

***Salmonella* Dublin Infections Likely Associated with Ground Beef**

October – December

Multiple counties/Multiple states

On November 30, 2020, the Minnesota Department of Health (MDH) Public Health Laboratory (PHL) determined that two clinical *Salmonella* Dublin isolates submitted through routine surveillance were closely related (0 alleles different) by whole genome sequencing (WGS). A cluster investigation was initiated on December 1. On December 4, a third isolate that was closely related (zero alleles different) to the other two was added to the cluster. On December 16, a clinical isolate from Pennsylvania that was closely related to this cluster by WGS (0 alleles different) was identified. On January 14, 2021, a fourth clinical isolate from Minnesota that was closely related (0 alleles different) to the others was added to the cluster. The Pennsylvania Department of Health later identified three additional cases.

A case was defined as a person from whom *Salmonella* Dublin closely related to the outbreak clade by WGS was isolated, with specimen collection from October 28, 2020 to March 28, 2021. Cases or their proxies were contacted for interview and re-interviewed with a supplemental questionnaire.

The Minnesota Department of Agriculture contacted the grocery store chain potentially associated with the outbreak to determine from where they sourced ground beef.

Overall, eight outbreak cases from two states (MN [4], PA [4]) were identified. Among Minnesota cases, specimen collection dates ranged from October 28 to December 29. The median age of cases was 73 years (range, 43 to 91 years), and 75% were male. Three cases (75%) were hospitalized for a median of 15 days (range, 1 to 16 days), and one died.

Proxy interviews were conducted for two cases, one case refused interview, and one was lost to follow up. Both of the cases for whom information was available reported eating ground beef from 3-pound tubes purchased at two different Grocery Chain A locations. A 2019 *S. Dublin* case (onset date, October 2, 2019) with an isolate that was closely related by WGS also reported ground beef (patties) purchased from Grocery Chain A.

Among the Pennsylvania cases, all four reported eating ground beef from two different local grocery stores. Purchase dates were available for one of the Pennsylvania cases. Grind logs were obtained for Grocery Store X, which grinds beef in store. Grocery Store X purchased the ground beef from a packing house in Green Bay, Wisconsin. The Minnesota Department of Agriculture learned that Grocery Chain A does not grind their own ground beef and sourced their ground beef from the same packing house in Green Bay, Wisconsin.

This was a multi-state outbreak of *Salmonella* Dublin infections likely associated with ground beef. Traceback investigations suggested that the ground beef was processed a packing house in Green Bay, Wisconsin.