

Update on the *Shigella* Outbreak Investigation in Saginaw & Genesee Counties

November 17, 2016

Dear Community Members,

Many of you may have heard that the Centers for Disease Control and Prevention (CDC) and state and local officials are investigating the *Shigella* outbreak occurring in Saginaw and Genesee counties. We would like to share information about the different parts of the investigation and some initial findings.

Health officials are using three distinct approaches to investigate different aspects of the outbreak. Early results from this investigation will help us determine if other studies (for example, more community interviews or water testing) are needed to identify the source or sources of the outbreak.

Three Approaches to the *Shigella* Outbreak Investigation

1. **Interview members of the households of people who got sick from *Shigella* bacteria to learn more about how they became sick.**
2. **Test bacteria samples collected from people who got sick from *Shigella* across Michigan to look for genetic links between the bacteria. This will help us understand whether these germs may have moved between communities in the state.**
3. **Map where illnesses have occurred in Flint to see if there is a link between water quality issues, like water main breaks and low chlorine levels, and the people who got sick.**

We have finished the interviews and are waiting for results from the other two parts of the investigation. We would like to **share three important initial conclusions** with you that are based on the results of the interviews and updated reports of new cases of *Shigella* infection.

Initial Conclusion #1: *Shigella* does NOT appear to be spreading through a drinking water system.

- Almost all of the people from Flint who got sick (90%) drank only bottled water. The majority of people from Flint (65%) used only bottled water to brush their teeth. Because so few of these people were consuming water from the drinking water system, it is likely **they became infected with *Shigella* bacteria from a source other than the water.**
- The people who got sick did not share a common drinking water source, suggesting **water use is NOT likely to be a common link between people who got sick.** They used water from multiple different drinking water systems, and more than 15% used water from private wells.

Initial Conclusion #2: *Shigella* bacteria appear to be spreading in the community from person to person.

- ***Shigella* bacteria can spread easily between young children** who are still learning to use the toilet and wash their hands thoroughly. **Over half (51%) of the people who got sick were 9 years old or younger.** More than a fourth (26%) of the people who got sick were younger than 5.
- **The majority (59%) of the people who got sick either wore diapers, changed diapers, or came in contact with a person wearing diapers in the week before they became ill.** This suggests the bacteria could have been passed from the feces (poop) of sick children to their siblings, friends, or caregivers – one of the most common ways that *Shigella* bacteria spread in a community.
- The data collected from the people who got sick suggest they did NOT get sick from a single source, like a restaurant, drinking water system, or swimming pool.

Initial Conclusion #3: The outbreak is slowing down.

- **No new cases have been reported in Genesee and Saginaw counties since October 31, 2016.**
- As of November 10, 180 cases have been reported to the state health department since March 2016, when the increase in *Shigella* cases was first detected in Genesee and Saginaw counties. Most of these illnesses happened in June and July. Only 9 new cases were reported in October 2016 compared with more than 80 cases reported in June and July combined.

Health officials are continuing to analyze information from the investigation. Additional results will be shared as soon as they are available. If you have any questions about the outbreak or the investigation, please contact your local health department. For more information on how to prevent the spread of *Shigella* bacteria, visit www.cdc.gov/shigella/prevention-control.html. Thank you for your ongoing support.

Sincerely,



Dr. Michael Beach
Centers for Disease Control
and Prevention



Dr. Eden Wells
Michigan Department of Health
and Human Services



Dr. Gary Johnson
Genesee County
Health Department