



# Epidemiological Alert: Haemolytic Uraemic Syndrome (HUS) and infection by Enterohaemorrhagic *E. coli* (EHEC)

(Published on 28 June 2011)

The objective of this alert is to provide an update on cases of Haemolytic uraemic syndrome (HUS) and on cases of infection by enterohaemorrhagic *E. coli* (EHEC) (or Shigatoxin-producing *E. coli* (STEC)) in Europe and countries of our Region. Also included are the Pan American Health Organization (PAHO) recommendations to Member States related to this theme.

## Current Situation

Since 2 May 2011 and up to 28 June 2011, a total of 881 cases of HUS (32 fatalities) and 3,141 cases of non-SHU STEC (17 fatal cases) have been reported IN the European Union Member States.<sup>1</sup>

Since epidemiological week 23, the number of new HUS and non-HUS STEC cases has declined significantly. Nevertheless, the cumulative number of cases from Germany continues to rise, primarily owing to delays in notification.

Investigations by the German authorities indicate that the vehicle of the bacterium responsible for the outbreak, is bean and seed sprouts.

On 24 June, France reported a cluster of 8 cases, all adults (six women and two men) presenting bloody diarrhea. Seven patients developed HUS. In three patients, *E. coli* O104:H4 has been confirmed. Preliminary investigative findings suggest that locally grown sprouts might be involved. Intensive traceback is under way to identify a possible common source of the German and French sprout seeds. Other potential vehicles are also under investigation.

## In the Americas Region

The United States Center for Disease Control and Prevention (CDC) reported that as of 23 June 2011, there were five confirmed cases and one suspected case of STEC O104: H4 infections. Three patients developed SHU. Five of the six cases, had prior travel to Germany, where they were probably infected and one resulting death.

### Summary

Since epidemiological week 23, the number of new HUS and non-HUS STEC cases has declined significantly in the European Union states. Nevertheless, the cumulative number of cases from Germany continues to rise, primarily owing to delays in notification.

Investigations conducted by the German authorities indicate that the vehicle of the bacterium responsible for the outbreak, is bean and seed sprouts.

On 24 June, France reported a cluster of 8 cases, all adults (six women and two men) presenting bloody diarrhea; of which seven have developed HUS. *E. coli* O104:H4 has been confirmed in three patients. Preliminary investigative findings suggest that locally grown sprouts might be involved.

In the Americas Region, a total of nine *E. coli* O104:H4 STEC cases have been identified, of which six cases are confirmed (five in the United States and one in Canada).

<sup>1</sup> The total number of cases does not include the eight STEC/HUS cases reported by France on June 24<sup>th</sup>, as these are considered a separate outbreak.

Likewise, the Canada Public Health Agency confirmed a STEC O104:H4 case in a Canadian citizen with recent prior travel to the north of Germany.<sup>2</sup>

The Brazil Ministry of Health reported two suspected cases of STEC in the Campinas municipality, Sao Paulo State. Both suspect cases had prior travel to Europe and laboratory results are pending to either confirm or discard the infection.

## Recommendations

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The World Health Organization is not making any new recommendations for the treatment of cases related to this outbreak in particular.<sup>3</sup>

Normal hygiene measures should be observed. Hand washing after toilet use and before touching food, are highly recommended, as the bacterium can be passed from person to person, as well as through food, water and direct contact with animals. The bacteria is destroyed by thorough cooking of foods until all parts reach a temperature of 70 °C or higher.

## Travel and international trade

The World Health Organization does not recommend any restrictions in travel to or trade related to these outbreaks.

## References

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- **WHO Europe:** <http://www.euro.who.int/en/what-we-do/health-topics/emergencies/international-health-regulations/news/news/2011/06/ehec-outbreak-update-10>
- **WHO:** <http://www.who.int/csr/don/en/index.html>
- **CDC:** <http://www.cdc.gov/>
- **European Centre for Disease Prevention and Control**  
[http://www.ecdc.europa.eu/en/activities/sciadvise/Lists/ECDC%20Reviews/ECDC\\_DispForm.aspx?List=512ff74f%2D77d4%2D4ad8%2Db6d6%2Dbf0f23083f30&ID=1121&RootFolder=%2Fen%2Factivities%2Fsciadvise%2FLists%2FECDC%20Reviews](http://www.ecdc.europa.eu/en/activities/sciadvise/Lists/ECDC%20Reviews/ECDC_DispForm.aspx?List=512ff74f%2D77d4%2D4ad8%2Db6d6%2Dbf0f23083f30&ID=1121&RootFolder=%2Fen%2Factivities%2Fsciadvise%2FLists%2FECDC%20Reviews)
- **Brazil Ministry of Health, Department of Health Surveillance:**  
[http://portal.saude.gov.br/portal/aplicacoes/noticias/default.cfm?pg=dspDetalleNoticia&id\\_area=1498&CO\\_NOTICIA=12816](http://portal.saude.gov.br/portal/aplicacoes/noticias/default.cfm?pg=dspDetalleNoticia&id_area=1498&CO_NOTICIA=12816)

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<sup>2</sup> Canada currently uses the following definition to identify suspect cases of STEC O104 associated with Germany outbreak: Temporary stay in Germany any time in the 10 days prior to illness onset; AND Symptom onset on or after May 1, 2011 AND: Either: - Clinical diagnosis of hemolytic uremic syndrome (HUS) OR - Laboratory detection of Shiga-toxin 2 (Stx2) in stool.

<sup>3</sup> <http://www.euro.who.int/en/what-we-do/health-topics/emergencies/international-health-regulations/news2/news/2011/06/ehec-outbreak-rare-strain-of-e.-coli-unknown-in-previous-outbreaks>