

Safe water? Lessons from Kazakhstan

Despite significant efforts to improve access to safe water and sanitation, a new report co-authored by an expert at The University of Nottingham, argues that much more needs to be done.

A major survey in Kazakhstan found that, despite meeting the UN definition of what constitutes safe water, a large number of people reported suffering from illnesses like hepatitis and gastroenteritis.

A key United Nations Millennium Development Goal is to halve the number of people without access to safe drinking water and sanitation by 2015. This is seen as crucial to reducing poverty and infant mortality.

But, as the research shows, the MDG definition is too narrow and can be misleading. If the definition is used, it shows that over 90 per cent of people in Kazakhstan have access to safe water and sanitation. But the definition does not take into account the distribution, supply, quality and reliability of the supply. When these factors are considered, the actual number of people with access to safe water drops to less than 30 per cent.

Access to safe water is a serious issue in many parts of the world, which, like Kazakhstan, have experienced recent economic, social or political turmoil.

Sarah O'Hara, Professor of Geography at the University, says: "The accepted international definition of an improved water source focuses primarily on distance to supply and the amount of water that it can provide. A household connection for example would meet the definition of a safe water supply. But our research shows that just because a house in Kazakhstan has a piped water supply, does not mean that the water is safe."

One of the biggest problems uncovered in the report is the disruption to water supplies. On average more than 70 per cent of respondents said their water supply was routinely interrupted, rising to 97 per cent in certain areas. Interruptions occurred as often as 14 days a month, and lasted for up to 12 hours a time.

This, Professor O'Hara says, is at the heart of the health concerns: "There are a number of problems here. Firstly there are the obvious health problems associated with not being able to flush a toilet or wash your hands. But also significant is the fact that when there is no water flowing through pipes, the lack of pressure allows contaminants to flow in through cracks and faulty joints. It gives bacteria the chance to thrive. We also found that some water pipes were laid in the same trenches as sewer pipes, which can allow cross contamination when the water supply is interrupted."

The report shows that the health concerns are shared by the people of Kazakhstan. Even in houses with connections to water supplies 53 per cent of people treat the water by boiling it. This goes up to 56 per cent where people have an intermittent supply and have reported gastroenteritis.

Is Kazakhstan unique? Professor O'Hara thinks there is a very strong chance that the rest of former Soviet countries are running similar risks with similar situations.

Encouragingly, the government of Kazakhstan has accepted the results of the survey and is now planning an investment strategy to tackle the issue, using the information.

"We're obviously very pleased at the response from the Kazakh government, but there are deeper concerns here and we feel the survey shows that the UN definition of what's considered safe, is too rigid and it's easy for governments to do the minimum of work to meet this international standard, when in effect they're ignoring the problem. The UN needs to revisit this issue and look seriously at how it monitors progress."

Source: University of Nottingham

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