

Arsenic in drinking water a global threat to health

Arsenic in drinking water is threatening the health of people in more than 70 countries around the globe, according to new research presented today.

Peter Ravenscroft, from the Department of Geography at the University of Cambridge, told a conference in London that an estimated 137 million people are being unknowingly exposed to unsafe levels of arsenic in their drinking water.

Mr Ravenscroft stressed that there was no major health risk in the UK, where tests carried out by British water companies were ensuring that public water supplies remained safe to drink.

But the Royal Geographical Society's annual conference did hear predictions of new arsenic pollution in both south-east and south-west Asia, as well as the western parts of south and central America and some areas of Africa. Scholars called for worldwide water sources to be tested as a matter of priority.

Arsenic occurs naturally in water supplies, and concentrations are particularly high where the water is drawn from deep underground, where it has been exposed to sediments containing the element. Arsenic is a carcinogen which causes many cancers including skin, lung and bladder cancer, as well as cardiovascular disease.

Today's conference heard that Bangladesh is thought to be the worst affected country, where hundreds of thousands of people are likely to die from arsenic poisoning. World Health Organisation (WHO) guidelines set a safe limit of 10 parts per billion (ppb) of arsenic in water supplies, but 137 million people drink water with higher arsenic content, while 57 million use water supplies with a level of more than 50 ppb.

In the UK, arsenic has been found in water in the north of England, the Midlands and mid-Wales, but the risk is likely to be restricted to those relying on private wells and boreholes for their water supplies, and only then if the water is left untreated. There have been no known cases of people in Britain becoming sick as a result of arsenic in the water supply.

“Because of the regulatory system in England the level of arsenic in the water is under control and there is no major health risk,” Mr Ravenscroft said. “The water companies in this country have identified the potential for a problem and all public supplies are tested to guarantee safety. There are, however, a number of other regions in the world that are at high risk and testing groundwater in these areas needs to be a priority.”

Arsenic poses long-term health risks “exceeding every other potential water contaminant”, according to research presented by Dr Allan Smith of the University of California Berkeley, who also spoke at the conference.

Dr Smith, who is an adviser to the WHO on arsenic, said: “Most countries have some water sources with dangerous levels of arsenic, but only now are we beginning to recognise the magnitude of the problem.

“It is the most dangerous contaminant of drinking water in terms of long-term health risks and we must test all water sources worldwide as soon as possible.”

All the research was presented at the Annual Conference of the Royal Geographical Society (with the Institute of British Geographers), which took place at the Society's headquarters in South Kensington, London. More than 1,200 geographers from around the world were due to attend.

The research was part of a special session entitled “Arsenic in the natural environment; the geography of a global problem”. The conference will continue until August 31st. In all there will be 35 presentations, and speakers include representatives from the UK's Department for International Development, UNICEF, and experts from Argentina, Bangladesh, China, Switzerland, Spain, Taiwan, India, the USA and the UK.

For further information, please contact the University of Cambridge Office of Communications on 01223 332300

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