The recent vote by Saint John city council to remove fluoride from its water is part of a troubling trend across Canada. Municipal governments are making decisions about community water fluoridation based on emotional interpretation of scientific fact. As community water fluoridation faces opposition, it’s vital that municipal leaders understand that there is a large amount of misinformation provided by various groups, and focus on the true value of this public health program.

Community water fluoridation has been such a successful public health initiative -- one of the top 10 Public Health Initiatives of the 20th century according to the United States’ Centers for Disease Control and Prevention -- that Canadians may have taken it for granted. To ignore the health benefits of community water fluoridation is to turn back the clock on an important public health initiative, and to turn our backs on some of Canada’s more vulnerable citizens.

The opponents of fluoridation are a diverse collection of groups who attack it based on over-stated safety concerns, tenuous ethical questions and unfortunately, short-sighted budgetary explanations. This last rationale is perhaps the most troubling, as too many local officials are willing to use the unscientific arguments of special interest groups to allow them to defer their responsibility on such an important public health program, based solely on municipal budgetary concerns.

The safety of fluoridation has been established over more than seven decades of research. Despite this, there may be safety and ethical qualms that remain which can be addressed with simple, rational arguments.

There are those who describe fluoride as a poison. Paracelsus, the 16th century Swiss-German founder of the study of toxicology, famously said that ultimately all things are poisonous, and the distinction between a medication and a poison rests in the dosage. At the levels recommended by Health Canada -- 0.7 parts per million -- fluoride has been shown to be safe for consumption and effective in preventing tooth decay. Municipalities that are considering removal of fluoride due to toxicity that is only possible with extremely high levels of consumption do not seem to be considering the removal of other additives like chlorine or chloramine from water supplies. These other additives are also potentially toxic but, like fluoride, have well established public health benefits.

Community water fluoridation is also described as a form of compulsory mass medication that violates the principle of consent. This argument is overstated considering the benign levels of fluoride and the alternatives to tap water that are accessible to those who vehemently oppose
water fluoridation. Moreover, the regulated addition of other minerals or vitamins to consumables - such as vitamin D to milk or iodine to table salt - is a common public health initiative.

Not unlike vaccination programs for children, these initiatives were undertaken to address public health problems which caused high rates of disease and have been largely successful in reducing the impact of disease on society.

Canada's dentists continue to support community water fluoridation not because we stand to benefit from it in any way, but because we see the impact of tooth decay on our patients. As the original proponents of preventive medicine, we recognize the importance of the progress made through fluoridation in stemming this widespread disease.

Tooth decay is one of humanity's most prevalent diseases, and its impact can be far more devastating than many realize. In addition to the pain that decay causes, those with tooth decay can experience difficulty in the most basic human functions, such as eating or speaking. Decay causes disfigurement of the teeth and can hinder social interaction, employment opportunities and personal well-being. Ultimately, tooth decay can provide an opportunity for life-threatening infections in individuals who otherwise are in good health.

These effects are most apparent in those who are the least advantaged in our society. Poor oral health and cavities is a problem that is especially profound amongst the children of Canada's poor. Dental decay, missing teeth and poor health are social factors that perpetuate cycles of poverty.

But most disturbingly, recent numbers from the Canadian Institute for Health Information identified that increasing numbers of children are having general anaesthetic in hospitals to have diseased teeth treated. Having children anaesthetized for dental treatment is a concern and one that comes at significant cost to the health care system.

Is fluoridation effective? The statistical difference in decay rates identified by the Saskatchewan Dental Health Screening Program in 2008-2009 stands out as a simple validation of the potential for community water fluoridation to lower decay rates in the population. Regina and Saskatoon are two very similar communities, yet that study showed that the levels of dental decay in fluoridated Saskatoon are significantly lower than those in unfluoridated Regina.

As the President of the Canadian Dental Association, I join Health Canada, the Public Health Agency of Canada, the World Health Organization, and virtually all reputable public health organizations in recommending that all levels of government work to ensure that community water fluoridation continues as a valuable public health program. The cost of turning our backs on community water fluoridation program is unacceptable.

Dr. Peter Doig is president of the Canadian Dental Association.

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