QUOTES: Dr. Kathleen Thiessen, PhD, co-author of the National Research Council (NRC) 2006 Review of Fluoride in Drinking Water comments on Health Canada Review of Fluoride in Drinking Water For full commentary see: <u>Fluoride in Drinking Water</u>

HEALTH CANADA MISREPRESENTS NRC REVIEW 2006

- "Health Canada gives an **inaccurate characterization** of the National Research Council's work."
- "The NRC (2006a) did not restrict its attention to studies of fluoride in the range of 2-4 mg/L or above in drinking water. Many of the cancer studies and Down syndrome studies involved "fluoridated" water (0.7-1.2 mg/L). Many of the endocrine studies involved exposure ranges comparable to those expected for populations on fluoridated water. The discussions of exposure and of pharmacokinetics involved the whole exposure range, including fluoridated water."

HEALTH CANADA MISREPESENTS HEALTH HARM

- IF YOU DO NOT LOOK YOU DO NOT FIND "To the best of my knowledge, no studies in the U.S. or Canada have looked for associations between dental fluorosis and risk of other adverse effects... If there are very limited data supporting increased susceptibility to fluoride effects for certain groups of people, that reflects inadequate study of at-risk groups, not a lack of effects. It is irresponsible to assume that these people are adequately protected."
- ARTHRITIS "The possibility that a sizeable fraction of "bone and joint pain" in U.S. adults is attributable to fluoride exposure has not been addressed, although it is plausible given what is known about fluoride intakes."
- CANCER "The NRC (2006a) committee unanimously concluded that "Fluoride appears to have the potential to initiate or promote cancers," even though the overall evidence is "mixed." While the NRC committee did not assign fluoride to a specific category of carcinogenicity (i.e., known, probable, or possible), the committee did not consider either "insufficient information" or "clearly not carcinogenic" to be applicable. The committee report (NRC 2006a) includes a discussion of how EPA establishes drinking water standards for known, probable, or possible carcinogens; such a discussion would not have been relevant had the committee not considered fluoride to be carcinogenic. The question becomes one of how strongly carcinogenic fluoride is, and under what circumstances."
- BABIES "At Health Canada's recommended "optimal" concentration of fluoride in drinking water (0.7 mg/L), some bottle-fed infants will have fluoride intakes in excess of 0.17 mg/kg/day; some adults in the general population will have fluoride intakes in excess of 0.04 mg/kg/day, while individuals of any age with diabetes insipidus (DI) will easily have fluoride intakes of 0.11 mg/kg/day. At Health Canada's proposed MAC of 1.5 mg/L, some bottle-fed infants would have fluoride intakes in excess of 0.36 mg/L; some adults would exceed 0.09 mg/kg/day, while individuals with DI could have intakes of 0.23 mg/kg/day. Note that all these estimated intakes are for fluoride from tap water only, without contributions from other sources (NRC 2006a)."

HEALTH CANADA MISREPESENTS SAFETY OF MAXIMUM ACCEPTABLE CONCENTRATION OF FLUORIDE (MAC)

"The MAC is declared to be "protective of health, provided care is taken to follow Health Canada's recommendations regarding other sources of exposure to fluoride" (p. 3).

- Who is expected to take care to follow Health Canada's recommendations?
- Members of the public?
- Are they adequately informed that if they fail to spit out their toothpaste, any adverse health effects from the local drinking water are their own responsibility?
- Do the local water authorities monitor their populations for "excess" consumption of toothpaste or tea? If "excess" consumption occurs, are the violators warned to reduce their fluoride intakes, or will the local water authorities reduce the water fluoride concentration to protect the health of their constituents?"p. 5

HEALTH CANADA ASSESSMENT APPROACH MISGUIDED

"Health Canada's risk assessment for fluoride in drinking water should have two main goals:

(1) to demonstrate from very high quality studies that fluoride in drinking water at the proposed Maximum Acceptable Concentration (MAC) will not harm any member of Canada's population; and

(2) to demonstrate from very high quality studies that fluoride in drinking water at the recommended "optimal" concentration for dental health will, in fact, improve dental health.

Both of these aspects should be demonstrated unequivocally before fluoride is deliberately added to drinking water supplies."

HEALTH CANADA ASSESSMENT APPROACH BACKWARDS

Health Canada's "approach is exactly backwards for an organization whose responsibility is presumably to protect the health of its nation's population."

- 1. Adverse health effects do not exist unless high quality studies demonstrating such effects exist.
- 2. Benefits for concentrations of fluorides in drinking water do exist until high quality studies demonstrate otherwise.

"By Health Canada's rationale, government (or the water authority) is dispensing medication to all residents, regardless of individual benefit or individual dose and assuming that as long as no one looks for side effects of the medication, there will be none. The U.S. has long had this incentive to avoid good studies of possible adverse health effects of fluoride; Canada should not continue to follow suit."