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NEWS RELEASE

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Genetic Testing Gives Idaho Edge in E. Coli Detective Work

Rapid identification of *E. coli* linked to fresh spinach in Idaho and across the nation can be credited to a genetic testing method and the linking of lab results between states and the Centers for Disease Control and Prevention (CDC).

State public health laboratories, including Idaho, now perform tests which can determine genetic similarities between strains bacteria like the *E. coli* O157:H7 found in spinach last week in states across the country. These tests allow the Idaho lab, a part of the Department of Health & Welfare, to determine whether an ill person who is infected in Boise was infected with the same *E. coli* as a person in Pocatello or Coeur d'Alene or in any other city in the country.

"This helps us narrow down the source of the *E. coli*," says Dick Hudson, chief of the Idaho Bureau of Labs. "If we know two people in separate locales have *E. coli* infections and their lab cultures have the matching results, it helps us narrow down the source of the contamination. Genetic testing is a huge step forward in rapid response to health scares like this."

In the recent *E. coli* outbreak, Wisconsin, Oregon and Idaho shared test results over PulseNet. PulseNet, an internet-based system, allows the posting of genetic test results on a secured database shared by all states and the CDC in Atlanta. Using this web-based approach, matching lab results were linked between states much faster than the traditional approaches allowed. This resulted in a much quicker public health response. By utilizing lab results, health officials were able to contact the affected people and determine that fresh spinach consumption was the likely source of the *E. coli* infections. The faster the source of the contamination can be discovered the more quickly health officials can move to prevent others from getting sick.

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Before Pulsenet was available, the traditional answer to determining a source of contamination was lengthy interviews with individuals about where they had eaten, when they had eaten, what they had eaten and with whom they may have had contact. The information would at some point be shared with other states if a potential link was suspected. Given enough interviews, experienced epidemiologists might discover a common source of infection. PulseNet and the rapid sharing of information over the web have increased the accuracy and speed of the lab process and provided opportunities to reach the public more quickly.

"This is a huge improvement in our efforts to protect people and provide safe sources of food," concludes Hudson. "This is really about good science and really good public health."

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(Editors: For an interview and pictures or video, contact Ross Mason at (208) 334-0693**)**