



Climate change causing DEADLY bacteria to spread – scientists warn it could reach the UK

- READ MORE: [Drop in air pollution has INCREASED global warming](#)

By [GRACE NICHOLLS, SCIENCE & TECHNOLOGY REPORTER](#)

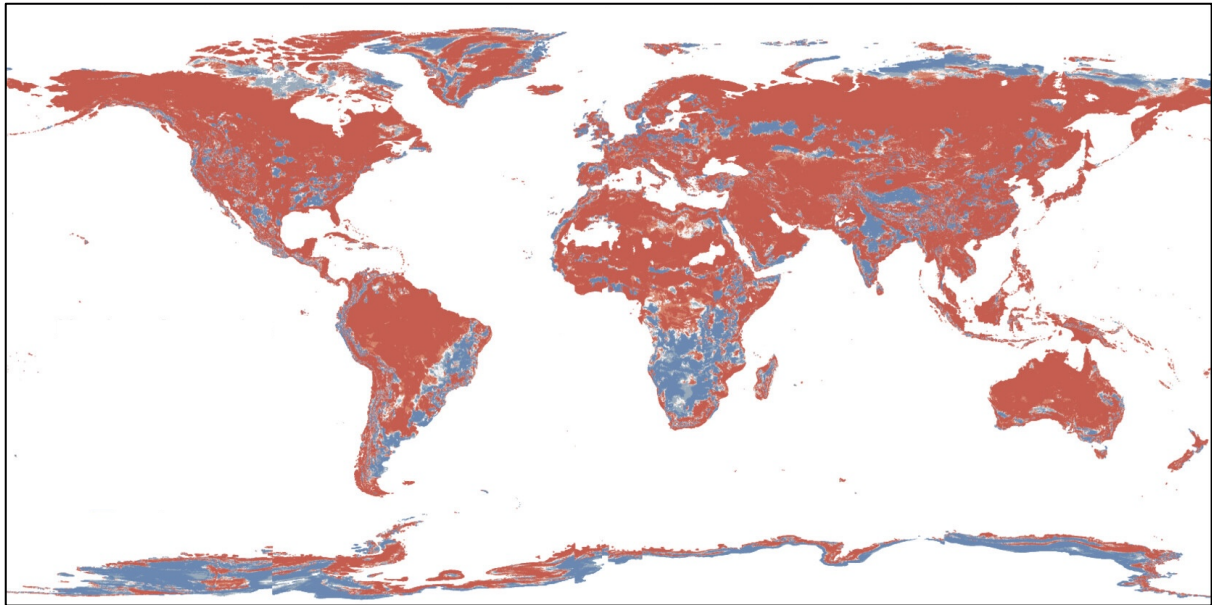
PUBLISHED: 14:00, 7 November 2025 | UPDATED: 14:00, 10 November 2025

Climate change could be driving dangerous bacteria closer to UK homes, increasing the risk of disease through food, water, and flooding, scientists have warned.

Predictions by Shandong University, China are that rising temperatures and human activity are helping disease-causing bacteria to thrive and spread in new areas.

Lead researcher Dr Geng warns ‘predictions show Europe, including the UK, will see some of the largest increases in these bacteria under the current projections for global warming, along with other high-income regions.’.

While levels of bacteria are currently higher in developing countries, high-income areas are expected to see the biggest increase, meaning risks that once seemed distant could soon reach the UK.



Computer model shows which areas are predicted to have the biggest increase in the number of types of bacteria and risk of bacteria invasion (red), versus the areas that will see a decrease (blue).

The results predict climate change will increase both the number and variety of harmful bacteria in the environment.

The report found 9 out of 10 natural environments already contain bacteria harmful to humans, with levels predicted to rise by more than 25 per cent as temperatures increase.

The research focused on bacteria with the potential to cause pandemics and international public health emergencies.

The spread of bacteria could increase cases of food poisoning and wound infections, adding strain to our already stretched NHS.



An increase in infections could overwhelm our hospitals and NHS.

More than one million samples of bacteria were collected from soil, water, plants and animals around the world, and analysed to identify those capable of causing disease.

Scientists then used computer models, which simulate how bacteria behave using existing data, to predict how these bacteria could spread under different future climates.

The team tested four possible climate futures, ranging from a world powered by clean renewable energy to one dominated by fossil fuels and high emissions.

The more sustainable scenarios had a lower increase in bacterial spread than the high emissions scenario where the increase was more than double, with the potential for widespread new outbreaks.



***E. coli*, pictured here, is one of the bacteria scientists found that is responsible for mass deaths.**

Rising temperatures, changing rainfall, and increased humidity can allow bacteria to grow faster and survive for longer in the environment.

Climate change may also make some bacteria more dangerous, increasing the severity of illness or making infections easier to spread.

Bacteria can enter our bodies through contaminated food, water, or open wounds, causing most harm to children and elderly people.



Bats and pangolins are thought to be reservoirs and the original source of coronavirus until it was passed to humans.

Animals and insects that spread disease, such as mosquitos and ticks, are also affected by climate change.

Warmer temperatures allow them to spread into new areas, increasing the spread of disease to new regions, like the UK, and affecting different animal species.

In some cases, bacteria can 'jump' between species, leading to new infectious diseases in humans.

The scientists say tackling health threats from climate change will require global cooperation, supporting what is called the 'One Health' approach.

ONE HEALTH

One Health is an approach that looks at the health of people, animals, and the environment as one connected system.

If a component becomes unhealthy, for example through pollution, disease, or loss of species, it can harm the others too.

Collaboration across the health, food, water, energy and environmental sectors helps protect us against health challenges such as infectious disease, antibiotic resistance, and food safety.

One Health can help address all aspects of disease control, from prevention to detection, preparation, response, and management.

The approach can be applied at all levels, from community to global and relies on communication, collaboration, and coordination.