

Salmonella Montevideo 1407CAJIX-1 (JIXX01.0645 and JIXX01.1565)

DIS 14-056

Updated: 10/9/14

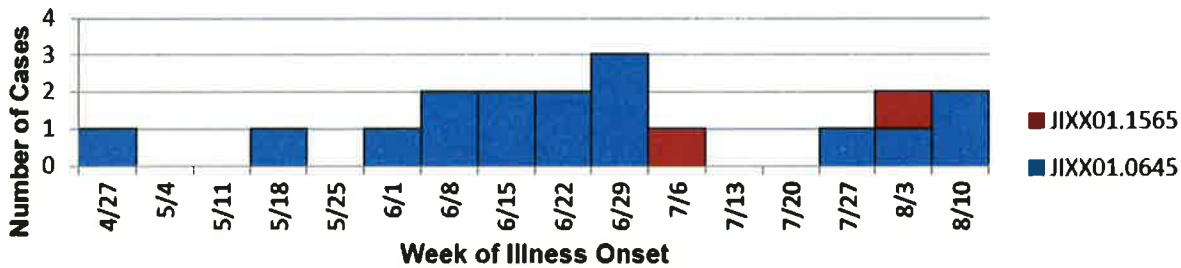
Current case definition for a confirmed case:

Person with *Salmonella* Montevideo infection with illness onset on April 30, 2014 – August 16, 2014 and with isolate matching PFGE Xbal pattern JIXX01.0645 or JIXX01.1565

Summary for CA:

# Confirmed Cases	21 – 2 are Brent’s Deli employees
# Cases by LHJs	Los Angeles (6), Ventura (15)
# Cases with case report forms available	20/21
# Hospitalized	8/20 (40%), 5/21 are blood isolates
# Deaths	0
Gender	11/21 (52%) Female
Age (years)	Median = 29 (5 – 87)
Race/Ethnicity	17/20 (85%) White
Isolate Collection Dates	5/23/14 – 8/22/14
Diarrhea Onset Dates	4/30/14 – 8/15/14 (excludes one patient with an unclear onset date, one asymptomatic employee, one lost to follow up)

Figure 1. Number of cases (N=18) in S. Montevideo 1407CAJIX-1 cluster in California, by week of illness onset, 2014



Timeline of Events:

Date	Notes
7/18/14 3:52 pm	MDL notifies DIS of a cluster of 7 cases with PFGE Xbal pattern JIXX01.0645 Uncommon PFGE pattern. Only 42 isolates since 2004. Historically, pattern most common in CA, especially in Los Angeles and Ventura Counties: 2004 (1), 2008 (1), 2010 (6), 2011 (5), 2012 (8), 2013 (5), 2014 (16+). From 2004-2012, cases appeared to be most common between February – April. But in August 2013, first cases were in August. Since then, a range of 1-6 cases a month.
7/28/14	Requested counties interview patients with HGQ Version 1
8/7/14	HGQ Version 2 deployed to ask specifically about exposures associated with Brent’s Deli. Erin Slack (Ventura County) will obtain the full restaurant inspection report from Environmental Health. http://www.decadeonline.com/insp.phtml?agency=VEN&record_id=PR0027355 Erin will also call retirement facility tomorrow to obtain menu.
8/11/14	Messages from Erin Slack. They may have another case; confirmed Salmonella case (serotype and PFGE pending) that reported eating at Brent’s Deli on 8/2/14. She looked into the history of

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	<p>complaints associated with Brent's and there have been complaints (not necessarily confirmed cases) dating back to December 2013, March 2014, April 2014. She is accompanying EH on a site visit to Brent's Deli now (EH also has educational visits scheduled from 8/12 and 8/13 to discuss food safety practices with employees).</p> <p>Next steps:</p> <ul style="list-style-type: none">- She will discuss with EH on whether they should consider closing down the restaurant temporarily.- Will interview employees about other places of employment- They have discussed taking "handprints" of employees to see if they can culture Salmonella from their hands. Their doctor wants to plate the fingerprints on agar.- Will collect stool specimens on all employees? (113)- Restaurant will be providing them with list of employees and their schedules
8/12/14	<p>Conference Call with Ventura County and LA County</p> <p>Participants:</p> <ul style="list-style-type: none">• CDPH – Vi, Akiko, Selam, Deb, Katherine• Ventura – Erin Slack, Marina Castro, Denise, Betty, Paolo, Arnulfo (Epi, Lab, and EH)• LA – Leticia Martinez <p>CDPH summary of cluster:</p> <ul style="list-style-type: none">• Case definition for confirmed case: Person with <i>Salmonella</i> Montevideo infection with illness onset on April 30, 2014 – present and with isolate matching PFGE Xbal pattern JIXX01.0645• 12 cases: Los Angeles (6), Ventura (6)• 50:50 Male:Female• Age median = 16 years (5-87)• 10/11 (91%) White• 6/11 (55%) hospitalized, 5/12 are blood isolates• Onset dates range from 4/30/14 – 7/5/14.<ul style="list-style-type: none">○ Unknown onset for most recent isolate date (7/18/14).○ Ventura County has a recent case (CalREDIE 834305) that reported eating at Brent's Deli on 8/2/14. Serotype and PFGE pending• 6 cases have been reinterviewed with HGQ. 6/6 reported Brent's Deli in Westlake Village.<ul style="list-style-type: none">○ Dates ate at restaurant: 4/25/14 – 7/5/14<ul style="list-style-type: none">▪ Ongoing exposure based on recent Ventura case?○ 4 ate sandwiches: pastrami (2), corned beef (1), turkey (1), unknown (1 veggie?)○ 1 case ate a "ham and cheddar melt "○ 2 cases ate salads: chef (1), Venetian? (1)○ 1 case ate brisket – unknown if sandwich or entree○ Meats: Pastrami (2), ham (2), turkey (1), corned beef (1), brisket (1), egg (1)○ Veggies: Tomato (2), lettuce (1)○ Sides: Pickles (3), Potato salad (1), potato skins (1), coleslaw (1), fries (1)○ Condiments: Mayo (2)○ Dressing: Ranch (1), Russian (1)○ Breads: Rye (2), sourdough (1)○ Dessert: Brownie (1), Chocolate Éclair (1)○ Drinks: Tap water (1), Lemonade (1)• Looked through CalREDIE data from 2010 – present: Found one additional Montevideo case that reported Brent's Deli (CalREDIE 470285) in April 2013 <p><u>Ventura County Updates</u></p> <ul style="list-style-type: none">• They have received the complete employee list from Brent's Deli (n=113). They will prioritize collecting stool samples from employees in certain occupations (deli workers, bakers, front cooks, servers, etc.) who worked on the dates of exposure reported by cases. Will consider

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	<p>exclusion of employees until they are cleared.</p> <ul style="list-style-type: none"> • EH last inspected restaurant on 8/11. Violations included hot holding temperature for corned beef, food storage (cheese next to thawing raw turkey). Legal constraints to suspending a facility. If major violations can be corrected on site, then wouldn't suspend or close facility. • They will talk to the manager about number of illnesses, high hospitalization rate, collecting environmental samples for testing, and voluntarily closing the restaurant. • EH will plan to consult with OC as well as FDB (Jean Marie or Susan Strong) • Food handling presentations with all staff will be conducted today and tomorrow. • Ventura County did collect samples of food for testing (raw corned beef, cooked corned beef, 2 kinds of pastrami, potato salad, and coleslaw). Testing is in progress. • Apparently the Brent's Deli Northridge and Westlake locations have the same suppliers for food. No known complaints or illnesses related to Brent's Deli Northridge location. • Will obtain more info on case at retirement facility. <p><u>Los Angeles County Updates</u></p> <ul style="list-style-type: none"> • Will check with lab for any new cases with matching PFGE pattern. <p><u>Next Steps:</u></p> <ul style="list-style-type: none"> • Continue to interview cases with HGQ asking about Brent's Deli exposures. • Continue to monitor for new cases matching PFGE pattern and notify counties • Next conference call tomorrow
8/13/14	<p>Conference Call with Ventura County. LA County did not call in.</p> <p>Participants:</p> <ul style="list-style-type: none"> • CDPH – Vi, Akiko, Selam, Deb, Amber Barnes (FDB) • Ventura – Erin Slack, Marina Castro, Paolo, Lana <p>Updates:</p> <ul style="list-style-type: none"> • No new cases reported • Brent's Deli voluntarily closed yesterday and performed a clean-up of their entire kitchen last night. Also hired a third party company to clean. They are expected to reopen this morning. • 19 employees were excluded from work pending results of their stool samples (results expected Monday). Additional employees may be excluded pending further review of records. • 26 environmental samples (including deli slicers and surfaces such as refrigeration handles, food prep surfaces) were collected. • Results on food testing are still pending • EH did confirm that the Northridge and Westlake restaurants have the same suppliers. • ~19 employees attended food training yesterday. Expect more at today's training in Spanish. • Next conference call is tentatively scheduled for Monday, 8/18 at 9:30 am. Selam will correspond with everyone regarding the call.
8/14/14	<p>Per Erin, Ventura County has excluded 22 employees from work. Some work at multiple restaurants and EH has also informed those restaurants that they are not to return to work until they have been cleared.</p>
8/15/14	<p>CDC cluster code 1407CAJIX-1 has been assigned in PulseNet.</p>
8/18/14	<p>Conference Call with Ventura County and LA County</p> <p>Participants:</p> <ul style="list-style-type: none"> • CDPH – Selam, Akiko, Amber Barnes (FDB) • Ventura – Erin Slack, Betty, Paolo (Epi and EH) • LA – Roshan Reporter <p>Updates</p>

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	<ul style="list-style-type: none">• No new lab results from MDL yet• The group associated with the Yelp review did contact Ventura County EH. Paolo spoke with the person that was hospitalized in the group. She was diagnosed with another condition that was not salmonella. Stool sample was negative, and she was treated with antibiotics.• 3 employees were positive for Salmonella Group C1. All 3 were bussers. 22 employees were tested. Final results will be in by noon today.• Food samples and environmental samples were negative.• EH requested the sickness log from Brent's Deli for last 6-8 months. They are all handwritten notes. There are reports of "flu" on 8/2 and from 8/1-8/3. Other notes were less specific and reported they had the flu June-July. EH are excluding those who reported being sick, so a total of 30 employees are excluded and submitting samples for testing.• Brent's Deli has hired a third party company to do an audit to help them correct their procedures. Ventura EH had 2 staff members at the restaurant on Friday observing the food handlers and telling them what they were doing wrong.• 2 of the 3 employees that tested positive for salmonella share a last name with at least one other employee. One positive employee shares the same last name with 2 others, and only one of those 2 people is excluded. The other positive employee shares the same last name with one other employee and they already are excluded.• One of the positive employees also works at Mastro's in Thousand Oaks. Case CA012 reported eating at Mastro's in Thousand Oaks and reports that he did not eat at Brent's Deli during incubation period.• Ventura EH sent LA County FDB's contact (Colette Amandor?) a list of the excluded employees from Brent's Deli and the names/locations of the other restaurants they work for in LA County.• Some of the employees have the same last name. EH is looking into whether some are related and/or live together. If any excluded employee lives with another employee then they will exclude that employee as well until they submit a negative stool sample.• Ventura EH spoke with Orange County EH about how they handled their [REDACTED] outbreak. After speaking with them Ventura EH sent a couple people to observe the Brent Deli's staff while working and point out the things they were doing wrong. They also asked for the maintenance records for the restaurant to see if they had any plumbing or sewer issues. Did not find anything significant. Some work was done on the p-trap.• Brent's Deli told EH that they would have the restaurant sanitized again over the weekend. They will confirm if this happened.• Concern about chronic carriers and how to identify them if after antibiotic treatment their stool tests negative, but only for short term. Testing at least twice is standard protocol. First test is 24-48 hours after treatment is complete and the second test is at least 24 hours after the first test. Both stool samples must be negative to clear the patient.• Next steps: Ventura EH will ask Brent's Deli to voluntarily submit stool samples for every employee, and look into the living arrangements of employees.• Roshan from LA County mentioned chronic carriers of Salmonella could have underlying factors, like gall bladder disease, that may test negative for Salmonella after antibiotic treatment but then the Salmonella returns.• Roshan looked into the database of Montevideo cases LAC had last year (about 20) but did not see any mention of Brent's Deli. Akiko will send her the list of Montevideo JIXX01.0645 in LAC since 2010. LAC will go through the case report forms for any mention of Brent's Deli.• Ventura EH will forward the excluded employee list they sent to LAC FDB to Roshan. Results of the 22 employee stool samples will be finalized by noon today (8/18) so employees with negative results can return to work.• Next conference call scheduled for Wednesday, 8/20
8/20/14	Conference Call with Ventura County and LA County Participants:

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- CDPH – Selam, Akiko, Mike Needham (FDB)
- Ventura – Erin Slack, Betty, Paolo, Arnulfo, Lana (Epi and EH)
- LA – Roshan Reporter

Updates:

- Suspect case [REDACTED] that ate at Brent's Deli [REDACTED] and had onset [REDACTED] PFGE pattern was very similar to the cluster 0645 pattern, but had 1 extra band. Pattern name has not been given yet. Akiko explained shifting of molecular pattern is common in outbreaks, so this case should be added to the cluster. She is case number 13 (CA013).
- Case definition should include those matching the pattern and those with 1 band different from JIXX01.0645 pattern that also ate at Brent's Deli with onset after 4/30/14.
- Erin was able to look at 6/7 Ventura Montevideo 0645 pattern cases from 2010-2012, only 4 had paper case reports and none of them indicated Brent's Deli. However, many of the CRFs were not complete and some did not have any information on restaurants so unclear if the case didn't eat out or just wasn't asked about restaurants.
- Ventura is going to look at 5 other Montevideo 0645 cases from 2013 and early 2014 in CalREDIE for any mention of Brent's Deli.
- Total of 32 employees excluded and stool samples requested
 - 30/32 employees have final results
 - 3/30 are positive for Salmonella C1 group. Specimens are to be sent to MDL for PFGE testing. All 3 have received treatment (Cipro x10 days) and will be tested when finished. The 3 positives were hired at Brent's Deli in 2007, 2010, and 2012. Per employer, the 3 positive employees have been asymptomatic. Ventura will follow up and interview all 3 employees. Attempts have been made to contact them- 2/3 phone numbers did not work.
 - Out of the 2 samples remaining, 1 is pending and 1 stool sample has not been received yet
- Brent's Deli agreed to voluntarily submit stool samples for Salmonella testing for the rest of the employees (around 80) that were not excluded. Testing will be facilitated through workman's comp at an Urgent Care in the area. Ventura Epi is working with the facility so they receive all results (negative and positive) for all employees.
- All employees eat for free at Brent's Deli.
- A new suspect case was reported to Ventura, confirmed Salmonella (serotype and PFGE still pending) and ate at Brent's Deli on [REDACTED]. The case is a 24 y.o. male [REDACTED]. Ventura EH interviewed him yesterday (8/19) with the standard questionnaire. They will try to interview him with the HGQ2 as well.
- Brent's Deli owner had a conference call with Betty and other stakeholders, including his legal counsel. The owner hired a third party, EverClean, to assist with cleaning the restaurant. The sanitizer concentration was a little low and they were switching it out every 30 minutes. They decided to install an automatic sanitizer dispenser, so this solves the low concentration issue. EverClean has been observing their food handling and scheduled a training for 2 hours today (8/20) for food handlers. They will also drop by at random to observe that proper food handling procedures are being followed. They also discussed what would happen if another Salmonella case was linked to the restaurant after this point. Betty told them they would have to shut down the restaurant and start at square one trying to figure out the source of the contamination. She told them all employees would need to be tested, which helped convince him to test them all now to try to identify any carriers.
- One of the positive employees did call in sick on 8/2.
- Betty has been following up with the living arrangements of the employees, especially the positive employees. One of the positives has 2 other employees as roommates. One of the roommates was already excluded, but the other roommate was not so now they have been excluded and their stool sample is pending. Another positive case lived with another

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	<p>employee who was excluded and their stool came back negative so they are cleared.</p> <ul style="list-style-type: none"> • Next steps: Ventura will follow up with facility to receive all reports of the 80 employees submitting stool samples. Will follow up with any positives to make sure they receive treatment and are excluded from work. Ventura EH is still looking at living arrangements of employees to ensure there is consistency and re-contamination doesn't occur. • LAC – no new suspect cases reported. They went over historic Montevideo 0645 LAC cases from 2010-2013. None of the 7 cases mentioned Brent's Deli.
8/22/14	HGQ Version 3 deployed. Requested counties use this version for all future interviews (new cases and those that had not yet been interviewed with HGQ2).
8/25/14	MDL reported results for 2 employees. Both positive for JIXX01.0645 strain. Notified Ventura County of results and provided them with updated linelist.
9/4/14	<p>Spoke with Erin Slack. Ventura County has another suspect case. [REDACTED] with onset on 8/14/14 reported eating at Brent's Deli on 8/13/14 (pea soup and water only). Serotype and PFGE pending. EH had told the restaurant they were going to suspend the permit if another case came in after the 8/2/14 exposure date. Excluded employees were excluded since 8/12/14. Excluded employees have been asking when they can return to work but have been told they have to have 2 negative stools.</p> <p>88 employees were tested via their occupational health center. These employees were not excluded because they were not present on exposure dates of the cases. Of 88 employees, 18 are still pending results; remaining were negative.</p> <p>Erin does plan to submit the NORS report as well as write a written report in conjunction with the EH investigation. She will also plan to have an after-action meeting.</p>
9/12/14	New lab-confirmed case reported who ate at Brent's Deli on 8/14/14. Per Erin, EH had already gone out to the facility this week. They did not find any violations and there were new protocols in place as a result of a third party company coming in to clean and establish new training and protocols starting on 8/16/14. EH will not pull the permit unless there is a new case with an exposure date after 8/16/14.
9/15/14	Update from Erin. Per Betty, EH will not pull the permit because the inspector had visited the facility and no violations were found. They now have temperature and sanitation logs for all their equipment and all employees have been trained on the new protocols that are in place. All employees also had to sign a form regarding working while ill. Betty is reviewing all their protocols. Will pull permit only if we get another case with an exposure date after 8/16/14.
9/16/14	One new LAC case identified via SEDRIC.
10/1/14	<p>One new Ventura case identified. Ventura already knew about this patient. Onset was 8/14/14.</p> <p>Since no new cases with onsets after 8/16/14, closing outbreak investigation.</p>
10/9/14	MDL notifies DIS of an isolate from Ventura County matching the PFGE pattern. Urine isolate.
10/14/14	Update from Erin. Newly identified patient with urine isolate (referred to on 10/9/14 update) was asymptomatic. They have been trying to contact her to see whether she ever had any exposure to Brent's Deli.