

Public Communications and Outbreaks of *E. coli* O157:H7 Infections linked to Romaine Lettuce

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**Spring 2018 Outbreak of *E. coli* O157:H7 Infections
Linked to Romaine Lettuce**

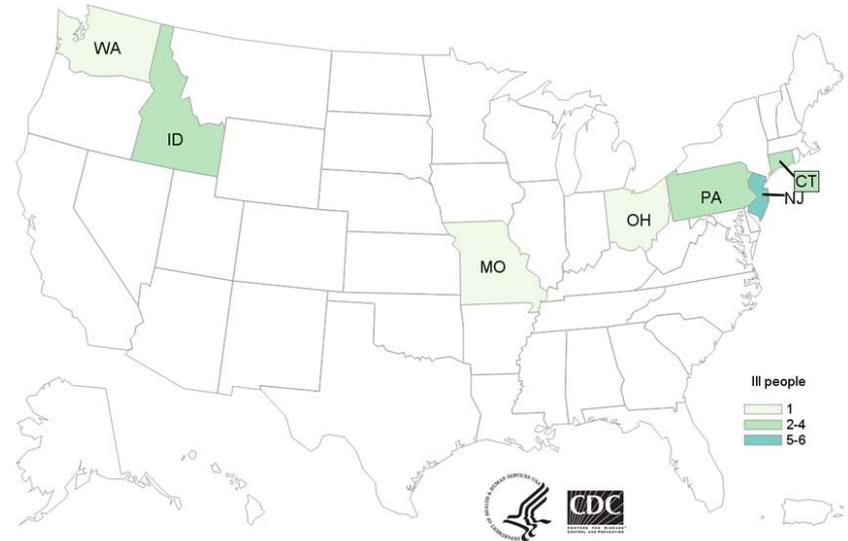
April 10: What Did We Know?

- **How many illnesses and where?**
 - 17 illnesses in 7 states
- **Outbreak ongoing?**
 - Yes
- **What evidence links the food to illness?**
 - Epi: Strong signal for salads/leafy greens, strength of romaine signal somewhat unclear
 - Traceback: Ongoing
 - Lab testing: None
- **Is public communication needed?**
 - Case count increasing rapidly
 - *E. coli* O157:H7 is serious
 - Media aware of NJ illnesses
 - Rumors about restaurant chain involvement
 - **Decision:** Communicate about the multistate investigation

April 10: CDC Investigation Notice

- **17 people infected with the outbreak strain of *E. coli* O157:H7 from 7 states**
 - Included infections recently reported by the NJ health department
- **“This investigation is ongoing and a specific food item, grocery store, or restaurant chain has not been identified as the source.”**

People infected with the outbreak strain of *E. coli* O157:H7, by state of residence

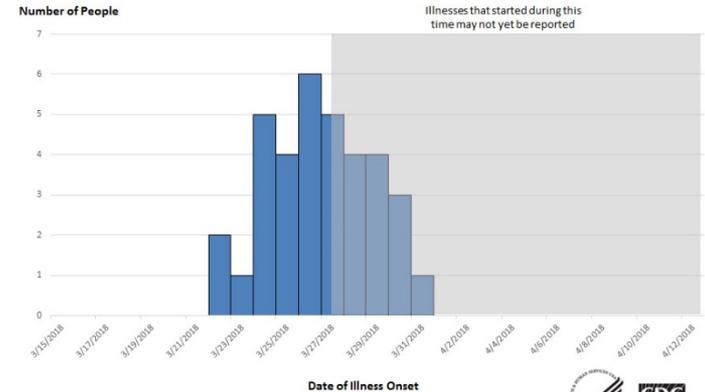
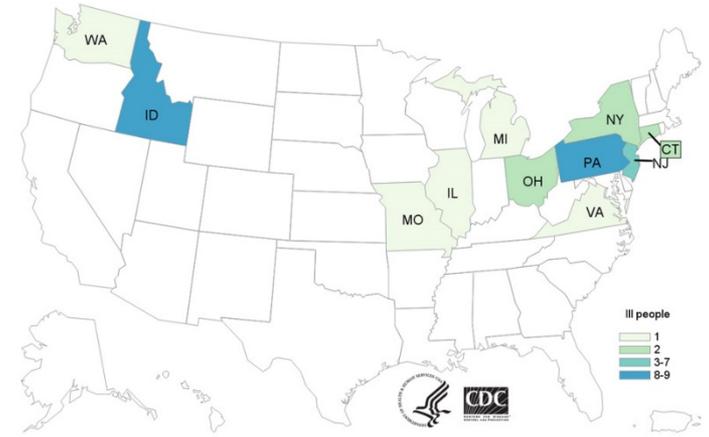


April 13: What Did We Know?

- **How many illnesses and where?**
 - 35 illnesses in 11 states
 - 22 hospitalized, 3 HUS
- **Outbreak ongoing?**
 - Yes
- **What evidence links the food to illness?**
 - Epi: Pre-chopped romaine
 - Traceback: Pointing to chopped romaine from the Yuma, AZ region
 - Lab testing: None
- **Is public communication needed?**
 - Case count increasing rapidly
 - *E. coli* O157:H7 is serious
 - Romaine lettuce leading hypothesis about the source
 - Traceback to Yuma, AZ growing region, but no farm ID'ed
 - **Decision:** Warn consumers and retailers not to eat or sell romaine lettuce grown in Yuma, AZ region

April 13: CDC Issues Advice to Consumers and Retailers

- Restaurants and retailers should not serve or sell any **chopped romaine lettuce from the Yuma, Arizona growing region**.
- Consumers anywhere in the U.S. who have **store-bought chopped romaine lettuce at home** should not eat it and should throw it away.
- Before purchasing romaine lettuce at a grocery store or eating it at a restaurant, consumers should **confirm with the store or restaurant** that it is not chopped romaine lettuce from the Yuma, Arizona growing region.



April 20: What Did We Know?

- **How many illnesses and where?**
 - 53 illnesses in 16 states
 - 31 hospitalized, 5 HUS
- **Outbreak ongoing?**
 - Yes
- **What evidence links the food to illness?**
 - Epi: 95% reporting romaine lettuce
 - Traceback: Chopped and whole head from the Yuma, AZ region
 - Lab testing: None
- **Is public communication needed?**
 - Case count increasing rapidly
 - *E. coli* O157:H7 is serious
 - Current advice only includes chopped romaine lettuce
 - **Decision:** Warn consumers and retailers not to eat or sell any romaine lettuce grown in Yuma, AZ region

April 20: CDC Advice Expands

- Based on new information, **CDC expands its warning** to consumers **to cover all types of romaine lettuce** from the Yuma, Arizona growing region
- Warning now includes **whole heads and hearts of romaine lettuce**, in addition to chopped romaine and salads and salad mixes containing romaine

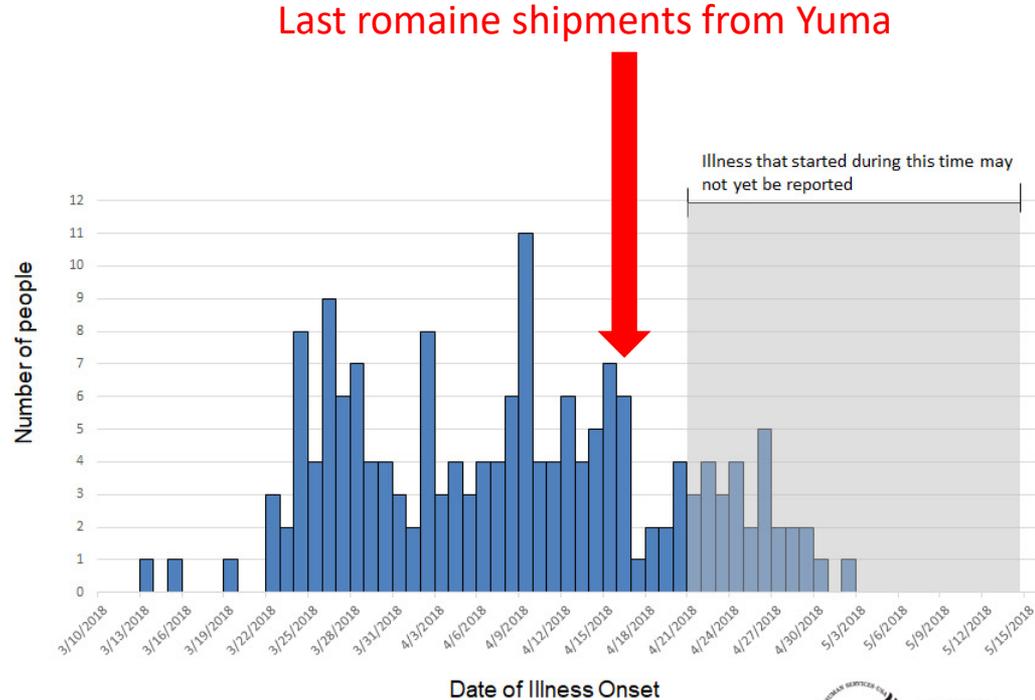


May 16: What Did We Know?

- **How many illnesses and where?**
 - 172 people infected in 32 states
- **Outbreak ongoing?**
 - Illnesses still being reported
 - Lettuce past its shelf life
- **What evidence links the food to illness?**
 - Epi: 91% reporting romaine lettuce
 - Traceback: Chopped and whole head from the Yuma, AZ region
 - Lab testing: None
- **Is public communication needed?**
 - Last shipments from Yuma were one month ago
 - Lettuce likely past its shelf life, so risk to consumers is lower
 - **Decision:** Lift consumer warning about romaine lettuce from Yuma

May 16: CDC Lifts Warning about Romaine from Yuma

- Romaine lettuce from the Yuma growing region is past its shelf life and is **likely no longer being sold in stores or in restaurants.**
- **Advice to consumers:**
 - See a clinician if you have symptoms of an *E. coli* infection



June 28: Outbreak Declared Over

- **Outbreak declared over on June 28, 2018**
 - 21 day maximum shelf life for romaine
 - 2-4 week reporting delay in PulseNet
- **210 ill people from 36 states**
 - 48% hospitalized; 27 people developed HUS; 5 deaths
- **“This outbreak appears to be over.”**

Fast Forward...

Fall 2018

Outbreak of *E. coli* O157:H7 Infections

Linked to Romaine Lettuce



November 20: What Did We Know?

- **How many illnesses and where?**
 - 32 people infected in 11 states
- **Outbreak ongoing?**
 - Yes
- **What evidence links the food to illness?**
 - Epi: Strong signal for salads/leafy greens and for romaine lettuce, same PFGE pattern from 2017
 - Traceback: Ongoing
 - Lab testing: None
- **Is public communication needed?**
 - Case count increasing rapidly
 - *E. coli* O157:H7 is serious
 - Three days before Thanksgiving
 - Harvest season ongoing
 - **Decision:** Warn the U.S. not to eat any romaine until we learn more

November 20: CDC Food Safety Alert

- **“Do not eat, serve, or sell any romaine lettuce until more information is available.”**
 - Includes whole heads, hearts, organic, chopped
 - Any romaine lettuce from any where

November 26: What Did We Know?

- **How many illnesses and where?**
 - 43 people infected in 12 states
- **Outbreak ongoing?**
 - Yes
- **What evidence links the food to illness?**
 - Epi: XX% reporting romaine lettuce
 - Traceback: Central Coastal regions of central/northern CA
 - Lab testing: None
- **Is public communication needed?**
 - Case count increasing
 - *E. coli* O157:H7 is serious
 - Industry indicating they will create labels that will include harvest information, not available yet
 - **Decision:** Warn the U.S. not to eat romaine from specific regions, labels available soon

December 6: Labels Introduced

- **On December 6, industry introduces labels on romaine lettuce**
 - 52 people infected in 15 states
- **Outbreak ongoing?**
 - Yes
- **Consumer messaging is more specific**
 - Don't eat romaine lettuce from "central coastal regions of northern and central California"
 - Hydroponic, greenhouse grown are not linked
 - Check the label for harvest region

December 6: Labels Introduced



Actionable?

January 9: Outbreak Declared Over

- **Outbreak declared over on January 29, 2019**
 - 21 day maximum shelf life for romaine
 - 2-4 week reporting delay in PulseNet
- **62 ill people from 16 states**
 - 46% hospitalized; 2 people developed HUS; 0 deaths
- **“This outbreak appears to be over.”**

Communications Lessons Learned

■ Spring 2018

- Issued public warning within 8 days of identifying the multistate outbreak
- Started with specific advice, not as actionable
- Challenging to provide clear advice

■ Fall 2018

- Needed to issue warning quickly, could not wait for growing regions or farms
- Used broad warning, led to industry action
- Collateral damage to farmers outside of central/northern California

- **Providing right message quickly is vital – adjusted approach after Spring outbreak to ensure advice was actionable**

Questions?

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For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

