

## European food outbreak soars; mystery deepens

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Chief of the laboratory in research into the Escherichia Coli bacterium at the Brno research institute Pavel Alexa, left, and his assistant Gabriela Glocknerova, right, take samples from a cucumber for a molecular biological test in Brno, Czech Republic, Wednesday, June 1, 2011. The ongoing outbreak of E. coli has claimed 16 people and around 1500 infected across Europe. The laboratory is testing the vegetables for the Czech market. (AP Photo/Petr David Josek)

(AP) -- The number of people hit by a massive European outbreak of foodborne bacterial infections is a third bigger than previously known and a stunningly high number of patients suffer from a potentially deadly complication than can shut down their kidneys, officials said

Wednesday.

The death toll rose to 17, with German authorities reporting that an 84-year-old woman with the complication had died on Sunday.

Medical authorities appeared no closer to discovering either the source of the infection or the mystery at the heart of the outbreak: why the unusual strain of the E. coli bacteria appears to be causing so many cases of [hemolytic uremic syndrome](#), which attacks the kidneys and can cause seizures, strokes and comas.

Germany's [national health](#) agency said 1534 people in the country had been infected by enterohaemorrhagic E.coli, or EHEC, a particularly [deadly strain](#) of the common bacteria found in the digestive systems of cows, humans and other mammals. The Robert Koch Institute had reported 1169 a day earlier.

The outbreak has hit at least eight European countries but virtually all of the sick people either live in Germany or recently traveled there.

The Robert Koch Institute said 470 people in Germany were suffering from hemolytic uremic syndrome, or HUS, a number that independent experts called unprecedented in modern [medical history](#). HUS normally occurs in 10 percent of EHEC infections, meaning the number seen in Germany could be expected in an outbreak three times the size being currently reported.

That [discrepancy](#) could indicate that a vast number of cases haven't been reported because their symptoms are relatively mild, [medical experts](#) said.

But they also offered another, more disturbing theory - the strain of EHEC causing the outbreak in Europe could be more dangerous than any

previously seen.

"There may well be a great number of asymptomatic cases out there that we're missing. This could be a much bigger outbreak than we realize right now," said Paul Hunter, a professor of health protection at the University of East Anglia in England. "There might also be something genetically different about this particular strain of E. coli that makes it more virulent."

There are hundreds of different E. coli strains in the environment - every person naturally carries the bacteria - but only a very small percentage are dangerous. EHEC is not normally in the environment, but improper use of manure can contaminate fresh produce.

German Agriculture Minister Ilse Aigner said scientists were working nonstop to find the source of the EHEC that is believed to have been spread in Europe on tainted vegetables - and where in the long journey from farm to grocery store the contamination occurred.

"Hundreds of tests have been done and the responsible agencies ... have determined that most of the patients who have been sickened ate cucumbers, tomatoes and leaf lettuce and primarily in northern Germany," Aigner said on ARD television. "The states that have conducted the tests must now follow back the delivery path to see how the cucumbers, or tomatoes or lettuce got here."

German authorities initially pointed to cucumbers from Spain after people in Hamburg fell ill after eating fresh produce. After tests of some 250 samples of vegetables from around the city, only the three cucumbers from Spain and one other of unknown origin tested positive for enterohaemorrhagic E.coli, or EHEC.

But further tests showed that those vegetables, while contaminated, did

not cause the outbreak. Officials are still warning all Germans to avoid eating raw cucumbers, tomatoes or lettuce.

Some experts said it might be impossible to ever identify what caused the outbreak, as much of the tainted fresh produce may already have disappeared from markets.

"As in many foodborne disease outbreaks, the culprit may never be identified and the epidemic just fades away," said Brendan Wren, professor of pathogen molecular biology at the London School of Hygiene and Tropical Medicine.

To identify which E. coli strain is responsible, scientists must grow the suspect bacteria in a laboratory, which can take up to two days. Once that's done, tests to characterize the strain may take another day or two and those tests can only be done in specialized labs.

"These are complicated molecular tests and it's not something you can do in one day," Hunter said.

Spanish officials said, meantime, that they were considering legal action after Europeans swore off Spanish produce in droves after the initial report. And in Germany, farmers' association president Gerd Sonnleitner said the call for people to avoid raw vegetables had cost local farmers an estimated euro30 million (\$43 million) so far.

Germany typically sees a maximum of 50 to 60 annual cases of HUS, which has up to a 5 percent fatality rate according to the World Health Organization.

More than 60 percent of the EHEC cases in Germany have been women - 88 percent over the age of 20 - and nearly 90 percent of the HUS cases have been women over the age of 20.

Experts suspect the outbreak may be mainly striking women because they are the ones most likely to be eating fresh produce. "We should be open to whatever the investigation shows, but adult women are more likely to be exposed to vegetables than other populations," said Hilde Kruse, a food safety expert at the World Health Organization.

Last week, Reinhard Burger, head of the Robert Koch Institute, said it was also possible more women were affected because they were predominantly the ones handling food in the kitchen.

The World Health Organization said cases of EHEC have been reported in nine European countries: Austria, Denmark, Germany, the Netherlands, Norway, Spain, Sweden, Switzerland and the U.K. All but two cases are either people in Germany, or people who had recently traveled to northern Germany, the organization said.

In addition, Sweden has reported 15 cases of HUS, followed by Denmark with 7, the Netherlands with 3, the U.K. with 2 and Spain with 1, according to the European Center for Disease Prevention and Control.

It's "extraordinary" to see so many cases of the kidney complication from a foodborne illness, said Dr. Robert Tauxe, a foodborne disease expert at the U.S. Centers for Disease Control and Prevention. "There has not been such an outbreak before that we know of in the history of public health."

He added that the strain of E. coli in the European outbreak has not been seen in the United States, where there have been several high-profile foodborne outbreaks in recent years, but none with such a high [death toll](#).

There's little precedent in Europe, either. In 1996, an E. coli outbreak in the United Kingdom caused 216 cases and 11 deaths.

The World Health Organization said 86 percent of those sickened in the current [outbreak](#) were adults, and two-thirds were women. It said it was unusual that more children weren't affected.

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