



Investigating a Salmonella Outbreak in Pennsylvania

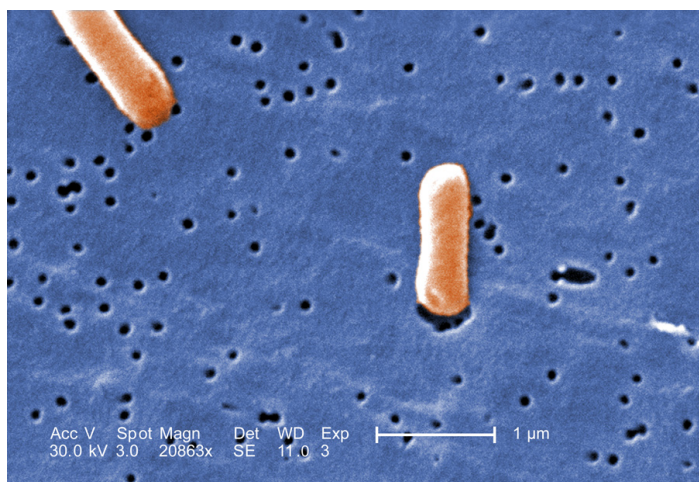
Salmonella are bacteria that can cause diarrhea, fever, and abdominal cramps. Each year, Salmonella cause an estimated 1.4 million illnesses in the United States. In February 2007, two Salmonella cases with identical DNA patterns were identified in Pennsylvania through routine electronic laboratory reporting.

The CDC Epidemic Intelligence Service (EIS) officer assigned to the Pennsylvania Department of Health, an integral member of the department's infectious disease investigation team, was asked to assist with determining the source of the outbreak and preventing the disease from spreading further. Working with other investigators, the CDC EIS officer identified additional cases by reviewing reports from the Pennsylvania National Electronic Disease Surveillance System, participated in a farm inspection, and collected environmental samples for testing. Investigators found a total of 29 cases from five Pennsylvania counties,



A sign advertising unpasteurized milk in Pennsylvania

and interviewed the patients to learn what the cases had in common. The majority of patients had consumed raw (unpasteurized) milk or milk products from a single Pennsylvania dairy. Investigators then isolated the Salmonella outbreak strain from raw milk at the dairy and from two of the patients' households to confirm the source of the outbreak.



A colorized scanning electron micrograph image of Salmonella bacteria

As a result of these findings, Pennsylvania revoked the dairy's raw milk permit and ended the outbreak. No new cases were identified. CDC and the Pennsylvania Department of Health also used the investigation to inform the public about the risks of drinking raw milk. Currently, Pennsylvania legislators are reviewing the regulation of dairies that sell raw milk.

CDC's investigation of the salmonella outbreak in Pennsylvania is just one example of the work of fellows in CDC programs such as EIS. CDC funds fellowships that recruit and train approximately 200 epidemiologists, economists, informaticians, physicians, and other health leaders into the field of public health each year. More than 70 percent of these fellows remain in public health after graduation from their programs, working at the federal, state, and local levels to prevent and detect disease, and prepare for threats before people become sick or injured.

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