

FSA – success under the microscope

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When the FSA was established in the UK, one of the first initiatives it took was to set a target to reduce the incidence of foodborne disease by 20% over the period 2001-2005.

At the meeting of the FSA Board in October 2006, a report on the delivery of the target was presented.

This report notes that the provisional number of laboratory reported cases of foodborne pathogens during 2005 was 53,052. This represents a reduction of 19.2% in UK acquired cases, compared with the baseline figure for 2000.

The report goes on to claim that 'The strategy has delivered substantial and significant achievements in a number of critical areas and a significant reduction in foodborne disease in the UK'.

A different picture

However, an examination of how the number of cases of infection has changed for the most important individual pathogens over the past five years, presents a rather different picture.

Table 1 shows that between 2000 and 2005 there has been:

1A reduction of 18.6% for the number of campylobacter infections.

1A reduction of 25.2% for the number of salmonella infections.

1An increase of 76.2% in the number of Clostridium perfringens infections.

1A reduction of 1.6% in the number of E.coli O157 infections. However, compared with the average for the period, the figures for 2005 were 14.5% higher.

1An increase of 94.5% in the number of infections due to Listeria monocytogenes.

These figures show that the big decline in the number of cases of campylobacter was between 2001 and 2002, with little change in subsequent years. According to the Zoonoses Report for 2005 there was also a gradual decline in the number of cases reported in all countries during this period.

Our knowledge of the routes of

No. of laboratory reports	Campylobacter	Salmonella	Clostridium perfringens	E. coli O157	Listeria monocytogenes
2000	51,166	13,148	181	1,035	113
2001	50,550	14,336	161	932	156
2002	43,158	12,719	60	761	159
2003	41,281	13,271	78	777	239
2004	39,791	11,791	527	818	232
2005	41,659	9,835	319	1,019	220
% change*	-18.6%	-25.2%	+76.2%	-1.6%	+94.5%

*value for 2005 compared with that for 2000

Table 1. UK foodborne disease data (2000-2005).

transmission for campylobacter remain unclear, nevertheless, it is highly likely that the reduction observed in all countries was due to some global factor and not the result of the FSA strategy.

In any case, the actions taken by the FSA would be more likely to have had an impact in the later years of the programme.

With respect to salmonella, the Zoonoses Report shows that the number of cases began to increase in 1980, reaching a peak in 1997. Since then they have fallen steadily.

Almost certainly this is due to the efforts of the poultry industry to eliminate the pathogen from poultry meat and from eggs (started before the FSA came into being).

So it is highly likely that the reduction observed post 2000 is primarily because of industry initiatives, which include the use of vaccination with the FSA strategy having a marginal impact. It is also possible the industry's own efforts to improve the general hygiene of poultry husbandry may have played a part in the fall in campylobacter.

Little impact

The total number of people infected by Clostridium perfringens has fluctuated over recent years, but there is certainly no indication that it has fallen in the last few years.

According to the Health Protection Agency, the main reason that the

pathogen spreads is because contaminated cooked meat and poultry dishes are subjected to inadequate temperature control after cooking, during cooling, and storage.

It follows from this that good standards of food hygiene and food handling will prevent infections.

The fact that there has been no reduction in the number of cases would indicate that the FSA strategy to improve food hygiene is having little impact.

The results for E. coli O157 also demonstrate that though there was a decline in cases by 26% by 2002, the numbers had increased by 2005 almost to the same levels as five years earlier.

Money well spent?

For Listeria monocytogenes the average number of cases for the last three years is 230, which compares with an average value of 143 for 2000-2002, so there has obviously been a genuine increase in people infected in the last few years.

During the past five years, the FSA has spent over £15M on Food hygiene education and promotion, over £3M on HACCP for catering and retail and just under £2.5M on red meat and poultry.

Despite the claims made by the FSA, there is no evidence that money spent on food hygiene education and promotion is having any significant impact.

In order to reduce food poisoning, there are two fundamental approaches that can be followed.

The first is to prevent the pathogens from entering the food chain or treating any food which may be infected before it gets to the person who will prepare and service the food.

The other is to instruct and/or persuade the food handler to take appropriate steps to exclude or destroy any pathogens before the food is served to the person who will consume it.

With food which is infected, precautions must also be taken to prevent the pathogen from spreading to foods which do not require cooking or which have already been cooked.

Radical evaluation needed

In view of the fact that there is no convincing evidence the current initiatives are working, perhaps it is time for the FSA to conduct a radical evaluation of its foodborne disease strategy with a view to placing much more emphasis on preventing pathogens from entering the food chain.

The experience of the poultry industry in virtually eliminating salmonella from eggs demonstrates what can be achieved by this approach.

Finally, the FSA would be well advised to take note of recent events in the USA.

The presence of E. coli in packaged spinach distributed to retail outlets nationally, and in lettuce distributed to a chain of restaurants, has caused numerous cases of food poisonings.

As a consequence, there has been huge media coverage in which the companies involved and the regulatory authorities have been subjected to severe and prolonged criticism.

The fact that in January 2007 various watercress products for sale in the UK were withdrawn because of possible salmonella contamination should serve as a timely warning to the UK's Food Standards Agency! [FaxNOW +44 01756 700807](mailto:FaxNOW+4401756700807)

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