Many vector-borne diseases contracted worldwide are spread via contaminated food and water. Here, *International Innovation* presents some of the staggering facts about the global impact of inadequate water supply resources, sanitation and hygiene practices on the burden of disease and death.

**WATER**

- **Every 60 seconds** a child dies of a waterborne disease.
- **Almost 1 in 9** people worldwide do not have access to clean water.
- **Only 10%** of waste water is treated – the remainder flows into lakes, rivers and oceans.

**FOOD**

- Contaminated food containing harmful pathogens or chemical substances causes over **200 diseases**.
- Food- and water-related diseases kill an estimated **2 million people per year** – most of whom are children.

**CASE STUDIES**

- Infant formula contaminated with melamine infected **300,000 children** worldwide in 2008, killing six in China.
- In 2011, an *Escherichia coli* outbreak in Germany due to contaminated fenugreek sprouts spread to **8 countries**, killed **53 people**, caused **US $1.3 billion** in industrial losses and cost **$236 million** in emergency aid payments.

**CLEAN AND CLEAR: THE FACTS**

Women and children across the globe spend **200 million hours a day** collecting water for their families.
On a global scale in a year:

- **3.4 million** individuals die as a result of a waterborne illness
- There are **1.4 million** cases of hepatitis A
- Typhoid infects **21 million** people
- **3-5 million** individuals are affected by cholera

**DISEASE**

**SANITATION**

Fewer than **1/3** of people around the world have access to a toilet

Roughly **1.2 billion** people live in close quarters with their own excrement – as there are no facilities to ensure hygienic separation

The **majority of water-related illnesses** are due to faecal matter

Lack of sanitation around the globe is the leading cause of infection

Washing hands with soap has been found to reduce diarrhoea by **over 40%**

Worldwide, more people have a mobile phone than a toilet

**WONDER WOMEN**

In the developing world, women are responsible for locating and collecting water for their families for drinking, washing, cooking and cleaning. Often, they walk miles, pay exorbitant prices and carry heavy loads simply to realise that the water is contaminated. They subsequently face the choice between dehydration or infection, both of which are frequently deadly.

The extensive lack of sanitation globally also causes many challenges related to human rights, dignity and disease. In many countries, for instance, it is not considered appropriate for a woman to relieve herself during the day where facilities are not available. Therefore, many have to wait until nightfall to ensure privacy, which is not only dangerous to their health but also demonstrates the inequity between the practices acceptable for men and women. Moreover, internationally, half of all girls attend schools that do not have toilets, which causes many of them to drop out when they reach puberty.

**Water.org** is aiding those in need of clean water and sanitation worldwide, ensuring that women have an opportunity to address their own needs, including wells, water connections and toilets. Read about its solutions here: [http://water.org/solutions](http://water.org/solutions)


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**The first person to discover a waterborne infectious disease was Anton Von Leeuwenhoek, who identified the gastrointestinal condition giardiasis caused by the *Giardia lamblia* parasite in 1681.**

**88%** of global cases of diarrhoea are caused by unsafe drinking water, inadequate sanitation and poor hygiene

**90%** of those who die from diarrhoeal diseases are **under the age of 5**

**10%** of the worldwide disease burden could be prevented by ameliorating water supply, sanitation, hygiene practices and the management of water resources

A poll by the **British Medical Journal in 2007** revealed that clean water and sanitation is considered the most important medical advancement since 1840.