

Why are airlines posting water contamination advisories?

Dr. Hans Pettersen

I spend much of my time working away from home improving drinking water and wastewater treatment systems in native communities. The work can be intensive so I often just drop pants in the office and in the morning use the shower in the water plant.

Sleeping in the office is fine and I take comfort in knowing that the water is of a certain quality because the alternative is to find a hotel in a small rural community, which has a good chance of having really poor quality water even to take a shower in. Yet, the shower water used in most of these rural communities is the same water used to serve coffee and tea, and even drinking water right from the tap.

Even with regular checks and balances, like on airplanes, the United States Environmental Protection Agency (USEPA) showed recently that 17% of all domestic and international carriers had contaminated water and warned:

"Passengers with compromised immune systems or others concerned may want to request canned or bottled beverages and avoid drinking coffee, tea, and other drinks prepared with tap water".

In most towns on reserves with compromised tap water you can buy a cup of coffee made with bottled water and this points to an increased awareness of the importance of safe drinking water in native communities but many other rural non-original communities are lagging behind.

A problem in rural communities is that the water sources are often located in

close proximity to wastewater leading to an increased incidence of contamination. Some of the waterborne microorganisms cause diseases in humans (pathogens) and are very difficult to deal with. For example, viruses are very mobile and move rapidly into ground and surface waters.

In February 2005 the Campbell government in British Columbia decided to do something about this. They launched a new \$90 million safe drinking water program. Reasons for implementing the program included: the presence of pathogens, such as E. coli and the Hepatitis A virus in water sources, and the need to curb boil water advisories which jumped from 19 in 1996 to 304 in 2001.

The B.C. government has had a lot of attitude lately believing that just because many drinking water sources produce good-tasting water, they are also safe, but a Sierra Legal Defense Fund report in 2003 accused B.C. for having some of the poorest drinking water treatment systems in Canada.

That the B.C. government is recognizing that pathogens really have no taste and what appears to be pristine water can contain pathogens is real progress, and that Hepatitis A is recognized, by a provincial government, as a cause for concern when it comes to drinking water is also gratifying.

Meanwhile, years ago the USEPA demonstrated that 7% of studied water wells in the United States contained the Hepatitis A virus and its presence was one of the reasons for the implementation of the U.S. Groundwater Rule.

Indeed, the documents in support of the enactment of the U.S. Groundwater Rule showed that viruses present in ground waters have caused the majority of waterborne disease outbreaks in the United States during the past ten years. Despite great concerns of Hepatitis A and other potentially waterborne di-

seases in Canada's native communities Health Canada has practically denied viruses as a cause of waterborne illness.

Health Canada's "safe guidelines" policy is flying in the face of scientific facts. Only one-third of waterborne case outbreaks in the United States during the past ten years would go for coliforms. Good science dictates you test for many microbes, or use that adequate treatment barrier a place before the water is processed safe even when there are no coliforms present.

But, rural non-native communities are doing any better. In fact, in most cases they are worse. A couple of years ago the National Sanitation Foundation held a conference in Washington and a hypothetical question was it among a large number of scientists:

"When is a U.S. tourist most likely to pick up a waterborne disease, in Canada or rural Mexico?" The answer was Canada. Not that the water in rural Mexico is safer, but a tougher rule precautions, while in Canada tourists would simply assume it is safe when frequently it is not.

The increased awareness of drink water safety in Canadian reserves is the efforts to find solutions to poor water on reserve is gaining attention, scientists internationally. It is possible, however, at least a politician would realize the connection between poor health and poor water.



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