



Food safety

Fact sheet

April 2015

Food safety in the WHO European Region

Food safety encompasses actions to ensure that all food is as safe as possible. Food safety policies and actions must cover the entire food supply chain, starting in the environment, through primary production, processing, distribution and preparation to consumption.

These actions include ensuring that adequate food safety systems – including proper regulations and standards, food inspection and laboratory capacity – are built and maintained to manage and respond to food safety risks along the food supply chain, including during emergencies. Food producers are primarily responsible for ensuring the safety of their products, but food handlers and consumers also have a role to play.

For cost-efficient prevention and control of foodborne diseases, sectors such as public health, animal health and agriculture must collaborate both domestically and internationally, through effective communication, information sharing and joint action.

Foodborne diseases

Foodborne diseases are usually infectious or toxic in nature and are caused by bacteria, viruses, fungi, prions, parasites or chemical substances entering the body through contaminated food or water. They are very common, and cause a significant public health burden, even in the most developed countries.

Acute foodborne disease (often called food poisoning) is commonly caused by eating food contaminated by bacteria, such as *Salmonella*, *Campylobacter*, *Clostridium perfringens*, *Staphylococcus aureus*, *Bacillus cereus* or *Escherichia coli* (*E. coli*), or by a virus, such as norovirus.

Eating contaminated food can have very severe consequences, some of which can be long term, including kidney and liver failure, brain and neural disorders, reactive arthritis, cancer, septicaemia and even death.

Symptoms and treatment of acute foodborne disease

Depending on the disease, symptoms can begin from less than an hour to some weeks after eating the contaminated food, and may include: nausea, vomiting, diarrhoea and/or stomach cramps. Most people with food poisoning get better without medical treatment. They should rest and drink plenty of fluids.

People with severe symptoms, a temperature above 38 °C and/or who are very dehydrated should seek medical attention. Babies and infants should always receive medical attention. Those who are more likely to experience a severe reaction to foodborne disease include elderly people, children and babies, pregnant women and immunocompromised people.

KEY FACTS AND FIGURES

- More than 200 diseases are spread through food.
- Foodborne diseases are caused by microorganisms (bacteria, viruses, fungi, prions, parasites), chemicals or even physical agents.
- Foodborne diseases can cause a range of acute and/or chronic symptoms, from diarrhoea to cancer.
- Globally, food- and waterborne diarrhoeal diseases kill an estimated 2 million people annually, many of whom are children.
- In 2013, there were over 310 000 human cases of bacterial foodborne disease reported in the European Union (EU)/ European Economic Area (EEA) alone, resulting in 322 deaths.
- Over 85 000 cases of salmonellosis in humans are reported in the EU each year, at a cost of up to €3 billion.
- The 2011 enterohaemorrhagic *Escherichia coli* (EHEC) outbreak in Germany and France, linked to contaminated fenugreek sprouts, led to almost 4000 cases in 16 countries, including 908 cases of haemolytic uraemic syndrome (HUS) and 55 deaths, and an estimated US\$ 1.3 billion in losses to farmers and industries.

More information:

www.euro.who.int/foodsafety
www.euro.who.int/whd2015



5 keys to safer food – for better food hygiene

- 1. Keep clean.** Wash your hands before handling food and often during food preparation. Wash your hands after going to the toilet. Wash and sanitize all surfaces and equipment used for food preparation. Protect kitchen areas and food from insects, pests and other animals.
- 2. Separate raw and cooked.** Separate raw meat, poultry and seafood from other foods. Use separate equipment and utensils such as knives and cutting boards for handling raw foods. Store food in containers to avoid contact between raw and prepared foods.
- 3. Cook thoroughly.** Cook food thoroughly, especially meat, poultry, eggs and seafood. Bring foods like soups and stews to boiling to make sure that they have reached 70 °C. For meat and poultry, make sure that juices are clear, not pink. Ideally, use a thermometer. Reheat cooked food thoroughly.
- 4. Keep food at safe temperatures.** Do not leave cooked food at room temperature for more than 2 hours. Refrigerate promptly all cooked and perishable food (preferably below 5 °C). Keep cooked food piping hot (more than 60°C) prior to serving. Do not store food too long even in the refrigerator. Do not thaw frozen food at room temperature.
- 5. Use safe water or treat it to make it safe.** Select fresh and wholesome foods. Choose foods processed for safety, such as pasteurized milk. Wash fruits and vegetables, especially if eaten raw. Do not use food beyond its expiry date.

Food safety – new and changing challenges

People living in poverty are the most exposed to foodborne health risks, but demographic and environmental developments – such as an ageing population, increasing migration, emergencies, climate change and extreme weather events – are putting more people at risk. Changing lifestyles – including urbanization, travel, eating more food outside the home and new food trends – are also increasing exposure to the risk of foodborne disease.

The past decades have seen new challenges to food safety. The globalization of the food and animal trade makes a wider variety of food available to consumers, and offers opportunities for exporting countries. However, it also makes the food chain even longer and more complex, creating an environment where known and new foodborne diseases, hazards and risks may spread more easily, and facilitates the long-distance transmission of pathogens.

The increasing public health problem of antimicrobial resistance is also a food safety issue that must be addressed. In EU countries, for example, *Salmonella* and *Campylobacter* show significant levels of resistance to common antimicrobials used in humans and animals.