

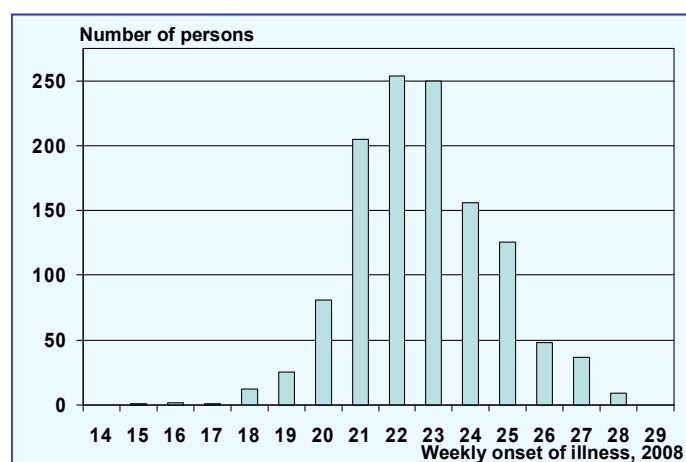
Large outbreak of infections by *Salmonella* Saintpaul

Begin April 2008, an outbreak of human infections caused by *Salmonella* Saintpaul was diagnosed in the USA. Preliminary investigations linked the outbreak to consumption of raw, red tomatoes. As a consequence the US 'Food and Drug Administration' advised consumers to limit their consumption of tomatoes. It now appears that the outbreak was not associated with tomatoes. As of 29 July 2008, 1319 persons with *Salmonella* Saintpaul infection had been reported in 43 States and Canada. All human isolates had the same genetic fingerprint.

The investigations

The epidemic curve In Figure 1 the epidemic curve of the outbreak is presented. The outbreak started in week 14 of 2008 and was still ongoing in week 28.

Figure 1. The epidemic curve of the *Salmonella* Saintpaul outbreak in the USA



The curve, as presented in Figure 1 indicates an ongoing outbreak, caused by a food product that is still on the market. It also indicates that in all probability a seasonal product may be involved.

Case-control studies

An initial case-control study carried out in New Mexico and Texas in May showed that consumption of raw tomatoes was strongly linked to illness. However, after a public warning in week 23 to refrain from consuming raw tomatoes, cases still continued to occur although at a lower frequency. Subsequently, a similar but much larger and nation-wide case-control study identified consumption of fresh jalapeño peppers and fresh cilantro as the most obvious cause of the outbreak. Further studies revealed an association with the consumption of products containing serrano peppers and tomatoes.

The *S. Saintpaul* strain which caused the outbreak was isolated twice from jalapeño peppers and once from serrano peppers. The peppers were grown in Mexico. The US 'Food and Drug Administration (FDA) detected *S. Saintpaul* in samples of Serrano peppers and water which were collected on the farm in Mexico that supplied the peppers to the distribution centre in Texas.

Conclusions

Based on the epidemiological investigations it can be concluded that peppers and to a lesser extent tomatoes were major sources of infection in this outbreak of infections caused by *S. Saintpaul*.

Source:

<http://www.cdc.gov/salmonella/saintpaul/>

Editorial note. There are strong indications that the water used for irrigation and washing was the most obvious source in this outbreak. The origin of the *S. Saintpaul* strain has not yet been identified. Livestock and birds may have been important sources of water contamination. In the light of the above and comparable outbreaks, the currently applied habit of rinsing 'dirty' tomatoes should be reconsidered.