

Over 400k deaths worldwide each year caused by preventable foodborne illness, WHO estimates

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One in 10 people fall ill every year from diseases caused by consuming unsafe food and water. The result is 420,000 deaths worldwide of which almost one third concern children under five. These are the first ever estimates of the global burden of foodborne diseases reported by the World Health Organization on 3rd December 2015.

The highest burden per population was observed in low income regions such as Africa, and South East Asia. In the European region, despite being the region with the lowest estimated burden, more than 23 million people fall ill, resulting in 5,000 deaths per year. As in the Americas, the region with second lowest burden of foodborne diseases, diarrhoeal diseases are responsible for the majority of foodborne illnesses with Norovirus (15 million cases) and Campylobacter (5 million cases) being the two most common foodborne pathogens in Europe. However, non-typhoid salmonellosis is responsible for the highest number of deaths (2,000 per year), followed by listeria that causes 400 deaths annually. Parasites such as Toxoplasma gondii, which causes toxoplasmosis, are also significant, causing up to 20% of the total food borne disease burden and affecting more than 1 million people in the region each year.

The full extent of unsafe food consumption globally, especially the burden associated with chemical and parasitic contaminants in food is still unknown. Only a fraction of the people who become sick from food they have eaten seek medical care, and often these cases are not recognized as having been caused by a food contaminant. In addition, limited data availability for certain countries, the variety of transmission mechanisms of the different pathogens and the difficulty of establishing a direct relationship between a disease and a pathogen make it even more difficult to estimate the global burden.

This first WHO report estimates the global burden of thirty-one significant foodborne hazards causing 32 diseases (11 diarrhoeal agents, seven invasive infectious disease agents, 10 parasites and three chemicals) in terms of number of cases, number of deaths and number of healthy life years lost (DALYs or disability-adjusted life years).

The available data suggests that these 31 global hazards caused 600 million foodborne illnesses and a global burden of 33 million healthy life years lost. Diarrhoeal diseases were the most frequent cause of foodborne illness worldwide. Furthermore, the burden of foodborne diseases is borne by individuals of all ages, but particularly by children under five years of age, and by persons living in low-income regions of the world. The main causes of foodborne illness for each global region are presented in the table below.

Table. Key foodborne hazards affecting each region.	
Regions*	Key pathogens
European Region	Diarrho

	<p>eal dise ases:</p> <ul style="list-style-type: none"> • Norov irus • Camp ylobact er
African Region	<p>Diarrho eal dise ases:</p> <ul style="list-style-type: none"> • Non-t yphoida l Salmo nella • Foodb orne cólera • E. coli <p>Chemic al hazar ds:</p> <ul style="list-style-type: none"> • Cyanide • Aflato xin
Region of the Americas	<p>Diarrhoeal diseases:</p> <ul style="list-style-type: none"> • Norovirus • E. coli • Campylobacter • Non-typhoidal Salmonella
South-East Asia Region	<p>Diarrhoeal diseases:</p> <ul style="list-style-type: none"> • Norovirus • Non-typhoidal Salmonella • Pathogenic E. coli <p>Hepatitis A</p>
Eastern Mediterranean Region	<p>Diarrhoeal diseases:</p> <ul style="list-style-type: none"> • E. coli • Norovirus • Campylobacter • Non-typhoidal Salmonella
Western Pacific Region	<p>Aflatoxin Parasites</p>

*The list of WHO regions by country can be consulted here:

http://www.who.int/quantifying_ehimpacts/global/ebdcountgroup/en/

The report intends to promote the use of estimates of the burden of foodborne diseases for analysing the impact of national measures for improving food safety. It provides the information necessary to generate targeted action by enabling policy-makers at national, regional and international levels and other stakeholders to set appropriate, evidence-based priorities in the area of food safety throughout the food chain. The WHO highlights the need for education and training on the prevention of foodborne diseases among food producers, suppliers, handlers and the general public as the prevention of foodborne illness is a shared global responsibility.

For further information:

Full report:

[World Health Organization. WHO estimates of the global burden of foodborne diseases. 2015.](#)

Brief description of the key pathogens:

[World Health Organization. Key foodborne diseases and hazards. 2015.](#)