Washington State Department of Health

Fax completed form to DOH Communicable Disease Epidemiology Fax: 206-418-5515	Date of initial notification to DOH: __/__/____ Date report sent to DOH: 9/11/15	LHJ Cluster #: 201521186 LHJ Cluster Name: Chipotle 2015

Outbreak Reporting Form – Food

Disease

Form Status ☐ Preliminary report; in progress ☒ Final report	DOH outbreak #: _____ NORS #: _____

REPORTING AGENCY INFORMATION

Local health jurisdiction (LHJ) __PHSKC__

Contact person __Jenny Lloyd__

Contact person phone __(206) 263-8789__

Lead agency __PHSKC__

Initial LHJ notification date & time __8/5/15____ am/pm

Notified by: __lab__
(E.g. Report from school, daycare, lab, etc.)

Investigation start date & time __8/5/15____ am/pm

Investigation completion date __9/10/15__

INVESTIGATION METHODS (check all that apply)

☒ Interviews only of ill persons
☐ Case-control study
☐ Cohort study
☒ Food preparation review
☐ Water system assessment: Drinking water
☐ Water system assessment: Nonpotable water

☐ Treated or untreated recreational water venue assessment
☐ Investigation at factory/production/treatment plant
☐ Investigation at original source (e.g., farm, water source, etc.)
☐ Food product or bottled water traceback
☐ Environment/food/water sample testing
☐ Other _____

If applicable, attach further information about investigative activities and tools (e.g. epidemic curves, questionnaires, case definitions)

Comments

DATES (mm/dd/yyyy)

Date first case became ill: __7/28/15__

Date of initial exposure: __/__/____

Date last case became ill: __7/31/15__

Date of last exposure: __/__/____ Several exp dates unk

GEOGRAPHIC LOCATION

Place of Exposure (e.g., Name & City of restaurant): __Chipotle – Harvard Market__

County of exposure: __King__ or ☐ Exposure occurred in multiple counties, please list: _____

County of cases' residence: __King__ or ☐ Cases resided in multiple counties, please list: _____

PRIMARY CASES

Number of Primary Cases	5	Sex (estimated % of the primary cases)		
# Lab-confirmed cases	5	Male	40	%
# Probable cases	0	Female	60	%
# Estimated total primary ill	5			

	# cases	Total # for whom info is available	Approx % of primary cases by age			
# Died	0	↑	<1 yr	%	20-49 yrs	100 %
# Hospitalized	3	5	1-4 yrs	%	50-74 yrs	%
# Visited emergency room	2		5-9 yrs	%	≥75 yrs	%
# Visited health care provider (excluding ER visits)	0	↓	10-19 yrs	%	Unknown	%

INCUBATION PERIOD (PRIMARY CASES ONLY)

Shortest		Min, Hours, Days
Median		Min, Hours, Days
Longest		Min, Hours, Days
Total # of cases or whom info available		
☒ Unknown incubation period		

DURATION OF ILLNESS (PRIMARY CASES ONLY)

Shortest		Min, Hours, Days
Median		Min, Hours, Days
Longest		Min, Hours, Days
Total # of cases or whom info available		
☒ Unknown duration of illness		

SIGNS OR SYMPTOMS (PRIMARY CASES ONLY)

Feature	# cases with signs or symptoms	Total # cases for whom info available
Vomiting	2	
Diarrhea	5	
Bloody stools	5	
Fever	2	5
Abdominal cramps	5	
HUS	0	
Asymptomatic	0	

SECONDARY CASES

Mode of secondary transmission (check all that apply)	Number of secondary cases	
☐ Food ☐ Water ☐ Animal contact ☐ Person-to-person	# Lab-confirmed secondary cases	0
	# Probable secondary cases	0
☐ Environmental contamination other than food/water	Total # secondary cases	0
☐ Indeterminate/Other/Unknown	Total # cases (Primary + Secondary)	5

TOTAL CASES (PRIMARY AND SECONDARY): 5

LABORATORY

Is the etiologic agent laboratory confirmed? ☒ Yes ☐ No

If etiology is not laboratory confirmed, were patient specimens collected? ☐ Yes, # collected _____ ☐ No

If etiologic agent is not laboratory confirmed, the following agent is suspected based on the epidemiologic evidence:

☐ Bacterial toxin   ☐ Bacterial infection   ☐ Virus
☐ Chemical   ☐ Other: _____   ☐ Unknown

Genus	Species	Serotype	Confirmed outbreak etiology	Other characteristics	Detected in*	# Lab-confirmed cases
Escherichia	coli	O157:H7	☒ Yes ☐ Yes		1	5

*Detected in (choose all that apply) 1 – patient specimen   2 – food specimen   3 – environment specimen   4 – food worker specimen

DOH USE ONLY:

FOOD-SPECIFIC DATA

☒ Food vehicle undetermined   Total # of cases exposed to implicated food _____

	Food 1	Food 2
Name of food (excluding any preparation)		
Reason(s) suspected* (choose all that apply)		
Method of processing* (choose all that apply)		
Method of preparation* (choose one)		
Level of preparation* (choose one)		

*See list below for options

Reason(s) suspected:
1 – Statistical evidence from epidemiological investigation
2 – Laboratory evidence (e.g., identification of agent in food)
3 – Compelling supportive information
4 – Other data (e.g., same phage type found on farm that supplied eggs)
5 – Specific evidence lacking but prior experience makes it likely source

Method of processing (Prior to point-of-service: Processor):
P1 – Pasteurized (e.g., liquid milk, cheese, and juice etc.)
P2 – Unpasteurized (e.g., liquid milk, cheese, and juice etc.)
P3 – Shredded or diced produce
P4 – Pre-packaged (e.g., bagged lettuce or other produce)
P5 – Irradiation
P6 – Pre-washed
P7 – Frozen
P8 – Canned
P9 – Acid treatment (e.g., commercial potato salad with vinegar, etc.)
P10 – Pressure treated (e.g., oysters, etc.)
P11 – None or Unknown

Method of Preparation (At point-of-service: Retail: restaurant, food store):
R1 – Prepared in the home
R2 – Ready to eat food: No manual preparation, No cook step (e.g., sliced cheese, pre-packaged deli meats; whole raw fruits; raw oysters, bottled juice, etc.)
R3 – Ready to eat food: Manual preparation, No cook step (e.g., fresh vegetables, cut fresh fruits, chicken salad made from canned chicken, reconstituted juice, etc.)
R4 – Cook and Serve Foods: Immediate service (e.g., soft-cooked eggs, hamburgers, etc.)
R5 – Cook and hot hold prior to service. (e.g., fried chicken, soups, hot vegetables, hot dogs, mashed potatoes, etc.)
R6 – Advance preparation: Cook, cool, serve (e.g., sliced roast beef from a whole cooked roast, etc.)
R7 – Advance preparation: Cook, cool, reheat, serve (e.g., lasagna, casseroles, soups, gravies, sauces, chili, etc.)
R8 – Advance preparation: Cook, cool, reheat, hot hold, serve (e.g., chili, refried beans, etc.)
R9 – Advance preparation: Cook-chill and Reduced Oxygen Packaging (ROP) (e.g., sauces, gravies, cheeses, etc. packaged under ROP)
R10 – None/ Unknown

Level of preparation:
1 – Foods eaten raw with minimal or no processing. (e.g., washing, cooling)
2 – Foods eaten raw with some processing. (e.g., no cooking, fresh cut and/or packaged raw)
3 – Foods eaten heat processed. (e.g., cooked: a microbiological kill step was involved in processing)

Location where food was prepared (Check all that apply)		Location of exposure (where food was eaten) (Check all that apply)	
☒ Restaurant – 'Fast food' (drive-up service or pay at counter)	☐ Nursing home, assisted living facility, home care	☒ Restaurant -- 'Fast food' (drive-up service or pay at counter)	☐ Nursing home, assisted living facility, home care
☐ Restaurant – Sit-down dining	☐ Hospital	☐ Restaurant – Sit-down dining	☐ Hospital
☐ Restaurant – Other or unknown type	☐ Child day care center	☐ Restaurant – Other or unknown type	☐ Child day care center
☐ Private home	☐ School	☐ Private home	☐ School
☐ Banquet facility (food prepared and served on site)	☐ Prison, jail	☐ Banquet facility (food prepared and served on site)	☐ Prison, jail
☐ Caterer (food prepared off-site from where served)	☐ Church, temple, religious location	☐ Caterer (food prepared off-site from where served)	☐ Church, temple, religious location
☐ Fair, festival, other temporary or mobile services	☐ Camp	☐ Fair, festival, other temporary or mobile services	☐ Camp
☐ Grocery store	☐ Picnic	☐ Grocery store	☐ Picnic
☐ Workplace, not cafeteria	☐ Other (describe below)	☐ Workplace, not cafeteria	☐ Other (describe below)
☐ Workplace, cafeteria	☐ Unknown	☐ Workplace, cafeteria	☐ Unknown
Remarks:		Remarks:	

FOOD WORKERS

Was food-worker implicated as the source of contamination? ☐ Yes ☒ No

If yes, please check one of the following:
- ☐ Laboratory and epidemiologic evidence
- ☐ Epidemiologic evidence
- ☐ Laboratory evidence

PUBLIC HEALTH ACTIONS AND CONTROL MEASURES

☒ Health education information provided to cases and contacts

☒ Cases evaluated for sensitive occupations or situations and excluded during contagious period if necessary

☒ Employees all tested neg. for E-coli.

☐ _____

☐ _____

DISCUSSION / CONCLUSION

Please briefly summarize the findings of this outbreak investigation.

☐ EH Field Investigation Form (Part 2) attached, if relevant

☐ Red/Blue Form attached, if relevant

☐ Supporting documentation attached, if relevant

CONTRIBUTING FACTORS	
Contamination Factors (check all that apply)	**Proliferation/Amplification Factors (check all that apply)**
☐ C1 Toxic substance part of tissue	☐ P1 Food preparation practices that support proliferation of pathogens (during food preparation)
☐ C2 Poisonous substance intentionally/deliberately added	☐ P2 No attempt was made to control the temperature of implicated food or the length of time food was out of temperature control (during food service or display of food)
☐ C3 Poisonous or physical substance accidentally/inadvertently added	☐ P3 Improper adherence of approved plan to use Time as a Public Health Control
☐ C4 Addition of excessive quantities of ingredients that are toxic in large amounts	☐ P4 Improper cold holding due to malfunctioning refrigeration equipment
☐ C5 Toxic container	☐ P5 Improper cold holding due to an improper procedure or protocol
☐ C6 Contaminated raw product – food was intended to be consumed after a kill step	☐ P6 Improper hot holding due to malfunctioning equipment
☒ C7 Contaminated raw product – food was intended to be consumed raw or undercooked/underprocessed	☐ P7 Improper hot holding due to improper procedure or protocol
☐ C8 Foods originating from sources shown to be contaminated or polluted (such as a growing field or harvest area)	☐ P8 Improper/slow cooling
☐ C9 Cross-contamination of ingredients (cross-contamination does not include ill food workers)	☐ P9 Prolonged cold storage
☐ C10 Bare-hand contact by a food handler/worker/preparer who is suspected to be infectious	☐ P10 Inadequate modified atmosphere packaging
☐ C11 Glove-hand contact by a food handler/worker/preparer who is suspected to be infectious	☐ P11 Inadequate processing (acidification, water activity, fermentation)
☐ C12 Other mode of contamination (excluding cross-contamination) by a food handler/worker/preparer who is suspected to be infectious	☐ P12 Other situations that promoted or allowed microbial growth or toxic production
☐ C13 Foods contaminated by non-food handler/worker/preparer who is suspected to be infectious	☐ P-N/A Proliferation/Amplification Factors - Not Applicable
☐ C14 Storage in contaminated environment	
☐ C15 Other source of contamination (e.g., hand washing)	☐ **Contributing factors unknown**
☐ C-N/A Contamination Factors Not Applicable	
Survival Factors *(check all that apply)*	
☐ S1 Insufficient time and/or temperature control during initial cooking/heat processing	☐ S4 Insufficient or improper use of chemical processes designed for pathogen destruction
☐ S2 Insufficient time and/or temperature during reheating	☐ S5 Other process failures that permit pathogen survival
☐ S3 Insufficient time/temperature control during freezing	☐ S-N/A Survival Factors - Not Applicable

The confirmed or suspected point of contamination *(check one)*

☒ Before preparation   ☐ Preparation   If 'before preparation': ☐ Pre-harvest   ☐ Processing   ☐ Unknown

Reason suspected *(check all that apply)*

☒ Environmental evidence   ☐ Laboratory evidence   ☒ Epidemiologic evidence   ☐ Prior experience makes this a likely source
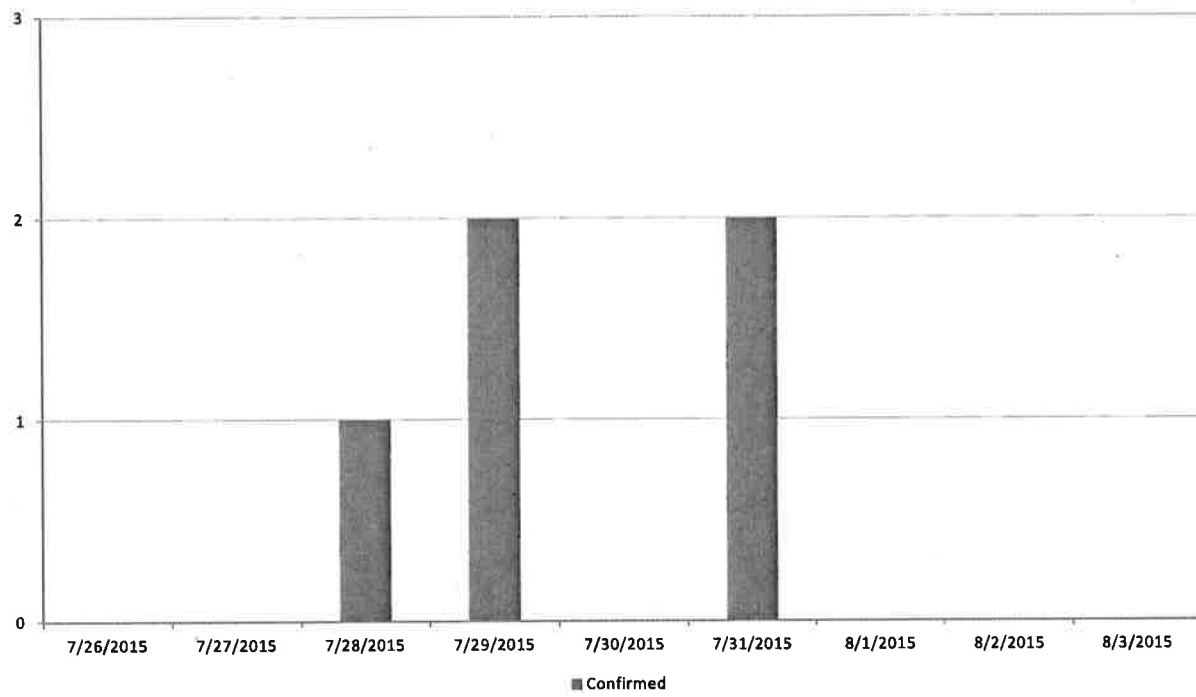
Ø critical violations found during EH visit.

E. Coli O157:H7
EXHX01.0012 (1st), EXHA26.1779 (2nd)
Chipotle Cluster
WA State, July 2015

Descriptive Epi

		%
Median Age	22 (range 20-28 years)	
Female	3/5	60%
Hospitalized	2/5	40%
Deaths	None	

- 5 of 5 cases were indistinguishable by PFGE 1st and 2nd enzyme: EXHX01.0012, EXHA26.1779
  - PFGE pattern not previously seen in King County
- One case co-infected with *Salmonella* I 4,5,12:i:-
  - Possible lab error?

PHSKC Confirmed Cases of *E. coli* O157:H7 Associated with Chipotle by Onset Date

Legend: ■ Confirmed

X-axis: 7/26/2015, 7/27/2015, 7/28/2015, 7/29/2015, 7/30/2015, 7/31/2015, 8/1/2015, 8/2/2015, 8/3/2015

Exposure Data

- All five cases ate at same Chipotle franchise in Seattle
- At least two cases ate there multiple times during exposure period
- One case also ate at another Chipotle location

Menu Items

- Each case reported eating a different menu item:
  - Pork burrito
  - Grilled steak bowl
  - Grilled chicken bowl
  - Black bean bowl
  - Quesadilla
- Common ingredients: cilantro lime rice, pico de gallo, beans, guacamole, corn

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Environmental Health

- No critical violations observed during field investigation
- Source information obtained for common ingredients
  - Cilantro from Taylor Farms in CA (supplier for ~40% cilantro for Chipotle nationwide)

Employee Follow Up

- One employee identified with mild diarrheal illness, onset 8/3 (after cases)
- Chipotle corporate wellness staff elected to conduct single stool test for enteric pathogens for all employees of implicated location – all were negative (N=10)