

Walkerton - Five Years Later

By Dr. Hans Peterson, Safe Drinking Water Foundation

Days before the Walkerton outbreak in May 2000, Municipal World magazine published one of my articles warning Canadians about rampant water quality problems in rural Canada. Less than one week before Walkerton hit the national press, I also gave a presentation to a Health Canada sponsored national drinking water conference where I again warned about the perils facing rural Canada.

A Health Canada presentation at that same conference painted a picture of collaboration between the federal government and the provinces. In fact, Saskatchewan's Environment Minister took pity on developing countries with "their water quality problems".

Less than a week later, Canada made international headlines when more than 2,000 people became sick and seven died in Walkerton from E. coli, the "hamburger bug". There was a flurry of sustained media attention for Walkerton as this was not in the Canadian outback, indeed, this happened close to the centre of our country, Toronto!

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The initial reaction of people on government payrolls or on grants paid by government agencies was predictably one of denial. On May 25, 2000, a couple of days after the Walkerton outbreak made the national news, I was debating rural water quality with one of Canada's foremost drinking water quality experts, Dr. Peter Huck of Waterloo University, on CBC TV's The National. Dr. Huck described Walkerton as an "aberration" and asserted that water plants were well engineered with Walkerton's plight being "one of a kind".

It was more like "a thousand of a kind" as literally thousands of boil water advisories were issued by government agencies across the country in the wake of Walkerton. Indeed, government agencies that had



only issued a couple of boil water advisories in the years preceding Walkerton, were seen slapping boil water advisories on communities across their provinces'.

This is really the legacy of Walkerton. The rise in the prominence of "indicator organisms", E.coli and total coliforms, which actually also caused disease in Walkerton. Normally these microbes are only used to predict the presence of other, more harmful bugs.

But government agencies rapidly found a peg to hang their hats on: E. coli and total coliform testing. The problem is chlorination will rapidly inactivate or kill coliforms but other disease-causing bugs may be far more difficult to kill. The simple solution has been to add more chlorine and believe in the imaginary powers of "coliform testing". Sales of chlorine drastically increased across Canada and government agencies made sure that the "coliform" test was implemented

even by the smallest community. Failures to meet the test were punished with boil water advisories.

This legacy of inadequate and improper water testing and treatment lives on. Health Canada, after receiving more than \$150 million to address water quality concerns on native reservations across the country, followed the lead of its provincial counterparts and increased their coliform testing from once per month to once per week.

Most waterborne disease outbreaks in developed countries have no coliforms associated with them. The majority of waterborne disease outbreaks in the U.S. are caused by viruses but in Canada, we have made a point of ignoring viruses as they are rarely attributed to water. Hepatitis A contamination of well water in the U.S. was one of the main concerns prompting the implementation a new tough rule, "The Groundwater Rule". The Saskatchewan Government went so far to state that Hepatitis A is only waterborne in developing countries.

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Drinking water quality is after all, a provincial responsibility. Small provinces that have trouble spelling the names of some microbes are supposed to be the "experts" dealing with the illnesses they cause. Nowhere in the developed world has drinking water quality been treated as casually as in Canada.

To deal just with E. coli and coliforms, all we need is chlorine, we don't need drinking water treatment plants. In the CBC debate mentioned above, Dr. Huck extolled the virtues of Canadian engineering and how great rural water treatment plants actually are with Walkerton really only serving as an example how few of these incidences occur. If we have close to pristine water to treat, like some of Canada's major rivers and

lakes, the current state of engineering may be considered acceptable. But with sewage and manure as well as organic material from terrestrial and aquatic vegetation tainting most rural water sources, many water treatment systems are woefully inadequate.

It is not until we start dealing with real drinking water issues including parasites and viruses that the skills of engineering companies and government agencies will be known. But, until then, rural water users are well advised to take better precautions than what their local municipal water treatment plant affords them.

For more information on rural drinking water and waterborne illness, visit www.safewater.org.

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