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Food Terrorism: How Real? A Historical Survey since 1950

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Concern has risen in recent years that the food supply chain could be a target of terrorists seeking to poison individuals on a mass scale. A recent report by the Centre of Excellence for National Security (CENS) analysed all incidents of the malicious contamination of the food supply chain since 1950. The results are useful to those conducting threat assessments in this domain.

IN RECENT years concern has risen in some sectors of the policymaking community and private industry that the food supply chain could be a target of terrorists seeking to poison people on a large scale. The term "food defence" has been crafted to refer to protecting the food supply chain from intentional contamination. The World Health Organization issued a report stating that "the malicious contamination of food for terrorist purposes is a real and current threat, and deliberate contamination of food at one location could have global public health implications".

In 2003, the US Food and Drug Administration (FDA) declassified a document in which it stated that a large number of people would be harmed by an act of "food terrorism". The former US Health and Human Services Secretary Tommy G. Thompson, in his oft-quoted 2004 resignation speech, said: "I, for the life of me, cannot understand why the terrorists have not… attacked our food supply because it is so easy to do."

In the most comprehensive study to date, the Centre of Excellence for National Security (CENS) collected and analysed all incidents of the intentional and malicious contamination of the food supply chain since 1950. The results are both useful to those conducting threat assessments in this domain as well as putting this issue in a more proper perspective.

Food Defence Incidents 1950 - 2008

Between 1950 and 2008 CENS identified 365 incidents that could be verified using open sources resulting in a total of 391 fatalities and 4,355 injuries. Only four incidents could be attributed to a terrorist group; the last confirmed incident was a failed attempt in 1992 by a cell of the Kurdistan Workers' Party (PKK) to poison the water tank at an airbase in Turkey.

Ninety-nine percent of the cases occurred either in the home or at the retail point of the food supply chain. The vast majority of cases are simple homicides occurring in the home with a readily available household product being used to poison foodstuffs. Poisonings that occurred in restaurants, where an agent could be introduced into a product widely served at a direct point of consumption, resulted in an average of 40 casualties per incident -- the largest of any point along the food supply chain.

The CENS study found only nine cases, out of 365, involved biological materials. The most widely known case is that of the Rajneeshee cult, in which 751 people were reportedly injured when the cult deliberately contaminated a number of salad bars in a small town in Oregon, USA with a variant of salmonella. The cult was practising a plan to disrupt local elections later in the year. The case was not discovered until a year after, when a member of the cult got cold feet and reported the incident to the authorities. The number of casualties sounds large, but most of these were self-reported a year later when authorities carried out an investigation. At the time of the incident, 45 people went to the hospital temporarily. If this is considered a case of "bioterrorism", it is not a very successful one.

The Fear of Terrorism

It appears as if the supposition that terrorists both want to and have the ability to cause mass casualties is not supported by open source information. If this is the case then what is the rationale for funding food defence programmes? It is the impact of previous food safety incidents that are most often used as examples of the threat of intentional incidents. Examples given include Spain (1981) where 20,000 injuries and 800 fatalities were caused by industrial rapeseed oil illegally added to consumer's cooking oil, or in China (1991) where 300,000 people contracted Hepatitis A from contaminated clams. If such unintentional food safety contamination issues still occur, how are we to stop a determined individual or individuals from replicating such negative effects?

The US Department of Homeland Security states that "the prospect of a mass-scale food contamination event is of particular concern because the nation is subject to major *unintentional* food-borne illness outbreaks. Experts reason that…an individual or individuals with malevolent aims could reproduce these outbreaks with more dire consequences.". Such logic seems spurious, at best. While someone with a vivid imagination could use such events as a springboard to all sorts of ingenious plots carried out by people with nefarious intentions, what they point in reality to are problems in the safety and quality of foodstuff within the food supply chain.

The Central Intelligence Agency, in its unclassified reporting on terrorist groups' acquisition or interest in chemical and biological weapons, notes they are mainly "focused on agents for use in small-scale poisonings or assassinations". The report also states that "terrorist groups are most interested in chemicals such as cyanide salts to contaminate food and water supplies or to assassinate individuals. Terrorist groups also have expressed interest in many other toxic industrial chemicals — most of which are relatively easy to acquire and handle". This concurs with one of the findings from this study that, not surprisingly, the most commonly used compounds for poisoning were those that were either at hand or readily available on the market.

Lack of Evidence

There is very little clear evidence of actual *intent* from terrorist groups to attack the food supply chain in order to produce mass casualties, whether with CBRN materials or otherwise. The US Department of Homeland Security states they "lack credible information to indicate transnational terrorist planning for an attack against food and agriculture" on Al Qaeda's part and note that Al Qaeda is focused on "producing mass casualties, visually dramatic destruction, significant economic aftershocks, [and] fear".

Extremist training manuals found online do contain references to the use of poisons, but only in the context of targeted assassinations, not mass poisonings using food as a delivery vehicle. The utility of such publicly available sources of information on manufacturing biological agents is spurious as well. One technical analysis of the information contained in terrorist manuals regarding poisons derides the capabilities to manufacture such compounds: "Careful examination of the document shows that it is crammed with errors, seemingly the work of someone with little discernible sense, profoundly ignorant of the nature of simple compounds and incompetent in even minor [laboratory] procedures." Dr. Milton Leitenburg, who has studied biological weapons since the 1960s, examined the manuals and concluded they "were crude to the point of being useless."

Over-stated terrorist threat?

The vast majority of malicious contamination incidents occur in the home. The insider threat from disgruntled employees remains a more likely path for malicious contamination incidents. Existing food safety efforts can be leveraged with strengthened controls at the production and packaging side of the supply chain to minimise such incidents.

More serious than the potential terrorist threat is the issue of intentional contamination for economic gain, the melamine case being a prime example. In terms of public health impact, improving the quality and safety of food should be the primary focus of both governments and the private sector. The terrorist threat to the food supply chain is an overstated one. It is the result of speculative what-if questions that do little to address real threats to public health.

The CENS Report "Food Defence Incidents 1950-2008" can be found online at http://www.rsis.edu.sg/CENS. Gregory Dalziel is Associate Research Fellow with the S.Rajaratnam School of International Studies (RSIS), Nanyang Technological University where he is attached to the Centre of Excellence for National Security (CENS).