



Dame Deirdre Hutton CBE

Dame Deirdre Hutton, CBE became Chair of the Food Standards Agency in July 2005. She has served on a number of public bodies and has considerable experience of corporate governance, risk-based regulation and consumer policy. She is Vice-Chair of the European Food Safety Authority Management Board and Deputy Chair of the Financial Services Authority. For five years, she was Chair of the National Consumer Council, having formerly chaired the Scottish Consumer Council. Prior to her appointment at the Food Standards Agency, she was a member of the Better Regulation Task Force.

She has held a number of positions on bodies dealing with food issues, including Chair of the Foresight Panel on the Food Chain and Crops for Industry, Chair of the Food Chain Centre, and membership of the Policy Commission on the Future of Farming and Food (the Curry Commission).

29th Annual Campden Lecture - Wednesday 6th June 2007

The Science of Food Regulation

by Dame Deirdre Hutton CBE

Chair, Food Standards Agency

My lords, ladies and gentlemen - good morning and welcome.

I am delighted to see so many people here this morning in Campden's big tent.

As Oscar Wilde almost certainly never said about speech titles, "to use one word like 'science' may be regarded as a misfortune, to use both 'science' and 'regulation' looks like carelessness."

However, I certainly hope to convince you that it is neither misfortune nor carelessness.

Science, after all, is at the very heart of what we all do, whether we are in the food industry, Government, the research community or otherwise involved with the safety, availability or healthiness of food.

I don't suppose there is a gathering anywhere else in the world that, collectively, is more knowledgeable and passionate about the value of science when it comes to what we eat.

What you do is use the best science to deliver the incredible diversity, quality and convenience of food that we have in this country today.

So I'm assuming that we are all deeply passionate about science and about food.

I don't imagine that I can make the same assumption about regulation.

I can hope, though, that you catch some of my own enthusiasm over the next 30 minutes or so.

But before I go further, I would like to recognise how helpful the food industry - indeed many of you in this room - have been both to me and to the Agency in taking forward our programmes in relation to food safety and nutrition. None of our achievements have been brought about by us alone, but have come about through partnership, co-operation and, I hope, mutual respect.

Of course there have been discussions - possibly heated on occasion - but we at the Agency are very conscious that we are not the people who deliver food. You do that, day in and day out - and generally to an astonishingly high standard.

But back to regulation: there are those who claim I feel about regulation the way that Diane Fossey felt about mountain gorillas and Patrick Moore feels about the sky at night.

So, where some people see only threatening behaviour, chaos and mind-boggling complexity, I prefer to see co-operation, clarity and, above all, simplicity - or at least the potential for these things.

It's a personal goal to use my time as Chair of the Food Standards Agency to help the Agency be recognised internationally as a world-leading, innovative and intelligent regulator.

And I'll explain, through the course of this lecture, how I see us getting there.

Most of us would agree, I'm sure, that food regulation in this country hasn't always been a roaring success, with the 1980s and early 90s being a pretty disastrous period for the British food industry.

That time will be remembered by many of us as a series of food safety problems, one after the other, with BSE, obviously, the most damaging. The handling of those incidents caused consumer trust and confidence to drain away. There is good survey evidence to show that consumers thought that the regulators were favouring industry, and handling the situation in a furtive and ineffectual way.

It's interesting to try and isolate the figures that would put an economic value on trust and confidence in food.

A report [by Drew Associates in 2002] commissioned in the early days of the Agency's existence looked at consumers' "willingness to pay". It found that consumers were willing to pay a premium for greater assurance that the food they buy has been subject to improved safety procedures. The potential benefits were found to be in the region of £500 million to £1 billion per year.

Looking at it the other way round, it seems likely that the lack of consumer trust and confidence in food regulation would also have had a substantial economic impact.

Trust is one of the factors that persuades companies from around the world to become members of Campden. It is what brings customers through the doors of our shops and supermarkets every day. And it has given the food industry the stability to innovate and prosper over the past few years.

Trust is one of the most precious assets of the FSA - our brand, if you like. You will know better than anybody the value of a trusted brand - \$67 billion in the case of Coca Cola, the world's most valuable brand.

In our latest survey, 66 per cent of the public believe we tell the truth. That trust is not a given. It has to be earned. It is very hard won, but also easily lost. The importance is, with trust in the Agency, we can regulate in a way that balances the right amount of public protection with the conditions that allow business to innovate, compete and flourish. It is that innovation, competition and flourishing that leads to real benefits for consumers.

Without trust, the market is more vulnerable to instability.

So the rest of what I will say relates to earning and maintaining trust. And because trust is a product of what you do, not what you say, I'm going to talk about what the Agency does,

- the science of food safety, and
- the science of choice.

But first, the scientific framework within which we operate.

Scientific framework

As I'm sure you are all aware, the Agency was established as a science and evidence-based organisation, with an eminent scientist - Sir John, now Lord Krebs - at the helm.

There was a period following John's departure, where noises were being made in some quarters that the Agency was losing its grip on science - as if the engine had been removed, rather than the driver changed.

If anything, the engine has been turbo-charged.

What I have done is overseen a long hard look at the governance of science throughout the organisation to make sure that it is entirely fit for the challenges that face us. There have consequently been a number of changes which I believe have broadened and deepened the Agency's scientific expertise as we have matured as an organisation.

Almost half of the current staff are qualified scientists, the majority with higher degrees.

We now have a Chief Scientist with enhanced responsibilities and fewer distractions. Previously, the Chief Executive doubled up as Chief Scientist, but now Andrew Wadge focuses on the quality control of science, and the promotion of the profession of science throughout the Agency, without any possible conflicts of interest.

As you will know, we have eight independent scientific advisory committees, bringing in some 140 of the world's independent scientists, to advise the Agency. Depending on what is being discussed, the chairs of our eight scientific advisory committees now join us when the FSA Board meets in open session. (Not all at once!). They are there to advise and challenge the Board, based on the recommendations of their committees.

In addition, we are in the process of establishing two new and independent scientific advisory committees. A social sciences committee - in recognition of the increasing importance of the behavioural sciences to the Agency and a new, overarching scientific advisory committee, which will take an overview on scientific issues, challenge our approach, advise, audit, and scan the horizon - and generally make sure everything we do is robust.

We are also about to relaunch the National Diet and Nutrition Survey as a more flexible and responsive rolling programme of surveying the nation's eating habits. The NDNS has always been seen as the gold standard of dietary surveys, for setting dietary and food safety targets and limits. Now it will be better able to keep pace with how quickly our daily diet is changing.

So science is absolutely fundamental to the Agency. It provides us with the what, why, and how of regulatory decision making - subject to the usual gaps, imperfections and uncertainties which inevitably are in scientific data.

Science provides us with the information and the parameters within which we make judgements: it cannot make the judgements as to the appropriate level of risk or regulation. So I shall now explain how we apply the science to our regulatory decision-making.

The science of food safety

I'll start with food safety, as it will always be the Agency's top priority - our bread and butter work.

Ever since it was established in April 2000, the Agency has taken a lead in making food safety regulation more risk-based, with science a fundamental part of the risk-assessment.

Let's start with BSE as an example.

Since Day 1 the Agency has been monitoring and reviewing the public health risks of BSE - and communicating what we find clearly and openly in public. As a result, in 2004 we were able to recommend what amounted to a slight increase in risk to public health - with the switch away from a blanket ban on older cattle going into the food chain to a system of testing animals over thirty months of age for BSE.

Our risk estimate was that, over the next 60 years, up to 2.5 more deaths from variant CJD could result from the switch.

Yet the public have been willing to accept a change to testing as more proportionate, having been kept informed about the risks and benefits and, because they have that level of trust and confidence in us, that they are being honestly informed.

Another example. The food hygiene regulations that apply to British food businesses are more flexible and risk-based than they were previously - and than they might have been - thanks in part to the evidence backing up the Agency's arguments in Brussels when the EU Food Hygiene Regulations were being negotiated.

The Agency argued strongly for flexibility in the application of food safety management systems.

Classic HACCP - Hazard Analysis Critical Control Point - is fine for big food businesses that benefit from the detailed, formal analysis, monitoring and record keeping. Indeed, there is a strong argument for regulators allowing much more autonomy for producers, manufacturers and retailers that have built up a solid track record of excellent hygiene management. This is something we are looking at very carefully. But the danger is making a thing - making science - over-complicated, particularly for small businesses.

Realistically, you will not achieve the necessary hygiene standards by asking the two or three people who run a kebab shop to spend huge chunks of time drawing up hazard analysis flow charts, then keeping exhaustive details of temperatures and cleaning regimes.

That's why the Agency's Safer Food Better Business initiative - and sister schemes operating in Scotland and Northern Ireland - has been such a roaring success so far. Because it makes food hygiene - cooking, cleaning, chilling and avoiding cross-contamination - easy and routine for smaller businesses.

Businesses make Safer Food Better Business their own system - they understand and control their hazards - and in so doing they achieve the same outcome as traditional HACCP: safe food.

Given the emphasis we place on food safety throughout the food chain, it is not surprising that we are extremely worried by the threshold being proposed by the European Commission. This is the proposal to exempt food businesses with fewer than 10 employees from the requirement to have in place food safety management procedures based on HACCP principles. I'm instinctively in favour of reducing administrative burdens, but this (misguided) response should be a non-starter on two accounts.

First, because these may be the sorts of businesses that are actually a higher risk, if you do the risk assessment.

Evidence suggests that food businesses with fewer than 10 employees are responsible for at least 60 per cent of the outbreaks of food poisoning in this country. And in a recent survey we did of hygiene in food premises, by far the greatest proportion of high-risk businesses were the ones with the fewest employees.

And second, because Safer Food Better Business shows you can make food safety management work for small businesses. We've already distributed about 300,000 catering and retail packs, and made grants of over £10m to local authorities to help introduce it. And the feedback says it works.

It also emphasises the fact that food safety is the responsibility of the food business and not the regulator.

I'm sure that it's a common, if incorrect, public perception that health inspectors are checking out the local take-away once week or once a month - despite there being 750,000 food businesses in England, a couple of thousand enforcement officers, and one Food Standards Agency.

But in one sense, people are quite right to think that the local kebab shop should be inspected every single day - it should, by its owner or manager.

That's why 'scores on the doors' is such a good idea in regulatory terms.

Scores on the doors is shorthand for public access to hygiene inspection results, either as a rating on a public website or outside the shop or restaurant.

Over the next two years, over a hundred local authorities will be piloting different ways of presenting the information - just under half with Agency sponsorship.

I believe that better public access to judgements about hygiene will incentivise owners and managers to make sure their businesses are as clean as possible. In other words, the regulatory tool of good, clear public information is being used to help people make choices which both protect themselves and drive the market in the right direction.

Will it be effective?

The evidence from California is positive. And ask yourself - given a choice between a restaurant displaying a positive hygiene rating and one showing nothing, which one would you go to?

We aim to recommend the most promising scheme within two years at the latest, and early indications are that some of the pilots already underway are having a positive effect.

The science of choice

Supporting the right, and the ability, of consumers to make choices is part of the Agency's approach. But, as a sweeping generalisation, choice is more often an option when it comes to diet and health than food safety.

Of course consumers do make choices in relation to safety, for example when choosing to eat raw or runny eggs, or drink unpasteurised milk.

But there is a distinction to be made here - between risks where people can make a choice, and risks where they can't.

In general, safety risks are 'upstream', beyond the consumer's control, while dietary risks are 'downstream.'

There are always exceptions - such as the Nutrition and Health Claims Directive, or nutritional standards for school meals. But generally, the choices we make about what we eat, and what we feed our families, are highly personal. Governments meddle in these 'downstream' food choices at some risk.

But there are perhaps two reasons which justify the entry of government into this sensitive field:

- First, there is a general responsibility on government to safeguard a healthy population
- Second, the costs of diet-related illness are already substantial and all estimates point to them growing in an alarming way.

The risk to the economy from an increasing proportion of the population being unable to work - affecting tax revenues, pension contributions, and welfare payments - was estimated in 2002 by the House of Commons' Health Select Committee. Updating earlier work by the National Audit Office, the Select Committee found that obesity costs the UK economy an estimated £4-4.5 billion a year (comprising direct NHS costs, lost output due to premature mortality, and lost output due to sickness). It has undoubtedly increased since then, as has the recognition of the social inequality that is exacerbated by diet-related disease.

Like many of the other big social problems facing Government - anti-social behaviour, alcohol abuse, sexual health - the solutions are subtle and often intangible. You can't order people to eat lettuce.

But how far do we go? And where do responsibilities lie?

Perhaps there is a third reason for regulatory intervention, namely that as food has become more complex or processed - the term 'meal solutions' springs to mind - the composition of that food has become less self-evident and therefore less easy for consumers to make the choice that they would wish. It is not enough to know that too much salt is bad for you, you have to be able to identify its presence, and in what quantity, in food products where you might be surprised to find salt at all.

One of the primary roles of any regulator is ensuring that people have ready access to the information which allows them to make the choice that is right for them. This applies at the other FSA, the Financial Services Authority, with savings products in exactly the same way as it does at the Food Standards Agency with food.

In this area of choice, the main thrust of our initiatives is to make sure consumers have that simple, clear information, delivered in a way that recognises the reality of our busy lives, and which allows them to take control of their own destiny.

However, in saying that, we have to recognise that the science of nutrition is fraught with even more uncertainties than the science of food safety - nutrition is complex, and you can't easily control all the variables - the main variable of course being people.

But we have to work with the best available science and scientific expertise - as we have done - on salt, front-of-pack labelling, nutrient profiling, and the latest piece in the jigsaw, the draft consultation on saturated fat and energy balance.

This is not just about the 'hard' sciences though. It is also about the science of behaviour: what drives people to make the choices that they do? Why are we reluctant to change, even in the face of compelling evidence? What are the triggers that help people act according to longer term risks, rather than short term rewards?

There are few enough certainties with the physical sciences, fewer in nutrition. But fewest of all in the social sciences.

That means that the Agency must work hard to ensure support, consensus, and good partnerships.

That is the approach we have adopted with our dietary initiatives - all of which have progressed on a scientific basis, forming hypotheses, testing them out, revising and adapting with new knowledge.

Does it work?

So is our approach of looking to work with the market working?

As Zhou Enlai said of the French Revolution, it's too early to tell. But I do think the early signs are promising.

Industry can deliver change far faster through the market than can be done using the old, traditional approach to regulation, provided there is clarity about the route map.

That is why our first instinct is to engage with you, and look for solutions that fit in with the grain of a competitive market.

The single most obvious public health benefit of this approach has to be the reduction in foodborne illness:

- a 19.2 per cent reduction between 2001 and 2006.
- 1.5 million fewer people ill with food poisoning in that time.
- 10,000 fewer hospital beds taken up.
- And estimated cost savings of around £750m.

At this point I usually mention that that £750m is roughly equivalent to the Agency's total budget for that whole five-year period, making us therefore cost neutral. Thus, the Agency can be considered self-financing with respect to savings generated from potential NHS costs, savings in the suffering of individuals, and savings from potential lost productivity and earnings.

Then if we were to factor in the value of the increase in consumer confidence that the Agency, working together with business, has helped to foster, the net monetary benefit of the Agency to the UK food industry may amount to a very much larger figure.

In fact, the greatest credit for the reduction in foodborne illness goes to the food industry, and the primary production section in particular.

The other headline benefit has been the switch to testing older cattle for BSE, that I mentioned earlier. We estimate this is already benefitting farmers and the public sector by around £300 million a year, as farmers are earning more from OTM animals, and Government is paying out less in disposal and compensation.

On nutrition, tremendous progress has been made on salt reduction and on clearer labelling, much of which is being done voluntarily, through partnerships and co-operation. The latest evaluation of the spring 2007 phase of our salt campaign has just been completed, and it shows that since we started in 2003, average salt intake has gone down by about 5 per cent and the number of people looking at food labels for salt content has gone up by 50 per cent.

That is an excellent result, because it means people are not just being made aware of a health issue, they are actually being helped to make informed choices. This makes the tremendous work that is being done right across the food industry to reduce salt in processed foods thoroughly worthwhile as we create a new cadre of health conscious consumers.

At the same time, food labelling has undergone something of a revolution, with every major retailer now voluntarily using one or other of the two main types of front-of-pack nutrition labelling.

I trust you'll forgive me for extolling the virtues of the Agency's traffic-light labelling recommendations - with Sainsbury's recently reporting that 79 per cent of its customers say it influences what they buy, and sales showing increases for products with green and amber signposts compared with similar products with ambers and reds.

But the bigger picture here is the dramatic change that has been made by industry generally to clarify nutritional information. As these two main schemes roll out, it's right to conduct research as to which approach helps which consumers the most.

I very much welcome the cooperation we have had from industry in undertaking independent research to find this out. And - again - I am happy to commit the Agency to the results of the research. We are an evidence-based Agency and will respond to where the evidence takes us, on this as much as on anything else.

We should also all be very proud of this collective undertaking. It is the biggest piece of behavioural research in this field anywhere in the world and is, in effect, involving 55 million UK consumers in assessing a very practical way of changing consumer behaviour. We'll be putting the research contracts out to tender this month.

Conclusion

What do all these initiatives - and the many I have not mentioned - have in common?

They work with the grain of the market, they rely on partnership and co-operation, and they rely fundamentally on the best available science and evidence.

That is how I see the Agency continuing to develop as an intelligent modern regulator, with more openness, transparency and proportionality, with more dialogue, and continued reliance on good scientific evidence to manage risks - from day-to-day to the horizon.

I'd like to conclude with some challenges: both those I foresee for the Agency and those to throw out to you.

For the Agency I believe the challenges fall into three main camps.

The first of these lies in food safety: the new complexities presented by an increasingly global food chain; the challenges of new sciences such as nanotechnology, as well as the handling of issues such as the application of GM in new fields; and the sheer day-to-day difficulties of dealing with the bacteria and viruses with which we are familiar.

The second is the question of the nation's diet and health. Our strategy overall is around products (encouraging the industry to produce the right products), environment (informing the public generally of health messages) and people (giving information to aid choice). That strategy looks right and I have already covered some of the detail of that approach.

But achieving the right balance as to where responsibilities lie and the appropriate methods for achieving the goals will be a continuing challenge.

The third set of challenges are internal ones: the need to make the Agency internally as efficient and effective as possible in its operation (the review of meat hygiene controls is an example of this), as well as simplifying and reducing the administrative burden of regulation as far as possible without compromising public health.

And now, the challenges to those of you in the food industry.

The first carries on from what I have just said about simplification.

I've given some examples of this - but they have all been self-generated, despite many requests to industry to tell us which regulations you consider over-complex and hence over-burdensome.

We have undertaken to reduce the administrative burden of food regulations within our remit by 25 per cent by 2010. If we are to do that, we need your help - so please let us have your ideas.

Second, I would like to see the industry more willing to share information about safety and dietary health with us. Public health is not a competitive issue and if there are ways of making it easier to have those discussions with us, please let us know.

And third, I would urge you to share more information with your customers - to let people see and hear more about where their food comes from, and what happens to it on the way from the farm to the kitchen.

Consumers are already looking for more quality, and healthier, more sustainable food. I believe that more openness and better informed consumers will move the market in a safer, healthier, more sustainable - and more profitable direction.

Finally, I think there is a challenge which we share: how to get the relationship between us on the right footing, something which we should all work at collectively. I am conscious that it is you who deliver food and it is therefore critical that we work closely and collaboratively with you - much can be achieved by that. But we have a common boss in the consumer to whom we each respond in our respective ways. That again leaves a balance to be negotiated between us as to the appropriate relationship. But I am happy to commit the Agency to continuing to work with you wherever and whenever we can, and to finding solutions which are coherent and sensible for the market, not just for the regulator, and which meet the needs and aspirations of the consumer.

If we can do that, then it has to be good for public health and good for business.