The animal welfare provenance of food – communicating and engaging with consumers: a review of evidence and interventions

A report for Defra

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May 2012

1
1 Introduction

1.1 Background
The recent draft communication from the European Commission on the protection and welfare of animals proposes providing consumers and the public with appropriate information. More specifically, the document states that it is “relevant to inform EU consumers about the EU legislation applicable to food producing animals”.

In December 2011, Defra commissioned Brook Lyndhurst to carry out a rapid evidence assessment into existing evidence and experience on the effectiveness and cost-effectiveness of interventions that have aimed to engage consumers on the animal welfare provenance of food. The purpose of this research was to summarise the existing evidence in order to assist Defra in drawing out key lessons about how to communicate relevant information to consumers in a way that will help them make informed choices.

1.2 Aims and objectives
The overall aim of the study was to review the evidence on the effectiveness and cost-effectiveness of interventions that have aimed to communicate information to consumers about the animal welfare provenance of food. The scope of the study also took in communications on other topics with which parallels can be drawn, including health and healthy eating, wider food issues, and communications on sustainability issues such as energy conservation and recycling.

The specific research questions, as summarised in our proposal, were as follows:

1. What are the attributes of interventions that have been successfully used to communicate to and engage with consumers on animal welfare issues (and other similar issues)? Success in this context can be defined as demonstrating a cost-effective change.
2. How can consumers be engaged on animal welfare issues by making links to other purchase motivations?
3. Are certain interventions more effective than others in communicating with consumers who have different levels of interest in animal welfare (and/or other similar issues)?
4. What are the conflicts and synergies between communicating animal welfare provenance and communicating other sustainability issues?

1.3 Methodology
The methodology involved a rapid evidence assessment of existing academic and grey literature, complemented by a series of confidential interviews with selected experts who have specialist knowledge and experience in communicating with consumers about animal welfare or similar issues. The scoping phase of the rapid evidence assessment identified a total of 240 documents, of which 49 were reviewed in detail. A further four documents were
identified through ‘snowballing’ approaches. The methodology is outlined in more detail in Appendix A.

1.4 The evidence base

As anticipated by Defra and the project team, the rapid evidence assessment uncovered a relatively limited amount of directly relevant evidence. Although the substance of many of the identified sources is tangential to this study, the sources do contain fragments of information that are relevant to the research questions being considered. For example, consumer research on animal welfare has tended to focus on questions such as consumer attitudes to animal welfare or willingness to pay for higher welfare foods, but some of the research reports also comment on issues such as consumers’ preferred channels for information about animal welfare. However, this does mean that many of the points presented in this report are based on relatively limited evidence, and should be read with that in mind. The robustness of the evidence sources themselves is considered in more detail in Appendix B.

As noted above, the rapid evidence assessment also drew on evidence from other domains, such as communications about health and healthy eating, food issues more widely, and sustainable behaviours. The aims of such communications have been wide-ranging, from information provision through to triggering ‘behaviour change’. Whether or not the lessons learned from such a diverse evidence base can be directly transferred to a different context and applied to the provision of animal welfare information is ambiguous, and this should be borne in mind when reading this report.

1.5 Report structure

The following sections describe and summarise the evidence under the research questions set out above, highlighting the fields of research and the contexts from which the evidence originates. Each section begins with an introduction to the scope of the evidence, and a brief summary of the key points from the literature and from the interviews. These are then followed by a more detailed exploration of the literature review evidence.

The referencing system uses the unique ID codes given to documents during the scoping phase of the rapid evidence assessment. The reference list at the back of this report is arranged by ID code.

1.6 Expert interviews

Insights from the interviews are reported under each report section, but as an overarching summary, the image shown overleaf (from the on-line tool Wordle) illustrates the researchers’ analytical interpretation of the key themes to have emerged from the interviews.
2 Communicating animal welfare effectively

The purpose of the first research question was to identify past initiatives or elements of initiatives that have been particularly effective in providing information about animal welfare (and similar issues) to the public. The evidence identified through the review is relatively fragmented and often lacks robustness, but it does cover a range of issues from message characteristics and appropriate messengers, through communication channels and points of contact, to repetition of messages, and aspects of communication development that influence their effectiveness.

Summary: Evidence from the literature

- Simple and clear messages that balance a scientific basis with emotional appeal, do not solely focus on the animal in the product, and are supported by more detailed information that can be accessed elsewhere, appear to be most effective.
- Messengers should have expertise in animal welfare and not stand to benefit commercially from the communications, in order to garner trust and credibility.
- Mass media communication channels have a wide reach, but peer-to-peer messaging offers more opportunities for customising messages (see also chapter 3 of this report for the relative cost-effectiveness of these approaches).
- Interactive, personalised and tailored communications, making use of social marketing and harnessing peer influence, can be effective.
- Labelling as a means of communicating animal welfare to consumers is likely to reach only the most interested individuals.
- Using a mix of communication channels can increase the effectiveness of the communication activity.
- Information appears to be most effective when provided at point of sale, where it is salient, or to captive audiences, for example through school or workplace based interventions.
- Repeating messages over long timescales can increase the effectiveness of communications, though single messages can also be effective if their content is particularly powerful for the audience.
- Formative research and iterative development of communications increase their effectiveness.

Summary: Evidence from the interviews

- Narratives that connect people with the food chain were considered by the interviewees to be more appealing than ‘technical’ information.
- The increasing importance of online communication channels emerged as a key theme in the interviews – because the interested consumer was seen as likely to turn to the internet – and there was particular interest in the use of social media.
- PR was deemed especially appropriate for bringing issues to the forefront of the public’s attention, by “creating noise” which raises people’s awareness of the issue.
- Government communications were seen by the interviewees as valuable, in that they would be unbiased, but they were also concerned that government communications could potentially be “clunky” and “technical”.
- One of the interviewees specifically cautioned against using schools as communication channels for animal welfare information – unless the communications were aimed at older age groups better empowered to make use of that information.
- An interesting concept to emerge from the interviews was that of ‘activation points’ – or points in the ‘consumer journey’ at which a message activates the consumer.
- Interviewees noted that message repetition is having less traction in a world where news are fluid, and recommended regularly refreshing messages.
2.1 Message

Simplicity and specificity

Although consumers care about a range of issues when it comes to food, they struggle to process a great deal of information at once (46). Literature from the health arena stresses the importance of clear and simple messages which “capture the attention and [are] easily remembered by each member of the target population” (225).

Complex messages are less likely to be remembered and understood (225), and presenting complex messages in a simple way, for example by breaking them down into specific component parts, is a strategy advocated by a number of sources (20, 21, 225). For example, case study 1 illustrates the relative success of health campaigns which promoted a specific step versus the broader concept of ‘healthy eating’.

Although the literature strongly indicates that simple messages are the most effective, evidence from animal welfare labelling research also suggests that consumers feel reassured about the label if they are able to access more detailed background information, should they wish to (12).

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**Case study 1: Using mass media to promote healthy eating**

Reger et al (1999) evaluated an intervention study using mass media to encourage a switch to lower-fat milk. The six-week campaign used paid advertising and PR strategies to generate media coverage. In total, there were 98 broadcast television adverts, 168 cable TV adverts, and 120 radio adverts.

To evaluate the effectiveness of the campaign, milk sales data was collected from supermarkets, and baseline and follow-up telephone surveys were carried out in the intervention city and a control city, one month before and six months after the campaign. Of the survey respondents, 84% reported seeing a lot or some of the TV adverts, 46% recalled hearing the radio adverts, and 82% reported exposure to campaign news coverage.

The share of 1% or lower fat milk as a proportion of overall milk sales increased from 29% to 42% in the intervention city (and from 22% to 23% in the control city). The follow-up survey found that 34.1% of high-fat (i.e. 2% fat or higher) milk drinkers reported they had switched to low-fat milk in the intervention city (compared to 3.6% in the control city). Most of this impact occurred among people who were previously drinking 2% milk rather than whole milk. (See also case study 5 below for data on cost-effectiveness.)

The authors attribute the success of the campaign to the “strongly worded messages that clearly communicated the benefits of drinking low-fat milk and the negative attributes of high-fat milk in a memorable way” – for example, by using comparisons to the amount of bacon containing the amount of saturated fat in different types of milk – and comment that in contrast, “many public health campaigns, especially those run or funded by governments, use mildly worded, vague messages to avoid upsetting anyone … We believe that mass media was sufficient to change the targeted behaviour because we crafted a simple, understandable message and communicated it effectively” (20).

In contrast, Beaudoin et al (2009) evaluated a mass media campaign that promoted healthy eating and physical activity. They report that the campaign led to improvements in people’s attitudes on these broad topics but not on the specific component of avoiding snack foods. In order to improve the campaign, the authors argue against general messages recommending a ‘healthy’ or ‘balanced’ diet, in favour of messages that specifically advocate avoiding calorie-dense snacks (21).
Content

When it comes to food and animal welfare, many consumers “do not want to be reminded that the product they are about to purchase was once a living creature” (48). Communications whose content forces consumers to confront their food as an animal could run the risk of causing discomfort for these consumers, resulting in the information being ignored by them (48).

Novel message content can be effective. Snyder (2007) suggests, with respect to health campaigns, that the information provided should focus on what is new to people (225). For example, the success of the anti-smoking ‘Sponge’ advert is partly put down to the fact that it teaches smokers something new about the health harms of smoking (85).

Tone

The Commission to the European parliament (2009) recommends that communications be based on a solid scientific background (49), and case study 2, below, describes the effect of consumer communication through Reserved Terms. At the same time, there is evidence from the field of health interventions which suggests the use of emotion can increase the effectiveness of messages. For example, a review by Friend & Levy (2002) suggests that the most effective anti-smoking adverts are those evoking strong emotions. In contrast, humorous adverts are the least effective in terms of recall and smoking cessation among youth and adults (N1).

Case study 2: Reserved Terms

Reserved Terms have been used to describe different production processes on the packaging in a way that appears to have successfully informed consumers about animal welfare considerations. Toma et al (2011) report that since the implementation of the EU marketing standard on table eggs, the percentage of non-caged egg production has increased significantly in nearly all Member States (51).

On a parallel note, the Farm Animal Welfare Committee (2011) recommends that “standardising the descriptors would provide an important platform upon which animal welfare claims could be made” (206).

A number of studies have considered the relative effectiveness of a negative or positive tone for animal welfare communications, but the evidence is mixed. For example, Verbeke (2009) suggests that negative information holds more weight with people than positive information, going on to highlight that negative information is difficult to counter, requiring a multiple amount of positive information to do so (178). On the other hand, work carried out by Lucid for CIWF suggests that successful campaigns should take a positive approach and focus on the benefits to animals (4). Other research, on consumer willingness to pay for animal welfare, suggests that the presence of any animal welfare information at all, regardless of its type and amount, tends to have a similar effect on willingness to pay (51).

2.2 Messengers

The review did not uncover any studies investigating the relative effectiveness of different messengers as such, but there is a significant body of relevant evidence in the form of studies that have considered who people trust on animal welfare matters, whether to
communicate information or to set and monitor standards and implement animal welfare labelling.

According to European survey data, consumers trust the animal welfare information received from their friends, from consumer-focused agencies, and from their local butcher. In contrast, the least trustworthy sources of information were perceived to be the government, the food industry, farmers and supermarkets (51). In addition, research by the IGD (2007) for Freedom Food highlights the RSPCA as a credible and trusted source of information on animal welfare in the UK (48).

Role models can act as effective messengers; celebrity chefs, for example, have been put forward as possible animal welfare messengers (4). Similarly, evidence from healthy eating interventions suggests that culturally appropriate messengers, such as ethnically relevant role models, can increase message effectiveness (25). Evidence from the environmental field includes a study on effects of modelling energy-saving behaviours via a cable TV programme, which found that programme viewers initially saved energy compared to a control group, although the effect was not maintained beyond a year (28).

The animal welfare literature suggests that the key characteristics of entities trusted to set and monitor animal welfare standards, and to implement animal welfare or other food labelling, are possession of necessary expertise (e.g. in food safety), ability to monitor the whole food chain, and not benefiting commercially from the activity (12, 48, 186). Trustworthiness, expertise and credibility were also highlighted in a health study as messenger qualities that increase acceptance of the message (225).

Although the RSPCA is seen as a trusted information source about animal welfare, as well as being trusted to set appropriate standards (e.g. one survey showed that 64% of Freedom Food buyers say they trust the RSPCA to set the appropriate standards (N2)), the evidence also suggests some concern among the public that charities like this may not necessarily have the resources to properly regulate and enforce standards (12).

Despite the apparent lack of trust in government described above, consumers often feel that the responsibility for animal welfare standards should be with government, FSA or Environmental Health – although, at the same time, consumers do not necessarily trust government to carry out inspections. Retailers are more likely to be trusted in this sense, although they can be perceived to put profit before people (48).

2.3 Communication channels

Mass media

A number of sources note the role of mass media (e.g. 12, 48, 51, 206), and, importantly, its potential to reach a large audience (e.g. 48). Media also appears to be an information source that people draw on to inform their purchasing choices: for example, IGD attribute the consumer reaction of not eating beef during the BSE crisis in part to the negative publicity around the issue (48).

However, evidence on the effectiveness of mass media from the field of health appears less clear-cut. Although there have been some successful mass media communication
campaigns, for example on the risks of smoking (e.g. 50, N1), opinions vary somewhat as to whether such “broad-brush” approaches are effective (e.g. 20, 22). Some authors suggest that although mass media campaigns are effective at enhancing knowledge and raising awareness of health issues, they may be less likely to be translated into behavioural choices (e.g. 21, 26).

Television and newspaper reports are repeatedly highlighted in the literature as key sources of consumer information on animal welfare (e.g. 12, 48, 51). Evidence from health and environmental conservation research suggests that radio may be a less effective means of reaching people (20, 62, 77) – see, for example, case study 1 above.

Mass media may be an effective way of reaching those consumers who are less interested in proactively seeking out information about animal welfare (48). However, some of the evidence from health research again contrasts with this, suggesting that those more interested in the subject matter of the communication may be more likely to pay attention to and recall the messages (21).

Online communications

Although the reviewed sources contain little on the success or otherwise of online communications, one specific example is worth highlighting. Sustainable Table, which aims to raise awareness of factory farming practices among the general public and other key stakeholders in the US, used three different websites and online tools to reach 6.6 million unique visitors between February 2006 and April 2008. Their video ‘The Meatrix’ had been viewed by more than three-quarters of respondents in a survey of 350 children (17).

Peer and community-based communications

Consumers gain knowledge about the food industry from their peers (48), and as noted above, they trust the information they receive about animal welfare from their friends (51). IGD therefore recommends “harnessing the consumer grapevine” to spread messages about animal welfare (48).

The health literature contains a number of examples of where peer-to-peer and community-based communications have successfully been used to enhance campaign impacts (e.g. 25, 26, 50, 225). The benefits of peer and community-based communications are their ability to deliver personalised communications and to create interaction (see section 2.4 for more on this), to target interventions more precisely, and to institutionalize a programme within a community through establishing ties with community organisations (225). Authors recommend mobilizing social networks and making use of community workers in the spreading of messages (25), as well as recruiting campaign staff direct from the target community (225).

Written communications

The reviewed sources contain little on the effectiveness or otherwise of any type of written communications, other than international evidence on the (limited) effectiveness of newsletters in promoting conservation (77). One example from closer to home that is worth highlighting is the launch of Freedom Food duck for sale at Morrisons in 2006. The launch was supported by an advertising campaign which included posters outside stores and at the
point of sale. According to IGD, the campaign “delivered excellent sales increases and greater consumer understanding” (48).

**Labelling**

Animal welfare labelling has been put forward as a means of enabling consumers to make informed purchasing decisions (49), and one of the reviewed sources reported on a survey which found that the majority of consumers claim they would make use of product label information if this were available (51). However, some of the literature also describes consumers and other stakeholders as being sceptical of labels (e.g. 46, 51) and notes that recognition and understanding of existing welfare labels is limited (12).

Some of the evidence suggests that labelling schemes are more likely to be effective with consumers who are interested in the information provided (46), and that labels could be an appropriate communication vehicle for those consumers who are interested in animal welfare; the key benefit being that they would lower the search costs for higher welfare foods (177). Labels may also act as prompts or reminders for consumers while in store (12).

**Multiple channels**

Some of the reviewed sources recommend the use of multiple channels to ensure that the effects of communication campaigns are maximised (e.g. 4, 160): the use of multiple channels increases the reach and exposure of the campaign, thereby increasing its effectiveness (225). Sustainable Table, referenced above, is an example of an initiative that has made use of integrated communications across a number of channels including online, community-based and mass media communications (17).

Whilst a mix of communication channels (or any other element of communications) may increase a campaign’s effectiveness, it should also be noted that this approach can have the effect of confounding the impacts, making it more difficult to evaluate the effectiveness of any particular strand (28). On the other hand, Snyder (2007) suggests that communication channels which “are novel to the target population may garner additional attention” (225).

### 2.4 Personalisation and interaction

Much of the reviewed evidence covers approaches that aim to personalise the communication to the recipient or involve the recipient in an interactive manner. There are a number of ways of achieving this, and the key ones identified through the review are set out below.

**Goal-setting, commitment, feedback and rewards**

There is a wealth of evidence in the environmental arena about the effectiveness of communications and interventions that involve goal-setting and commitment strategies. For example, a review of a range of energy-saving interventions by Abrahamse et al (2005) concludes that goal-setting – whether by the intervention organiser or the participants themselves – resulted in energy savings. Similarly, commitment strategies such as oral or written pledges were also found to generate energy savings (28).
The literature on pro-environmental behaviours demonstrates the effectiveness of feedback communications in engaging people in recycling (82) or saving energy – although some low energy users were found to increase their consumption as a result of feedback (28). Comparative feedback was found to be no more effective than individual feedback in promoting energy saving. Cognitive dissonance feedback – i.e. feedback that conflicted with participants’ self-image – had a more significant effect immediately than did ‘normal’ feedback (28). Group-level feedback that compared the performance of neighbourhoods was found to be particularly effective with regard to recycling (82). This is supported by evidence from the field of health which suggests people appreciate messages that provide feedback on their current practices (225).

Rewards were also found to be generally effective at encouraging energy conservation, but their effects tended to be short-lived (28).

**Targeted and tailored interventions**

Targeting and tailoring of communications is discussed at length in the reviewed health literature in particular. The two terms appear to be at times used interchangeably, but Schmid et al (2008) offer a useful distinction, which is outlined in case study 3 below (224).

Targeting involves customising messages to identifiable groups of consumers (190, 224). For example, Geeroms et al (2008) describe communications targeted at consumers who had been segmented on the basis of their attitudes towards health issues. The targeting appeared to make the messages more appealing to these groups (220). Snyder (2007) also highlights the importance of targeting communications to the right person who has the power to make use of the information provided – using the example of information on dietary behaviours, which may in fact be best targeted not at the individuals engaging in unhealthy behaviours, but members of their household who are responsible for food purchasing and preparation (225).

Tailoring information, in contrast, requires customising messages to individuals. Opportunities for tailoring messages are available when the communication channels are interpersonal (225). Evidence from the environmental field suggests that that tailored information is more effective than generic information at producing energy savings (28).

On the other hand, targeting or tailoring information to particular groups may not always be necessary: pre-testing of anti-smoking advertising material has shown that effective advertisements can perform well among many population subgroups (83).
Case study 3: Targeting versus tailoring

Customising messages to a particular audience can help to maximize their impact. Customisation can be achieved through either targeting – customising the message to shared characteristics of a population subgroup – or tailoring – fitting the message to individual characteristics. Targeting is not always successful, as the diverse needs and interests of individuals are not always taken into account by the variables that describe the subgroup. Tailoring messages to individual motivations, rather than targeting them at particular demographics, is likely to be more effective. Issues to consider include:

- Resources may dictate the need for targeting rather than tailoring, which is more time-consuming.
- Complex behaviours are driven by a number of factors, and communications concerned with complex behaviours may therefore be more cost-effective if tailored.
- Tailoring requires a mechanism for individual assessment and communication to be in place.
- A combination of tailoring and targeting – the concept of ‘goodness of fit’, which reflects how well the content of targeted messages maps onto the content of tailored messages – is one possible approach: the challenge is to determine which variables result in good-fitting messages and whether a good-fit message has similar effects as a tailored one (224).

Social marketing and norm creation

Some of the reviewed sources recommend social marketing approaches as effective (e.g. 25, 190), notably in the health arena (50). Peer influence and the creation of social norms appear to be key themes. Specifically, the sources point to charismatic leadership (25) and freebies displaying campaign logos as some of the ways of normalising campaign messages (225).

Examples include a successful communication intervention, reported by Viswanath and Bond (2007), which used peers to promote fruit and vegetable consumption by “providing information material, encouraging, teasing, role-modelling, and creating the right context for discussion to enhance healthy nutrition” (22). Another example comes from an anti-smoking media campaign in California which ran between 1990-1998 and was initially directed at addressing social norms around smoking. It succeeded in reducing smoking prevalence by 22.7% in California (from 23.3% before 1989 to 18% between 1989-1993), compared to a decrease of 11% in the rest of the nation (N1).

Experiential marketing

Schmitt (1999) discusses ‘experiential’ as opposed to ‘traditional’ marketing as an approach to engaging consumers, by acknowledging the non-rational, emotional aspects of consumer behaviour. The author sets out five Strategic Experiential Modules that marketers can create for customers: sensory experiences; affective experiences; creative cognitive experiences; physical experiences, behaviours and lifestyles; and social-identity experiences that results from relating to a reference group or culture (24).

2.5 Points of contact

Accessible points of contact

The point at which information is provided to the consumer can be a factor in influencing the success of communications. Accessibility of information is highlighted by some authors as a key factor that enables consumers to make use of that information. For example, Verbeke (2009) notes that if information is difficult to find, consumers may choose to not seek it out at all. He refers to how consumers reduced their meat consumption in the wake of the BSE
crisis, instead of seeking out information about traceability, because of the opportunity costs of doing so (178). Similarly, Toma et al (2011) also note that access to information has a significant impact on behavioural willingness (51).

Point of sale information

With respect to animal welfare specifically, some of the sources recommend point-of-sale communications, on-pack and in-store, through materials such as information leaflets (48, N2). The 2006 Morrisons launch of Freedom Food duck, for example, made use of point-of-sale information to advertise the launch and drive sales (48).

Captive audiences

Some of the health literature recommends using points of contact where the audience is captive (e.g. 25). Examples of such interventions are reviewed by Ross et al (2006), who describe school and workplace-based interventions which included elements such as communications, promotions, ongoing activities, one-off events and contextual changes. They report that, of 21 workplace-based interventions which aimed to increase levels of physical activity, 8 had a positive effect, and of 11 studies examining changes in physical activity psychosocial variables (e.g. self-efficacy), 6 had a positive effect on at least one variable (50).

Schools and education

Some authors argue for the greater inclusion of animal welfare in the national curriculum in order to encourage more responsible decision making from consumers (e.g. 205, 206). Current coverage of animal welfare issues in the curriculum is described as “patchy” (206), though the review uncovered little by way of evaluation of the effectiveness of school-based initiatives. Sustainable Table, cited above, have targeted some of their initiatives and tools at schools, classrooms and training courses (17), but again the report is limited in terms of evaluation of effectiveness. There is also a suggestion in the literature that primary school students could transfer information to parents –citing a case study of primary school children in Vietnam taking resources home to their poultry farming parents (201).

The evidence does contain examples of effective school-based interventions promoting health behaviours. Ross et al (2006) reviewed seven school-based programmes targeting physical activity, and three of these had positive impacts (including e.g. an intervention incorporating a specially designed curriculum, physical activity classes, instruction and education packs) (50).

2.6 Length and repetition

Literature from the health and environmental fields strongly suggests that the length of the communication campaign and regular repetition of messages play a key role in campaign effectiveness (e.g. 201, 225). For example, Friend and Levy (2002) conclude that anti-smoking campaigns of longer duration and higher intensity are associated with greater declines in smoking rates (N1). However, Snyder (2007) states that “short, intense campaigns may result in greater short-term effects than campaigns that endure for two or more years” (225).
Repeating the message increases the reach and exposure of a campaign – leading to greater impacts – as well as increasing the frequency with which individuals receive the message, helping people remember the message more accurately (225). For example, one study of waste reduction publicity materials concluded that one of the factors influencing their effectiveness was the provision of promotional materials (leaflets in this case) on a regular basis, as it helped maintain public awareness and knowledge (87).

Repetition and reinforcement are easier to achieve through mass communications such as advertising than through community-based programmes (20). Importantly, the repeated messages need to be consistent, and if a number of organisations are working together on a communications campaign, there is a need to ensure that all are communicating the same messages (225).

Certain types of messages, however, appear to be effective on a one-off basis. Abrahamse et al (2005) report that in the area of energy conservation, “cognitive dissonance feedback” (i.e. a message which indicates that its recipients were high energy users, despite having previously reported they felt it their duty to conserve energy) have a larger immediate effect on energy savings than ‘normal’ feedback (28).

2.7 Development of communications

Much of the reviewed health literature comments on how the approach taken to developing communications influences their success. Formative research (research undertaken prior to the campaign to inform its development, e.g. to understand the target audience) and developing the communications campaign in an iterative manner are highlighted as resulting in more successful campaigns (e.g. 50, 225). Grounding the intervention in theory is suggested as another important success factor (e.g. 25, 50). Pre-testing and piloting, particularly where novel approaches are proposed, are recommended (e.g. 17, 225). Finally, branding can be used to differentiate the intervention, to make it stand out from ‘background noise’ (87).
3 Cost-effective communications

The review also aimed to identify evidence on the cost-effectiveness of communications, but the evidence in this area appears to be lacking. Some reports only include information on cost (e.g. 201) or impact (e.g. 225) of communications, but combining the two in a cost-effectiveness calculation is relatively rare. However, the review did also identify a number of case studies which include cost effectiveness information – these are summarised in case studies 4-9 below.

Some of the reviewed reports comment on the general lack of cost-effectiveness evaluation. For example, Guilkey et al (2006) state that “given the paucity of studies of health communication interventions involving randomized control trials, it is ... unsurprising that only a few [of these] studies ... also have examined cost-effectiveness” (62). Snyder (2007) suggests that “nutrition and other campaigns would benefit tremendously from an analysis of the cost-effectiveness of campaign activities” (225).

Summary: Evidence from the literature

- Calculating the cost-effectiveness of communications is a challenging task.
- Mass media can be cost-effective in terms of its reach, and the costs involved are often up-front.
- Interactive and tailored communications tend to be more expensive and involve ongoing costs.
- Recycling tried-and-tested messages can increase the cost-effectiveness of communications.

Summary: Evidence from the interviews

- Interviewees reaffirmed that cost-effectiveness is a concept which is extremely difficult to measure in practice.
- Obtaining statistics on basic outputs (e.g. numbers of leaflets or website hits) can be straightforward, but it is generally much more difficult to assess whether the ultimate aims of communications have been achieved – particularly where those aims are less tangible (e.g. ‘to raise awareness’).
- In that light, online channels were mentioned as cost-effective at the ‘output’ level, due to the relatively low financial outlay involved.

3.1 Challenges in calculating cost-effectiveness

Calculating the cost-effectiveness of an initiative is a complex undertaking. Certain types of communications – for example, print materials and interpersonal communication – lend themselves to the kinds of experimental designs that allow their impacts to be determined by controlling which parts of the study population receive the communication. In contrast, other types of communications such as those via mass media are much more difficult to test in this way, unless there is a direct link between the communication and the outcome being measured (62).

Where interventions make use of a number of elements, it can be particularly challenging to disaggregate the impacts and determine the effectiveness of each element (28). In addition, the costs of a particular campaign element – for example advertising and marketing – can vary depending on campaign location (20). There are guides specifically designed to aid evaluators through this process (e.g. 47).
3.2 Cost-effectiveness of different approaches

Mass media

Mass media can be a more cost-effective means of reaching people than interpersonal channels, because of its wide reach. The costs of mass media campaigns are concentrated up-front (225), and the key component of cost is reportedly placement (83). In terms of the effectiveness of mass media, Snyder (2007) reports that US health communication campaigns “that include use of the mass media and avoid coercion have an average effect size of about 5 percentage points” (225).

Interactive communications

Community-based communications allow for more interaction and tailoring of messages, but they can be costly (20). In fact, Schmid et al (2008) suggest that “as the content [becomes] more individualized, the costs of the campaign tend to increase, as well” (224). In contrast to the front-loaded costs of media campaigns, communications using interpersonal channels involve ongoing costs such as salaries (225).

The pattern identified by Schmid et al is also evident in the results of the evaluation of an environmental education and communication campaign on crocodile conservation in the Philippines. This found passive campaign outputs (e.g. posters, murals) to be more cost-effective than active outputs (e.g. presentation, puppet show) in terms of their reach. Active outputs were, in turn, more cost-effective than interactive outputs (e.g. community consultation and training). However, the interactive outputs appeared to have generally been more likely than the passive outputs to have had an impact on public awareness or attitudes (77).

There is also some evidence to suggest that cost-effectiveness also varies between different types of interactive communication approaches: a report comparing three different recycling projects found that feedback was most cost-effective, at £3 per household that improved their recycling behaviour, compared to an incentives project at £29 per household, and a doorstepping project at £46 per household (82).

Recycled messages

Evidence from anti-smoking campaigns suggests that adapting existing, tried-and-tested advertisements (see case study 4 below) can result in significant savings both in terms of time and expense (e.g. 83, N1).

3.3 Cost-effectiveness case studies

The review identified a selection of reports where the cost-effectiveness of communications has been calculated for a number of case studies. However, given the different fields where these case studies originate and the different calculation methods, the evidence does not lend itself to being presented in integrated form. Instead, the individual case studies are shown below.
Case study 4: Effectiveness of ‘recycled’ anti-smoking advertisements

Cotter et al (2010) evaluated the effectiveness of two ‘recycled’ anti-smoking advertisements – ‘Sponge’ and ‘Artery’ – finding that the advertisements achieved recognition levels comparable to the originals. The advertisements were also considered attention grabbing, relevant and believable, as well as generating thoughts of quitting smoking.

The two revised advertisements were broadcast in New South Wales in Australia, and telephone surveys carried out to assess their effectiveness. The sample for the ‘Sponge’ survey was 453 and the sample for ‘Artery’ was 456. The advertisements were recognised by over 80% and almost 50% of respondents (respectively). In addition, 86% (of both samples) considered them attention grabbing, 73% and 78% considered them relevant, and 83% and 91% considered them believable (respectively). More than two-thirds said ‘Sponge’ made them think again about quitting, and over 70% agreed ‘Artery’ made them “stop and think”. Finally, recall of the ‘smoking clogs your arteries’ message was significantly higher for those who had seen the ‘Artery’ advert compared to the pre-campaign period, increasing from 4.1% to 8.2%.

Cotter et al (2010) also report that the development of a new advertisement in Australia could take 6 months or longer and cost an average of $400,000 AUD, whereas to customise an existing advertisement and pre-test it could take less than 6 weeks and cost less than $30,000 AUD (83).

Case study 5: Cost-effectiveness of a low-fat milk campaign

Reger et al (1999) report on a campaign which promoted a switch to lower fat milk for health reasons (see case study 1 for details).

The campaign led to the share of low-fat milk (defined as 1% or lower fat) as a proportion of overall milk sales increasing from 29% in the month before to 46% in the month after the 6-week campaign. After 6 months, this figure was 42%. In the control area there was no significant variation in these figures during the same timescale (22%, 21% and 23%). In addition, a telephone survey found that 34.1% of high-fat (i.e. 2% fat or higher) milk drinkers reported they had switched to low-fat milk, compared to 3.6% in the control area.

The total cost of implementing and evaluating the campaign was $43,000. This figure includes $26,000 spent on advertising, the cost of salaries, the placement of advertisements, materials for educational and PR activities, and data collection. It does not include the cost of developing the campaign messages, materials, or advertisements.

The authors compare the campaign to a previous campaign which comprised media messages and community engagement, leading to the sales of low-fat milk increasing from 18% to 41% of total sales (dropping to 35% after 6 months), and 38% of high-fat milk drinkers to switching to low-fat milk. The total cost of that campaign was $61,000, including $24,000 for advertising.

The total cost per person reached was estimated at 10 cents/person for the media campaign and 22 cents/person for the previous media plus community engagement campaign (20).

Case study 6: Cost-effectiveness of family planning campaigns

Guilkey et al (2006) report on the cost-effectiveness of a number of family planning campaigns in the developing world, including:

- A study which examined the cost-effectiveness of two family-planning programs (public and private) in Thailand. Each Baht of expenditure on the public program was associated with a 2.3% reduction in fertility, and each Baht of expenditure on the private program was associated with a 14% reduction in fertility – so the authors conclude that the private programme was more cost-effective.

- Another study from the Philippines compared the results of two earlier communications campaigns on contraceptive use, finding that the cost per adopter was $2.58 for a TV campaign in 1995/96, and $13.59 for a radio campaign in 1997/98. The authors conclude that the TV campaign was more cost-effective (62).
### Case study 7: Cost-effectiveness of doorstepping recycling campaigns

Timlett and Williams (2008) cite the cost-benefit analysis carried out by Read et al (2005), who suggest that doorstepping recycling campaigns cost between £1.50-£2.00 per household visited (not necessarily interviewed) (82).

Mee et al (2004) cite a study by Read (1999) into the use of a ‘recycling roadshow’ in Royal Borough of Kensington and Chelsea. This involved the recycling unit staff going door-to-door to inform residents of the doorstep recycling service and to raise general awareness surrounding waste management issues. The initiative resulted in the recycling rate increasing from 9% to 11% in 18 months. The estimated annual cost of the roadshow programme was £20,000 – including two officers for 6 months, promotional items and transport – while the estimated savings in annual disposal costs were £22,838. The authors conclude that the programme was therefore effectively cost neutral (87).

### Case study 8: Cost-effectiveness of anti-tobacco campaigns

Perl et al (2010) offer an estimate that for every dollar spent on anti-tobacco mass media campaigns, two dollars in healthcare costs are saved (85).

Ratcliffe et al (1997) evaluated an anti-smoking campaign and estimate that the cost per life-year saved was between £304-656. Total costs of the campaign were estimated at £1.30 million (though overlap with the parallel youth campaign was estimated to raise this to somewhere in the range of £1.40–£1.55 million). During the campaign, it was estimated that between 4,000-8,200 adults quit smoking, meaning a total of 11,182 life-years gained over 30 years (N3).

Pechmann and Riebling (2000) found that youth anti-smoking campaigns that used single messages tried-and-tested for effectiveness, avoided unclear messages, and used youth spokesmen, were the most cost effective (N1).

### Case study 9: Institute of Practitioners in Advertising (IPA) Effectiveness Awards

The Institute of Practitioners in Advertising (IPA) is a trade and professional body for advertising, media and marketing agencies. The Institute aims to highlight notable campaigns and events, and since 1980 has run the IPA Effectiveness Awards competition. The IPA Databank contains the detailed papers submitted for each entry to the IPA Effectiveness Awards since their inception.

Winners of the awards must have presented figures for Return on Marketing Investment (ROMI) in order to demonstrate that a return on marketing communications investment has been achieved. The ROMI calculation, although complicated by the fact that sales are not necessarily the object of the exercise (as with, for example, behaviour change or fundraising campaigns), yields a figure broadly based on the ratio of profit to the cost of the campaign. Applicants are expected to include some form of econometric modelling in their submitted papers, which are then scrutinised by the technical judges.

Furthermore, the awards take into account the difficulty of the communications task, the creativity of the solution, the scale of impact, the use of communication channels, the strength of proof of effectiveness and new learning as a result of the work.

The degree of scrutiny and the emphasis on technically advanced analysis of effectiveness suggest that the IPA Effectiveness Awards represent a valid attempt at rating various marketing and communication efforts. A selection of showcased campaigns from the last few years is presented overleaf, followed by a detailed description of two examples.
<table>
<thead>
<tr>
<th>Client</th>
<th>Campaign (year)</th>
<th>Description</th>
<th>ROMI / £1 spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbian government</td>
<td>Demobilisation of members of FARC guerrilla group (2011)</td>
<td>This campaign exploited a sensitive moment (Christmas) as a spur for FARC members to leave their groups, lay down their arms and rejoin society.</td>
<td>£11.35</td>
</tr>
<tr>
<td>Marie Curie Cancer Care</td>
<td>Collect rather than donate (2011)</td>
<td>Instead of asking directly for donations, this campaign asked people to help with fundraising efforts by donating an hour of their time.</td>
<td>£2.45</td>
</tr>
<tr>
<td>Depaul</td>
<td>iHobo homelessness awareness (2011)</td>
<td>In an attempt to recruit younger donors an iPhone application was developed, in which users looked after a virtual homeless person for three days. No media coverage was paid for. The campaign resulted in a dramatic increase in potential donors.</td>
<td>ROMI not available, but the campaign resulted in 95 times more donors than previous ones</td>
</tr>
<tr>
<td>Organ Donor Register</td>
<td>Encourage registration for organ donation (opt-in) (2011)</td>
<td>Organ donation was reframed as a reciprocal act, taking away the stress on altruism. Potential donors were encouraged to put themselves in the position of a recipient.</td>
<td>4.1</td>
</tr>
<tr>
<td>Promote Iceland</td>
<td>Encourage recovery of tourism levels after volcanic eruption (2011)</td>
<td>After the 2010 eruption of the Eyjafjallajökull volcano in Iceland, tourism suffered. This campaign encouraged Icelanders to use media and social media to share stories and to encourage visitors back to the country.</td>
<td>61:1</td>
</tr>
<tr>
<td>Department of Health</td>
<td>Encourage increase in motivation to quit smoking (2010)</td>
<td>The emotional impact of smoking on other family members was emphasised in this campaign, alongside casting the NHS as a supporting and non-judgemental source of assistance.</td>
<td>ROMI not available, but cost per quit down by 1/3</td>
</tr>
<tr>
<td>Department of Transport</td>
<td>THINK! anti-drink drive campaign (2010)</td>
<td>Faced with a reluctance among people to consider themselves problematic with regard to drink driving, this campaign sought to encourage people to take responsibility for the consequences of their actions.</td>
<td>£9.36</td>
</tr>
<tr>
<td>Department of Health</td>
<td>Increase awareness and understanding of strokes (2010)</td>
<td>This campaign addressed an ill-informed general public with regards to identifying the symptoms of a stroke and rapidly taking the appropriate action. Hard-hitting footage was accompanied by clear guidance and advice.</td>
<td>£3.20</td>
</tr>
<tr>
<td>Training and development for schools</td>
<td>Encourage new teachers (2010)</td>
<td>Against a backdrop of insufficient numbers of people who were willing to become teachers, this campaign addressed behavioural barriers to entering the profession. Instead of ‘selling’ teaching, the campaign sought to help potential teachers to apply.</td>
<td>£101</td>
</tr>
<tr>
<td>Transport for London</td>
<td>Promote cycle safety (2009)</td>
<td>Instead of using shock tactics, allocating blame or risking discouraging cyclists, this campaign demonstrated to drivers how easy it is to miss something that you aren’t specifically looking out for – not just by telling, but by proving.</td>
<td>£3.66</td>
</tr>
<tr>
<td>Transport for London</td>
<td>Cabwise campaign to prevent sexual assault by discouraging use of illegal minicabs (2008)</td>
<td>Emotional dissuasion – fear of sexual assault – was accompanied by a clear explanation of an easily accessed and memorable alternative.</td>
<td>£1.13</td>
</tr>
<tr>
<td>Asia Injury Prevention</td>
<td>Promote helmet wearing by motorcyclists in Vietnam (2008)</td>
<td>A campaign which highlighted the possible consequences of not wearing a helmet used common excuses as entry points. The shocking potential cost of these poor excuses was made starkly clear and not only influenced behaviour but accelerated new legislation.</td>
<td>ROMI not available, but estimated 38 lives saved per day</td>
</tr>
</tbody>
</table>
### Detailed case studies from the IPA Effectiveness Awards

**Teacher recruitment for the Training and Development Agency for Schools (2010)**

The steps required in becoming a teacher were identified as a barrier to new people joining the profession. Since sufficient numbers of people were willing to become teachers, a campaign needed to address behavioural barriers rather than attitudinal ones. Furthermore, it was necessary to communicate to people with varying levels of engagement in the process.

The move from ‘selling’ to ‘helping’ was a key factor in the success of the campaign, which used multiple media platforms to ‘nudge’ people along the journey to becoming a teacher. The ROMI of £101 was associated with high levels of enquiries and applications from potential teachers.

**The Department of Health’s stroke awareness campaign (2010)**

There are approximately 110,000 strokes per year in England, but the general public are not well-informed about how to spot the symptoms of stroke and what to do about them. This multi-channel campaign, aimed at a core elderly audience, pinpointed where stroke happens, the signs to look out for, and the action that needs to be taken, using the mnemonic F.A.S.T: (Face; Arms; Speech; Time to call 999). The campaign was successful in that within a year, an estimated 9,864 more people suffering strokes got to hospital faster, and 642 of these were saved from death or serious disability. The campaign achieved a return of £3.20 for every £1 spent.
4 Links to purchase motivations

The purpose of this research question was to identify the associations that people make between animal welfare provenance and other attributes of foods that act as purchase motivations. Previous research has suggested that people prefer to avoid thinking about animal welfare in relation to food (e.g. 12), and this question therefore aimed to identify ‘access points’ where animal welfare communications can be linked up with other issues that are of interest to the public. The review identified a substantial amount of robust evidence relevant to this research question, as well as other tangential but relevant research exploring how food attributes compensate for, or add value to, each other.

Summary: Evidence from the literature

- Animal welfare is commonly linked in consumers’ minds to high quality food. Quality, together with price, is part of the value for money equation.
- Animal welfare and food quality are both associated by consumers with healthier, safer and tastier food. These issues form a tight-knit bundle of attributes in people’s minds: they perceive a link between animal health and human health; and animal welfare and food safety are also associated with origins and traceability.
- Organic certification, and to some extent farm assurance schemes and production systems, are also associated with animal welfare by consumers.
- Animal welfare is seen as an indicator of food quality, healthiness, safety and taste. In contrast, organic certification acts as a consumer indicator of animal welfare standards.
- Animal welfare can produce a ‘warm glow’ for consumers through connotations of ‘doing the right thing’.
- Stakeholders have different definitions of animal welfare; the common thread between consumers and scientists is the notion that animals should not suffer.

Summary: Evidence from the interviews

- Interviewees similarly highlighted the links that consumers make between animal welfare and the issues of quality, health, taste and country of origin.
- Interviewees noted that the food culture of a country provides the context in which consumers consider animal welfare, and this has an influence on the associations that are made between animal welfare and other food issues – something that led them to be more emphatic on the role that ethical motivations can play in engaging consumers with animal welfare in the UK.
- Interviewees also emphasised the issues that matter to consumers beyond direct purchase motivations – such as the wider concept of well-being.
- Increasing public interest in food – including where it comes from and how it has been produced – was noted, and linked to a growing interest in local food systems.

4.1 Quality

A key link, repeatedly highlighted in the literature, is that between animal welfare and quality: consumers perceive higher animal welfare to equate to good or better quality food (e.g. 12, 48, 113, 206, N2). Quality is, in turn, defined as being healthier (for humans), tastier and – particularly when it comes to meat – safer. This overarching concept of quality has been suggested to be one of the most important drivers of purchasing choices (12).

Consumers make judgements about food quality by using cues such as price, branding and retailer (12). They will also use more specific information about animal rearing, housing and
processing to inform their quality perceptions – though detail on animal welfare is often not an explicit component of the quality information available (178).

Consumer interest in quality derives from the perceived health, taste and safety benefits, while the animal welfare benefits are seen as an additional bonus (12). The reviewed evidence therefore suggests that animal welfare alone has low potential to appeal to people, apart from some niche markets, and that it is the associated, more tangible, quality attributes which have wider appeal (178). It is suggested that links could be made between animal welfare and quality labels or assurance schemes (52, 178).

4.2 Value for money

The issue of quality is inextricably linked to the question of value for money. Price is an important factor in consumer decision-making when it comes to the value equation (48): quality is an attribute that people are willing to pay for, and food quality – including the perceived benefits associated with it – is therefore balanced against cost to judge value (12).

4.3 Health

Health is one aspect of the quality equation, as noted above, and consumers associate higher welfare foods with healthier foods (e.g. 12, 48, 113, 206). Some of the evidence suggests that the perceived welfare-health link may be stronger in consumers’ minds than the perceived welfare-quality link – at least when considering meat, where ‘quality’ can be a relatively vague concept encapsulating characteristics such as leanness, additives and branding (4).

People associate the healthiness of food with animal health – animal welfare standards and animal health are perceived to have implications for human health (4, 12, 186). A healthy animal eating healthy food is seen as producing healthy food for the consumer – some consumers can articulate these links (e.g. stating that exercise builds up protein which is good for humans) but not all think the process through. Health and higher welfare are so inextricably linked in consumers’ minds that they are unlikely to be thinking about the two issues separately, but rather think about them simultaneously (48). Of the two, human health is generally a stronger motivator than animal health (12).

4.4 Taste

Taste is another aspect of quality, and higher animal welfare is perceived to be associated with better tasting food (4, 12, 48, 113). As with health, taste may in fact have a more powerful association with animal welfare than with the vaguer concept of ‘quality’ (4).

4.5 Safety

Safety is a further element in the broad concept of food quality, and again higher animal welfare often equates in consumers’ minds to safer food (12, 48, 113, 178). The reason why animal welfare is seen as an indicator of food safety is that these foods are perceived as being produced in more hygienic conditions (48, N2) and in a more ‘natural’ way (48). Consumers are concerned that what they perceive as ‘inhumane’ practices could have
implications for human health (186). Food standards are seen as an indicator of food safety and therefore, by association, linked with animal welfare (12).

4.6 Origins and traceability

Food safety – and therefore animal welfare – is associated with traceability, localness and Britishness (12, 48, N2), possibly more so by rural residents than urban (12). UK consumers perceive the UK food chain to be one of the most highly regulated and professional, and therefore the safest (48). Linking back again to quality, people in general tend to believe that food produced in their own country is of higher quality than imports (12, 187), because they perceive their own country’s standards to be higher than those of others. These beliefs may be in part due to patriotism but, on the other hand, shorter supply chains are also perceived to be more transparent (12). One study also suggests that the country of origin associated with a food product affects consumers’ beliefs in the presence of “experience attributes” (i.e. attributes that can be verified by the consumer) (N4).

Food origins also hold other associations in consumers’ minds. Consumer interest in local food in particular is multi-faceted (186). There is evidence to suggest that local food is perceived to be free of pests and diseases, free of pesticides and chemicals, as well as healthy and of high quality in terms of taste (N4). It is also liked for reasons to do with perceived higher quality, concern for local farmers, sustaining local farmland, and contributing to the local economy (187).

4.7 Organic

Organic farming is associated by consumers with higher animal welfare standards (49). However, in contrast to the linkages described above, where consumers tend to use animal welfare as an indicator of quality, healthiness, taste and safety, they appear to see organic as an indicator of higher welfare: Kilbride et al (2011) state that “higher animal welfare standards are reported to be one of the main attractions for consumers of organic food” (53). In another study, animal welfare – alongside regional production – was found to be one of the most important attributes in consumer decisions to buy organic foods with additional ethical attributes (176).

Consumer preferences for organic food are associated with perceptions that other food values, such as naturalness, fairness, and the environment, are important (187). In one study, ‘humanely produced’ food was more likely to be preferred by those who frequently consumed organic food, and these same consumers were also interested in environmental impacts. In a link back to the health aspect, this study also suggests that consumers perceive organic food to be healthier than conventional (186).

4.8 Assurance schemes and production systems

Consumers may also link assurance and other schemes with animal welfare. Freedom Food is the one most commonly associated with higher welfare standards: in a survey of UK consumers, 86% of those aware of the Freedom Food scheme believed it represented higher animal welfare – at least twice as many as for the other labelling schemes investigated in this study (the Red Tractor, Leaf and Organic/Soil Association) (N2). Another study suggested that farm assurance schemes in general are less likely than organic certification to be
associated with higher welfare standards by the public (53). In addition, consumers have been found to assume that production systems such as free range provide higher welfare standards than intensive systems (12).

4.9 The ‘warm glow’

There is a sense of worth associated with buying products that represent symbolic values, as opposed to more tangible benefits. Some of the associations people make around higher welfare foods are emotional – people like to think of animals as being ‘happy’ and may therefore feel that buying higher welfare food is ‘the right thing to do’ (12) or ‘makes a difference’ (48). Tapping into these moral associations and empathy for animals can therefore be effective (113, 206).

4.10 Specific species

One of the reviewed studies suggested that chicken tends to be the front-of-mind species for consumers when thinking about animal welfare, and the one that people home in on (12). Animal welfare problems are generally perceived to be worse for poultry and broiler birds than other animals such as pigs and cows. This is reflected in the concentration of poultry products in higher animal welfare purchases (177).

4.11 Stakeholder differences

Some of the reviewed sources considered the ways in which different stakeholders focus on different aspects and make different associations when thinking about animal welfare. These sources suggested that in the public mind the key ‘icons’ are space, straw and access to outdoors. The common thread between the different stakeholder groups (e.g. public, farmers, scientists) is the notion that animal should not suffer (178) – a notion less specific than the ‘five freedoms’ definition used by, for example, the Farm Animal Welfare Committee (206).

There are, however, also differences within stakeholder groups. For example, one study identified two categories of European pig farmers: those defining animal welfare in terms of animal health and production-performance, who were more likely to participate in basic assurance schemes, and those giving more weight to natural behaviour, who were more likely to participate in organic or specific welfare schemes (178).
Case study 10: Value claims on food products – added value and compensation

Onozaka and McFadden (2011) studied the relationships between claims on food products, exploring how positively perceived claims can add value to other positively perceived claims, or compensate for negatively perceived claims.

The research was carried out as a national web-based survey via a consumer panel, in 2008, and achieved an eligible sample of 1,052 respondents. Respondents made choices between pairs of products (each was randomly assigned either apples or tomatoes) which were variously labelled with information on organic production (real label), fair trade (mock-up label), carbon footprint (mock-up label) and origins (local, domestic, or imported).

Locally grown food was valued the highest, and the value of this product claim was further enhanced with fair trade certification. However, locally grown products were discounted more severely for having high carbon emissions than domestic products or imported products, though in the case of apples, imported products with a high carbon footprint were similarly discounted.

Some of the negatively valued claims (imported product and carbon footprint) can be mitigated by association with other claims (organic and fair trade). Organic certification was found to at least partially mitigate the negative valuation of imported products. In the case of tomatoes, organic certification entirely offset the negative import effect. Evidence on the organic-domestic interaction, however, was weaker. Similarly, fair trade certification can mitigate concerns about a high carbon footprint, as well as imported products. No such interaction effect, however, was found between fair trade and domestic products.

The authors suggest that some claims may be substitutable and others complementary. For example, consumers may consider ‘local food’ to address the issue of sustainability, in which case an additional ‘sustainable’ claim may add nothing, or alternatively it may be complementary and add value by applying the sustainability concept to local farmland.
5 Communicating to consumers with different levels of interest

The purpose of this research question was to break down the findings to question 1 by level of consumer interest in animal welfare (or other parallel issues). The review identified a significant body of literature investigating the characteristics of people with different levels of interest in animal welfare, and this is summarised here. However, evidence on what is effective in communicating with these different groups appears to be mainly limited to the health field. Additionally, a small number of segmentation models were uncovered which group people on the basis of their attitudes towards and interest in animal welfare. These reports often include recommendations about communicating to specific segments but such recommendations would appear to remain as yet untested.

Summary: Evidence from the literature

- Young people and women appear to be more interested in animal welfare than older people and men.
- Urban consumers may be more concerned about animal welfare than rural consumers.
- Those with higher levels of education appear to be more interested in animal welfare.
- Income and occupation can mediate the effect of communications, as those on higher incomes and in certain occupations may have better access to certain communication channels.
- The presence of children in the household may increase parents’ interest in animal welfare, but as the number of children increases the household’s ability to pay more for higher welfare foods can decrease.
- Current behaviours with regard to higher welfare foods can be indicative of consumers’ interest levels, and those who are already engaged in animal welfare issues are likely to be easier to communicate with.
- The review identified four segmentation models based on consumer attitudes to and behaviours around animal welfare.

Summary: Evidence from the interviews

- The interviewees felt that the majority of consumers do not want to hear about animal welfare, and only a small, vociferous minority are actively concerned about it.
- There does, however, seem to be a group of ‘potentially interested’ individuals where there is scope for further engagement on animal welfare.
- The size of this ‘potentially interested’ group, however, appears to be unknown.

5.1 General levels of interest

The evidence suggests that consumer attitudes to animal welfare are positive in general, but only a minority see it as an active priority and engage in higher welfare purchase behaviours (12, 177). Verbeke (2009) suggests although that active interest in animal welfare is low, all consumers are interested in the tangible quality attributes which are associated with animal welfare (178).
5.2 Characteristics of interested individuals

Age and gender

Some of the literature sources suggest that younger people tend to attach more importance to the way that food is produced in general, including its environmental impact and animal welfare (58) – one report goes as far as to claim that animal welfare is a concern for “most” young people (205). Other authors, in contrast, report that higher welfare purchasers may belong to different age groups (48). Research into ethical food purchasing behaviours has, however, shown that younger people are one of the groups who are more likely to put more effort into seeking out information about food. Women are another of these groups (176).

In terms of effective communications about animal welfare, one report draws on focus group evidence to conclude that younger people may be particularly likely to be influenced by the media, especially celebrity chefs, and by the food service sector (48). Additionally, there is some relevant evidence from the health sector, which suggests that anti-smoking social marketing interventions are effective (at least in the short term) among youth, whereas evidence for adult smoking cessation is more mixed (50). Although a number of reports describe effective (or ineffective) health communications to specific age groups, they tend to simply report on the degree of effectiveness of these campaigns, rather than identifying what it is that appeals to each age group (e.g. 83, 50, N1).

Evidence on campaigns targeted at specific genders is similarly limited in the reviewed sources, apart from Snyder’s (2007) note that such campaigns are “at least as effective” as campaigns targeting a general, broad audience (225).

Urban versus rural residence

Some of the evidence suggests that those living in rural areas, as well as those involved in agricultural production, may be less concerned about animal welfare than urban residents (178). However, research in the US found that rural residents are nearly twice as likely as non-rural residents to prefer food labelled ‘local’ over other eco-labels covering humane, living wage, locally grown, small-scale, and US-grown production (186).

With respect to a potential urban-rural divide in levels of interest in animal welfare, IGD note that there is a need to consider the dynamics of urban centres in marketing communications – for example, affluence is a factor but can be very polarised in urban areas (48). The review identified virtually no evidence on effectiveness of communications to urban versus rural residents.

Education, income and occupation

Those with higher education levels are another group that appears more likely to put more effort into seeking out information about food (176). Education has also been found to be a significant determinant of stated free-range chicken meat purchasing behaviour (51).

Some of the evidence from the health literature suggests that communication campaigns in general tend to be more effective with the better educated, who tend to have better recall of campaign messages (26). Viswanath and Bond (2007) explain this by noting that “education ... is one of the most robust predictors of access to communication services, use
of different media, and attention to health content in the media ... education supports the cognitive skills necessary to process nutrition information and acquire knowledge" (22).

The same authors also note that income and occupation can mediate the effectiveness of health communications: income because it affects access to resources (including communication services) and occupation more subtly through information flow and social norms (22).

**Family stage**

The presence of children in the household may increase people’s concern for animal welfare conditions, due to a sense of responsibility for the family. On the other hand, a larger number of children in the household may inhibit actual purchase behaviours, due to time constraints and the potentially higher cost of welfare-friendly foods (51).

**Current behaviours**

Existing behaviours are, rather obviously, related to levels of interest in animal welfare: Vanhonacker et al (2010) found a significant negative correlation between frequency of meat eating and relative importance given to animal welfare (113).

In terms of intervention effectiveness, evidence from the field of pro-environmental behaviours suggests that the impact of a communication intervention can vary depending on pre-existing behaviours: Abrahamse et al (2005) found that the effect of feedback on energy consumption depends on baseline behaviour, with high energy consumers reducing their energy use and low energy consumers increasing theirs (28).

With respect to food, and fair trade in particular, Low and Davenport (2009) recommend targeting different types of consumers with different types of interventions (190). In the field of animal welfare, IGD (2007) suggest that consumers who already buy some higher welfare foods are likely to be reached by simpler messages, while those who buy none may require more complex messages. Promotions or price reductions may be effective at engaging people whose current behaviours involve minimal welfare purchases – though concurrent wider awareness-raising may also be needed (48).

### 5.3 Segmentation models

Vanhonacker and Verbeke (2009) state that “segmenting consumers based on behavioural characteristics and gaining insights into common characteristics of consumers within a segment is essential for ... developing effective communication strategies” (177). The reviewed literature describes four segmentation models which group people according to their attitudes and behaviours around higher welfare foods. These are summarised as a case study overleaf.
**Case study 11: Segmentation models based on attitudes and behaviours around higher welfare foods**

**Verbeke and Vackier (2004)**

This segmentation model, described by Verbeke (2009), includes four segments (proportions not given), two of which are more open to animal welfare information, especially if it can be associated with increased product healthiness and/or safety.

1. **Straightforward meat lovers.** This segment includes significantly more men, and people who consume meat on a daily basis. They have low levels of interest in external information. They are focused on taste and hedonic benefits. Information on animal welfare is unlikely to affect their choices, unless it entails improved sensory quality of meat.

2. **Indifferent meat consumers.** Members of this segment have the lowest levels of involvement in meat of all the segments. They are focused on price. They are unwilling to engage with information and unlikely to respond positively to it, especially if higher prices are implied.

3. **Cautious meat lovers.** This segment includes more families with children. They are, in general, more open to information. They take pleasure in meat consumption, but perceive high risks associated with consumption. They are interested in health and nutrition information.

4. **Concerned meat consumers.** This segment also includes more families with children, who are also more open to information. They have reduced their meat consumption due to safety concerns. They are strongly influenced by negative media reports and seek reassurances from trusted sources, such as butchers (178).

**IGD (2011): attitudinal segmentation**

This report describes five segments based on consumer attitudes to animal welfare.

1. **Outdoor essential** (10% of the public). Members of this segment want a free range equivalent across all food product categories.

2. **Premium first** (23%). This segment is more focused on quality, and its members assume that there are associated welfare standards.

3. **Standard plus** (22%). For this segment, space for the animal is more important than the farming system.

4. **Mainly hens** (16%). This segment avoids caged eggs but is otherwise disengaged from animal welfare issues.

5. **Disengaged** (29%). This segment attempts not to think about meat production.

The ‘Standard plus’ and ‘Premium first’ segments are identified as ones that Freedom Food may potentially resonate with. The report also recommends that among the ‘Mainly hens’ segment awareness raising is required about the welfare of animals other than hens (N2).

**IGD (2011): behaviours segmentation**

The IGD report also includes a behavioural approach to segmentation, which draws on accompanied shopping research and identifies three segments (proportions not given).

1. **Eggs-exclusive.** This segment only purchases higher welfare options for eggs.

2. **Plus poultry (or pork).** This segment purchases higher welfare eggs plus chicken or pork/bacon, and has “blind spots” for some products.

3. **Wholly welfare.** This segment proactively chooses a mix of different options for welfare reasons (N2).

**Vanhonacker et al. (2007)**

Verbeke (2009) refers to a segmentation model developed by Vanhonacker et al. (2007), which identifies six segments in total (proportions not given except for the third group of two segments), and categorises these into three groups.

1. **Two of the segments exhibit “extreme” attitudes:**
   
   a. **One is socio-economically involved in agriculture and unconcerned about animal welfare.**
   b. **One is highly involved in animal welfare.**

2. **The next two segments exhibit modest willingness to pay for animal welfare.**

3. **For the final two segments (who made up 36% of the total), animal welfare is a high concern which influences their purchases (178).**
6 Synergies and conflicts

The purpose of this research question was to investigate areas where animal welfare and other issues can be communicated together, and to identify areas where animal welfare is in fact in conflict with other potential goals that communications will need to take into account. The evidence appears to be much more focused on the synergies than the conflicts, and the commentary often runs in parallel with that around research question 2 (about linkages and motivations). There are limited examples on ‘how to’ communicate synergies or conflicts: instead, the bulk of the evidence centres on where there is potential for synergy. This potential occurs both where consumers perceive there to be synergies and where issues are complementary in practice.

Summary: Evidence from the literature

- Concern for animal welfare may be associated with environmental concern – these two attitudes may have the same antecedents.
- Energy efficiency and land use efficiency may conflict with animal welfare interests.
- Consumers associate animal welfare with healthy and safe food, and the evidence also suggests that there are initiatives which can improve both of these aspects together.
- There may be a risk of under-emphasising other aspects of animal welfare by focusing too much on animal health.
- Research into fair trade foods suggests that consumer concern for animals in the food chain is associated with concern for humans working in the food chain.

Summary: Evidence from the interviews

- There was a strong sense amongst the interviewees that animal welfare should be included in the definition of sustainability as a “fourth pillar”.
- Interviewees perceived strong synergies between animal welfare and the growing public interest in local food as well as well-being.
- There was a consensus that where conflicts existed, communications would be difficult, but no off-the-shelf solutions were identified.

6.1 Environment

Evidence is mixed on whether environmental and animal welfare concerns are associated in people’s minds. One consumer survey found a significant positive correlation between animal welfare and ‘environmental friendliness’ of food (113). Similarly, analysis of higher welfare purchases by Defra’s pro-environmental behaviour segments showed that the most environmentally friendly segments are most likely to report making a conscious effort to buy higher welfare products (12).

Some of the literature evidence, however, contradicts this. Evidence from a focus group sorting exercise shows that environmental concerns are distanced from animal welfare when thinking about food attributes (12). Compassion in World Farming Trust (2003), writing about animal welfare in the UK curriculum, also note that conflicts may arise in some cases between animal welfare and environmental issues, highlighting the example of the curriculum explaining that intensive farming uses less land area and may utilise lower
energy inputs per animal (205). However, the report does not offer specific communication solutions.

Brook Lyndhurst (2010) suggest that this complex relationship between animal welfare and environmental issues may be due to positive attitudes towards the two issues potentially having some of the same antecedents (12).

6.2 Healthy eating

As already noted above (section 4.3), consumers perceive there to be a link between animal and human health, and may therefore be open to joint messaging about these issues. There is also evidence to support this link in practice: initiatives to reduce animal diseases and health issues which are spreadable to humans can, in some cases, have animal welfare improvements (201).

On a related note, the Farm Animal Welfare Committee (2011) note that it can be difficult to separate animal health issues from animal welfare. An implication of this is that it can lead to “an under-emphasis on non-health welfare concerns, particularly those relating to the enhancement of positive welfare” (206).

6.3 Fair trade

Deemer and Lobao (2011) report that concern with farm animal welfare is related to greater concern for human welfare in the food sector. These attitudes are complementary “insofar as humane treatment of animals and fair trade are treated as a package of attitudes about consumption”. They state that individuals holding ‘less dominionistic’ views on animals are more likely to value food that has been produced by workers who receive fair wages and are free from abusive labour practices, as well as being willing to pay more for fairly traded products (89).
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