

How Environmental Health Specialists Investigate Outbreaks

EHS-Net Study Findings and Recommendations

Knowing the contributing factors to foodborne illness outbreaks is critical to stopping them. Environmental health specialists find contributing factors by investigating outbreaks. But these investigations often do not give enough information. This may be the result of ineffective investigation practices and problems faced during investigations. Thus, it is important to collect data that will describe investigation practices and problems.

What the Study Described

This study described how environmental health specialists investigate foodborne illness outbreaks. This study also looked at problems faced by specialists during these investigations.

What the Study Found

Some specialists said they only did routine inspections during investigations. But many said their visits to restaurants during outbreaks were different from routine inspections. During these visits they focused on

- Finding the food linked to the outbreak.
- Learning how that food was handled.
- Talking to food workers to find those who might be sick.

Many specialists said they did not often find outbreak contributing factors during investigations. Many said they focused more on learning which germs caused the outbreak than on finding the contributing factors.

Specialists discussed several investigation problems. These included problems linked with

- Uncooperative restaurant workers.
- Uncooperative restaurant customers.
- Organizational issues in public health agencies.

Some specialists reported a lack of help from and teamwork with epidemiology staff.

EHS-Net found that environmental health specialists dealt with the following problems during foodborne illness outbreak investigations:

- Uncooperative restaurant workers.
- Uncooperative restaurant customers.
- Organizational problems such as lack of management support and training.



This study was conducted by the Environmental Health Specialists Network (EHS-Net). EHS-Net is a federally funded collaboration of federal, state, and local environmental health specialists and epidemiologists working to better understand the environmental causes of foodborne and waterborne illness. Visit EHS-Net at <http://www.cdc.gov/nceh/ehs/EHSNet>.

EHS-Net Recommends

Outbreak investigators should conduct activities that are more likely to lead to finding outbreak contributing factors.

Investigators should visit restaurants early in investigations. Workers may be more likely to cooperate in the early stages.

Education programs may help restaurant customers learn about foodborne illness.

Doctors could learn more about foodborne illness diagnosis and investigation. The Centers for Disease Control and Prevention primer on foodborne illness (<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5002a1.htm>) could be a helpful tool.

The role of environmental health in outbreak investigations should be defined. This is needed so that epidemiology and environmental health programs work together. This could also help with problems posed by public health agencies (for example, lack of support from management).



Key Terms

Contributing factors: conditions that contribute to foodborne illness. For example, a food worker handles food while sick and passes germs from his hands to the food he is making.

Environmental health specialists: public health workers who enforce health and safety standards related to food and other consumer products. They conduct restaurant inspections.

Epidemiology: study to describe risk factors for sickness and what caused sickness.

Foodborne illness outbreak: when two or more people have the same sickness after eating food from the same place.

Inspection: regular visit to see how well restaurants follow local food safety rules.

Outbreak investigation: activities to find out what caused an outbreak.