



Delta Partnership

Food Standards Agency Science and Evidence Strategy

**Workshop with external stakeholders,
6-7 May 2009**

Workshop report

Contents

Section 1 – Overview	4
1.1 Workshop purpose.....	4
1.2 Notes from the first plenary session	5
1.3 Notes from the second plenary session.....	5
1.4 Notes from the final plenary session.....	6
1.5 General notes from the ‘car park’	6
2. Outcome A: Imported food entering the UK is safe to eat	7
2.1 Stakeholder and success analysis	7
2.2 General issues.....	8
2.3 Outcome A: Imported food entering the UK is safe to eat.....	9
3. Outcome B: Food produced or sold in the UK is safe to eat	11
3.1 Stakeholder and success analysis	11
3.2 General issues.....	12
3.3 Outcome B: Food produced for sale in the UK is safe to eat (note revised wording of this outcome).....	13
4. Outcome C: Consumers make informed choices about food safety when eating outside the home, prepare and cook food safely at home	15
4.1 Stakeholder and success analysis	15
4.2 General issues.....	16
4.3 Outcome C: Consumers make informed choices about food safety when eating outside the home, prepare and cook food safely at home.....	17
5. Outcome D: A proportionate, risk-based regulatory regime relating to food, which is clear about the responsibilities of food business operator and others & which generate public confidence in food	19
5.1 Stakeholder and success analysis	Error! Bookmark not defined.
5.2 General issues.....	Error! Bookmark not defined.
5.3 Outcome D: A proportionate, risk-based regulatory regime relating to food, which is clear about the responsibilities of food business operator and others & which generate public confidence in food.....	Error! Bookmark not defined.
6. Outcome E: Retail products and catering meals are healthier	24
6.1 Stakeholder and success analysis	24
6.2 General issues.....	25
6.3 Outcome E: Retail products and catering meals are healthier.....	26

7. Outcome F: Retailers, manufacturers and caterers provide the nutrition information consumers needs to make healthy choices	28
7.1 Stakeholder and success analysis	28
7.2 General issues	29
7.3 Outcome F: Retailers, manufacturers and caterers provide the nutrition information consumers needs to make healthy choices	30
8. Outcome G: Consumers understand about food and a healthy diet, have the skills needed to choose, prepare and cook healthy meals and are motivated to do so	33
8.1 Stakeholder and success analysis	33
8.2 General issues	35
8.3: Outcome G - Consumers understand about food and a healthy diet, have the skills needed to choose, prepare and cook healthy meals and are motivated to do so	36
Annex A: List of attendees	39

Section 1 – Overview

1.1 Workshop purpose

The stated purpose of the workshop was: *To bring science stakeholders together to share views on the proposed strategic priorities and to explore the associated science and evidence needs in more detail.* It was held as part of the FSA's commitment to widespread stakeholder engagement in the Science and Evidence Strategy, which is linked to the ongoing consultation on the [FSA's Strategy 2010-2025](#).

The slide pack annexed to this document outlines in more detail how the two processes fit together.

The key question addressed in the workshop was: *How do the FSA's new strategic priorities shape the search for evidence as opposed to science? How can this used to help to deliver current priorities, evaluate progress and inform future priorities?* The seven strategic outcomes and their associated priorities identified in the FSA Strategy document formed the basis of group work for the two days to create a strong 'demand-pull' from the strategic priorities to the evidence base.

The workshop was divided into three sessions over two days, using a process which invited regular challenge and critique of one group's work by another. In this way most participants were able to contribute to all seven outcomes over the two days:

Session 1	Day 1 13.00 – 14.00	To set the workshop in context and invite participant comments on the strategic outcomes set out in the FSA strategy consultation document
Session 2	Day 1 14.00 – 18.00	To use the FSA's strategic outcomes to help shape the science & evidence base, by asking, for each outcome: <ul style="list-style-type: none"> • Why is this important, and to whom? To whom might it be important in future? • Given the breadth of stakeholder interest you have outlined, what would success for this outcome look like? How would we know when the FSA has done a good job of achieving this outcome? • Given what we think success looks like, what will we need to know about this outcome?
Session 3	Day 2 09.00 – 12.30	To challenge and refine the outputs from Day 1, and create an evidence map around the three categories of <ul style="list-style-type: none"> • Data • Analytical evidence • Evidence from stakeholder & consumer opinion <p>Identifying <i>what</i> evidence is needed, <i>how</i> it could be procured, and <i>with whom</i>.</p>

This report presents the raw data transcribed from the workshop, with no summarising or editing. Please send any comments or amendments to Alisdair Wotherspoon and Patrick Miller by 29 May 2009:

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1.2 Notes from the first plenary session

Initial comments/questions in clear type, *FSA responses in italics*

1. Scores on the doors – explained that it is a scheme to put the food safety ‘scores’ from inspections on the doors of restaurants. Need to think about a different way of describing this in the final document, to make it comprehensible.
2. European dimension is very important – particularly for imported food. Priority under the 4th column (outcome D) does capture this, but perhaps not well enough?
3. Foodstuffs: appears to be only for human consumption, but need to be sure to capture the FSA’s remit across all foodstuffs, including animal feed.
4. How is this event synchronised with the nutrition research consultation?
The latter will feed into the former, but the FSA did want to take a very detailed look at nutrition research on its own. This workshop will look at the broader issue – how should the FSA balance priorities across all of its evidence needs?
5. Sustainability – one of the key things for the strategy: how is it addressed? *Will be taken forward in conjunction with Defra, who are responsible for the sustainability of the food chain.*
6. Inconsistency in the way the outcomes are expressed – 1 & 2 state ‘safe’ but the others talk about ‘healthier’. Need to be consistent between describing a state or an improvement.
7. Food fraud? How is this covered? Food can be safe and healthy but still a rip-off (e.g. fraudulently-described free range or organic): and this was part of the original statute for the FSA when it was constituted.
FSA response – The main priority for the FSA in terms of a strategic approach to its work is public health. Consumer protection will be there, but not a strategic priority - will consider how to reflect this work in the strategy.
8. Nutraceuticals? Is this something for the future? *FSA supports Local Authorities in bringing action, though the legal framework has changed in the EU which means that the FSA’s role in dealing with nutraceuticals is mainly in Europe, not at the UK level.* Comment from EFSA: increasing amount of resources are being devoted to issues such as nutraceuticals, which is a big issue for EFSA.
9. Emerging technologies – need for more research on this?
10. Food and feed as a highly regulated area; bigger picture in terms of efficiencies in relationships between the different agencies: could be a priority under the fourth outcome.
11. Shared objectives with DH? Specifically on reductions in saturated fats, salt & sugar, to deal with obesity. Should these outcomes talk about energy rather than sugar, as a wider issue?

1.3 Notes from the second plenary session

Patrick’s comments:

- a. Baseline data is emerging as an important issue – how can we monitor changes?
- b. If we’re to be outcome-focused we need baseline data and the methodologies to understand the current picture
- c. Learning more from what’s already out there – using that information more, collaborating more effectively, getting better alignment with potential collaborators

Alasdair's comments:

- a. Robustness of data sets
- b. Co-ordinate data needs better with others
- c. Clarity of objectives is important, particularly when the evidence needs flow from the objectives.

1.4 Notes from the final plenary session

It would be useful to have a list of the commissioners of research in the FSA – not just the policy leads, but also those who actually commission research. Bodies doing joint research aren't necessarily those who commission it.

Might we miss the 'D' end of R&D? The 'Big R' is the basic research that needs to be done in order to understand what's needed; the 'Big D' is the development and refinement of tools. Easy to miss the D because you're focusing on the R.

The Science & Evidence Strategy has a broader time horizon than the Strategic Plan.

1.5 General notes from the 'car park'

The 'car park' was used to identify issues which fell outside the remit of the workshop. Participants used it to pose questions to the FSA or to make observations on the strategic outcomes.

- Do we need to redefine a healthy balanced diet with a low carbon footprint?
- Do Port Health Authorities have sufficient resources tools to do job?
- Need to develop rapid screening tests for broad range of 'toxic things' to identify high risk and reduce 'animal' testing
- Training and employment opportunities to provide skills
- Measure improvements in public health – long term markers difficult so develop indicator biomarkers of early success in improved diet and health
- More (any!) coordination of foresight / horizon scanning across government; cross-learning from risk assessment processes used by others
- Where does allergen labelling fit in?
- Is sugar a substitute for energy – no!
- No mention of calories
- Joining up messages around sustainability and food safety
- EU and international improvements
- How to incorporate 'portion' sizes not just composition
- Food signposting e.g. traffic light system not clear to most consumers

2. Outcome A: Imported food entering the UK is safe to eat

2.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
Consumers	Public health
Central / local government; Port Health Authorities	Assurance to public; Enforcement costs Cross alerting Incident responsiveness Priority given to monitoring imports
Industry – whole chain	Economic and enforcement costs Consumer trust Reputation
Public health / NHS	Costs
Vets / animal health	Feed – zoonoses
EU / EFSA / original countries / inspectors who allow contaminated food to be imported	Reputation Economic loss
Press / media / on-line	Sell papers Public information?
Pressure groups – FOE	Concern about GM foods
Home Office / Police	Food security / food shortages Terrorism
Foreign and Commonwealth	International trade Consistent rules to deal with contaminated food
Nutriceuticals	Regulatory

Given what we know about who this is important to and why, what would success criteria look like?

- Fewer food borne illness incidents and better chemical safety attributable to imported food
- More imported food meeting food safety criteria at all parts of food chain
- Less Rapid Alert System Food and Feed (RASFF) notification
- Less food scares in the media
- Less food borne illness for population and for visitors to the country of manufacture
- Avoidance of incidents from unfamiliar ingredients or foodstuffs at source or in food chain (because of improved horizon scanning and better understanding of nature of ingredients)
- FSA recognised as model of best practice

2.2 General issues

- Need to consider risks from foods 'imported' from or via other EU member states
- Clarify on what is and what is not a 'food' – especially with regard to new / future products and those from third countries; e.g. overlap with stimulants, nutraceuticals
- Should success be based on whether food is 'safe' (i.e. no illness - proportionate) or 'contamination' (even if risk is negligible; what consumer thinks 'safe' means)
- Is any enforcement action taken when imports fail?
- Too many incident alerting / reporting mechanisms; confused system – e.g. difference between human health reporting and food reporting mechanisms
- Ring fence local authority sampling budget and coordinated sampling between LAs
- Contaminated food being re-exported to third country due to no legal mechanism to get it destroyed if it hasn't entered UK
- Clarity needed on whether imported food outcome is third party or wider
- Funding and expense monitoring of illegal products even if safe, e.g. irradiated food – be tougher in Europe

2.3 Outcome A: Imported food entering the UK is safe to eat

Programme brief: Identify and capture all of the current data sources (from upstream - e.g. import testing - to downstream - e.g. results of outbreak investigations) to develop a shared integrated database. This would allow analysis to identify gaps, completeness of current expected activities, quality of the data and its value, and proposal of improvements.

Key areas for investigation are:

- Definition of 'safe'
- Traceability – improvements to ensure appropriate responsiveness
- International collaboration to deliver improvement

	Data	Analytical Evidence	Evidence from stakeholder / consumer opinion
What	<ul style="list-style-type: none"> • Number of food scares linked with imported food published in media • Intelligence from industry on high risk issues – e.g. rejections by industry (retailers) on grounds of safety; information to FSA • What food / ingredients are being imported; routes / pathways? • Measures to control illegal imports • Tracking food ingredients – knowledge; more important for non-animal as animal already OK • Sampling data on imported foods / ingredients: failures, trends, organisations, risk factors • Traceability systems – range, speed, effectiveness • Information on trends – EU systems, e.g. OLAF re imported foods • Veterinary certification – usefulness, effectiveness, appropriateness 	<ul style="list-style-type: none"> • Evidence of what constitutes 'unsafe'; what's the measure? – science e.g. MRL • Completeness of current requirements on import testing • Integrating the knowledge and measuring change • Ensure it is risk based 	<ul style="list-style-type: none"> • Definition of 'safe' • Consumer opinion from key 'at risk' groups from imported foodstuffs; ethnic foods • Consumer understanding of 'safe' and unsafe' – what do consumers want from safe / unsafe advice • Consumer perceptions of safe – safe to whom? • Port Health views on safety / risk / proportionality • Industry intelligence – e.g. potential suppliers who have been rejected – happening (FDF)?

	Data	Analytical Evidence	Evidence from stakeholder / consumer opinion
	<ul style="list-style-type: none"> Integrated data sets to generate a shared database – Health Protection Agency, Health Protection Scotland, FSA, FSS, Defra, Home Office ('bush meat'), International alerts; once set up then improve quality and quantity of data Database of food borne incidents (FBI) and chemical contaminants – imported foodstuffs; sampling to avoid FBI and chemical incidents 		
How		<ul style="list-style-type: none"> Study – are we complying with current minimum regulatory requirements across all commodities (which will show up problems with integrated data sets) Start with examination of 'step change' project Develop a risk based sampling programme for BIP – identify risky foods, from which countries, for what analysis 	<ul style="list-style-type: none"> Risk assessment Consumer opinions on what they want / understand / behaviour
	<ul style="list-style-type: none"> FSA should lead – dialogues start UK; EU later 		
With whom		<ul style="list-style-type: none"> MS – take different views on risk management – more diversion 	<ul style="list-style-type: none"> Experts HSE committees Legal Public health reps Port health officers; EHO / TSO in LA
	<ul style="list-style-type: none"> APHA and industry, e.g. BRC, FDF, Port Health 		
Links		<ul style="list-style-type: none"> Benchmark against other countries we export to? 	

3. Outcome B: Food produced or sold in the UK is safe to eat

3.1 Stakeholder and success analysis

Suggested change to wording of the outcome – **food produced for sale in the UK is safe to eat**

To whom is this outcome important? To whom might it be important in the future?	Why?
Consumers – sub groups – <ul style="list-style-type: none"> • Pregnant, allergies, • Vulnerable consumers • Ethnic groups 	<ul style="list-style-type: none"> • Public health (acute & chronic) • More susceptible • Religious beliefs / tradition
Retailers Caterers (mobile and fixed) Processors	Reputation, business viability, marketing tool Costs Maintain local market share Safety of employees
Indirect: <ul style="list-style-type: none"> • Laboratories • Regulators • Health Agencies 	<ul style="list-style-type: none"> • Workload, capacity, capability, turnaround times • Key responsibility of regulators = risk of penalties
Retailers <ul style="list-style-type: none"> • Farm Markets • Farm Shops • Internet 	<ul style="list-style-type: none"> • Assess environmental impact – food may be safe but environmental impact during production? • Risk of creating an illegal market route for unsafe food
Multinationals, e.g. companies with an interest in GM	Investigate potential risks associated with new technologies, e.g. GM, nanotechnology

Given what we know about who this is important to and why, what would success criteria look like?

Improving public health outcomes: improving indicators of health	Improving indicators of health <ul style="list-style-type: none"> - How to measure? Particularly chemical contaminants exposure (total diet study) Less outbreaks? Fewer cases / outbreaks? - What indicator? Reduced visits to GPs (food-related visits)? - What criteria? - What targets? Smaller component of food related in Infectious Intestinal Disease study? Monitoring data Benchmarking is a difficult issue
Economic health to UK economy (reputation of products, e.g. NZ)	Better export volumes / prices UK products highest share of UK market Reduced costs of food related public health impacts Costs of employee ill health (during production/processing)

Improved consumer confidence in UK products	(if the outcome is about UK products)
Fewer product recalls and food alerts	Numbers of alerts / recalls
Fewer adverse food inspections	Less resource into inspections Satisfactory veterinary inspections by EU Less official control testing failures
Less illness in high risk groups (pregnant women, elderly, ethnic minorities)	Epidemiology, health monitoring Monitoring of high-risk products
Improved food handling and preparation in the home	Monitoring studies (before and after), less illness?
Less resource spent on BSE	FSA budgets (MHS budgets)
Decreased pathogen content in food	Surveillance studies, official controls
Less waste of food through product rejection etc	Industry returns
Number of UK companies using new technologies	FSA industry surveys

3.2 General issues

- Column 2 / issue B - food 'sold' in the UK could be imported – do we mean 'food produced and sold' in the UK?
- Issue B – food produced or sold – overlap with issue A re imported foods; should refer to 'produced for sale' (but what about foods not produced for sale)
- Issue B – food for export – is this covered by the descriptor 'food produced in the UK' – overlap with issue D
- Issue B – 'safe' – what does this mean and to whom?; what about vulnerable groups; 'safer' better
- Healthier choices – healthier than what?

3.3 Outcome B: Food produced for sale in the UK is safe to eat (note revised wording of this outcome)

Programme brief: The first task is to define what ‘safe to eat’ means. Having defined this, undertake a review of the current status of UK products with respect to: illness in UK consumers, food surveillance data with respect to microbiological and chemical contaminants, and emerging threats. Following this, identify data gaps and priorities and how these can be addressed. Concurrently review UK capability to respond to current and emerging food safety threats. Following analysis, identify optimal intervention strategies with respect to guidance/education, regulation, training, monitoring.

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
What	<p>3: Epidemiology: identify pragmatic data reporting systems including a joined up approach across data collection agencies</p> <p>3: Robust epidemiological data on health effects related to foods</p> <p>8: Monitoring: information on trends in product recalls</p> <p>8: Monitoring: inspection returns</p> <p>8: Food monitoring: establish good baseline data on key indicators: do these exist for micro/chems? A programme of repeats (otherwise how to measure improvements?)</p> <p>8: Research on occurrence and distribution of chemical contaminants in foods</p> <p>Monitoring: food waste during processing and distribution</p> <p>Data on mycotoxin contamination – impact of environmental change</p> <p>Research into optimising safety margins (in e.g. canning) to reduce energy costs</p> <p>Investigate potential spread of new pathogens into UK, inc. viruses</p>	<p>1: Information relevant to defined at risk groups as a possible indicator of general safety of food?</p> <p>2, 3: Identify good international models & practices in epidemiology</p> <p>3: What constitutes a good epidemiological system? FSA role in this?</p> <p>3: To get better / more robust data sets to get improved communication: local/regional/national/ international, and food related health stats</p> <p>8: Is safety compromised by post sale/supply practices? Identify significant practices impacting on safety (including social factors)</p> <p>8: Investigate potential spread of contaminants into UK, e.g. the next Sudan, melamine</p> <p>8: Monitor farm pathogens: zoonoses, aflatoxins, effects of source & cattle</p> <p>8: Establish clearer linkages between food safety issues & health effects, and associated costs</p> <p>11: Effect of smart packaging on food safety & wastage</p> <p>13: Determination of acceptable limits particularly with new technologies</p> <p>13: Fully research and review new technologies and their safety & efficacy, e.g. pulsed-light pasteurisation</p>	<p>What is ‘safe’ food?</p> <p>Consumer confidence in UK products</p> <p>4: Need good data on eating practices of consumers, not just what they eat</p> <p>6: Feedback from industry/regulators on FSA interventions</p> <p>7: Behavioural studies on business cultures, i.e. better understanding of why people do what they do</p>

What (cont'd)	<p>8: Monitoring: research on pathogen loads in foods and how to decrease:</p> <ul style="list-style-type: none"> • What are the key pathogens? • Look broader than currently regulated pathogens • Future impacts of environmental changes (trade, climate etc) <p>8: Investigate wider range of pathogens, e.g. norovirus: need more data and research</p>		<p>8: Information on relevant initiatives in other Depts and Agencies</p> <p>Genetic characterisation of disease</p>
How	<p>3: Establish new data collection systems to fill gaps</p> <p>3,8: Make more use of industry data</p> <p>4: Who has ownership of data? How robust is it? Can information be shared? Identify gaps</p> <p>4: Data security</p> <p>12: Temperature control in small food retailers</p>	<p>1: Targeted surveys of key indicator groups, e.g. health of over 75s</p> <p>2: Review of international best practice on epidemiological surveys</p> <p>8: EU criteria for microbiological monitoring: need for clarity to inform advice given to GPs etc (link to outcome D)</p>	<p>3: Survey industry & regulators for qualitative view of interventions</p> <p>6: Survey of consumers to gauge view of what 'safe' food means and eating practices</p>
With whom	<p>4: Local Health Authorities, GPs, National Statistics, HPA/DHSS, researchers</p> <p>8: Researchers, labs</p> <p>Can retailers be influenced to release data on micro & chemical contaminants?</p>	<p>1: Health Authorities, GPs etc</p> <p>11: RAPRA (Rubber & Plastics Research Association)</p> <p>12: Environmental Health Officers</p> <p>13: Campden, Leatherhead</p>	<p>For targeting advice: veterinary profession for 'on farm' advice</p> <p>EU: Food enforcement practitioner forum (FLEP), Heads of European Food Safety Authorities</p> <p>7: Confidence in management risk score – need better assessment of how this is done</p> <p>7: NL studies, compliance and fraud – sectors and businesses most likely to</p>
Links	<p>9: Links to outcome A</p>		<p>8: Links to outcome D</p>

4. Outcome C: Consumers make informed choices about food safety when eating outside the home, prepare and cook food safely at home

4.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
NB: <ul style="list-style-type: none"> • Food borne disease goes beyond micro, e.g. contaminants • Food safety and storage at home not addressed by FSA's stated priorities 	
Consumers incl high risk, e.g. young, old, ill inc. Immunocompromised, allergenic, pregnant, vulnerable (socio-economic)	How do they assess risk? Benefit et locally produced food may not be best in all cases. Should consumers have to make choices about food safety?
Industry: catering, hospitality, food service, manufacturers, retailers	Loss of business, litigation. Best before / use by dates; brand reputation, ease of use
Health services	Avoidance of cases / costs e.g. acute vs chronic
Local Authorities	Inspections required to enforce. Could go up or down
FSA	Will they meet their targets?
Schools	Food safety education
White goods manufacturers	Are 'eco' fridges actually good for food storage? Fridge thermometers?
Packaging manufacturers	Improved shelf-life? Shelf-life indicators would be great. Resealable / closable packaging
WRAP	Consumer communication
Defra / devolved	They want to decrease waste – tension with safety
IAC – integrated advice to consumers (Grand Eatwell Plate)	They will influence consumers
DECC – Dept of Energy and Climate Change	See Defra above
Improve CIEH etc	Better training for catering staff
Social workers / services	They impact on at-risk groups

Given what we know about who this is important to and why, what would success criteria look like?

NB – numbers relate to the numbers in session 1

1. Less food-borne illness, or fewer outbreaks below target levels, broken down in appropriate categories (e.g. micro, contaminants). Though for contaminants, how do you measure this? Good cohort studies are scarce
2. Increased knowledge of safe preparation of food in consumers: link to sustained behaviour. How would you measure this? Self swabbing – the kitchen kits, making the invisible visible
3. Increased knowledge in professional food handlers and therefore behaviour. Reduced convictions or better compliance. Consumers test restaurants themselves
4. Increased knowledge of food safety risks in consumers, especially when making choices
5. Children pass food safety assessment @ 16. Food safety strand in licence to cook. Embedding in curriculum
6. Social services reduce reporting of food safety concerns = success!
7. Legislation requiring thermometers in fridges and people know how to use it
8. Increased use of smart technology e.g. packaging indicators
9. Re-education that food spoilage and pathogens don't go hand in hand – especially old people. Education across life stages. Measure this – more courses
10. Better access to food information re: safety. Make the most important information the most available.

4.2 General issues

- Under C – there are no priorities for cooking safely at home
- Industry should fund research on public good for healthier food, not just commercial advantage
- Need for a national food analysis, inspection and examination framework
- Column 3 / C – water except bottled water is not the FSA
- Outcome C priority 4 does not belong here – should move to F or G; individual v product characteristics

4.3 Outcome C: Consumers make informed choices about food safety when eating outside the home, prepare and cook food safely at home

Programme brief: Prioritise ‘in the home’ first, looking at

- a) Do we know and understand what people do at home in food sourcing and preparation that are unsafe practices?
- b) Which of these practices have the biggest impact on health and require behaviour change?
- c) For priority behaviours – how do we influence change in behaviour to improve food safety?
- d) How do we change the domestic kitchen & appliances to compliment safe food preparation/storage behaviours? E.g. the built environment could be designed to drive safer food)

For ‘out of the home’ look at:

- a) What influences food & restaurant choices when eating out?
- b) Is ‘scores on the doors’ working to improve food safety in restaurants and reduce foodborne illnesses?

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
WHAT	<p>A: Who are the ‘at risk’ groups and from what?</p> <p>A: Better understanding of long-term effects of chronic exposure of contaminants, e.g. cohorts</p> <p>A: Continue monitoring of food borne disease – outbreaks & sporadic incidences</p> <p>K: Understand more about sources of foodborne illness</p>	<p>C: Research to understand: does providing food safety evidence actually change behaviour?</p> <p>C: What is/are the key periods in the lifecourse to intervene in terms of educational awareness?</p> <p>C: How do factors affecting food safety vary across the lifecourse and by socioeconomic group?</p> <p>C: What are the key pieces of information that influences peoples’ decisions? E.g. on where to eat. What other factors are involved?</p> <p>C,E: What are the relative risks of poor practices in the home, e.g. use by date abuse, undercooking, browning?</p> <p>D: Smart packaging design to reduce food pathogens, e.g. time/temp indicators</p> <p>D: EPSRC: how to design kitchens & appliances for safe and health eating?</p> <p>D: EPSRC – which kitchen gadgets (indicators etc) would help with food safety?</p> <p>D: BBSRC/ESRC & others: hygienic design – getting rid of bug-friendly gaps etc</p> <p>E: How do we better understand food poisoning – its occurrences</p>	<p>C: Ask consumers if knowledge of food safety could affect their behaviour</p> <p>G: How best can food safety be introduced into the curriculum?</p> <p>G: How to influence adults? Cookery classes (evening classes) to include food safety? How best to do this?</p> <p>G: How can we impart information to children outside the school (e.g. computer games)?</p> <p>G: How do you create sustained behaviour change in terms of food safety behaviour?</p> <p>G: How are current FSA campaigns, 4Cs, Grubeye, etc being implemented or not?</p> <p>G: Influence TV chefs / cookery programmes H: What upstream measures can we take to protect consumers? E.g. good kitchen design?</p>

		<p>and drivers</p> <p>I: Effects of climate change on temperature abuse at home I: How do sustainability drivers impact on food safety practices e.g. need to reduce waste / packaging? J: Determine the impact/effectiveness of the scores on the doors scheme – food incidents, food hygiene</p> <p>Food safety of home produced food, issues, guidance etc Domestic new food process technology, develop safe practice (e.g. vac pack) Are there food safety issues for consumers gathering wild foods e.g. shellfish, fungi?</p>	<p>What are the confusing food safety messages?</p>
	<p>F: Collect data on fridge temperatures – are fridge temperatures a problem?</p>		
HOW	<p>A: Database A: Data collection reporting systems K: ???</p>	<p>C: Social science research D: Hygienic design research/ development E: Pure research – how contaminants can be reduced? Effect milder processing, etc F: Something fun – for a research student! I: Scenario planning / predictive modelling J: Statistical analysis of data</p>	<p>G: Stakeholder engagement H: Working with designers</p>
WITH WHOM	<p>A: HPA, EFSA</p>	<p>C: ESRC & other RCs D,H: White goods manufacturers, EPSRC B,F: PIRA, Campden, LEI, manufacturers, WRAP E: FSA, BBSRC I: FSA, Defra/DECC, WRAP, BBSRC, NERC J: FSA</p>	<p>FSA, Dept of Education (to influence curriculum) Retailers e.g. Sainsbury's' Active Kids, Get Cooking 'Love Food, Hate Waste' campaign</p>
LINKS	<p>Not completed</p>	<p>Not completed</p>	<p>Not completed</p>

5. Outcome D: A proportionate, risk-based regulatory regime relating to food, which is clear about the responsibilities of food business operator and others & which generate public confidence in food

5.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
Food businesses / industry - re whether it is proportionate to risk and to how much they can be responsible	<ul style="list-style-type: none"> • Their contracts, reputations, continued business • Consequences – unintended / conflicts, e.g. reduced salt v meat safety • Tension between use of competition as a driver for change and real proportionate science based regulation
Consumers	<ul style="list-style-type: none"> • They could get ill; cost effective Information must enable consumers to choose whether to take risk or not • At risk consumers need specific attention • Aging population more at risk, e.g. Listeria
NHS / DH	Cost of enforcement v cost of treatment of food borne disease
Enforcement bodies	<ul style="list-style-type: none"> • Resource availability to enforce based on risk • Tension between drive to light-touch & this being based on real understanding of risk & proportionality • New technologies – need to understand risk before regulate and before it is on the market; increase detection limits • Need overall national strategic direction based on risk and to prevent duplication in all the regions and agencies and to prevent conflicts between different policy drivers
Treasury / Government	Free trade, cost, politics
Aid Agencies and developing countries who want to export to EU	
Pressure groups / NGOs	Campaigning against nanny state / choice editing as regulation increases And those wanting to increase controls
Lawyers	Need to learn and argue any new case legislation including case law
FSA	They have to deal with all of this!

To whom is this outcome important? To whom might it be important in the future?	Why?
Devolved administrations	
Science and research community	<ul style="list-style-type: none"> • They will be doing the research to give the evidence • Impact of procurement process and cost cutting • Industry also doing its own research • Fear of regulatory or competitors reaction to findings of research/surveillance

Given what we know about who this is important to and why, what would success criteria look like?

- Industry buy-in to regulation based on risk / evidence based and proportionality lead to industry benefits
- Solid scientific evidence base of the size of, source of and nature of the risk and the methodologies to detect and characterise the risk;
- An advance in understanding of the new technologies being used and an advance in the regulation of new technologies (e.g. nanotechnology and high pressure processing)
- A structure / mechanism to deal with uncertainties and a way to reconcile different scientific models / disciplines, e.g. toxicology v epidemiology
- Increased public confidence in food and understanding of risk
- Less sensational reporting in media, more balanced & fact based; less public confusion
- FSA is the first source of information for journalists and is trusted
- Increased public confidence in regulation, especially re new technologies; and increased public understanding of risks and benefits of new technologies, e.g. irradiation, GM, nanotechnology, cloning etc.
- Reduced barriers to imports from 3rd world countries while maintaining and increasing food safety
- Remove unnecessary regulations or use other ways, e.g. co-regulation and voluntary approaches; deregulate if evidence and priorities change, i.e. problems solved and bad actors driven out
- Enable UK to benefit from better regulation efforts by successful negotiations on UK's behalf in the EU
- Increase FSA confidence in ability to negotiate for risk based regulation and enforcement in the EU
- Industry buy-in to regulations are enforced
- Enforcement community buy-in, fit for purpose and targeting key food priorities based on evidence of risk
- Increase foresight from excellent horizon scanning

- Partnership and trust and mechanisms for communication between food businesses, and between food businesses and FSA to share intelligence
- Improved relationship between FSA and enforcement community; two way collaboration and common understanding of desired outcomes

5.2 General issues

- How will the regulatory regime take account of uncertainty?
- Outcome text – evidence based and risk based
- Need resources to deliver it
- Need to ensure (and show how) the inputs from the workshop affect later stage and final strategy
- Effects of increasing ability to detect ‘risks’ i.e. limits of detection – how to manage this?
- How to coordinate FSA regulation with activities of other regulators in the UK and overseas (EU, 3rd country)
- Role of FSA in supporting training and infrastructure / capabilities? – in strategic plan and evidence and innovation strategy
- What is proportionate? – to risk, to value of product, to cost of minimising risk, to hazard, public acceptability / preference / expectation – e.g. cheese pasteurisation; irradiation

5.3 Outcome D: A proportionate, risk-based regulatory regime relating to food, which is clear about the responsibilities of food business operator and others & which generate public confidence in food

Programme brief: To obtain, analyse data, and develop and communicate a consistent view of proportionate, effective regulation policy and practice across the food chain and the outcomes, and evaluate their impacts in practice. This will include

- Getting consistent quality data on the state of risks, benefits and costs, and on current regimes and practices
- Engaging on how to define 'proportionate' and 'effective' approaches
- Analysis of data to propose and evaluate effective interventions
- Identifying gaps and uncertainties to be addressed

	Data	Analytical Evidence	Evidence from stakeholder and consumer opinion
What	<p>Get consistent data on state of risks (benefits and costs) and current regimes and practices across the food chain and outcomes</p> <ul style="list-style-type: none"> • Data on levels of enforcement / inspection and the results / findings • Monitor trends in risk • Dealing with uncertainties – horizon scanning • Baseline data and trend data on levels / patterns of 'risk' across the food chain • Data on costs of enforcement • Data on levels of contaminant and pathogens in food – exposure data • Baseline data on the make-up of the affected sectors, i.e. all the sectors along the food chain • Awareness and understanding of new technologies 	<p>Analyse, develop and communicate a consistent view of proportionality and effectiveness of regulation options across the food chain and the outcomes, and evaluate</p> <ul style="list-style-type: none"> • Effective methodologies to assess risks – toxicology, markers etc. • Risk based – need understanding of the risks; categories – bacterial, contaminant, chemical, nano, other; likelihood; potential consequences – health, economic • Mechanism for producing sensible regulations in the face of uncertainty • Methodologies to assess risks – risk characterisation; conflicting factors, e.g. reducing risk causing worse nutrition • Development of generic models of toxicity that can be applied to new developments • Research to reduce uncertainties in risk assessments (and assessments of benefits) • Resource - benefit • Risk assessment methodologies fit for purpose • Data and methods to support risk / benefit / impact analysis across different risks (to allow a risk based approach across different 'risks') 	<p>Engage to define proportionality and effectiveness, and how to evaluate the impact; challenge – UK and EU and internationally</p> <ul style="list-style-type: none"> • Assess and understand public views about food, risk, new technologies • Understand how perceptions are formed and what changes them • Awareness / information on new technologies • Ownership (e.g. producer / consumer etc.) of risk – needs an understanding of normal consumer practice / expectation
	<ul style="list-style-type: none"> • Exposure and hazard assessment to take a probabilistic rather than deterministic approach – risk assessment methodologies fit for purpose • Evidence science of source apportionment and size of risk 		

	Data	Analytical Evidence	Evidence from stakeholder and consumer opinion
		<ul style="list-style-type: none"> • Need to consider role and use of third party inspection / control certification etc. as well as official regulations and controls • Find out if operators are falling through the gaps of different regimes and enforcement bodies, e.g. catering butchers 	<ul style="list-style-type: none"> • x
How	<ul style="list-style-type: none"> • Develop a hierarchy of tests for new chemicals and risks to enable quicker screening to identify the 'big' risks • Use results from monitoring by industry, regulators, informal • Monitoring / trend data on behaviour and practice in industry • Benchmark ideal situation • Gather available numerator and denominator data arising from current regulatory regime • Identify gaps and implement recording system; harmonised methods of collection / collation, e.g. test methods, databases; produce trends based on this; monitor and review and feed into horizon scanning / changing trends • Knowing real cost to business of complying with regulations • Cost-benefit analysis 	<ul style="list-style-type: none"> • 'Practicalities' research – what can realistically be achieved through inspection and enforcement • Is the cost of regulating proportionate to the food safety or nutrition benefit to the public? • How does enforcement resource translate into risk reduction • Costs of enforcement compared to risks and potential benefits – i.e. which are the most tractable areas from an economic perspective? • FSA is first source of media info – needs FSA to review / synthesise evidence to produce overall recommendations, i.e. weigh up conflicting factors / advice and decide on best overall decision • Evidence based risk assessment / science • Evaluation of success • Public perceptions, confidence, understanding risk 	<ul style="list-style-type: none"> • Communication with 'industry' – feedback; perception of proportionality of steps; focus on perceived disproportionate steps and review to substantiate or modify risk management • Monitoring / tracking business behaviour change as a result of regulation and to pick up; sentinel industries / businesses; ways to communicate benefits • Costs and proportionality • Industry and enforcement community communication, involvement, buy-in • Public perceptions, confidence, understanding risk
	<ul style="list-style-type: none"> • Desk-top 'EFSA type' literature reviews to answer specific risk questions – identify knowledge gaps for further research 		
			<ul style="list-style-type: none"> • Removal of unnecessary regulations – review (on-going) of current risks compared to levels of regulation; assessment of proportionality in each case

Note of a risk 'cycle'

Assessment and understanding of risks -> effectiveness of current regime -> costs / benefits, proportionality, perceptions -> recommendations for regulatory change -> evaluation of impact of changes -> assessment and understanding of risks

6. Outcome E: Retail products and catering meals are healthier

6.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
General point – query definition of retail? Ready meals or everything?	
Public	Potential to improve health <ul style="list-style-type: none"> - Enforcing healthier eating habits versus provision of choice. - Obvious benefits for health and wellbeing
Govt dept with targets: FSA, DH, Defra, Devolved Admins	They have targets to meet! They want to improve public health
NHS & Health professionals	Ditto
Manufacturing / retail industry, catering / food service	Threats & opportunities <ul style="list-style-type: none"> - Corporate social responsibility - Competitive advantage - Added value premiums – profits! - Reformulation – new product development – costs! Trade impact / barriers, e.g. taste
Consequences to commodity suppliers / primary producers – land use change <ul style="list-style-type: none"> - Environmental impact - Ecosystems impact - Tourism industry - Farmers - Environmental organisations 	Wider consequences of changes in diet? <ul style="list-style-type: none"> - Shift away from livestock agriculture - Need for R&D to develop healthier meat / dairy products - Potential land abandonment – ecosystems / landscape impact, rural economy impact - Increased reliance on imported foodstuffs, fruit & veg etc
Fishing industry	Impacts on sustainability of fish stocks
Climate change lobby	Environmental costs of imported food?
Food manufacturers	<ul style="list-style-type: none"> - New product development, bid to maintain taste / texture, maintaining markets etc - Especially in view of economic climate! Proportion of population still only concerned with eating a quantity of food irrespective of nutritional content - Impact on product shelf-life through reduced preservative
Consumers	Acceptance of new products with reduced salt etc? Palatability? Portion size – people are getting bigger, and are used to bigger portions

Legal profession, manufacturers & consumers	Potential for compensation claims against 'unhealthy' food manufacturers, mirroring experience of tobacco industry
Laboratories / consultants / researchers	<ul style="list-style-type: none"> - Reformulation consultancy / advice / testing - Product testing / auditing / quality control

Given what we know about who this is important to and why, what would success criteria look like?

Initial ideas	Comments from the challenge process
Measure reduced salt, fat and sugar (FSA) through <ul style="list-style-type: none"> - National diet & nutrition survey (NDDS) - Family food survey (Defra) - Health survey for England Nutrient composition of food data	We think you're wrong – should be focused on nutritional content of the products, not on dietary habits through food surveys. So this should be on the parking wall Not just about having healthier choices – moving whole sector – like in bread industry
For Govt, success would look like joined hands – same hymn sheet! Same labelling criteria / information systems for both public and private sector	
Scale of change in mainstream retail sector (e.g. low salt) being mimicked in catering / takeaway sector	Success often means getting movement in the brand leader – whole sector may often follow
Rolling review / iterative approach to nutrition research to prioritise criteria for healthy options	
Modelling e.g. using NDNS to predict & evaluate against changes	Modelling – evaluating / predicting biggest bang for buck - what food product to focus on
Better partnerships between industry & government to develop healthier meat, dairy & poultry products e.g. beneficial fatty acids in red meat	Increased collaboration in industry buying in to research to make positive contribution to health agenda
Using NDNS to measure surrogate markers of disease e.g. cholesterol, BP, body weight, obesity, etc	Don't see why you'd look at blood pressure: multifaceted problem

6.2 General issues

- Precise definition of 'retail' in column E
- Is allergy included in food safety columns or on column on nutrition information (allergy = safety issues?)
- Allergy awareness and control?

6.3 Outcome E: Retail products and catering meals are healthier

Programme brief:

1. Ensure criteria being used to establish 'healthier' are robust and consistent across Govt. Learn lessons from current inconsistencies
2. Establish baseline as a benchmark for future evaluation and monitoring. Ensure all necessary monitoring & evaluation surveys are in place
3. Identify & prioritise research needs e.g. surrogate markers of dietary exposure and disease risk factors
4. Identify collaborations e.g. industry, for data
5. Identify funding partners
6. Work with communications to identify channels for promoting the importance of health options and training, e.g. catering colleges & CPD
7. Establish & implements monitoring & evaluation programme against baseline data, and associated reporting procedures

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
WHAT	<ul style="list-style-type: none"> • Measuring impact of changes in food production on environment / ecosystems • Environmental monitoring/research of impact across food chain • Monitor reduced sat fat, salt etc by introducing mechanisms to collect manufacturers' data • Food composition data (updated regularly) (McCance & Widdowson) • Looking at trends and identifying cause & effect, e.g. manufacturers reducing salt in products, not reflected in survey therefore people compensating • For each objective, collect robust baseline data and monitor change over time • Identify potential and monitor for inadvertent consequences 	<ul style="list-style-type: none"> • Large investigation of areas/sectors/social groups to identify greatest impact • Horizon scan international research to determine emerging science of relevance • Testing of mixtures to ensure safety (although individual additives are safe, are mixtures?) • Do caterers know how to make the food 'healthier'? • Use modelling: (1) validation, (2) appropriate application to achieve biggest bang for buck • Research funded to ensure we know what a 'healthy balanced diet' is • Research to understand what triggers behaviour change (social science) • Research to identify surrogates (invertebrates) for higher animals testing • Not necessarily same for all population groups • Identify markers which predict benefit or risk (rather than use morbidity/mortality as an end point) • Fundamental research into new technologies • Set targets for sugar / sat fat content of food (like we have for salt) and monitor against them • Collect & document different govt. approaches 	<ul style="list-style-type: none"> • Consumer research – better partnership between Govt and industry to reduce duplication • Regional diversity – take account of this in polling • Industry partnership / consultation / learning from industry • Availability of industry data

		(and identify inconsistencies) to defining 'healthier' products & rationalise e.g. front of pack labelling, Ofcom model, healthier food	
	Research to identify new surrogate markers for health and disease, and diet exposure		
HOW	<ul style="list-style-type: none"> • Continue to fund surveys to monitor foods • Use surveys to identify trends – Family Food, National Diet & Nutrition Survey 	<ul style="list-style-type: none"> • Funding prioritised to address this • More detailed advice to caterers on how to cook healthier meals • Set nutrient targets for foods for public sector food procurement • Better procurement strategies to use local produce • Research into new technologies through publicly funded research to make available for public good • Survey of 'healthier' cooking knowledge of caterers 	<ul style="list-style-type: none"> • Build trust with industry to share data • FSA Consumer attitudes & behaviour survey • Consumer polling with respect to social class, region etc ** (linked to ** below)
	Incorporation of surrogate markers of disease risk into existing studies & surveys		
WITH WHOM	<ul style="list-style-type: none"> • BRC, FDF • Cross-Govt findings of surveys (including devolved agencies) • Food composition data – work with industry & trade associations • Appropriately skilled contractors (& sufficient critical mass) – analytical, market research, LGC etc 	<ul style="list-style-type: none"> • UK Govt, European Commission, Research councils • Research institutes: LFI, CCFRA, IFR, Rowett etc • Healthy eating criteria: work with experienced NGOs • Industry consortia (with FSA seeding / overview?) 	<ul style="list-style-type: none"> • Catering college: how to get caterers to change? And support for SMEs • Positive and accurate communication of nutrition information in the popular media • London 2010, Glasgow 2014: use of these to promote messages • Better communication to reduce misunderstanding for new technologies etc: e.g. reduce sugar, replace with sweeteners - these are safe • Appropriately skilled market researchers / social scientists**
LINKS	Defra environmental surveys		Info alone not enough: need education (starting in schools) about health diet / lifestyle, esp. Activity
	Consistent government messages / agendas internally and externally across Depts		

7. Outcome F: Retailers, manufacturers and caterers provide the nutrition information consumers needs to make healthy choices

7.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
Consumers <ul style="list-style-type: none"> - At-risk subgroups - Whole population - Unaware 'at risk' groups 	To manage risk To prevent becoming a subgroup Literacy / numeracy: ability to assimilate information, ability to make a choice (e.g. socio-economic constraints)
Consumer support groups / health charities	Ability to provide better advice
Food manufacturers	Obligation to label appropriately May lead to product development / reformulation Cost implications Competitive issues
Food retailers	Obligation to label and accommodate this in their 'brand label' Competition between retailers
Food service <ul style="list-style-type: none"> - Restaurant - Canteen 	Consistency of approach to deal with range of outlet types How to present in a useful manner, and availability Cope with variable / changing menu Staff training Coping with raw material / ingredient variability – seasonal variation Cost of compliance
Trade associations	Lobby involvement and source of information Help implementation and consistency Especially for smaller businesses Ability to organise a group / lowest common denominator
Enforcement	Compliance with legislation – resource implication – especially food service Advisory role How to formalise 'self-policing;
NHS	Potential to reduce (delay) costs, reduce years of ill-health
Treasury	Ability to allocate funds elsewhere
DH's	Contributes to obesity goals
Importers	Adequacy of labelling / compliance
Dept of Children, Schools & Families (and devolved nations)	Education of children
EC	Responsible for labelling Trade barriers

To whom is this outcome important? To whom might it be important in the future?	Why?
Institutions (schools, prisons, etc)	Need to provide advice
EU member states and other countries	Influence direction between states
EFSA	Ability to influence third countries more effectively Arbitrator of science / process
Codex / WHO	Consistency of message – worldwide
Academics	Influence lobbying

Given what we know about who this is important to and why, what would success criteria look like?

(General – how good is baseline? What is reasonable / practical change?)
1. Consumers have a clearer understanding of the nutrition information provided in both retail and food service
2. Sustained change in consumer behaviour leading to a healthier diet – better quality of life for a longer period (see 7)
3. Number of food service outlets providing nutritional advice increased – targets set
4. Consistency of approach in UK, Europe and 3 rd countries
5. System that can be applied to the wide range of packs / formats used for sale of foods
6. Widespread support from all stakeholders – greater adoption of self-policing
7. Decreased obesity levels and improved health; delivering financial savings
8. Improved education and understanding of consumer understanding of nutrition
9. Reduced sales / availability of less healthy foods
10. Insights / model to help understand how to change behaviour
11. Consumers have greater awareness of personal diet / health requirements (feeds into 2)

7.2 General issues

- Issue F – dietary change (e.g. reduction of fat / sugar - what about safety?) and other factors (e.g. exercise?); cannot consider in isolation
- ‘Consumers understand about food, a healthy diet’ should go across columns D, E and F
- A ‘priority’ should be to reduce total calorie intake (not just salt, sat. fat)

7.3 Outcome F: Retailers, manufacturers and caterers provide the nutrition information consumers needs to make healthy choices

Programme brief:

- 1 Horizon scan / perform literature review of approaches taken in other countries (and/or sectors) to use nutrition information to improve dietary choice by consumers
- 2 Gather comprehensive UK data on food consumption, current nutrition information sources including labelling, current initiatives & interventions, and consumers' current understanding of a healthy balanced diet to enable us to...
- 3 ...research and prioritise the areas where nutrition information sources, including labelling, would have the biggest impact on dietary choice
- 4 Understand what messages should be communicated (-ve, e.g. decrease salt, saturated fat and lowering portion sizes, and +ve such as increasing fruit & veg) and the optimum way of doing so to have an impact on dietary choice
- 5 Investigate the above for specific subgroups of the population e.g. children, at risk groups.
- 6 Evaluate the impact of any new communication strategies / interventions as required to make them more specific
- 7 For the future, design new innovative communication strategies to engage/enable/influence consumers to choose a healthier diet (e.g. IT, gaming technology)

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
Questions on orange flash cards:	Do people at risk know they are at risk? If they don't, will they listen to the message / read the nutrition info / use the nutrition info to change their behaviour?	Does providing nutrition information actually lead to behaviour change (retail, eating outside home)? Are some sectors of population influenced and others not?	
WHAT	1: Horizon scan – what other EU countries are doing with FOP / nutrition information provision 1: FOP – have the research to indicate best single system 2: Measurements on number of outlets providing nutritional advice – baseline, ongoing 2: Lots of simple counting & surveys – numbers of labels / types / formats 3: Establish a baseline for what people are eating in & out of the home – portion sizes, nutritional content 3: Consolidated data on food sales, by food type	6: Will we have greater effect at retail or in catering outlets? 6: Which types of catering outlets should be targeted – KFC, McDonalds, sandwich bars, greasy spoon cafes – for max impact? 6: On which population group does FOP have the greatest impact on behaviour change? 6: Evaluation: which food service sector is having the greatest impact and why? Then use this to improve the poorer performing sector 6: what is the most effective way to influence health? Portion size? Composition? Other? 7: what information should be communicated – i.e. what is healthy? Energy? Sugar / salt etc? 7: Goal is obesity? So restrict nutrition to calories per portion	Will SMEs have sufficient knowledge / money to provide nutrition information? How does this integrate into overall Government education policy, e.g. Change4Life, TakeLifeOn (Scot)? What is the impact likely to be on food suppliers, producers, retailers? Scenario planning, trials, build business case...

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
	<p>4: Health: reliable baseline data on obesity (adults, children) and follow-up surveys</p> <p>5: Baseline data on consumer understanding of nutrition & health, and follow-up surveys</p> <p>5: if we got young kids engaged / enthused on healthy eating, does this continue through teenage -> adult, and make an impact?</p>	<p>Better understanding of the role of nutrients that have a positive impact on health and how these are incorporated in labelling</p> <p>Cost to NHS: if we eat healthier foods, less cost to NHS now, but live longer so more cost later – where is the balance?</p> <p>How do consumers get an overall picture of their diet – daily/weekly, etc?</p> <p>Survey of impacts: uptake of new scheme, impact on overall health (on in home behaviour), availability of less healthy foods, stakeholder feedback / opinion</p> <p>Insight / models to help understand how to change behaviour (for next Strategic Plan to 2015)</p> <p>What drives choice? Price? Where does FOP fit in? How do we apportion FOP contribution to food choice?</p> <p>What is the best way to communicate to consumers: on pack, point of sale, in canteen/restaurant: to influence choice?</p> <p>Studies into the most effective techniques to provide nutritional advice in a food service/restaurant setting</p> <p>Would labelling of ‘health’ and ‘less healthy’ food be as effective as ‘nutritional info’? E.g. Scotland HLA</p> <p>Impact of on pack ‘healthier’ message, expectations of being satiated and compensation factors</p> <p>FOP: are all their choices healthy choices or do they go for some very healthy foods & compensate with indulgent ones (i.e. no change!)</p> <p>How do people respond to label / other data? Does the knowledge influence their choice?</p>	<p>If we cannot get ‘one’ FOP system, what would be our next best compromise?</p>
		<p>Where is underpinning evidence that these priorities will impact on behaviour?</p> <p>Will consumers modify Eating outside home to compensate for consumption in the home?</p> <p>Does this lead to sustained change?</p> <p>What is the impact of new labelling on consumer choice, behaviour and health?</p>	
	<p>1: Literature review of what other countries have done on a) FOP, b) nutrition information in</p>	<p>Cohort study to assess impact of interventions on dietary behaviour</p>	<p>Trade-off studies: how consumers rate nutritional information against</p>

	DATA	ANALYTICAL EVIDENCE	EVIDENCE FROM STAKEHOLDER/CONSUMER OPINION
HOW	catering, and their IMPACT 2: Annual survey to measure current nutrition information being used in catering outlets 3: Diet measures, NDNS etc 3: EFS, infant feeding survey 4: Health EHS / SHS / NDNS 5: Possibly consumer attitude behaviour survey	Having introduced a simple FOP, is it having an impact on diet one year on?	other factors, e.g. fair trade, animal welfare, brand, price
WITH WHOM	1: With 'FSAs' and 'DHS' in other countries 2: Trade association enforcement officers CIEH/LACORS 3: Defra, DOH, BRC/IGD 4: DOH	Work with retailers to find out if front of pack has an impact on consumer choice of healthier products	
LINKS	Not completed	Not completed	Not completed

8. Outcome G: Consumers understand about food and a healthy diet, have the skills needed to choose, prepare and cook healthy meals and are motivated to do so

8.1 Stakeholder and success analysis

To whom is this outcome important? To whom might it be important in the future?	Why?
Consumers	Health related outcomes e.g. obesity
Agri-food supply chain	GM debate – can we produce enough without?
Agri-food legislation	<p>Environmental impact of farming – conflict of food production v environment – e.g. pesticide use</p> <p>Organic food products – import v self-production – environmental impact</p>
Vulnerable consumer groups	<p>Emerging elderly population growth – demographics</p> <p>Changing needs – life stage requirement</p> <p>Young children</p> <p>Low income groups etc.</p>
Social care agencies	Incentives for diet changes – purchase schemes; subsidies
DEFRA and related NFU, HGCA, MLC, MDA	Balancing food production with sustainability, environmental risk
Social service and psychologists	Cultural and religious food choice decisions. Need to be able to change behaviour.
Department of Health	Exercise, portion size (integration with for example DEFRA)
Devolved government administrations	Joined up, common messages
Businesses e.g. supermarkets	Front line in communicating with consumers

Department of Education	Get children early, raise profile of healthy eating in national curriculum and train teachers to be able to teach effectively in this area.
EFSA and other European Agencies	EU legislation, common goals
Expert community	Research and analysis needs to be targeted
NHS	Costing money to treat people due to health related diseases
Pressure groups e.g. charities	Are good at exerting pressure to effect change e.g. Greenpeace and are good link to consumers
Media	Good platform to reach “people on the street”.

Given what we know about who this is important to and why, what would success criteria look like?

- Consumers – increased life expectancy; decreased morbidity (reduced long term chronic condition); especially lower socio-economic groups (high risk / hard to reach); survey of consumer eating behaviour – ultimate measure of success
- Cross government – joined up messages targeted at specific consumer groups where relevant; need to be cross-departmental with a single outcome message; a single message to devolved nations
- Businesses – healthier products being sold; reformulation of products; more businesses funding research and greater confidence in research
- Education – on the curriculum as a core subject – healthy eating; training the trainers, i.e. teachers and health workers
- Role of parents in providing healthy diet – cannot relinquish parental role; family values role in reinforcing message
- Government – UK / EU integrated legislation surrounding sustainability and healthy eating; single message across government to include food safety as well
- Pressure groups / charities – more cooperative relationships; combined messages; collaborative working
- Media – improved core, consistent messages to consumers
- DOH - collaboration / avoid duplication; cost benefits in reduced morbidity
- FSA – greater understanding of consumers’ understanding of healthy diet and nutrition

8.2 General issues

- Outcome is not consumers 'understand' but that consumes 'do' chose healthier etc.
- Evidence for focus on sugar in healthier eating targets – is it a proxy for energy?
- Where does FSA role end, e.g. overlap and duplication with OGDs
- Is ultimate outcome that we do not need education as we are all aware?

8.3: Outcome G - Consumers understand about food and a healthy diet, have the skills needed to choose, prepare and cook healthy meals and are motivated to do so

Project brief

- Gather and analyse data from all relevant sources to establish current baseline behaviour of consumers and drivers that impact on this, e.g. food prices, life style, recession, social conditions, food acceptability / attractiveness etc.
- Identify gaps so that targeted R&D can be commissioned. Also identify best practice to inform future policy / strategy. This is to be achieved by cross-government collaborative working to ensure common consumer messaging and approaches to work.
- To deliver an overall measureable improvement in awareness and change in behaviour towards healthier eating at home across the population as a whole

	Data	Analytical Evidence	Stakeholder / Consumer Opinion
What	<ul style="list-style-type: none"> • Analysis of availability of products and purchasing information on the market (1) • Research into availability of healthy foods as well as consumer access • Evidence of what food is currently available, what trends in supply are, what gaps there are relative to emerging / changing health needs (3) • Life expectancy is a long term measure – start monitoring (16) • Review best practice in education of eating policy in schools (in other countries e.g. Finland and the UK) (2) • Foresight – improved ability to predict ‘future’ issues that may impact healthy food and safe food (6) • Objective measurement of consumers’ understanding of ‘healthy’ eating, e.g. inspection of school lunch boxes to assess current situation? (7) • Drivers for consumers’ purchasing behaviour – better understanding required (5) • Review the knowledge and training of 	<ul style="list-style-type: none"> • Short-term biomarkers for healthy eating (9) • What is it in foods and ingredients that give enhanced health benefits – research on bioactive ingredients (10) • How can we improve content of active ingredients – research and development on agri-food supply – breeding, husbandry (10) • Develop short term measures of increased life expectancy (11) • Better understanding of interventions needed to target high risk groups (low income / hard to reach etc.) • Integrated legislation platform for healthy eating and food production; research – is it practical barriers? • Review current situation (messages) – ME and FD; weighting development of models • Learn and evaluate from best practices from other countries • London free school meals trail 2 year span – what markers will be used to assess ‘improved’ health (and other studies) (4) • Review of biomarkers to inform development of biomarkers for healthy eating – intervention trials 	<ul style="list-style-type: none"> • Food manufacture and sales – understanding barriers to change in sector and to entry, e.g. legislation, research, development, economics, consumer demand / perception (1), (3) • FSA to help provide evidence base and questions that charities stakeholders want answered (14) • Development of a framework at Cabinet level to allow joined up messaging (15) • Understand how can FSA provide evidence based research for charities and work more actively with each other • Influence PCTs to share information / data on health of nation • Cross government joined-up messaging • Review of current situations (messages) – who is putting them out • Consumer evidence – what are the barriers to acting on the advice? • Impact of workplace canteens on eating habits

	Data	Analytical Evidence	Stakeholder / Consumer Opinion
	<p>teachers about healthy eating – school teachers, food providers, healthcare professionals (12)</p> <ul style="list-style-type: none"> • Tap into PCT data on health of the nation to inform picture • Different perceptions of healthy eating, e.g. do people know where to find saturated fat? 	<p>(9)</p> <ul style="list-style-type: none"> • Identify and understand active / healthy components in food to inform breeding programme to maximise availability (agri-research) – focus on key foods which impact most on diet (10) • Review of criteria for markers and study – using existing data / desk top analysis (4) 	
How	<ul style="list-style-type: none"> • Risk analysis / global – develop modelling tools (6) • Desktop research of IGD data, Defra survey data etc. (1) and (3) • Need strategic review of outputs from high level government scientific committees to inform research programmes (8) • Review of existing consumer data to inform development of research tools and gap analysis (5) • Raise at Cabinet Office level and agree framework and common approach to healthy eating issues (17) • Questionnaire / surveys of consumer understanding (to inform policy on school lunch boxes) (7) • Start assessing DOH / NHS data to set baseline for monitoring (16) • Questionnaire survey of teachers (12) • Local food chains interaction and sustainability 	<ul style="list-style-type: none"> • Behavioural research at population and individual level • Gap – understanding of how to change behaviour • Gap – understand how to convert knowledge of healthy message to healthy choice long term • Research into micro-nutrient needs • Identify which population groups most at risk, i.e. poor life expectancy – use existing data and assess in a different way to identify target groups (11) • Gap – understanding whether poor diets persist through life, e.g. young men currently worst – will this persist or will this change? • Research into diet and nutrition over the life-course and effect on these on health 	<ul style="list-style-type: none"> • Set up senior cross government group to ensure common schemes (16) • Speak to relevant charities (4) • Ensuring major food producers know message and incentives for food chain

	Data	Analytical Evidence	Stakeholder / Consumer Opinion
With whom	<ul style="list-style-type: none"> • IGD • TNS • DOH / NHS (survey data) • Defra (survey data) • Social science researchers (external to FSA) • Industry data • Access to data – Defra, School Food Trust (2) 	<ul style="list-style-type: none"> • Research organisations – nutrition / health, agriculture, food (analytical), behavioural science • Local authorities 	<ul style="list-style-type: none"> • Food industry • Charities / lobby groups • All other government departments (OGDs) with interest in foods • Primary care trusts • External communications / media – campaigns
Links	<ul style="list-style-type: none"> • EFSA • WHO • Collaborative research programmes – EU / UK / international • ERA – NET • OGDs 	<ul style="list-style-type: none"> • AMC – RSC Analytical Methods Committee • Codex • AOAC • ADAS • Agriculture • Professional bodies / advisory committees • Linking healthy eating and physical activity patterns – cross government 	<ul style="list-style-type: none"> • Consumer organisations • Charities / lobbying organisations • Vulnerable groups • Hard to reach groups • OGDs • Work to improve consistency and accuracy of healthy eating info in media

Annex A: List of attendees

Attendees list:

Title	First Name	Surname	Affiliation
Prof	Peter	Aggett	General Advisory Committee on Science
Dr	Wayne	Anderson	Food Safety Authority of Ireland
Prof	Peter	Borriello	Veterinary Laboratories Agency
Ms	Liz	Breckenridge	Consumer Focus
Dr	Rachel	Burch	Leatherhead Food International
Prof	Judy	Buttriss	British Nutrition Foundation
Dr	Duncan	Campbell	Association of Public Analysts
Ms	Bethan	Campbell	Food Standards Agency
Mr	Alan	Curran	Food Standards Agency
Mr	Dorian	Davies	Welsh Assembly Government
Dr	Hubert	Deluyker	European Food Safety Authority
Dr	Joanna	Disson	Food Standards Agency
Mr	John	Dyson	British Hospitality Association
Ms	Selvarani	Elahi	Laboratory of the Government Chemist
Dr	Helen	Ferrier	National Farmers Union
Dr	Lucy	Foster	Department for Environment, Food and Rural Affairs
Dr	Tom	Foulkes	Medical Research Council
Dr	David	Graham	Agri-Food Biosciences Institute Northern Ireland
Dr	Anne-Marie	Grey	Health and Safety Executive
Dr	Alwyn	Hart	Environment Agency
Dr	Lesley	Heppell	Biotechnology and Biological Sciences Research Council
Mr	Darren	Holland	Food Standards Agency
Prof	Ian	Johnson	Institute of Food Research
Dr	Victoria	King	Diabetes UK
Dr	David	Lees	Centre for Environment, Fisheries and Aquaculture Science
Mr	Alan	Lyne	ADAS UK Ltd
Dr	Colin	Mackechnie	Natural Environment Research Council
Mr	Sinclair	Mayne	Dept of Agriculture and Rural Development Northern Ireland
Dr	Christine	McGuire	Dept of Health
Dr	Patrick	Miller	Food Standards Agency
Ms	Jenny	Morris	Chartered Institute of Environmental Health
Ms	Helen	Munday	Food and Drink Federation
Mr	Andrew	Parry	Waste and Resources Action Programme
Dr	Alan	Rowe	Rowett Institute of Nutrition and Health
Ms	Louise	Shaxson	Delta Partnership
Prof	Nicola	Spence	Food and Environment Research Agency
Dr	Alison	Tedstone	Food Standards Agency
Mr	Mike	Thomson	Delta Partnership
Dr	Joy	Todd	Economic and Social Research Council
Dr	Andrew	Wadge	Food Standards Agency
Dr	Steven	Walker	Campden BRI
Dr	Anna	Whyte	Food Standards Agency Scotland
Dr	Paul	Willetts	Food Standards Agency
Mr	Alisdair	Wotherspoon	Food Standards Agency