



# SHELBY COUNTY HEALTH DEPARTMENT Shigella Outbreak, 2010

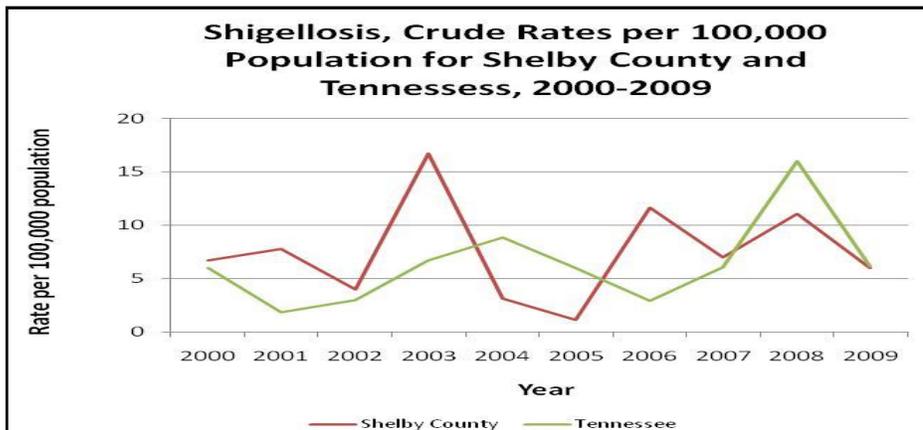


**Public Health**  
Prevent. Promote. Protect.

## Problem Statement

Shigella is a common bacterial infection caused by four major groups of shigella. These bacteria affect humans, usually resulting in intestinal infection. The bacteria is often spread from person to person. An affected person can pass the bacteria to others through contaminated food and water if they do not practice proper hand-washing while preparing or serving food. Everyone is at risk of shigella. However, the infection can be most severe among certain groups than the rest of the population. Small children, elderly and people with compromised immune systems are at risk for severe illness resulting from shigella infection. Symptoms appear between 4-7 days of exposure to bacteria, and can include diarrhea, fever, and abdominal cramps. Illness usually lasts for 48 hours. Shigellosis is the third most common foodborne illness in the United States, according to the Centers for Disease Control and Prevention (CDC). In 2010, the Health Department noticed an uptake in reported cases of Shigella. There was a concern of a shigella outbreak in daycares due to the demographic characteristics of cases.

Year	Shelby County		Tennessee	
	Rate per 100,000 population	# of Cases	Rate per 100,000 population	# of Cases
2000	6.7	60	6.0	340
2001	7.8	70	1.9	107
2002	4.0	36	3.0	174
2003	16.7	151	6.7	390
2004	3.1	28	8.9	523
2005	1.1	10	6.0	359
2006	11.6	106	2.9	176
2007	7.0	64	6.0	368
2008	11.0	102	16.0	985
2009	6.0	56	6.1	380



## 2010 Case Summary

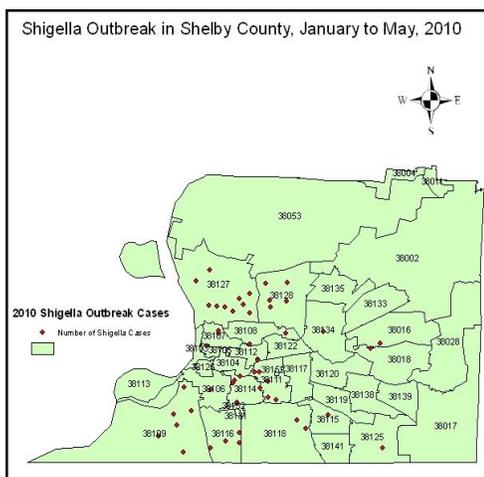
- A total of 144 confirmed cases of shigella were reported in 2010 compared to the previous year's number of 56.
- Of the total cases, 65% (94) were of daycare age up to 4 years.
- 46% (65) of the total cases were reported between March and May.
- More than half (55%) of the reports from March to May belonged to children of daycare age.

## Outbreak Intervention-What can be done

The increase in the number of reported shigella cases sparked an informational intervention that addressed concerns of the spread of the infection in small children.

Environmentalists conducted brief inspections at different daycares to assess the risk of infection for children and teachers. This was followed by education session on the control and prevention of infection for parents and teachers.

Continued surveillance was conducted at the daycares to ensure further spread did not occur. Recommendations on exclusion policies for both children and teachers were enforced.



## Public Health Message

In the case of shigellosis, it is not possible to provide a specific set of guidelines applicable to all situations. Therefore, Shelby County is prepared to evaluate each incident and take the appropriate measures to prevent spread of the infection based on findings from our investigation.

## Prevention Guidelines

Wash hands with soap and warm water before and after handling food, after using the restroom, and after changing diapers.

Don't prepare food for others when sick with diarrhea.

Refrain from swimming in pools or lakes when you are sick with diarrhea.

Assist small children with their bathroom needs, make sure they wash hands properly after using the restroom.

If a child in diapers has shigellosis, dispose of the diaper in a closed-lid garbage can and disinfect diaper area.