

Current Health Event

Food Poisoning

Unsafe food is a significant human health hazard causing more than 200 diseases ranging from diarrhea to cancers. Examples of unsafe food include uncooked foods of animal origin, fruits and vegetables contaminated with feces, and raw shellfish containing marine biotoxins.

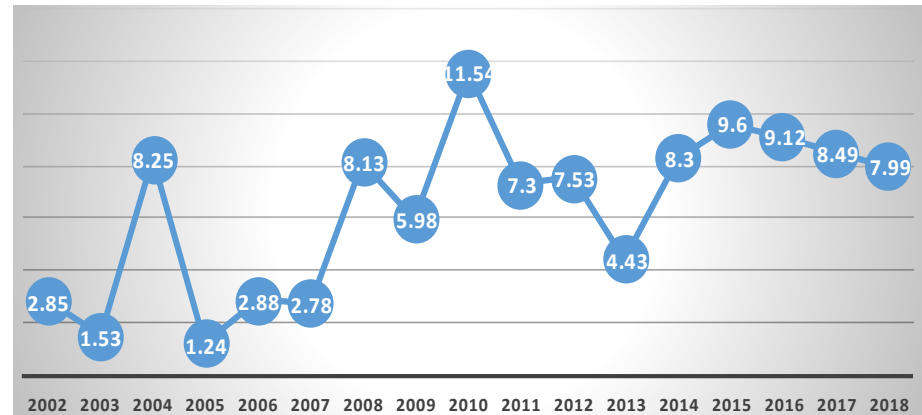
Editorial note:

Food poisoning is usually infectious or toxic in nature and caused by bacteria, viruses, parasites or chemical substances entering the body through contaminated food or unsafe water. Salmonella, Campylobacter, and Enterohaemorrhagic Escherichia coli are among the most common foodborne pathogens. An estimated 600 million people in the world become sick after eating contaminated food resulting in an annual mortality rate of 0.7/1000 and the loss of 33 million healthy life years (DALYs). People with weak immune systems are primarily affected by foodborne pathogens. Children under 5 years of age carry 40% of the foodborne disease burden, with 125 000 deaths every year.

The symptoms of food poisoning range from self-limiting, including nausea, vomiting and diarrhea to life-threatening such as kidney and liver failure, brain and neural disorders, paralysis and potentially cancers. The symptoms depend on the cause of the disease. Symptoms mostly occur 24-72 hours after ingestion; however, some illnesses may take days or even weeks to appear. ([WHO Estimates of the global burden of foodborne diseases, 2015](#))

In Lebanon, food poisoning, although underestimated, is an important cause of morbidity and mortality. The number of reported cases during the past 5 years ranged from 426 to 616 cases annually. Most episodes are usually triggered and reported once cases reach hospitals or emergency rooms. Between January and July of 2019 alone, 48 episodes of food poisoning were reported to the epidemiological surveillance unit (ESU) at the ministry of public health (MoPH), each episode affecting between 3 and 150 cases. A total of 424 cases were reported to have food poisoning which resulted in 83 (20%) hospitalizations and 3 (0.7%) deaths. Food poisoning cases were reported from 15 qadas in Lebanon; one qada alone contributed to 50% of the episodes. Following epidemiological investigations, 50% of the episodes were suspected to be related to the chicken ingest-

Table 1: Rate of food poisoning (/100,000) among Lebanese residents 2002-2018 (MoPH, 2018)



ed. Causative agents of these episodes are still not yet fully understood.

However, the latest food safety campaign initiated by the MoPH in November of 2014 showed non-conformity with the LIBNOR standards mainly attributed to salmonella, and E.coli contamination. Most contaminations were due to lack of knowledge on proper food handling resulting in lack of hygiene and contaminated storage areas.

In 2015, a food safety law was issued and an inter-ministerial committee was established under the prime minister cabinet. Between 2015 and 2017, the World Health Organization (WHO) assisted the MOPH in organizing a series of food safety training sessions for 170 public health inspectors, MOPH staff, municipality of Beirut staff and health inspectors, as well as for nutritionists and food handlers. The trainings focused on food and water safety principles, standard food sampling and inspection techniques, vector borne diseases and vector control. WHO supported the MoPH in developing food safety and sampling checklists and provided the Public Health Inspectors (PHIs) with the necessary inspection equipment. Currently, MoPH, with the support of WHO is working on reactivating the food safety campaign.

Food safety has a major impact on the country straining not only health care systems, but also national economies, tourism and trade. Food safety entails a multi-sectorial collaboration between ministries of health, agriculture, industry, economy and trade and environment, as well as producers and consumers organized by a comprehensive food safety law that manages the food industry.

WHO Five Keys to Safer Food:

1. Keep clean;
2. Separate raw and cooked;
3. Cook thoroughly;
4. Keep food at safe temperatures; and.
5. Use safe water and raw materials

Notifiable Diseases in Lebanon
[Cumulative n° of cases among all
Residents(among Syrians)]
as of 10 August 2019

Disease	2018	2019	June	July
Vaccine Preventable Diseases				
Polio	0(0)	0(0)	0(0)	0(0)
AFP	88(33)	54(12)	5(2)	7(2)
Measles	952(156)	1094(104)	43(3)	29(6)
Mumps	121(41)	77(18)	11(1)	11(3)
Pertussis	64(26)	42(15)	4(1)	11(3)
Rabies	3(1)	0(0)	0(0)	0(0)
Rubella	11(4)	14(7)	0(0)	0(0)
Tetanus	2(1)	0(0)	0(0)	0(0)
Viral Hep. B	253(28)	182(26)	32(3)	35(8)
Water/Food Borne Diseases				
Brucellosis	242(26)	122(14)	30(5)	23(2)
Cholera	0(0)	0(0)	0(0)	0(0)
Hydatid cyst	8(2)	21(1)	6(0)	2(0)
Typhoid fever	237(4)	150(1)	20(0)	31(0)
Viral Hep. A	899(152)	269(96)	23(4)	62(46)
Other Diseases				
Meningitis	420(82)	273(44)	50(7)	60(6)
Viral Hep. C	103(7)	49(5)	3(0)	10(2)