

*E. coli* O157  
Cluster 1804MLEXH-1

June 27, 2018

# Agenda

- Roll call
- Slides
- State updates from states with new cases
- FDA update
- Communications
- Case Count Confirmations
- Manuscript
- Final questions or thoughts

## Cases of *E. coli* O157 in cluster 1804MLEXH-1, as of June 27, 2018

STATE	COUNT
AL	3
AK	8
AR	1
AZ	9
CA	49
CO	3
CT	2
FL	3
GA	5
IA	1
ID	12
IL	2
KY	1
LA	1
MA	4
MI	5
MN	12
MO	1
MS	1
MT	9
ND	3
NE	1
NJ	8
NY	11
NC	1
OH	7
OK	1
OR	1
PA	24
SD	1
TN	3
TX	4
UT	1
VA	1
WA	8
WI	3
TOTAL	210

- Case definition:
  - Infection with *E. coli* O157, and
  - with isolate matching PFGE pattern combination EXHX01.0047/EXHA26.0626 (204) or EXHX01.0124/EXHA26.0626 (2) or EXHX01.0277/EXHA26.0626 (2) or EXHX01.1486/EXHA26.0626 (8) or EXHX01.2401/EXHA26.0626 (1) or EXHX01.1040/EXHA26.5148 (1) or EXHX01.0047/EXHA26.5277 (2) or EXHX01.1486/EXHA26.5274 (2) or
  - EXHX01.2951/EXHA26.0626 (5)
  - EXHX01.7171/EXHA26.5294 (3), and
  - with isolation dates during 3/16/2018 – present
- 210 cases from 36 states
- Isolation dates: 3/16/2018 – 6/8/2018
- Reported onset dates (n=195): 3/13/2018 – 6/6/2018

**Table 2.** Patient demographics in *E. coli* O157 cluster 1804MLEXH-1, as of June 27, 2018

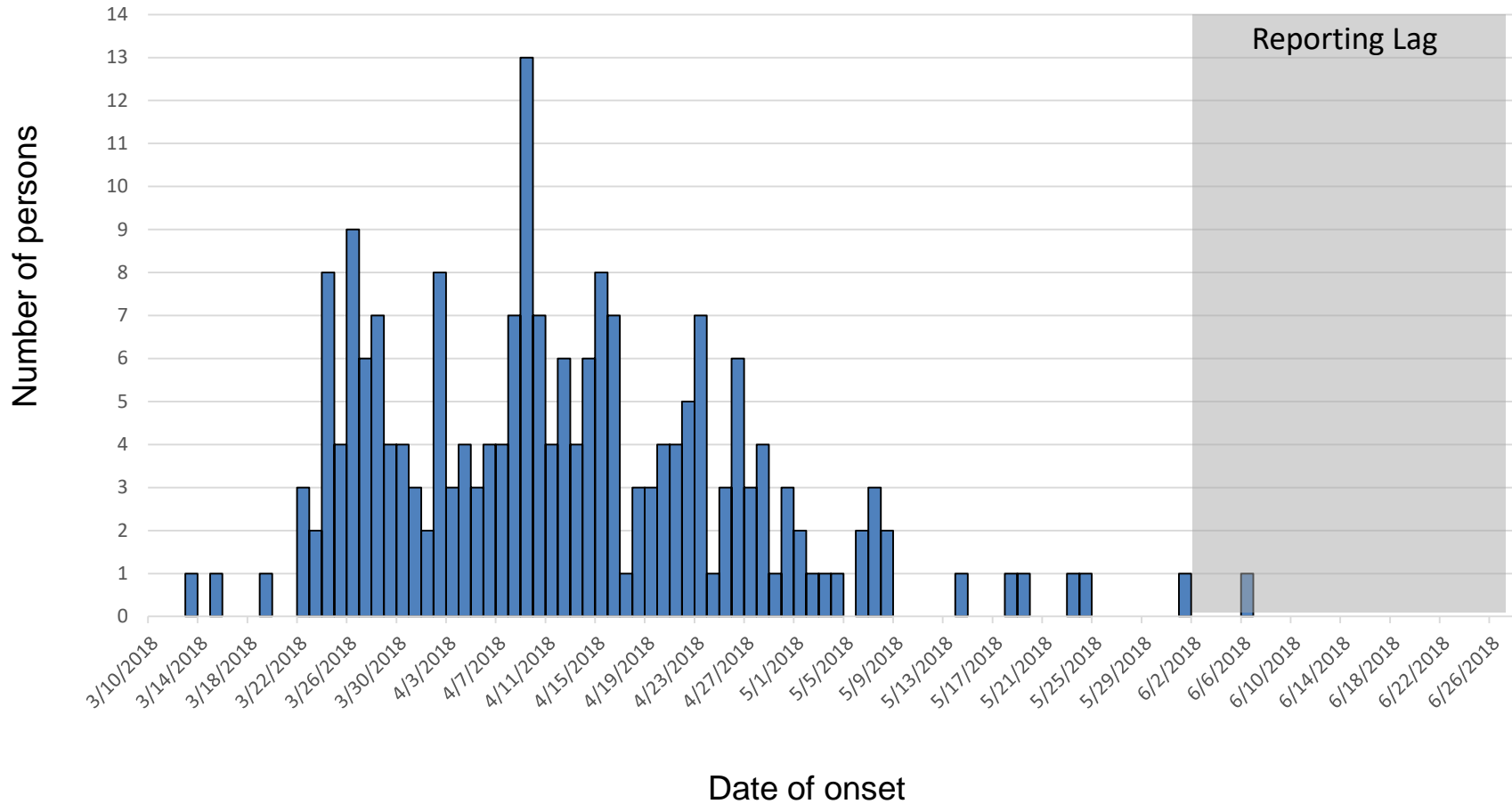
Demographics	
Age range (median), (n=210)	1-88 (28)
Age categories in years (n=210)	n (%)
<5	15 (7)
5 to 17	55 (26)
18 to 59	101 (48)
≥60	39 (19)
Sex (n=210)	n (%)
Female	140 (67)

**Table 3.** Patient outcomes in *E. coli* O157 cluster 1804MLEXH-1, as of June 27, 2018

Outcomes	n (%)
Hospitalized (n=198)	93 (47)
HUS (n=185)	27 (15)
Died (n=198)	5 (3)



# Persons infected with the outbreak strain of *E. coli* O157 (1804MLEXH-1), by date of onset\*, as of June 27, 2018



\*Some dates are estimated

\*\*\*Information for internal use only; not for distribution. Data are preliminary and subject to change\*\*\*

## Interview Data

- Of those interviewed, 171/177 (97%) report leafy green exposures
  - 145/166 (87%) report romaine
- Identified Sub-clusters
  - Panera
  - Applebee's
  - Red Lobster
  - Alaska Prison
  - Chick-Fil-A
  - Papa Murphy's
- Common Stores
  - Shop-Rite
  - Costco
  - Meijer

# Environmental Samples

- E. coli O157:H7 has been identified in 50 L irrigation canal water samples (24 isolates) taken from three irrigation canal locations along a 2 mile stretch in the Wellton area
  - Main outbreak strain identified (EXHX01.0047/EXHA26.0626)
  - Secondary outbreak strain identified (EXHX01.1486/EXHA26.0626)
  - Close variant of the outbreak strain identified (EXHX01.2951/EXHA26.0626)
- Whole genome sequencing indicates that these 20 isolates are highly related to clinical isolates
- Additional samples are pending



# Clade A: Cases of *E. coli* O157 in cluster 1804MLEXH-1

- **28 new isolates added, but this includes 3 from Clade D and 9 from Clade F**
- **Reported onset dates:** 4/14/2017 – 5/7/2018
- **Subclusters:**
  - Applebee's (8)
  - Buca di Beppo (3)
  - Chick-Fil-A (4)
  - Costco kiosk (2)
  - Hospital Cafeteria (2)
  - ID Local Chain A (2)
  - Moe's (3)
  - Panera (5)
  - Papa Murphy's (4)
  - AK Prison (8)
  - Red Lobster (6)
  - Texas Roadhouse (3)
  - La Madeleine (2)
  - Meijer (2)
  - MN Residential Facilities (3)
- **Historical Isolates or Variants:**

One from 1704MLEXH-1 from CO, 2 from Canada, one from ME from earlier 2018 outbreak, one PA case variant with Panera exposure, 1 MT variant, Lake Wildwood

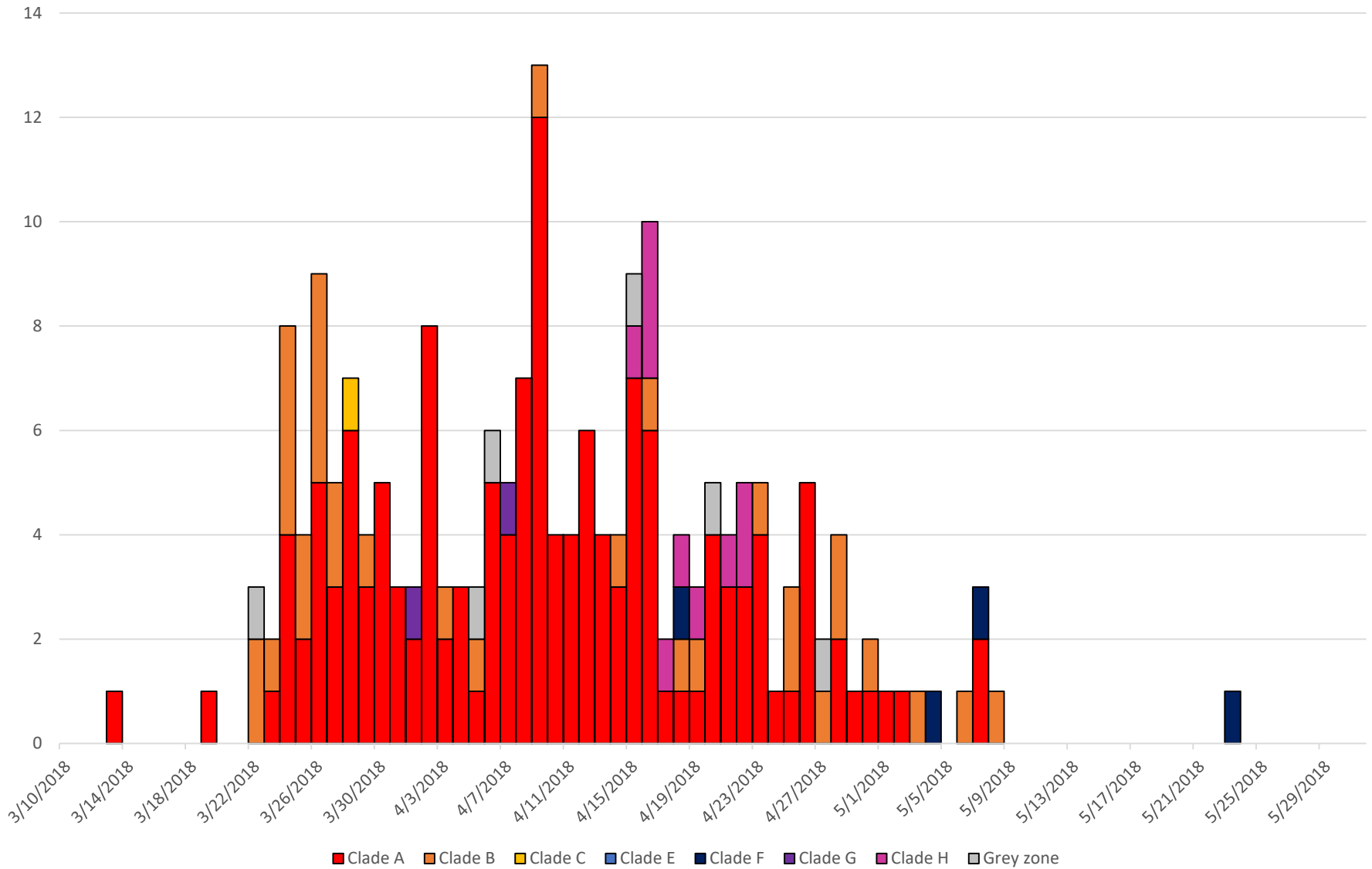
# Clade B: Cases of *E. coli* O157 in cluster 1804MLEXH-1

- **13 isolates added**
- **Reported onset dates:** 12/4/2017 – 5/8/2018
- **Subclusters:**
  - Panera (n=12)
  - OH Subway
  - AL High school
- **Panera Locations:**
  - Alliance, OH (1)
  - Bensalem, PA (1)
  - Bethlehem, PA (1)
  - Easton, PA (1)
  - Fenton, MO (1)
  - Flemington, NJ (1)
  - Murrysville, PA (1)
  - Phillipsburg, NJ (1)
  - Raritan, NJ (3; 1 reports no romaine lettuce eaten)
  - Not documented (NJ resident): 1
- **Historical Isolates or variants**
  - One from WI from earlier 2018, one from Canada, one variant from Michigan

## Clade F: Cases of *E. coli* O157 in cluster 1804MLEXH-1

- 4 cases from 2 states
- Onsets 4/18/2018 – 5/23/2018
- Two had raw, unpasteurized cheese

# Epi Curve by Clade



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