

Sound Public Policy for Choosing Safe Water

A Review 2013-2018

PRESENTED TO TECUMSEH TOWN COUNCIL
BY DONNA JEAN MAYNE

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2014

Our file: A-2014-00168 / na

May 26, 2014

Joanne David
<address snipped>
EDMONTON AB T6R 0B4

Dear Ms. David:

This is in response to your request under the *Access to Information Act* (the *Act*) for: **Clarified Request Text:**
Reports, studies, toxicology and clinical tests relating to hydrofluosilicic acid in Canadian tap water

Original Request Text:

Documents pertaining specifically to hydrofluosilicic acid in Alberta and Canadian tap water:

- Studies from 1940 showing dental efficacy and human safety.
- Studies from 1950s showing dental efficacy and human safety.
- Any double blind study done by Canada or any province showing dental efficacy and human safety, of any date.
- Any double blind study done by anywhere in the world that was considered.
- Any toxicity study, of any date, done by Canada or the world that was considered.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of efficacy, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety over a life-time, and margin of error calculations.
- Evidence of any kind (not opinion) that shows statistical viability of water fluoridation in terms of human safety, and margin of error calculations, for infants, young children, elderly, or any adult with disability, diabetes, bone disease, autism, thyroid ailments, kidney disease, etc.
- Evidence of any kind of consideration of human rights and medical ethics, namely our human right to opt out of the forced water fluoridation program, and if that consideration exists, why the overriding of these well-established medical standards are breached.

After a thorough search for the requested information, no records were located which respond to your request.

If you have any questions or concerns about the processing of your request, please do not hesitate to contact Nancy Armstrong, the analyst responsible for this request, either by phone at (613) 960-4457, or by fax at (613) 941-4541, or by e-mail at nancy.armstrong@hc-sc.gc.ca with reference to the file number cited above.

Health Canada
admits through
Access to Information Act...

...they have

NO STUDIES

that demonstrate the chemical
used for decades to
artificially fluoridate water

**IS
SAFE
OR
EFFECTIVE**



2013

HFSA contaminates
the water.

The Safe Drinking
Water Act 2002
states,
“dilution is no
excuse for adding a
contaminant to
drinking water.”

CERTIFICATE OF ANALYSIS

FSA
Analysis Results of a Weighted Average Sample

Collection Method
Sample
Composite

Sample Received
3/11/2013 8:05:00AM

CHEMICAL ANALYSIS

As	76.4 ppm
Color	80 APHA
H2SIF6	24.38 %
HF	0.78 %
Vessel ID	TILX-110360
SPGV	1.241
TPA	0.2477 %
Temperature	72 f
Pb	33.2 ppm



Certified to
NSF/ANSI 60

Hydrofluosilicic Acid
Commercial Grade
The Mosaic Company
Uncle Sam, LA 70792

Chad Basso / QC Lab Manager

Lancet Neurology


Published February, 2014


Neurobehavioural effects of developmental toxicity

Dr Philippe Grandjean, MD  , Philip J Landrigan, MD

Published: 14 February 2014



DOI: [https://doi.org/10.1016/S1474-4422\(13\)70278-3](https://doi.org/10.1016/S1474-4422(13)70278-3) |  CrossMark

 Article Info

Summary

Full Text

Tables and Figures

References

Supplementary Material

Summary

Neurodevelopmental disabilities, including autism, attention-deficit hyperactivity disorder, dyslexia, and other cognitive impairments, affect millions of children worldwide, and some diagnoses seem to be increasing in frequency. Industrial chemicals that injure the developing brain are among the known causes for this rise in prevalence. In 2006, we did a systematic review and identified five industrial chemicals as developmental neurotoxicants: lead, methylmercury, polychlorinated biphenyls, arsenic, and toluene. Since 2006, epidemiological studies have documented **six additional developmental neurotoxicants—manganese, fluoride, chlorpyrifos, dichlorodiphenyltrichloroethane, tetrachloroethylene, and the polybrominated diphenyl ethers.** We postulate that even more neurotoxicants remain undiscovered. To control the pandemic of developmental neurotoxicity, we propose a global prevention strategy. **Untested chemicals should not be presumed to be safe to brain development, and chemicals in existing use and all new chemicals must therefore be tested for developmental neurotoxicity.** To coordinate these efforts and to accelerate translation of science into prevention, we propose the urgent formation of a new international clearinghouse.

Fluoride, Arsenic
and Lead
all
bio-accumulate in the
body.

And all are
classified as
developmental
neurotoxins that
damage the brain and
nervous system.

**Fluoride CANNOT be
DECLARED AS SAFE**

Prenatal Fluoride Exposure in Children at 4 and 6–12 Years

Morteza Bashash,¹ Deena Thomas,² Howard Hu,¹ E. Basu,⁴ Karen E. Peterson,^{2,5,6} Adrienne S. Ettinger,² Schnaas,⁸ Adriana Mercado-García,⁹ Martha María


Author Affiliations [OPEN](#)

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Study: Fluoride levels in pregnant women in Canada show drinking water is primary source of exposure to fluoride

 October 10, 2018  Faculty of Health, [fluoride](#), [media news release](#)

      96

TORONTO, October 10, 2018 – A new study

in urine are twice as high as in drinking water.

The levels of fluoride among pregnant women living in fluoridated communities in Canada were similar with levels reported in a prior study of pregnant women living in Mexico City where fluoride is added to table salt. “This finding is concerning because prenatal exposure to fluoride in the Mexican sample has been associated with lower IQ in children. New evidence published today in [Environment International](#) also reported an association between higher levels of fluoride in pregnancy and inattentive behaviours among children in the same Mexican sample,” said Till.

“We found that fluoride in drinking water was the major source of exposure for pregnant women living in Canada. Women living in fluoridated communities have two times the amount of fluoride in their urine as women living in non-fluoridated communities,” said Christine Till, an associate professor of Psychology in York’s Faculty of Health and lead author on the study.

The Maternal Infant Research on Environmental Chemicals (MIREC) study recruited 2,001 pregnant women between 2008 and 2011. The women lived in 10 large cities across Canada. Seven of the cities (Toronto, Hamilton, Ottawa, Sudbury, Halifax, Edmonton and Winnipeg) added fluoride to municipal water while three (Vancouver, Montreal and Kingston) did not.

[ABSTRACT](#) [ABOUT THIS ARTICLE](#) [SUPPLEMENTAL MATERIALS](#)

BACKGROUND: Some evidence suggests that fluoride exposure, addressed to more than 100 participants.

OBJECTIVE: Our aim was to estimate the association between prenatal fluoride exposure and offspring neurocognitive development.

METHODS: We studied participants from the Environmental Toxicants (ELT) study. The technique was used to measure urinary creatinine and specific gravity measured by the General Cognitive Children’s Abilities at age 4 and Wechsler Abbreviated Scale of Intelligence.

RESULTS: We had complete data on 299 for the GCI and IQ analyses, and in all of the mothers (n=299). The mean urinary fluoride levels were 0.90 (0.35) mg/L and 0.81 (0.35) mg/L.

we found that an increase in prenatal fluoride exposure predicted 3.15 (95% CI 1.15, 5.15) lower offspring GCI and IQ scores.

CONCLUSIONS: In this study, higher prenatal fluoride exposures reported for other

Precautions



Avoid:

- Alcohol
- Caffeine
- Raw or undercooked fish, eggs, sprouts, cookie dough
- Unpasteurized dairy
- Fish with high levels of mercury
- Fluoride

Review Article

Water Fluoridation: A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention

Stephen Peckham^{1,2} and Niyi Awofeso³

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Abstract

Fluorine is the world's 13th most abundant element and constitutes 0.08% of the Earth crust. It has the highest electronegativity of all elements. Fluoride is widely distributed in the environment, occurring in the air, soils, rocks, and water. Although fluoride is used industrially in a fluorine compound, the manufacture of ceramics, pesticides, aerosol propellants, refrigerants, glassware, and Teflon cookware, it is a generally unwanted byproduct of aluminium, fertilizer, and iron ore manufacture. The medicinal use of fluorides for the prevention of dental caries began in January 1945 when community water supplies in Grand Rapids, United States, were fluoridated to a level of 1 ppm as a dental caries prevention measure. However, water fluoridation remains a controversial public health measure. This paper reviews the human health effects of fluoride. The authors conclude that available evidence suggests that fluoride has a potential to cause major adverse human health problems, while having only a modest dental caries prevention effect. As part of efforts to reduce hazardous fluoride ingestion, the practice of artificial water fluoridation should be reconsidered globally, while industrial safety measures need to be tightened in order to reduce unethical discharge of fluoride compounds into the environment. Public health approaches for global dental caries reduction that do not involve systemic ingestion of fluoride are urgently needed.

 Abstract


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 Full-Text ePub





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Cochrane Review

2015

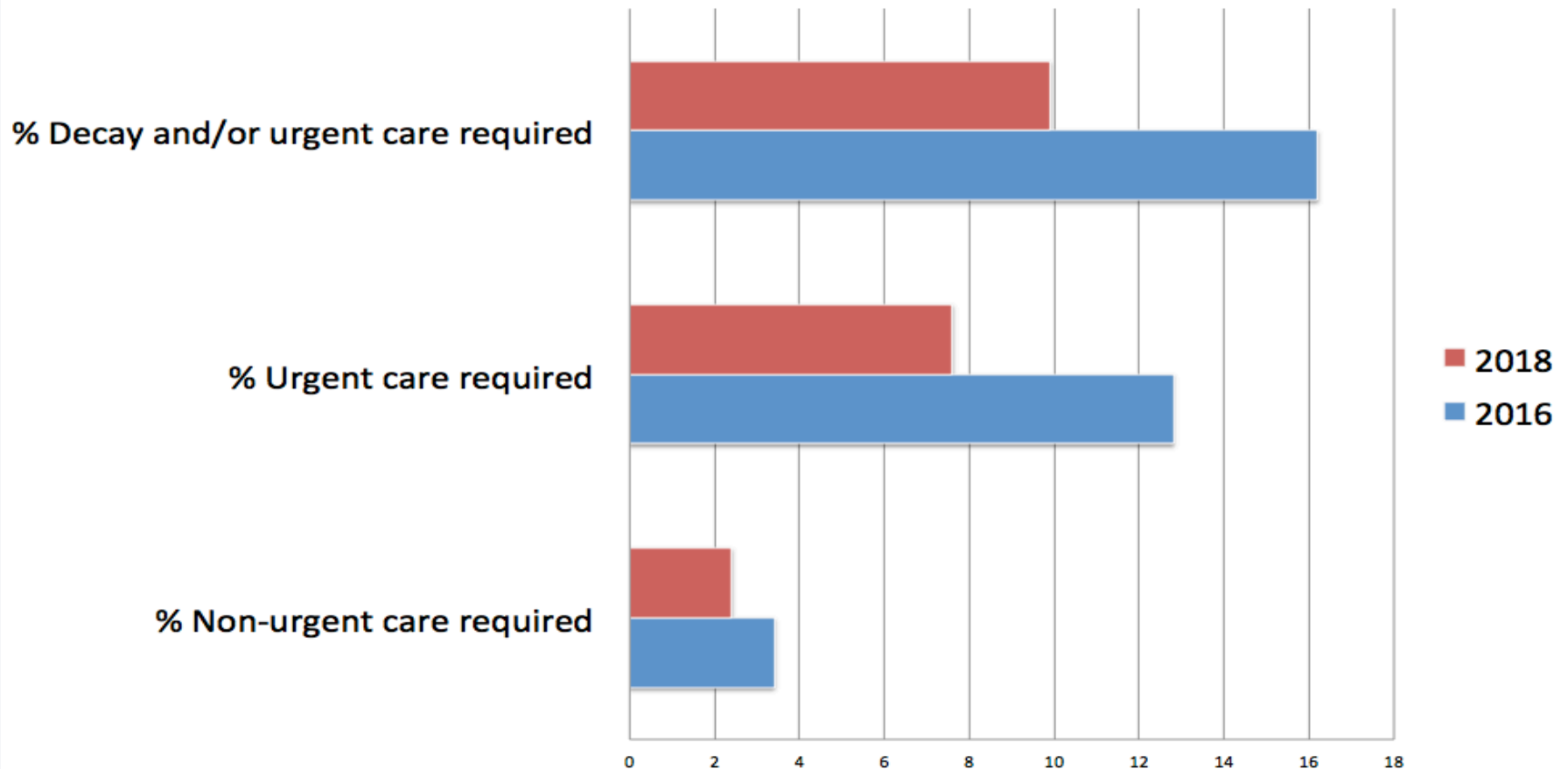
(Authors' Conclusions)

- There is very little contemporary evidence, meeting the review's inclusion criteria, that has evaluated the effectiveness of water fluoridation.
- Prior to 1975... study designs showed a high risk of bias.
- Insufficient evidence to determine whether water fluoridation results in a change of disparities in caries levels across SES.
- No evidence of to determine effectiveness for preventing caries in adults.
- Insufficient information to determine the effect on caries levels of stopping fluoridation.
- There is a significant association between fluorosis and fluoride level

2016 & 2018 WECHU Oral Health Reports

	2016	2018
% Non-urgent care required	3.4	2.4
% Urgent care required	12.8	7.6
% Decay and/or urgent care required	16.2	9.9

**Comparing data for the year 2011-12
as reported in both WECHU 2018 and 2016 Reports**

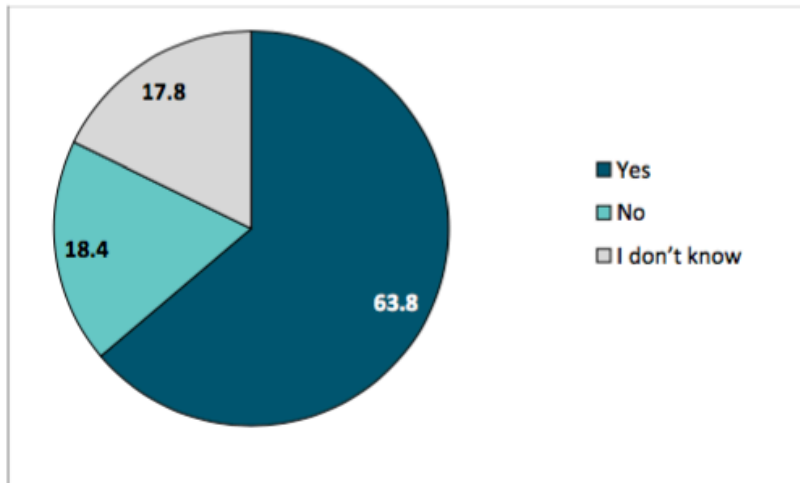


4 out of 5 ~ Obvious Bias

“According to the survey results, the vast majority of adult residents in Windsor-Essex County support community water fluoridation

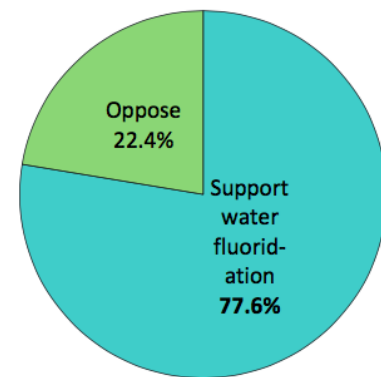
WECHU 2018 Oral Health Report

Figure 36. Support for adding fluoride to public drinking water (N=1,289).



Notes: 14 participants preferred not to answer; 138 participants did not respond to this question.

Community Needs Assessment
Survey (2016)
n=1,059



Sources: Community Needs Assessment, 2016, Windsor-Essex Factor Surveillance System (RRFSS), Sep-Dec 2015, V
Note: Don't Know/Unsure responses were excluded.



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COMMENTARY

WILEY COMMUNITY
DENTISTRY AND
ORAL EPIDEMIOLOGY

Limitations of fluoridation effectiveness studies: Lessons from Alberta, Canada

Christopher Neurath¹  | James S. Beck² | Hardy Limeback³ | W. Gary Sprules⁴ | Michael Connett⁵ | Bill Osmunson⁶ | Donald R. Davis⁷

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⁴Department of Biology, University of Toronto Mississauga, Mississauga, ON, Canada

⁵Fluoride Action Network, Los Angeles, CA, USA

⁶Smiles of Bellevue, Private Dental Practice, Bellevue, WA, USA

⁷Biochemical Institute, University of Texas at Austin, Austin, TX, USA

Abstract

A paper published in this journal, "Measuring the short-term impact of fluoridation cessation on dental caries in Grade 2 children using tooth surface indices," by McLaren et al had shortcomings in study design and interpretation of results, and did not include important pertinent data. Its pre-post cross-sectional design relied on comparison of decay rates in two cities: Calgary, which ceased fluoridation, and Edmonton, which maintained fluoridation. Dental health surveys conducted in both cities about 6.5 years prior to fluoridation cessation in Calgary provided the baseline. They were compared to decay rates determined about 2.5 years after cessation in a second set of surveys in both cities. A key shortcoming was the failure to use data from a Calgary dental health survey conducted about 1.5 years prior to cessation. When this third data set is considered, the rate of increase of decay in Calgary is

- Canadian retired professor emeritus
- Former head of preventive dentistry University of Toronto
- Former President, Canadian Association for Dental Research
- Authored or coauthored over 100 publications on dentistry
- One of 12 panelists on the 2006 U.S. National Research Council Review on Fluoride Toxicity.

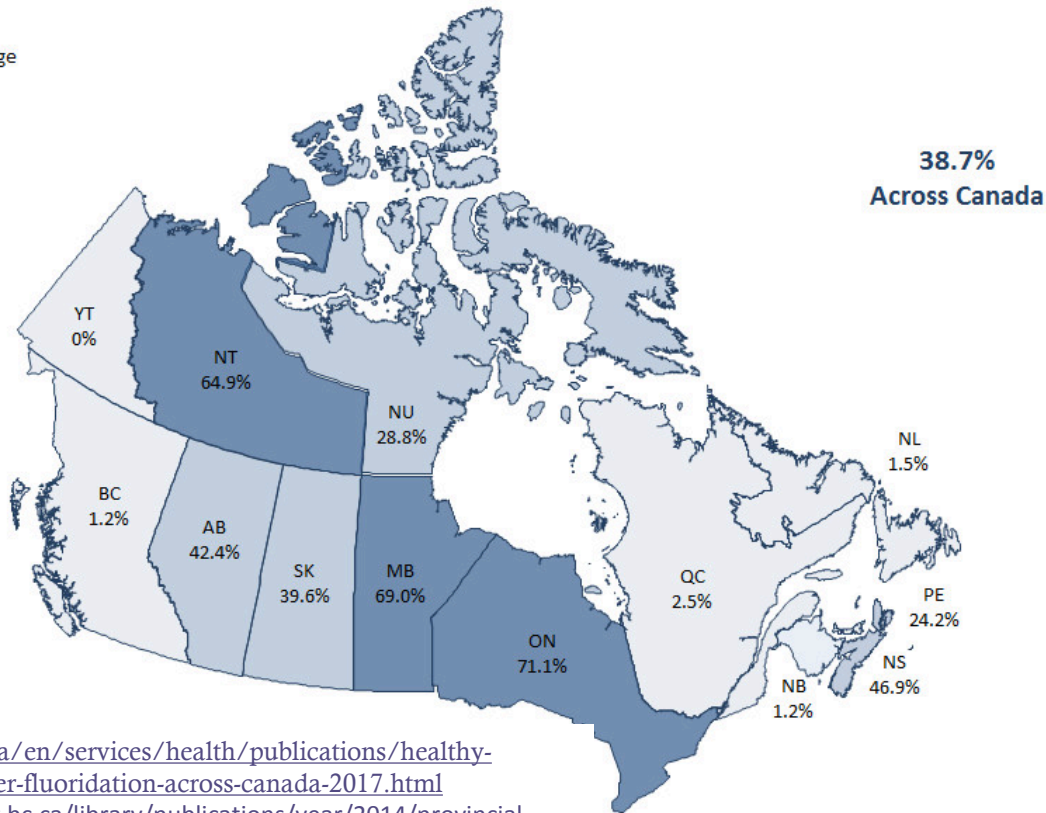
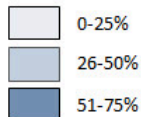
Most Canadians (22 million) have now rejected artificial water fluoridation

Community Water Fluoridation in Canada, 2017

The percentage of population with fluoridated water systems by province/territory

Legend

% Water Systems Coverage



2014 – B.C. dental survey show children exceed the national average in caries-free rates(67.3% 5-6yrs)

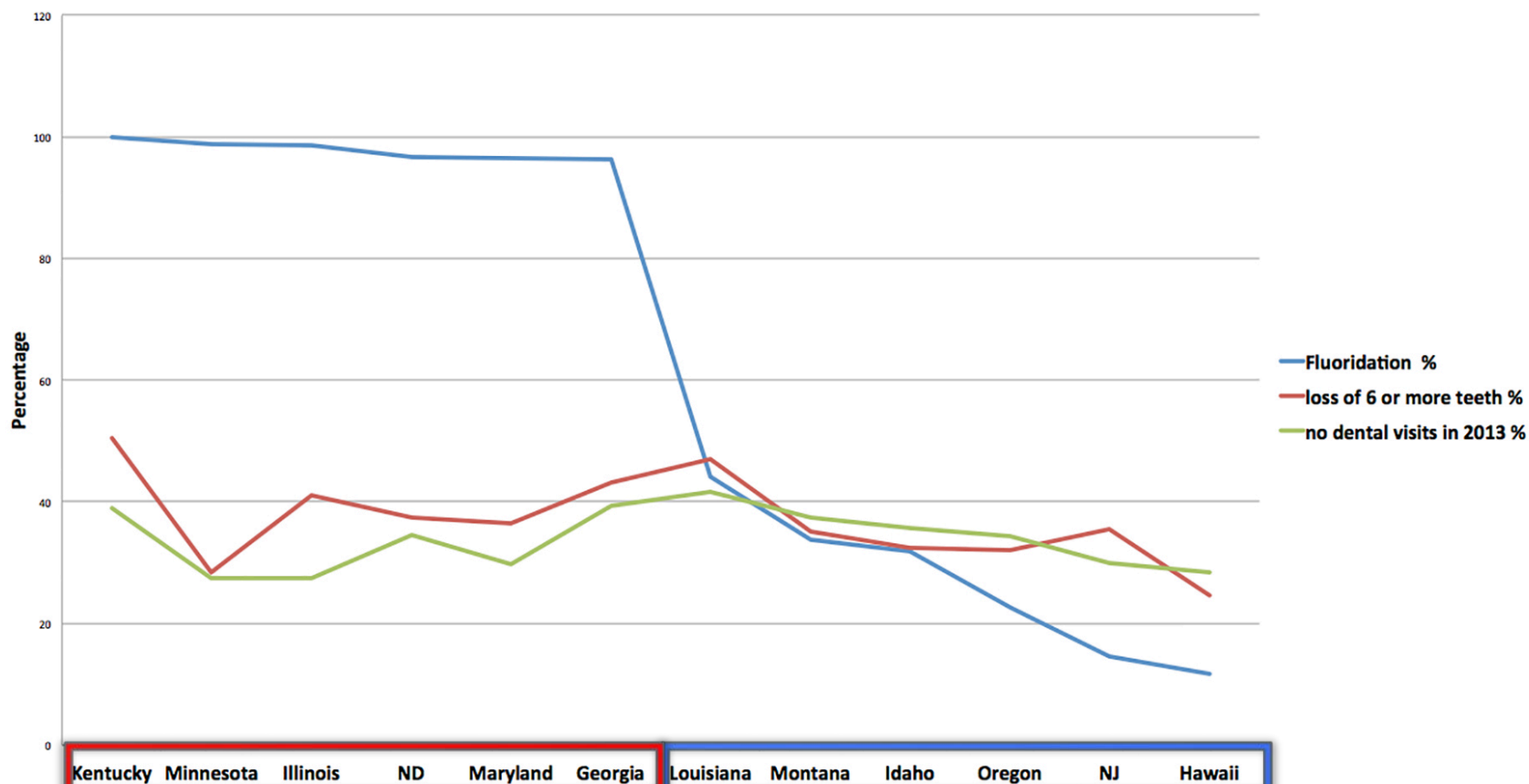
yet:

- they are 98.8% non- fluoridated**
- 99.9% without naturally occurring fluoride in well water.**

<https://www.canada.ca/en/services/health/publications/healthy-living/community-water-fluoridation-across-canada-2017.html>
<https://www.health.gov.bc.ca/library/publications/year/2014/provincial-kindergarten-dental-survey-report-2012-2013.pdf>

CDC Oral Health Data 2014

Rates of 6 Highest Artificially Fluoridated U.S. States and 6 Lowest U.S. States
Tooth Loss in Adults 65+ Due to Decay and Gum Disease
No Dental Visit



"Fluoride has nothing to do with clean and safe drinking water,"
said Leamington mayor MacDonald, citing a Union Water official - 2018

Fluoridation violates several
Environmental Acts of
Legislation including:

- Species at Risk Act 2002
- Clean Water Act 2006
- Safe Drinking Water Act 2002
- Canadian Environmental Protection Act 1999
- Great Lakes Water Quality Agreement 1978
- Hazardous Waste Act 2010



Hilda MacDonald, deputy mayor of Leamington, speaks to a delegate during a discussion on fluoridation of community water systems at County Council June 6, 2018. *NICK BRANCACCIO / WINDSOR STAR*

The U.S. EPA Headquarters Union of
Scientist (about 1500 of them)
have declared fluoridation,
a vehicle for disseminating a toxic
and “prophylactically useless”
substance, wrong at any rate
of dilution.