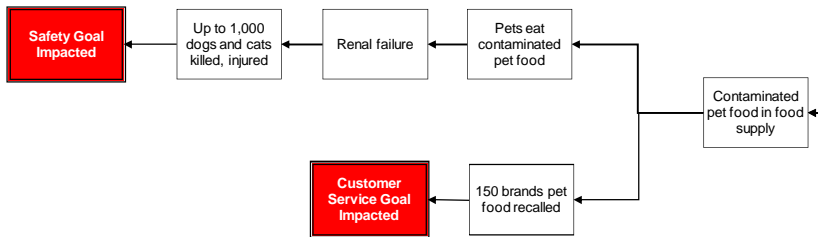


Pet Food Contamination, 2007

On March 15, 2007, the Food and Drug Administration (FDA) was notified that ten animals had died from eating pet food. This began an investigation into a problem that would result in the recall of 150 brands of pet food, and would kill many animals - some veterinarians suggest up to 1,000. We can illustrate what happened in a cause map. A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

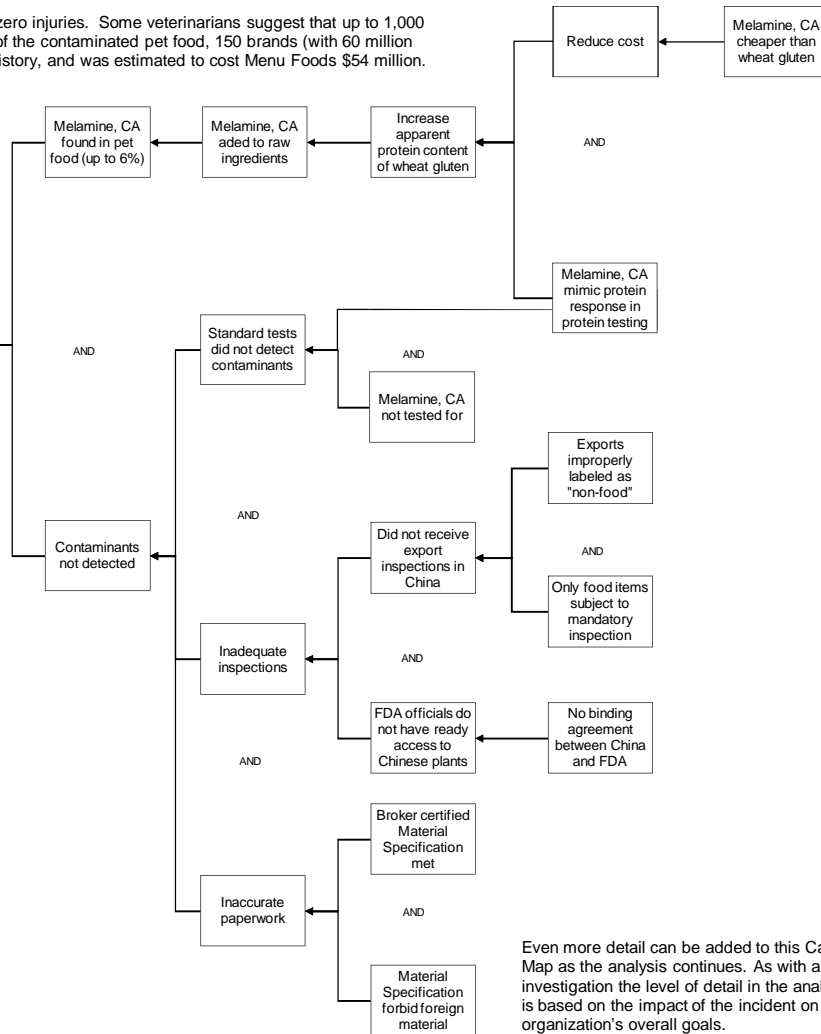
First, we examine the impacts to the goals (in red). For a food manufacturer, one of the overall goals is to have zero injuries. Some veterinarians suggest that up to 1,000 dogs and cats were killed in the U.S. One of the other goals impacted is the customer service goal. In the case of the contaminated pet food, 150 brands (with 60 million containers of Menu Foods pet food, the most affected brand) were recalled. This was the largest recall in FDA history, and was estimated to cost Menu Foods \$54 million.

The loss of pets was caused by renal failure. The renal failure in dogs and cats occurred because the dogs and cats ate contaminated pet food. The dogs and cats ate contaminated pet food because it was in the food supply. This also led to the recall.



Why was the contaminated pet food in the food supply? The food was contaminated with up to 6% melamine and cyanuric acid (CA), and the contaminants were not detected. The melamine and cyanuric acid (CA) were found in the food because they were added to the raw ingredients to increase the apparent content of the wheat gluten. This reduced the cost for the manufacturer because melamine and cyanuric acid are cheaper than wheat gluten. It increased the apparent protein content because melamine and cyanuric acid mimic the protein response in protein testing.

The contaminants were not detected because standard tests did not detect them, and because of inadequate inspections and inaccurate paperwork. Standard tests did not detect the contaminants because melamine and cyanuric acid mimic protein response in protein testing, and because they were not tested for. Inspections were inadequate because the material did not receive export inspections in China, because the exports were improperly labeled as non-food, and only food items are subject to mandatory inspection. The inspections were also inadequate because FDA officials do not have ready access to Chinese plants because there is no binding agreement between China and the FDA. The paperwork was inaccurate because the broker certified that the material specification was met, and the material specification forbid foreign material.



Even more detail can be added to this Cause Map as the analysis continues. As with any investigation the level of detail in the analysis is based on the impact of the incident on the organization's overall goals.

Cause Map Detail Level

