

## **Arsenic and old toenails – groundbreaking study launched in Nova Scotia**

HALIFAX,— The largest study on arsenic and cancer ever conducted in Nova Scotia is now under way. The study is part of the Atlantic Partnership for Tomorrow's Health, the most extensive cancer study ever undertaken in Atlantic Canada.

The three-year arsenic study, which has received \$575,000 from the Canadian Cancer Society, will examine the cancer risk of low to moderate levels of arsenic in drinking water. The research will help policy-makers in Nova Scotia and across the country decide whether the cancer risk warrants new approaches to water testing and treatment. Also as a result of this study, arsenic levels across the province will be able to be mapped and displayed.

“In many parts of Canada, a large proportion of the population gets its drinking water from untreated water wells. In Nova Scotia, it is particularly high, with 45 per cent of households relying on well water,” says Dr Louise Parker, principal investigator of the arsenic study and the Atlantic Path.

Arsenic occurs naturally in some rock types and can leach into drinking water through drilled or dug wells. Both tasteless and odourless, arsenic at high levels is known to cause cancer – specifically kidney, bladder, lung, and skin cancers – but it is not clear how much arsenic people are consuming or how this is affecting their risk of cancer.

“Arsenic levels of up to 700 micrograms per litre have been reported at some wells in Nova Scotia. Health Canada has set an acceptable upper limit of 10 micrograms per litre of water,” notes Dr. Parker, who is also the Canadian Cancer Society Endowed Chair in Population Cancer Research.

Health Canada, she notes, recommends that Canadians living in areas where there are high levels of arsenic in the groundwater have their drinking water tested for arsenic contamination.

To complete the study, 5000 volunteers are required. Each volunteer, who must be part of the Atlantic Path study, will provide a water sample that will be tested for arsenic and other heavy metals. Toenail samples will also be collected from participants, aged 35-69, and analyzed for levels of arsenic and other metals such as selenium, which can be toxic in high amounts.

The data will be used to map arsenic exposure across Nova Scotia. Bladder and kidney cancer rates, obtained from the provincial cancer registry, will then be analyzed in relation to the map of arsenic exposure to see if high rates of these cancers are correlated with high levels of arsenic exposure.

The Atlantic Path study is part of the Canadian Partnership for Tomorrow Project, a \$42-million national study funded by the Canadian Partnership Against Cancer. This study will follow the health of 300,000 Canadians between the ages of 35 and 69 for up

to 30 years to determine what role lifestyle, the environment and genetics play in the development of cancer.

To find out more about the Atlantic Path and the arsenic sub-study, please visit [www.atlanticpath.ca](http://www.atlanticpath.ca) or 494-7284 in Halifax or toll free 1-877-285-7284.

For more information or to arrange an interview, please contact:

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