



**TEXAS**  
Health and Human  
Services

Texas Department of State  
Health Services

## REGION 7 EPIDEMIOLOGY AND SURVEILLANCE QUARTERLY NEWSLETTER (JUNE 2018) E54-12596

### In this issue:

- ⇒ Brazos County Flu/ILI CASPER
- ⇒ Who Ya Gonna Call?!  
Responding to a Mercury Exposure in DSHS PHR 7
- ⇒ Brazos County Health Department: Local Ebola Preparedness Discussions
- ⇒ Overview of Salmonellosis in DSHS PHR 7



**APIC 2018**

June 13-15 • Minneapolis, MN



### 4 STEPS TO FOOD SAFETY



CLEAN



SEPARATE



COOK



CHILL

# Brazos County Flu/ILI CASPER

Yao Akpalu, Epidemiologist at Brazos County Health Department



## Overview

In response to an increase in ILI/Flu activity in Brazos County in the early 2017/2018 flu season, a Community Assessment for Public Health Emergency Response (CASPER) was conducted by the Brazos County Health Department (BCHD) and the Texas A&M School of Public Health's EpiAssist program.

207 households completed the survey.

## Collaboration

Brazos County  
Health  
Department

Texas A&M  
EpiAssist  
Program

Kahler Stone MPH (EpiAssist)  
Yao Akpalu MB.ChB,MPH,CPH (BCHD)  
Jennifer Horney PhD,MPH,CPH (EpiAssist)

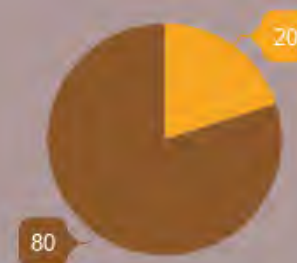
## Recommendations

- Dissemination of influenza prevention messages at favorite media/sites
- Monthly press briefings and/or presentations on local TV/Radio channels and other media/forums such as journals/magazines, schools and colleges
- Establishment of outreach vaccination centers.
- Seasonal vaccination campaigns (and mobile vaccination units) during the peaks of the flu season in targeted communities (institutions, schools, workplaces and rural areas).
- Free vaccination for high-risk groups, the uninsured, the homeless and the incarcerated.
- Improvement in vaccine efficacy through research, and development of a "universal influenza vaccine" which provides durable immunity against all strains of flu viruses.

## Results

### Respondents reporting Flu/ILI during December 2017 (N=207)

Flu/ILI (20%) No Flu/ILI (80%)



### Respondents that reported receiving the flu vaccine (Brazos County vs. Texas)



### Knowledge of transmission/prevention of flu (N=207)

76% of respondents reported having good knowledge of flu prevention methods

52% of respondents who did not get the flu vaccine reported that they would have if it was free

83% of respondents reported having no objections to receiving the flu vaccine

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# Who Ya Gonna Call?!

## Responding to a Mercury Exposure in DSHS PHR 7

Sandi Arnold, Hospital Acquired Infections Epidemiologist at DSHS PHR 7

### 1. DSHS PHR 7 / LHD



Monday evening (April 2018)

The Region 7 Epidemiology Office received a call from a LHD about a toddler that presented to an Emergency Department (ED) after the mom noticed that the toddler's stool (in a diaper) had visible mercury. The baby was released from the ED later that evening.

#### Background

The mom stated that a family member had brought mercury from Mexico into the home. It was apparent that the toddler had ingested this mercury recently.

#### Concerns

- Ingestion? *Not so much.*
- Inhalation of fumes? *Definitely.*

### 2. Local Fire Department



Monday evening (April 2018)

After the discovery of the presence of mercury in the residence, the family was provided alternate housing and the home was boarded up.

#### Concerns

What follow up was needed? *The local fire department did not have the tools nor skills to abate the residence but did secure the residence from further entry.*

### 3. TCEQ, EPA, NRC



Tuesday evening (May 2018)

The next day, the Texas Commission on Environmental Quality (TCEQ) was contacted. They provided contacts for local TCEQ and Environmental Protection Agency (EPA) staff.

#### Special Considerations

*Of note, 2 ounces of mercury is greater than a pound of mercury (2 tablespoons weighs about 1 pound). Any time there is 1 pound or more it requires that the National Response Center at 1-800-424-8802 be notified.*

### 4. DSHS Environmental and Injury Epidemiology and Toxicology Health Unit



Later that week (May 2018)

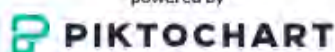
After TCEQ and EPA were involved they conducted all necessary abatement steps for the residence.

#### Special Considerations

Of note, the EPA website recommends that the general public notify the local health department of spills less than 1 pound (if after hours, then notify the fire department) <https://www.epa.gov/mercury/what-do-if-you-spill-more-mercury-amount-thermometer>.

**LHDs may get calls on this!!!**

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## **Brazos County Health Department**

### **Local Ebola Preparedness Discussions**

Julie Anderson, Community Health Services Director at Brazos County Health Dept.

*At the end of May/early June, the ongoing outbreak of Ebola Virus Disease in the Democratic Republic of Congo led to conversations about public health and health care readiness in central Texas. DSHS Central Office sent out a Health Advisory on 5/22/2018 which provided recommendations for healthcare personnel and health officials on evaluating patients who may have been exposed to Ebola virus. Guidance about the evaluation and management of patients under investigation was also shared. Brazos County hosted an Ebola Preparedness Meeting on 6/4/2018. Emergency room physicians were invited to participate. Below is a summary of the meeting provided by Julie Anderson, Community Health Services Division Director at Brazos County Health Department.*

#### **Events that prompted the meeting**

The Brazos County Health Department's Epidemiologist had been monitoring the Ebola outbreak in the Democratic Republic of Congo (Africa), and was not only concerned about the number of contacts, but the death of 2 health workers. Additionally, the Bryan/College Station area is only 100 miles from three major cities: Houston, Austin and Waco. In the past month, there was a hospital that was concerned about a possible Ebola case at their facility. We felt from the questions we were getting that people had not "brushed up" on their Ebola plans.

#### **Deciding on which stakeholders to invite**

Our Health Authorities felt that the meeting would be most beneficial to the area Emergency Room Physicians of our hospital systems. They were invited by e-mail to attend the meeting. The reason the meeting was kept small was to first review what the current situation was and assess what resources each of us had, as well as to review our Ebola Flow Sheet and help address lingering concerns.

#### **The main objectives of the meeting**

One of the main objectives of the meeting was to introduce the local physicians to the members of the Health Department, establish a flow, determine how to preliminarily handle a patient that may have symptoms, and collect an appropriate travel history. We have found from past experiences that everything goes more smoothly when all the members of a team already know one another.



### **Challenges that came up during the meeting**

The biggest concern that came up during the meeting was fear of contaminating a lab and exposing laboratory workers to the bodily fluids of an infected patient. For example, the scenario was mentioned that a lab worker is performing a test to rule out malaria, but that same sample tested positive for Ebola – you have created another possible case contact. Physicians were asked to review with their labs how they would protect themselves from a Level 4 agent.

### **Best practices that were discussed during the meeting**

- Laboratories should review protocols for handling samples and PPE for a possible Ebola case
- It was suggested that an “Ebola Strike Team” be formed that will respond to hospitals if there is a possible case of Ebola.

### **Action points resulting from the meeting**

- Have a local training to cover PPE needed for handling an Ebola case
- Form an Ebola Strike Team
- Develop and provide health care/lab training on PPE and how Ebola is transmitted

## Overview of Salmonellosis in DSHS Public Health Region 7

Xiaohuan Zhu, Graduate Student Intern at the Texas A&M School of Public Health

*Salmonellosis* is an infectious disease caused by the bacteria *Salmonella*. *Salmonella* are rod-shaped, Gram-negative bacteria that belong to the *Enterobacteriaceae* family and live in the gastrointestinal tract of humans and other animals. People who become ill due to *Salmonellosis* can develop symptoms such as diarrhea, fever, bloody stools, headache, and abdominal cramps. This usually takes place between 12 and 72 hours after becoming infected. The course of illness generally lasts 4 to 7 days. Healthy adults infected with *Salmonella* may have symptoms resolve without any treatment. However, children and the elderly may develop severe diarrhea and fever that needs to be treated with antibiotics. If *Salmonella* gets into the blood (i.e. due to invasive infections), body tissues such as the brain, spinal cord, lining of the heart or heart valves, bones or bone marrow can become infected. Joint pain that lasts for several months may also be a result of an invasive *Salmonellosis* infection. Children, the elderly, and people with weakened immune systems are at highest risk for developing complications of *Salmonellosis*.

Most *Salmonellosis* infections take place during the summer months (June-August). People can get a *Salmonellosis* infection from a variety of sources, such as consuming contaminated food, drinking contaminated water, and touching infected animals and not washing their hands afterwards. For example, foods can be contaminated in the kitchen through cross contamination of meats, vegetables and fruits. This can occur by placing vegetables on raw meat plates or by reusing a knife that was not washed thoroughly between uses. Additionally, when preparing raw meat or poultry, bacteria can be transferred to other foods in the food preparation process if proper hand hygiene does not occur. Consuming undercooked meat and unpasteurized milk are likely to cause illness as well as consuming foods that are contaminated by animal feces. Pets owners may also become infected if they do not wash their hands after contact with animal feces.

Over 1.4 million cases of *Salmonellosis* are reported every year in the U.S. There are also many unreported cases, since many people have their symptoms resolve without lab testing. About 500-1000 cases result in death. In contrast, developing countries have much higher death rates due to inadequate prevention and control measures. Figure 1 below shows the trend of increasing numbers of *Salmonellosis* outbreaks from 2005 to 2018. The increasing trend may be due to heightened awareness of the disease among clinicians, hospitals, and general public as well as better laboratory testing methodologies, and enhanced disease surveillance capabilities.

In addition, more people are travelling back and forth from developing countries which have higher rates of *Salmonellosis* infections. According to the Centers for Disease Control and Prevention (CDC), the most recent outbreak of *Salmonellosis* in multiple states in the U.S has been linked to Kellogg's Honey Smacks. 73 people have been infected from 31 states, and 24 people have been hospitalized. The ages of reported cases ranges from less than one-year-old to 87 years old. 77% of people that were interviewed reported eating cold cereal. Figure 2 shows the trends of reported *Salmonellosis* cases in Region 7 from 2007 to 2016. In year 2009 and 2013, there were significant increase in the number of reported *Salmonella* cases in DSHS Region 7.

To further decrease potential outbreaks this summer, it is important to wash vegetables and fruits thoroughly before consumption as well as cook raw meat and poultry thoroughly. Wash raw fruits and vegetables well, and peel them if possible. Maintaining good personal hygiene and sanitation practices are also important, especially when traveling outside of the country. Avoid drinking untreated water, or using untreated water to wash foods and consume them directly.

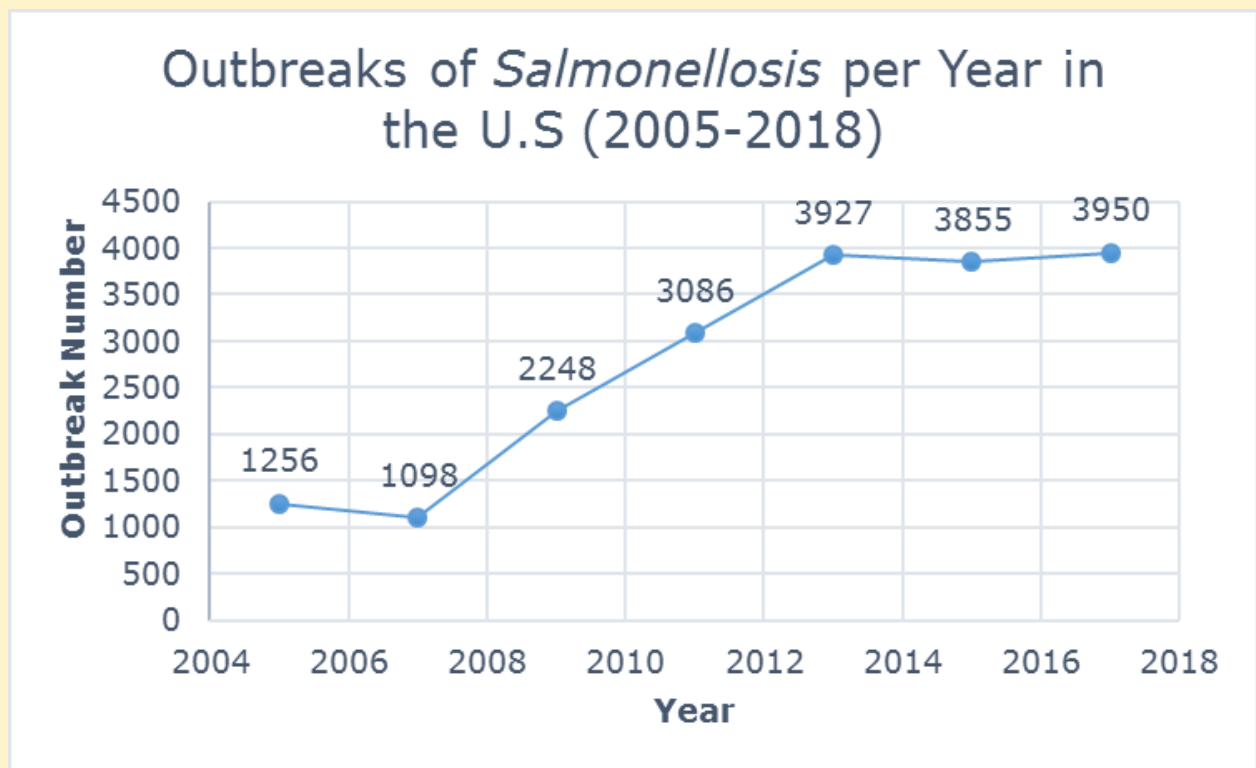


Figure 1. Number of outbreaks of *Salmonellosis* from year 2005 to 2018 in the U.S.

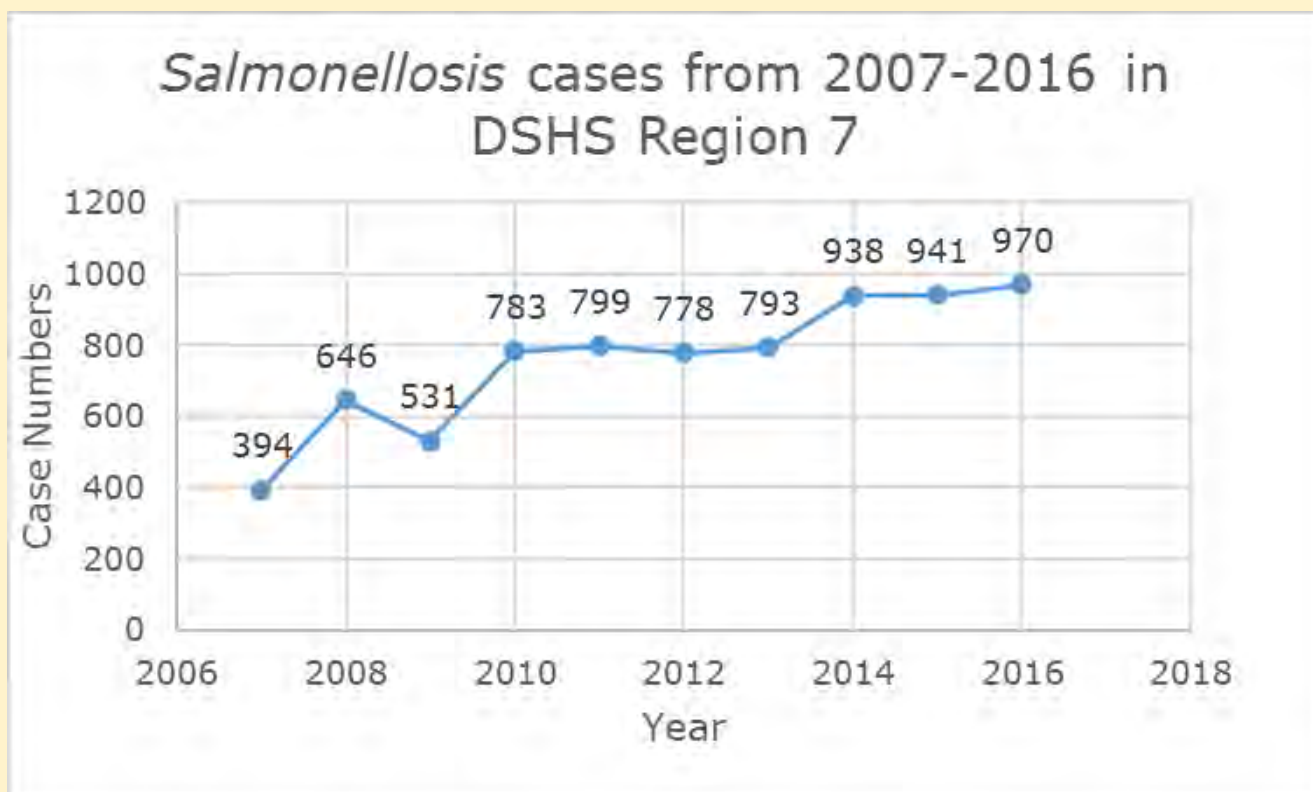


Figure 2. Trends of reported Salmonellosis cases from 2007 to 2016 in DSHS Region 7.

### References

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Dates	Upcoming Meetings and Events
7/31-8/1	DSHS Flu Surveillance Conference

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Remember to report the [required notifiable conditions](#) to the DSHS Region 7 Epidemiology office!  
\*Beginning September 1st, 2017, we will no longer be called Health Service Regions. We will be called Public Health Regions.