

CASE STUDY – RISK TO THE PUBLIC FROM CHOCOLATE

A chocolate company had the finger pointed at them by the government Health Protection Agency (HPA) in June 2006 who confirmed that salmonella outbreaks had come from their chocolate products. Molecular fingerprinting test had shown that the bacteria had caused 53 reported stomach upsets and that the true figure was up to five times this, due to the fact that many adults with stomach upsets never visited their doctors. *“Molecular typing showed that the samples from Cadbury Chocolate were the same as human cases. We cannot be sure that Cadbury products caused the disease but it is a strong possibility”* said the HPA.

Cadbury is one of the world's largest chocolate producers, selling over £1 billion per year of chocolate. They were accused of failing to follow key food safety principles. The company had repeatedly and publicly insisted that low levels of salmonella, in ready-to-eat foods was acceptable.

Official government agencies and independent microbiological experts had said high levels of fat and sugar in chocolate made it an ideal vehicle for preserving salmonella and carrying it into the intestine. This meant that serious illness could be caused by what appeared to be mere trace levels of bacterium. The government watchdog Food Standards Agency (FSA) said *“Salmonella is unacceptable at any level and we would have expected Cadbury to have notified us far earlier than they did on finding bacterium in their products.”*

The contamination was first detected at a factory producing chocolate crumb in January 2006 and was traced to a leaking pipe, which carried waste water to drain but had started to drip onto a conveyor belt. Cadbury believed that it had been fixed around that time. However the HPA had tested chocolate samples from January to June and found them contaminated.

Cadbury had samples independently tested and were advised by the laboratory that they contained salmonella. Cadbury management had decided that the level of contamination did not warrant further action and *“there was no need to contact the FSA.”*

However there were Global Food Standard rules, which Cadbury had signed up to which said *“As soon as salmonella is detected the company should institute a crises management procedure, including recalls of any potentially hazardous products and warning relevant authorities.”* Cadbury management initiated no such procedures and instead managers decided informally that salmonella levels were too low to be a threat and carried on chocolate production.

The strain identified was Salmonella Montevideo and in 2005 there had been 14 cases, almost all brought in from those returning from abroad. In the first half of 2006 there had been over 50 cases and many of the patients were children.

HPA statisticians investigating the source of the infection began to suspect that it might be chocolate as many of the patients were children. They also

trawled through their own files. They found the strain in samples sent to them for independent testing by Cadbury's private laboratory. When they carried out molecular analyses of the two sets of samples — Cadbury's and those taken from victims of the infection — they found they were the same.

For Cadbury, the consequences of the delays proved damaging to its reputation and its business. In June the FSA ordered it to withdraw 1m chocolate bars, which must all be destroyed. They include many of Cadbury's important brands.

The company faced prosecution by environmental standards departments, whose officers were understood to be angry at not being informed about the contamination when it was first detected six months earlier in January. Cadbury's major customers demanded action to be taken by the withdrawing of Cadbury products. Cadbury also had to suspend its major advertising and promotional campaigns.

Food safety experts say Cadbury cannot claim to have been unaware of the risk from salmonella in chocolate, as the bacterium is a known contaminant throughout the early parts of the production process and must be eliminated. Professor Hugh Pennington, president of the Society of General Microbiology, said: *"Salmonella is a dangerous bug and Cadbury is wrong to say that low levels do not matter. The acceptable level of salmonella in food is zero."*

Cadbury started the product recall process in July and a month later the stock recall cost was already at £20million, of which £6 million would be covered by product insurance. Lost sales in June alone accounted for £5million. Competitors were quick to fill the gaps on the shelves with their brands being put on special offer supported by deals and incentives. Cadbury's report and accounts reported the cost of the failure was £30million and chocolate market share had fallen.

Cadbury's were prosecuted and fined in the courts £1million in July 2007 and there were still 47 outstanding claims for compensation from the public who were allegedly affected by the outbreak.