



UK Foodborne illness figures released for 2019

Food poisoning in England and Wales has gone down for the fifth year in a row, according to annual figures.

There were more than 8,800 formally notified cases of food poisoning in 2019 compared to just more than 11,000 in 2018. The last time numbers went up was from 2013 to 2014.

Public Health England (PHE) collects notifications of infectious diseases (NOIDs) and publishes analyses of local and national trends every week. NOIDS is one of the ways by which PHE carries out surveillance of infections across the country.

Yorkshire and Humberside had the most food poisoning cases by region with 2,270 followed by 1,645 in the Southeast and just more than 1,050 in the Northeast. London had more than 660 infections while West Midlands had the lowest number with 49.

More than 4,500 cases of *Campylobacter* were recorded with almost 1,650 infections in the South East in 2019.

Nearly 700 *Salmonellosis* infections were noted with the joint highest of 172 patients reported by London and the South East.

A total of 85 Shiga toxin producing *E. coli* (STEC) infections were recorded, but the data shows only one report of *Listeria monocytogenes* despite the well-publicised outbreak in May/June 2019 in which seven vulnerable patients died linked to the consumption sandwiches served in hospitals. All 41 *Yersinia* cases were from the South East.

Because not all foodborne illness events get reported and are therefore not confirmed by laboratory diagnosis, the Food Standards Agency (FSA) estimates that a more accurate representation of the number of annual foodborne illnesses in the UK is in the region of 2.4 million.

Anecdotal evidence on the impact of COVID and the associated lockdowns suggest that 2020 may see another drop in the number of reported foodborne illnesses. This may possibly be due to the closure of restaurants, and the cancellation of festivals, gatherings and weddings, as large scale catering events have historically accounted for a significant proportion of foodborne illness.

Salmonella outbreak in France

Seven people have needed hospital treatment as part of a *Salmonella* outbreak in France linked to dry sausages known as Saucisson Seche.

In total, 31 cases of salmonellosis have been detected by the National Reference Center for *Salmonella* at the Pasteur Institute. The serotype causing the outbreak has been identified as the wonderfully named *Salmonella bovismorbificans*. Rather unusually this has mostly affected young people with at least 17 children being reported as becoming ill.

An outbreak of this relatively rare serotype occurred in the Netherlands in 2016-2017 and was also linked to the consumption of uncooked meat products.

The word saucisson comes from the Latin word *salsus* which means salted, so yet another example of how *Salmonella* can survive and remain viable (and potentially infectious) in a low water activity (Aw) environment.

Three separate outbreaks in Ireland

There are currently three separate *Salmonella* outbreaks being investigated in Ireland. Two outbreaks have been caused by *Salmonella enteritidis*, and one of these is being linked to the consumption of frozen raw poultry products which has caused recent issues in the UK as reported in October's Micro Bulletin.

The third outbreak involves the serotype *Salmonella mikawasima* which has so far affected 17 people. Last November there were 138 cases of this serotype identified in the UK, Sweden, France and Denmark, and like this current outbreak in Ireland no common food vector has been identified.

Germany, Austria and Denmark-*Listeria* outbreak linked to smoked fish

Three European countries have recorded *Listeria* infections with fish being implicated as the source. Germany has reported 30 infections and, since November, two people in Austria and one person in Denmark has contracted the same strain of *Listeria monocytogenes*.

Initial investigative findings carried out in Austria point to chilled smoked trout fillets from Denmark as the source.

Because of the very wet processing conditions there is a significant risk of smoked fish containing *Listeria*, with some surveys claiming an incidence of up to 10% in both hot and cold smoked fish.

Yet more financial consequences of food poisoning outbreaks

Last month we looked at the long running legal ramifications which still revolve around the Maple Leaf Listeriosis outbreak in Canada in 2008, and this week, news has been released detailing that the Greenyard company is to pay half a million euros to settle allegations of communication failures about the Listeria contamination at its frozen vegetable factory in Hungary in 2018. The outbreak included 54 cases of listeriosis in Australia, Finland, Sweden, Denmark, Austria, and the United Kingdom with 10 deaths from 2015 to 2018. The settlement relates to the late disclosure of information by Greenyard regarding the Listeria contamination, as it was claimed that Greenyard were made aware of a link (established by Whole Gene Sequencing) between *Listeria monocytogenes* isolated from their products and the strain which had caused illness in many people across Europe.

Coincidentally, as a direct consequence of this outbreak, hygiene guidelines for controlling *Listeria monocytogenes* during the production of frozen vegetables have been published this week by the European Association of Fruit and Vegetable Processors.

The outbreak also highlighted issues around consumer habits as frozen vegetables are generally sold as ready to cook and receive minimal processing, but on this occasion, frozen sweetcorn produced by Greenyard had been consumed without any further heating or cooking.

German and Norwegian studies on raw milk and raw milk cheese

A study carried out in Germany on raw unpasteurised milk found that Listeria, Campylobacter and Shiga Toxin E coli (STEC) were detected in 5% of the 360 samples tested. STEC was detected in 18 samples, *Listeria monocytogenes* in 11 and Campylobacter in 9.

Meanwhile a study in Norway on raw milk cheeses found that out of 186 samples tested, STEC was detected in 5 samples.

Both studies gave predictable results which were in line with previous surveys, with the only real surprise being the absence of any Salmonella detections.

The dangers of handling and consuming raw/unbaked flour.

I am sure that many of you (like me) have happy childhood memories of being allowed to scrape out the mixing bowl after your parents (or Grandparents) had mixed the flour, eggs, sugar and other ingredients together when making a cake.

However, had they known that recent studies have shown that raw flour has a 0.5% chance of containing *Shiga Toxin E coli*, a 1.3% chance of containing Salmonella and a 12% chance of containing generic E coli, maybe they would not have allowed us to have this special "treat".

An article in this month's Journal of Food Protection evaluated several online surveys which were conducted to study consumers' flour-handling practices and their knowledge about food safety risks related to flour. They found that 85% of consumers were unaware of the dangers of potential pathogens being present in flour, flour recalls, or outbreaks, and among consumers who use flour to bake, 66% said they regularly ate (or let their children eat) the raw dough or batter.

In recent years there has been numerous product recalls and outbreaks linked to the handling and consumption of raw flour including recall due to contamination with *E coli O121* in Canada in 2017, an outbreak of Salmonellosis due to *Salmonella typhimurium* in New Zealand in 2008 and a STEC 026 outbreak last year which was linked to raw flour produced in America.

Salmonella outbreak in Canada attributed to close contact with "pet" hedgehogs

There has been a recent report on a Salmonella outbreak in Canada which was linked to direct and indirect handling of pet hedgehogs.

The risks to gardeners and people who come in contact with the soil of contracting Salmonella from wild animals such as hedgehogs is well documented, but this article stated that many of the affected individuals had hedgehogs as pets, and went on to say that they had probably contacted Salmonella by hugging and kissing the hedgehogs!!!!

And finally.....

I don't really know how to follow that story other than to wish you all a safe and happy 2021.

To say that this year has been difficult/challenging/unparalleled is an obvious understatement. For those of us in the UK, when we had a major fire at one of our sites on New Year's Day, we probably thought that would throw sufficient challenges in our direction, but as we now all know, things got progressively more difficult as the year progressed.

All of which makes it all the more remarkable that for the fourth occasion in the last eight years we were able to win the prestigious Society of Food Hygiene and Technology Company of the Year award, which is testament to the dedication, resilience and hard work of every single member of staff.

With that in mind, and due to the fact that I genuinely believe that there is light at the end of the tunnel due to the amazing vaccine development work, I don't think that it is therefore unrealistic or inappropriate to wish you all a safe, healthy and prosperous New Year.