

PENNSYLVANIA DEPARTMENT OF HEALTH
2023– PAHAN –726 – 11-15 - ADV
Statewide Increase in Shigellosis Cases in Pennsylvania



DATE:	11/15/2023
TO:	Health Alert Network
FROM:	Debra L. Bogen, MD, FAAP, Acting Secretary of Health
SUBJECT:	Statewide Increase in Shigellosis Cases in Pennsylvania
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

This transmission is a “Health Advisory” provides important information for a specific incident or situation; may not require immediate action.

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL
EMS COUNCILS: PLEASE DISTRIBUTE AS APPROPRIATE
FQHCs: PLEASE DISTRIBUTE AS APPROPRIATE
LOCAL HEALTH JURISDICTIONS: PLEASE DISTRIBUTE AS APPROPRIATE
PROFESSIONAL ORGANIZATIONS: PLEASE DISTRIBUTE TO YOUR MEMBERSHIP

Summary

- The Pennsylvania Department of Health (DOH) identified an increase in the number of shigellosis cases reported during October 2023. This increase was almost twice as large as the 5-year statewide average number of cases during the month of October from 2018-2022 and is particularly prominent in the southeastern region of the state.
- Although it is not clear whether this recent increase includes drug resistant strains, laboratories are encouraged to perform cultures of suspected cases to obtain isolates for antimicrobial susceptibility testing.
- All positive laboratory results for *Shigella* are required to be reported to the DOH and all positive isolates or specimens are required to be submitted to the DOH Bureau of Laboratories within five workdays of the positive test result.
- If you have additional questions about this guidance, please contact DOH at 1-877- PA- HEALTH (1-877-724-3258) or your local health department.

On November 8, 2023, the Philadelphia Department of Public Health released a health advisory describing a recent increase of shigellosis cases in Philadelphia in October 2023. In response, the DOH reviewed statewide data and identified a similar increase in shigellosis cases statewide. During the month of October, there were 28 confirmed or probable shigellosis cases reported to the DOH (excluding Philadelphia). This is more than twice the 5-year average number of cases reported in October from 2018-2022 (Figure 1). This statewide increase appears to be driven by the serotype, *Shigella sonnei*, and is particularly apparent in the southeastern region of the state.

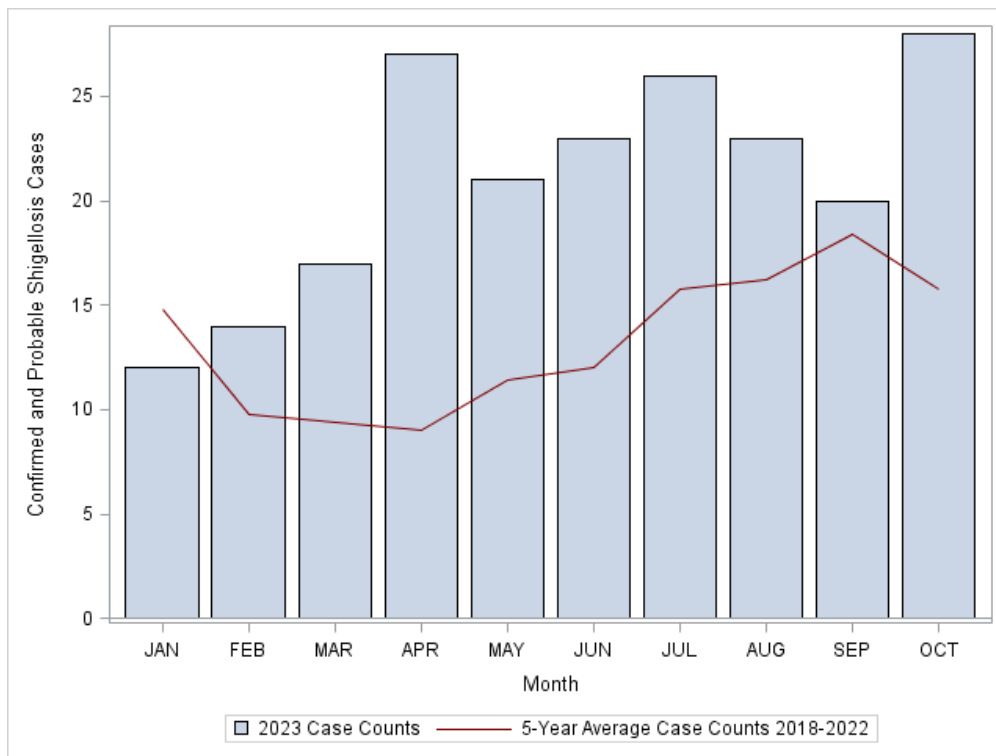


Figure 1. Number of confirmed and probable shigellosis cases reported to PADOH by month (data excludes Philadelphia residents).

Shigellosis is an enteric infection caused by *Shigella* bacteria. Those who are infected generally develop diarrhea, fever, and abdominal cramps. Transmission occurs through the fecal-oral route, directly through person-to-person contact including sexual contact and indirectly through contaminated food or water. Most shigellosis cases in Pennsylvania occur in the summer and early fall. Those who may be at increased risk include children in childcare centers or childcare center staff, men who have sex with men (MSM), people experiencing homelessness, foreign travelers to certain countries, and people in nursing homes, hospitals, and other facilities.

[HAN #684](#) published in March 2023 described a national increase in extensively drug resistant (XDR) shigellosis cases reported by CDC from 0% of cases in 2015 to 5% in 2022. Although there is no evidence that this recent increase is driven by a drug resistant form of shigellosis, laboratories are encouraged to perform cultures of suspected shigellosis cases to obtain isolates for antimicrobial susceptibility testing for improved clinical decision making. All positive laboratory results for *Shigella* are required to be reported to the DOH and all positive isolates or specimens are required to be submitted to the DOH Bureau of Laboratories within five workdays of the positive test result.

RECOMMENDATIONS FOR HEALTHCARE PROFESSIONALS

Diagnosis

- **Consider shigellosis in the differential diagnosis of acute diarrhea**, especially for patients at higher risk for *Shigella* infection, including:
 - Young children
 - MSM
 - People experiencing homelessness
 - International travelers
 - Immunocompromised persons

- People living with HIV
- If shigellosis is suspected,
 - **Ask the patient about relevant exposures and social history**, including [sexual activity](#), housing status, and international travel.
 - When ordering diagnostic testing for *Shigella*, stool culture is preferred for patients who will require antimicrobial treatment.
 - If a culture-independent diagnostic test ([CIDT](#)) is performed instead of culture and *Shigella* bacteria are detected, request on sample submission that the clinical laboratory perform reflex culture.
 - If a culture is positive for *Shigella*, order antimicrobial susceptibility testing (AST) to inform antimicrobial selection.

Clinical Management

- Most patients recover from shigellosis without antimicrobial treatment. Oral rehydration may be sufficient for many people with shigellosis.
- **Use AST results to guide antimicrobial treatment selection**, when possible.
- Encourage patients to inform you if symptoms do not improve within 48 hours after beginning antibiotics.
- To date, there are no CDC recommendations for treating XDR shigellosis in the United States; however, a [recent publication](#) from the United Kingdom outlined a possible strategy for treating severe XDR shigellosis using oral pivmecillinam and fosfomycin (for patients with prolonged symptoms or as oral step-down after intravenous treatment) or IV carbapenems and colistin (for hospitalized patients with severe infections or complications) [7].
 - XDR *Shigella* isolates in the United States typically do not carry resistance mechanisms for fosfomycin or carbapenems.
 - Note: Pivmecillinam is not commercially available for use in the United States.
- Healthcare providers treating XDR shigellosis should consult with a specialist knowledgeable in treating antibiotic-resistant bacteria to determine the best treatment options.
- Be aware that overusing antibiotics can contribute to the development of [antimicrobial resistance](#). CDC recommends using antibiotics only when clinically indicated.

If you have additional questions about this guidance, please contact DOH at 1-877-PAHEALTH (1-877-724-3258) or your local health department.

For more information

PADOH Shigellosis Fact Sheet: [Shigellosis .pdf \(pa.gov\)](#)

CDC Shigellosis Information for Healthcare Providers: <https://www.cdc.gov/shigella/audience-medical-professionals.html>

CDC Shigellosis Information for Specific Groups: <https://www.cdc.gov/shigella/audience.html>

Individuals interested in receiving future PA-HANs can register at <https://ondemand.mir3.com/han-pa-gov/login/>.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of November 15, 2023 but may be modified in the future.