

SALMONELLA

Factsheet



In the EU, Salmonella is the most frequently reported cause of food-borne outbreaks, with eggs and products made with raw eggs being the most important food vehicles in these outbreaks.

Characteristics

The disease symptoms may vary. Infections by serotypes, like *Salmonella enteritidis* and *Salmonella typhimurium*, only cause moderate symptoms in poultry, whereas infections in people result in nausea, vomiting, abdominal cramps or diarrhea. Headache and fatigue are also possible. These symptoms can be severe, especially in young children and the elderly.

S.enteritidis and *S.typhimurium* are the most frequently reported serotypes. In 2009 75.6% of all people-confirmed cases were attributed to these two types.

Societal impact

■ Food production

In the EU, legislation requires that eggs from flocks that are (suspected of being) infected with Salmonella serotypes with a potential public health significance may only be used for human consumption if treated in a manner that guarantees the destruction of all Salmonella serotypes.

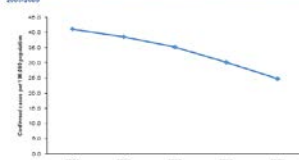
In 2010 a Salmonella infection on two US-layer farms resulted in a nationwide recall of more than 0.5 billion eggs.

■ Human health

EFSA has estimated that the overall economic burden of human salmonellosis could be as high as **EUR 3 billion** a year.

In the EU, 108,614 confirmed human cases were reported in 2009, a 17.4% decrease compared to 2008 and representing a statistically significant decreasing trend as compared to 195,947 cases in 2004. These substantial reductions represent major material cost-savings in primary medical care, hospitalisation, sick-leave and lost productivity. In addition, they represent a substantial reduction of the emotional burden of sickness.

Figure 1a1 Identification rate of reported confirmed cases of human salmonellosis in EU (EU MSs), 2007-2009

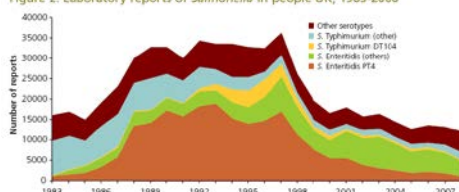


The observed reduction of salmonellosis cases (see graphic) is mainly attributed to the successful implementation of national Salmonella control programmes in poultry flocks. Vaccination is an important component of such control programmes as it helps to protect poultry against *S.enteritidis* and *S.typhimurium* infection and, subsequently, prevents the eggs produced from being infected.

Vaccines and vaccination

Vaccines that protect poultry against Salmonella infections are available. If correctly used, these **vaccines are important elements of effective Salmonella control programmes**. In some quality assurance programs, like the Lion Code in the UK, the use of Salmonella-vaccines is obligatory.

Figure 2: Laboratory reports of Salmonella in people UK, 1983-2008



In the UK a major reduction in the incidence of human salmonellosis (see chart) was observed after vaccination against *S. enteritidis* was introduced in a major part of the UK egg industry.

The success of Salmonella vaccination is observed in all countries where these vaccines have been used appropriately and is confirmed by reports by corresponding authorities.

Useful links:

- European Food Safety Authority (EFSA):
<http://www.efsa.europa.eu/fr/topics/topic/salmonella.htm>
- World Organisation for Animal Health (OIE):
http://www.oie.int/fileadmin/Home/eng/Health_standards/tahm/2.09.09_SALMONELLOSIS.pdf