HEALTH ALERT: *Shigella flexneri*

Summary: Five cases of the same strain of *Shigella flexneri* infection (serovar 1b) have been reported to the Boston Public Health Commission (BPHC) since February 2012. All the cases are white males between the ages 30-55 years. The majority are men who have sex with men (MSM). Providers are asked to promote prevention in at risk populations. Health care providers in Boston are reminded that all cases of shigellosis must be reported to the Boston Public Health Commission at 617-534-5611 or 617-534-5905 (fax).

**EPIDEMIOLOGY**

Between early February and late May, 2012, a total of 12 cases of *Shigella* have been reported in Boston residents, including seven cases of *Shigella flexneri*. Additional laboratory testing has revealed that five of these seven cases are the same strain (serovar 1b), suggesting transmission among the cases. All five are white males; they range in age from 30-55 years. The majority of cases identify as MSM, but no common risk factors (such as a shared meal) have been found on investigation.

In 2011, 41 cases of *Shigella* were reported in Boston residents. Of these 27 (66%) were male; 22% of all cases in 2011 were white men 30-55 years old. Ten of the 41 cases of *Shigella* were identified as *S. flexneri* in 2011; of these, 80% were in men.

*Shigella* is commonly transmitted by the fecal-oral route, and the inoculum size required for transmission is low. Ingesting as few as 10 to 200 organisms can result in infection. Any activity that results in fecal matter being ingested poses a risk, including consumption of contaminated food or water, handling of a contaminated inanimate object without subsequent hand washing, and some types of sexual contact. Transmission can occur as long as the organism is present in the stool. Without antimicrobial treatment, *Shigella* usually disappears from the stool in about 1 week; chronic carriage is rare. Clusters of *S. flexneri* and *Shigella sonnei* have previously been reported in MSM populations.

**SYMPTOMS AND DIAGNOSIS**

Shigellosis usually presents with watery or loose stool and minimal constitutional symptoms, but more severe symptoms including mucoid stools (with or without blood), fever, abdominal cramps, and tenesmus can occur. Disease resulting from *S. flexneri* infection typically presents with bloody stool and severe systemic symptoms.

The most common symptoms among the cases in this cluster were diarrhea and abdominal pain. One person required hospitalization, but has since been discharged.

**PREVENTION**

Proper hand washing, especially after using the toilet and before food preparation or eating, can reduce the risk of *Shigella* transmission. Sexual contact should be avoided when someone is symptomatic with diarrhea. The risk of sexual transmission can also be reduced by refraining from oral-anal or oral-genital contact, or by using condoms, dental dams, or gloves during sexual contact. Washing hands, anal and genital regions, and sex toys with soap and water prior to and following any sexual contact may also reduce the risk of sexual transmission. Safer sex is still important, i.e. condom use for penile-anal and penile-vaginal sex, in order to prevent HIV and other STD transmission.

**REPORTING**

Healthcare providers in Boston are required by state and city regulations to report all suspect or confirmed shigellosis cases promptly to the Boston Public Health Commission (BPHC) Communicable Disease Control Division at 617-534-5611. In addition, laboratories are required to report results indicative of *Shigella* infection to BPHC. Reporting forms for health care providers and for laboratories are available on the web at: [www.bphc.org](http://www.bphc.org).