Botulism from Chili Sauce Case Study

An Indiana husband and wife,both feeling ill, went to separate hospitals to be examined, and several potential diagnoses were suggested. A few days later, on July 11, 2008, both patients were evaluated at the same hospital. There, physicians were able to make a preliminary diagnosis of botulism based on the couple’s shared symptoms, which included cranial nerve palsy and descending flaccid paralysis. Both patients required mechanical ventilation. During a search of the couple’s refrigerator, local health officials found an unlabeled bag of leftover chili sauce that, when analyzed, contained botulin, the bacterial toxin that causes botulism. Botulin is produced by *Clostridium botulinum,* an endospore-forming bacterium. Because botulism is a

reportable disease, the facts of the case were forwarded to the Indiana State Department of Health and the Centers for Disease Control and Prevention (CDC).

Four days earlier, the CDC had received a similar report from Texas, where two siblings had been diagnosed with botulism, again only after being examined at the same hospital. Both children had eaten Castleberry’s Hot Dog Chili Sauce for lunch on June 28. Although the can from this meal had been discarded, another can, bought at the same time, was found in the home.

Based on these two cases, the CDC suspected a common source epidemic.

* What conditions encourage the germination of *Clostridium botulinum* endospores?
* What is a common source epidemic?