Kenosha County
Salmonella Outbreak
May 2015

July 6, 2015

Cynthia Johnson, Director/Health Officer
Kenosha County Division of Health
Background

- On Thursday morning, May 14, 2015, Kenosha County Division of Health (KCDOH) received several reports from the public describing similar symptoms which alerted KCDOH on a possible food borne outbreak.
- A Public Health Nurse (PHN) conducted case investigations on the reporting individuals and detected at least 10 people were ill with similar complaints after eating food purchased from one food establishment.
- The chief complaints reported included diarrhea, nausea, vomiting, headache, abdominal cramping and fever.
Consultation with Department of Public Health (DPH) staff on our findings launched a joint investigation.

- DPH modified the standard case investigation worksheet based on initial complaints and food products identified in order to provide specificity to the investigation.

- The DPH requested securing the following information from the identified food establishment (SMLC): list of all food items served, all food items prepared- including preparation of specific food items that conform with the timeframe from reporting complaints.
Thursday, May 14, 2015

- Environmental Health (EH) staff was notified and performed a food borne illness inspection at the identified food establishment.
- Inspection Outcome: EH staff obtained a list of all raw and prepared food available for purchase, list and number of employees, work hours and dates worked, and identify any ill workers, especially those who may have handled food.
- PHN followed up with families previously interviewed, and requested to hold all leftover food in question so it can be tested, specifically any food eaten prior to onset of symptoms.
### DEMOGRAPHIC INFORMATION

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Gender: M/F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent/Guardian Name:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td>County:</td>
<td>State:</td>
</tr>
<tr>
<td>Phone (home):</td>
<td>Phone (cell):</td>
<td></td>
</tr>
<tr>
<td>Occupation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High risk activities:</td>
<td>Daycare</td>
<td>Food handler</td>
</tr>
</tbody>
</table>

*Provide appropriate exclusion and education if individual is ill/was ill*

### CLINICAL INFORMATION

Have you (your child) been ill with gastrointestinal symptoms (vomiting, diarrhea, abdominal cramping, nausea, etc.) in the last 2 weeks? Y N  

**If no skip to Other Ill Persons**

<table>
<thead>
<tr>
<th>Onset Date:</th>
<th>Onset Time: AM PM</th>
<th>Well Date:</th>
<th>Well Time: AM PM</th>
</tr>
</thead>
</table>

1. **Nausea**: Y N  
2. **Vomiting**: Y N  
3. **Diarrhea**: Y N  
4. **Bloody diarrhea**: Y N  
5. **Abdominal cramps**: Y N  
6. **Fever (___)** Y N  
7. **Chills**: Y N  
8. **Sweats**: Y N  
9. **Headache**: Y N  
10. **Body aches**: Y N  
11. **Muscle aches**: Y N  
12. **Fatigue**: Y N  
13. **Other**: Y N

Did you see a physician? Y N  
Were you seen in an ER/ED? Y N  
Were you hospitalized overnight? Y N  
Was a stool specimen collected? Y N  

If No, would you be willing to submit a stool specimen for free testing? Y N

### OTHER ILL PERSONS

Has anyone in your household been ill with GI symptoms during the last two weeks? Y N

1. **Onset Date: | Onset Time: AM PM**
   - Nausea / Vomiting / Diarrhea / Abdominal cramps / Headache: Other:
   - Fever: (___)

2. **Onset Date: | Onset Time: AM PM**
   - Nausea / Vomiting / Diarrhea / Abdominal cramps / Headache: Other:
   - Fever: (___)

3. **Onset Date: | Onset Time: AM PM**
   - Nausea / Vomiting / Diarrhea / Abdominal cramps / Headache: Other:
   - Fever: (___)

Do you know anyone else (friend, co-worker, etc.) who was ill with GI symptoms during this same time period? Y N

1. **Onset Date: | Onset Time: AM PM**
   - Nausea / Vomiting / Diarrhea / Abdominal cramps / Headache: Other:

2. **Onset Date: | Onset Time: AM PM**
   - Nausea / Vomiting / Diarrhea / Abdominal cramps / Headache: Other:
Friday, May 15, 2015

- PHN received notification from DPH confirming the bacterial disease as Salmonella on case investigation number 1874.
- Twenty-one case investigation interviews completed. One stool sample collected.
- Infection Control Practitioners (ICP) at both local hospitals were alerted to a potential food borne outbreak specific to Salmonella.
- PHN staff provided the ICP’s with training tools on the signs and symptoms of Salmonella, how to collect stool samples in testing for the disease.
- ICP’s instructed to notify KCDOH of any testing on the public.
- Kenosha Unified School District alerted on the outbreak and the possibility of students returning to their home school while symptoms continue from their illness and possible risk to other students and staff.

- Several new cases listed in the Wisconsin Electronic Disease Surveillance System (WEDSS) for Kenosha County.

- One a family of four. Another, a family of five from Kenosha County that attended a Mother’s Day party in Lake County, Illinois. Case investigation interviews completed on new cases.

- PHN contacted Lake County Health Department to inform of potential multistate involvement due Kenosha County residents positive with Salmonella that attended a family gathering in their jurisdiction.
Monday, May 18, 2015

- Incident Command System activated.
- Command Post briefings held daily.
- 0800 phone conference with the State DPH.
- Internal notification to all KCDOH staff working on the outbreak on the status of current clients, distribution of stool kits and incoming samples.
- KCDOH sections involved in outbreak: Administration, Fiscal, Nursing, Environmental and Laboratory.
- Health Alert issued - to surrounding area Health Care Systems, Providers, and emergency departments.
State DPH instructions to collect 2-3 stool samples from the following:
- Each group with exposure to food from SMLC,
- All SMLC employees with food handling duties
- Any SMLC employees with gastrointestinal illness

Submit specimens to Wisconsin State Laboratory of Hygiene (WSLH)

Tests to run on each specimen: Norovirus, PCR field (DNA footprint) and enteric culture.
- Update provided to KCDOH school nurses serving Kenosha Unified School District (KUSD).
- Instructed to monitor their schools for ill children
- To recommend increased cleaning protocols and vigilance at the schools
- To direct all children with signs and symptoms specific to outbreak to remain home until asymptomatic for 24 hours.
- Issuance of cease operations order prepared and executed to SMLC for all hot food and prepared food in meat section of establishment with collaborative review from Corporation Counsel.

- Updates to Case Investigation Questionnaire to include additional foods purchased by SMLC.

- 1300 Teleconference with State DPH to share current status.

- 8 additional case investigation interviews completed, 11 stools samples collected and food samples collected from one ill family.
HEALTH ALERT

To: Infection Control – Aurora Kenosha Campus, Kenosha Community Health Center and United Hospital System: Kenosha Memorial and St. Catherine’s Campus

From: Cynthia Johnson, M ed., RN – Director/Health Officer
        Gwen Perry-Brye, MS, RKC- Clinical Services Director/Assistant Health Officer
        Kristi Raffensteil, RN, BSN – Communicable Disease Team Leader

Date: May 18, 2015

RE: Salmonella Outbreak

The Kenosha County Health Department is currently investigating an outbreak of Salmonella in our community.

Salmonella is an illness of variable severity manifested by:

- Diarrhea
- Fever
- Abdominal pain
- Nausea
- Vomiting

The diagnosis of Salmonella infection should be considered when seeing patients with diarrhea illness accompanied by a fever and test accordingly. For guidance or assistance in specimen submission, please contact the Health Department at 262-605-6700.

For more information on salmonella, please visit the CDC Website https://www.cdc.gov/salmonella/

Please share this information with your Emergency Department and Clinic Staff.

We appreciate your assistance in supporting our surveillance activities for this outbreak.
Tuesday, May 19, 2015

- Phone conference with State DPH, WSLH and Media staff.
- Update of Complaint form to incorporate all members of a family.
- Additional stool samples collected and 16 case investigation interviews completed.
# Kenosha County Complaint Form - DRAFT

## Receiving Agency

<table>
<thead>
<tr>
<th>Complaint Date:</th>
<th>Receiving Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received By:</td>
<td>Contact Information:</td>
</tr>
<tr>
<td>Interview Date:</td>
<td>Interviewed By:</td>
</tr>
</tbody>
</table>

## Complainant Data

<table>
<thead>
<tr>
<th>Name:</th>
<th>Age:</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>City:</td>
<td>State:</td>
</tr>
<tr>
<td>Phone:</td>
<td>Email:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Illness Complaint:</th>
<th>Single Illness</th>
<th>Group Illness</th>
<th>No Illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ill Person:</td>
<td>Complainant</td>
<td>Other (ie, child, spouse, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

Does the ill person work/volunteer in the following settings:

- [ ] Daycare
- [ ] Food Service
- [ ] Healthcare

Complaint Category:

- [ ] Food Establishment
- [ ] Retail Food Product
- [ ] Drinking Water
- [ ] Recreational Water
- [ ] Other

## Illness Data

### Name of ill person if other than complainant:

<table>
<thead>
<tr>
<th>Illness</th>
<th>Onset Date</th>
<th>Time</th>
<th>Stopped Date</th>
<th>Time</th>
<th>Illness Ongoing</th>
</tr>
</thead>
</table>

**Signs and Symptoms:**

- [ ] Nausea
- [ ] Abdominal Cramps
- [ ] Headache
- [ ] Fever
- [ ] Weakness
- [ ] Chills
- [ ] Fatigue
- [ ] Muscle Aches
- [ ] Other

Have you had contact with anyone (household, co-workers, friends, etc.) in the 7 days before your illness began who had a similar illness, or do you know anyone else who is currently ill? Y N

<table>
<thead>
<tr>
<th>Name</th>
<th>Onset Date</th>
<th>Relationship</th>
<th>Symptoms</th>
</tr>
</thead>
</table>

## Clinical Data

<table>
<thead>
<tr>
<th>Date Visited:</th>
<th>Y N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare Facility:</td>
<td>Physician Name:</td>
</tr>
</tbody>
</table>

Hospitalized overnight? Y N

<table>
<thead>
<tr>
<th>Admit Date:</th>
<th>Discharge Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical specimens taken? Y N</td>
<td></td>
</tr>
</tbody>
</table>

[ ] Blood

[ ] Stool

<table>
<thead>
<tr>
<th>Diagnosis:</th>
</tr>
</thead>
</table>

Would you be willing to provide a stool sample? Y N
May 20, 2015 – May 26, 2015

- Pork carnitas implicated as food source of outbreak.
- Food flow sheet created to examine the current food handling practices by SMLC in the preparation of pork carnitas.
- Media briefs were released at 2:00PM each business day.
- English and Spanish language materials prepared for distribution at local community and faith-based organizations.
- Raw meat operations at SMLC opened by KCDOH Environmental Section on 5/22/15.
FOR IMMEDIATE RELEASE

Contact: Cynthia Johnson, Director of Health Office
Telephone: (262) 605-6700
Fax: (262) 605-6711

Kenosha County Salmonellosis Outbreak
5/20/15 – DAILY UPDATE

- The Kenosha County Division of Health continues to interview individuals with gastrointestinal illness and exposure to Supermercado Los Corrales. As of this time, more than 60 ill persons have been identified.
- To date, Salmonella with a matching DNA fingerprint has been found in two case patients. Additional stool samples are currently being tested.
- The source of the outbreak is still under investigation. The Kenosha County Division of Health is continuing to work with Supermercado Los Corrales on this investigation.
- The meat and food preparation area of Supermercado Los Corrales is temporarily closed while the investigation is ongoing, but the remainder of the establishment is open.
- Tips for preventing Salmonella:
  - Wash hands with soap before and after food preparation, and before eating.
  - Wash kitchen work surfaces and utensils with soap and water immediately after they have been in contact with raw meat or poultry to prevent cross contamination with other foods.
  - Always treat raw eggs, poultry, beef and pork as if they are contaminated and handle accordingly.

For more information, please call the Kenosha County Division of Health at (262) 605-6700. (800) 472-8008, or visit www.kenoshacounty.org.

FOR IMMEDIATE RELEASE

Contact: Cynthia Johnson, Director of Health Office
Telephone: (262) 605-6700
Fax: (262) 605-6711

Kenosha County Salmonellosis Outbreak
5/20/15 – DAILY UPDATE

- The Kenosha County Division of Health continues to interview individuals with gastrointestinal illness and exposure to Supermercado Los Corrales. As of this time, more than 60 ill persons have been identified.
- To date, Salmonella with a matching DNA fingerprint has been found in twelve case patients. Additional stool samples are currently being tested and the number of confirmed cases is expected to increase as those results become available.
- Based on the interviews that have been conducted, the source of the outbreak appears to be pork carnitas sold at Supermercado Los Corrales during Mother's Day weekend (May 8-10, 2015). Testing of food from Supermercado Los Corrales is currently in progress.
- The meat and food preparation area of Supermercado Los Corrales is temporarily closed while the investigation is ongoing. The remainder of the establishment is open, including the raw meat counter.
- Tips for preventing Salmonella:
  - Wash hands with soap before and after food preparation, and before eating.
  - Wash kitchen work surfaces and utensils with soap and water immediately after they have been in contact with raw meat or poultry to prevent cross contamination with other foods.
  - Always treat raw eggs, poultry, beef and pork as if they are contaminated and handle accordingly.

The next daily update will be provided on Friday, May 29, 2015. For more information or to request updates, please call the Kenosha County Division of Health at (262) 605-6700, (800) 472-8008, or visit www.kenoshacounty.org.
Friday, May 29, 2015

- Phone conference with State DPH on published lab results.
- Matching DNA footprint identified in stool samples links cases.
- Lab results link 29 persons ill with symptoms consistent of Salmonella disease, from over 60 persons identified in case investigations.
Wednesday, June 3, 2015

- No new case reports received.
- 70 ill persons identified to outbreak.
- Laboratory testing conducted at the Department of Agriculture, Trade and Consumer Protection (DATCP) on food samples submitted.
- Salmonella isolated from pork carnitas food sample sold at SMLC on May 10, 2015.
Thursday, June 4, 2015

- KCDOH Environmental section worked with State Environmental and DATCP and re-opened meat preparation area with operating conditions.
Major Strengths

- **Outbreak Identified EARLY:** Effective and swift investigation practices identified case contacts and linkages to an outbreak
- **Personnel Strengths:**
  - Competent public health practitioners – current skill sets
  - Team Structure – provides effective staffing system
  - Cross Training within all Teams
  - Experienced, knowledgeable, science-based staff with epidemiology skills
• **Incident Command System**: Staff formally trained and experienced in the application and functionality of the ICS structure.

• **Partnerships**: Resulted in a coordinated response through collaboration efforts with:
  - Wisconsin Division of Public Health Communicable Disease team
  - KUSD School District staff
  - Local and Regional media professionals
  - Kenosha County internal governmental agency support
Areas for Improvement

- **State Data System**: Improve the efficiency of entering client data and outbreak information into WEDSS.
- **Phone System**: Review Kenosha County phone system for effective utilization during an unfolding event, and identify system set-up before the next event.