### **NOROVIRUS:** The Branson Experience

Samantha Green, MPH Epidemiologist Taney County Health Department February 23, 2016



#### **OBJECTIVES**

- Learn the characteristics of Branson
- Learn about 3 major outbreaks in Branson
- Limitation and solutions
- Watch an awesome video!















#### BRANSON, MO



Branson is within a 1 day drive of 50% of the US population

- Population ~ 10,000
- 8-9 million visitors annually
- 57,000 theater seats
- 405 Food facilities
- 298 indoor/outdoor pools
- 134 lodging facilities
- Shopping centers
- Attractions

### MAJOR OUTBREAKS

## 2002

- November 23, 2002- December 7, 2002
- 57 total tours were investigated
- In total there were 2,400 people in those 57 tours with 281 reporting gastroenteritis
- Of those 281 people, 267 met the case definition of having 2 or more symptoms
- 209 people were interviewed

- 3 specimens were positive for Norovirus, Genotype II
- No mortality was reported
- The sources of this event were tour members who were ill prior to arrival in Branson
- The itineraries of the 57 bus tours interviewed included 41 theater shows, 56 food facilities, 4 dinner theaters, and 5 other venues

#### Origin of Tour Groups



- 12 States in the United States
- 1 Canadian Province

#### LESSONS LEARNED

- Tour members generally were unable to complete the Record of Investigation of Enteric Illness forms on their own
- Tour companies were hesitant to provide itineraries
- Not reporting gastroenteritis or providing all information necessary for an investigation
- Collection of data

## 2006

- Mid-October to December 11<sup>th</sup>, 2006
- 524 cases identified
- 47 tour groups
- 12 tour groups reported illness before arriving in Branson
- There were 6 positive Norovirus cultures obtained
  - All from different tour groups and different states
  - 2 genotypes were found
    Minerva and Farmington

#### **INTERVIEW COMMENTS**

• "I get sick every time I visit Branson, but I love Branson so much, and have so much fun, I keep coming back!"

• "I got sick, the hotel employees said that they had many buses with sick passengers, I saw one elderly gentleman throwing up on main street, it was everywhere. I'll never come back!"

#### ORIGIN OF TOUR GROUPS



- 30 states in the United States
- 3 Canadian provinces
- Scotland, UK

#### LESSONS LEARNED

• Improve strategies for communicating public health messages

- Media messages to inform public and visitors
- More education on hand washing and not going out in public when sick
  - 54 people reported having public vomiting and/or diarrheal episodes
- Emphasizing the importance of preventative practice to local businesses

# 2012

- November 11-20, 2012
- 174 cases identified
- 16 tour groups with ill passengers
- 8 states
- Massive media response
- 6 lab confirmed cases
  - Genotype Sydney

### CURRENT FOCUS

#### • EDUCATION

- Annual Norovirus seminar
- Helpful information on our website
- Flyers, pamphlets to hand out
- Ensuring area businesses have proper cleaning procedures in place as well as access to cleaning products



#### REFERENCES

- "Branson Fun Facts." *Official Website Branson.com.* branson.com, n.d. Web. 22 Feb. 2016. <a href="http://www.branson.com/learn/general-branson-info/branson-facts/">http://www.branson.com/learn/general-branson-info/branson-facts/</a>.
- Makison-Booth, Catherine. *Vomiting Larry. YouTube*. Health and Safety Laboratory, 2013. Web. 22 Feb. 2016. <a href="https://www.youtube.com/watch?v=sLDSNvQjXe8">https://www.youtube.com/watch?v=sLDSNvQjXe8</a>.