumers with allergies not part of the listed 14.

As stated in options 2 and 3, those with allergies who may have previously stayed away from the PPDS market due to lack of clear allergen communication, may now choose to buy from the businesses selling these products.

#### Potential for businesses to move away from PPDS

All of the monetised costings in this impact assessment, have been under the assumption that all those businesses who currently sell goods as PPDS will continue to do so. However, it is entirely plausible that a significant number of businesses could decide to switch from selling goods as PPDS, using the alternatives such as pre-packed at the consumer's request (PPCR) or loose. Some may even choose to get rid of all food prepared on premises altogether and focus on pre-packed products. Some stakeholders indicated that this may be a possible line of approach for them, depending on the option chosen and the resultant cost that it may have on their business as a result.

However, it has been brought to our attention that some businesses rely on the PPDS format, due to its ability to help them meet higher demand at peak times, which other methods would not allow them to achieve. If these businesses were to switch to PPCR or loose in a bid to avoid any labelling costs, it would be possible that the output of their business may suffer instead (which in itself is a cost).

Therefore, we cannot simply say that if businesses were to move away from PPDS, this will reduce the potential impact on businesses.

## Specific Impact Tests

### Small and Micro Business Assessment

This section will consider the estimated impacts specifically on small and micro businesses (SMBs).

We established the extent to which small and micro businesses (SMBs) feature in our understanding of the PPDS market earlier in this impact assessment. However we will briefly recap their significance in each sector.

	<b>Supermarkets</b>	<b>Specialised Food Retailers</b>	<b>QSR, Sandwich Shops, etc.</b>	<b>Institutional Caterers</b>
<b>Micro</b>	25,253 (90%)	13,706 (86%)	63,079 (79%)	1,830 (84%)
<b>Small</b>	2,527 (9%)	2,064 (13%)	14,896 (19%)	275 (13%)
Table 41: Number of businesses (including percentage of businesses in sector)				

	<b>Supermarkets</b>	<b>Specialised Food Retailers</b>	<b>QSR, Sandwich Shops, etc.</b>	<b>Institutional Caterers</b>
<b>Micro</b>	4.9%	42.4%	22.6%	15.8%
<b>Small</b>	2.3%	23.7%	21.4%	12.3%
Table 35: Share of own sector turnover				

### *Summary of costs to SMBs*

Below is a summary of all the monetised costs on SMBs as a result of the proposed policy options.

			<b>Low Estimate (£m)</b>	<b>Central Estimate (£m)</b>	<b>High Estimate (£m)</b>
<b>Option 1</b>	<b>Familiarisation</b>	Micro	£1.39	£2.18	£2.67
		Small	£0.33	£0.51	£0.62
<b>Option 2</b>	<b>Familiarisation</b>	Micro	£2.44	£3.86	£4.75
		Small	£0.51	£0.78	£0.95
	<b>Transitional Labelling</b>	Micro	£0.40	£0.50	£0.60
		Small	£0.09	£0.12	£0.14
	<b>On-going Labelling</b>	Micro	£0.80	£1.77	£2.74
		Small	£0.80	£1.76	£2.72

Option 3	Familiarisation	Micro	£4.23	£6.72	£8.27
		Small	£0.80	£1.23	£1.50
	Transitional Labelling	Micro	£4.63	£9.30	£13.97
		Small	£3.05	£5.99	£8.92
	On-going Labelling	Micro	£0.80	£1.77	£2.74
		Small	£0.80	£1.76	£2.72
Option 4	Familiarisation	Micro	£8.13	£12.95	£15.93
		Small	£1.45	£2.30	£2.70
	Transitional Labelling	Micro	£6.08	£12.20	£18.33
		Small	£3.66	£7.20	£10.73
	On-going Labelling	Micro	£1.22	£2.61	£3.99
		Small	£1.07	£2.30	£3.53
Table 36: Summary of costs to all SMBs in interested sectors					

### Supermarkets

As discussed during the costs section of Option 4, we do not anticipate SMBs in the supermarket sector to sell PPDS goods. Therefore, we do not expect there to be any cost of relabelling for these businesses as a result of the proposed policies. However, they would still incur the familiarisation costs.

From BEIS business population estimate<sup>21</sup> statistics we can calculate that the average turnover of a micro business in SIC code 47.1 (the wider 3 digit SIC code that this sector is part of) is £375,641. The corresponding figure for small businesses is £1,528,596.

		<b>Low Estimate (£m)</b>	<b>Central Estimate (£m)</b>	<b>High Estimate (£m)</b>
<b>Option 1</b>	Micro	£0.49	£0.89	£1.14
	Small	£0.07	£0.13	£0.17
<b>Option 2</b>	Micro	£0.93	£1.68	£2.15
	Small	£0.12	£0.21	£0.27
<b>Option 3</b>	Micro	£1.67	£3.03	£3.87
	Small	£0.19	£0.34	£0.44
<b>Option 4</b>	Micro	£3.29	£5.96	£7.62
	Small	£0.35	£0.64	£0.81
Table 37: Summary of familiarisation costs for all SMBs in Supermarkets sector				

<sup>21</sup> <https://www.gov.uk/government/statistics/business-population-estimates-2018>

### *Specialised Food Retailers*

Specialised food retail is a sector which is dominated more by SMBs than other sectors. Unlike the other sectors considered here, the majority (approximately 66%) of the sectors turnover is produced by SMBs.

According to BEIS business population estimate statistics, we can calculate that the average turnover of a micro business in SIC code 47.2 is £341,688. The corresponding figure for small businesses is £1,237,267.

			<b>Low Estimate (£m)</b>	<b>Central Estimate (£m)</b>	<b>High Estimate (£m)</b>
<b>Option 1</b>	<b>Familiarisation</b>	Micro	£0.22	£0.29	£0.38
		Small	£0.08	£0.10	£0.13
<b>Option 2</b>	<b>Familiarisation</b>	Micro	£0.36	£0.47	£0.61
		Small	£0.10	£0.13	£0.16
<b>Option 3</b>	<b>Familiarisation</b>	Micro	£0.60	£0.78	£1.01
		Small	£0.13	£0.17	£0.22
<b>Option 4</b>	<b>Familiarisation</b>	Micro	£1.12	£1.45	£1.87
		Small	£0.21	£0.27	£0.35
	<b>Transitional Labelling</b>	Micro	£1.45	£2.90	£4.36
		Small	£0.62	£1.21	£1.81
	<b>On-going Labelling</b>	Micro	£0.42	£0.83	£1.24
		Small	£0.27	£0.58	£0.87

Table 38: Summary of costs to all SMBs in Specialised food retail

### *QSR, Sandwich shops, etc.*

The structure of this sector is similar to that of specialised food retail, in that SMBs account for a significant proportion (over half) of the sectors turnover.

According to BEIS business population estimate statistics, we can calculate that the average turnover of a micro business in SIC code 56.1 is £138,537. The corresponding figure for small businesses is £556,550.

			<b>Low Estimate (£m)</b>	<b>Central Estimate (£m)</b>	<b>High Estimate (£m)</b>
<b>Option 1</b>	<b>Familiarisation</b>	Micro	£0.62	£0.91	£1.05
		Small	£0.16	£0.24	£0.27

Option 2	Familiarisation	Micro	£1.07	£1.56	£1.80
		Small	£0.27	£0.39	£0.45
	Transitional Labelling	Micro	£0.38	£0.47	£0.57
		Small	£0.09	£0.11	£0.13
	On-going Labelling	Micro	£0.76	£1.67	£2.59
		Small	£0.74	£1.65	£2.55
Option 3	Familiarisation	Micro	£1.82	£2.67	£3.08
		Small	£0.44	£0.65	£0.75
	Transitional Labelling	Micro	£4.44	£8.91	£13.38
		Small	£2.97	£5.83	£8.68
	On-going Labelling	Micro	£0.76	£1.67	£2.59
		Small	£0.74	£1.65	£2.55
Option 4	Familiarisation	Micro	£3.47	£5.09	£5.86
		Small	£0.81	£1.22	£1.41
	Transitional Labelling	Micro	£4.44	£8.91	£13.38
		Small	£2.97	£5.83	£8.65
	On-going Labelling	Micro	£.76	£1.67	£2.59
		Small	£0.74	£1.65	£2.55
Table 39: Summary of costs to all SMBs in QSR, Sandwich shops etc.					

#### *Institutional Caterers*

Small and Micro businesses account for a significantly smaller share of turnover in this sector compared to Specialised food retail and QSR, Sandwich shops etc. The impacts here are significantly smaller in aggregate, partly due to the relatively small size of the sector (in terms of number of businesses).

According to BEIS business population estimate statistics, we can calculate that the average turnover of a micro business in SIC code 56.2 (the wider 3 digit SIC code that this sector is part of) is £285,340. The corresponding figure for small businesses is £955,477.



			Low Estimate (£m)	Central Estimate (£m)	High Estimate (£m)
Option 1	Familiarisation	Micro	£0.05	£0.09	£0.11
		Small	£0.02	£0.04	£0.06
Option 2	Familiarisation	Micro	£0.08	£0.15	£0.19
		Small	£0.03	£0.05	£0.07
	Transitional Labelling	Micro	£0.02	£0.02	£0.02
		Small	£0.002	£0.003	£0.004
	On-going Labelling	Micro	£0.05	£0.10	£0.15
		Small	£0.05	£0.11	£0.17
Option 3	Familiarisation	Micro	£0.13	£0.24	£0.31
		Small	£0.04	£0.07	£0.09
	Transitional Labelling	Micro	£0.19	£0.39	£0.58
		Small	£0.08	£0.16	£0.24
	On-going Labelling	Micro	£0.05	£0.10	£0.15
		Small	£0.05	£0.11	£0.17
Option 4	Familiarisation	Micro	£0.25	£0.46	£0.58
		Small	£0.05	£0.10	£0.13
	Transitional Labelling	Micro	£0.19	£0.39	£0.58
		Small	£0.08	£0.16	£0.24
	On-going Labelling	Micro	£0.05	£0.10	£0.15
		Small	£0.05	£0.11	£0.17
Table 40: Summary of costs to all SMBs in Institutional Catering					

#### Non-quantifiable impact on small and micro businesses

We expect that mandating specific allergen or full ingredient labelling will disproportionately affect SMBs. Small changes in their cost or profit levels can affect SMBs sustainability and, therefore there is a risk that even a small impact on them could cause some to go out of business.

For example, a shortage of staff due to the time needed for familiarisation and implementation could lead to additional costs for SMBs, which naturally have fewer employees than larger businesses. Moreover, larger businesses may (due to economies of scale) be large enough to warrant hiring those with specific legal expertise to interpret the new regulations (beyond familiarisation). So, it could be argued that the degree of understanding and implementation of these new regulations could be better in larger businesses than smaller ones.

If additional (or improved) training was required, this too would disproportionately impact on SMBs. This would occur in a similar way to the impact from familiarisation (i.e. requiring to set aside time for training).

### Exemptions

The Department for Environment, Food and Rural Affairs consulted on whether there should be an exemption for SMBs for any of the Options being proposed. In addition to this the consultation sought to understand whether there may be demand for an exemption, where the threshold was not defined by the typical measure of business size by number of employees. Some of the potential alternatives were: business size as defined by turnover and business size defined by the number of outlets.

In the responses we received to the consultation and the discussions held during our stakeholder workshops there was a general desire (from not only consumers, but businesses and local authorities) for there to be no exemption for SMBs.

The first reason cited for there being no exemption was the difficulty for consumers to tell, whether a business they have entered is a small or micro business. This was also sighted as a potential issue for enforcement officers, who would be required to identify a business's size while conducting a visit (which may not be immediately apparent). Therefore, if there was an exemption that allowed SMBs to not be required to label their food to the same standard as medium and large businesses, it was felt this provided a potentially unsafe environment for consumers. As they may expect there to be labelling in smaller businesses and potentially could infer that no label indicated that it was safe to eat, rather than that business simply not being required to do so.

Therefore, the message that was put forward by stakeholders, was that there should be consistency in the requirements on businesses with regards to the labelling of PPDS food and no exemption should be given.

## **9. Competition Assessment**

The four questions of the competition assessment are as follows:

In any affected market, would the proposal:

1. Directly limit the number or range of suppliers?
  - The policy options proposed impose no direct limit on the number of suppliers/businesses that can operate in the PPDS food market.
2. Indirectly limit the number or range of suppliers?
  - The costs to individual business may vary, due to the current extent that they label their PPDS products and the number of items that they sell. The size of these variations between businesses are unlikely to be large enough to limit the number of businesses that are able to operate in the PPDS food sector. Businesses however may choose to move away from

PPDS to other forms of food preparation as a result of having to label PPDS foods.

- The cost to businesses of the policy options considered are unlikely to prohibit the entry of new businesses in the PPDS food market. However the potential requirement to label PPDS food may incentivise new entrants to sell food as PPCR or loose (which does not require labelling) instead of PPDS.

### 3. Limit the ability of suppliers to compete?

- There are currently businesses that are already voluntarily providing improved allergen labelling, which may be seen as a form of product/brand differentiation from their competitors. However, we are not fully clear on the extent to which this is the case at this point in time.
- The proposals do not limit businesses ability to compete on grounds of quality, geographic location, absolute price, advertisement and many other aspects on which businesses frequently compete.

### 4. Reduce suppliers' incentives to compete vigorously?

- The policy options considered do not exempt suppliers/businesses from general competition law, introduce or amend intellectual property regime or increase the costs to customers of switching between suppliers.
- The requirement to label PPDS products may deter businesses (in particular small and micro businesses) from introducing seasonal PPDS products. Seasonal products can be a method to attract consumers and a reduced ability to produce or reduced rate of introduction of these may limit a business's ability to keep up with some of their competitors who are able to.
- Under current legislation businesses must be able to provide allergen information to consumers. Option 4 will require businesses to provide a list of full ingredients of each PPDS food product, which may be of use to competitors. Disclosure of this information would potentially deter experimentation/innovation.

### Sustainability Test

There is no evidence to suggest that changes to the provision of allergen information will have an impact on sustainable development.

### Environmental Test

As this policy only deals with foods that are already being packaged, there is no environmental risk from increased packaging resulting in increased waste.

### Justice Impact Test

A full justice impact test for this proposal will be carried out after the completion of the consultation and the details of each policy option have been finalised.

### Rural Proofing

We have considered the effects of the policy proposals on those living in rural areas. At present, there is no evidence to suggest that there would be a significant impact.

## **10. Post implementation review**

The FSA will be undertaking a further consultation on changes to the Allergen Technical Guidance. This will give a further opportunity to test the assumptions made in the Impact Assessment and amend them if necessary.

**Annex A: Hourly wage for ‘Quality assurance and regulatory professionals’ (ASHE, 2018)**

		<b>Low end hourly wage</b>	<b>Average hourly wage</b>	<b>High end hourly wage</b>
Quality assurance and regulatory professionals	Original Wage	£13.33	£24.13	£30.84
	Uplifted Wage	£17.33	£31.37	£40.09

**Annex B: Average wage rate for ‘Food preparation and hospitality trades’ (ASHE, 2018)**

		<b>Low end hourly wage</b>	<b>Average hourly wage</b>	<b>High end hourly wage</b>
Food preparation and hospitality trades	Original Wage	£7.83	£10.16	£13.12
	Up-lifted Wage	£10.18	£13.21	£17.06

**Annex C: Average wage rate for ‘Restaurant and Catering establishment managers and proprietors’ (ASHE, 2018)**

		<b>Low end hourly wage</b>	<b>Average hourly wage</b>	<b>High end hourly wage</b>
Restaurant and Catering establishment managers and proprietors	Original Wage	£8.13	£11.93	£13.74
	Up-lifted Wage	£10.57	£15.51	£17.86

**Annex D: Average gross annual salary for ‘Public relations professionals’ (ASHE, 2018)**

		<b>Low end hourly wage</b>	<b>Average hourly wage</b>	<b>High end hourly wage</b>
Public relations professionals	Original Wage	£13,417	£34,826	£38,817
	Up-lifted Wage	£13,943	£36,191	£40,339

**Annex E: Average gross annual salary for ‘Web design and development professionals’ (ASHE, 2018)**

		Low end hourly wage	Average hourly wage	High end hourly wage
Web design and development professionals	Original Wage	£18,074	£32,850	£41,998
	Up-lifted Wage	£18,433	£33,502	£42,831

**Annex F: Average wage rate for ‘Trading standards officer’ (ASHE, 2018)**

		Low end hourly wage	Average hourly wage	High end hourly wage
Trading standards officer	Original Wage	£11.08	£17.48	£18.68
	Up-lifted Wage	£14.40	£22.72	£24.28

**Annex G: Average wage rate for ‘Environmental Health Professional’ (ASHE, 2018)**

		Low end hourly wage	Average hourly wage	High end hourly wage
Environmental Health Professional	Original Wage	£13.99	£19.00	£21.50
	Up-lifted Wage	£18.19	£24.70	£27.95

**Annex H: Health Benefits**

The key benefits of any of the policy interventions being proposed will be the health benefits due to reduced risk of consumers experiencing allergic reactions due to consuming PPDS foods of which they may not know the ingredients.

**Impact of Food Allergies**

Currently the FSA estimate that the annual number of deaths<sup>22</sup> due to food allergies to be 10 for England and Wales. Assuming that the rate of fatalities is consistent across the whole of the UK, then the UK total is estimated to be 12. These figures are for all food allergy related deaths each year and therefore may be a result of food preparation methods other than PPDS (such as pre-

<sup>22</sup> <https://www.food.gov.uk/sites/default/files/media/document/fifth-csa-report-allergy%20%281%29.pdf>

packed, PPCR or loose). We are unable to make any estimation as to the number of deaths directly attributable to PPDS foods each year.

The Department for Transport (DfT) publish statistics relating to the value of a prevented fatality (VPF). In 2018 they reported that a VPF was £1,897,129. Uplifting this to 2019 prices, we estimate the VPF to currently be £1,971,501. Therefore, we can make the assumption that for each life saved due to improved allergen information provision, there would be a benefit of £1,971,501.

The FSA also estimate that food allergies result in approximately 27,000<sup>23</sup> hospital days each year. This is significantly less than the number of hospital days due to foodborne diseases (47,000). However, the number of hospitalisations due to food allergies is almost twice that due to foodborne diseases (65% to 35% respectively).

### Proportion of population with a Food Allergy

The Food Standards Agency (FSA) estimate that the percentage of the adult population who suffer from a food allergy to be between 1-2%<sup>24</sup>. This rate then rises to between 5-8% for children.

Looking at ONS population estimates for 2017<sup>25</sup>, we can identify the number of adults<sup>26</sup> and children across the UK.

	<b>Adults</b>	<b>Children</b>	<b>Total Population</b>
<b>England</b>	43,107,340	12,512,090	55,619,430
<b>Scotland</b>	4,334,980	1,089,820	5,424,800
<b>Wales</b>	2,460,309	664,856	3,125,165
<b>Northern Ireland</b>	1,410,051	460,783	1,870,834
<b>United Kingdom</b>	51,312,680	14,727,549	66,040,229
<b>United Kingdom (without Scotland)</b>	46,977,700	13,637,729	60,615,429

Table 41: ONS population estimates for 2017

<sup>23</sup> <https://www.food.gov.uk/sites/default/files/media/document/fsa170306.pdf>

<sup>24</sup> <https://www.food.gov.uk/sites/default/files/media/document/fifth-csa-report-allergy%20%281%29.pdf>

<sup>25</sup> <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2017>

<sup>26</sup> Adults being defined as those aged 18 and above.

Applying the FSA ranges (1-2% for adults and 5-8% for children) for those suffering from food allergies, we can estimate the number of afflicted members of the population.

	Lower bound estimate	Upper bound estimate
<b>England</b>	1,056,678	1,863,114
<b>Scotland</b>	97,841	173,885
<b>Wales</b>	57,846	102,395
<b>Northern Ireland</b>	37,140	65,064
<b>United Kingdom</b>	1,249,504	2,204,458
<b>United Kingdom (without Scotland)</b>	1,151,663	2,030,572
Table 42: Estimated number of people with Food Allergies		

## Hospitalisation due to Adverse Food Reactions

The NHS collect statistics<sup>27</sup> on the number of hospital admissions with ‘Anaphylactic shock due to adverse food reaction’ or ‘Other adverse food reactions’ as the diagnosis. For the financial year 2017-18, they reported that there were 2,192 and 4,975 respectively (resulting in a total of 7,167). These figures are for England only, so assuming that the rate of incidence is the same across the entirety of the UK, we have uplifted this (using our population estimates) to 7,811 for the United Kingdom (minus Scotland).

In addition to admission data, the NHS also publish reference costs<sup>28</sup> for the treatment of specific illnesses. The table below illustrates the reference costs for “Allergy or adverse allergic reaction”. We have chosen not to include ‘elective’ hospital stays as these are likely not a result of an unexpected reaction.

	Total cost	National average unit cost	Number of FCEs	Number of inlier bed days	Excess bed days
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<sup>27</sup> <https://digital.nhs.uk/data-and-information/publications/statistical/hospital-admitted-patient-care-activity/2017-18>

<sup>28</sup> <https://improvement.nhs.uk/resources/reference-costs/>



<b>Non-elective long stay</b>	£783,908	£1,368	573	1,437	n/a
<b>Non-elective excess bed days</b>	£279,129	£324	n/a	n/a	862
<b>Non-elective short stay</b>	£2,392,372	£347	6,903	n/a	n/a
<b>Regular day or night admission</b>	£28,646	£158	181	n/a	n/a
<b>Day case</b>	£830,274	£312	2,661	n/a	n/a
Table 44: Summary of NHS reference costs for Allergic reactions 2017-18					

It should be noted that these costs are for all allergic reactions, so the totals are not indicative of the total cost of the treatment of food allergies. However we can infer that the average costs are representative of those for food reactions: with the cost for a non-elective long stay (£1,368) being the average cost for a severe reaction and the non-elective short stay cost (£347) being the average cost of a mild reaction.

### Relating potential health benefits to costs

Due to our inability to define the precise monetary value of the benefits that each policy option may provide, an alternative approach has been taken. For the low, central and high net present values (NPVs) for each of our four policy options, we have calculated the number of deaths prevented and non-elective long stays (NELS) avoided in order to offset these NPVs.

	<b>Low Estimate of deaths prevented</b>	<b>Central Estimate of deaths prevented</b>	<b>High Estimate of deaths prevented</b>
<b>Option 1</b>	1.64	2.61	3.25
<b>Option 2</b>	14.59	29.10	42.76
<b>Option 3</b>	51.86	88.99	115.89
<b>Option 4</b>	72.65	151.63	228.09

Table 45: Number of deaths prevented necessary to offset costs of Policy Options (over 10-year appraisal period)

	<b>Low Estimate of NELS avoided</b>	<b>Central Estimate of NELS avoided</b>	<b>High Estimate of NELS avoided</b>
<b>Option 1</b>	2,357	3,759	4,677
<b>Option 2</b>	21,023	41,938	61,623
<b>Option 3</b>	74,731	128,244	167,014
<b>Option 4</b>	104,697	218,527	328,716

Table 46: Number of non-elective long stays avoided, necessary to offset costs of Policy Options (over 10 year appraisal period)

### Potential Health Dis-benefits

One aspect that must be considered is whether the additional labelling on PPDS products (full ingredient labelling in particular) may lead to an increase in the number of allergic reactions due to PPDS foods. Full ingredient labelling is already mandatory for pre-packed foods, however in food manufacturing labelling errors still occur. We cannot therefore assume that labelling will always be 100% accurate.

With the implementation of improved labelling we are assuming that consumers with food allergies may feel more confident purchasing PPDS foods, which is something they previously may not have purchased. Therefore, there is the possibility that consumers may be overconfident in PPDS labelling and adverse reactions to PPDS foods may occur when they previously would not have.