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## Research Briefing

# Consumer Network's views on food safety risks in the home in relation to chicken

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## 1. Background

Previous research by the Food Standards Agency (FSA) shows that consumers think that food poisoning is often related to food prepared outside the home. This perception must be overcome so that consumers understand the need for care in preparing, storing and cooking food in the home and that information on food poisoning is personally relevant to them.

### 1.1 Aims

There is a responsibility for the consumer to handle raw meat safely, cook it thoroughly and use good kitchen hygiene practices to prevent or reduce the risks of food poisoning. We wanted to find out how much consumers know about food safety risks in the home in relation to chicken.

### 1.2 Method

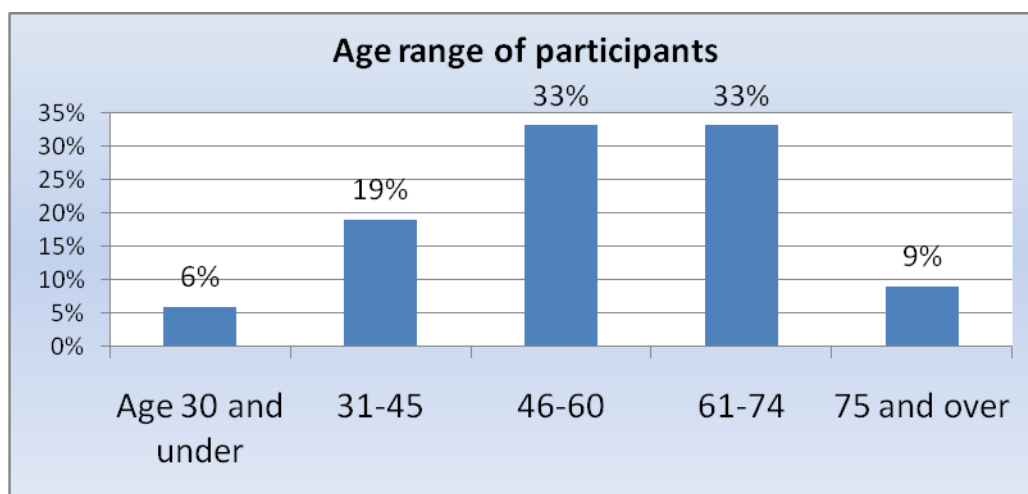
#### Survey

Members of Consumer Focus Scotland's (CFS) Consumer Network were invited to take part in a survey to gather their views on food safety risks associated with storing, preparing and handling chicken to inform our response to the FSA's consultation. The Consumer Network is a group of over 350 volunteers from all parts of Scotland who help to keep CFS informed about consumer concerns. The Network is not designed to be statistically representative but does include members from all 32 local authority areas, and has a reasonable balance over demographic factors such as age and gender. As such, the findings of this project should be viewed as indicative of wider consumer views rather than representative of the Scottish population. All Network volunteers were invited to complete the questionnaire, either online or on paper. In total, 132 Consumer Network volunteers took part in the survey, and 113 completed all of the questions (85.6%).

## 2 Findings

### 2.1 Findings - age groups

We asked the volunteers to tell us their age:



The majority of our respondents are over 45 (65%), nearly 20% are 31-45, nearly 10% are over 75 and just over 5% are aged 30 and under.

### 2.2 Findings – frequency of chicken consumption at home

We wanted to find out how often our respondents eat chicken at home.

Table 2: How often do you eat chicken at home?		Response Count
Daily	2	
4-5 times per week	3	
2-3 times per week	13	
Twice a week	35	
Once a week	36	
Once a fortnight	12	
Twice a month	4	
Twice a month	8	
Every 3 months	2	
Occasionally	3	
Never	1	
<i>answered question</i>		119
<i>skipped question</i>		13

The majority of our sample (75%) eat chicken once a week or more, while 25% eat chicken less than once a fortnight.

### 2.3 Findings – food safety risks

We asked the volunteers to tell us whether they think there are any food safety risks when preparing and eating chicken at home.

Table 3: Are there any food safety risks associated with preparing & eating chicken at home?	Response Percent	Response Count
Yes	89.7%	105
No	6.0%	7
Don't know	4.3%	5
	<i>answered question</i>	<b>117</b>
	<i>skipped question</i>	<b>15</b>

What are these risks? (please note that some volunteers gave more than one answer)

### General

Keep raw and cooked meat separately (x19)	Salmonella (x19)
Cross contamination (x19)	Campylobacter (x2)
Risks from other bacteria / germs (x14)	Care in handling chicken(x3)
Possibility of food poisoning / illness (x7)	Chicken must be stored carefully (x15)
	Use separate chopping boards (x4)

### Hygiene issues

Clean surfaces (x7)	Use anti-bacterial sprays / wipes (x2)
Clean hands, utensils and surfaces (x7)	Wash hands
Clean utensils (x2)	Use clean dish cloths and tea towels
Clean hands and utensils (x2)	

### Cooking issues

- Always defrost thoroughly (x12)
- It must be cooked thoroughly (x44)
- Care in re-heating (x7)

Knowledge of cross contamination and thorough cooking of chicken were high. However few mentioned the need for separate chopping boards. Volunteers were more aware of salmonella in relation to chicken even though there is a greater risk of campylobacter.

Hygiene knowledge was lower – in particular with regard to hand washing. FSA advice on cleaning covers worktops, chopping boards, cloths, utensils and use of dishwashers to achieve a high temperature.

## 2.4 Findings – Imagine you are preparing a medium whole chicken (1.6kg) for Sunday lunch

### 2.4.1 Packaging

We asked our members to tell us what kind of packaging the chicken comes in.

Table 4: How is your chicken usually packaged / wrapped?		Response Count
Sealed plastic wrapping	46	
Plastic tray, covered in cling-film	39	
Polythene or paper bag	8	
Supermarket packaging	6	
Foil	2	
Frozen	1	
<i>answered question</i>		<b>102</b>
<i>skipped question</i>		<b>30</b>

Almost half of our respondents found that their chicken was packed in sealed, plastic wrapping, which should avoid any juices escaping. A large number reported that their chicken was on a tray wrapped in cling-film – this sometimes results in leakages of fluids and should be handled with extra care. A small number told us their chicken was in a polythene or paper bag – again extra care would be needed to make sure that no fluids leak out onto anything else. Six people found their chicken in ‘supermarket packaging’ – which does not give us enough information to tell whether any leakages might occur, and similarly if the chicken was wrapped in foil then the consumer should check that no fluids are leaking.

### 2.4.2 Un-wrapping

We wanted to know where people usually un-wrap their chicken (100 responses)

In the sink (x29)

In the kitchen (x24)

On the kitchen worktop (x19)

On a chopping board (x12)

On a chopping board - chicken only (x7)

On the draining board (x3)

On a plate (x2)

Over the bin

On a newspaper

In the fridge

In the supermarket

Almost a third of our volunteers un-wrap their chicken in the sink, a quarter do so in the kitchen and a fifth use the kitchen worktop. Twelve people un-wrap on a chopping board and seven have a separate chopping board exclusively for chicken. Three volunteers use the draining board, two use a plate, with others saying they un-wrap over the bin or on a newspaper. Worryingly, one volunteer tells us they un-wrap their chicken in the fridge and another in the supermarket.

Many of these practices could lead to cross contamination. In order to minimise this, the chicken is best unwrapped on a chopping board kept for raw meat only, or over the roasting dish that it will be placed in for the oven

### 2.4.3 How easy is it to un-wrap the chicken

We wanted to know if there is a need to use scissors or a knife?

<b>Table 5: Usually, when un-wrapping your chicken do you use scissors or a knife?</b>	<b>Response Percent</b>	<b>Response Count</b>
Yes	81.0%	81
No	19.0%	19
Any comments?		28
	<i>answered question</i>	<b>100</b>
	<i>skipped question</i>	<b>32</b>

The majority of our respondents use scissors or a knife to un-wrap their chicken which would seem to indicate that the packaging can be quite difficult to handle.

Comments included:

- “I always put any knives or scissors used straight into the dishwasher”
- “The scissors used go straight in the washing machine”
- “I have designated scissors and they are put into dishwasher after use”
- “The packaging can be fiddly and require more handling than desired”
- “Both knife and scissors are cleaned with paper towel and anti-bacterial cleaner after use”

### 2.4.4 Preparation

We wanted our volunteers to tell us if they take any precautions when handling their whole roast chicken.

<b>Table 6: Do you take any precautions when handling a whole roast chicken?</b>	<b>Response Percent</b>	<b>Response Count</b>
Yes	77.0%	77
No	23.0%	23
	<i>answered question</i>	<b>100</b>
	<i>skipped question</i>	<b>32</b>

What are these precautions? (please note that some people gave more than one answer)

Take care with hygiene (x55)	Use anti-bacterial sprays / wipes (x10)
Keep chicken away from other foods (x16)	Make sure the chicken is defrosted (x2)
Wash the chicken (x14)	Make sure chicken is fresh
Dispose of the wrapping immediately (x12)	

Some comments included:

- “Rinse utensils and put in dishwasher and wash my hands”
- “Wash hands before and after preparation, and before handling other food. Wash utensils and board immediately, or rinse and load into dishwasher. Clean worktop around preparation area with anti-bacterial spray”

- “Make sure knife is clean and surfaces are clean - do not put chicken down on any surface other than the dish it is to be cooked in”
- “Scrub board after putting the chicken in container in which it is to be cooked”
- “Wash the bird thoroughly, dry with kitchen paper, avoid bird dripping over work tops and place immediately into roasting dish”
- “Over the sink or separate chopping board to one used for veg / cooked food - sometimes do it over actual roasting tin”
- “Put newspaper on work surface, put chicken straight into cooking vessel when unwrapped, washing hands, roll up paper to go into bin, wipe down surfaces , taps etc with antibacterial spray or dilute bleach etc”
- “Get roasting tray ready, wash the chicken inside and out with cold water, ensure raw chicken does not come into contact with anything other than the roasting tray, thoroughly wash my hands each touch of the raw meat”

#### 2.4.5 Any other preparation before putting into the oven?

We wanted to find out if people do anything else to their chicken before putting it into the oven (please note that some people gave more than one answer).

Wash or wipe it (x40)

Check the insides are clean and clear of giblets (x16)

Season it (x14)

Cover with tin foil (x13)

Cover in butter or oil (x10)

Stuff it (x8)

Avoid washing it (x5)

Wash hands (x2)

Surprisingly, 47% of our sample told us that they would wash or wipe their chicken before cooking it:

- “I wash it cold running water and dry with kitchen paper”
- “If it is a whole chicken I rinse in out under a cold running water”
- “Rinse it out and wash it”

Only 7% stated that they do not wash their chicken as advised by the Food Standards Agency: “Lots of people think they should wash raw chicken, but there's no need. Any germs on it will be killed if you cook it thoroughly. In fact, if you do wash chicken, you could splash germs onto the sink, worktop, dishes, or anything else nearby.”

- “I don't wash it, but some people seem to think you need to”
- “I avoid washing it as cooking will kill the germs”

#### 2.4.6 Cooking

We wanted to find out how people decide how long to cook their chicken (please note that some people gave more than one answer).

According to instructions on the packaging (x40)

Previous experience (x25)

Depends on the weight / size of the chicken (x25)

Cookery book (x6)

I always add a bit of extra time (x6)                      3-4 hours  
 Until it's golden brown                                      I guess

### 2.4.7 Deciding when the chicken is ready

We wanted to find out how people decide when their chicken is cooked (please note that some people gave more than one answer).

Juices run clear (x67)  
 - 14 people said they would check the thigh  
 - 7 would check the thickest part of the bird  
 - 6 would check the breast

Pierce with skewer / knife / fork (x14)

Thermometer (x8)

Check flesh - no pink (x7)

Time (x4)

Until tender (x3)

Previous experience (x2)

By sight (x2)

Taste

Knowledge here was high with the majority mentioning clear juices and others indicating practices that could mean they were looking for these.

### 2.4.8 Any other comments on preparing and cooking a chicken?

“Don't cook stuffing inside”

“Don't leave it lying around the kitchen”

“Never let an uncooked chicken come into contact with any other food, especially meat”

“Always ensure that your hands are very clean before and after preparation”

## 2.5 Findings - defrosting

We asked the participants to tell us how they defrost chicken.

<b>Table 7: How do you defrost your chicken?</b>	<b>Response Percent</b>	<b>Response Count</b>
By running it under hot water	2.3%	2
By covering it and putting it on a plate in the fridge	69.8%	60
By putting it near the window to de-frost in the sunlight	1.2%	1
By microwaving it	9.3%	8
By leaving it on the work surface at room temperature	38.4%	33
Don't know	2.3%	2
	<b><i>answered question</i></b>	<b>86</b>
	<b><i>skipped question</i></b>	<b>46</b>

The majority of our respondents are correct in defrosting their chicken on a covered plate in the fridge. However, nearly a third said they would leave it on the work surface at room temperature which could lead to issues of food poisoning.

Some comments included:

- “I prefer a large bucket of cold water. I test the cavity to ensure that chicken is defrosted”
- “I don't buy frozen chicken”
- “I put it in the fridge overnight”

## 2.6 Findings - getting your chicken home

<b>Table 8: Which items do you pack together?</b>	<b>Response Percent</b>	<b>Response Count</b>
Chicken and bread in one bag and mushrooms in the other	0.0%	0
Bread and mushrooms in one bag and chicken in the other	79.2%	80
Mushrooms and chicken in one bag and bread in the other	5.9%	6
Pack all items in the same bag	11.9%	12
Don't know	3.0%	3
<i>answered question</i>		<b>101</b>
<i>skipped question</i>		<b>31</b>

The majority of our volunteers are right in packing the chicken in a separate bag to avoid any leaking fluids getting onto other items.

Some of our members said:

- “ I don't think about the safety issues here”
- “I want to use as least bags as possible so pack everything into one”
- “The cashier often wraps chicken in a separate bag before packing”

## 2.7 Findings - storage

### 2.7.1 Raw chicken

We wanted to find out where people store raw chicken in their fridge.

<b>Table 9: Where do you store raw chicken in your fridge?</b>	<b>Response Percent</b>	<b>Response Count</b>
Top shelf	9.1%	9
Middle shelf	11.1%	11
Bottom shelf	70.7%	70
Drawers	8.1%	8
Door	0.0%	0
Don't know	1.0%	1
<i>answered question</i>		<b>99</b>
<i>skipped question</i>		<b>33</b>

The majority of our respondents are correct in storing raw chicken on the bottom shelf of their fridge as this eliminates the possibility of any juices dripping onto other foodstuffs. However, 20% would store it on the top or middle shelf which could lead to other items being contaminated. Usually, people keep vegetables in the drawers of their fridge and so storing raw chicken in there could cause problems – the chicken would need to be stored on its own.

### 2.7.2 Cooked chicken

We wanted to know what people do with any left-over cooked chicken - where and how do they store it? (please note that some people gave more than one answer)

Covered in the fridge (x67)	In a plastic container (x7)
In the fridge (x18)	On a plate covered in foil (x5)
Freeze it (x12)	In a plastic bag

How long do people keep left-over cooked chicken? (98 responses)

24 hours (x36)	
1-2 days (x31)	Freeze it (x4)
2-3 days (x15)	1 week
3-4 days (x10)	2-3 weeks

The FSA recommends that leftovers are cooled as quickly as possible (ideally within one to two hours) and stored in the fridge. Any leftovers should be eaten within two days, except for cooked rice, which you should eat within one day to help avoid food poisoning.

## 2.8 Findings - cross contamination

We wanted to find out how much people know about cross contamination, where it can occur and where to look for advice on food safety issues.

### 2.8.1 What do you understand by the term 'cross contamination'?

Bacteria or germs are transferred from one foodstuff to another (x41)  
 Raw meat coming into contact with cooked meat (x22)  
 Poor hygiene when handling different foodstuffs (x19)  
 Raw chicken coming into contact with other foodstuffs (x6)  
 Don't know (x3)  
 Food poisoning  
 Contact with un-fresh foodstuffs

### 2.8.2 Where do you think the main areas for cross contamination are in the kitchen? (please note that some people gave more than one answer)

Worktops (x69)	Dish cloths (x7)
Chopping boards (x44)	Taps (x6)
Fridge (x43)	Vegetables (x6)
Utensils (x28)	Handles (x4)
Hands (x20)	Draining board (x3)
Meat (x14)	Tea towels (x3)
Kitchen storage (x10)	Crockery
Sink (x10)	Shopping bags

Everywhere  
Shops  
Light switches

Pet bowls  
Litter trays

### 2.8.3 Where do you look for advice on preparing, handling and cooking chicken?

On the packaging / labels (x42)

Cookery book (x25)

Common sense / prior experience (x20)

Internet (x10)

Taught at school (x6)

Family (x5)

Food Standards Agency (x3)

TV cookery programmes (x2)

Adverts

Magazines

Which?

The majority of our volunteers would look for advice on the labels and packaging, and the Food Standards Agency advise consumers to look for:

- date instructions, such as 'use by' and 'best before' - to avoid or reduce the risk of food poisoning
- defrosting and cooking times - to make sure that any harmful bugs are killed
- storage instructions and directions for preparing food - because correct handling can protect against food poisoning

## 2.9 Campylobacter

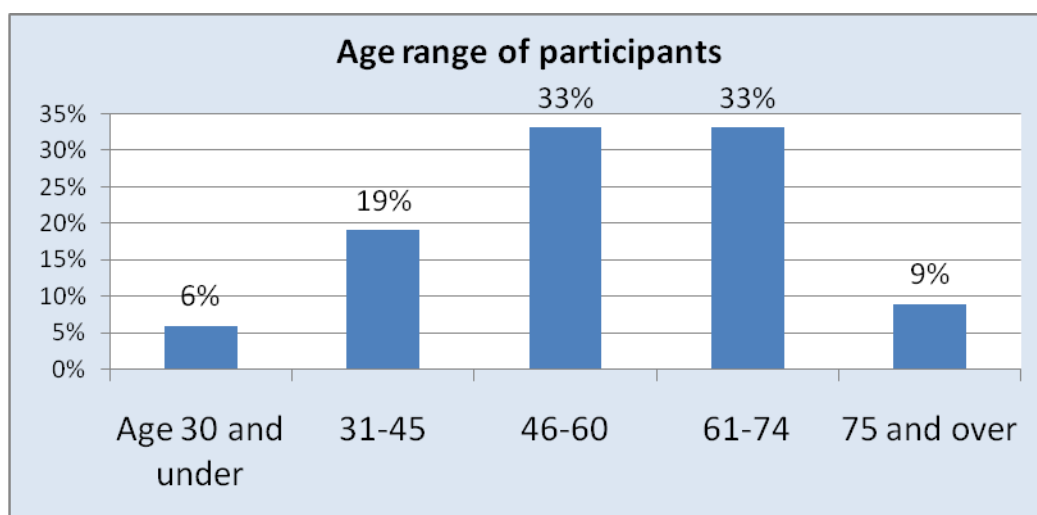
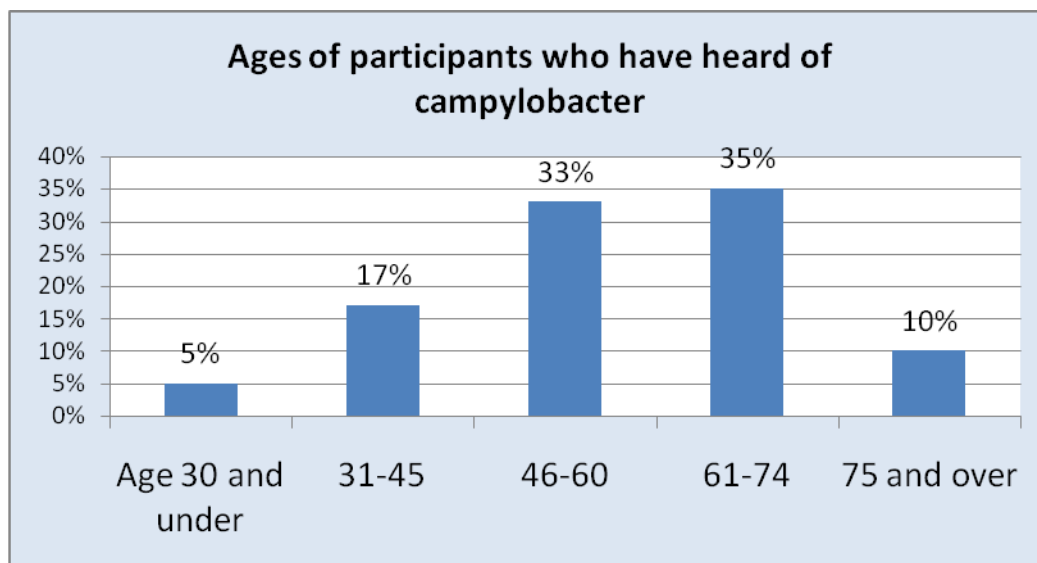
We wanted to find out if people have heard of Campylobacter.

<b>Table 10: Have you heard of the food poisoning bacteria Campylobacter?</b>	<b>Response Percent</b>	<b>Response Count</b>
Yes	60.4%	61
No	39.6%	40
	<i>answered question</i>	<b>101</b>
	<i>skipped question</i>	<b>31</b>

Some comments included:

- “It has overtaken Salmonella as the most reported”
- “Sadly, my husband contracted this abroad and was desperately ill. He de-hydrated very seriously and now, six years later still has problems with 'reactive arthritis' which was caused by this and resulted in partial paralysis and respiratory problems at the time”
- “My daughter had it after eating chicken from a restaurant”
- “My niece did a dissertation on this and got first class honours degree”
- “Have heard of it but unsure what would prevent spread and what kills off this form of bacteria”
- “I have had this food poisoning”

We broke down the data so that we could see whether younger people had a greater awareness about campylobacter. Interestingly, the ages of those who have heard of campylobacter fall into a similar range as the sample as a whole. This means that age does not seem to be a factor in knowledge about campylobacter.



## 2.10 Findings – manufacturers and retailers

We wanted to find out if our members think that there is anything that manufacturers / retailers can do to improve the communication of food safety information to consumers?

Suggestions included:

- “Give advice on packaging in large writing, rather like a health warning on cigarette packets”
- “Make sure advice is on the FRONT of every package”
- “Large print, easy to understand”
- “Campaign in schools starting at primary level”
- “State a warning on the package to use clean equipment at all times”

- “Bigger instructions - perhaps using symbols - e.g. showing hands to be washed and knives / chopping boards for separate use”
- “Use more diagrams to help those who are illiterate”
- “Very difficult as too much warning of the risks will suggest that the food is unsafe. Simple and short if any advice is offered”

## 2.11 Findings - any other comments?

### Do you have anything else to say about food safety in relation to chicken?

Our volunteers gave some interesting comments and suggestions as follows:

- “Chicken should be cooked properly and kept away from other foods”
- “Education about the hidden dangers, starting at primary school”
- “Always wash your hands before handling things. Make sure the water is hot and use soap and nail brush”
- “If in doubt - over-cook!”
- “Be really thorough in washing up and wiping surfaces and chopping boards”
- “Food poisoning from chicken is extremely unpleasant and best to be avoided”
- “I always look for British chicken and pay extra rather than buy cheap chicken from countries that have had bird flu”
- “In shops you are touching contaminated wrapping with no means of cleaning your hands and then picking up bread/vegetables etc”
- “I wonder if increased use of water as a plumping agent for chicken (i.e. adding value by injecting water) makes the chicken more likely to make a mess and therefore lead to greater spread of bugs”
- “On occasion fresh chicken is already ‘leaking’ from its plastic packing in supermarket, so there is possible cross contamination in trolley and at checkout. A large bag could be provided where the chicken is displayed which could be used to prevent drips. Supermarkets provide these for flowers so why not for chicken?”

### 3 Conclusions

The survey of Consumer Network volunteers has provided a useful insight into how members of the public view food safety issues in the home – particularly in relation to chicken. As noted in the introduction, the findings of this project should be viewed as indicative of wider consumer views, rather than as being representative of the Scottish population.

#### Key findings

##### Age range

65% of our respondents are over 45  
20% are 31-45  
nearly 10% are 75 and over  
just over 5% are 30 and under

##### Chicken consumption

75% of our sample eats chicken once a week or more

##### Knowledge of risks

90% know that there are food safety risks associated with preparing and cooking chicken at home

##### Preparation

77% would take precautions when preparing a whole raw chicken for roasting, of these would:

47% - wash the chicken (which is not advised)  
18% - check insides are clean and clear of giblets  
7% - avoid washing the chicken

##### Cooking

40% would consult the instructions on the packaging to decide how long to cook the chicken for  
25% would use their previous experience  
25% would calculate the timing according to the weight of the chicken  
66% would make sure their chicken is ready by checking that the juices run clear

##### Defrosting

70% would cover the chicken on a plate in the fridge to defrost

##### Packing your shopping

79% would pack their chicken in a separate bag to avoid any leakage of fluid getting onto other items

## Storage

- 70% would store raw chicken on the bottom shelf of the fridge
- 66% would store cooked chicken covered in the fridge
- 36% would keep cooked chicken for 24 hours
- 31% would keep cooked chicken for 1-2 days

## Cross contamination

- 40% say this is caused by bacteria/germs being transferred from one foodstuff to another
- 21% say this is caused by raw meat coming into contact with cooked meat
- 18% say this is caused by poor hygiene when handling different foodstuffs
- 68% think the main area for cross contamination is the kitchen worktop
- 43% think the main area for cross contamination is a chopping board
- 42% think the main area for cross contamination is the fridge

## Advice on preparing, handling and cooking chicken

- 43% would look on the packaging / label
- 26% would use a cookery book
- 20% would use common sense / previous experience

## Campylobacter

- 60% of our respondents have heard of campylobacter

**The findings of this report will be used to inform Consumer Focus Scotland's response to the Food Standards Agency (FSA) Consultation 'The FSA Foodborne Disease Strategy 2010-2015'.**

### About Consumer Focus Scotland

Consumer Focus Scotland started work on 1 October 2008. Consumer Focus Scotland was formed through the merger of three organisations – the Scottish Consumer Council, energywatch Scotland, and Postwatch Scotland.

Consumer Focus Scotland works to secure a fair deal for consumers in both private markets and public services, by promoting fairer markets, greater value for money, and improved customer service. While producers of goods and services are usually well-organised and articulate when protecting their own interests, individual consumers very often are not. The people whose interests we represent are consumers of all kinds: they may be patients, tenants, parents, solicitors' clients, public transport users, or shoppers in a supermarket.

We have a commitment to work on behalf of vulnerable consumers, particularly in the energy and post sectors, and a duty to work on issues of sustainable development.