

**STATE OF HAWAII
DEPARTMENT OF HEALTH**

P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on S.B. 2997
RELATING TO HEALTH**

SENATOR KARL RHOADS, CHAIR
SENATE COMMITTEE ON JUDICIARY

Hearing Date: February 12, 2020 Room Number: 016

1 **Fiscal Implications:** The Department of Health would need the following fiscal support to
2 implement this measure: 1) \$250,000 annually for data collection and analysis to track the
3 procurement of dental care insurance by residents of the State and if/when 100% of Hawaii
4 residents either have dental health insurance coverage or reject coverage, and to work with
5 Boards of Water Supply and other suppliers to track compliance with this mandate (estimate one
6 Program Specialist V, one Program Specialist III, and one Office Assistant III plus operating
7 expenses); 2) \$300,000 annually to provide training and technical assistance to water suppliers
8 on the implementation of the mandate (estimate two Environmental Engineer IV positions and
9 operating funds). Also, an estimated 169 public/private water suppliers/systems would be
10 required to incur expenses to modify their water systems to deliver fluoride at an estimated cost
11 range of \$9.3M to \$18.6M (estimated equipment reimbursement expenses). Bill allows that DOH
12 may provide reimbursement to supplier for expenses incurred to comply with mandate. The
13 Department defers to the water departments of the City and County of Honolulu and Counties of
14 Hawaii, Maui, and Kauai, and other regulated Public Water Systems on the program and fiscal
15 implications related to their implementation of S.B. 2997.

16 **Department Testimony:** The Department of Health supports the intent of S.B. 2997 and defers
17 to the Governor's Budget Request for appropriations priorities.

18 Community water fluoridation would be effective in improving the oral health of Hawaii's
19 residents. It is the single most effective measure a community can take to prevent tooth decay
20 and specifically help with cavity prevention. Many research studies have proven the safety and

1 benefits of fluoride. For 70 years, people in the United States have benefited from drinking water
2 with fluoride, leading to better dental health. Community water fluoridation is recommended by
3 nearly all public health, medical, and dental organizations. It is recommended by the American
4 Dental Association, American Academy of Pediatrics, US Public Health Service, and World
5 Health Organization.

6 Drinking fluoridated water keeps teeth strong and reduces cavities (also called tooth decay).
7 According to the American Dental Association, more than 70 years of scientific research has
8 consistently shown that an optimal level of fluoride in community water is safe and effective in
9 preventing cavities by at least 25% in both children and adults. By preventing cavities,
10 community water fluoridation has been shown to save money for families and for the US health
11 care system. Oral health in the United States is much better today than it was many years ago.
12 But cavities are still one of the most common chronic diseases of childhood. Community water
13 fluoridation is the most cost-effective way to deliver fluoride to people of all ages, education
14 levels, and income levels who live in a community.

15 Most water has some fluoride, but usually not enough to prevent cavities. Community water
16 systems can add the right amount of fluoride to the local drinking water to prevent cavities.
17 Hawaii's oral health disease rates are made worse due to the state's limited access to community
18 water fluoridation. Hawaii continues to have the lowest rate of community water fluoridation in
19 the U.S. at 11% compared to 75% nationally. The Hawaii Smiles 2015 report found that Hawaii
20 has the highest prevalence of tooth decay among third graders in the United States. More than 7
21 out of 10 third graders (71%) are affected by tooth decay; substantially higher than the national
22 average of 52%.

23 Because of its contribution to the large decline in cavities in the United States since the 1960s,
24 the Centers for Disease Control and Prevention named community water fluoridation one of 10
25 great public health achievements of the 20th century.

26 We believe fluoridation must ultimately be a community-based decision.

27 Thank you for the opportunity to testify on this bill.



STATE OF HAWAII
STATE COUNCIL
ON DEVELOPMENTAL DISABILITIES
1010 RICHARDS STREET, Room 122
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-8100 FAX: (808) 586-7543

February 12, 2020

The Honorable Karl Rhoads, Chair
Senate Committee on Judiciary
Thirtieth Legislature
State Capitol
State of Hawai'i
Honolulu, Hawai'i 96813

Dear Senator Rhoads and Members of the Committees:

SUBJECT: SB 2997 – Relating to Health

The State Council on Developmental Disabilities **SUPPORTS the intent of SB 2997**, which requires certain water suppliers to adjust the levels of fluoride in public water systems. Requires the Department of Health to provide technical assistance. Requires reports to the Legislature on compliance, and on the procurement of dental care insurance by residents of this State. Becomes void when 100% of the residents of this State have either obtained or affirmatively rejected dental care insurance, pursuant to a proclamation issued by the Governor.

The Council supports the Department of Health's position that community water fluoridation would be effective in improving the oral health of Hawaii's residents. It is the single most effective measure a community can take to prevent tooth decay and specifically help with cavity prevention. Many research studies have proven the safety and benefits of fluoride. For 70 years, people in the United States have benefited from drinking water with fluoride, leading to better dental health. Fluoridation must ultimately be a community-based decision.

Due to the appropriation involved, the Council is only able to support the intent of SB 2997 and respectfully defers to the Governor's Budget Request for appropriations priorities.

Thank you for the opportunity to submit testimony **supporting the intent of SB 2997**.

Sincerely,

Daintry Bartoldus
Executive Administrator

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



February 12, 2020

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
KAY C. MATSUI
RAY C. SOON
MAX J. SWORD

ROSS S. SASAMURA, Ex-Officio
JADE T. BUTAY, Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer *llw*

The Honorable Karl Rhoads
Committee on Judiciary
State Senate
Hawaii State Capitol, Room 016
Honolulu, Hawaii 96813

Dear Chair Rhoads and Members:

Subject: Senate Bill 2997: Relating to Health

The Honolulu Board of Water Supply (BWS) does not support Senate Bill (SB) 2997.

The measure proposes to amend Hawaii Revised Statutes (HRS) to require water suppliers that have more than 1,000 service connections to add fluoride to the drinking water and supersede any contrary state or county law on fluoridation of the public water supply. The latter proposal conflicts with the principles of home rule vested in Article VIII Section 2 of the Hawaii State Constitution which states:

Each political subdivision shall have the power to frame and adopt a charter for its own self-government within such limits and under such procedures as may be provided by general law. Such procedures, however, shall not require the approval of a charter by a legislative body.

Charter provisions with respect to a political subdivision's executive, legislative and administrative structure and organization shall be superior to statutory provisions, subject to the authority of the legislature to enact general laws allocating and reallocating powers and functions.

A law may qualify as a general law even though it is inapplicable to one or more counties by reason of the provisions of this section. [Am Const Con 1968 and election Nov 5, 1968; ren and am Const Con 1978 and election Nov 7, 1978]

If we accept the provisions in Article VIII Section 2 of the State Constitution, then the bill conflicts with Chapter 30, Article 5, Section 30-5.1 of the Revised Ordinance of Honolulu which prohibits the adding of any chemical to the public

The Honorable Karl Rhoads, Chair
and Members
February 12, 2020
Page 2

water supply to treat or affect the physical or mental functions of the body of any person except for those chemicals used to make the water safe to drink such as chlorine.

The bill proposes that the Hawaii Department of Health (DOH) shall provide technical assistance and training relating to community water fluoridation and the management of fluoridation systems. It also states the DOH **may reimburse** each supplier of water for expenses necessarily incurred to fluoridate the water. The bill is mandating the fluoridation of almost 90 BWS water facilities that is estimated to cost \$16.9 million for the design, construction and installation of equipment at our stations that is estimated to cost \$2.9 million a year to operate and maintain and \$0.5 million for additional water sample testing. The fluoride equipment installation work will take several years to complete the design, permitting and construction of the improvements. The bill does not require reimbursing water suppliers for this cost leaving it to current water rate payers to absorb. This is an unfunded mandate.

The BWS serves 145 million gallons of water per day or 53.9 billion gallons per year. From an operational perspective, the BWS is concerned about the cost to daily fluoridate 100% of the water served when less than 5% of that water is consumed. This cost will increase over time and add to our challenges to keeping our water rates affordable for our customers, many whom are already struggling to make ends meet. Unlike chlorination disinfection that benefits everyone who drinks the water, fluoridation only benefits a small segment of the population.

The bill proposes to require fluoridation at the optimum level pursuant to the most recent standard established by the United States Department of Health and Human Services (DHHS) which currently is 0.7 milligrams per liter (mg/L). In contrast, the United States Environmental Protection Agency (EPA) National Primary Drinking Water Regulations sets the maximum amount of fluoride allowed in drinking water at 4.0 mg/L. Under these conditions, water suppliers would be at risk of liability damages for fluoride concentrations above the DHHS optimum level and EPA's national primary drinking water standards especially resulting from equipment malfunction or breakdown that can occur despite the best maintenance and monitoring practices.

Operationally, the cost to maintain the optimum 0.7 mg/L amount will require additional capital costs to install extensive water system monitoring and control systems to ensure this precise dosage is continuously maintained 24 hours a day, seven days a week, 365 days a year. High dosages of fluoride can cause mottling of the teeth. Because fluoride is also colorless and odorless, we are concerned

The Honorable Karl Rhoads, Chair
and Members
February 12, 2020
Page 3

about the accidental addition of potentially detrimental dosages that would not be detected by the user despite our best efforts to prevent it. Should this occur, water suppliers would be open to liability for something that can be better managed at the individual level through targeted application under controlled conditions by dental professionals.

The Department of Health (DOH) Hawaii Administrative Rules (HAR) Title 11, Chapter 20, Public Water Systems, are the regulations that govern safe drinking water in Hawaii. The regulations apply to all public water systems defined as any system which services 25 or more people a minimum of 60 days per year or has at least 15 service connections. Senate Bill 2997 proposes to require drinking water suppliers that have more than 1,000 service connections to add fluoride to the drinking water. The bill exempts small water systems with less than 1,000 connections from adding fluoride to the water and assures them compliance with the fluoride limits under HAR Title 11, Chapter 20 while unfairly requiring water systems with more than 1,000 service connections to incur the liability of fluoride exceedances resulting from unforeseen mechanical failures. The bill also assumes large water systems can pay for fluoridation through increased water rates without regard to the many BWS customers who are on fixed incomes and have challenges making ends meet.

Finally, the bill proposes to void the fluoridation requirement pursuant to a proclamation issued by the governor and verification from the Department of Health that 100% of residents in the state that either have obtained dental care insurance or affirmatively rejected insurance. On December 31, 2019, the United States Census Bureau released its 2019 state population estimates for Hawaii. Hawaii's latest population estimates is also available on the Department of Business, Economic Development & Tourism (DBEDT) website. Both sources of information contain estimates, not 100% counts of the population while employing the best means for obtaining the most accurate computation of the state's population. The bill should specify the mechanism for obtaining 100% verification of resident dental care insurance or rejection thereof and provide the fiscal resources for achieving it. Otherwise it becomes a requirement that cannot be attained and forever nullifying the opportunity to void the fluoridation requirement in SB 2997.

We understand the dental care intent of Senate Bill 2997. However, that intent needs to seriously consider the economic, technical feasibility and cost to achieve it.

The Honorable Karl Rhoads, Chair
and Members
February 12, 2020
Page 4

Thank you for the opportunity to testify on SB 2997.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Ernest Y. W. Lau", with a stylized flourish at the end.

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer



Testimony of
Kurt Akamine, Chairperson
Board of Water Supply, County of Kaua'i
Before the House of the Senate
Committee on Judiciary
Wednesday, February 12, 2020
9:00 AM
State Capitol, Conference Room
016

February 11, 2020

The Honorable Senator Karl Rhoads, Chair
The Honorable Senator Jarrett Keohokalole, Vice Chair
And Members of the
Committee on Judiciary
State Capitol, Conference Room 016
415 South Beretania Street
Honolulu, Hawai'i 96813

Dear Chair Karl Rhoads and Vice Chair Jarrett Keohokalole and Members:

**Subject: SB2997, RELATING TO HEALTH,
Senate Committee on Judiciary Hearing,
Wednesday, February 12, 2020 at 9:00 a.m., Room 016**

The County of Kaua'i, Board of Water Supply respectfully submits the following testimony in strong opposition to Senate Bill 2997.

Senate Bill 2997 proposes to require the fluoridation of water systems serving 1,000 or more service connection in the State of Hawaii. On Kaua'i, this would require eight (8) Department of Water systems to be fluoridated. These water systems serve approximately 75 percent of Kaua'i's total population, or approximately 54,000 residents.

The County of Kaua'i, Board of Water Supply, comprised of Kaua'i Island residents, is charged with a very specific mission to "provide safe, affordable, sufficient, drinking water through wise management of our resources with excellent customer service for the people of Kaua'i." The proposal to require fluoridation of Kaua'i's water systems presents a great concern to the Board and the people of Kaua'i.

In order to implement the proposed fluoridation of these water systems, unplanned and unanticipated capital improvements will be required to be incorporated into these systems. The anticipated impacts will be the costs for engineering design, land acquisition, construction, and the equipment needed to implement the program.

In addition, we have estimated that five (5) additional staff positions would be required to adequately maintain, operate and monitor the fluoridation systems seven (7) days a week. This would add to the annual operation and maintenance cost and increase water rates, placing a further financial strain to the people of Kaua'i.

We are concerned that the proposed bill does not identify the source of capital funding and the funding for our annual operation and maintenance costs. Since fluoridation of water systems is being proposed for public health reasons and not for the proper operation of those water systems, if mandated, all funding needed to implement the program from initiation and to keep it in operation should be provided.

Thank you for your time and consideration of the Board of Water Supply's testimony in opposition to SB2997. Should you have any questions, please do not hesitate to contact Michael Hinazumi at (808) 245-5416.

Respectfully,



Kurt Akamine
Chairperson, Board of Water Supply
County of Kaua'i

MHK/mja



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

345 KEKŪANAŌ'A STREET, SUITE 20 • HILO, HAWAII 96720

TELEPHONE (808) 961-8050 • FAX (808) 961-8657

February 11, 2020

Honorable Chair Karl Rhoads,
Vice-Chair Jarret Keohokalole, and Committee Members
Committee on Judiciary
Hawai'i State Senate
Hawai'i State Capitol, Conference Room 016
415 South Beretania Street
Honolulu, HI 96813

Dear Chair Rhoads and Committee Members:

Subject: Senate Bill 2997 – Relating to Health

The Department of Water Supply (DWS), County of Hawai'i, respectfully submits testimony in opposition of Senate Bill (SB) 2997.

The proposed SB 2997 could potentially affect approximately 104,000 Hawaii Island residents in the communities of Hilo, North Kona, South Kohala/Waimea, Kea'au/Mountain View, South Kona, North Kohala/Hāwī, Honoka'a, and Nā'ālehu, which are served by DWS' regulated public water systems.

The DWS is a municipal potable water purveyor regulated by the Environmental Protection Agency's Safe Drinking Water Act (SDWA) which was signed into law by Congress in 1974. The SDWA established rules that require water purveyors such as the DWS serve potable water, which meets minimum standards to its consumers. The DWS continually monitors its 23 public water systems to meet the standards set forth under the SDWA and by the State of Hawai'i, Department of Health (DOH). Providing safe and affordable water to Hawai'i Island's communities, residents and visitors is DWS' core mission.

Fluoride is currently regulated under the SDWA. The National Primary Drinking Water Regulations set the maximum contaminant level (MCL) for fluoride at 4.0 parts per million (ppm), or 4,000 parts per billion.

The National Secondary Drinking Water Regulations set the secondary MCL for fluoride at 2.0 parts per million. Per the EPA, the noticeable effects of fluoride above this secondary MCL is tooth discoloration. Historically, the naturally-occurring fluoride in DWS' sources has ranged from ND (non-detected) to approximately 0.89 ppm (mg/L).

... Water, Our Most Precious Resource ... Ka Wai A Kāne ...

The Department of Water Supply is an Equal Opportunity provider and employer.

Honorable Chair Karl Rhoads,
Vice-Chair Jarret Keohokalole, and Committee Members
Committee on Judiciary
Page 2
February 11, 2020

According to the Environmental Protection Agency (EPA), the potential health effects from long-term exposure to fluoride above the Primary MCL (4.0 ppm) could lead to bone disease and excessive tooth discoloration and/or pitting. The Department of Water Supply is not a medical, dental, or health agency, thus does not offer reasons against this Bill from a medical, dental, or health perspective. However, the DWS opposes SB 2997 for the following reasons:

- SB 2997 is flawed since it does not specify at what locations within the water distribution system, the “optimal” levels need to be maintained. Requiring the “optimal” levels to be met at the farthest point from chemical injection could cause the concentrations at the entry-points-to-distribution to be greater than the Federal and State MCL.
- Fluoridation would place an exorbitant economic hardship on the DWS, its customers, residents, and rate payers island-wide. The DWS does not currently add fluoride to any of its water sources or systems. Thus, DWS would have to plan, budget, fund, design, and construct new fluoride injection systems where necessary.
- Fluoridation would require DWS to hire additional water treatment plant operators for the operation and maintenance of the fluoridation facilities. The increased capital, operating, and maintenance costs would have to be passed on to the DWS’ customers and ratepayers.
- Customers who desire to remove the fluoride from their water will have to burden the cost to remove it. Typical charcoal-based filters and boiling the water do NOT remove fluoride. More costly distillation and reverse osmosis treatment methods would be required to remove fluoride.
- The DWS often receives inquiries from customers questioning whether or not fluoride is added to its water sources and systems. To the DWS’ knowledge, none of the inquirers have asked for fluoride to be added to the water, rather they are pleased to learn that fluoride is not added to our island’s drinking water supplies.

To summarize, the DWS respectfully submits this testimony in opposition of SB 2997. Any such legislation that proposes to establish fluoridation requirements should seriously consider the technical capability and economic feasibility to achieve the proposed intentions.

Thank you for your time and consideration on DWS’ testimony for this proposed bill. Should you have additional questions, please do not hesitate to contact us at (808) 961-8050.

Sincerely yours,



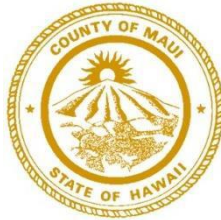
Keith K. Okamoto, P.E.
Manager-Chief Engineer

KKU:dmj

MICHAEL P. VICTORINO
Mayor

JEFFREY T. PEARSON, P.E.
Director

HELENE KAU
Deputy Director



DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

February 11, 2020

**Testimony of the County of Maui Department of Water Supply
In Consideration of S.B. 2997 Relating to Health**

Before the Committee on Judiciary

Wednesday, February 12, 2020

9:00 AM

State Capitol, Conference Room 016

The Maui County Department of Water Supply **opposes** S.B 2997. Our mission statement is to *“Provide Clean Water Efficiently”*. The primary role of a water utility is to provide safe drinking water. Imposing water additives for purposes other than maintaining safe drinking water standards, puts the utilities at risk for customer complaints of side effects, health problems and potential lawsuits. There is a myriad of elements, minerals and nutrients that would benefit a few, if added to public water supply. Although cost effective, this method does not allow existing customers to opt out.

Adding flouride to supplement dental hygiene should not be confused with, or compared to, adding chlorine for the purposes of reducing exposure to waterborne illness. The role of chlorine is to ensure that the public water supply is safe to drink. We do not add calcium to public water supply to prevent osteoporosis. There are alternative better ways to address calcium deficiency. We should not add flouride to public water supply to prevent cavities. There are alternative better ways to use flouride. Dental health is an issue best addressed at the level of the individual, the caregiver and the dental health provider. Although a few isolated countries in the world allow flouridated drinking water, 90 % of European countries do not, as such policy does not address the root of poor dental hygiene. We urge you to not impose this bill’s requirements on water utilities and our customers.

Thank you for your consideration of our viewpoint on this matter.

Respectfully submitted,

JEFFREY T. PEARSON, P.E.
Director of Water Supply

LATE

My name is Malia Shimokawa and I am a community pediatrician practicing in Aiea. I am also a mother of three young children. I am in full support of SB2997 promoting fluoridating the water in Hawaii.

I have been a pediatrician for nearly fourteen years and have practiced in the Army, at Kapiolani Medical Center for Women and Children, and am now in private practice. The greatest impact I can have on my patients is promoting lifelong health and wellness, through counseling on development, growth, nutrition, exercise, safety, healthy family relationships, emotional well-being and oral health.

Dental caries is a huge public health problem, and in Hawaii we can do so much more. Dental caries is an infectious disease and, when present in early childhood, is the greatest risk factor for caries in adulthood. Dental caries is largely preventable with a safe and cost-effective intervention which has been a part of the majority of US communities for decades: fluoridated water.

As a pediatrician, I spend a lot of my time discussing the importance of oral health as oral health is directly linked to overall health. The American Academy of Pediatrics recommends fluoride supplementation for infants, children and teens who do not receive adequate fluoride in their water sources, from the age of 6 months.

Following pediatric guidelines, at each well check I discuss dental care and, because we do not have fluoridated water, have to spend extra time counseling on and prescribing daily fluoride in the form of liquid or tablets. Overall, my patients are surprised and disappointed we do not have fluoridated water in our state.

In Hawaii, it costs approximately \$120 per year per infant and child for fluoride supplementation. Families are then burdened with the daily task of giving their children fluoride, which is often overlooked amidst their many other parenting duties. Without regular fluoride supplementation, I have seen my young patients with mouths full of cavities, some so serious and numerous they require sedation to address, which comes with safety risks and at high cost.

This is not only a public health issue, it is a social justice issue. Dental caries disproportionately affect children and families who are socioeconomically disadvantaged. Populations who are poorer, younger and/or minorities tend to have more challenges in accessing medical and dental care and challenges in compliance with taking medications. Fluoridated water should be the default to help as many in our community as possible.

Fluoridation of water in Hawaii is long overdue. As a mother and as a pediatrician, I am deeply invested in the health of our keiki in Hawaii, as I know all of you are. Fluoridation is safe, effective, and would be one of the greatest public health achievements of our time.

Malia Shimokawa, MD
Pediatrics, Pearl City Medical Associates
98-1079 Moanalua Road Suite 555
Aiea, HI 96701
808.488.1943
mshimokawa@pmcahi.com



CLINICAL REPORT

Fluoride Use in Caries Prevention in the Primary Care Setting

abstract

FREE

Dental caries remains the most common chronic disease of childhood in the United States. Caries is a largely preventable condition, and fluoride has proven effectiveness in the prevention of caries. The goals of this clinical report are to clarify the use of available fluoride modalities for caries prevention in the primary care setting and to assist pediatricians in using fluoride to achieve maximum protection against dental caries while minimizing the likelihood of enamel fluorosis. *Pediatrics* 2014;134:626–633

Dental caries (ie, tooth decay) is an infectious disease in which acid produced by bacteria dissolves tooth enamel. If not halted, this process will continue through the tooth and into the pulp, resulting in pain and tooth loss. This activity can further progress to local infections (ie, dental alveolar abscess or facial cellulitis), systemic infection, and, in rare cases, death. Dental caries in the United States is responsible for many of the 51 million school hours lost per year as a result of dental-related illness, which translates into lost work hours for the parent or adult caregiver.¹ Early childhood caries is the single greatest risk factor for caries in the permanent dentition. Good oral health is a necessary part of overall health, and recent studies have demonstrated the adverse effects of poor oral health on multiple other chronic conditions, including diabetes control.² Therefore, the failure to prevent caries has health, educational, and financial consequences at both the individual and societal level.

Dental caries is the most common chronic disease of childhood,¹ with 59% of 12- to 19-year-olds having at least 1 documented cavity.³ Caries is the “silent epidemic” that disproportionately affects poor, young, and minority populations.¹ The prevalence of dental caries in very young children increased during the period between the last 2 national surveys, despite improvements for older children.⁴ Because many children do not receive dental care at young ages, and risk factors for dental caries are influenced by parenting practices, pediatricians have a unique opportunity to participate in the primary prevention of dental caries. Studies show that simple home and primary care setting prevention measures would save health care dollars.⁵

Development of dental caries requires 4 components: teeth, bacteria, carbohydrate exposure, and time. Once teeth emerge, they may become colonized with cariogenic bacteria. The bacteria metabolize carbohydrates

Melinda B. Clark, MD, FAAP, Rebecca L. Slayton, DDS, PhD, and SECTION ON ORAL HEALTH

KEY WORDS

enamel fluorosis, fluoride, fluoride varnish, formula mixing, systemic fluoride supplements, toothpaste, water fluoridation

ABBREVIATIONS

AAP—American Academy of Pediatrics
ADA—American Dental Association
CDC—Centers for Disease Control and Prevention
EPA—Environmental Protection Agency

This document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

www.pediatrics.org/cgi/doi/10.1542/peds.2014-1699

doi:10.1542/peds.2014-1699

Accepted for publication Jun 9, 2014

All clinical reports from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2014 by the American Academy of Pediatrics

and create acid as a byproduct. The acid dissolves the mineral content of enamel (demineralization) and, over time with repeated acid attacks, the enamel surface collapses and results in a cavity in the tooth. Protective factors that help to remineralize enamel include exposing the teeth to fluoride, limiting the frequency of carbohydrate consumption, choosing less cariogenic foods, practicing good oral hygiene, receiving regular dental care, and delaying bacterial colonization. If carious lesions are identified early, the process can be halted or reversed by modifying the patient's individual risk and protective factors. Certain American Academy of Pediatrics (AAP) publications (*Oral Health Risk Assessment Timing and Establishment of the Dental Home*⁶ and *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*⁷) discuss these concepts in greater depth and provide targeted preventive anticipatory guidance. The Medical Expenditure Panel Survey demonstrated that 89% of infants and 1-year-olds have office-based physician visits annually, compared with only 1.5% who have dental visits.⁸ For primary prevention to be effective, it is imperative that pediatricians be knowledgeable about the process of dental caries, prevention of the disease, and available interventions, including fluoride.

Fluoride is available from many sources and is divided into 3 major categories: tap water (and foods and beverages processed with fluoridated water), home administered, and professionally applied. There has been substantial public and professional debate about fluoride, and myriad information is available, often with confusing or conflicting messages. The widespread decline in dental caries in many developed countries, including the United States, has been largely attributable to the use of fluoride. Fluoride has 3 main mechanisms of action: (1) it promotes enamel remineralization; (2) it

reduces enamel demineralization; and (3) it inhibits bacterial metabolism and acid production.⁹ The mechanisms of fluoride are both topical and systemic, but the topical effect is the most important, especially over the life span.¹⁰

RISK OF FLUOROSIS

The only scientifically proven risk of fluoride use is the development of fluorosis, which may occur with fluoride ingestion during tooth and bone development. Fluorosis of permanent teeth occurs when fluoride of sufficient quantity for a sufficient period of time is ingested during the time that tooth enamel is being mineralized. Fluorosis is the result of subsurface hypomineralization and porosity between the developing enamel rods.¹¹ This risk exists in children younger than 8 years, and the most susceptible period for permanent maxillary incisor fluorosis is between 15 and 30 months of age.^{12–14} The risk of fluorosis is influenced by both the dose and frequency of exposure to fluoride during tooth development.¹⁵ Recent evidence also suggests that individual susceptibility or resistance to fluorosis includes a genetic component.¹⁶

After 8 years of age, there is no further risk of fluorosis (except for the third molars) because the permanent tooth enamel is fully mineralized. The vast majority of enamel fluorosis is mild or very mild and characterized by small

white striations or opaque areas that are not readily noticeable to the casual observer. Although this type of fluorosis is of no clinical consequence, enamel fluorosis has been increasing in frequency over the last 2 decades to a rate of approximately 41% among adolescents because fluoride sources are more widely available in varied forms.¹⁷ Moderate and severe forms of enamel fluorosis are uncommon in the United States but have both an aesthetic concern and potentially a structural concern, with pitting, brittle incisal edges, and weakened groove anatomy in the permanent 6-year molars.

In 2001, the AAP endorsed the guidelines from the Centers for Disease Control and Prevention (CDC), "Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States."¹⁵ Dental and governmental organizations (American Dental Association [ADA], American Academy of Pediatric Dentistry, the Department of Health and Human Services, and the CDC) have more recently published guidelines on the use of fluoride, but current AAP publications do not reflect these newer evidence-based guidelines. Table 1 provides a simple explanation of fluoride use for patients at low and high risk of caries.

The present report has 2 goals: (1) to assist pediatricians in using fluoride to achieve maximum protection against

TABLE 1 Summary of Fluoride Modalities for Low- and High-Risk Patients

Fluoride Modality	Low Caries Risk	High Caries Risk
Toothpaste	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)
Fluoride varnish	Every 3–6 mo starting at tooth emergence	Every 3–6 mo starting at tooth emergence
Over-the-counter mouth rinse	Not applicable	Starting at age 6 y if the child can reliably swish and spit
Community water fluoridation	Yes	Yes
Dietary fluoride supplements	Yes, if drinking water supply is not fluoridated	Yes, if drinking water supply is not fluoridated

dental caries while minimizing the likelihood of enamel fluorosis; and (2) to clarify the advice that should be given by pediatricians regarding fluoride in the primary care setting.

CURRENT INFORMATION REGARDING FLUORIDE USE IN CARIES PREVENTION

The following information aims to assist pediatricians in achieving maximum protection against dental caries for their patients while minimizing the likelihood of enamel fluorosis. Sources of ingested fluoride include drinking water, infant formula, fluoride toothpaste, prescription fluoride supplements, fluoride mouth rinses, professionally applied topical fluoride, and some foods and beverages.¹⁸

Fluoride Toothpaste

Fluoride toothpaste has consistently been proven to provide a caries-preventive effect for individuals of all ages.^{15,19} In the United States, the fluoride concentration of over-the-counter toothpaste ranges from 1000 to 1100 ppm. In some other countries, toothpastes containing 1500 ppm of fluoride are available. A 1-inch (1-g) strip of toothpaste translates to 1 or 1.5 mg of fluoride, respectively. A pea-sized amount of toothpaste is approximately one-quarter of an inch. Therefore, a pea-sized amount of toothpaste containing 1000/1100 ppm of fluoride would have approximately 0.25 mg of fluoride, and the same amount of toothpaste containing 1500 ppm of fluoride would have approximately 0.38 mg of fluoride. Most fluoride toothpaste in the United States contains sodium fluoride, sodium monofluorophosphate, or stannous fluoride as the active ingredient. Parents should supervise children younger than 8 years to ensure the proper amount of toothpaste and effective brushing technique. Children younger than 6 years are more likely to ingest some or all of the toothpaste

used. Ingestion of excessive amounts of fluoride can increase the risk of fluorosis. This excess can be minimized by limiting the amount of toothpaste used and by storing toothpaste where young children cannot access it without parental help.

Use of fluoride toothpaste should begin with the eruption of the first tooth. When fluoride toothpaste is used for children younger than 3 years, it is recommended that the amount be limited to a smear or grain of rice size (about one-half of a pea). Once the child has turned 3 years of age, a pea-sized amount of toothpaste should be used.^{20,21} Young children should not be given water to rinse after brushing because their instinct is to swallow. Expecting without rinsing will both reduce the amount of fluoride swallowed and leave some fluoride in the saliva, where it is available for uptake by the dental plaque. Parents should be strongly advised to supervise their child's use of fluoride toothpaste to avoid overuse or ingestion.

High-concentration toothpaste (5000 ppm) is available by prescription only. The active ingredient in this toothpaste is sodium fluoride. This agent can be recommended for children 6 years and older and adolescents who are at high risk of caries and who are able to expectorate after brushing. Dentists may also prescribe this agent for adolescents who are undergoing orthodontic treatment, as they are at increased risk of caries during this time.²²

Fluoride Varnish

Fluoride varnish is a concentrated topical fluoride that is applied to the teeth by using a small brush and sets on contact with saliva. Advantages of this modality are that it is well tolerated by infants and young children, has a prolonged therapeutic effect, and can be applied by both dental and non-

dental health professionals in a variety of settings.²³ The concentration of fluoride varnish is 22 600 ppm (2.26%), and the active ingredient is sodium fluoride. The unit dose packaging from most manufacturers provides a specific measured amount (0.25 mg, providing 5 mg of fluoride ion). The application of fluoride varnish during an oral screening is of benefit to children, especially those who may have limited access to dental care. Current American Academy of Pediatric Dentistry recommendations for children at high risk of caries is that fluoride varnish be applied to their teeth every 3 to 6 months.²⁴ The 2013 ADA guideline recommends application of fluoride varnish at least every 6 months to both primary and permanent teeth in those subjects at elevated caries risk.²⁵ The US Preventive Services Task Force recently published a new recommendation that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (B recommendation).²⁶

In most states, Medicaid will pay physicians for the application of fluoride varnish. Information regarding fluoride varnish application reimbursement and which states currently provide payment can be found on the AAP Web site (https://www.aap.org/en-us/_layouts/15/WopiFrame.aspx?sourcedoc=/en-us/Documents/OralHealthReimbursementChart.xlsx&action=default) and the Pew Charitable Trusts Web site (<http://www.pewstates.org/research/analysis/reimbursing-physicians-for-fluoride-varnish-85899377335>). Because state regulations vary regarding whether fluoride varnish must be applied within the context of a preventive care code, this information should be determined before billing.

Indications for Use

In the primary care setting, fluoride varnish should be applied to the teeth of all infants and children at least once every 6 months and preferably every 3 months, starting when the first tooth

erupts and until establishment of a dental home.

Instructions for Use

Fluoride varnish must be applied by a dentist, dental auxiliary professional, physician, nurse, or other health care professional, depending on the practice regulations in each state. It should not be dispensed to families to apply at home. Application of fluoride varnish is most commonly performed at the time of a well-child visit. Teeth are dried with a 2-inch gauze square, and the varnish is then painted onto all surfaces of the teeth with a brush provided with the varnish. Children are instructed to eat soft foods and not to brush their teeth on the evening after the varnish application to maximize the contact time of the varnish to the tooth. The following day, they should resume brushing twice daily with fluoridated toothpaste.

Over-the-Counter Fluoride Rinse

Over-the-counter fluoride rinse provides a lower concentration of sodium fluoride than toothpaste or varnish. The concentration is most commonly 230 ppm (0.05% sodium fluoride). Expert panels on this topic have concluded that over-the-counter fluoride rinses should not be recommended for children younger than 6 years because of their limited ability to rinse and spit and the risk of swallowing higher-than-recommended levels of fluoride.²⁷ A teaspoon (5 mL) of over-the-counter fluoride rinse contains approximately 1 mg of fluoride. For children younger than 6 years, this type of rinse provides an additional, low-dose topical fluoride application that may assist in the prevention of enamel demineralization. However, the evidence for an anticaries effect is limited. The daily use of a 0.05% sodium fluoride rinse may be of benefit for children older than 6 years who are at high risk of dental caries; however, there is no additional benefit

beyond daily use of fluoridated toothpaste for children at low risk of caries.^{28,29}

Dietary Fluoride Supplements

Dietary fluoride supplements should be considered for children living in communities in which the community water is not fluoridated or who drink well water that does not contain fluoride.²⁶ Because there are many sources of fluoride in the water supply and in processed food, it is essential that all potential sources of fluoride be assessed before prescribing a dietary supplement, including consideration of differing environmental exposures (eg, dual homes, child care). As a general guideline, if the primary source of water is fluoridated tap or well water, the child will not require fluoride supplementation, even if he or she primarily drinks bottled water, because the teeth are exposed to fluoride through cooking and brushing. The risk of fluorosis is high if fluoride supplements are given to a child consuming fluoridated water.³⁰ Information about the fluoridation levels in many community water systems can be found on the CDC Web site entitled My Water's Fluoride (<http://apps.nccd.cdc.gov/MWF/Index.asp>). Not all communities report this information to the CDC; therefore, it may be necessary to contact the local water department to determine the level of fluoride in the community water. Well water must be tested for fluoride content before prescribing supplements; such testing is available in most states through the state or county public health laboratory.

Guidelines for Use

CDC recommendations regarding fluoride supplementation are provided in Table 2. Supplements can be prescribed in liquid or tablet form. Tablets are preferable for children old enough to chew, because they gain an additional topical benefit to the teeth during the chewing process. Liquid supplements are recommended for younger children and should ideally be added to water or put directly into the child's mouth. Addition of the fluoride supplement to milk or formula is not recommended because of the reduced absorption of fluoride in the presence of calcium.³¹ The risk of mild fluorosis can be minimized by health care providers verifying that there are no other sources of fluoride exposure before prescribing systemic fluoride supplements.

Other Sources of Fluoride

Fluoride is present in processed foods and beverages and may be naturally occurring in some areas of the country. The presence of fluoride in juices and carbonated beverages does not counteract the cariogenic nature of these beverages.

Reconstitution of Infant Formula

In a study of infant feeding practices, 70% to 75% of mothers who fed their infants formula used tap water to reconstitute the powdered formula.³² According to CDC data from 2012, approximately 67% of US households using public water supplies received

TABLE 2 Fluoride Supplementation Schedule for Children

Age	Fluoride Ion Level in Drinking Water ^a		
	<0.3 ppm	0.3–0.6 ppm	>0.6 ppm
Birth–6 mo	None	None	None
6 mo–3 y	0.25 mg/d ^b	None	None
3–6 y	0.50 mg/d	0.25 mg/d	None
6–16 y	1.0 mg/d	0.50 mg/d	None

Source: Centers for Disease Control and Prevention.⁴⁵

^a 1.0 ppm = 1 mg/L.

^b 2.2 mg of sodium fluoride contains 1 mg of fluoride ion.

optimally fluoridated water (between 0.7 and 1.2 ppm).³⁵

ADA Evidenced-Based Clinical Recommendations

In 2011, the ADA Council on Scientific Affairs examined the existing evidence and made 2 recommendations. The first recommendation supported the continued use of optimally fluoridated water to reconstitute powdered and liquid infant formula, being cognizant of the small risk of fluorosis in permanent teeth. The second recommendation stated that if there was concern about the risk of mild fluorosis, the formula could be reconstituted with bottled (nonfluoridated) water.¹⁸ It should be noted that most bottled water has suboptimal levels of fluoride and that fluoride content is not listed unless it is added.

Community Water Fluoridation

Community water fluoridation is the practice of adding a small amount of fluoride to the water supply. It has been heralded as 1 of the top 10 public health achievements of the 20th century by the CDC.³⁴ Community water fluoridation is a safe, efficient, and cost-effective way to prevent tooth decay and has been shown to reduce tooth decay by 29%.³⁵ It prevents tooth decay through the provision of low levels of fluoride exposure to the teeth over time and provides both topical and systemic exposure. It is estimated that every dollar invested in water fluoridation saves \$38 in dental treatment costs (<http://www.cdc.gov/fluoridation/benefits/>). Currently, although more than 210 million Americans live in communities with optimally fluoridated water, there are more than 70 million others with public water systems who do not have access to fluoridated water.³³ The fluoridation status of a community water supply can be determined by contacting the local water department

or accessing the Web site My Water's Fluoride (<http://apps.nccd.cdc.gov/MWF/Index.asp>).

Recommended Concentration

Water fluoridation was initiated in the United States in the 1940s. In January 2011, the US Department of Health and Human Services proposed a change to lower the optimal fluoride level in drinking water. The proposed new recommendation is 0.7 mg of fluoride per liter of water to replace the previous recommendation, which was based on climate and ranged from 0.7 mg/L in the warmest climates to 1.2 mg/L in the coldest climates.³⁶ The change was recommended because recent studies showed no variation in water consumption by young children based on climate and to adjust for an overall increase in sources of fluoride (foods and beverages processed with fluoridated water and fluoridated mouth rinses and toothpastes) in the American diet.

Evidence Supporting Community Water Fluoridation

Despite overwhelming evidence supporting the safety and preventive benefits of fluoridated water, community water fluoridation continues to be a controversial and highly emotional issue. Opponents express a number of concerns, all of which have been addressed or disproven by validated research. The only scientifically documented adverse effect of excess (nontoxic) exposure to fluoride is fluorosis. An increase in the incidence of mild enamel fluorosis among teenagers has been cited as a reason to discontinue fluoridation, even though this condition is cosmetic with no detrimental health outcomes. Recent opposition has sometimes centered on the question of who decides whether to fluoridate (elected/public officials or the voters), possibly reflecting a recent trend of distrust of the US government. Many opponents believe fluoridation to be mass medication and

call the ethics of community water fluoridation into question, but courts have consistently held that it is legal and appropriate for a community to adopt a fluoridation program.³⁷ Opponents also express concern about the quality and source of fluoride, claiming that the additives (fluorosilicic acid, sodium fluoride, or sodium fluorosilicate), in their concentrated form, are highly toxic and are byproducts of the production of phosphate fertilizer and may include other contaminants, such as arsenic. The quality and safety of fluoride additives are ensured by Standard 60 of the National Sanitation Foundation/American National Standards Institute, a program commissioned by the Environmental Protection Agency (EPA), and testing has been conducted to confirm that arsenic or other substances are below the levels allowed by the EPA.³⁸ Finally, there have been many unsubstantiated or disproven claims that fluoride leads to kidney disease, bone cancer, and compromised IQ. More than 3000 studies or research papers have been published on the subject of fluoride or fluoridation.³⁹ Few topics have been as thoroughly researched, and the overwhelming weight of the evidence—in addition to 68 years of experience—supports the safety and effectiveness of this public health practice.

Naturally Occurring Fluoride in Drinking Water

The optimal fluoride level in drinking water is 0.7 to 1.2 ppm, an amount that has been proven beneficial in reducing tooth decay. Naturally occurring fluoride may be below or above these levels in some areas. Under the Safe Drinking Water Act (Pub L No. 93-523 [1974]), the EPA requires notification by the water supplier if the fluoride level exceeds 2 ppm. In areas where naturally occurring fluoride levels in drinking water exceed 2 ppm, people should consider an alternative water source or home water treatments to reduce the risk of

fluorosis in young children.⁴⁰ Well water should be tested for the level of fluoride; this testing is most commonly performed through the health department.

Fluoride Toxicity

Toxic levels of fluoride are possible, particularly in children, as a result of ingesting large quantities of fluoride supplements. The toxic dose of elemental fluoride is 5 to 10 mg of fluoride per kilogram of body weight.⁴¹ Lethal doses in children have been calculated to be between 8 and 16 mg/kg. When prescribing sodium fluoride supplements, it is recommended to limit the quantity prescribed at one time to no more than a 4-month supply. Parents should be advised to keep fluoride products out of the reach of young children and to supervise their use.

Fluoride Removal Systems

There are a number of water treatment systems that are effective in the removal of fluoride from water,⁴² including reverse osmosis and distillation. Parents should be counseled on the use of these and activated alumina filters in the home and, should they choose to use one that removes fluoride, the potential effect on their family's oral health. Commonly used home carbon filters (eg, Brita [Brita LP, Oakland, California], PUR [Kaz USA, Incorporated, Southborough, MA]) do not remove fluoride. These can be recommended for families who are concerned about heavy metals or other impurities in their home water supply but who wish to retain the benefits of fluoridated water.

SUGGESTIONS FOR PEDIATRICIANS

1. Know how to assess caries risk. As recommended by the AAP's *Oral Health Risk Assessment Timing and Establishment of the Dental Home*⁶ and *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*,⁷ pediatricians should perform oral health risk assessments on all children at preventive visits beginning at 6 months of age. An oral health risk assessment tool has been developed by the AAP/Bright Futures and endorsed by the National Interprofessional Initiative on Oral Health. This tool can be accessed at https://www.aap.org/en-us/Documents/oralhealth_RiskAssessmentTool.pdf. There are currently no validated early childhood caries risk assessment tools. The aforementioned tool is a guide to help clinicians counsel patients about oral health and best identify risk.
2. Know how to assess a child's exposure to fluoride and determine the need for topical or systemic supplements.⁴³
3. Understand indications for fluoride varnish and how to provide it. Fluoride varnish can be a useful tool in the prevention of early childhood caries. Additional training on oral screenings, fluoride varnish indications and application, and office implementation can be found in the Smiles for Life Curriculum Course 6: Caries Risk Assessment, Fluoride Varnish and Counseling⁴⁴ at www.smilesforlifeoralhealth.org. In addition, the AAP Children's Oral Health Web site

is a resource for oral health practice tools (<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Oral-Health/Pages/Oral-Health-Practice-Tools.aspx>).

4. Advocate for water fluoridation in the local community. Public water fluoridation is an effective and safe method of protecting the most vulnerable members of our population from dental caries. Pediatricians are encouraged to advocate on behalf of public water fluoridation in their communities and states. For additional information and water fluoridation facts and detailed questions and answers, see http://www.ada.org/sections/newsAndEvents/pdfs/fluoridation_facts.pdf, <http://www.cdc.gov/fluoridation/>, and <http://www.ilikemyteeth.org>.

LEAD AUTHORS

Melinda B. Clark, MD, FAAP
Rebecca L. Slayton, DDS, PhD

SECTION ON ORAL HEALTH EXECUTIVE COMMITTEE, 2011–2012

Adriana Segura, DDS, MS, Chairperson
Suzanne Boulter, MD, FAAP
Melinda B. Clark, MD, FAAP
Rani Gereige, MD, FAAP
David Krol, MD, MPH, FAAP
Wendy Mouradian, MD, FAAP
Rocio Quinonez, DMD, MPH
Francisco Ramos-Gomez, DDS
Rebecca L. Slayton, DDS, PhD
Martha Ann Keels, DDS, PhD, Immediate Past Chairperson

LIAISONS

Joseph Castellano, DDS – *American Academy of Pediatric Dentistry*
Sheila Strock, DMD, MPH – *American Dental Association Liaison*

STAFF

Lauren Barone, MPH

REFERENCES

1. US Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000
2. Mealey BL. Periodontal disease and diabetes. A two-way street. *J Am Dent Assoc*. 2006;137(suppl):26S–31S

3. Tomar SL, Reeves AF. Changes in the oral health of US children and adolescents and dental public health infrastructure since the release of the Healthy People 2010 Objectives. *Acad Pediatr*. 2009;9(6):388–395
4. Dye BA, Thornton-Evans G. Trends in oral health by poverty status as measured by Healthy People 2010 objectives. *Public Health Rep*. 2010;125(6):817–830
5. Stearns SC, Rozier RG, Kranz AM, Pahel BT, Quiñonez RB. Cost-effectiveness of preventive oral health care in medical offices for young Medicaid enrollees. *Arch Pediatr Adolesc Med*. 2012;166(10):945–951
6. Hale KJ; American Academy of Pediatrics Section on Pediatric Dentistry. Oral health risk assessment timing and establishment of the dental home. *Pediatrics*. 2003;111(5 pt 1):1113–1116
7. American Academy of Pediatrics, Bright Futures Steering Committee. Promoting oral health. In: Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008:155–168
8. American Academy of Pediatrics. Profile of pediatric visits: AAP analysis of the 2004–2007 Medical Expenditure Panel Survey and 2004–2007 National Ambulatory Medical Care Survey. Available at: www.aap.org/en-us/professional-resources/practice-support/financing-and-payment/Billing-and-Payment/Documents/Profile_Pediatric_Visits.pdf. Accessed May 20, 2014
9. Lynch RJ, Navada R, Walia R. Low-levels of fluoride in plaque and saliva and their effects on the demineralisation and remineralisation of enamel; role of fluoride toothpastes. *Int Dent J*. 2004;54(5 suppl 1):304–309
10. Featherstone JD. Prevention and reversal of dental caries: role of low level fluoride. *Community Dent Oral Epidemiol*. 1999;27(1):31–40
11. Aoba T, Fejerskov O. Dental fluorosis: chemistry and biology. *Crit Rev Oral Biol Med*. 2002;13(2):155–170
12. DenBesten PK. Biological mechanisms of dental fluorosis relevant to the use of fluoride supplements. *Community Dent Oral Epidemiol*. 1999;27(1):41–47
13. Ismail AI, Bandekar RR. Fluoride supplements and fluorosis: a meta-analysis. *Community Dent Oral Epidemiol*. 1999;27(1):48–56
14. Levy SM, Broffitt B, Marshall TA, Eichenberger-Gilmore JM, Warren JJ. Associations between fluorosis of permanent incisors and fluoride intake from infant formula, other dietary sources and dentifrice during early childhood. *J Am Dent Assoc*. 2010;141(10):1190–1201
15. Adair SM, Bowen WH, Burt BA, et al; Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. *MMWR Recomm Rep*. 2001;50(RR-14):1–42
16. Everett ET. Fluoride's effects on the formation of teeth and bones, and the influence of genetics. *J Dent Res*. 2011;90(5):552–560
17. Beltrán-Aguilar ED, Barker L, Dye BA. Prevalence and severity of dental fluorosis in the United States, 1999-2004. *NCHS Data Brief*. 2010;(53):1–8
18. Berg J, Gerweck C, Hujoel PP, et al; American Dental Association Council on Scientific Affairs Expert Panel on Fluoride Intake From Infant Formula and Fluorosis. Evidence-based clinical recommendations regarding fluoride intake from reconstituted infant formula and enamel fluorosis: a report of the American Dental Association Council on Scientific Affairs. *J Am Dent Assoc*. 2011;142(1):79–87
19. Wong MC, Clarkson J, Glenny AM, et al. Cochrane reviews on the benefits/risks of fluoride toothpastes. *J Dent Res*. 2011;90(5):573–579
20. Wright JT, Hanson N, Ristic H, et al. Fluoride toothpaste efficacy and safety in children younger than six years of age: a systematic review. *J Am Dent Assoc*. 2014;145(2):182–189
21. Scottish Intercollegiate Guidelines Network. Prevention and Management of Dental Decay in the Pre-School Child. A National Guideline. Edinburgh, Scotland: Scottish Intercollegiate Guidelines Network; 2005. Available at: www.sign.ac.uk/pdf/qrg83.pdf. Accessed May 20, 2014
22. Al-Mulla A, Karlsson L, Kharsa S, Kjellberg H, Birkhed D. Combination of high-fluoride toothpaste and no post-brushing water rinsing on enamel demineralization using an in-situ caries model with orthodontic bands. *Acta Odontol Scand*. 2010;68(6):323–328
23. American Dental Association Council on Scientific Affairs. Professionally applied topical fluoride: evidence-based clinical recommendations. *J Am Dent Assoc*. 2006;137(8):1151–1159
24. American Academy of Pediatric Dentistry. Guideline on Fluoride Therapy. Chicago, IL: American Academy of Pediatric Dentistry; 2013. Available at: www.aapd.org/media/Policies_Guidelines/G_fluoridetherapy.pdf. Accessed May 20, 2014
25. Weyant RJ, Tracy SL, Anselmo TT, et al; American Dental Association Council on Scientific Affairs Expert Panel on Topical Fluoride Caries Preventive Agents. Topical fluoride for caries prevention: executive summary of the updated clinical recommendations and supporting systematic review [published correction appears in *J Am Dent Assoc*. 2013;144(12):1335]. *J Am Dent Assoc*. 2013;144(11):1279–1291
26. US Preventive Services Task Force. Prevention of Dental Caries in Children From Birth Through Age 5 Years: US Preventive Services Task Force Recommendation Statement. Rockville, MD: US Preventive Services Task Force; 2014. Available at: www.uspreventiveservicestaskforce.org/uspstf/uspndch.htm. Accessed May 20, 2014
27. Maternal and Child Health Bureau. Expert Panel. Topical Fluoride Recommendations for High-Risk Children: Development of Decision Support Matrix. Washington, DC: Altarum Institute; 2007. Available at: www.mchoralhealth.org/PDFs/TopicalFluorideRpt.pdf. Accessed May 20, 2014
28. Adair SM. Evidence-based use of fluoride in contemporary pediatric dental practice. *Pediatr Dent*. 2006;28(2):133–142, discussion 192–198
29. Twetman S, Petersson L, Axelsson S, et al. Caries-preventive effect of sodium fluoride mouthrinses: a systematic review of controlled clinical trials. *Acta Odontol Scand*. 2004;62(4):223–230
30. Pendry DG, Katz RV, Morse DE. Risk factors for enamel fluorosis in a fluoridated population. *Am J Epidemiol*. 1994;140(5):461–471
31. Buzalaf MA, Whitford GM. Fluoride metabolism. *Monogr Oral Sci*. 2011;22:20–36
32. Fein SB, Grummer-Strawn LM, Raju TN, Raju MD. Infant feeding and care practices in the United States: results from the Infant Feeding Practices Study II. *Pediatrics*. 2008;122(suppl 2):S25–S27
33. Centers for Disease Control and Prevention. Community water fluoridation. Water fluoridation statistics. Available at: www.cdc.gov/fluoridation/statistics/2012stats.htm. Accessed May 20, 2014
34. Centers for Disease Control and Prevention (CDC). Ten great public health achievements—United States, 1900-1999. *MMWR Morb Mortal Wkly Rep*. 1999;48(12):241–243
35. Community Preventive Services Task Force. Summary of Task Force Recommendations and Findings. Atlanta, GA: Community Preventive Services Task Force; 2002. Available at: www.thecommunityguide.org/oral/fluoridation.html. Accessed May 20, 2014
36. Department of Health and Human Services. HHS recommendation for fluoride concentration in drinking water for prevention of dental caries. *Fed Regist*. 2011;76(9):2383–2388

37. Burt B, Eklund S. *Dentistry, Dental Practice, and the Community*. 6th ed. St. Louis, MO: Elsevier Saunders; 2005
38. Centers for Disease Control and Prevention. Community water fluoridation. Engineering. water fluoridation additives fact sheet. Available at: www.cdc.gov/fluoridation/factsheets/engineering/wfadditives.htm. Accessed May 20, 2014
39. Cheng KK, Chalmers I, Sheldon TA. Adding fluoride to water supplies. *BMJ*. 2007;335(7622):699–702
40. ADA Division of Communications. For the dental patient: infants, formula and fluoride. *J Am Dent Assoc*. 2007;138(1):132
41. Shulman JD, Wells LM. Acute fluoride toxicity from ingesting home-use dental products in children, birth to 6 years of age. *J Public Health Dent*. 1997;57(3):150–158
42. Van Winkle S, Levy SM, Kiritsy MC, Heilman JR, Wefel JS, Marshall T. Water and formula fluoride concentrations: significance for infants fed formula. *Pediatr Dent*. 1995;17(4):305–310
43. Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. *MMWR Recomm Rep*. 2001;50(RR-14):1–42 www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm. Accessed May 20, 2014
44. Douglass AB, Clark MB, Maier R, et al. *Smiles for Life: A National Oral Health Curriculum*. 3rd ed. Leawood, KS: Society of Teachers of Family Medicine; 2010. Available at: www.smilesforlifeoralhealth.com. Accessed May 20, 2014

Fluoride Use in Caries Prevention in the Primary Care Setting
Melinda B. Clark, Rebecca L. Slayton and SECTION ON ORAL HEALTH
Pediatrics 2014;134;626
DOI: 10.1542/peds.2014-1699 originally published online August 25, 2014;

Updated Information & Services

including high resolution figures, can be found at:
<http://pediatrics.aappublications.org/content/134/3/626>

References

This article cites 31 articles, 9 of which you can access for free at:
<http://pediatrics.aappublications.org/content/134/3/626#BIBL>

Subspecialty Collections

This article, along with others on similar topics, appears in the following collection(s):
Dentistry/Oral Health
http://www.aappublications.org/cgi/collection/dentistry:oral_health_sub

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://www.aappublications.org/site/misc/Permissions.xhtml>

Reprints

Information about ordering reprints can be found online:
<http://www.aappublications.org/site/misc/reprints.xhtml>

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Fluoride Use in Caries Prevention in the Primary Care Setting

Melinda B. Clark, Rebecca L. Slayton and SECTION ON ORAL HEALTH

Pediatrics 2014;134:626

DOI: 10.1542/peds.2014-1699 originally published online August 25, 2014;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/134/3/626>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2014 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™





HIPHI Board

Michael
Robinson, MBA, MA
Chair
Hawaii Pacific Health

JoAnn Tsark, MPH
Secretary
John A. Burns School of
Medicine, Native Hawaiian
Research Office

Kilikina Mahi, MBA
Treasurer & Vice Chair
KM Consulting LLC

Forrest Batz, PharmD
Retired, Daniel K. Inouye
College of Pharmacy

Debbie Erskine
Kamehameha Schools

Keawe'aimoku
Kaholokula, PhD
John A. Burns School of
Medicine, Department of
Native Hawaiian Health

Mark Levin, JD
William S. Richardson School
of Law

Bryan Mih, MD, MPH
John A. Burns School of
Medicine, Department of
Pediatrics

Rachel Novotny,
PhD, RDN, LD
University of Hawaii at Manoa,
College of Tropical Agriculture
and Human Resources

Garret Sugai
Kaiser Permanente

Catherine Taschner, JD
McCorriston Miller Mukai
MacKinnon LLP

Date: February 10, 2020

To: Senator Karl Rhoads, Chair
Senator Jarrett Keohokalole, Vice Chair
Members of the Judiciary Committee

Re: Support for SB2997, Relating to Health

Hrg: February 12, 2020 at 9:00 AM at Conference Room 016

The Hawai'i Public Health Instituteⁱ is in **support of SB2997** which requires certain water suppliers to adjust the levels of fluoride in public water systems, requires the department of health to provide technical assistance, and requires reports to the Legislature on compliance and on the procurement of dental care insurance by residents of this State.

SB2997 will ensure the benefits of water fluoridation for all those who drink from the public water supply of a community. In a survey conducted by Ward Research for HIPHIⁱⁱ, 69% of registered Hawaii voters agreed with the statement: "To help prevent and reduce tooth decay, the government should look for ways to improve access to fluoride through private and public fluoridated water supplies, fluoride treatments through oral application or tablets, or other products with added fluoride."

Oral health in our state is a public health crisis, with Hawaii receiving a failing grade of "F" in three recent oral health report cards released by The Pew Center for the States. More than 7/10 third graders (71%) are affected by tooth decay. Untreated decay can interfere with eating, speaking, and overall quality of life. Children who have poor oral health miss more school and receive lower grades than children who don't.

Optimal levels of fluoride in community water supplies is safe and effective in preventing tooth decay by at least 25% in both children and adults. Community water fluoridation is supported by countless organizations including the World Health Organization, American Dental Association, American Academy of Pediatric Dentistry, American Academy of Pediatrics, and the American Medical Association. In 2004, the U.S. Surgeon General stated that community water fluoridation is the

single most effective measure a community can take to prevent tooth decay and specifically help with cavity prevention.

The Hawai'i Public Health Institute (HIPHI) supports and promotes policy efforts to create a healthy Hawai'i. HIPHI weaves silos into working relationships as an effective network, ensuring that we come together across sectors to advance collaboration and innovation in public health and work towards making Hawai'i the healthiest place on earth. SB2997 is a significant step forward in improving oral health, and thus overall health, for all people in Hawai'i.

Thank you for the opportunity to testify.

Mahalo,



Nicole Nakashima, D.D.S., M.P.H.
Oral Health and Policy Coordinator

ⁱ The Hawai'i Public Health Institute is a hub for building healthy communities, providing issue-based advocacy, education, and technical assistance through partnerships with government, academia, foundations, business, and community-based organizations.

ⁱⁱ Findings from a Ward Research Study commissioned by the Hawaii Public Health Institute that summarizes findings from a phone survey among n=812 registered Hawaii voters (maximum sampling error of +/-3.3%) conducted between November 5 to 8, 2018. A copy of the results are available upon request.



LATE

February 11, 2020

The Honorable Karl Rhoads, Chair
The Honorable Jarrett Keohokalole, Vice Chair
Senate Committee on Judiciary

Re: SB 2997 – Relating to Health

Dear Chair Rhoads, Vice Chair Keohokalole, and Members of the Committee:

The Hawaii Medical Service Association (HMSA) appreciates the opportunity to testify in support of SB 2997, which requires certain water suppliers to adjust the levels of fluoride in public water systems. It also requires the Department of Health to provide technical assistance; requires reports to the Legislature on compliance, and on the procurement of dental care insurance by residents of this State; and becomes void when 100% of the residents of this State have either obtained or affirmatively rejected dental care insurance, pursuant to a proclamation issued by the Governor.

HMSA supports this measure as we agree that water fluoridation is an important tool to prevent tooth decay in children and adults. According to the American Academy of Pediatrics, hundreds of studies have affirmed that community water fluoridation is a safe, equitable, and cost-effective way to protect the oral health of a population.

Thank you for the opportunity to testify on this measure.

Sincerely,

Pono Chong
Vice President, Government Relations

LATE

SB-2997

Submitted on: 2/11/2020 10:24:37 AM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lisa Rantz	Testifying for Hawaii State Rural Health Association	Support	No

Comments:

SB-2997

Submitted on: 2/9/2020 5:54:43 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melissa L Yee	Testifying for Seeds of Truth	Oppose	Yes

Comments:

To the Senators of the Hawaii State Legislature,

My name is Dr. Melissa Yee from the organization Seeds of Truth.

I have been following the debate about fluoridation for over 20 years. In the last years Senator Rhoads, formerly Represetative Rhoads, has been consistently pursuing adding fluoride to the drinking water of the State of Hawaii, and each time the people of Hawaii have rejected and opposed it.

In 2004 thanks to the vision and support of environmentally friendly former Mayor Jeremy Harris and now deceased former Senator/City Councilman Rod Tam, an ordinance was passed in the City Council to forbid the addition of any substance to the water supply that would treat a medical condition. Fluosilicic acid or sodium fluoride, a neurotoxin and waste product from the aluminum and phosphate fertilizer industries, are the usual chemicals added to community systems across the United States. Remember, even the fluoride in your toothpaste and mouth washes is the same toxic by product of industry.

Since the passage of ordinance 66 on February 14, 2004 in the City Council, many more studies on the harmful effects of fluoride have been done, showing that fluoride, even as a naturally occurring mineral in soil or water, over time can lead to lowered IQ, cataracts, macular degeneration and glaucoma, bone cancer, failed kidneys. hypothyroid, acid reflux, and dental and skeletal fluorosis, meaning brittle, discolored and weakened teeth and bones. Yet, amazingly the CDC, EPA, the Departments of Health and medical and dental professionals continue to blindly tout that fluoride prevents tooth decay, that fluoridation is a major medical achievement, and because Hawaii does not add fluoride to its water supply, that parents, expecially those visiting community health centers, are advised to give Poly-Vi-Flor pills to their children.

The research is overwhelming and convincing, that fluoride damages the pineal gland, brain, thyroid, kidneys, stomach, and bones, and when the thyroid is underfunctioning, metabolism is damaged, leading to heart issues, blood sugar problems, and disruption of brain clarity, including dementia and Alzheimers. The only ones to profit are

insurance companies that deal with reimbursement for treatment of symptoms and pharmaceutical companies that provide chemical solutions which do not restore health.

In a Kids Voting poll around 2000 when the fluoride issue was being debated, the youth overwhelmingly voted against fluoridation. One by one counties throughout the United States are rejecting fluoridation because of the added costs for maintenance of corroded pipes and oversight to guard against toxic levels being accidentally added. We are daily dealing with trace amounts of chemical pesticides, jet fuel and Roundup weedkiller in Hawaii's water supply, as we can see in the Water Quality Reports sent out by the Board of Water Supply on a regular basis. So why would we voluntarily add a toxic waste product containing trace amounts of lead and arsenic when water, a precious irreplaceable commodity, is already at risk from contamination from overpopulation and industrial and military runoff and pollution?

Hawaii has always prided itself on its delicious drinking water, but the taste and purity of water in certain areas in Central and West Oahu are already questionable, and employees working on military bases are best advised to never consume the federally mandated fluoridated water because of the long term risks to their health.

The truth is fluoridation should be banned. I strongly oppose SB 2997.

Respectfully submitted,

DR. Melissa Yee

Seeds of Truth

Honolulu, Hawaii

February 9, 2020



Hawaii Dental Association

9:00 a.m., February 12, 2020

Hawaii State Senate Judiciary Committee
State Capitol Room 16
Re: SB 2997, Relating to Health

Aloha Chair Rhoads, Vice-Chair Keohokalole, and members of the committee:

We are writing in strong support of SB 2997, relating to health. This bill would require certain water suppliers to adjust the levels of fluoride in public water systems. It requires the Department of Health to provide technical assistance and requires reports to the Legislature on compliance, and on the procurement of dental care insurance by residents of this State.

The need for community water fluoridation in Hawaii is significant. The "Hawai'i Smiles" statewide surveillance report confirmed that Hawai'i children have the highest prevalence of tooth decay in the nation. The baseline results were based on data collected from more than 3,000 third grade students in 67 public elementary schools during the 2014-2015 school year. Third graders were selected because this is the same target population of national oral health surveillance surveys and provided a basis of comparison with national statistics. The survey was funded by the U.S. Centers for Disease Control and Prevention and the U.S. Department of Health and Human Services, with additional local funding from the non-profit organizations. According to the survey's key findings, more than 7 out of 10 third graders (71 percent) are affected by tooth decay. This is substantially higher than the national average of 52 percent. Also, about 7 percent of Hawaii third grade children are in need of urgent dental care because of pain or infection.

Fluoridation plays a protective role against dental decay throughout life, benefiting not only children but also adults. The maximum reduction in dental decay is achieved when fluoride is available during tooth formation (systemically) and topically at the tooth surface during all life stages. Water fluoridation provides both types of exposure. People in the United States are living longer and retaining more of their natural teeth than ever before. One recent report notes that, overall, life expectancy at birth in Hawai'i is among the longest in the nation, roughly three years longer than the U.S. average. As the older population grows, and as more people keep their natural teeth for longer periods of time, dental decay will remain a significant health problem. Therefore, water fluoridation is an essential prevention method for all age groups.

Community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Page Two
February 12, 2020

HDA is a statewide membership organization representing dentists practicing in Hawaii and licensed by the State of Hawaii's Board of Dentistry. HDA members are committed to protecting the oral health and well-being of the people of Hawaii, from keiki to kupuna and everyone in between.

Mahalo for the opportunity to testify in support of HB SB 2997



February 10, 2020

Senate Committee on Judiciary

SB 2997

Hawaii Dental Hygienists' Association

Chairperson Chair Rhodes, Vice Chair Keohokalole and Committee Members:

The Hawaii Dental Hygienists' Association (HDHA) fully supports **SB 2997**. We would like to congratulate you on your leadership in initiating this important discussion during this legislative session. Having one of the worst dental decay rates in the nation, Hawaii's people and children in particular can only benefit from legislation such as this.

As mentioned, Hawaii has consistently had one of the worst dental decay rates in the Nation. A different approach to reducing our decay rate needs to be addressed. Without community water fluoridation, the only line of defense for dental hygienists' to provide patients added protection is in office fluoride varnish application, and dentist administered prescription Fluoride drops/tablets for home use. These treatments are effective, but heavily reliant on patient acceptance, as well as, compliance. Water Fluoridation would be an added tool in our armamentarium as it has significantly proven to be safe and effective in reducing dental decay.

As the largest association representing Hawaii's licensed dental hygienists', HDHA strongly **supports SB 2997** to address the prevention of dental disease among Hawaii's people.

Thank you for your consideration.

COUNTY COUNCIL

Arryl Kaneshiro, Chair
Ross Kagawa, Vice Chair
Arthur Brun
Mason K. Chock
Felicia Cowden
Luke A. Evslin
KipuKai Kualii



OFFICE OF THE COUNTY CLERK

Jade K. Fountain-Tanigawa, County Clerk
Scott K. Sato, Deputy County Clerk

Telephone: (808) 241-4188
Facsimile: (808) 241-6349
E-mail: cokcouncil@kauai.gov

Council Services Division
4396 Rice Street, Suite 209
Lihu'e, Kaua'i, Hawai'i 96766

February 10, 2020

TESTIMONY OF FELICIA COWDEN
COUNCILMEMBER, KAUAI COUNTY COUNCIL
ON
SB 2997, RELATING TO HEALTH
Senate Committee on Judiciary
Wednesday, February 12, 2020
9:00 a.m.
Conference Room 016

Dear Chair Rhoads and Members of the Committee:

Thank you for this opportunity to provide testimony in opposition to SB 2997, Relating to Health. My testimony is submitted in my individual capacity as a Member of the Kaua'i County Council.

As many others have eloquently stated, fluoride should not be mass-administered to the public by way of the drinking water supply, but rather should remain a personal health matter to be addressed by interested persons with their prescribing doctors. The purported health benefits of fluoride are disputed while the dangers of fluoride toxicity have been shown, which supports caution in this matter and adherence to the established system of individualized treatment following informed consent.

Thank you again for this opportunity to provide testimony in opposition to SB 2997. Should you have any questions, please feel free to contact me or Council Services Staff at (808) 241-4188.

Sincerely,

FELICIA COWDEN
Councilmember, Kaua'i County Council

JA:mn

SB-2997

Submitted on: 2/10/2020 1:13:39 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Erin Austin	Individual	Oppose	Yes

Comments:

Fluoride is a known neurotoxin. Fluoride is known to reduce IQ. Fluoride has not been shown to improve teeth. When you add something to the water supply you cannot control dosage. Fluoride supplements are widely available as well as toothpastes, and treatments, if people want fluoride they can get it.

Keep my water clean!

SB-2997

Submitted on: 2/10/2020 8:50:23 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
DONNIE BECKER	Individual	Oppose	Yes

Comments:

NO-WAY ALLOW DEADLY POISON TO ENTER OUR PRISTINE HAWAII WATER SUPPLY.....

JUST SO THAT Karl Rhoads,,,,,WHO IS BOUGHT AND PAID FOR BY THE .pushing to add fluoride to the state's public water system to promote oral health in Hawaii

Fluoride is a by-product of the phosphate fertilizer industry (hydrofluorosilicic acid) and it wrecks havoc on the brain, the thyroid, the bones and body.

SB-2997

Submitted on: 2/10/2020 11:51:27 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jacquelyn Born	Individual	Oppose	Yes

Comments:

Hawaii families do not need any medications added to our water supply. If there is a dental health emergency it is because families do not care what they feed their children and they get too many sweets. I propose a ban on candy over adding chemicals to our perfect water supply. Hawaii families do not deserve to be poisoned due to other family choices of feeding kids sweets at every meal.

Testimony Against S.B. NO. 2997 (Mr. Rhodes and Ms. Baker)

As a chemist, biologist and practicing Honolulu dental surgeon for the past 50 years I am clear the fluorine has no place in the human being. Metabolically it is a “disrupter”—that is it alters normal human, animal, bacteria and plant life’s bio-metabolism. From current dental perspectives our biggest challenge now is “dental fluorosis.”

In the [Int J Occup Environ Health](#). 2015 Mar; 21(2): 91–120, we have access the true cost of dental fluorosis in America, the State of Hawai’i, of which our legislators and community must be made aware.

I quote from this scientific report:

“ Costs of dental fluorosis

Griffin *et al.*’s Assumption (4) in [Table 2](#), that the adverse effects of CWF are negligible,¹⁰ is common to most cost-benefit analyses of CWF. It is inexplicable that neither Griffin *et al.*¹⁰ nor other similar studies ([Appendix 2](#)) mention dental fluorosis, defective enamel in permanent teeth due to childhood overexposure to fluoride.^{44,45} Community water fluoridation, in the absence of other fluoride sources, was expected to result in a prevalence of mild-to-very-mild (cosmetic) dental fluorosis in about 10% of the population and almost no cases of moderate or severe dental fluorosis.⁴⁶ However, in the 1999–2004 NHANES survey, 41% of U.S. children ages 12–15 years were found to have dental fluorosis, including 3.6% with moderate or severe fluorosis.⁴⁷

As an increased prevalence of dental fluorosis became evident, there were attempts to shift attention to other sources of swallowed fluoride, such as toothpaste.⁴⁸ However, 1/4 liter (or about 8 oz) of fluoridated water at the “optimal” concentration of 1 mg/l contains the same amount of fluoride as a bead of toothpaste (0.15% w/v fluoride ion) 0.68 cm in diameter. Regarding other sources of ingested fluoride, Szpunar and Burt⁴⁹ state that the factor that differentiates the studied communities with respect to the prevalence of caries and fluorosis is the fluoride concentration in the community water supply.

Dental fluorosis had been dismissed as cosmetic by CWF promoters and government agencies in the U.S. until the National Research Council (NRC) concluded that “severe dental fluorosis” qualified as an adverse health effect due to increased risk of caries and loss of dental function.⁴⁴ When an economic evaluation is framed as having a societal perspective, it should include effects that result in social costs, regardless of whether the effects are cosmetic or systemically harmful. In a later paper, Griffin *et al.* indicated that some people may want “esthetic restorative procedures” to treat fluorosis, but treatment costs were not estimated.⁵⁰ We next provide a high level estimate of the minimal costs of treating dental fluorosis.

Dental fluorosis is classified by the severity of the discoloration, the presence of pitting, and the extent of the tooth surfaces affected.^{44,45vii} Although bleaching and microabrasion can be used to improve the appearance of milder cases of fluorosis, moderate and severe dental fluorosis can require extensive treatment to improve the cosmetic appearance and prevent further loss of enamel.^{44,45} Treatment options include applications of veneers or crowns. Porcelain veneers may cost more than composite resin veneers (\$800–\$2,500 vs.

\$250–\$1,500), but they require less frequent replacement (10–15 vs. 5–7 years).^{52,53} Crowns are “usually used as a last resort because they can be a threat to tooth vitality.”⁴⁴

For this analysis, we assume that each moderate or severe fluorosis tooth receives a porcelain veneer treatment. We further assume that a child with the condition gets the first treatment at age 13.5 years, and the veneers are replaced every 12 years. The lifetime cost of a veneer is calculated using equation (1), except the \$72 is replaced by the cost of a veneer, for which we use a lower-end number of \$1,000. This gives a lifetime cost of \$2,217. Dean’s Enamel Fluorosis Index, the most widely used classification of dental fluorosis, is assigned on the basis of the two most-affected teeth.⁴⁴ Thus, the lifetime cost of veneers for a child with moderate or severe fluorosis would be at least \$4,434.

Beltrán-Aguilar *et al.*⁴⁷ reported that 3.6% of U.S. children ages 12–15 years in 1999–2004 had moderate or severe dental fluorosis, but did not provide information on the fluoridation status of the affected children. At most about 60% of the U.S. population received fluoridated water during the time period when these children were susceptible to development of fluorosis.^{viii} Both the prevalence and the severity of dental fluorosis are correlated with the fluoride concentration in drinking water.^{45,49,55} If all of the cases of moderate and severe dental fluorosis occurred in fluoridated rather than nonfluoridated areas, then at least 6% of children in fluoridated areas would have moderate or severe fluorosis.^{ix} For our calculations, we have assumed that 5% of children in fluoridated areas have moderate or severe fluorosis. From [Table 3](#), the percentage of children at age 13.5 years is about 20.4%/14=1.46%. Thus the minimum cost of treating dental fluorosis is estimated to be $\$4,434 \times 1.46\% \times 5\% = \3.24 PPPY....

Conclusion (from this study)

For decades, the U.S. federal and state governments have promoted CWF to improve dental health of residents at low costs. Yet, in spite of the presumed savings in dental costs to Americans due to widespread use of CWF, employment of dentists is projected to grow by 16% between 2012 and 2022 (vs. 11% for all occupations),¹²² and cosmetic dentistry in the U.S. has grown to be a multi-billion dollar industry.¹²³ ***We have shown that the promise of reduced dental costs was based on flawed analyses.*** In particular, the primary cost-benefit analysis used to support CWF in the U.S. assumes negligible adverse effects from CWF and omits the costs of treating dental fluorosis, of accidents and overfeeds, of occupational exposures to fluoride, of promoting CWF, and of avoiding fluoridated water. In assessing the benefits, it ignores important large data sets and assumes benefits to adults that are unsupported by data. Thus this analysis, as well as other economic analyses of CWF ([Appendix 2](#)), falls short of reasonable expectations for a cost-benefit analysis from a societal perspective. Minimal correction of methodological problems in this primary analysis of CWF gives results showing substantially lower benefits than typically claimed. ***Accounting for the expense of treating dental fluorosis eliminates any remaining benefit.***”

Beyond the fact that economic analysis currently shows that there is no real cost benefit in community water fluoridation programs allegedly preventing dental decay, and that fluoride has been implicated in increased osteo-sarcoma in young men and lower IQ in children born in water fluoridated communities we have a pending and potential crisis in environmental degradation.

One of my greatest concerns is that of the ***attempts by the Department of Health to fluoridate our water to prevent dental decay.*** Although I am a practicing-dentist in

Honolulu, I have spent great time and energy diligently reviewing the research literature which shows that drinking fluoridated community water does not at all decrease dental decay. But this lengthy discussion is not my point, only related to the issue I bring before you—impact of fluoride on plant life.

Not much is written about the possible effects of concentrations of fluorine in water on botanicals here in Hawaii. What is known is that the earth upon which we live contains 0.00 to 0.1 ppm naturally occurring fluorine. This is much lower than other geographical areas of our world. What is also known is that fluorine at as low a concentration as 0.25 ppm (parts per million, or 1mg per liter of water) cause injury to Cordylines and dracaenas, particularly “Baby Doll,” “Janet Craig” and “Warneckii.” In fact, in some areas of the country, such as Apopka, Florida, where the well water contains 0.25 to 0.43 ppm natural fluoride, sufficient amounts are present to damage crops. In other areas where fluoride is added to public water at 0.50 to 1.0 ppm as a preventative dental maintenance program the damage can also be sever. This is all verifiable in research literature.

The information cited is from a little know Masters’ Thesis by Charles B. Frear at the UH about 1980. I have read the study and spoken with the heads of the Horticulture Department (about 2004, Dr. Leonhardt or Dr. Crile of the Horticultural Departments at UH.) at a monthly orchid growers meeting in the Ag building. They said yes about community water fluoridation: “this is a great concern to us.” But, I believe that since the State is behind the idea of community water fluoridation, his department remains somewhat silent on the issue hoping it will be voted down by the people, which it has been the case consistently, and not brought to him or his department for an opinion. This is only my impression and opinion, however.

It was also related to me at that time that the Big Island (about the 50s) Hilo side wanted to introduce community water fluoridation but the ag people knew that high concentrations of fluorine could impact the health of their plants and thus their businesses.

Therefore, based upon scientific evidence I oppose any community water fluoridation in Hawai’i nei.

Thank you for your time and consideration.

R. S. Carlson AB Bio. / Chem., DDS
4211 Waiialae Avenue, Ste. 400
Honolulu, Hawai’i 96816
808-735-0282

SB-2997

Submitted on: 2/10/2020 1:59:50 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Merton Chang	Individual	Oppose	Yes

Comments:

Merton Chang

658 Hausten Street

Honolulu, HI 96826

TESTIMONY IN OPPOSITION TO SB 2997

HEARING ON WED. , FEBRUARY 12. 2020 AT 9 AM IN RM 016

Dear Chairman Rhoads, Vice-Chair Keohokalole and Members of the Judiciary Committee,

I strongly oppose SB 2997, in matters concerning fluoridation of Hawaii's water supply and

would like to give oral testimony at the hearing. Thank you for providing me the opportunity to

testify at the hearing.

Sincerely yours.

Merton Chang

House Chair: Senator Karl Rhoads

Senate Judiciary Committee:

Bill: SB 2997

Hearing: February 12, 2020 9:00 AM

Senate Conference Room: 016

My name is Walter Chun and I am a resident of the State of Hawaii and a safety, health and environmental professional for over 50 years.

I am providing testimony in opposition of SB 2997

I am opposed to SB 2997 to fluoridate the drinking water in Hawaii. The perception for the fluoridation of the drinking water is to reduce the tooth decay for the population. On the other hand consider the idea that fluoridation means the introduction of a hazardous substance to the drinking water. The current state of the drinking water in Hawaii and the control to ensure clean and safe drinking water is questionable. Specifically, the drinking water from the Red Hill drinking water source is contaminated with petroleum products from the leaking fuel tanks. These leaks have continued for decades and the “acceptance” of the contaminants without credible and verifiable evidence that impact to human health is safe or negligible is not required. Contamination of our environment continues to be unregulated and unmonitored and most importantly without sufficient education and information to the public.

Before adding more contaminants to our drinking water we must ensure the exposure and the health effects are fully understood. The benefits and disadvantages of fluoridation in drinking water is varied. Choosing to fluoridate will mean the drinking water is contaminated and corrective actions to walk back this decision is a risk to human health and the environment. For example, the Pediatric Child Health and the National Center for Biotechnology Information (NCBI) recommend fluoride concentrations in much lower concentrations than for adults.

Recommended supplemental fluoride concentrations for children		
Age of child	Fluoride Concentrations	
	<0.3 ppm	>0.3 ppm
0 to 6 months	None	None
>6 months to 3 years	0.25 mg/day	None
>3 years to 6 years	0.5 mg/day	None
>6 years	1.0 mg/day	None

Other exposures to fluorides occur from our foods, toothpaste, water, etc. The amount of fluoride exposures includes a baseline from our environment BEFORE we introduce more fluorides into our bodies. The normal range of fluoridation in drinking water can be as high as 4.0 mg/L, although SB 2997 does not include the concentration of fluorides to be applied and

how it will be controlled the 4.0 mg/L is a high concentration for a child or the unborn. If we drink 2 L per day the concentration would be in the order of 8.0 mg/day. A six year old child could drink 1 to 1.5 L per day or 4.0 to 6 mg/day!

SB 2997 does not address what fluorides, how much, how it will be introduced and how it will be monitored to ensure the dosage to adults and children are controlled. How will the effects of exposure to the added fluorides plus the normal exposure be evaluated?

In Summary: The use of fluoride treatments by the dental practice has been around for decades. People must be given the right to choose whether or not they need or want fluoride treatments by their dentists. Forcing people to increase their fluoride exposures affects their health as well as the future generations. The total increase of fluorides to our volcanic environment is not mentioned or included in the study to support SB 2997. I oppose SB 2997 in favor of allowing us to choose how we add additional fluorides to our bodies and environment.

SB-2997

Submitted on: 2/10/2020 11:13:21 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Fern Anuenue Holland	Individual	Oppose	Yes

Comments:

Chair Rhoads, Vice Chair Keohokalole and Members of the Committee,

I strongly oppose SB2997. Flouridation of our drinking water is not the solution.

This is an unethical form of mass-medication, without each individual's consent or knowledge. By putting fluoride in drinking water, the dosage cannot be controlled, since some people — like laborers and people with kidney problems — drink much more water than others they are exposed to higher amounts. people with certain allergies, diseases, kidney problems are at risk and forced to purchase water to avoid the flouride.

There are many ways that people are now exposed to Flouride in their toothpaste, even doses prescrbed through a dentist, but mass medication through water is not the right answer.

Furthermore groups that research this, such as the Fluoride Action Network, [cite studies](#) showing that high levels of fluoride have been linked to a number of negative health effects like bone fractures, thyroid disorders and impaired brain development and function.

One [study published in](#) the fall of 2012 in the journal Environmental Health Perspectives found a link between high fluoride levels found naturally in drinking water in China and elsewhere in the world, and lower IQs in children. The paper looked at the results of 27 different studies, 26 of which found a link between high-fluoride drinking water and lower IQ. The average IQ difference between high and low fluoride areas was 7 points, the study found.

The most obvious health effect of excess fluoride exposure is dental fluorosis, which when mild includes white streaks, and when severe can include brown stains, pits and broken enamel. As of 2010, 41 percent of kids ages 12 to 15 had some form of dental fluorosis, [according to the CDC](#).

A [2009 study that tracked fluoride exposure](#) in more than 600 children in Iowa found no significant link between fluoride exposure and tooth decay. Another [2007 review in the British Medical Journal](#) stated that "there have been no randomized trials of water fluoridation," which is currently standard for all drugs.

Another huge concern with fluoridation of our drinking water is where the product is sourced. If it is sourced from the phosphate extraction industry. Many are surprised to learn that unlike the pharmaceutical grade fluoride in their toothpaste, the fluoride in water is often sourced from an untreated industrial waste product, one that contains trace elements of arsenic and lead. Without the phosphate industry's effluent, water fluoridation would be prohibitively expensive. And without fluoridation, the phosphate industry would be stuck with an expensive waste disposal problem. Where does this bill propose sourcing the fluoride that is added to our water?

Western European nations have largely rejected the practice. Nonetheless, dental decay in Western Europe has declined at the same rate as in the United States over the past half century.

Fluoride is unquestionably toxic at certain concentrations. If there is a malfunction or the wrong amount is added accidentally you could be responsible for poisoning a high number of people through their drinking water. This is not a risk we need to take.

Please OPPOSE SB2997.

Mahalo,

Fern Anuenue Holland BSc.

SB-2997

Submitted on: 2/10/2020 10:45:21 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
christy Kalama	Individual	Oppose	Yes

Comments:

I know 101 ways of how we are poisoned by corporate interest with the aid of their government skills and by the capturing of all regulatory industries including our very own DOH . Sodium Fluoride is a neurotoxin and poison no matter what way DOH tries to repackage it. Every sodium fluoridated toothpaste says “keep out of reach of children under 6 years of age” and to seek medical attention and contact poison control if more than brushing amount is swallowed. There is enough fluoride in one tube of toothpaste to kill two small children. This is why fluoridated toothpastes have warning labels on them and fluoride-free toothpastes do not. Are we supposed to believe that Fluoride is added to our drinking water magically it becomes safe?

“Fluoride” is a cover-up name for many of the toxic chemicals that make up fluoride, including lead, arsenic, aluminum, cadmium and even radioactive materials. The pure form of sodium fluoride is so toxic that by just consuming a small volume of it could kill you. Sodium Fluoride is the active ingredient in rat poison, Prozac and was used in Nazi prison camps to make prisoners docile and subservient. We are being poisoned from all directions From mandatory vaccinations, GMOs, EMFs, PCB’s and now the mass medicating mass medication of the populace via drinking water with added fluoride.

If you want healthy teeth and healthy bones..mandates organic vegetables, fruits, nuts and seeds. Use critical thinking before it’s too late.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3491930/>

Attached is a peer reviewed study that concluded that children in areas with highly fluoridated water have “significantly lower” IQ scores than those who live in areas with low amounts of fluoride in their water supplies.

[https://www.thelancet.com/journals/laneur/article/PIIS1474-4422\(13\)70278-3/fulltext#article_upsell](https://www.thelancet.com/journals/laneur/article/PIIS1474-4422(13)70278-3/fulltext#article_upsell) another study from the Lancet that officially classified fluoride as a neurotoxin, in the same category as arsenic, lead and mercury.

To: The Senate Committee on Judiciary
Date: Wednesday, February 12, 2020
Place: Conference Room 16, Hawaii State Capitol
Re: SB2997, Relating to Health

Aloha Chair Rhoads, Vice-Chair Keohokalole and Members of the Committee on Judiciary,

I am submitting testimony in strong support of SB2997, relating to health. SB2997 requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Fluoridation plays a protective role against dental decay throughout life, benefiting not only children but also adults. The maximum reduction in dental decay is achieved when fluoride is available during tooth formation (systemically) and topically at the tooth surface during all life stages. Water fluoridation provides both types of exposure. People in the United States are living longer and retaining more of their natural teeth than ever before. As the older population in America grows, and as more people keep their natural teeth for longer periods of time, dental decay will remain a significant health problem. Therefore, water fluoridation is an essential prevention method for all age groups. One recent report notes that, overall, life expectancy at birth in Hawai'i is among the longest in the nation, roughly three years longer than the U.S. average.

As a dentist, my first concern is my patients' health. It's difficult to watch people suffer needlessly from cavities that could have been prevented with access to fluoridated water. Fluoride toothpaste and fluoridated water deliver a one-two punch in the fight against cavities. The bottom line is that community water fluoridation remains the single most effective public health measure to prevent tooth decay.

Please support this bill. Thank you for your consideration.

Dr. Lili Horton
hortonhawaii@gmail.com

SB-2997

Submitted on: 2/10/2020 12:58:14 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
rose silverstein	Individual	Oppose	Yes

Comments:

I oppose bill 2997

DO NOT poison us with fluoridated water.

SB-2997

Submitted on: 2/10/2020 2:05:37 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Laurie West	Individual	Oppose	Yes

Comments:

I'm **STRONGLY OPPOSED** to adding "fluoride" to public drinking water, as it violates the right of the individual to informed consent. Communities around the world are enacting policies to REMOVE fluoride from water supplies, and Hawai'i has been through this drill before. Who is lobbying our legislature to see this through, I wonder? The science demonstrating the safety and efficacy of this practice is dubious. There reportedly was conflict-of-interest by the scientist who first promoted fluoride as a safe agent to promote dental health. Is water fluoridation merely a convenient way for industries to rid themselves of their waste byproducts, while at the same time turning it into a commodity, purchased by communities, thereby making it profitable? There have been worthwhile documentaries about this. It's probably not just fluoride that they add with the water, by the way. Learn more about this decades-long battle to protect our right to control what goes into our bodies. We are being assaulted physically on many fronts--with toxic vaccines, unbridled electromagnetic frequency/5G, "solar radiation management" practices...We all need to talk about joining together to fight these technologies' overcoming our right to informed consent. Hawaii For Informed Consent is one place for such conversations.

Dr. Gary S. Yonemoto, DDS
1100 Ward Ave #1015
Honolulu, HI 96814

February 12, 2020

Hearing: SB 2997, Relating to Health
Senate Committee on Judiciary
9:00 a.m., Hawaii State Capitol

Chair Rhoads, Vice Chair Keohokalole, and Members of the Committee:

My name is Gary Yonemoto and I SUPPORT Senate Bill 2997, relating to health. This bill requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases - dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Thank you for the opportunity to testify on this important measure.

Sincerely,

Dr. Gary Yonemoto

SB-2997

Submitted on: 2/11/2020 8:36:51 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Diane Kitahara	Individual	Oppose	Yes

Comments:

I strongly oppose this bill!!! It can cause thyroid problems, neurological problems, calcifies your pineal gland and other negative health problems!!!!

SB-2997

Submitted on: 2/10/2020 6:35:35 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Beckley Dye	Individual	Oppose	Yes

Comments:

I strongly OPPOSE SB 2997. No drug or chemical is good for all people. Please do not put flouride into our water. Flouride is a known neurotoxin. I do not want thatin my water.

Thank you,

Beckley Dye

SB-2997

Submitted on: 2/10/2020 6:36:46 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Robert Dye	Individual	Oppose	Yes

Comments:

I strongly OPPOSE SB 2997.

Thank you,

Robert Dye

SB-2997

Submitted on: 2/10/2020 6:42:34 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Dye	Testifying for Anne Dericks, ND	Oppose	Yes

Comments:

Hello Committee,

My name is Dr. Anne Dericks and I am a licenced physician in the state of Hawaii. I STRONGLY OPPOSE SB 2997. There is mounting research that shows flouride to be toxic and have harmful affects. This includes flourosis and crumbling of bones and teeth when impacted. Essentially it compromises the strength of bones and teeth. Please do not vote for this bill.

Thank you for you time.

Sincerely,

Dr. Anne Dericks

SB-2997

Submitted on: 2/10/2020 7:54:25 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dawn Poiani	Individual	Oppose	Yes

Comments:

I strongly oppose SB2997

Fluoride is a neurotoxin that shows little health benefits when taken orally. Dosing an entire population goes against informed consent to what would be considered mass medication. Dose cannot be controlled based on weight, age, and quantity of water that an individual consumes on a daily basis. Infants are especially susceptible to fluoridosis.

SB-2997

Submitted on: 2/11/2020 12:51:41 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Victoria Ng	Individual	Oppose	Yes

Comments:

The State government deciding to dose the entire state with fluoride is ridiculous. The board of water supply doesn't want this. The people don't want this.

If someone chooses to add fluoride to their regimen, let them. Deciding for people, when studies show that women who ingest more fluoride have lower iq children, is just plain dangerous.

Also, while I have you here, I suggest that you stop using google for information. Find other search engines that won't filter what they don't like.

Mahalo for your time,

Vickie Ng

SB-2997

Submitted on: 2/10/2020 9:25:13 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
kehaulani	Individual	Oppose	Yes

Comments:

It is NOT RIGHT to allow KNOWN & PROVEN neuroTOXINS into our water systems. Flouride is not proven to be safe, so WHY is it even a question?? If people want to incorporate flouride into their dental care, then let them decide that at their own risk. I do not consent to any mandates that involve injecting and consuming garbage into my body or my children's. This should be common sense and common respect for the CHOICES of the PEOPLE. I strongly OPPOSE bill SB2997, for the TRUTH health of the Hawaiian people and generations to come.

Aloha,

A concerned Native Hawaiian mother of two.

SB-2997

Submitted on: 2/11/2020 4:18:42 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Victor Muh	Individual	Oppose	Yes

Comments:

Fluoride, while potentially good for teeth when applied topically, is toxic when ingested. If added to public water supplies, it will be ingested in unlimited quantities. The dose makes the poison, as it has been said. Furthermore, the type of fluoride is most likely sourced from industrial waste.

This fluoridated water will also end up in our crops, aquifers and in our ocean.

**LET'S EDUCATE!
DON'T FLUORIDATE**

PUREWATERHAWAII.ORG

THE DIRTY DOZEN FLUORIDATED DRINKING WATER

12 Reasons to Keep Fluoride Out of Our Water

1

**MASS MEDICATION
WITHOUT INFORMED
CONSENT OR FREEDOM OF
CHOICE**

7

2

**NO DOSAGE CONTROL,
LEADING TO
BIOLOGICAL
MAGNIFICATION IN
FOOD CHAIN**

8

3

**NEUROTOXIN, RAT
POISON AND
INSECTICIDE**

9

10

DAMAGES STOMACH

To: Committee on Judiciary: Karl Rhoads (Chair), Jarrett Keohokalole (Vice Chair), Mike Gabbard, Donna Mercado Kim, Kurt Fevella

RE: SB2997: Relating to Health: Requires certain water suppliers to adjust the level of fluoride in public water systems. Requires the Dept of Health to provide technical assistance. Requires reports to the Legislature on compliance etc.

Dear Senators:

The industrial neurotoxin fluorosilicic acid (H_2SiF_6) being proposed to be injected into Hawaii's drinking water. Please **OPPOSE SB2997** :

- 1) Fluoride is a toxic waste product from the phosphate industry
- 2) Fluoride is used to kill enzymes by biochemists.
- 3) 97% of Western Europe and Japan does NOT fluoridate
- 4) Fluoride is a Halide like Cl, Br, I, and creates havoc in the Thyroid
- 5) Fluoride disrupts collagen synthesis (30% of you is made of this protein), which affects eyes, organs etc.

50 Reasons Why to Oppose Fluoridation:

<https://fluoridealert.org/articles/50-reasons/>

How Fluoride affects the Environment:

<https://iaomt.org/resources/fluoride-facts/fluoride-pollution-environment/>

Many people think drinking fluorosilicic acid will solve children's dental issues, unaware of what happens to children's IQs. Please just search under "Weston Price" and see photos of children with healthy teeth when they have good nutrition.

<http://www.purewatergazette.net/fluorideandphosphate.htm>

Fluoride and the Phosphate Connection

by George C. Glasser

Cities all over the US purchase hundreds of thousands of gallons of fresh pollution concentrate from Florida - fluorosilicic acid (H_2SiF_6) - to fluoridate water.

Fluorosilicic acid is composed of tetrafluorosilicate gas and other species of fluorine gases captured in pollution scrubbers and concentrated into a 23% solution during wet process phosphate fertilizer manufacture. Generally, the acid is stored in outdoor cooling ponds before being shipped to US cities to artificially fluoridate drinking water.

Fluoridating drinking water with recovered pollution is a cost-effective means of disposing of toxic waste. The fluorosilicic acid would otherwise be classified as a hazardous toxic waste on the Superfund Priorities List of toxic substances that pose the most significant risk to human health and the greatest potential liability for manufacturers.

Phosphate fertilizer suppliers have more than \$10 billion invested in production and mining facilities in Florida. Phosphate fertilizer production accounts for \$800 million in wages per year. Florida's mines produce 30% of the world supply and 75% of the US supply of phosphate fertilizers. Much of the country's supply of fluoro-silicic acid for water fluoridation is also produced in Florida.

Phosphate fertilizer manufacturing and mining are not environment friendly operations. Fluorides and radionuclides are the primary toxic pollutants from the manufacture of phosphate fertilizer in Central Florida. People living near the fertilizer plants and mines, experience lung cancer and leukemia rates that are double the state average. Much of West Central Florida has become a toxic waste dump for phosphate fertilizer manufacturers. Federal and state pollution regulations have been modified to accommodate phosphate fertilizer production and use: These regulations have included using recovered pollution for water fluoridation.

Radium wastes from filtration systems at phosphate fertilizer facilities are among the most radioactive types of naturally occurring radioactive material (NORM) wastes. The radium wastes are so concentrated, they cannot be disposed of at the one US landfill licensed to accept NORM wastes, so manufacturers dump the radioactive wastes in acidic ponds atop 200-foot-high gypsum stacks. The federal government has no rules for its disposal.

During the late 1960s, fluorine emissions were damaging crops, killing fish and causing crippling

skeletal fluorosis in livestock. The EPA became concerned and enforced regulations requiring manufacturers to install pollution scrubbers. At that time, the facilities were dumping the concentrated pollution directly into waterways leading into Tampa Bay.

A Phosphate Worse than Death

In the late 1960s, EPA chemist Ervin Bellack worked out the ideal solution to a monumental pollution problem. Because recovered phosphate fertilizer manufacturing waste contain about 19% fluorine, Bellack concluded that the concentrated "scrubber liquor" could be a perfect water fluoridation agent. It was a liquid and easily soluble in water, unlike sodium fluoride - a waste product from aluminum manufacturing. It was also inexpensive.

Fate also intervened. The aluminum industry, which previously supplied sodium fluoride for water fluoridation, was facing a shortage of fluorspar used in smelting aluminum. Consequently, there was a shortage of sodium fluoride to fluoridate drinking water.

For the phosphate fertilizer industry, the shortage of sodium fluoride was the key to turning red ink into black and an environmental liability into a perceived asset. With the help of the EPA, fluorosilicic acid was transformed from a concentrated toxic waste and a liability into a "proven cavity fighter."

The EPA and the US Public Health Service waived all testing procedures and - with the help of the American Dental Association (ADA) - encouraged cities to add the radioactive concentrate into America's drinking water as an "improved" form of fluoride.

The product is not "fluorine" or "fluoride" as proponents state: It is a pollution concentrate. Fluorine is only one captured pollutant comprising about 19% of the total product.

By 1983, the official EPA policy was expressed by EPA Office of Water Deputy Administrator Rebecca Hanmer as follows: "In regard to the use of fluosilicic (fluorosilicic) acid as a source of fluoride for fluoridation, this agency regards such use as an ideal environmental solution to a long-standing problem. By recovering by-product fluosilicic acid from fertilizer manufacturing, water and air pollution are minimized, and water utilities have a low-cost source of fluoride available to them."

A Hot New Property

In promoting the use of the pollution concentrate as a fluoridation agent, the ADA, Federal agencies and manufacturers failed to mention that it was radioactive. Whenever uranium is found in nature as a component of a mineral, a host of other radionuclides are always found in the mineral in various stages of decay. Uranium and all of its decay-rate products are found in phosphate rock, fluorosilicic acid and phosphate fertilizer.

During wet-process manufacturing, trace amounts of radium and uranium are captured in the pollution scrubber. This process was the subject of an article by H.F. Denzinger, H. J. König and G.E. Krüger in the fertilizer industry journal, Phosphorus & Potassium (No. 103, Sept./Oct. 1979) discussed how radionuclides are carried into the fluorosilicic acid.

While the uranium and radium in fluorosilicic acid are known carcinogens, two decay products of uranium are even more carcinogenic: radon-222 and polonium-210.

During the acidulation process that creates phosphoric acid, radon gas contained in the phosphate pebble can be released in greater proportions than other decay-rate products (radionuclides) and carried over into the fluorosilicic acid. Polonium may also be captured in greater quantities during scrubbing operations because, like radon, it can readily combine with fluoride.

In written communications to the author, EPA Office of Drinking Water official Joseph A. Cotruvo and Public Health Service fluoridation engineer Thomas Reeves have acknowledged the presence of radionuclides in fluorosilicic acid.

Radon-222 is not an immediate threat because it stops emitting alpha radiation and decays into lead-214 in 3.86 days. Lead-214 appears to be harmless but it eventually decays into bismuth-214 and then into polonium-214. Unless someone knew to look for specific isotopes, no one would know that a transmutation into the polonium isotope had occurred.

Polonium-210, a decay product of bismuth-210, has a half-life of 138 days and gives off intense alpha radiation as it decays into regular lead and becomes stable. Any polonium-210 that might be present in the phosphate concentrate could pose a significant health threat. A very small amount of polonium-210 can be very dangerous, giving off 5,000 times more alpha radiation than the same amount of radium. As little as 0.03 microcuries (6.8 trillionths of a gram) of polonium-210 can be carcinogenic to humans.

The lead isotope behaves like calcium in the body. It may be stored in the bones for years before turning into polonium-210 and triggering a carcinogenic release of alpha radiation.

Drinking water fluoridated with fluorosilicic acid contains radon at every sequence of its decay to polonium. The fresher the pollution concentrate, the more polonium it will contain.

As long as the amount of contaminants added to the drinking water (including radionuclides in fluorosilicic acid) do not exceed the limits set forth in the Safe Drinking Water Act, the EPA has no regulatory problem with the use of any contaminated products for drinking water treatment.

Big Risks: No Tests

Despite the increased cancer risk from using phosphate waste to fluoridate drinking water, the EPA nor the Centers for Disease Control have never commissioned or required any clinical studies with the pollution concentrate - specifically, the hexafluorosilicate radical whose toxicokinetic properties are different than the lone, fluoride ion.

Section 104 (I) (5) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) directs the Toxic Substances and Disease Registry, the EPA, the Public Health Service and the National Toxicology Program to initiate a program of research on fluoride safety. However, after almost 30 years of using fluorosilicic acid and sodium fluorosilicate to fluoridate the drinking water, not one study has been commissioned.

The fluoride ion only hypothetically exists as an entity in an ideal solution of purified water - and tap water is far from pure H₂O. All clinical research with animal models is done using 99.97% pure sodium fluoride and double distilled or deionized water. Among the thousands of clinical studies about fluoride, not one has been done with the pollution concentrate or typical tap water containing fluorides.

Synergy Soup

The fluorosilicic acid is also contaminated with small traces of arsenic, cadmium, mercury, lead, sulfates, iron and phosphorous, not to mention radionuclides. Some contaminants have the potential to react with the hexafluorosilicate radical and may act as complex ionic compounds. The biological fates and toxicokinetic properties of these complex ions are unknown.

The reality of artificial water fluoridation is so complex that determining the safety of the practice may be impossible. Tap water is chemically treated with chlorine, soluble silicates, phosphate polymers and many other chemicals. In addition, the source water itself may contain a variety of contaminants.

The addition of a fluoridation agent can create synergized toxicants in a water supply that have unique toxico-kinetic properties found only in that particular water supply. Consequently, any maladies resulting from chronic ingestion of the product likely would be dismissed as a local or regional anomaly unrelated to water fluoridation.

Technically, artificially fluoridating drinking water is a violation of the Safe Drinking Water Act (SDWA). Under statutes of the SDWA, federal agencies are forbidden from endorsing, supporting, requiring or funding the practice of adding any chemicals to the water supply other than for purposes of water purification. However, the Public Health Service (PHS) applies semantics to circumvent Federal law in order to promote and fund the practice.

PHS states that they only recommend levels of fluorides in the drinking water, and it is the sole decision of a state or community to fluoridate drinking water.

Federal agencies are forbidden from directly funding or implementing water fluoridation but Federal Block Grants are given to States to use as they see fit. Through second and third parties (such as the American Dental Association, state health departments and state fluoridation coordinators), PHS encourages communities to apply for Federal Block Grant funds to implement fluoridation.

The legality of using of Federal Block Grant funds to fund water fluoridation, a practice prohibited by Federal law, has never been addressed in the courts.

Vendors selling the pollution concentrate as a fluoridation agent use a broad disclaimer found on the Material Data Safety Sheet that states: "no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent to the product." [Emphasis added.]

The next time you turn on the tap and water gushes out into a glass, reflect on the following disclaimer from the EPA's 1997 Fluoride: Regulatory Fact Sheet: "In the United States, there are no Federal safety standards which are applicable to additives, including those for use in fluoridating drinking water."

George Glasser is a Florida-based writer whose work has appeared in Newlife, Whole Life Times, the Sarasota ECO Report and the Tampa Tribune.

TESTIMONY FOR SB 2997 – RELATING TO HEALTH - FLUORIDATION

WEDNESDAY, FEB 12, 2020 @ 900AM, RM 016

DEAR JUDICIARY CHAIR & COMMITTEE MEMBERS,

I, Adrian Chang, testify in opposition to SB2997 for two reasons. First, I testify as an individual with end stage renal disease (ESRD) with less than 15% kidney function. I speak for the other 4500 or more Hawaii people with this disease, and thousands of others who have cancer, arthritis, heart problems, multiple chemical sensitivities, and other auto-immune diseases. Second, as a retired Navy nuclear engineer who has been researching this subject since 1999, fluoridation is **definitely not safe** when basic science and engineering principles are applied. Alternative solutions will also be discussed.

FIRST REASON: According to the CDC's Morbidity and Mortality Weekly Report dtd Nov 3, 2017, Hawaii has the highest rate of ESRD (363.6 per 100,000) compared to all states (See attached). This translates to at least **4500 people with really bad kidneys**. According to the Hawaii Kidney Foundation, 1 in 3 people have some degree of chronic kidney disease (less than 60% function).

According to the US Dept of Health 1993 Toxicological Profile for Fluorides , the subset of the population that may be unusually susceptible to the toxic effects of fluoride include **“the elderly, people with deficiencies of calcium, magnesium, and/or Vitamin C, and people with cardiovascular and kidney problems.”** There was no mention of the fetus with potential congenital birth defects, low birth weight babies, and many other people with cancer, arthritis, osteoporosis, gastrointestinal problems, diabetes, obesity, multiple chemical sensitivities, anxieties, and near-death, which probably run in the thousands. To focus only on teeth while turning a “blind eye” as to how they may well be interconnected with other health issues is poor science. See mortality data for Grand Rapids, Michigan, the first fluoridated city in 1945, 5 years after fluoridation commenced.

SECOND REASON: Fluoridation is NOT SAFE. The most compelling explanations are discussed below:

1. USE OF LAB GRADE VS INDUSTRIAL-GRADE FOR TESTING.

A. National Toxicology Program NTP Report 393 (1990) of the U.S. Dept of Health & Human Services, Public Health System, NIH, titled TOXICOLOGY AND CARCINOGENESIS STUDIES OF SODIUM FLUORIDE IN F344N RATS AND B6C3F, MICE (DRINKING WATER STUDIES) is the main study used to justify carcinogenic safety of all fluoridation chemicals. It tested only sodium fluoride and not the other two chemicals used. However, the conclusion of safety based on this study is GROSSLY FLAWED. First, only reagent grade sodium fluoride (at least 99% pure) was used. The other two types of fluoridation chemicals currently in use were not tested. Since all fluoridation chemicals were handled as “water treatment chemicals,” and not “medical treatment drugs,” FDA approval for testing, safety and effectiveness was avoided. Second, American Chemical Society or US Pharmaceutical chemical specifications for reagent grade NaF allow only up to 0.003% MAXIMUM HEAVY METALS expressed as Pb (lead). This is equivalent to 30 parts per million (PPM). The actual chemicals used for fluoridation must comply with American Water Works Association Standards, which AWWA state “do not contain the same quality standards as “specifications.” The Standard (1994) for sodium fluoride allow up to 0.04% MAXIMUM HEAVY METALS This is equivalent to 400 PPM.

B. Hence, safety testing was **NOT BASED ON WORST CASE CONDITIONS PLUS A SAFETY FACTOR**, which is standard engineering design and safety practice. Actual NaF chemicals used in fluoridation could have at least 13.3 times more heavy metals such as arsenic and lead and still be considered “safe for use.” Ironically, even with the reagent grade NaF, some male rats developed malignant tumors which were concluded to be equivocal, meaning not sure whether they were or were not caused by NaF. Even the rats used were more tolerant to fluoride than more sensitive albino rats used in an earlier study (Ramseyer et al.) which developed several health disorders.

2. **EPA'S MAXIMUM CONTAMINANT LEVEL GOAL CAN NOT BE MET.** The MCLG for arsenic and lead is zero. It is well known that **any amount of lead exposure is harmful, especially to children.** The industrial-grade fluoride will always have these contaminants contrary to EPA's goal and makes no sense to add it to the water. In government, the lowest bidder (possibly higher contaminants) always get the contract.

3. **FLUORINE + CHLORINE ACCELERATES CORROSION OF PIPING MATERIALS , THUS CAUSING MORE LEACHING OF LEAD.**

A 1970 Kennedy Corrosion Study conducted for the State of Washington demonstrated significant amounts of corrosion in black iron and copper piping, using hard and soft water. In 2006, a similar laboratory study verified high levels of lead when chlorine and fluorine was combined in copper and brass piping components. (R. Maas, etal. 2007, Neurotoxicology). Because many electrical systems are grounded using water pipes, stray electrical currents would also accelerate corrosion. Recently, it cost the DOD about \$75 Million to replace just a few miles of 65 year old water lines for military bases. I actually experienced heavy metals in the Navy's Pearl Harbor drinking water in the 1980's when I changed my workshift to start at 6AM. The water sat in the pipes over the weekend and the pipes were located outdoors in the hot sun, which could also enhance corrosion. Unlike chlorine, fluoride, with no smell or taste, is **not fail safe**. Unless 24/7 monitoring is included in the cost, It could be weeks before an overfeed problem is identified. Slugs, however, will be almost impossible to detect unless you have monitoring at every tap.

4. **THE CHRONIC HEALTH EFFECTS IDENTIFIED IN MATERIAL SAFETY DATA SHEETS (MSDS) FOR FLUORIDATION CHEMICALS ARE OFTEN IGNORED.** Per OSHA law,

the manufacturer and supplier of any hazardous chemicals sold, must provide MSDS sheets for the users that list all the health effects, handling precautions, and shipping labeling information. Failure to do so could result in costly liability like in the case of asbestos. Therefore, manufactures would be the most objective and truthful. Some of these effects such as internal bleeding (strokes), corrosive effect on mucous membranes, blurred vision, enzyme system effects are so subtle that unless you had a background in biochemistry, you would not be able to connect the dots to figure out the cause. Some of the scary precautions such as "Contact

with strong acids will produce hydrogen fluoride” was recently demonstrated in a lab by R. Sauerheber (2013), that fluorine in contact with hydrochloric acid with pH 3 (stomach acid equivalent) will produce 50% HF. As the pH goes down to 1.3, up to 90% HF is formed. HF is an uncharged molecule that is easily assimilated in the gastric lining and is highly corrosive. Think acid reflux, ulcers, stomach cancer, colon cancers, etc.

5. FLUORIDE IS A NEUROTOXIN. A study by Grandjean & Landrigan (2014) classified fluoride as a neurotoxin based on a review of published neurotoxic studies. Grandjean of Harvard School of Public Health is a leading toxicologist for children. A more recent government considered fluoride to be an “assumed neurotoxin.” The fact is based on Lethal Dose (LD) 50 testing, fluoride is more toxic than lead but less toxic than arsenic plus it leaches lead from the piping. No common sense applied.

6. THE 2006 NATIONAL RESEARCH COUNCIL REVIEW OF THE MCL OF 4PPM CONCLUDED IT WAS NOT SAFE. The NRC (10 of 12 members), of the National Academy of Sciences, concluded that “dental fluorosis” which for many years was considered to be “cosmetic,” was considered an “adverse health effect.” Currently, dental fluorosis is about 65% (NHANES 2011-2012). The CDC than lowered the optimum fluoridation level from 1 ppm to 0.7 ppm, a 30% reduction. Is the State prepared to accept liability to repair fluorosis mandated by a State law? See FJ McClure fluorosis chart. Compare with pineal gland.

7. THE NIDR HAS A REPORT, NOT READILY AVAILABLE TO THE PUBLIC, DOCUMENTING INDIVIDUALS WHO HAVE DIED OR BECAME ILL AFTER OVEREXPOSURE.

The report is titled “Summary of Fluoridation/Fluoride Incidents” dated September 1, 1998, and prepared by the National Fluoridation Engineer. When I sent an email requesting a copy of this report, I was denied on the grounds that it was only an “internal report” and not a published public report. I resubmitted my request using the Freedom of Information Act. It worked, and I received a copy. The report documents where hundreds of people became ill and 6 died, especially those on dialysis. Again, the result of poor engineering assessment of potential consequences.

8. FLUORIDE FORMS THERMOLUMINESCENT PHOSPHOR (TLP) COMPOUNDS IN THE BODY.

Calcium fluoride compounds (e.g. fluoroapatite) formed throughout your body, such as in the bones, teeth, organs, etc. will make the human body much more sensitive to radiation such as dental xrays, CT scans, mammograms, gamma rays and even sunlight. TLPs are widely used in radiation dosimetry equipment by the Navy nuclear program for monitoring exposure. See Reference: C.Furetta, Handbook of Thermoluminescence, 2003. TLP intensity is also increased by metabolic disorder which causes changes in bone mineral density and crystallography (Chapman, 1979)

7. UNCONTROLLED EXPOSURE TO FLUORIDE COULD RESULT IN GINGIVITIS & EVENTUALLY, A HIGH RISK FOR EDENTULISM.

In a 1934 study, H. Trendley Dean noted that cities that had more than 4ppm natural fluoride had significant gingivitis problems. Chronic gingivitis and receding gums puts an individual at a high risk for edentulism or complete loss of teeth. Hawaii, with no fluoridation, except for military bases and products from the mainland, has the lowest rate of edentulism. This is called a “cradle to grave review” of the long-term effects of fluoride. Most studies that support fluoridation only go up to 11 years old. Beyond this age, especially in teenage years, where improper diet and dental hygiene become contributing factors.

ALTERNATIVE SOLUTIONS: FIX THE PROBLEM NOT THE WATER

1. A strong pre-birth and post-birth baby care education to include good diet for healthy fetus, prevention of baby-bottle-teeth decay, and proper infant dental hygiene until the child is old enough to see a dentist. This program can be administered by OB-GYNs and pediatricians with assist from the State dental office. The main target should be the many immigrants and first time parents, who have very little knowledge about prevention of baby bottle teeth.
2. Alternative controlled fluoride sources are available from toothpaste, vitamin supplements, sealants and rinses. These alternatives provide for freedom of choice with informed consent and can be stopped for any adverse reaction.

NOTE: I suspect most childhood dental caries are immigrant children who come here already with bad teeth, or parents who have no clue about BBTD, or from first time parents who just do not know or do not care. No amount of fluoride will help this group of children. Th State Dental Office has been doing a decent job in the past years. Hawaii was rated as among the four states with the highest oral care grade of “B-,” in spite of getting an “F” for no fluoridation. With almost 70% fluoridation, it is interesting to note that the rest of the states could only muster C or C- grades.

I thank you for listening and hope that you will do due diligence to research the subject thoroughly, and conclude as I have, that fluoridation is not safe and can not be justified, when pharmaceutical grade alternatives are available. If you looked at several studies and only looked at teeth, you overlooked the thousands of other studies, especially those published in foreign journals and in a foreign language that researchers do not want to spend the time and cost to translate. Perhaps this explains why Japan, the healthiest country in the world, China with socialized dentistry, and 97% of Europe are not fluoridated. I too want to help our keiki but adding an industrial-grade neurotoxin to the drinking water is not a sound solution. It is a bad trade off between some PUKA TEETH (which can be fixed) and PUKA BRAINS (which can not be fixed).

NOTE: Currently, the EPA has been challenged with a major lawsuit based on over 300 published studies as to how fluoride affects IQs and are deemed to be neurotoxins. Go to www.fluoridealert.org for details. See the most recent 7 Mother-Child Fluoride studies which have also been added as evidence for the trial scheduled for April. If you want compelling evidence, I have a copy of the studies submitted with the initial petition to the EPA. If you have any questions, please contact me at Ph 395-6198.

Mahalo,

Adrian Chang

2014 END STAGE RENAL DISEASE ATTRIBUTED TO DIABETES

REF: MMWR WEEKLY, VOL.66/No. 43 dtd November 3, 2017

STATE or TERRITORY/YEAR	YR 2014 PER 100,000	
HAWAII	363.6	
DISTRICT OF COLUMBIA	304.8	
SOUTH DAKOTA	227.1	
TEXAS	220.9	
LOUISIANA	219.8	
MISSISSIPPI	219.3	
MICHIGAN	215.9	
NEW MEXICO	210.1	
PUERTO RICO	207.8	
SOUTH CAROLINA	202.7	
VIRGINIA	196.5	
ARIZONA	196.2	
OKLAHOMA	190.8	
NEW JERSEY	189.6	
CALIFORNIA	188.3	
ILLINOIS	187.5	
NORTH DAKOTA	186.4	
INDIANA	180.8	
WEST VIRGINIA	178.2	
NORTH CAROLINA	177.3	
ALABAMA	176.3	
WISCONSIN	174.7	
U.S. AVERAGE	173.4	
IDAHO	166.7	
GEORGIA	166.3	
NEVADA	166.2	
OHIO	164.4	
MARYLAND	160.8	
PENNSYLVANIA	159.9	
UTAH	156.2	
NEW YORK	155.5	
ARKANSAS	155.3	
MISSOURI	150.7	
OREGON	148.3	
TENNESSEE	145.3	
WASHINGTON	145.0	
KENTUCKY	143.5	
KANSAS	143.1	
FLORIDA	142.4	
COLORADO	142.3	
MONTANA	138.2	
RHODE ISLAND	136.8	
DELAWARE	135.8	
CONNECTICUT	131.5	
IOWA	128.0	
MINNESOTA	123.0	
MAINE	114.3	
NEBRASKA	106.1	
MASSACHUSETTS	101.5	
NEW HAMPSHIRE	81.7	
ALASKA (EXCLUDED)	TOO SMALL NUMBERS <50	
VERMONT (EXCLUDED)	TOO SMALL NUMBERS <50	
WYOMING (EXCLUDED)	TOO SMALL NUMBERS <50	

WHY IS GRAND RAPID'S DEATH RATE* ABOVE REST OF STATE'S? THE NEWBURGH NEWS, N.Y., JANUARY 27, 1954

DEATH TYPE	ALL DEATHS MICHIGAN	GRAND RAPIDS	DIFFERENCE	PERCENT INCREASE
ALL	322.1	403.9	+81.8	+25.39
CANCER	136.3	189.2	+52.9	+38.81
STROKE (INTERCRANIAL LESIONS)	100.1	149.6	+49.5	+49.45
DIABETES	22	32.3	+10.3	+46.82
ARTERIOSCLEROSIS	20.3	26.1	+5.8	+28.57

*RATES PER 100,000. DATA YR = 1950, AFTER 5 YRS OF FLUORIDATION.

GRAND RAPIDS WAS THE FIRST CITY TO START FLUORIDATION IN 1945 BY ADDING A 90% PURE INDUSTRIAL-GRADE FLUORIDE (F.J. McCLURE, 1970). IT APPEARS NO QUALITY CONTROL STANDARDS WERE IN EXISTENCE AT THE TIME. IN 1954, THE COUNTY WAS GIVEN A \$5000 FEDERAL GRANT TO STUDY WHY THERE WAS A SIGNIFICANT INCREASE IN DEATH RATES.

FLUORIDATION (2000) VS PERCENT EDENTULISM (1995-1998) - (COMPLETE TOOTH LOSS)Ref:

www.cdc.gov/nohss/ListV.asp MMWR Mar 19, 1999/48(10);206-210, Total Tooth Loss Among Persons Aged ≥65 Years

– Selected States, 1995-199 = ASCENDING ORDER

United States-65.8%	% Fluoridated	Percent Edentulism 1995-1997	Percent Edentulism 1995-1998
Hawaii	9.0	13.9	13.9
California	28.7	16.2	16.2
Oregon	22.7	16.5	16.5
Arizona	55.5	18.5	19.3
Wisconsin	89.3	19.4	19.4
Michigan	90.7	20.6	20.6
Delaware	80.9	No Data	20.9
New Jersey	15.5	21.8	21.1
Washington	57.8	21.5	21.5
Florida	62.6	21.9	21.9
Massachusetts	55.8	22.0	22.0
Utah	2.0	22.8	22.1
Connecticut	88.8	22.3	22.3
Texas	65.7	24.7	22.5
Maryland	90.7	29.2	22.7
New Mexico	76.7	22.7	22.7
Colorado	76.9	23.0	23.0
Nevada	65.9	24.1	24.1
Virginia	93.3	24.1	24.1
Alaska	55.2	25.1	25.1
Illinois	93.4	28.3	26.0
New York	67.8	26.0	26.0
South Carolina	91.2	No Data	26.1
Ohio	87.6	26.1	27.2
New Hampshire	43.0	27.4	27.4
Idaho	45.4	28.7	28.7
Indiana	95.3	28.8	28.8
Nebraska	77.7	30.0	30.0
Pennsylvania	54.2	30.2	30.2
Missouri	80.5	30.4	30.4
Montana	22.2	30.4	30.4
Rhode Island	85.1	25.6	25.6
North Dakota	95.4	32.5	31.1
Wyoming	30.3	31.5	31.5
Kansas	62.5	31.8	31.8
Iowa	91.3	32.7	32.7
South Dakota	88.4	33.2	33.2
Vermont	54.2	34.8	34.8
Mississippi	46.0	35.3	35.3
Tennessee	94.5	35.3	35.3
Georgia	92.9	36.1	36.1
Oklahoma	74.6	36.2	36.2
Alabama	89.2	36.0	36.6
Maine	75.4	37.8	37.8
Arkansas	59.9	39.2	39.2
Louisiana	53.2	43.0	41.5
Kentucky	96.1	44.0	44.0
West Virginia	87.0	47.9	47.9
D.C.	100.0	No Data	No Data
Minnesota	98.2	No Data	No Data
North Carolina	83.3	No Data	No Data

FLUORIDATION 2000* vs ARTHRITIS/CHRONIC JOINT SYMPTOMS 2001 – ASCENDING BY % JOINT SYMPTOMS

United States Total PWS Fluoridated = 65.8%	% Fluoridated of Total PWS Population	Prevalence % w/ Arthritis/CJS	RANKING (#1 is Highest)
Hawaii	9.0	Lowest 17.8	51
California	28.7	28.0	50
District of Columbia	100.0	28.7	49
Nebraska	77.7	29.1	47
Alaska	55.2	29.1	48
Maryland	90.7	29.6	46
Texas	65.7	29.9	45
New Jersey	15.5	30.1	44
Massachusetts	55.8	30.3	43
New Hampshire	43.0	30.5	42
Connecticut	88.8	30.6	41
Colorado	76.9	30.8	40
North Dakota	95.4	31.3	39
Wyoming	30.3	31.5	38
New Mexico	76.7	31.6	37
South Dakota	88.4	31.7	36
Utah	2.0	31.9	35
Louisiana	53.2	32.0	34
New York	67.8	32.1	33
Georgia	92.9	32.2	32
North Carolina	83.3	32.4	31
Virginia	93.3	32.6	30
Iowa	91.3	32.8	28
Vermont	54.2	32.8	29
Illinois	93.4	32.9	27
Arizona	55.5	33.3	26
South Carolina	91.2	33.5	25
Florida	62.6	33.7	24
Nevada	65.9	33.8	23
Minnesota	98.2	34.3	22
Delaware	80.9	34.4	19
Kansas	62.5	34.4	20
Washington	57.8	34.4	21
Rhode Island	85.1	34.9	18
Ohio	87.6	35.4	17
Tennessee	94.5	35.6	16
Pennsylvania	54.2	35.9	15
Oregon	22.7	36.0	14
Maine	75.4	36.1	13
Oklahoma	74.6	36.3	10
Mississippi	46.0	36.3	11
Idaho	45.4	36.3	12
Indiana	95.3	37.0	9
Missouri	80.5	37.2	8
Montana	22.2	37.3	7
Wisconsin	89.3	38.4	6
Michigan	90.7	38.7	5
Arkansas	59.9	39.1	4
Alabama	89.2	40.5	3
Kentucky	96.1	41.1	2
West Virginia	87.0	Highest 42.6	1
Puerto Rico	62.5*	28.7	Territory

+Hawaii is only State w/ No Added Fluoridation, except for Military Bases

Reference: MMWR Weekly, Prevalence of Self-Reported Arthritis or Chronic Joint Symptoms Among Adults -United States, 2001. Oct 25, 2002/52(42);948-950. www.cdc.gov/mmwr/preview/mmwrhtml/mm5107a2.htm

CDC STATE LIFE EXPECTANCY – 2015 vs 2010 (WIKIPEDIA)

STATE	YEAR 2015	YEAR 2010
HAWAII	82.0	81.3
CALIFORNIA	81.3	80.8
MINNESOTA	81.0	81.1
NEW YORK	81.0	80.5
CONNECTICUT	80.9	80.8
PUERTO RICO	80.9	78.7
MASSACHUSETTS	80.7	80.5
COLORADO	80.5	80.0
NEW JERSEY	80.5	80.3
WASHINGTON	80.3	79.9
FLORIDA	80.1	79.4
NEW HAMPSHIRE	80.1	80.3
RHODE ISLAND	80.0	79.9
VERMONT	80.0	80.5
ARIZONA	79.9	79.6
UTAH	79.8	80.2
NORTH DAKOTA	79.7	79.4
WISCONSIN	79.7	80.0
IOWA	79.6	79.7
MARYLAND	79.6	78.8
NEBRASKA	79.6	79.8
OREGON	79.6	79.5
IDAHO	79.4	79.5
SOUTH DAKOTA	79.4	79.5
VIRGINIA	79.4	79.0
ILLINOIS	79.3	79.0
TEXAS	79.0	78.5
ALASKA	78.8	78.3
MAINE	78.8	79.2
WYOMING	78.8	78.3
DELAWARE	78.7	78.4
UNITED STATES	78.7	78.7
KANSAS	78.6	78.7
MONTANA	78.6	78.5
PENNSYLVANIA	78.6	78.5
DISTRICT OF COLUMBIA	78.5	76.5
NEVADA	78.4	78.1
NEW MEXICO	78.4	78.4
MICHIGAN	78.2	78.2
NORTH CAROLINA	78.1	77.8
OHIO	77.8	77.8
GEORGIA	77.7	77.2
MISSOURI	77.6	77.5
INDIANA	77.4	77.6
SOUTH CAROLINA	77.0	77.0
TENNESSEE	76.3	76.2
ARKANSAS	76.0	76.0
LOUISIANA	76.0	75.7
KENTUCKY	75.9	76.0
OKLAHOMA	75.8	76.0
ALABAMA	75.5	75.4
WEST VIRGINIA	75.3	75.4
MISSISSIPPI	75.0	75.0

FLUORIDATION 2000 VS 2001 STATE ORAL CARE GRADES (ORAL HEALTH AMERICA)

STATE	TOTAL % FLUORIDATED	2001 STATE GRADE
Connecticut	88.8	B-
Hawaii	9.0	B-
Iowa	91.3	B-
Utah	2.0	B-
Arizona	55.5	C+
Colorado	76.9	C+
Delaware	80.9	C+
Florida	62.6	C+
Illinois	93.4	C+
Indiana	95.3	C+
Maryland	90.7	C+
Michigan	90.7	C+
Minnesota	98.2	C+
New York	67.8	C+
North Carolina	83.3	C+
Ohio	87.6	C+
Oregon	22.7	C+
Rhode Island	85.1	C+
South Carolina	91.2	C+
Vermont	54.2	C+
Virginia	93.3	C+
Washington	57.8	C+
Wisconsin	89.3	C+
Alabama	89.2	C
Alaska	55.2	C
California	28.7	C
D.C.	100.0	C
Georgia	92.9	C
Idaho	45.4	C
Kansas	62.5	C
Kentucky	96.1	C
Maine	75.4	C
Massachusetts	55.8	C
Missouri	80.5	C
Nebraska	77.7	C
Nevada	65.9	C
New Hampshire	43.0	C
New Jersey	15.5	C
New Mexico	76.7	C
North Dakota	95.4	C
Pennsylvania	54.2	C
Tennessee	94.5	C
Texas	65.7	C
Wyoming	30.3	C
TOTAL United States	65.8	C
Arkansas	59.9	C-
Louisiana	53.2	C-
Mississippi	46.0	C-
Montana	22.2	C-
Oklahoma	74.6	C-
South Dakota	88.4	C-
West Virginia	87.0	C-

MAJOR PARADIGM SHIFT/EXCEPTIONS OF FLUORIDE POLICY/APPLICATIONS

FLUORIDE SUPPLEMENT DOSAGE FOR INFANTS AND YOUNG CHILDREN HAS BEEN REDUCED THREE TIMES SINCE ITS START IN THE 1970'S.

RECOMMENDED QUANTITY OF TOOTHPASTE APPLIED TO A CHILD'S TOOTHBRUSH REDUCED FROM ENTIRE LENGTH OF BRUSH TO PEA SIZE TO RICE SIZE.

SODIUM FLUORIDE USED IN TOOTHPASTE MAY BE THE SAME INDUSTRIAL GRADE USED IN DRINKING WATER. SUGGEST CONTACTING YOUR TOOTHPASTE MANUFACTURER AND ASK THEM TO PROVIDE THE QUALITY STANDARD USED FOR THE SODIUM FLUORIDE, E.G. AMERICAN CHEMICAL SOCIETY, US PHARMACEUTICAL, AWWA STANDARD, OR NO STANDARD. TWO MAJOR BRANDS WOULD NOT PROVIDE THE INFO UPON REQUEST.

ADA & CDC ISSUED ADVISORY THAT PARENTS SHOULD NOT USE FLUORIDATED WATER TO RECONSTITUTE INFANT FORMULA.

THE OPTIMUM LEVEL OF 1 PPM CONCENTRATION IN DRINKING WATER CHANGED TO THE RANGE OF 0.7 TO 1.2 PPM DEPENDING UPON TEMPERATURE OF YOUR LOCATION. THIS WAS BASED ON A STUDY THAT PEOPLE IN COLDER AREAS DRANK MUCH LESS WATER THAN THOSE IN WARMER CLIMATES.

DIALYSIS FACILITIES FOR TREATING PEOPLE WITH END STAGE RENAL DISEASE, USE TO USE MUNICIPAL TAP WATER. TODAY, ALL FACILITIES ARE REQUIRED TO USE REVERSE-OSMOSIS PURIFIED WATER.

PUBLICATION OF THE NATIONAL RESEARCH COUNCIL REPORT IN 2006 THAT CONCLUDED THAT DENTAL FLUOROSIS IS AN ADVERSE HEALTH EFFECT AND THAT THE MAXIMUM CONTAMINANT LEVEL LIMIT OF 4 PPM WAS NOT CONSIDERED SAFE. SEVERAL YEARS LATER, THE EPA/CDC SET THE FLUORIDATION LEVEL AT 0.7 PPM BUT STILL KEPT THE MCL AT 4 PPM.

AFTER PUBLISHING THE MOST COMPREHENSIVE MOTHER-CHILD STUDY (R. GREEN, AUG 2019) IN THE JOURNAL OF AMERICAN MEDICAL ASSOCIATION – PEDIATRICS, THE EDITOR DR. CHRISTAKIS, MD, SUGGESTED THAT "I WOULD ADVISE THEM (PREGNANT WOMEN) TO DRINK BOTTLED WATER..."

IN 1990, A CITIZEN'S LETTER TO THE U.S. SURGEON GENERAL REGARDING DIABETES, A RESPONSE BY THE NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES (NIDDK) WAS PROVIDED IN A LETTER DTD JANUARY 4, 1991. THE REPLY NOTED THAT "SYMPTOMS OF DIABETES INCLUDE RAPID WEIGHT LOSS, EXCESSIVE THIRST, FREQUENT URINATION." ALSO, "**ACCORDING TO THE NATIONAL INSTITUTE OF DENTAL RESEARCH, ALSO PART OF NIH, FLUORIDE LEVELS IN WATER ARE SET ACCORDING TO NORMAL CONSUMPTION OF WATER. IF AN INDIVIDUAL IS CONSUMING ABNORMALLY LARGE QUANTITIES OF WATER, HE SHOULD DRINK BOTTLED WATER.**"

ASK YOURSELF, IS IT REALLY SAFE IF A LARGE PORTION OF THE POPULATION IS SUBJECTED TO THESE EXCEPTIONS?

LATE

SB-2997

Submitted on: 2/11/2020 4:03:27 PM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
elena kersting	Individual	Oppose	Yes

Comments:

I Strongly Oppose this Bill, Mahalo.

LATE

SB-2997

Submitted on: 2/11/2020 4:48:05 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jason Ching	Individual	Support	Yes

Comments:

My name is Dr. Jason Ching and I'm a pediatric dentist currently practicing in Pearl City, HI. I graduated from the University of the Pacific Arthur. A. School of Dentistry in 2010 and completed my pediatric residency at Tufts University. Before returning home to Hawaii, I practiced at a public health FQHC clinic in Oakland, CA and Boston, MA.

Fluoridation has proven to be the most economical and effective caries prevention measure. 0.7-1.2 mg fluoride ion/L (ppm F) was introduced in the US in the 1940s and currently the department of health and human services limit the recommendation to 0.7 ppm F ions. As a pediatric dentist, we mainly focus on treating children with severe dental anxiety and also prevention. At each recall exam, we evaluate caries risk assessment one of which is the child's dietary fluoride intake from drinking water at home, supplements, oral rinses, and toothpaste. What we have found is that fluoridation scientifically still has proven to be the most economics and effective way to prevent dental caries, especially in high risk areas. According the American Dental Association, studies show that water fluoridation reduces cavities by at least 25 % in children and adults and it benefits everyone. It is cost effective and an analogy is that the cost of a lifetime of fluoridated water is less than the cost of one filling. More than 65 years of studies, research, and experience has shown water fluoridation to be safe. It is supported by the American Dental Association, Center for Disease Control and Prevention, the American Academy of Pediatrics, the American Medical Association, and the World Health Organization.

As a provider whom is born and raised in Hawaii I have concerns for future generations because of the rising cost of living and the rising costs of health care expenses. The science is strongly supported, and I can personally speak from a clinical perspective that I see a vulnerable population that have very high caries risk. Several studies in recent measures have show Hawaii to have one of the highest dental caries rate in the United States yet Honolulu county is one of the large cities per capita. For me fluoridation is a no brainer from a public health perspective and also as a cost saving measure. Dr. Malia Shimokawa and lother pediatricians that practice in my area have discussed many reasons why water fluoridation should be supported now and not in the future. It will save cost from the patient, dentist, pharmacist, and even insurance companies but most importantly our children and next generation will be healthier.

Best, Dr. Jason Ching

SB-2997

Submitted on: 2/10/2020 8:33:47 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole Brown	Individual	Oppose	No

Comments:

Fluoride is classified as:

Class 6 – Toxic and Infectious Substances

Class 6 is divided into two divisions as follows

Division 6 Toxic substances

These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact;

Fluoridation is unethical. Informed consent is standard practice for all medication, and one of the key reasons why most of Western Europe has ruled against fluoridation. With water fluoridation we are allowing governments to do to whole communities (forcing people to take a medicine irrespective of their consent) what individual doctors cannot do to individual patients.

SB-2997

Submitted on: 2/10/2020 2:13:06 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Steve Bruhjell	Individual	Oppose	No

Comments:

Aloha members of the JDC, thank you for hearing this testimony.

Right off the bat, I state as very strongly opposed to this bill that would saturate the municipal water systems in the state of Hawaii with poisonous Fluorine. #2 of most poisonous elements second only to arsenic.

Reasons:

#1 There is absolutely NO good reason to inject an alleged medicine of the human body purportedly to treat cavities in children into the municipal water system. Extensive research shows little to no medicinal value for this purpose. Fluorides actually corrode the enamel causing 'fluorosis' which is now regarded as a physical ailment medically. There is NO good reason to treat anybody through the public's water system.

#2 In the scientific world, fluorine is known as 'the Devils element'. It is a severe poison to all life on the surface of the earth. When metals are smeltered, phosphate fertilizers are produced, fluorine gas is released and must be captured and contained so the environment in the area is not destroyed or damaged. The gas is combined with other elements to be able to safely store it as a solid or liquid. Sodium fluoride, hydrofluorosilic acid are mostly what is stored. But, at this state of composition, this is the concoction that us used to fluoridate municipal water systems. Hydrofluoric acid is the strongest, most potent of all acids. Used to etch glass, and as pesticide poison. Not much else. When fluorine is released as a gas from volcanoes, being a highly reactive and corrosive halogen, it combines with hydrogen in the atmosphere and produces hydrofluoric acid. This is what is known as acid rain and etches car windows. A pinhead size drop of this acid will burn all the way through one's arm.

#3 The vast bulk of fluorine in the water system ends up in the ecosystem damaging/destroying the life therein. Yes even to the ocean and it's reef life.

#4 Being so corrosive it ruins the municipal water system structures, many cities having to replace all piping and infrastructure. Extremely expensive to accomplish but the good side is that it creates many high paying jobs! Very lucrative.

#5 Fluorine is the main ingredient of the insidious Sarin gas.

#6 Most countries, including Europe, have seen the light and removed, eliminated the mandated fluoridation of their public water supply. Some countries located around volcanoes work to take out even this natural form of fluoridation. Italy is an example.

#7 Chinese research and now, our own country has found that on average, fluoridation causes a 10% decrease in IQ.

#8 Soviet Union prison camps used fluoridated water to render prisoners unable mentally to do anything other than to sit there and drool.

#9 Fluoride is a potent carcinogen even in small quantities. It even amps up other cancers. Cancer rates in Hawaii according to ACA are 50%, maybe more with Hawaiians.

#10 In the year 2000, I traveled to Washington DC to meet with Bill Herzy of the EPA at the EPA to prepare for the upcoming fluoridation legislation in 2001. He informed me and gave me documentation of, research conducted by 1200 scientists, researchers, employed by the EPA that unanimously concluded that fluoridation of the municipal water supplies should not be implemented; much too dangerous. The top crust of the EPA did not take the advice from all these researchers and proceeded to give the OK to fluoridate America. Go figga?

Conclusion; If anyone wants to actually ingest this poison then that is their right to treat their own body. The rest of us want clean, potable H₂O coming out of our tap. We do not want to be mandated to ingest fluoride through the municipal water system. Please, please do not allow this bill to pass and become law. Kill this bill and do not let it come back.

Respectfully submitted, S Bruhjell

SB-2997

Submitted on: 2/9/2020 10:46:07 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Cindy Chang	Individual	Oppose	No

Comments:

I strongly oppose having flouride put into our drinking supply. I strongly oppose SB2997.

SB-2997

Submitted on: 2/9/2020 9:47:20 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Geneve Chong	Individual	Oppose	No

Comments:

I STRONGLY OPPOSE SB2997! We do NOT need FLUORIDE in our water!

SB-2997

Submitted on: 2/10/2020 12:23:32 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jacqueline Bosman	Individual	Oppose	No

Comments:

Flouride is a known neurotoxin and has way more harmful affects than helpful. We've not neede it up til now so why add it?

SB-2997

Submitted on: 2/9/2020 10:15:15 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Renee Dieperink	Individual	Oppose	No

Comments:

Fluoride is a neurotoxin and does not belong in our water.

Watch "The Fluoride Deception" <https://www.youtube.com/watch?v=eBZRb-73tLc>

SB-2997

Submitted on: 2/10/2020 9:01:37 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Blaine De Ramos	Individual	Oppose	No

Comments:

I oppose SB2997

SB-2997

Submitted on: 2/9/2020 11:47:26 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
martina dodson	Individual	Oppose	No

Comments:

DEAR LEGISLATORS.

I STRONGLY OPPOSE SB2997, IT IS UNWATED MEDICATION WITHOUT INFORMED CONSENT, WHY ADD A KNOWN NEUROTOXIN TO OUR WATER WHILE MOST COUNTRIES AND STATES ARE BANNING WATER FLUORIDATION. ABSURD.

Throughout the discussions about fluoride, many local residents voiced opposition to the water additive. Some cited health concerns, others argued that residents shouldn't be medicated through the water system and still others expressed the desire to see the issue put on a ballot for voters.

After years of debate, Tuesday evening will mark the end of an approximately four-year practice of water fluoridation in Sheridan.

https://thesheridanpress.com/106354/city-council-votes-to-remove-substance-from-water/?fbclid=IwAR2EUrUX2Q4mwbqVc_TCrYRdnIG9ImNqtkvf_IJI-UVCKU0uLhMYjhig8uk

Fluoride is classified as:

Class 6 – Toxic and Infectious Substances

Class 6 is divided into two divisions as follows

Division 6 Toxic substances

These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact;

Fluoridation is unethical. Informed consent is standard practice for all medication, and one of the key reasons why most of Western Europe has ruled against fluoridation. With water fluoridation we are allowing governments to do to whole communities (forcing people to take a medicine irrespective of their consent) what individual doctors cannot do to individual patients.

Put another way: Does a voter have the right to require that their neighbor ingest a certain medication (even if it is against that neighbor's will)?

<http://fluoridealert.org/articles/50-reasons/>

Fluoridation is UNETHICAL because:

- 1) It violates the individual's right to informed consent to medication.
- 2) The municipality cannot control the dose of the patient.
- 3) The municipality cannot track each individual's response.
- 4) It ignores the fact that some people are more vulnerable to fluoride's toxic effects than others. Some people will suffer while others may benefit.
- 5) It violates the Nuremberg code for human experimentation.

As stated by the recent recipient of the Nobel Prize for Medicine (2000), Dr. Arvid Carlsson:

"I am quite convinced that water fluoridation, in a not-too-distant future, will be consigned to medical history...Water fluoridation goes against leading principles of pharmacotherapy, which is progressing from a stereotyped medication – of the type 1 tablet 3 times a day – to a much more individualized therapy as regards both dosage and selection of drugs. The addition of drugs to the drinking water means exactly the opposite of an individualized therapy."

As stated by Dr. Peter Mansfield, a physician from the UK and advisory board member of the recent government review of fluoridation (McDonagh et al 2000):

"No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: 'Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay. ' It is a preposterous notion."

<http://fluoridealert.org/articles/absurdity/>

Water fluoridation is the practice of adding industrial-grade fluoride chemicals to water for the purpose of preventing tooth decay. One of the little known facts about this practice is that the United States, which fluoridates over 70% of its water supplies, has more people drinking fluoridated water than the rest of the world combined. Most developed nations, including all of Japan and 97% of western Europe, do not fluoridate their water.

In the United States, the Oral Health Division of the Centers Disease Control (CDC) hails fluoridation as one of the "top ten public health achievements of the 20th century." However, comprehensive data from the World Health Organization reveals that there is no discernible difference in tooth decay between the minority of western nations that fluoridate water, and the majority that do not. In fact, the tooth decay rates in many non-fluoridated countries are now lower than the tooth decay rates in fluoridated ones.

As is becoming increasingly clear, fluoridating water supplies is an outdated, unnecessary, and dangerous relic from a 1950s public health culture that viewed mass

distribution of chemicals much differently than scientists do today. The few nations that still fluoridate their water should end the practice. Here's three reasons why:

THREE REASONS TO END WATER FLUORIDATION

Reason #1: Fluoridation Is an Outdated Form of Mass Medication

Unlike all other water treatment processes, fluoridation does not treat the water itself, but the person consuming it. The Food & Drug Administration accepts that fluoride is a drug, not a nutrient, when used to prevent disease. By definition, therefore, fluoridating water is a form of medication. This is why most western European nations have rejected the practice — because, in their view, the public water supply is not an appropriate place to be adding drugs, particularly when fluoride is readily available for individual use in the form of toothpaste.

Reason #2: Fluoridation Is Unnecessary and Ineffective

The most obvious reason to end fluoridation is that it is now known that fluoride's main benefit comes from topical contact with the teeth, not from ingestion. Even the CDC's Oral Health Division now acknowledges this. There is simply no need, therefore, to swallow fluoride, whether in the water, toothpaste, or any other form. Further, despite early claims that fluoridated water would reduce cavities by 65%, modern large-scale studies show no consistent or meaningful difference in the cavity rates of fluoridated and non-fluoridated areas.

Reason #3: Fluoridation Is Not a Safe Practice

The most important reason to end fluoridation is that it is simply not a safe practice, particularly for those who have health conditions that render them vulnerable to fluoride's toxic effects.

First, there is no dispute that fluoridation is causing millions of children to develop dental fluorosis, a discoloration of the teeth that is caused by excessive fluoride intake. Scientists from the Centers for Disease Control have even acknowledged that fluoridation is causing "cosmetically objectionable" fluorosis on children's front teeth—an effect that can cause children embarrassment and anxiety at an age when physical appearance is the single most important predictor of self-esteem.

Second, it is known that fluoridated water caused severe bone disease in dialysis patients up until the late 1970s (prior to dialysis units filtering fluoride). While dialysis units now filter out the fluoride, research shows that current fluoride exposures are still resulting in dangerously high bone fluoride levels in dialysis patients and patients with other advanced forms of kidney disease. It is unethical to compromise the health of some members in a population to obtain a purported benefit for another — particularly in the absence of these vulnerable members' knowing consent.

And, finally, a growing body of evidence reasonably indicates that fluoridated water, in addition to other sources of daily fluoride exposure, can cause or contribute to a range

of serious effects, including arthritis, damage to the developing brain, reduced thyroid function, and possibly osteosarcoma (bone cancer) in adolescent males.

<http://fluoridealert.org/issues/water/>

While pesticides dominated the duo's list as the most pervasive and damaging chemicals whose presence the public is largely unaware of, fluoride, which is intentionally added to public water supplies as a supposed protectant against tooth decay, is also highly problematic. It is also largely ignored by public health authorities as a possible factor in childhood development problems, even though the science is clear about its dangers.

Like lead, certain industrial solvents and crop chemicals, fluoride is known to accumulate in the human bloodstream, where it eventually deposits into bones and other bodily tissues. In pregnant women, this also includes passing through the bloodstream into the placenta, where it then accumulates in the bones and brain tissue of developing babies. The effects of this are, of course, perpetually damaging, and something that regulatory authorities need to take more seriously.

Fluoride is a neurotoxin

It's no surprise that fluoride could be a cause of ADHD; a 2014 Lancet study by Grandjean and Philip Landrigan concluded that fluoride is a developmental neurotoxin.

"Fluoride appears to fit in with a pattern of other trace elements such as lead, methylmercury, arsenic, cadmium and manganese—adverse effects of these have been documented over time at exposures previously thought to be 'low' and 'safe,'" said pediatrician and researcher Caroline Martinez of Mount Sinai Hospital in New York.

Studies have linked higher exposure to fluoride with lower IQs in children, and have also suggested that water fluoridation may increase the rate at which lead leaches from pipes and into drinking water.

A large body of evidence also suggests that fluoride may act as an endocrine disruptor, including causing changes to the function of the thyroid gland. Because the thyroid gland plays an important role in brain development, this may produce neurological problems, including ADHD.

A February 2015 study conducted by researchers from the University of Kent, found that high levels of water fluoridation are also associated with thyroid dysfunction. The researchers, who looked at data from 98 percent of English general practitioners, found that areas with the greatest fluoridation had 30 percent higher rates of underactive thyroid. This can produce symptoms such as weight gain, depression and fatigue.

Fluoride intake has also been linked to cancer.

As of June 2018, a total of 60 studies have investigated the relationship between fluoride and human intelligence, and over 40 studies have investigated the relationship fluoride and learning/memory in animals. Of these investigations, 53 studies have found that elevated fluoride exposure is associated with reduced IQ in humans, while 45 animal studies have found that fluoride exposure impairs the learning and/or memory capacity of animals. The human studies, which are based on IQ examinations of over 15,000 children, provide compelling evidence that fluoride exposure during the early years of life can damage a child's developing brain.

After reviewing 27 of the human IQ studies, a team of Harvard scientists concluded that fluoride's effect on the young brain should now be a "high research priority." (Choi, et al 2012). Other reviewers have reached similar conclusions, including the prestigious National Research Council (NRC), and scientists in the Neurotoxicology Division of the Environmental Protection Agency (Mundy, et al). In the table below, we summarize the results from the 51 studies that have found associations between fluoride and reduced IQ and provide links to full-text copies of the studies. For a discussion of the 7 studies that did not find an association between fluoride and IQ, [click here](#).

<http://fluoridealert.org/studies/brain01/>

The human placenta does not prevent the passage of fluoride from a pregnant mother's bloodstream to the fetus. As a result, a fetus can be harmed by fluoride ingested pregnancy. Based on research from China, the fetal brain is one of the organs susceptible to fluoride poisoning.

As highlighted by the excerpts below, three Chinese studies have investigated fluoride's effect on the fetal brain and each has found evidence of significant neurological damage, including neuronal degeneration and reduced levels of neurotransmitters such as norepinephrine. As noted by Yu (1996), "when norepinephrine levels drop the ability to maintain an appropriate state of activation in the central nervous system is weakened." Studies of fluoride-treated animals have reported similar effects, including lower levels of norepinephrine. (Kaur 2009; Li 1994).

The Safe Level Is Not Yet Known

The fluoride levels which the pregnant women in these studies were exposed are higher than most women in western countries can expect to ingest. The safety of lower fluoride levels to fetal brain development has not yet been investigated, and remains to be determined. Interestingly, in the 1960s, the FDA banned the use of prenatal fluoride supplements based on its concern about possible untoward effects on the fetus.

http://fluoridealert.org/studies/brain05_/

In addition to studies linking fluoride to reduced IQ in humans, and impaired learning/memory in animals, human and animal studies have also linked fluoride to a variety of other neurobehavioral effects. These studies, which are excerpted below, provide yet further evidence that fluoride is a neurotoxin.

The importance of considering other indices of fluoride neurotoxicity besides reduced IQ was recently discussed by a team of Mexican researchers. (Rocha-Amador 2009). As the researchers noted:

“Intuitively, though it might seem that an IQ test would be an ideal measure [for determining the neurotoxic effects of a chemical], this assumption would be ill founded, because some toxicants could affect only specific functions, such as attention, memory, language, or visuospatial abilities without clear decrements on IQ scores. Furthermore, the exposure dose as well as mixtures of toxicants are important factors that also need to be considered.”

To help highlight this point, the researchers cited their earlier study which found that although fluoride did not affect overall IQ scores, it did affect reaction time and visual-spatial organization. (Calderon 2000).

To better understand fluoride’s non-IQ effects on the brain, the Mexican team suggests using the Rey-Osterrieth Complex Figure (ROCF) Test:

“[I]t is imperative to have a tool for rapid risk assessment to quantitatively measure health effects. In neuropsychology there are several tests that can be used for this purpose but many of them have issues including lack of validation and standardized values for the Mexican population, furthermore the influence of cultural factors also limits their usefulness. These issues could be solved in part by the Rey-Osterrieth Complex Figure (ROCF) Test. This test is one of the most widely used in neuropsychology for the evaluation of visuospatial constructional ability and non-verbal memory skills in both clinical and research settings.”

SOURCE: Rocha-Amador, D. et al (2009). Use of the Rey-Osterrieth Complex Figure Test for neurotoxicity evaluation of mixtures in children. *Neurotoxicology* 30(6):1149-54

http://fluoridealert.org/studies/brain03_/

Since then our opposition to drinking water fluoridation has grown, based on the scientific literature documenting the increasingly out-of-control exposures to fluoride, the lack of benefit to dental health from ingestion of fluoride and the hazards to human health from such ingestion. These hazards include acute toxic hazard, such as to people with impaired kidney function, as well as chronic toxic hazards of gene mutations, cancer, reproductive effects, neurotoxicity, bone pathology and dental fluorosis. First, a review of recent neurotoxicity research results.

In 1995, Mullenix and co-workers (2) showed that rats given fluoride in drinking water at levels that give rise to plasma fluoride concentrations in the range seen in humans suffer neurotoxic effects that vary according to when the rats were given the fluoride – as adult animals, as young animals, or through the placenta before birth. Those exposed before birth were born hyperactive and remained so throughout their lives. Those exposed as young or adult animals displayed depressed activity. Then in 1998, Guan and co-workers (3) gave doses similar to those used by the Mullenix research

group to try to understand the mechanism(s) underlying the effects seen by the Mullenix group. Guan's group found that several key chemicals in the brain – those that form the membrane of brain cells – were substantially depleted in rats given fluoride, as compared to those who did not get fluoride.

<http://fluoridealert.org/articles/epa-union/>

More links

<https://www.hsph.harvard.edu/news/features/fluoride-childrens-health-grandjean-choi/?fbclid=IwAR0uwX2WxoGwmM8UCKvWzmaulEM2UpMpGtZ5h9BNe2clj4wtH4CxSOA0c3o>

<http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2813%2970278-3/abstract>

Developmental Fluoride Neurotoxicity: A Systematic Review and Meta-Analysis
<https://www.ncbi.nlm.nih.gov/pmc/?term=10.1289/ehp.1104912#Ahead%20of%20Print%20%28AOP%29>

<https://www.nap.edu/catalog/11571/fluoride-in-drinking-water-a-scientific-review-of-epas-standards>

<https://childrenshealthdefense.org/news/u-s-water-fluoridation-a-forced-experiment-that-needs-to-end/>

A NEW BILL would see people prosecuted for putting fluoride into the water supply in Ireland – and they could serve up to five years in prison.

<https://www.thejournal.ie/ban-fluoride-ireland-902100-May2013/>

MAHALO,

MARTINA . MAUI

SB-2997

Submitted on: 2/10/2020 9:13:08 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Stasia	Individual	Oppose	No

Comments:

Aloha Representatives,

My name is Anastasia Estep and I am in strong OPPOSITION to SB 2997. The legislation at hand would completely go against safety concerns regarding recent science out of JAMA Pediatrics (August 2019) titled:

"Association Between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in Canada" The results prove dangerous to the most vulnerable among us:

"To our knowledge, this study is the first to estimate fluoride exposure in a large birth cohort receiving optimally fluoridated water. These findings are consistent with that of a Mexican birth cohort study that reported a 6.3 decrement in IQ in preschool-aged children compared with a 4.5 decrement for boys in our study for every 1 mg/L of MUF.¹⁰ ***The findings of the current study are also concordant with ecologic studies that have shown an association between higher levels of fluoride exposure and lower intellectual abilities in children.^{7,8,26} Collectively, these findings support that fluoride exposure during pregnancy may be associated with neurocognitive deficits.***" (1)

With this new science supporting a lot of other science that has shown dangers related to ingested fluoride (2), *there is absolutely no good reason* to pollute our water sources with a known neurotoxin. The only purported benefits of fluoride have been shown in TOPICAL application, and even those are questionable.

Dimitri Christakis, editor in chief of JAMA pediatrics and Fredrick P Rivara MD, editor in chief of JAMA Network Open spoke in a podcast after the recent Canada study came out and discussed how they were surprised by the outcome, they were also surprised so many other industrialized nations *do not* fluoridate their water, and that there is other science they overlooked prior to this study that has legitimate concerns with ingested fluoride.

Regarding the other mentioned Mexico study (3), the results spurned concern:

Newsweek, [Children's IQ Could Be Lowered By Mothers Drinking Tap Water While Pregnant](#), by Dana Dovey, September 19:

... “This is a very well-conducted study, and it raises serious concerns about fluoride supplementation in water,” says Dr. Leonardo Trasande, a pediatrician who studies potential links between environmental exposures and health problems at New York University Langone Health. (He was not involved in the new study.)

Both the [Montreal Gazette](#) & the [National Post \(of Canada\)](#) ran the same article: *Researchers urge caution over study linking fluoride exposure in pregnancy to lower IQs in children*, by Sharon Kirkey, September 21:

... [The article quotes the **lead investigator of the study, Dr Howard Hu:**] “This is a very rigorous epidemiology study. **You just can’t deny it. It’s directly related to whether fluoride is a risk for the neurodevelopment of children. So, to say it has no relevance to the folks in the U.S. seems disingenuous.**”

... “Why would anybody rate the equivalency or supremacy of reducing tooth decay by about one cavity a lifetime **when what’s at stake is the mental development of your children? It’s utterly preposterous,**” said Connett, executive director of the Fluoride Action Network.

That said, to even consider polluting our water sources with fluoride is an archaic idea. Old and new science is showing neurological and cosmetic damage when ingested. If people wish to prevent cavities with fluoride, topical is the best option, and internal only proves dangerous for our children, and consequently our future generations.

Please vote against this bill, as we have done with previous fluoridation bills, and do not allow neurotoxic pollutions to be added to our water supply.

Mahalo,
Anastasia Estep

(1) Association Between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in

Canada, [Rivka Green, MA1](#); [Bruce Lanphear, MD2,3](#); [Richard Hornung, PhD4](#);

(2) <http://fluoridealert.org/>

(3) Bashash M, Thomas D, Hu H, et al. 2017. [Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6–12 Years of Age in Mexico.](#)

SB-2997

Submitted on: 2/9/2020 9:56:00 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
camille erickson	Individual	Oppose	No

Comments:

Please do not allow fluoride to be added to our public drinking water. Fluoride is a neurotoxin and is not safe even in small doses. Those small doses add up over time and are harmful. I oppose this bill.

SB-2997

Submitted on: 2/10/2020 10:58:06 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
amber gifford	Testifying for fluoride free maui	Oppose	No

Comments:

Fluoride is a known neurotoxin, and several states and countries

Throughout the discussions about fluoride, many local residents voiced opposition to the water additive. Some cited health concerns, others argued that residents shouldn't be medicated through the water system and still others expressed the desire to see the issue put on a ballot for voters.

After years of debate, Tuesday evening will mark the end of an approximately four-year practice of water fluoridation in Sheridan.

https://thesheridanpress.com/106354/city-council-votes-to-remove-substance-from-water/?fbclid=IwAR2EUrUX2Q4mwbqVc_TCrYRdnIG9ImNqtkvf_IJl-UVCKU0uLhMYjhig8uk

Fluoride is classified as:

Class 6 – Toxic and Infectious Substances

Class 6 is divided into two divisions as follows

Division 6 Toxic substances

These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact;

Fluoridation is unethical. Informed consent is standard practice for all medication, and one of the key reasons why most of Western Europe has ruled against fluoridation. With water fluoridation we are allowing governments to do to whole communities (forcing people to take a medicine irrespective of their consent) what individual doctors cannot do to individual patients.

Put another way: Does a voter have the right to require that their neighbor ingest a certain medication (even if it is against that neighbor's will)?

<http://fluoridealert.org/articles/50-reasons/>

Fluoridation is UNETHICAL because:

- 1) It violates the individual's right to informed consent to medication.
- 2) The municipality cannot control the dose of the patient.
- 3) The municipality cannot track each individual's response.
- 4) It ignores the fact that some people are more vulnerable to fluoride's toxic effects than others. Some people will suffer while others may benefit.
- 5) It violates the Nuremberg code for human experimentation.

As stated by the recent recipient of the Nobel Prize for Medicine (2000), Dr. Arvid Carlsson:

"I am quite convinced that water fluoridation, in a not-too-distant future, will be consigned to medical history...Water fluoridation goes against leading principles of pharmacotherapy, which is progressing from a stereotyped medication – of the type 1 tablet 3 times a day – to a much more individualized therapy as regards both dosage and selection of drugs. The addition of drugs to the drinking water means exactly the opposite of an individualized therapy."

As stated by Dr. Peter Mansfield, a physician from the UK and advisory board member of the recent government review of fluoridation (McDonagh et al 2000):

"No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: 'Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay. ' It is a preposterous notion."

<http://fluoridealert.org/articles/absurdity/>

Water fluoridation is the practice of adding industrial-grade fluoride chemicals to water for the purpose of preventing tooth decay. One of the little known facts about this practice is that the United States, which fluoridates over 70% of its water supplies, has more people drinking fluoridated water than the rest of the world combined. Most developed nations, including all of Japan and 97% of western Europe, do not fluoridate their water.

In the United States, the Oral Health Division of the Centers Disease Control (CDC) hails fluoridation as one of the "top ten public health achievements of the 20th century." However, comprehensive data from the World Health Organization reveals that there is no discernible difference in tooth decay between the minority of western nations that fluoridate water, and the majority that do not. In fact, the tooth decay rates in many non-fluoridated countries are now lower than the tooth decay rates in fluoridated ones.

As is becoming increasingly clear, fluoridating water supplies is an outdated, unnecessary, and dangerous relic from a 1950s public health culture that viewed mass distribution of chemicals much differently than scientists do today. The few nations that still fluoridate their water should end the practice. Here's three reasons why:

THREE REASONS TO END WATER FLUORIDATION

Reason #1: Fluoridation Is an Outdated Form of Mass Medication

Unlike all other water treatment processes, fluoridation does not treat the water itself, but the person consuming it. The Food & Drug Administration accepts that fluoride is a drug, not a nutrient, when used to prevent disease. By definition, therefore, fluoridating water is a form of medication. This is why most western European nations have rejected the practice — because, in their view, the public water supply is not an appropriate place to be adding drugs, particularly when fluoride is readily available for individual use in the form of toothpaste.

Reason #2: Fluoridation Is Unnecessary and Ineffective

The most obvious reason to end fluoridation is that it is now known that fluoride's main benefit comes from topical contact with the teeth, not from ingestion. Even the CDC's Oral Health Division now acknowledges this. There is simply no need, therefore, to swallow fluoride, whether in the water, toothpaste, or any other form. Further, despite early claims that fluoridated water would reduce cavities by 65%, modern large-scale studies show no consistent or meaningful difference in the cavity rates of fluoridated and non-fluoridated areas.

Reason #3: Fluoridation Is Not a Safe Practice

The most important reason to end fluoridation is that it is simply not a safe practice, particularly for those who have health conditions that render them vulnerable to fluoride's toxic effects.

First, there is no dispute that fluoridation is causing millions of children to develop dental fluorosis, a discoloration of the teeth that is caused by excessive fluoride intake. Scientists from the Centers for Disease Control have even acknowledged that fluoridation is causing “cosmetically objectionable” fluorosis on children's front teeth—an effect that can cause children embarrassment and anxiety at an age when physical appearance is the single most important predictor of self-esteem.

Second, it is known that fluoridated water caused severe bone disease in dialysis patients up until the late 1970s (prior to dialysis units filtering fluoride). While dialysis units now filter out the fluoride, research shows that current fluoride exposures are still resulting in dangerously high bone fluoride levels in dialysis patients and patients with other advanced forms of kidney disease. It is unethical to compromise the health of some members in a population to obtain a purported benefit for another — particularly in the absence of these vulnerable members' knowing consent.

And, finally, a growing body of evidence reasonably indicates that fluoridated water, in addition to other sources of daily fluoride exposure, can cause or contribute to a range of serious effects, including arthritis, damage to the developing brain, reduced thyroid function, and possibly osteosarcoma (bone cancer) in adolescent males.

<http://fluoridealert.org/issues/water/>

While pesticides dominated the duo's list as the most pervasive and damaging chemicals whose presence the public is largely unaware of, fluoride, which is intentionally added to public water supplies as a supposed protectant against tooth decay, is also highly problematic. It is also largely ignored by public health authorities as a possible factor in childhood development problems, even though the science is clear about its dangers.

Like lead, certain industrial solvents and crop chemicals, fluoride is known to accumulate in the human bloodstream, where it eventually deposits into bones and other bodily tissues. In pregnant women, this also includes passing through the bloodstream into the placenta, where it then accumulates in the bones and brain tissue of developing babies. The effects of this are, of course, perpetually damaging, and something that regulatory authorities need to take more seriously.

Fluoride is a neurotoxin

It's no surprise that fluoride could be a cause of ADHD; a 2014 Lancet study by Grandjean and Philip Landrigan concluded that fluoride is a developmental neurotoxin.

"Fluoride appears to fit in with a pattern of other trace elements such as lead, methylmercury, arsenic, cadmium and manganese—adverse effects of these have been documented over time at exposures previously thought to be 'low' and 'safe,'" said pediatrician and researcher Caroline Martinez of Mount Sinai Hospital in New York.

Studies have linked higher exposure to fluoride with lower IQs in children, and have also suggested that water fluoridation may increase the rate at which lead leaches from pipes and into drinking water.

A large body of evidence also suggests that fluoride may act as an endocrine disruptor, including causing changes to the function of the thyroid gland. Because the thyroid gland plays an important role in brain development, this may produce neurological problems, including ADHD.

A February 2015 study conducted by researchers from the University of Kent, found that high levels of water fluoridation are also associated with thyroid dysfunction. The researchers, who looked at data from 98 percent of English general practitioners, found that areas with the greatest fluoridation had 30 percent higher rates of underactive thyroid. This can produce symptoms such as weight gain, depression and fatigue.

Fluoride intake has also been linked to cancer.

As of June 2018, a total of 60 studies have investigated the relationship between fluoride and human intelligence, and over 40 studies have investigated the relationship fluoride and learning/memory in animals. Of these investigations, 53 studies have found that elevated fluoride exposure is associated with reduced IQ in humans, while 45

animal studies have found that fluoride exposure impairs the learning and/or memory capacity of animals. The human studies, which are based on IQ examinations of over 15,000 children, provide compelling evidence that fluoride exposure during the early years of life can damage a child's developing brain.

After reviewing 27 of the human IQ studies, a team of Harvard scientists concluded that fluoride's effect on the young brain should now be a "high research priority." (Choi, et al 2012). Other reviewers have reached similar conclusions, including the prestigious National Research Council (NRC), and scientists in the Neurotoxicology Division of the Environmental Protection Agency (Mundy, et al). In the table below, we summarize the results from the 51 studies that have found associations between fluoride and reduced IQ and provide links to full-text copies of the studies. For a discussion of the 7 studies that did not find an association between fluoride and IQ, [click here](#).

<http://fluoridealert.org/studies/brain01/>

The human placenta does not prevent the passage of fluoride from a pregnant mother's bloodstream to the fetus. As a result, a fetus can be harmed by fluoride ingested pregnancy. Based on research from China, the fetal brain is one of the organs susceptible to fluoride poisoning.

As highlighted by the excerpts below, three Chinese studies have investigated fluoride's effect on the fetal brain and each has found evidence of significant neurological damage, including neuronal degeneration and reduced levels of neurotransmitters such as norepinephrine. As noted by Yu (1996), "when norepinephrine levels drop the ability to maintain an appropriate state of activation in the central nervous system is weakened." Studies of fluoride-treated animals have reported similar effects, including lower levels of norepinephrine. (Kaur 2009; Li 1994).

The Safe Level Is Not Yet Known

The fluoride levels which the pregnant women in these studies were exposed are higher than most women in western countries can expect to ingest. The safety of lower fluoride levels to fetal brain development has not yet been investigated, and remains to be determined. Interestingly, in the 1960s, the FDA banned the use of prenatal fluoride supplements based on its concern about possible untoward effects on the fetus.

http://fluoridealert.org/studies/brain05_/

In addition to studies linking fluoride to reduced IQ in humans, and impaired learning/memory in animals, human and animal studies have also linked fluoride to a variety of other neurobehavioral effects. These studies, which are excerpted below, provide yet further evidence that fluoride is a neurotoxin.

The importance of considering other indices of fluoride neurotoxicity besides reduced IQ was recently discussed by a team of Mexican researchers. (Rocha-Amador 2009). As the researchers noted:

“Intuitively, though it might seem that an IQ test would be an ideal measure [for determining the neurotoxic effects of a chemical], this assumption would be ill founded, because some toxicants could affect only specific functions, such as attention, memory, language, or visuospatial abilities without clear decrements on IQ scores. Furthermore, the exposure dose as well as mixtures of toxicants are important factors that also need to be considered.”

To help highlight this point, the researchers cited their earlier study which found that although fluoride did not affect overall IQ scores, it did affect reaction time and visual-spatial organization. (Calderon 2000).

To better understand fluoride’s non-IQ effects on the brain, the Mexican team suggests using the Rey-Osterrieth Complex Figure (ROCF) Test:

“[I]t is imperative to have a tool for rapid risk assessment to quantitatively measure health effects. In neuropsychology there are several tests that can be used for this purpose but many of them have issues including lack of validation and standardized values for the Mexican population, furthermore the influence of cultural factors also limits their usefulness. These issues could be solved in part by the Rey-Osterrieth Complex Figure (ROCF) Test. This test is one of the most widely used in neuropsychology for the evaluation of visuospatial constructional ability and non-verbal memory skills in both clinical and research settings.”

SOURCE: Rocha-Amador, D. et al (2009). Use of the Rey-Osterrieth Complex Figure Test for neurotoxicity evaluation of mixtures in children. *Neurotoxicology* 30(6):1149-54

http://fluoridealert.org/studies/brain03_/

Since then our opposition to drinking water fluoridation has grown, based on the scientific literature documenting the increasingly out-of-control exposures to fluoride, the lack of benefit to dental health from ingestion of fluoride and the hazards to human health from such ingestion. These hazards include acute toxic hazard, such as to people with impaired kidney function, as well as chronic toxic hazards of gene mutations, cancer, reproductive effects, neurotoxicity, bone pathology and dental fluorosis. First, a review of recent neurotoxicity research results.

In 1995, Mullenix and co-workers (2) showed that rats given fluoride in drinking water at levels that give rise to plasma fluoride concentrations in the range seen in humans suffer neurotoxic effects that vary according to when the rats were given the fluoride – as adult animals, as young animals, or through the placenta before birth. Those exposed before birth were born hyperactive and remained so throughout their lives. Those exposed as young or adult animals displayed depressed activity. Then in 1998, Guan and co-workers (3) gave doses similar to those used by the Mullenix research group to try to understand the mechanism(s) underlying the effects seen by the Mullenix group. Guan’s group found that several key chemicals in the brain – those that form the membrane of brain cells – were substantially depleted in rats given fluoride, as compared to those who did not get fluoride.

<http://fluoridealert.org/articles/epa-union/>

More links

<https://www.hsph.harvard.edu/news/features/fluoride-childrens-health-grandjean-choi/?fbclid=IwAR0uwX2WxoGwmM8UCKvWzmaulEM2UpMpGtZ5h9BNe2clj4wtH4CxSOA0c3o>

<http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2813%2970278-3/abstract>

Developmental Fluoride Neurotoxicity: A Systematic Review and Meta-Analysis
<https://www.ncbi.nlm.nih.gov/pmc/?term=10.1289/ehp.1104912#Ahead%20of%20Print%20%28AOP%29>

<https://www.nap.edu/catalog/11571/fluoride-in-drinking-water-a-scientific-review-of-epas-standards>

<https://childrenshealthdefense.org/news/u-s-water-fluoridation-a-forced-experiment-that-needs-to-end/>

A NEW BILL would see people prosecuted for putting fluoride into the water supply in Ireland – and they could serve up to five years in prison.

<https://www.thejournal.ie/ban-fluoride-ireland-902100-May2013/>

SB-2997

Submitted on: 2/9/2020 9:18:34 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mitsuko Hayakawa	Individual	Oppose	No

Comments:

Members of the Senate Judiciary Committee,

I strongly OPPOSE SB2997. A neurotoxin as fluoride does not belong in our drinking water. My son had had fluorosis until I had found out that his bottled drinking water had fluoride. As soon as we switched to drinking tap water his fluorosis went away. Everybody has different needs to maintain optimal health. In my family, fluoridated water DOES NOT work. Do NOT assume that injecting fluoride is good for everybody. If you would like to prevent tooth decay with fluoride, you can choose to use fluoride toothpaste. There are other ways to address dental issues than to FORCE everybody to drink fluoridated water.

I strongly urge you to OPPOSE this bill.

Sincerely,

Mitsuko Hayakawa

SB-2997

Submitted on: 2/10/2020 1:57:50 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
jenelle higgins	Individual	Oppose	No

Comments:

Aloha,

I am submitting a testimony concerning the proposed bill (SB2997) for water fluoridation in the state of Hawaii, I am opposed to such action as One of the reasons I chose to live in the state was due to the lack of water fluoridation. Please do not add this neurotoxin to our water supply, it is a disservice to the community and greater population. There is very little evidence showing that it is beneficial for dental health

Mahalo for reading my testimony in regards to bill SB2997.

Jenelle Higgins

SB-2997

Submitted on: 2/10/2020 10:05:43 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Ana Kahoopii	Individual	Oppose	No

Comments:

STOP THIS LUNACY! Start taking care of some issues like homelessness and a living wage. Citizens are tired of this constant legislative stupidity:

Fluoridating water supplies is an outdated, unnecessary, and dangerous relic from a 1950s public health culture that viewed mass distribution of chemicals much differently than scientists do today. The few nations that still fluoridate their water should end the practice.

Fluoridation is UNETHICAL because:

- 1) It violates the individual's right to informed consent to medication.
- 2) The municipality cannot control the dose of the patient.
- 3) The municipality cannot track each individual's response.
- 4) It ignores the fact that some people are more vulnerable to fluoride's toxic effects than others. Some people will suffer while others may benefit.
- 5) It violates the Nuremberg code for human experimentation.

Water fluoridation is the practice of adding industrial-grade fluoride chemicals to water for the purpose of preventing tooth decay. One of the little known facts about this practice is that the United States, which fluoridates over 70% of its water supplies, has more people drinking fluoridated water than the rest of the world combined. Most developed nations, including all of Japan and 97% of western Europe, do not fluoridate their water.

SB-2997

Submitted on: 2/10/2020 4:10:42 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Giselle Kananiokakai Guerrero	Individual	Oppose	No

Comments:

Aloha, adding a neurotoxin to our water is unnecessary and unsafe for the health of the people. Flourite is illegal in most countries because of its toxic properties, flourite leads to calcifying you're pineal gland which is a very important part of your brain that helps expand consciousness and free thought. Our water is good and pure how it is, there is no need to jeopardize the safety of the water with flourite.

SB-2997

Submitted on: 2/9/2020 10:45:04 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marcy Koltun-Crilley	Individual	Oppose	No

Comments:

I strongly oppose this bill

Mahalo

SB-2997

Submitted on: 2/10/2020 12:39:50 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Amy Marie Long	Individual	Oppose	No

Comments:

This Bill is insane! We should NOT be adding anything toxic to our water! We have a right to clean water and good health! I strongly oppose this bill.

Some relevant information:

Fluoride is classified as:

Class 6 – Toxic and Infectious Substances

Class 6 is divided into two divisions as follows

Division 6 Toxic substances

These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact;

Fluoridation is unethical. Informed consent is standard practice for all medication, and one of the key reasons why most of Western Europe has ruled against fluoridation. With water fluoridation we are allowing governments to do to whole communities (forcing people to take a medicine irrespective of their consent) what individual doctors cannot do to individual patients.

Put another way: Does a voter have the right to require that their neighbor ingest a certain medication (even if it is against that neighbor's will)?

PLEASE DO NOT PASS THIS HARMFUL BILL!

SB-2997

Submitted on: 2/10/2020 12:26:04 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
clare loprinzi	Testifying for Birth Sovereignty	Oppose	No

Comments:

flouride is not safe for us, there are better ways to clean water instead of poisoning it and you take away choices that all deserve to choose what is in their life, water is life.

you have kuleana to malama aina, malama kai, malama wai and malama na keiki.

vote this bill out of here.

mahalo clare loprinzi, traditional midwife, mother, mamma,

SB-2997

Submitted on: 2/8/2020 10:35:46 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Luborsky	Individual	Oppose	No

Comments:

To whom it may concern,

My research indicates for one that fluoridation of public water supplies has no scientific support from a randomized clinical trial (see attached file, a letter in response to an article titled "Is Fluoridated Water Safe?" from the Spring 2016 issue of Harvard Public Health Magazine.

In addition, there are concerns around evidence suggesting that fluoride has negative effects on the brain, as illustrated in the 2014 article in the Lancet (see attached file).

There is evidence that fluoride can negatively affect dental and bone health, also illustrated in the letter in response to the Harvard Public Health Magazine.

I encourage you to question the safety and relevance of SB 2997.

Mahalo nui loa,

- Dave Luborsky

SB-2997

Submitted on: 2/10/2020 6:32:20 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Stephen Luksic	Individual	Oppose	No

Comments:

Please stop trying to poison my family. How can I protect my family from people poisoning the water supply? Who can I call to stop this? There is enough literature, reports and legal precedent to remove fluoride from the public water system. If you truly cared about the health of Hawaiian citizens you would remove the profit mechanism from health care insurance companies. Please don't poison our kids with an arcane implementation of a neurotoxin. I am fearful for the safety of family if you proceed with this action.

SB-2997

Submitted on: 2/10/2020 1:53:50 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Gretchen Manzer	Individual	Oppose	No

Comments:

Our family OPPOSES this bill. We do not want flouride added to our drinking water! Flouride is a bi-product of the aluminim industry and a known neurotoxin. Access to flouride free drinking water is one of many reasons we love living in Hawaii. Our boys, now ages 16 and 11, have been born and raised in Hawaii, on non flouridated water, and have never had 1 single cavity. Flouride does NOT equal dental health. Please keep our water pure, clean and free from flouride.

Warmest Aloha,

Gretchen Manzer

SB-2997

Submitted on: 2/7/2020 9:18:12 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
lynne matusow	Individual	Oppose	No

Comments:

As a senior citizen who is well aware of how fluoride can make bones brittle and badly impact those with osteoporosis, I strongly oppose this measure, which seems to rear its ugly head annually. There is enough fluoride in toothpaste for those who need its protection. Do not poison us by adding it to our water supply. If you do, then you should provide free bottled water for our cooking and drinking needs to everyone who requests it.

lynne matusow

SB-2997

Submitted on: 2/10/2020 2:58:15 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Margaret Maupin	Individual	Oppose	No

Comments:

There are studies that question the health and safety of fluoride in the water. Please allow parents to choose. Fluoride can be taken orally (as needed or desired) and/or it can be "Painted" topically on the teeth.

SB-2997

Submitted on: 2/9/2020 9:33:38 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Zachary Mermel	Individual	Oppose	No

Comments:

To whom it may concern,

Please vote against SB 2997. Fluoridization of our domestic water supply is a human and environmental health risk that should be avoided. As an industrial by-product, fluoride is known to kill enzymes and also disrupts collagen synthesis. Kindly vote against SB 2997.

Respectfully submitted,

Zachary Mermel

SB-2997

Submitted on: 2/10/2020 10:38:43 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jessica Mitchell	Individual	Oppose	No

Comments:

Please stop pushing chemicals Roz Baker!

To; The Judiciary Committee

Aloha Judiciary Chair Rhoads, and committee members,

I strongly **OPPOSE** this bill, **SB2997**.

“We should recognize that fluoride has beneficial effects on dental development and protection against cavities. But do we need to add it to drinking water so it gets into the bloodstream and potentially into the brain? ~*Philippe Grandjean, adjunct professor of environmental health, Harvard T.H. Chan School of Public Health.*

“Evidence is mounting that in an era of fluoridated toothpastes and other consumer products that boost dental health, the potential risks from consuming fluoridated water may outweigh the benefits for some individuals.” ~ *Harvard Public Health.*

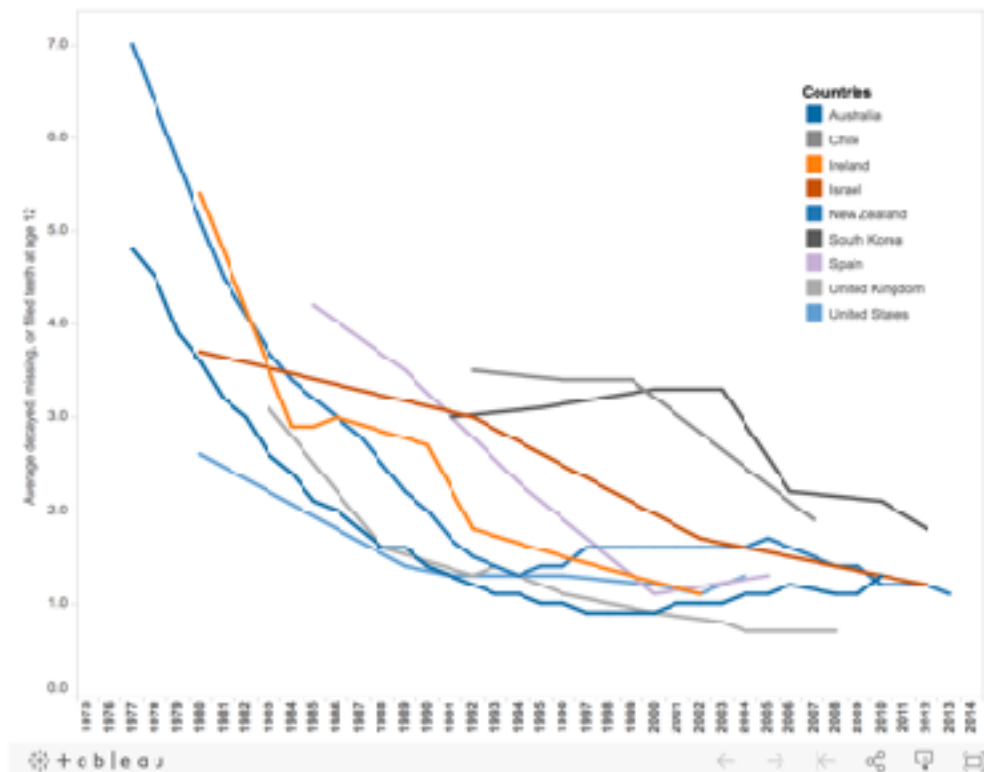
Moreover, fluoride itself may be dangerous at high levels. Excessive fluoride causes fluorosis—... Fluoride can also become concentrated in bone—stimulating bone cell growth, altering the tissue’s structure, and weakening the skeleton.

The early studies didn’t take into account the subsequent widespread use of fluoride-containing toothpastes and other dental fluoride supplements, which also prevent cavities.

This may explain why countries that do not fluoridate their water have also seen big drops in cavity rates (*see charts*).

Countries with fluoridated water (drops in cavity rate):

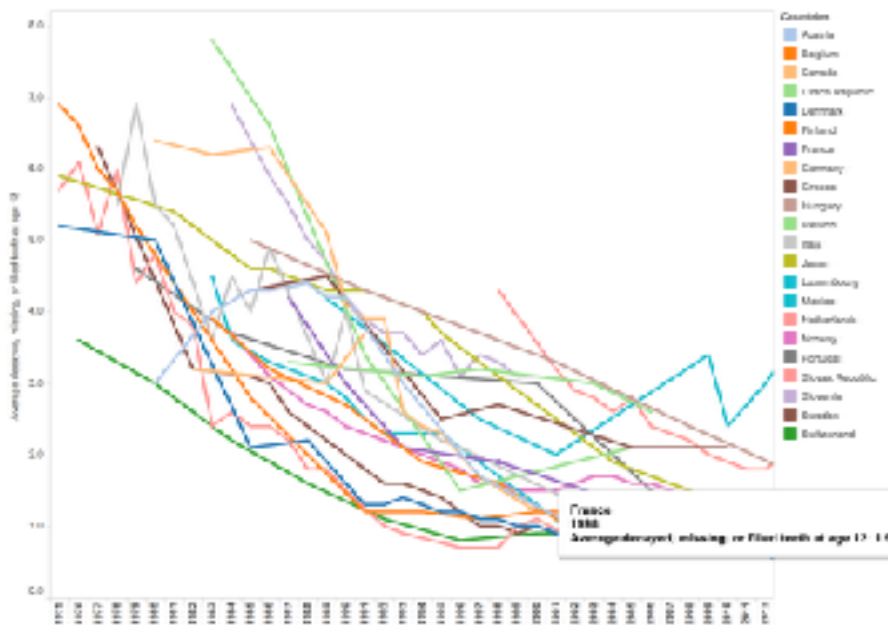
Countries with fluoridated water



Source:
OECD.Stat/
Dental Health

Countries without fluoridated water (drops in cavity rate):

Countries without fluoridated water



Please **OPPOSE** this bill, **SB2997**, because;

- – The fluoride benefit is topical rather than systemic (11,56,57), hence, it is better to deliver fluoride directly to the tooth using the toothpaste instead of ingesting it
- – Furthermore, tooth decay is widely spread in fluoridated low-income countries where the absence of dental care and poor hygiene are the main causes of dental decay.
- – In addition, several animal and human studies on fluoride show some neurotoxic (38–42) and nephrotoxic (43) effects. Other negative effects of fluoride, even when administered in small doses (starting 0.3 ppm), occur on the levels of the thyroid function (44), the skeletal system (45,46) and the reproductive system (47–49).

~ Connett P. 50 reasons to oppose fluoridation. *Medical Veritas*. 2004;1:70–80. doi: 10.1588/medver.2004.01.00014.

In conclusion, I urge you again, to **OPPOSE** this bill, **SB2997**.

Mahalo for you kind attention,

Mary Whispering Wind

SB-2997

Submitted on: 2/10/2020 10:48:29 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Norasinh	Individual	Oppose	No

Comments:

Strongly oppose this uniformed distribution of "dental treatment". I have worked in the dental field for 15 years and there is no correlation with consumption of fluoride and healthier teeth. Fluoride is toxic when it is ingested. Topically applied fluoride is not appropriate in all cases so why should we all be ingesting this poison. Let Dentists and patients decide when to apply fluoride as a medical treatment. There is fluoride in toothpaste also. This is an overstep. Why not provide free fluoride treatment instead of this huge expense of dumping an industrial waste into our water system in an attempt to make them sign up for dental insurance. Dental insurance rarely covers fluoride anyway. Can we not leave anything alone and pure anymore? There are many many ways to prevent tooth decay other than this threat to our health.

Please oppose SB2997.

SB-2997

Submitted on: 2/9/2020 9:46:03 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shawna Pereira	Individual	Oppose	No

Comments:

Please keep our water fluoride free, fluoride is a neurotoxin that many do not want in their body. I oppose this bill.

Thank you,

Shawna Pereira

SB-2997

Submitted on: 2/10/2020 8:13:18 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Carlos Ramirez	Individual	Oppose	No

Comments:

Aloha,

I oppose SB2997. I am against this bill due to the nature of the chemical fluoride being a by-product that is a neurotoxin that can affect a person (childs') growth. It is a waste product that has been reported in multiple areas in our country. The pros of use of this product are overpowered by the cons and has no ethical use in the state of Hawaii.

The use of this product will also be a huge expense to the state tax payers to convert our water supplies system for use of fluoride.

Again, I oppose SB2997.

Sincerely,

Carlos Ramirez

Carloslee.Ramirez@gmail.com

SB-2997

Submitted on: 2/10/2020 1:18:55 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Heather Ramirez	Individual	Oppose	No

Comments:

I am strongly AGAINST SB2997. It is unethical to add fluoridation to our public water system. If this is done, there will be no proper oversight in how much each person is consuming based on their weight. There is no way to know if someone will have an adverse reaction to this chemical. Also, if people take too much, we could potentially get fluorosis and other side effects, considering this is a neurotoxin. This is a class 6 toxin that is being considered to be added to our water. Don't do it, please. All citizens already have access to fluoride in toothpaste or dentists. These are much safer ways to access fluoride if you really want it. For the people who are "low income", there is help that they can access if they really need it. The majority of people here have coverage. The true reason for our bad teeth is malnutrition. Our American diet is the worst for healthy teeth.

There is also the added expense of converting our current water system to add fluoride. Are you, the government, willing to pay the extra that is needed to implement this? And by you I mean your personal pockets. Not passing the expense to the people in more taxes. We are taxed enough for the rail. Don't add this additional hardship to our already overtaxed people.

Please, vote AGAINST SB2997 and help protect the people from a class 6 toxin, a known neurotoxin and an unneeded added expense and additional tax to people who are already drastically overtaxed. Thank you for your consideration.

Sincerely,

Heather Ramirez

heather.kehaulani@gmail.com

SB-2997

Submitted on: 2/10/2020 1:08:24 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph	Individual	Oppose	No

Comments:

Oppose.

Don't you get it? This bill comes back year after year & constituents consistently testify NO. Please quit wasting time on this; there are too many other important issues that need your attention.

SB-2997

Submitted on: 2/10/2020 12:21:37 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jaroslava Sibia	Individual	Oppose	No

Comments:

I strongly oppose SB2997

SB-2997

Submitted on: 2/9/2020 10:13:14 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Bethanie Hancock Sidwell	Individual	Oppose	No

Comments:

I Strongly oppose this Bill! I do NOT consent!

SB-2997

Submitted on: 2/9/2020 11:36:33 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Silva	Individual	Oppose	No

Comments:

I do not want our water fluoridated....I strongly oppose SB2997

SB-2997

Submitted on: 2/10/2020 8:08:30 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Stephanie Whaley	Individual	Oppose	No

Comments:

Absolutely opposed to adding fluoride to the Hawaii public water system. Johns Hopkins showed in the 1930's that fluoride CAUSES molting (cavities) in the teeth. There is overwhelming scientific evidence that fluoride does more harm than good. Fluoride displaces calcium in the bones and iodine in the thyroid. Water fluoridation has nothing to do with public health and everything to do with ignorant and corrupt politicians. This is not in our best interest.

To; The Judiciary Committee

Aloha Judiciary Chair Rhoads, and committee members,

I strongly **OPPOSE** this bill, **SB2997**.

“We should recognize that fluoride has beneficial effects on dental development and protection against cavities. But do we need to add it to drinking water so it gets into the bloodstream and potentially into the brain? ~*Philippe Grandjean, adjunct professor of environmental health, Harvard T.H. Chan School of Public Health.*

“Evidence is mounting that in an era of fluoridated toothpastes and other consumer products that boost dental health, the potential risks from consuming fluoridated water may outweigh the benefits for some individuals.” ~ *Harvard Public Health.*

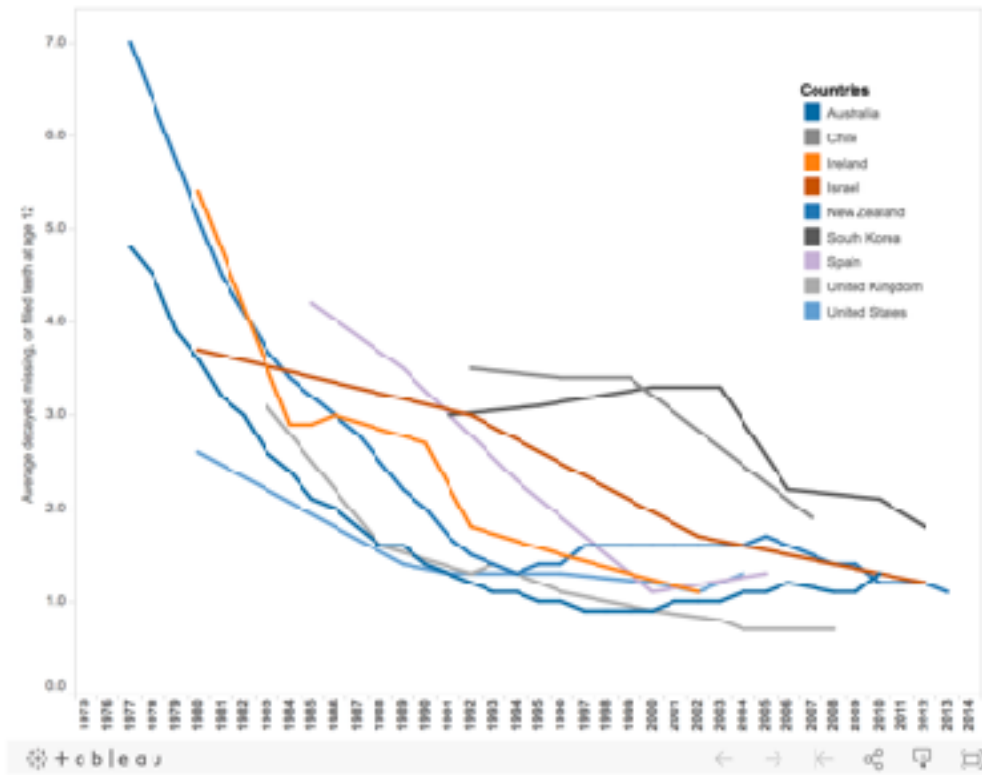
Moreover, fluoride itself may be dangerous at high levels. Excessive fluoride causes fluorosis—... Fluoride can also become concentrated in bone—stimulating bone cell growth, altering the tissue’s structure, and weakening the skeleton.

The early studies didn’t take into account the subsequent widespread use of fluoride-containing toothpastes and other dental fluoride supplements, which also prevent cavities.

This may explain why countries that do not fluoridate their water have also seen big drops in cavity rates (*see charts*).

Countries with fluoridated water (drops in cavity rate):

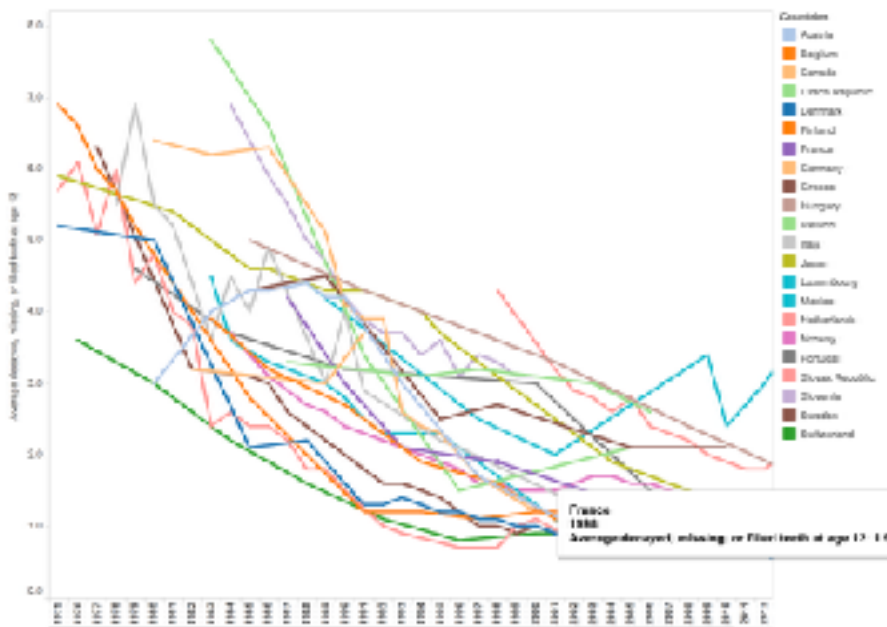
Countries with fluoridated water



Source:
OECD.Stat/
Dental Health

Countries without fluoridated water (drops in cavity rate):

Countries without fluoridated water



Please **OPPOSE** this bill, **SB2997**, because;

- – The fluoride benefit is topical rather than systemic (11,56,57), hence, it is better to deliver fluoride directly to the tooth using the toothpaste instead of ingesting it
- – Furthermore, tooth decay is widely spread in fluoridated low-income countries where the absence of dental care and poor hygiene are the main causes of dental decay.
- – In addition, several animal and human studies on fluoride show some neurotoxic (38–42) and nephrotoxic (43) effects. Other negative effects of fluoride, even when administered in small doses (starting 0.3 ppm), occur on the levels of the thyroid function (44), the skeletal system (45,46) and the reproductive system (47–49).

~ Connett P. 50 reasons to oppose fluoridation. *Medical Veritas*. 2004;1:70–80. doi: 10.1588/medver.2004.01.00014.

In conclusion, I urge you again, to **OPPOSE** this bill, **SB2997**.

Mahalo for you kind attention,

Mary Whispering Wind

SB-2997

Submitted on: 2/10/2020 12:50:28 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nichole A.	Individual	Oppose	No

Comments:

I strongly oppose this bill. There is no divinitive proof that ingesting floridated water actually helps maintain teeth health. In fact when we get floride at the dentist we are told to not eat or drink anything for half an hour so that the floride doesn't get washed down our throats. Floridated water is not a health benefit for anyone and we see proof in other states that have floride in their water and still have poor dental health.

SB-2997

Submitted on: 2/10/2020 12:37:52 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kahealani	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/9/2020 1:18:56 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
NYSCOF	Individual	Oppose	No

Comments:

Fluoride/Brain Research is Alarming and Growing

Gov't Never Studied Brain Effects Before Assuring Fluoridation Safety

Water fluoridation is linked to Attention-Deficit/Hyperactivity Disorder (ADHD), according to a study in [Environment International](#) (December 2019), adding to the growing pile of scientific literature linking fluoride to neurological disorders e.g. [lower IQ](#), [Autism](#), [poor memory](#), [dementia](#), [Alzheimer's Disease](#). Governments failed to determine fluoride's toxic brain effects before declaring fluoridation safe in the early 1900's. So one is left to wonder if fluoridation promoters are protecting their own political viability rather than the brain health of Americans.

Unnecessary fluoride chemicals are added to public water supplies attempting to reduce tooth decay in tap water drinkers. But [evidence shows it's failing](#)

Additionally, a study in the January 2020 concludes: "low-moderate fluoride exposure is associated with alterations in thyroid function that may modify the association between fluoride and intelligence." ([Environment International](#)). This was predicted in a July 2019 [University of Calgary public health fluoride report](#) which stated that thyroid disturbances may underlie fluoride effects on the developing brain.

Also this Canadian report concludes: "There is some new emerging evidence that fluoride exposure during pregnancy may be harmful to the brain development of children."

"Fluoride is presumed to be a cognitive neurodevelopmental hazard to humans," concludes the US HHS's [National Toxicology Program's](#) monograph, *Systematic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects* (Draft 9/6/2019).

NTP writes: "This conclusion is based on a consistent pattern of findings in human studies across several different populations showing that higher fluoride exposure is associated with decreased IQ or other cognitive impairments in children."

[Six Mother-Child studies](#) link fluoride to offspring's lower IQ. Sixty-one studies found elevated fluoride exposure associated with [reduced IQ in humans](#). Over [400 more fluoride/neurotoxic studies](#) support its biological plausibility.

EPA admits that fluoride is a chemical with "[Substantial Evidence of Developmental Neurotoxicity](#)."

At EPA's request, the National Research Council (NRC) reviewed fluoride toxicology research to [conclude in 2006](#), "fluorides have the ability to interfere with the functions of the brain." EPA was advised to reduce the safe fluoride levels allowed in public water supplies based on NRC guidance. But since NRC's review, hundreds of fluoride/brain studies were published; yet EPA has still taken no action.

Based on this evidence and more, [consumer groups are suing the EPA](#) to recognize fluoride's brain effects when setting safe water fluoride levels now based solely on fluoride's adverse bone and teeth effects. The Trial date is currently set for April 2020.

Government agencies and organized dentistry were irresponsible to instigate fluoridation without brain-safety evidence. Instead, they continue to protect fluoridation and their own carelessness by demanding more research. Shouldn't that have been done 75 years ago?

The precautionary principle dictates that, at least, pregnant women should be advised to avoid ingesting fluoride. The fetus derives no benefit from fluoride, anyway. Brains don't need fluoride. At best, put fluoride on your teeth not in your brain or the water.

Fluoride is [NOT a nutrient or essential for healthy teeth](#) as it was mistakenly assumed to be when fluoridation was introduced in 1945, meaning that consuming a fluoride-free diet will NOT cause tooth decay.

Over 30 studies in the last couple of years ignite even more doubt of fluoridation's safety <https://fluoridedangers.blogspot.com/2019/01/fluoride-disparaging-studies-rarely.html>

Fluoridation really doesn't make any sense.

ENDIT

SB-2997

Submitted on: 2/9/2020 9:22:07 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
sharon	Individual	Oppose	No

Comments:

proven POISON

protect our Keiki!!!

NO Fluoride in our water!

causes Alzheimer's and dementia!!!

SB-2997

Submitted on: 2/10/2020 4:57:14 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
gretchen	Individual	Oppose	No

Comments:

Strong oppose.

My family and extended family do not use fluoride. It is a known neurotoxin. Applied to teeth it 'can' harden them. But ingested has absolutely NO HEALTH BENEFIT. I urge you, please do not poison the community. Please.

thank you

Gretchen

SB-2997

Submitted on: 2/10/2020 4:59:18 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
B Miyano-Young	Individual	Oppose	No

Comments:

Fluoride is a toxin that should NOT be in our drinking water!

Even when a dentist applies it to your teeth, you are instructed NOT to swallow it! I specifically even choose to buy toothpastes without it. I do not have a mouthful of cavities because of my choice. My father was a dentist. Even he was against fluoridation of City Water!

I know when this issue came up for discussion many years ago, even the zoo was opposed, saying that putting fluoride into our water system will even kill the elephants. No matter how big or small, it is not healthy to ingest! I am not exactly sure how plants would react to being watered w flouride, but plants watered even w salt water will die. Believe me, flouride is much more toxic than salt!

Exposure to Flouride should be a choice (& believe me, it would never be a wise choice)- not by Force!

Please, please, please for the sake of our basic right to Pure Water, please consider the health and well being for not only the people, but also the animals and even plants that deserve as clean and natural water as possible!

With Aloha,

Barbara

A very concerned citizen & lifelong resident and member of our community.

SB-2997

Submitted on: 2/10/2020 5:24:04 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Lacques	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 5:05:20 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Natasha Noble	Individual	Oppose	No

Comments:

As a resident of Hawaii I STRONGLY OPPOSE this bill. Please do not put poison in our water. Please read all included information and do NOT pass this bill. Mahalo, Natasha

Throughout the discussions about fluoride, many local residents voiced opposition to the water additive. Some cited health concerns, others argued that residents shouldn't be medicated through the water system and still others expressed the desire to see the issue put on a ballot for voters.

After years of debate, Tuesday evening will mark the end of an approximately four-year practice of water fluoridation in Sheridan.

https://thesheridanpress.com/106354/city-council-votes-to-remove-substance-from-water/?fbclid=IwAR2EUrUX2Q4mwbqVc_TCrYRdnIG9ImNqtkvf_IJl-UVCKU0uLhMYjhig8uk

Fluoride is classified as:

Class 6 – Toxic and Infectious Substances

Class 6 is divided into two divisions as follows

Division 6 Toxic substances

These are substances liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact;

Fluoridation is unethical. Informed consent is standard practice for all medication, and one of the key reasons why most of Western Europe has ruled against fluoridation. With water fluoridation we are allowing governments to do to whole communities (forcing people to take a medicine irrespective of their consent) what individual doctors cannot do to individual patients.

Put another way: Does a voter have the right to require that their neighbor ingest a certain medication (even if it is against that neighbor's will)?

<http://fluoridealert.org/articles/50-reasons/>

Fluoridation is UNETHICAL because:

- 1) It violates the individual's right to informed consent to medication.
- 2) The municipality cannot control the dose of the patient.

- 3) The municipality cannot track each individual's response.
- 4) It ignores the fact that some people are more vulnerable to fluoride's toxic effects than others. Some people will suffer while others may benefit.
- 5) It violates the Nuremberg code for human experimentation.

As stated by the recent recipient of the Nobel Prize for Medicine (2000), Dr. Arvid Carlsson:

"I am quite convinced that water fluoridation, in a not-too-distant future, will be consigned to medical history... Water fluoridation goes against leading principles of pharmacotherapy, which is progressing from a stereotyped medication – of the type 1 tablet 3 times a day – to a much more individualized therapy as regards both dosage and selection of drugs. The addition of drugs to the drinking water means exactly the opposite of an individualized therapy."

As stated by Dr. Peter Mansfield, a physician from the UK and advisory board member of the recent government review of fluoridation (McDonagh et al 2000):

"No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: 'Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay. ' It is a preposterous notion."

<http://fluoridealert.org/articles/absurdity/>

Water fluoridation is the practice of adding industrial-grade fluoride chemicals to water for the purpose of preventing tooth decay. One of the little known facts about this practice is that the United States, which fluoridates over 70% of its water supplies, has more people drinking fluoridated water than the rest of the world combined. Most developed nations, including all of Japan and 97% of western Europe, do not fluoridate their water.

In the United States, the Oral Health Division of the Centers Disease Control (CDC) hails fluoridation as one of the "top ten public health achievements of the 20th century." However, comprehensive data from the World Health Organization reveals that there is no discernible difference in tooth decay between the minority of western nations that fluoridate water, and the majority that do not. In fact, the tooth decay rates in many non-fluoridated countries are now lower than the tooth decay rates in fluoridated ones.

As is becoming increasingly clear, fluoridating water supplies is an outdated, unnecessary, and dangerous relic from a 1950s public health culture that viewed mass distribution of chemicals much differently than scientists do today. The few nations that still fluoridate their water should end the practice. Here's three reasons why:

THREE REASONS TO END WATER FLUORIDATION

Reason #1: Fluoridation Is an Outdated Form of Mass Medication

Unlike all other water treatment processes, fluoridation does not treat the water itself, but the person consuming it. The Food & Drug Administration accepts that fluoride is a drug, not a nutrient, when used to prevent disease. By definition, therefore, fluoridating water is a form of medication. This is why most western European nations have rejected the practice — because, in their view, the public water supply is not an appropriate place to be adding drugs, particularly when fluoride is readily available for individual use in the form of toothpaste.

Reason #2: Fluoridation Is Unnecessary and Ineffective

The most obvious reason to end fluoridation is that it is now known that fluoride's main benefit comes from topical contact with the teeth, not from ingestion. Even the CDC's Oral Health Division now acknowledges this. There is simply no need, therefore, to swallow fluoride, whether in the water, toothpaste, or any other form. Further, despite early claims that fluoridated water would reduce cavities by 65%, modern large-scale studies show no consistent or meaningful difference in the cavity rates of fluoridated and non-fluoridated areas.

Reason #3: Fluoridation Is Not a Safe Practice

The most important reason to end fluoridation is that it is simply not a safe practice, particularly for those who have health conditions that render them vulnerable to fluoride's toxic effects.

First, there is no dispute that fluoridation is causing millions of children to develop dental fluorosis, a discoloration of the teeth that is caused by excessive fluoride intake. Scientists from the Centers for Disease Control have even acknowledged that fluoridation is causing “cosmetically objectionable” fluorosis on children's front teeth—an effect that can cause children embarrassment and anxiety at an age when physical appearance is the single most important predictor of self-esteem.

Second, it is known that fluoridated water caused severe bone disease in dialysis patients up until the late 1970s (prior to dialysis units filtering fluoride). While dialysis units now filter out the fluoride, research shows that current fluoride exposures are still resulting in dangerously high bone fluoride levels in dialysis patients and patients with other advanced forms of kidney disease. It is unethical to compromise the health of some members in a population to obtain a purported benefit for another — particularly in the absence of these vulnerable members' knowing consent.

And, finally, a growing body of evidence reasonably indicates that fluoridated water, in addition to other sources of daily fluoride exposure, can cause or contribute to a range of serious effects, including arthritis, damage to the developing brain, reduced thyroid function, and possibly osteosarcoma (bone cancer) in adolescent males.

<http://fluoridealert.org/issues/water/>

While pesticides dominated the duo's list as the most pervasive and damaging chemicals whose presence the public is largely unaware of, fluoride, which is intentionally added to public water supplies as a supposed protectant against tooth decay, is also highly problematic. It is also largely ignored by public health authorities as a possible factor in childhood development problems, even though the science is clear about its dangers.

Like lead, certain industrial solvents and crop chemicals, fluoride is known to accumulate in the human bloodstream, where it eventually deposits into bones and other bodily tissues. In pregnant women, this also includes passing through the bloodstream into the placenta, where it then accumulates in the bones and brain tissue of developing babies. The effects of this are, of course, perpetually damaging, and something that regulatory authorities need to take more seriously.

Fluoride is a neurotoxin

It's no surprise that fluoride could be a cause of ADHD; a 2014 Lancet study by Grandjean and Philip Landrigan concluded that fluoride is a developmental neurotoxin.

"Fluoride appears to fit in with a pattern of other trace elements such as lead, methylmercury, arsenic, cadmium and manganese—adverse effects of these have been documented over time at exposures previously thought to be 'low' and 'safe,'" said pediatrician and researcher Caroline Martinez of Mount Sinai Hospital in New York.

Studies have linked higher exposure to fluoride with lower IQs in children, and have also suggested that water fluoridation may increase the rate at which lead leaches from pipes and into drinking water.

A large body of evidence also suggests that fluoride may act as an endocrine disruptor, including causing changes to the function of the thyroid gland. Because the thyroid gland plays an important role in brain development, this may produce neurological problems, including ADHD.

A February 2015 study conducted by researchers from the University of Kent, found that high levels of water fluoridation are also associated with thyroid dysfunction. The researchers, who looked at data from 98 percent of English general practitioners, found that areas with the greatest fluoridation had 30 percent higher rates of underactive thyroid. This can produce symptoms such as weight gain, depression and fatigue.

Fluoride intake has also been linked to cancer.

As of June 2018, a total of 60 studies have investigated the relationship between fluoride and human intelligence, and over 40 studies have investigated the relationship fluoride and learning/memory in animals. Of these investigations, 53 studies have found that elevated fluoride exposure is associated with reduced IQ in humans, while 45

animal studies have found that fluoride exposure impairs the learning and/or memory capacity of animals. The human studies, which are based on IQ examinations of over 15,000 children, provide compelling evidence that fluoride exposure during the early years of life can damage a child's developing brain.

After reviewing 27 of the human IQ studies, a team of Harvard scientists concluded that fluoride's effect on the young brain should now be a "high research priority." (Choi, et al 2012). Other reviewers have reached similar conclusions, including the prestigious National Research Council (NRC), and scientists in the Neurotoxicology Division of the Environmental Protection Agency (Mundy, et al). In the table below, we summarize the results from the 51 studies that have found associations between fluoride and reduced IQ and provide links to full-text copies of the studies. For a discussion of the 7 studies that did not find an association between fluoride and IQ, [click here](#).

<http://fluoridealert.org/studies/brain01/>

The human placenta does not prevent the passage of fluoride from a pregnant mother's bloodstream to the fetus. As a result, a fetus can be harmed by fluoride ingested pregnancy. Based on research from China, the fetal brain is one of the organs susceptible to fluoride poisoning.

As highlighted by the excerpts below, three Chinese studies have investigated fluoride's effect on the fetal brain and each has found evidence of significant neurological damage, including neuronal degeneration and reduced levels of neurotransmitters such as norepinephrine. As noted by Yu (1996), "when norepinephrine levels drop the ability to maintain an appropriate state of activation in the central nervous system is weakened." Studies of fluoride-treated animals have reported similar effects, including lower levels of norepinephrine. (Kaur 2009; Li 1994).

The Safe Level Is Not Yet Known

The fluoride levels which the pregnant women in these studies were exposed are higher than most women in western countries can expect to ingest. The safety of lower fluoride levels to fetal brain development has not yet been investigated, and remains to be determined. Interestingly, in the 1960s, the FDA banned the use of prenatal fluoride supplements based on its concern about possible untoward effects on the fetus.

http://fluoridealert.org/studies/brain05_/

In addition to studies linking fluoride to reduced IQ in humans, and impaired learning/memory in animals, human and animal studies have also linked fluoride to a variety of other neurobehavioral effects. These studies, which are excerpted below, provide yet further evidence that fluoride is a neurotoxin.

The importance of considering other indices of fluoride neurotoxicity besides reduced IQ was recently discussed by a team of Mexican researchers. (Rocha-Amador 2009). As the researchers noted:

“Intuitively, though it might seem that an IQ test would be an ideal measure [for determining the neurotoxic effects of a chemical], this assumption would be ill founded, because some toxicants could affect only specific functions, such as attention, memory, language, or visuospatial abilities without clear decrements on IQ scores. Furthermore, the exposure dose as well as mixtures of toxicants are important factors that also need to be considered.”

To help highlight this point, the researchers cited their earlier study which found that although fluoride did not affect overall IQ scores, it did affect reaction time and visual-spatial organization. (Calderon 2000).

To better understand fluoride’s non-IQ effects on the brain, the Mexican team suggests using the Rey-Osterrieth Complex Figure (ROCF) Test:

“[I]t is imperative to have a tool for rapid risk assessment to quantitatively measure health effects. In neuropsychology there are several tests that can be used for this purpose but many of them have issues including lack of validation and standardized values for the Mexican population, furthermore the influence of cultural factors also limits their usefulness. These issues could be solved in part by the Rey-Osterrieth Complex Figure (ROCF) Test. This test is one of the most widely used in neuropsychology for the evaluation of visuospatial constructional ability and non-verbal memory skills in both clinical and research settings.”

SOURCE: Rocha-Amador, D. et al (2009). Use of the Rey-Osterrieth Complex Figure Test for neurotoxicity evaluation of mixtures in children. *Neurotoxicology* 30(6):1149-54

http://fluoridealert.org/studies/brain03_/

Since then our opposition to drinking water fluoridation has grown, based on the scientific literature documenting the increasingly out-of-control exposures to fluoride, the lack of benefit to dental health from ingestion of fluoride and the hazards to human health from such ingestion. These hazards include acute toxic hazard, such as to people with impaired kidney function, as well as chronic toxic hazards of gene mutations, cancer, reproductive effects, neurotoxicity, bone pathology and dental fluorosis. First, a review of recent neurotoxicity research results.

In 1995, Mullenix and co-workers (2) showed that rats given fluoride in drinking water at levels that give rise to plasma fluoride concentrations in the range seen in humans suffer neurotoxic effects that vary according to when the rats were given the fluoride – as adult animals, as young animals, or through the placenta before birth. Those exposed before birth were born hyperactive and remained so throughout their lives. Those exposed as young or adult animals displayed depressed activity. Then in 1998, Guan and co-workers (3) gave doses similar to those used by the Mullenix research group to try to understand the mechanism(s) underlying the effects seen by the Mullenix group. Guan’s group found that several key chemicals in the brain – those that form the membrane of brain cells – were substantially depleted in rats given fluoride, as compared to those who did not get fluoride.

<http://fluoridealert.org/articles/epa-union/>

More links

<https://www.hsph.harvard.edu/news/features/fluoride-childrens-health-grandjean-choi/?fbclid=IwAR0uwX2WxoGwmM8UCKvWzmaulEM2UpMpGtZ5h9BNe2clj4wtH4CxSOA0c3o>

<http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2813%2970278-3/abstract>

Developmental Fluoride Neurotoxicity: A Systematic Review and Meta-Analysis
<https://www.ncbi.nlm.nih.gov/pmc/?term=10.1289/ehp.1104912#Ahead%20of%20Print%20%28AOP%29>

<https://www.nap.edu/catalog/11571/fluoride-in-drinking-water-a-scientific-review-of-epas-standards>

<https://childrenshealthdefense.org/news/u-s-water-fluoridation-a-forced-experiment-that-needs-to-end/>

A NEW BILL would see people prosecuted for putting fluoride into the water supply in Ireland – and they could serve up to five years in prison.

<https://www.thejournal.ie/ban-fluoride-ireland-902100-May2013/>

SB-2997

Submitted on: 2/10/2020 5:39:38 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kater	Individual	Oppose	No

Comments:

Please let it be known that I do not support adding flouride to Hawaii's public water system. As with other chemical choices it should be up to each person to choose what they put into their bodies. I strongly oppose SB 2997.

Kater Hiney

SB-2997

Submitted on: 2/10/2020 6:28:15 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lauren Ampolos	Individual	Oppose	No

Comments:

Please accept this testimony as strong opposition to fluoridation of our water. There are several concerning studies evidencing lower IQ and developmental disorders associated with exposure to fluoride in drinking water. Putting fluoride in the water also doesn't afford informed consent or choice, which is also problematic.

SB-2997

Submitted on: 2/10/2020 6:28:42 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Pavel Yushin	Individual	Oppose	No

Comments:

Aloha,

Water fluoridation of Hawaii public water supply would be an equivalent of poisoning the people - a crime against humanity. Fluoride is a well known toxic substance linked to IQ decreases, brain, and bone cancer, as well as fluorosis.

PLEASE OPPOSE WATER FLUORIDATION

Sincerely,

P. S. Yushin

SB-2997

Submitted on: 2/10/2020 6:39:55 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Amber Furchess	Individual	Oppose	No

Comments:

I oppose SB2997.

Studies have shown negative adverse reactions. Fluoride is a neurotoxin that is shown to lower IQ.

SB-2997

Submitted on: 2/10/2020 7:30:54 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Stephanie Manera	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 7:34:19 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Teresa Ocampo	Individual	Oppose	No

Comments:

I STRONGLY OPPOSE THIS BILL!

Fluoride is a known neurotoxin found in powerful antibiotics such as Fluoroquinolones such as CIPRO, Levaquin, Avelox which have severe side effects.

Also Fluoride is found in popular antidepressants such as PAXIL, and PROZAC all of which DUMB down the person's cognitive faculties.

Many bottled water products packaged from other states already contain fluoride. Further fluoride is commonly found in foods and drinks such as tea, coffee, shellfish, grape juice, flavored water, chocolate almond milk, cooked carrots, boiled white potatoes, white rice, certain seafoods, etc.

Additional fluoride added into the drinking water will not reduce dental cavities but will cause cognitive problems in children and adults with regular use.

Show the public the studies that this neurotoxin has a benefit WITHOUT risk before you pass this bill. Please do some homework.

SB-2997

Submitted on: 2/10/2020 8:03:42 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
michelle andrews	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 8:11:40 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Audrey Alvarez	Individual	Oppose	No

Comments:

To whom it may concern:

I would like to know why our government/health officials insist that fluoride is totally safe and good for our teeth when it has been scientifically proven that it is a neurotoxin AND an endocrine disrupter!?!

This is just one of the many reasons why I STRONGLY OPPOSE SB2997.

Audrey Alvarez

SB-2997

Submitted on: 2/10/2020 8:19:51 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mike Wong	Individual	Oppose	No

Comments:

Fluoride is a known neurotoxin.

I oppose adding fluoride to our water

SB-2997

Submitted on: 2/10/2020 8:28:46 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
George Peabody	Individual	Oppose	No

Comments:

This bill that would saturate the municipal water systems in the state of Hawaii with poisonous Fluorine! We stopped this some 20 years ago! Do you hate us Hawaiians? STOP the F. !

#1 There is absolutely NO good reason to inject an alleged medicine of the human body purportedly to treat cavities in children into the municipal water system. Extensive research shows little to no medicinal value for this purpose. Fluorides actually corrode the enamel causing 'fluorosis' which is now regarded as a physical ailment medically. There is NO good reason to treat anybody through the public's water system.

#2 In the scientific world, fluorine is known as 'the Devils element'. It is a severe poison to all life on the surface of the earth. When metals are smeltered, phosphate fertilizers are produced, fluorine gas is released and must be captured and contained so the environment in the area is not destroyed or damaged. The gas is combined with other elements to be able to safely store it as a solid or liquid. Sodium fluoride, hydrofluorosilic acid are mostly what is stored. But, at this state of composition, this is the concoction that us used to fluoridate municipal water systems. Hydrofluoric acid is the strongest, most potent of all acids. Used to etch glass, and as pesticide poison. Not much else. When fluorine is released as a gas from volcanoes, being a highly reactive and corrosive halogen, it combines with hydrogen in the atmosphere and produces hydrofluoric acid. This is what is known as acid rain and etches car windows. A pinhead size drop of this acid will burn all the way through one's arm.

#3 The vast bulk of fluorine in the water system ends up in the ecosystem damaging/destroying the life therein. Yes even to the ocean and it's reef life.

#4 Being so corrosive it ruins the municipal water system structures, many cities having to replace all piping and infrastructure. Extremely expensive to accomplish but the good side is that it creates many high paying jobs! Very lucrative.

#5 Fluorine is the main ingredient of the insidious Sarin gas.

#6 Most countries, including Europe, have seen the light and removed, eliminated the mandated fluoridation of their public water supply. Some countries located around volcanoes work to take out even this natural form of fluoridation. Italy is an example.

#7 Chinese research and now, our own country has found that on average, fluoridation causes a 10% decrease in IQ.

#8 Soviet Union prison camps used fluoridated water to render prisoners unable mentally to do anything other than to sit there and drool.

#9 Fluoride is a potent carcinogen even in small quantities. It even amps up other cancers. Cancer rates in Hawaii according to ACA are 50%, maybe more with Hawaiians.

#10 In the year 2000, I traveled to Washington DC to meet with Bill Herzy of the EPA at the EPA to prepare for the upcoming fluoridation legislation in 2001. He informed me and gave me documentation of, research conducted by 1200 scientists, researchers, employed by the EPA that unanimously concluded that fluoridation of the municipal water supplies should not be implemented; much too dangerous. The top crust of the EPA did not take the advice from all these researchers and proceeded to give the OK to fluoridate America. Go figga?

Conclusion; If anyone wants to actually ingest this poison then that is their right to treat their own body. The rest of us want clean, potable H₂O coming out of our tap. We do not want to be mandated to ingest fluoride through the municipal water system. Please, please do not allow this bill to pass and become law. Kill this bill and do not let it come back ever again ! NO. F !!!.

Respectfully submitted, George Peabody

SB-2997

Submitted on: 2/10/2020 8:41:17 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Tami Wada	Individual	Oppose	No

Comments:

I strongly OPPOSE the bill SB2997.

Putting fluoride in Hawaii's precious water means the HI government is illegally forcing medication on every single residents. We, residents of Hawaii, have a right to CHOOSE which medication to take.

If some people believe that fluoride is useful to prevent cavity in children, there are other ways to do so. You should not force the entire residents to intake fluoride, especially by contaminating our precious pure drinking water. There are other ways to do so.

Please keep Hawaii's water pure and safe for everyone's health and well-being.

Sincerely,

Tami Wada

SB-2997

Submitted on: 2/10/2020 8:48:17 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Cecilia Rose Reilly	Individual	Oppose	No

Comments:

I VEHEMENTLY OPPOSE ANY FLUORIDE ADDED TO ANY WATER SUPPLY!!! I find any attempts to fluoridate Hawaiian waters to be crimes against humanity! PLEASE research fluoride, it is a toxic waste left over from farming. It's proven to yellow and eat away enamel and has been introduced to facilitate companies dumping toxic waste and claiming its beneficial. One of my friends shut down fluoridation of 8 cities. In no way do we need any more of their chemicals compromising our health.

Mahalo,

C. Rose Reilly

SB-2997

Submitted on: 2/10/2020 9:21:24 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Quentin Kealoha	Individual	Oppose	No

Comments:

This legislation is completely unnecessary and potentially detrimental to our health. Flouride can be prescribed to those who need it, rather than forcibly contaminating the water supply of all citizens who may not need additional supplementation for cavity prevention.

New research has also indicated that fluoridation of water supplies may have no effect if reducing cavities, but also that it may contribute to additional health concerns. Furthermore, studies done on countries that ceased fluoridation found a reduction in cavities in the population, when compared to studies conducted when waters were fluoridated.

I strongly oppose this legislation. If Senator Rhodes wishes to provide fluoride treatment to those who need it, he should introduce legislation to reduce the cost of dental services or provide easier access to prescribed fluoride supplementation for those who need it, rather than forcibly subject the population unnecessary additives in our water supply.

SB-2997

Submitted on: 2/10/2020 10:16:01 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Marty milan	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 10:18:34 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lori Nakamura-Higa	Individual	Oppose	No

Comments:

Aloha. Thank you for the opportunity to submit testimony.

I STRONGLY OPPOSE SB2997

Haven't we already learned that the People of the State of Hawaii STRONGLY OPPOSE adding unnecessary fluoride to our precious water supply? Why does such legislation keep coming up over and over and over again? Haven't all of the testimonies and evidence over the years opposing such legislations suffice? This is such a waste of government time and taxpayer's money to bring this up again and again and again. This is such a waste of time for all those who have to keep submitting testimonies and evidence, take time out of our busy schedules as if nothing was heard in all the years of past testimonies and hearings. The People of the State of Hawaii have already spoken many times over in the past. When is this going to end? There are states that have added, then fight after the fact to undo the fluoridation to their water supply. Guess they learned the hard way. Shouldn't we learn from them? When we can't afford additional expenses as we are told numerous times regarding other legislations that would serve to benefit everyone and cause no harm, and again here comes a piece of legislation like this that does NOT serve the greater good for ALL. Majority of us have taken on our own responsibility regarding our families' dental care and do just fine without government interference. For those few who have dental hygiene issues, perhaps monies could be appropriated to address their individual needs via a funded fluoride dental care program with individual dentists. This would narrow your target to those who need it and not the masses who don't. This legislation only serves to enrich the pockets of those who supply fluoride. As the People of the State of Hawaii, we DO NOT want to water our gardens and vegetables with it, wash our hair, bath in it, especially bathing our babies in it, bath our pets in it, wash our laundry and automobiles with it, all of us to be forced to drink it, force our pets to drink it, allow it to run off into our precious streams and into our precious ocean affecting every living thing in its path. We already have toxic, pesticide, contamination run off problems in our streams and ocean as it is and now you want to add fluoride to that mix? Please leave our precious water supply alone.

Have you read the warning labels on toothpaste? The fluoride warning labels on toothpaste specifically states NOT to swallow fluoride added toothpaste. Why would

you want to choose to make everyone swallow fluoride? No thank you! Please leave personal dental hygiene where it belongs and provided funding ONLY for those who need it. We ALL DO NOT NEED government forcing us to drink fluoride. Please don't force the People of the State of Hawaii to drink something that should not be swallowed, to pay for something we don't want, or don't need and to ruin our precious water resource and the environment in the process.

Mahalo and kind regards

SB-2997

Submitted on: 2/10/2020 10:27:54 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kim Haine	Individual	Oppose	No

Comments:

Fluoride is toxic. Keep it out of our water.

SB-2997

Submitted on: 2/10/2020 10:54:38 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Amanda LaCasse	Individual	Oppose	No

Comments:

Aloha,

I strongly oppose SB2997. Fluoride is a known neurotoxin. It is a outdated form of mass medication. Fluoridation in our water does not treat the water, it treats the person drinking it. This is an unnecessary and ineffective way to improve dental health. Fluoride main benefit is from direct topical contact with teeth. This is also a very unsafe practice to force individuals to consume it without their known consent and without the examination and detailed medical history of the person consuming it. Using our water system to facilitate the deployment and consumption of fluoride does not provide a safe or effective way to monitor and ensure that the people who consume the fluoridated water are not receiving toxic amounts.

Mahalo,

Amanda

SB-2997

Submitted on: 2/10/2020 11:01:54 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kasey Matsumoto	Individual	Oppose	No

Comments:

We should not be adding anything to our water. If people want fluoride, they can easily get it from their dentist, doctor or toothpaste. It is much easier to find fluoride toothpaste than non-fluoride. People should have a choice in what drugs they do or do not take, and fluoride is no different. Lack of fluoride would not harm anyone other than the person making the choice.

SB-2997

Submitted on: 2/10/2020 11:04:01 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
claudia rice	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 11:15:04 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Cris Gibbons	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 11:24:11 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dari Ann Matsuda	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/10/2020 11:45:04 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kate Paine	Individual	Oppose	No

Comments:

Have you protectors read the science on why this is a terrible idea? Educating the public about food and drink is a far more beneficial tactic than fluoridating the whole population! Hard to understand why Karl Rhoads reads merit into this proposal?

SB-2997

Submitted on: 2/10/2020 11:48:43 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kristen Garcia	Individual	Oppose	No

Comments:

Please oppose SB2997. This is a known neurotoxin and we do not need this toxic substance in our bodies especially in our children's developing brains.

SB-2997

Submitted on: 2/11/2020 12:29:47 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Gerard Silva	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/11/2020 7:52:39 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Azuma Chrupalyk	Individual	Oppose	No

Comments:

In the Holocaust, the Germans used fluoride to glaze the pineal gland, thus gaining cooperation from the Jews that were going to be killed. Putting fluoride in the water is hazardous, if ingested. I hereby propose a different measure: Open up the adult dental benefits, allow people to get their teeth fixed, incorporate dental education in the DOE health classes [which none of the DOE health classes are of much value right now, give those classes empowerment and curriculum] and provide mouthwash with fluoride at dental appointments. Its more cost efficient as well.

SB-2997

Submitted on: 2/11/2020 8:01:01 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kara Whitaker	Individual	Oppose	No

Comments:

I strongly oppose this bill to add fluoride to Hawaii's drinking water. Countries all over the world have banned this chemical because it is linked to many health problems, where it has been added to public water

SB-2997

Submitted on: 2/11/2020 7:53:52 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Magic	Individual	Oppose	No

Comments:

Neither my husband, nor I or my kids bodies' can easily detox. Putting a neurotoxic like flouride in our bodies will definitely make us very sick .

SB-2997

Submitted on: 2/11/2020 8:36:42 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Barry	Individual	Oppose	No

Comments:

Aloha,

I strongly oppose adding fluoride to our drinking water. We are exposed to enough toxins in our everyday life without adding this on top if it.

Mahalo,

SB-2997

Submitted on: 2/11/2020 8:58:40 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Debra	Individual	Oppose	No

Comments:

We do not consent to mandatory fluoridation. This is a violation of the individuals right to informed consent to medication.

Hundreds of research articles published over the past several decades have demonstrated potential harm to humans from fluoride at various levels of exposure, including levels currently deemed as safe.

Fluoride is known to impact the cardiovascular, central nervous, digestive, endocrine, immune, integumentary, renal, respiratory, and skeletal systems, and exposure to fluoride has been linked to Alzheimer's disease, cancer, diabetes, heart disease, infertility, and many other adverse health outcomes, including fluoride toxicity.

Please do not subject us to this toxic fluoridation and contaminate our water supply. Fluorine is a known biohazard. Many jurisdictions are opposing and removing fluoridation because of this.

Fluoridation is allegedly done to support dental health, yet many dentists oppose fluoridation because of the negative health effects.

Not only harming humans, fluorine in the water would find its way to the ocean here in the Hawaiian islands and potentially harm reefs and fishes. The risk is not worth it.

Pets and other animals would be harmed as well, as dosages in municipal water systems are not based on small animal bodies, who are easily over-dosed and harmed.

If an individual wants to use this toxic substance they can do so. They can easily buy toothpaste with fluoride. Please do not impose it on everyone without our consent.

LATE

SB-2997

Submitted on: 2/11/2020 9:10:10 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
David A. Bramlett	Individual	Support	No

Comments:

Aloha:

I support SB2997 because it will dramatically improve the oral health of our children and the entire state as it has done throughout the country where the vast majority of states have fluoridated water. I am a Hawaii resident who has lived here for over 20 years. While in the military I was stationed in various locales with fluoridated water and the cavity rate for children and adults was significantly lower than Hawaii. Here, the decay rate on military installations is well below those of us who live in the community at large because the water on military bases is fluoridated, The Center for Disease Control has declared water fluoridation to be one of the most significant medical advances in the 20th Century. The science and research have confirmed, repeatedly, there is no health risk to fluoridation when properly monitored.

If for no other reason, please support this bill for our children.

Thank you.

-- David A. Bramlett (1651 Pensacola Street, 808-599-1314)

LATE

SB-2997

Submitted on: 2/11/2020 9:15:32 AM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nora Harmsen DDS	Individual	Support	No

Comments:

I am a local dentist who has seen first hand the high decay rate in this state, both from my practice time on Lanai and as a locum tenens dentist on Oahu and neighboring islands. Having previously practiced in the state of Indiana, I was actually shocked by the difference. Children in Indiana who were exposed to fluoride in the water had negligible decay. Those children in the counties, with well water and no fluoride had a higher rate. I could tell where the child lived, just by the decay. Indiana was well known for its fluoride studies, mainly by the Crest company. The CDC lists fluoridation as one of the greatest health breakthroughs of the century. A simple, small amount of fluoride in the water allows even those who are the poorest, to get the same advantage as those who are more likely to see the dentist. Many people in Hawaii are not educated in the value of the fluoride to their health. Many think it will poison them, cause medical issues or illness, but this is not true. The research has been thoroughly done and the states that have fluoridation programs have all seen a decrease in the decay rate, not just of children, but also in adults.

Why Would fluoride in the water make any difference?

- Fluoridation of drinking water is one of the **TEN Great Public Health Achievements** in the United States from 1900-1999, along with vaccinations, family planning, motor vehicle safety and others.

*CDC Report

- Documented as **effective in reducing dental caries**, without any changes in a person’s brushing or eating habits. Some studies say this reduction is 25-35% overall. Thus, those populations who have a poor diet or lack dental hygiene education, are as likely as their educated or more affluent counterparts to reap the benefits.

- Fluoride is a **naturally occurring element, not a chemical**. States such as Colorado, due to the mountains, have a significant fluoride level already in their water and do not need fluoride added to the water systems. We currently add more than 6 chemicals to the drinking water in Hawaii, in order to make water safe to drink, due to the amount of contaminants present. All of these chemicals are considered carcinogens in larger quantities. Fluoride is non-carcinogenic.

* (See the Hawaii water report for chemicals present)

- **Seventy percent of the U.S. Population** lives in communities served by fluoridated water. In Hawaii, 11% of the population has fluoridated water, because they live on the military bases. Fluoridation has been widely used in the U.S. since 1962, with no side effects outside of fluorosis noted. (Fluorosis causes white spots on the teeth, a mainly cosmetic issue.)
- Nationally, one in four children living below 100% of the federal poverty level had untreated tooth decay which can result in pain, school absences and poorer school performance. Tooth decay is one of the most common chronic diseases of childhood. The Hawaii State Health Department has shown a decay rate of 71% among all children, which is 19% higher than the National average of 52%.
- Fluoridation is a cost-effective means of preventing tooth decay and keeping children and adults, from enduring visits to the dentists that are costly and many times not covered services. Here in Hawaii, our Medicaid system pays the dentist 50% of the fee for service to a Medicaid patient (child) and an adult is NOT eligible for fillings. In our adults, a tooth that is decayed is often taken out because the adult cannot afford the filling. The cost of fluoride per patient would be less than \$2 per person **per year**. Current costs of **ONE filling** per patient is anywhere from \$75-250 per tooth. The cost to extract a tooth is about \$100.

It is my sincere desire to see the simple addition of fluoride to the water, to save the children (and adults) from preventable decay and save the state of Hawaii thousands of dollars from Medicaid costs and ER visits due to tooth pain.

Please consider support of Bill SB2997

Respecectfully sumbitted,

Nora K Harmsen D.D.S.

SB-2997

Submitted on: 2/11/2020 10:44:01 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Krista Anderson	Individual	Oppose	No

Comments:

SB-2997

Submitted on: 2/11/2020 10:57:53 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Lois J Young	Individual	Oppose	No

Comments:

I STRONGLY OPPOSE. Do not tamper with our water. Fluoride is a known neurotoxin. Let the individual take responsibility for the health of their own teeth. This is government overreach.

Mahalo, Lois Young

LATE

SB-2997

Submitted on: 2/11/2020 12:30:58 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Kris Goo	Individual	Oppose	No

Comments:

LATE

Brandon Young

2/11/2020

Support of SB 2997

I am in support of this measure passing. I am an individual that lives in Maunawili on the island of Oahu. I am in favor of fluoridating our water sources. I believe that this benefit will help many of our island groups here on Oahu. Currently, fluoridation is geared primarily towards youth. Most dentists provide fluoridation to children. However, with many adults aging and not having proper dental care, this service would create a population with much better dental care. I would hope that you would consider this measure and would help to have a larger conversation about the process of fluoridation of Hawaii's waters. I know that our water source is a tricky topic here in the islands, but the dental care of thousands is something that is very important as well. Thank you again for your support and hearing this measure.

Mahalo and Aloha,

Brandon Young

(808)351-6676

Young.brandon4@gmail.com

Dr. Curtis Tom
Honolulu, Hawaii

LATE

Senate Judiciary Committee

Support for SB 2997

Aloha Chair Rhoads and Members of the Committee!

My name is Dr. Curtis Tom and I am a general practice dentist who supports SB 2997, community fluoridation.

Community water fluoridation is the single most effective public health measure to prevent tooth decay. Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves money, time and effort in dental treatment costs.

For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Please support SB 2997.

Thank you!

Aimee Kim DMD
drkim@hiendo.com

February 12, 2020
Hearing of the Senate Judiciary Committee

Support for Senate Bill 2997

Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases - dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Wednesday, February 12, 2020

Chair Rhoads, Vice Chair Keohokalole and members of the committee

Thank you for the opportunity to testify in support of Senate Bill 2997.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Please support this bill.

Mahalo,

Khealynn Harris DMD

Khealynn Harris DMD
Molokai Community Health Center
khealynnharrisdmd@gmail.com

Wednesday, February 12, 2020

To: Chair Karl Rhoads
Vice Chair Jarrett Keohokalole
Senate Committee on Judiciary

Re: SUPPORT; Senate Bill 2997, Relating to Health

Please support SB 2997, which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Mahalo,
Keri Anne Wong, D.D.S.
1010 S King Street, Suite 504
Honolulu, HI 96814

Hearing Date: February 12, 2020

Re: Senate Bill 2997, Relating to Health

I am writing to submit SUPPORT testimony for Senate Bill 2997, relating to health, which requires certain water suppliers to adjust the levels of fluoride in public water systems. Fluoride is nature's cavity fighter with small amounts present in all water, including the ocean. Community water fluoridation is simply the addition of fluoride to water to a level that helps prevent tooth decay. While teeth are forming under the gums, drinking water and other beverages with fluoride helps strengthen tooth enamel making it stronger and more resistant to cavities. This provides what is called a "systemic" benefit. After teeth erupt, fluoride helps rebuild (remineralize) weakened tooth enamel and reverse early signs of tooth decay. When you brush your teeth with fluoride toothpaste, or use other fluoride dental products, you are providing a "topical" benefit because the fluoride is applied to the surface of your teeth. In addition, the fluoride you take in from drinking water and other beverages continues to provide a topical benefit because it becomes part of your saliva, constantly bathing the teeth and helping to rebuild weakened tooth enamel.

Thank you for your consideration.

Dr. Allen Wong

DATE: Wednesday, February 12, 2020
TIME: 9:00 a.m.
PLACE: Conference Room 016
State Capitol
415 South Beretania Street

Aloha Chair Rhoads, Vice-Chair Keohokalole and the Senate Committee on Judiciary,

My name is Dr. Camden Tokunaga and I am submitting testimony in SUPPORT of SB 2997 to the Hawaii legislature.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

As a dentist, my first concern is my patients' health. It's difficult to watch people suffer needlessly from cavities that could have been prevented with access to fluoridated water. Fluoride toothpaste and fluoridated water deliver a one-two punch in the fight against cavities. The bottom line is that community water fluoridation remains the single most effective public health measure to prevent tooth decay.

Please support SB2997.

Mahalo,

Camden Tokunaga DDS

February 12, 2020

To: Senate Committee on Judiciary

Re: Senate Bill 2997, Relating to Health

Dear Senator Karl Rhoads, Vice Chair Jarrett Keohokalole and Senate Committee Judiciary Members,

I support Senate Bill 2997.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases — dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Please support dental health for all in Hawaii.

Thank you,
Dr. Heather Cantori

Hearing: 9:00 a.m., February 12, 2020
To: Senate Committee on Judiciary
Re: Senate Bill 2997, Relating to Health
Position: SUPPORT

Aloha Chair Karl Rhoads, Vice Chair Jarrett Keohokalole and Members of the Committee,

Please support Senate Bill 2997. Fluoridation plays a protective role against dental decay throughout life, benefiting not only children but also adults. The maximum reduction in dental decay is achieved when fluoride is available during tooth formation (systemically) and topically at the tooth surface during all life stages. Water fluoridation provides both types of exposure. People in the United States are living longer and retaining more of their natural teeth than ever before. As the older population in America grows, and as more people keep their natural teeth for longer periods of time, dental decay will remain a significant health problem. Therefore, water fluoridation is an essential prevention method for all age groups. One recent report notes that, overall, life expectancy at birth in Hawai'i is among the longest in the nation, roughly three years longer than the U.S. average.

Mahalo for your consideration.

Sincerely,

Shelly Kawamoto DDS MS
Orthodontist
We Make People Smile :)™
dr.shellykawamoto@mac.com

1441 Kapiolani Street Suite 503
Honolulu, Hawaii 96814

94-673 Kupuohi Street Suite C-103
Waipahu, Hawaii 96797

RUSSELL FITTON DDS
555 N King St #111
Honolulu, HI 96817
rpfifton@comcast.net

February 12, 2020

To: Senate Committee on Judiciary
Re: Senate Bill 2997, Relating to Health

I am submitting testimony in support of SB2997, relating to health. SB2997 requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance. Fluoridated water prevents dental decay and that translates into improved health and cost savings. The average lifetime cost per person to fluoridate a water supply is less than the cost of one dental filling. According to public health studies, every \$1 invested in water fluoridation saves \$38 in dental treatment costs. Fluoridation is recognized as a public health benefit by national health organizations. The American Dental Association as well as the U.S. Public Health Service, the American Medical Association, the World Health Organization and more than 125 national and international organizations recognize the public health benefits of water fluoridation.

Thanks for your commitment to the State of Hawaii.

Sincerely,

Russell Fitton DDS

February 12, 2020
Hearing of the Senate Judiciary Committee

Support for Senate Bill 2997

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Please support SB2997. Thank you for your consideration.

Mahalo,

Dr. Rachel DiPasquale

February 12, 2020
9:00 AM
Conference Room 016
State Capitol
415 South Beretania Street

Dear Senator Rhoads, Senator Keohokalole and the Senate Committee on Judiciary,

Please support SB 2997, relating to health, which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance. Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Thank you for your consideration.

Boki Chung DDS

TO THE SENATE COMMITTEE ON JUDICIARY
Senator Karl Rhoads, Chair
Senator Jarrett Keohokalole, Vice Chair

Hearing Time: 9:00 a.m.
Location: Conference Room 16
State Capitol
415 South Beretania Street

February 12, 2020

Aloha Chair Rhoads, Vice-Chair Keohokalole and Senate Committee Judiciary
Members,

I support SB 2997, Water Fluoridation as justified by the Hawaii Dental Association.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Water fluoridation is endorsed by the Hawaii Dental Association and the American Dental Association. One of the most widely respected sources for information regarding fluoridation and fluoride is the American Dental Association.

Thank you,

Keith K. Yamakawa, DDS

DATE: Wednesday, February 12, 2020
TIME: 9:00 a.m.
PLACE: Conference Room 16
State Capitol
415 South Beretania Street

Aloha Chair Rhoads, Vice Chair Keohokalole and Members of the Committee on Judiciary,

Please accept my testimony in support of Senate Bill 2997, relating to health.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves vast sums of money in dental treatment costs.

Thank you,

Scott Kanamori DDS

February 12, 2020

To: Senate Committee on Judiciary

Re: Senate Bill 2997, Relating to Health

Dear Chair Karl Rhoads, Vice Chair Jarrett Keohokalole and the Senate Committee Judiciary Members,

I am writing in support of Senate Bill 2997.

Fluoridation plays a protective role against dental decay throughout life, benefiting not only children but also adults. The maximum reduction in dental decay is achieved when fluoride is available during tooth formation (systemically) and topically at the tooth surface during all life stages. Water fluoridation provides both types of exposure. People in the United States are living longer and retaining more of their natural teeth than ever before. As the older population in America grows, and as more people keep their natural teeth for longer periods of time, dental decay will remain a significant health problem. Therefore, water fluoridation is an essential prevention method for all age groups. One recent report notes that, overall, life expectancy at birth in Hawai'i is among the longest in the nation, roughly three years longer than the U.S. average.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Thank you for the opportunity to testify.

Dr. Jaclyn Lum

Scott L. Morita D.D.S.
MORITA Orthodontics
98-1247 Kaahumanu St., Suite 325
Aiea, HI 96701
www.moritaorthodontics.com

Testimony in Support of Senate Bill 2997, Relating to Health

Hearing Date: 02/12/2020

Chair Rhoads, Vice Chair Keohokalole, and members of the committee on Judiciary,

My name is Scott Morita and I am an Aiea dentist, writing today in support of Senate Bill 2997. This bill will require certain water suppliers to adjust the levels of fluoride in public water systems and require the Department of Health to provide technical assistance. As a dentist, my first concern is my patients' health. It is difficult to watch people suffer needlessly from cavities that could have been prevented with access to fluoridated water. Fluoride toothpaste and fluoridated water deliver a one-two punch in the fight against cavities. The bottom line is that community water fluoridation remains the single most effective public health measure to prevent tooth decay.

Thank you for your attention.

Please support Senate Bill 2997.

February 12, 2020

Wayne S. H. Leong, DDS

To: Committee on Judiciary
Date: 9:00 a.m., February 4, 2020
Location: Room 16
Re: Senate Bill 2997, Relating to Health

Aloha Chair Karl Rhoads, Vice Chair Jarrett Keohokalole and Member of the Committee on Judiciary,

I am writing in SUPPORT of SB2997, relating to health, which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, and adults. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Mahalo for the opportunity to testify on SB2997. Mahalo.

Dr. Lynn Fujimoto, DDS
850 Kamehameha Hwy
Pearl City, HI 96782
(808) 456-5005

Feb. 12, 2020

The Honorable Karl Rhoads
The Honorable Jarrett Keohokalole
Members of the Judiciary Committee

Re: Senate Bill 2997, Relating to Health

Aloha,

Mahalo for allowing me to testify. I support SB2997, relating to health, which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases -dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Please support this bill.

Sincerely,

Lynn Fujimoto

Wednesday, February 12, 2020

Re: SB 2997, Relating to Health

Aloha Chair Rhoads, Vice Chair Keohokalole and members of the Senate Committee on Judiciary,

I am writing in support of SB 2997, which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Fluoridated water prevents dental decay and that translates into improved health and cost savings. The average lifetime cost per person to fluoridate a water supply is less than the cost of one dental filling. According to public health studies, every \$1 invested in water fluoridation saves \$38 in dental treatment costs. Fluoridation is recognized as a public health benefit by national health organizations. The American Dental Association as well as the U.S. Public Health Service, the American Medical Association, the World Health Organization and more than 125 national and international organizations recognize the public health benefits of water fluoridation. In the United States, 74.6 percent of the population on public water systems receive fluoridated public water, or a total of 210.6 million people (CDC Reference Statistics on Water Fluoridation Status) This is an increase of almost 10 percent from 2000. The Healthy People 2020 goal is for 79.6 percent of the population on public water systems to have access to fluoridated water (Healthy People 2020).

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Please support this bill.

Emi Eno-Orikasa
EEno-Orikasa@hnpkop.org

Wednesday, February 12, 2020
Gordon D. Wee <gwee808@gmail.com>

To: Senate Committee on Judiciary
Re: Senate Bill 2997, Relating to Health

Aloha! I am a dentist in Waipio and I am testifying today in support of Senate Bill 2997. Fluoridation plays a protective role against dental decay throughout life, benefiting not only children but also adults. The maximum reduction in dental decay is achieved when fluoride is available during tooth formation (systemically) and topically at the tooth surface during all life stages. Water fluoridation provides both types of exposure. People in the United States are living longer and retaining more of their natural teeth than ever before. As the older population in America grows, and as more people keep their natural teeth for longer periods of time, dental decay will remain a significant health problem. Therefore, water fluoridation is an essential prevention method for all age groups. One recent report notes that, overall, life expectancy at birth in Hawai'i is among the longest in the nation, roughly three years longer than the U.S. average. Hawaii dentists are committed to dental health and ask for your help in advancing this bill.

Sincerely,

Gordon Wee
94-1036 Waipio Uka St., #107
Waipahu, HI 96797

February 12, 2020
9:00 AM
Conference Room 016
State Capitol
415 South Beretania Street

Dear Senator Karl Rhoads, Senator Jarrett Keohokalole and the Senate Committee on Judiciary,

Please support Senate Bill 2997, relating to Health.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, and adults. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Sincerely,

Cedric Lewis, DMD

2/12/2020

Testimony in Support

David J Dung approves for submitted testimony **SUPPORT**
to
SB 2997 to The Hawaii Legislature

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves vast sums of money in dental treatment costs.

Sincerely,

David J Dung DDS MS
1600 Kapiolani Blvd, Ste 519
DJ@dungorthodontics.com

DATE: Wednesday, February 12, 2020
TIME: 9:00 a.m.
PLACE: Conference Room 016
State Capitol
415 South Beretania Street

I, Dr. Nina Hayashi, am writing in support of SB2997, relating to health. SB2997 requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Mahalo,

Dr. Nina Hayashi

To: Senate Committee on Judiciary
Date: February 12, 2020
Time: 9:00 a.m.
Location: Room 16
Re: House Bill 1806, Relating to Dentistry

I am writing to submit testimony in support of Senate Bill 2997, relating to health which requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Please pass Senate Bill 2997.

Kelliann Rita, DDS

TO: Chair Karl Rhoads
Vice Chair Jarrett Keohokalole
Senate Committee on Judiciary

Place: Conference Room 16
Hawaii State Capitol

Re: Senate Bill 2997, Relating to Health

February 12, 2020

I am writing in support of SB2997. Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases – dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves vast sums of money in dental treatment costs.

Thank you for your consideration of SB 2997.

Earl Hasegawa, DDS, MS

COMMITTEE ON JUDICIARY
Senator Karl Rhoads, Chair
Senator Jarrett Keohokalole, Vice Chair

DATE: Wednesday, February 12, 2020
TIME: 9:00 a.m.
PLACE: Conference Room 016
State Capitol
415 South Beretania Street

I, Nora K Harmsen D.D.S. strongly support SB2997, fluoridation of the water in Hawaii. Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Nora K. Harmsen D.D.S.
808-222-1963

HEARING DATE: Wednesday, February 12, 2020
TIME: 9:00 a.m.
PLACE: Conference Room 16
State Capitol
415 South Beretania Street

SUPPORT of SB 2997, Relating to Health

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Fluoride is already present in all water sources, even the oceans. Water fluoridation is simply the adjustment of fluoride that occurs naturally in water to a recommended level for preventing tooth decay. Community water fluoridation is the single most effective public health measure to prevent tooth decay. The Centers for Disease Control and Prevention has proclaimed community water fluoridation one of greatest public health achievements.

Please SUPPORT SB2997, Relating to Health.

Sincerely,

Dr. Tina Mukai

February 12, 2020

Re: Senate Bill 2997, Relating to Health

Position: SUPPORT

Dear Chair Rhoads, Vice Chair Keohokalole and members of the committee:

Please support Senate Bill 2997 which requires certain water suppliers to adjust the levels of fluoride in public water systems.

Fluoridated water prevents dental decay and that translates into improved health and cost savings. The average lifetime cost per person to fluoridate a water supply is less than the cost of one dental filling. According to public health studies, every \$1 invested in water fluoridation saves \$38 in dental treatment costs. Fluoridation is recognized as a public health benefit by national health organizations. The American Dental Association as well as the U.S. Public Health Service, the American Medical Association, the World Health Organization and more than 125 national and international organizations recognize the public health benefits of water fluoridation.

Sincerely,

Robert L Stebbins DDS

Dr. Kent Sato
848 S Beretania St # 304
Honolulu, HI 96813

February 12, 2020

Hearing: SB2997, Relating to Health
Senate Committee on Judiciary
9:00 a.m., Hawaii State Capitol

Aloha Chair Rhoads, Vice-Chair Keohokalole and committee members,

I am writing to submit SUPPORT testimony to SB2997, relating to health.

Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Water fluoridation is similar to fortifying other foods and beverages. Water that has been fluoridated is similar to fortifying salt with iodine, milk with vitamin D, orange juice with calcium and bread with folic acid. Fluoridation prevents dental disease. It is the most efficient way to prevent one of the most common childhood diseases - dental decay. An estimated 51 million school hours are lost each year due to dental-related illness. According to a recent report, Hawaii children have among the highest rates of dental decay in the country.

Please support this bill. Thank you for the opportunity to testify on this important measure.

To: Honorable Chair Karl Rhoads
Honorable Vice Chair Jarrett Keohokalole
Senate Committee on Judiciary

Re: SB2997, Relating to Health

February 12, 2020

Aloha!

I am writing in support of SB2997.

Water fluoridation plays an important role in the prevention of root decay. It is critically important for children, *and adults*. Because older adults experience more problems with gum recession, the risk of root decay increases with age. Studies have demonstrated that fluoride is incorporated into the structure of the root surface, making it more resistant to decay. Studies demonstrate that the topical effect of fluoride in an adult's mouth during the early stages of decay can not only stop the decay process but also make the enamel surface more resistant to future acid attacks. Dental decay is reduced by 27 percent in adults according to an analysis of studies on the effectiveness of fluoridation.

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves vast sums of money in dental treatment costs.

Please support this bill.

Mahalo!



WAIMĀNALO
HEALTH CENTER

41-1347 Kalaniana'ole Highway
Waimānalo, Hawai'i, 96795-1247

Anthony S. Kim, DMD
Dental Director

Direct: (808) 954-7137 | Main: (808) 259-7948 | Fax: (808) 954-7144

Dr. Curt Shimizu

cshimizu@hawaiiantel.net

To: Committee on Judiciary

Date: 9:00 a.m., February 12, 2020

Location: Room 16

Re: Senate Bill 2997, Relating to Health

Aloha Honorable Members of the Hawaii Legislature,

I am writing in support of Senate Bill 2997, requires certain water suppliers to adjust the levels of fluoride in public water systems and requires the Department of Health to provide technical assistance. Fluoride protects people all ages against cavities. Studies show that community water fluoridation prevents at least 25 percent of tooth decay in children and adults, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste. For more than 70 years, the best available scientific evidence consistently indicates that community water fluoridation is safe and effective.

Fluoridation conserves natural tooth structure by preventing the need for initial fillings and subsequent replacement of fillings. Water fluoridation contributes much more to overall health than simply reducing dental decay: it prevents needless infection, pain, suffering and loss of teeth, improves the quality of life, and saves vast sums of money in dental treatment costs.

Please advance Senate Bill 2997.

Thank you for the opportunity to testify.

Sincerely,

Dr. Curt Shimizu

LATE

SB-2997

Submitted on: 2/11/2020 3:51:27 PM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
April Woolley	Individual	Oppose	No

Comments:

Keep flouride out of our drinking water.

LATE

SB-2997

Submitted on: 2/11/2020 4:28:12 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Alexandra Marshall	Individual	Oppose	No

Comments:

I STRONGLY oppose this bill to adjust (which I'm assuming you mean "to add") fluoride in the water supply. Even in countries without water fluoridation, tooth decay rates have decreased due to better oral hygiene and fluoride-containing toothpastes, according to Harvard Public Health. Fluoride at high levels is also toxic to bone, brain, and nervous system health. Please DO NOT add any more fluoride to the water. Hawaii's public water system is already filled with chemicals, according to the EWG (Environmental Working Group), and we don't need any more toxins in our bodies!






SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Judy L. Caparides	<i>Judy L. Caparides</i>	576 4th Ekoku St. Honolulu, HI. 96729	(5588-5578)
Henry K. Palaka Sr	<i>Henry K. Palaka Sr</i>	P.O. Box 22 Kakaia 96744	(2)
Darrell Burgess	<i>Darrell Burgess</i>	P.O. Box 1652 ^{Paik} 658-9694	(3)
Deldrine Eavi Manera Williams Eavi Thomas	<i>Deldrine Eavi Manera Williams Eavi Thomas</i>	P.O. Box 178 870-6758	(4)
David N. Aquino	<i>David N. Aquino</i>	P.O. Box 911 205-9643	(5)
Anna Nip	<i>Anna Nip</i>	P.O. Box 1920 6580344	(6)
Herman Colter	<i>Herman Colter</i>	P.O. Box 55 Kaulapuu 96757	(7)
Dawn Colton	<i>Dawn Colton</i>	P.O. Box 109 Kuliapuu HI. 96751	(8)
Kayla Guerrero	<i>Kayla Guerrero</i>	P.O. Box 170 Kaulapuu HI 96757 (508)	(9)
Ermete Recasal	<i>Ermete Recasal</i>	Manila Camp 553-9994	(10)
Carol Ann Kawawa	<i>Carol Ann Kawawa</i>	Hoolawa HI 96729 6580808	(11)
Madonna Aycaoli	<i>Madonna Aycaoli</i>	Manila Camp 658-6729	(12)













SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
TERRY HILL		8061 Kamehikahi, Kaneohe, HI 96748	808-551-0522
Mell M.	M.M.	KAI, Hawaii 96748	
MARSHA ANNES	MARSHA	GENSEN DELIVERY KIKAI, HI 96748	
JESSE ANNES	J.A.	" " " " " "	
Graigko launi	Graigko	P.O. Box 754 Kikoi, HI 96748	
DEAN DEMELLO		P.O. Box 1463 KIKAI, HI 96748	
NATASHA KAHANI	Natasha	PO BOX 482182 KIKAI HI 96748	
Alma Garnias	Alma	PO BOX 425 Oahu 96729	
YUAN KEIHEIET MOON	Yuan Kei	General Delivery 96748	
Debra Spurner	Debra Spurner	PO Box 472 Kaneohe	
Joan Reed	Joan Reed	Box 100 Unit 2	
ANNEA STUBBS	ANNEA	P.O. Box 95 KIKAI	

SB2997 Fluoridation in (our) public water systems... If you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Van Rha		266 Kikai	553-1100
Ernesto Reamsa Jr.	ER.	215 Kikai	553-9994
Darrell Labredo		830 Kuae	688 5282
Kaivalani Pauke		890 Kuae	"
Brenga Lee Espinola	BEEESPINOLA	PO Box 676 Kikai	558-8368
Charlene Sahyala	Charle Sahyala	General Delivery	866 3896
Randy Mae M. Kaurasi	Randy Mae M. Kaurasi	General Delivery	
Desiree Ai Paovina		725. Box 2085	213 1124
De Ann Judditt-Don		Westru Judditt for	POB 1257 Kikai 8698
Onnas Jpai Jo		PO Box 521 Hahaione	HI 96729
Lynnda Nucklert		POB 1034 Kikai	553-9968
Maryann Judditt		"	"

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
John Duffy		Moana Loa 808 755 4910	
Murphy Merberg		P.O. 1555 K'kai 96744	553-3597
Dickenson Stas		P.O. 162 K'kai 96740	458-6119
Jamie Thompson		PO 5 K'kai	
Liz Lum		PO 242 "	76748
Angie Mabeu		PO Box 170	96729
Melissa Poepe		"	"
Kanae Akins			
Jeanne Hanakua		PO Box 1615 K'kai, HI	96748
Donna Bishard		P.D. Box 69 H'huca	96789
Glenda Mawae		Box 152	96748
Aueha Puert		Box 1893	96748

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Irene Kachenui			7340-1822
Ikaika Lester		P.O. Box 1914 Kikai	658-0711
Noreen Kaalekahi		P.O. Box 853 Kaalekahi	658-0526
Anna Marie Nip		P.O. Box 1577 Kaulaonani	6580341
Rearl M. Punahele		" 88 Hoolaha	430-7113
Allan J. Dioree		P.O. Box 238, Kikai, HI	96748
Springsteen Stampson		P.O. Box 1452, Kikai, HI	96748
Nichole Aze		P.O. Box 1382 Kikai HI	96748
Nathaniel Lucas		P.O. Box 1324 Kaulaonani HI	658757
Jessica Spukunui		P.O. Box 138 Kaulaonani HI	748
Charlene Kekino		P.O. Box 613 Kikai HI	96748
Frank Kekino		Box 618 Kikai HI	96748

SB2997 Fluoridation in (our) public water systems... If you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Gussie Dudoit		Box 531, Hoolehua, HI. 96789	658-9685
Leialoha Kalekimi		Box 1554 Kilauea, HI 96748	658 9750
Cora Schmackerberg		Box 417 Kilauea HI 96729	646-0051
Linda L. Place		Box 1015 Kilauea, HI 96729	558-8882
Margaret Campbell		224 Honolulu Dr. 96748	
Palmer Naki		Box 991 Kilauea HI 96748	
Julianne E. Naki		Box 773 Kilauea HI 96748	284-6445
SHRENE NAKI		Box 991 Kilauea, HI. 96748	
Doreen Gaspar		Box 1045 Kilauea HI 96748	
Faye Wallace		Box 935, Kilauea, HI. 96748	553-5071
Jay Pacheco		Box 623 Kilauea 96748	553-4432
Georgina M. Kauhala		Box 38 Kilauea, HI 96757	813-5674













SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
P. Eleccion	P. Eleccion	M/08	
G. Pasera	G. Pasera	K'Kei	
G. Dudas	B. Dudas	K. Kei	
J. Wobsey	J. Wobsey	K. Wobsey	
B. Linn	B. Linn	K. Kei	
S. Paolani	S. Paolani	K. Kei	
C. Puai	C. Puai	K. Kei	
Hoku Maikai	Hoku Maikai	K. Kei	
Rita Ann Hardsen	Rita Ann Hardsen	K. Kei	
Tehani Aiva	Tehani Aiva	K. Kei	
Yamunish	Yamunish	K. Kei	
J. Pace	J. Pace	K. Kei	

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Adalina Delos Reyes	Adalina Delos Reyes	PO Box 1738 Kikahaiki, Molokai 96748	808 688 7414
Pili Aloha A. KAHANANI	Pili Aloha A. KAHANANI	Kikahaiki, Molokai 96748	cell 646-4438
Betty Tabilanga	Betty Tabilanga	PO Box 723 Kikahaiki	
Guy H. Kueku	Guy H. Kueku	7705 Kanihi Highway, Kaimakakai, HI 96748	5588575
SIDNEY KALIPi	SIDNEY KALIPi	PO Box 1532 Kikahaiki HI 96748	558-1019
Mr. Noreen	Mr. Noreen	PO Box 445 Molokai	
Anita Puelo	Anita Puelo	6501 Puanani Hwy	
Paulani M. Harswill	Paulani M. Harswill	Carroll P.O. Box 1775 Kaimakakai	96748
D	D	48210 Kikahaiki	96748
Tim Atoia	Tim Atoia	48210 Kikahaiki	96748
Laura M Gomes	Laura M Gomes	PO Box 214 Kikahaiki	96757
Robin Gorsia	Robin Gorsia	PO Box 672 Kikahaiki	96748 558-8306

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
FRANCIS MARINO		P.O. Box 1563	646-9684
LARGE Kalina		P.	
CONSTANCE Hao		PO Box 321	5535822
Louise Hanop		HC-01-823	679-8333
Malatika Kekins		P.O. Box 413	458-6033
Valerie Starkey		" " 213	553-5113
Karin R Smith		P.O. Box 1444	508-8287
Burmy - R. Turner		P.O. Box 1241 K.Kai	553-5818
Jeanie Panyee		Box 228, Mauweha	96770
William C. PRINCE		P.O. Box 532 Hoolehua	96729
Kati Kiki		P.O. Box 1331	96728
Dana Dudoit		P.O. Box 1091	96748

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Gay Kaopuiki		P.O. Box 359	—
Hilona Kaopuiki		P.O. Box 359	—
Manda Lihola		P.O. Box 74	9676729
Imalani Kakaowaki		P.O. Box 1356 Kilauea	—
Monica Guterria		11131 KAM. HAWAII	96748
Martin van der Kamp		10456 Kawa V Hwy	96748
Mama Espinoza		230 Kamehameha Dr. SHELTON HI	
Keoni Johnson			
Hannani A. Brown		P.O. Box 913	213-1195
Yvonne S. Harts		P.O. Box 1331	81902
Carolee K. Smith		1063 X	86748
Robert W. Swanson		Box 1830	96748

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Megan Sauter		P.O. Box 100 Ss 38377	
Meari Melcher		P.O. Box 402118	808 488-1110
Adrian		P.S. Box 7008 Pe 720	
S. K. Robert		P.O. Box 100 P.2. Dpt.	
Sharon K. Kanaka		P.O. Box 22 Kela Hi 91740	
Jesse Wilcox		P.O. Box 1444 Kela Hi 96740	
Stephanie Brown		139 Douts Hill Rd, Holtwood Pa 17531	
Daisha Ahye		P.O. Box 1605 Kawakawa Hi 96748	
Larissa Gonzalez		P.O. Box 1289 Kikai, Hi 96748	
Lorely Emmanuel		P.O. Box 543 Honolulu Hi 96725	
Michelle Arante. Taji		P.O. Box 184 Kuaiaopuu Hi 96757	
Joe Hinton		10900 Kam V Waikele	96748

SB2997 Fluoridation in (our) public water systems... If you believe it should be a **CHOICE** to be bottled and **NOT** in the public water system. Signing this PETITION you are **OPPOSING** SB2997.

Print Name:	Signature	Address	Phone
TREVER LEWIS	<i>[Signature]</i>		
Ramiro A. CASTILLO	<i>[Signature]</i>	P.O. Box 1064 Ranch Camp.	558-6871
Lillian L. Galano	<i>[Signature]</i>	2733 Wilkita St. Amn H1	96817
Lemuel Borgz	<i>[Signature]</i>	POB 337 H'Hua	96729
Dylona Adams	<i>[Signature]</i>	Box 1 K'ha	MDSBca1
JOHN THOM LINDO	<i>[Signature]</i>	Box 91 H'Hua	
ELVI LINDO		" " "	
KALONI HAN		P.O. Box 34 K'ha, H1	
ROSE HAN		" " "	
Abelilday Pelekan		P.O. Box 120 H'Hua	
Wangye Kawayasi		Box 100 H'hua	

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Deanna Kaimikawa	<i>Deanna Kaimikawa</i>	P.O. Box 192	<i>96778</i>
Barbara Sentel	<i>Barbara Sentel</i>	P.O. Box 397	<i>96729</i>
Tessia Adolpho	<i>Tessia Adolpho</i>	P.O. Box 475	<i>96729</i>
Jairren Dominga	<i>Jairren Dominga</i>	104C Farmington Ave	<i>96729</i>
Loudes Churn	<i>Loudes Churn</i>	P.O. Box 339	<i>96748</i>
Roselle Kamail	<i>Roselle Kamail</i>	87 Opua Place	<i>96748</i>
Amie Maxwell	<i>Amie Maxwell</i>	P.O. Box 336	<i>96770</i>
Damien K Garces	<i>Damien K Garces</i>	P.O. Box 1039	<i>96748</i>
Holly K. R. Rogers	<i>Holly K. R. Rogers</i>	P.O. Box 1039	<i>96748</i>
Rosie Arimaki	<i>Rosie Arimaki</i>	Kualapuu, HI	

SB2997 Fluoridation in (our) public water systems... If you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Maria, Maria	Maria Maria	PO Box 58, Hi. O. Lehua	866-6036
James K Mawae	James K Mawae	" " " "	495-6320
S, Bubbill	Steve Bubbill	PO Box 145, Kikai	
Blennor Joseph	Blennor Joseph	Box 26, Kikai	96748
Seannelle Luafalemana	Seannelle Luafalemana	Box 1504, Kikai	213.5174
Luana Aleon	Luana Aleon	Box 1467, Kikai	
Rimmas Makiy	Rimmas Makiy	" 781 "	91748
Dathan Bicony	Dathan Bicony	7411 Kaula, HI	96748 558-8004
Wilmina R English	Wilmina R English	Box 1920, Kikai, HI	96748
Aishwariya Senas-Childs	Aishwariya Senas-Childs	1100 Hi	96710
Post Tamashiro	Post Tamashiro	Box 1403, Kikai	HI 96748
Daniel P. Tamashiro	Daniel P. Tamashiro	" "	" "













SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
EARLE NIHIARI	<i>Earle Nihiari</i>	67590 Hwy 20 Benders 1-541-280644	
STARBLINGT MEAHL	<i>Starling Meahl</i>	35 KAHANAST MANUALOHA HI	96770
LUT P. MAIDEI	<i>L.P. Maidei</i>	P.O. Box 781 K'ikai	
Marc Aquino	<i>Marc Aquino</i>	P.O. Box 971 K'ikai	
LEKOA RICHARDS	<i>Lekoa Richards</i>	PO Box 366, Manuaoa, HI 96790	
Julie Ann L. Atiliam	<i>Julie Ann L. Atiliam</i>	PO Box 123 Kualapuu, HI 96751 658-6039	
Bonnie Z. Morgan	<i>Bonnie Z. Morgan</i>	274 Anderson Dr. Aiea, HI 96721	
Grove Empinas	<i>Grove Empinas</i>	PO Box 1131 Kaimakulani HI 96118	
Elsie Rodrigues	<i>Elsie Rodrigues</i>	P.O. Box 1465 K'ikai HI 96748	
Sandra Pestana	<i>Sandra Pestana</i>	P.O. Box 142 Kualapuu HI 96751	
Miko Doa	<i>Miko Doa</i>	K'ikai Hwy. 96748	
Pamela Farnwell	<i>Pamela Farnwell</i>	8495 Kaim Hwy, K'ikai	

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Maria, Maria	Maria Maria	P.O. Box 58, H. O. Okehu	96729 866-6036
James K Mawae	James K Mawae	" " " "	495-6320
S, Bobbell	Steve Bobbell	P.O. Box 145 Kikai	
Blemae Terepe	Blemae Terepe	Box 26 Eikai	96748
Seannelle Luafalemana	Seannelle Luafalemana	Box 1509 Kikai	213.5174
Luana Aleon	Luana Aleon	Box 1467 Kikai	
Rinaas Maki	Rinaas Maki	" 781 "	91748
Dashaon Bicony	Dashaon Bicony	1411 Kouny, HI	915748 558-80074
Wilmina K English	Wilmina K English	Box 1320 Kikai, HI	96748
Aislan Senas-Childs	Aislan Childs	Place 4i	96710
Pat Tamashiro	Pat Tamashiro	Box 1403 Kikai	145 96748
Daniel P. Tamashiro	Daniel P. Tamashiro	" "	" "

SB2997 Fluoridation in (our) public water systems... If, you believe it should be a CHOICE to be bottled and NOT in the public water system. Signing this PETITION you are OPPOSING SB2997.

Print Name:	Signature	Address	Phone
Briana Kahuia		PO Box 4 Haleiwa HI 96722	7570042
Bridget A. Mowat		P.O. Box 315 Kalaheo, HI 96746	
Kurt Geo		PO Box 319 K. Kai HI 96748	
Heli Dueserby		P.O. Box 552 K. Kai HI 96748	
Dwight Perea		7238 Kumuokumu N, 96748	
Clayce Charty		PO box 303 Mawuna HI	
Patricia Quid		Pumehoa	
Jody S. Cuyler		P.O. Box 284 Mawuna HI 96720	
Maren Phillips		PO Box 139 Hoolehua HI 96729	
Rozlyn Phillips		PO Box 139 Hoolehua HI 96729	
Dee Whipple		PO Box 290587 Hoolehua HI 96729	
Kunaru Whipple		" " " "	

LATE

SB-2997

Submitted on: 2/11/2020 7:54:46 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Thomas	Individual	Oppose	Yes

Comments:

<https://www.globalhealingcenter.com/natural-health/9-shocking-dangers-of-fluoride/>

Madness, SHEER MADNESS. Why in God's name do you want to put an industrial waste product in our water supply? If you want to help have healthy Teeth in Hawaii, BAN or HIGHLY TAX all the sugary treats in EVERY Grocery store right at the check out counter tempting all out keiki every time they go for with mom or dad. How about the candy and cookie aisle? All full of sugar and tooth destroying elements with VERY LITTLE NUTRITION. Flouride can NOT make up for bad diet choices. Flouride HAS been shown to lead to all kinds of health problems. For the love of God, whatever that means to you, throw this bill in the trash can and if anyone ever inyoutuces it again, RUN THEM RIGHT OUT OF THE LEGISLATURE. Madness, SHEER MADNESS

SB-2997

Submitted on: 2/11/2020 8:08:19 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Laulani Teale	Individual	Oppose	Yes

Comments:

Wai is sacred and should not be altered in any way.

Better dental health comes from better diet and better dental care.

Fluoride strengtgens teeth best when applied topically, not internally. It is harmful to bone health, especially in elders.

For these and many other reasons, please do not allow this measure to go forward.

Mahalo nui loa,

Laulani Teale, MPH

LATE

SB-2997

Submitted on: 2/11/2020 8:13:28 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Chad Martin	Individual	Oppose	No

Comments:

I oppose SB2997 and the requirement of adjusting fluoride levels in Hawaii's water supply. Fluoride is a highly toxic substance that can cause a range of adverse health effects including bone diseases and osteoarthritis.

Quote from the US DEPT of HEALTH and HUMAN SERVICES/CDC'S "Toxicological Profile for Fluorides, Hydrogen Fluoride, and Fluorine"

"Small amounts of fluoride are added to toothpaste or drinking water to help prevent dental decay. However, exposure to higher levels of fluoride may harm your health. Skeletal fluorosis can be caused by eating, drinking, or breathing very large amounts of fluorides. This disease only occurs after long-term exposures and can cause denser bones, joint pain, and a limited range of joint movement. In the most severe cases, the spine is completely rigid. Skeletal fluorosis is extremely rare in the United States; it has occurred in some people consuming greater than 30 times the amount of fluoride typically found in fluoridated water. It is more common in places where people do not get proper nutrition. At fluoride levels 5 times greater than levels typically found in fluoridated water, fluoride can result in denser bones. However, these bones are often more brittle or fragile than normal bone and there is an increased risk of older men and women breaking a bone. Some studies have also found a higher risk of bone fractures in older men and women at fluoride levels typically found in fluoridated water. However, other studies have not found an effect at this fluoride dose. If you eat large amounts of sodium fluoride at onetime, it can cause stomachaches, vomiting, and diarrhea. Extremely large amounts can cause death by affecting your heart."

<https://www.atsdr.cdc.gov/toxprofiles/tp11.pdf>

Introducing increased levels of fluoride into our water supply is a backward and unfortunately persistent measure that comes up time after time here in Hawaii. The idea of purchasing and importing bottom dollar toxic sluff from a chemical company and introduce it to Hawaii's pristine water for the asinine reason of reducing cavities has come through the legislature before. Contrary to the myth of helping teeth, excessive ingestion of fluoride creates an array of dental fluorosis, spotty teeth and excessively hardened teeth among young children.

Personally I find it shady and criminal for such measures to even be brought forward, since the toxicity of Fluoride is labeled on every tube of toothpaste and is a google search away from anyone to research its risks. This measure seeks to outright poison our water supply, taint our lands and agriculture, fills the pools of our hotels and residences in toxicity, and fills every food and drink served in the islands with an pervasive, unnecessary health risk .

I hope you find the clarity to OPPOSE this foolish and potentially dangerous measure now and every time it rears its ugly head to poison our precious Hawaiian water.

E Malama i ka Wai.

Chad Martin

LATE

SB-2997

Submitted on: 2/11/2020 8:15:48 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jody M Green	Individual	Oppose	No

Comments:

To Hawaii Senators,

We strongly oppose any Floridation of our water. It is unacceptable to be adding dangerous chemicals to Hawaii's clean waters. We are fortunate to have good tasting, pure water here in Hawaii. Floridation is a horrible idea. We do not want to have to buy bottled water because our water would be poisoned with Floride. It would be an environmental disaster. Please do not let SB2997 pass.

Mahalo for letting us write our testimony,

Jody Green

Waimanalo Beachlot Association

LATE

SB-2997

Submitted on: 2/11/2020 8:46:35 PM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nicole Mosk	Individual	Oppose	No

Comments:

I strongly OPPOSE this bill.

Aloha,

Nicole Mosk

LATE

SB-2997

Submitted on: 2/11/2020 8:47:09 PM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sonni Bersamina	Individual	Oppose	Yes

Comments:

Fluoride is a neurotoxin. It damages the environment. Adding fluoride to the water for dental caries is unethical and an uneducated decision. Fluoride can be used topically for those who want it for dental caries.



Hawaii
Children's Action Network Speaks!
Building a unified voice for Hawaii's children

Hawai'i Children's Action Network Speaks! is a nonpartisan 501c4 nonprofit committed to advocating for children and their families. Our core issues are safety, health, and education.

To: Senator Rhoads, Chair
Senator Keohokalole, Vice Chair
Senate Committee on Judiciary

LATE

Re: **SB 2997- Relating to health**
Hawai'i State Capitol, Room 016
9:00AM, 2/12/2020

Chair Rhoads, Vice Chair Keohokalole, and committee members,

On behalf of Hawai'i Children's Action Network Speaks! I am writing in **SUPPORT** of SB 2997, relating to health. This bill would require public water to be fluoridated until all Hawaii residents have either obtained dental insurance or have expressly rejected dental insurance.

Here's a quick snapshot of how Hawaii ranks in oral health of our keiki:

- Hawaii has the highest prevalence of tooth decay among third graders in the US
- 7 out of 10 third graders are affected by tooth decay, national average is 5 out of 10
- 1 in 4 third graders has untreated tooth decay
- More than 60% of children in Hawaii do not have protective dental sealants
- Third graders in Kauai, Hawaii and Maui counties more likely to have experienced tooth decay than children living in Honolulu County

Oral health is connected and impacts the overall well-being and health of children. It can affect their ability eat, sleep, learn and oral health also impacts healthy pregnancies and birth weight. The lack of dental care costs extend beyond the individual into the community. Emergency room costs for dental issues that could have been resolved with dental care is estimated to be in the millions. Having residents become insured will save our state money and improve quality of life.

Fluoridated water is a proven intervention to reduce tooth decay. Additionally, fluoride can be delivered in a variety of ways. For example, a topical treatment. Hawaii is an outlier in lacking fluoride in our water and as we move to improve oral health, we should seriously consider if we can continue without it.

For these reasons, HCAN SPEAKS! respectfully requests the Committee to support this measure.

Thank you.

LATE

SB-2997

Submitted on: 2/11/2020 10:20:11 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
maria	Individual	Oppose	No

Comments:

It's a known fact that flouride is harmful, even dangerous to consume. There is zero research that the internal consumption of flouide assists the teeth and prevents tooth deca in any way. The only research that shows flouride is helpful is when it is applied externally only.

People don't want to put poison in their bodies.

As for Dental Inurance, make it a part of Quest. Not a legal threat. That is absurd. Or raise the minimum wage and lower cost of living, instead of putting more pressure and fear into people. We all have enough on our plates.

Thank You

LATE

SB-2997

Submitted on: 2/11/2020 10:50:07 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sandee Moniz Ps	Individual	Oppose	Yes

Comments:

Harvard flouride studies show it causes skeletal fluorosis joint and bone damage, thyroid gland disfunction, neuro problems in children's development.

LATE

SB-2997

Submitted on: 2/11/2020 11:00:26 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shelley Loui	Individual	Support	No

Comments:

I am a pediatrician and I support this bill.

Shelley Loui, MD

LATE

SB-2997

Submitted on: 2/11/2020 11:02:23 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Heitmann	Individual	Oppose	No

Comments:

I strongly oppose SB2997. I am a Registered Nurse who specializes in prevention. Fluoride calcifies the pineal gland, a vital part of our brains. Please, please do not add it to our drinking water! Susie Heitmann, RN

LATE

SB-2997

Submitted on: 2/11/2020 11:42:12 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jazzmin Cabanilla	Individual	Oppose	No

Comments:

LATE

SB-2997

Submitted on: 2/11/2020 11:44:02 PM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Frida	Individual	Oppose	No

Comments:

There is no research that provides any clinical data to prove that the internal ingestion of fluoride provides any protection from dental decay. In fact, there are 8 peer-reviewed research papers that indicate that just the opposite occurs. In the research papers it is specifically stated that internal ingestion of fluoride actually causes a dental disease called fluorosis, which is a disease that actually weakens the teeth and makes them brittle.

The fluoride that you are attempting to introduce to our water supply is not manufactured in a laboratory or a controlled medical facility in any way shape or form. In fact, there are no medical controls and or quality assurances for purity in its production. And although the fluorosilicic acid that you want to put in the water exists within the family of fluorides, it is chemically as far away from medical grade dental fluoride as you can be and still call it a fluoride. This industrial waste byproduct being sold to us as medical grade fluoride is currently rated by its material safety data sheet (MSDS) as a highly toxic and corrosive substance to be handled as a hazardous material while wearing full body HAZMAT protection.

I highly encourage you to gain access to the MSDS to the material you want to put in our water and really learn what it is you are doing to our people and the Aina.

As our representatives you are constitutionally mandated by the Hawaii state constitution Article 11 sections 1-10 to protect the Public Trust Resources for current and future generations. I believe it would be safe to assume the water is a Public Trust Resource. Therefore, adding an industrial waste product and poison into our water supply and its distribution system, potentially damaging and permanently contaminating that distribution system, would not be protecting the Public Trust Resource of water for current and most certainly future generations.

Thank You for your consideration and thank you for looking more thoroughly into the MSDS for the proposed additive and reconsidering your oath to protect the public trust resources.

LATE

SB-2997

Submitted on: 2/12/2020 5:50:30 AM
Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
James Hugho	Individual	Comments	No

Comments:

Here in Hawaii and wherever there are fire sprinkler systems using black steel pipe, from the time that these systems are functioning through its life time, there will be two types of corrosion taking place within the entire system. Generalized Corrosion (rust) and Microbiologically Influenced Corrosion comprising of acid producing bacteria, sulfur reducing bacteria, iron related bacteria, low nutrient bacteria and aerobic bacteria. Fire Code required flow testing will reveal a discharge of the systems' water which will have a dark brown to orange color, a foul pungent odor and fine particles of pipe scale, obviously contaminated water. This interior pipe corrosion, over the life time of these systems will degrade the fire flow characteristics compromising the full effectiveness of the fire sprinkler system and may require replacement of most of the system at a significant cost. Adding fluoride to our city's water system piping which has corrosive elements will result with the same problems and likely at a higher cost due to the fact that the fire sprinkler piping is easier to access for repairs or replacement.

LATE

SB-2997

Submitted on: 2/12/2020 6:25:13 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Derek Ching	Testifying for Children's Doctors LLC	Support	No

Comments:

Hi my name is Derek Ching. I am a local Pediatrician here in Honolulu for the past 16 years and definitely support fluorination of the water. We are one of the few states whose water is not fluorinated which is reflective in our higher cavity rate compared to other states. This would also save a lot of children/parents time, energy and effort in taking supplemental fluoride.

LATE

SB-2997

Submitted on: 2/12/2020 7:35:43 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Dylan P. Armstrong	Individual	Support	No

Comments:

Aloha Chair Roads, Vice Chair Keohokalole, and Members of the Committee on Judiciary.

I write in support of Senate Bill 2997. I know that my sticking my neck out for this, where I stand nothing to gain, means I am likely to be heckled and pestered by e-mail from anti-fluoridation activists. I know which issues cause me grief for being involved, and this is one of them.

But I need to 'speak up.' Our political culture is in a state of crisis when science and the most credible findings of medical and dental research are nothing more than a political debate. If there is no objective truth, then our world is without greater meaning. If there is no meaning, then nothing that we do matters. You and I must reject that cynical, hysterical, and immoral belief.

You do have the power to help people: to live better, more free and more prosperously. That is the meaning of considering a legislative measure.

The Centers for Disease Control and Prevention ("CDC") has applauded the fluoridation of public drinking water as one of ten outstanding public health achievements during the 20th century. Not only do our leading health experts recommend this public policy, the CDC describes the last century of fluoridation as a "classic example of clinical observation leading to epidemiologic investigation and community-based public health intervention."

In not having public water fluoridation, we as a state strongly correlate our lack of fluoridation with our status as ranking among the bottom states in the U.S. for oral health. I have heard and dismiss the various popular excuses for this state of affairs. Fellow kama'aina have even blamed ethnic minorities for skewing the statewide dental health statistics downward. If you believe that a disadvantaged ethnicity (say, one of less than 50,000 in Hawai'i) causes 1.5 million people in Hawai'i to be at the bottom of 50 states in oral health, then nothing I can write will convince you.

To call fluoride 'toxic' as anti-fluoride activists do is misguided. Fluoride in and of itself is one of the most abundant trace minerals in the earth's crust and seawater. In seawater, the Provincial Government of British Columbia estimates that fluoride has a

range of 0.86 to 1.4 mg/L, and averages 1.1 mg/L. Human toxicity is defined by amount of exposure over time and varies for every chemical on earth. That which we call 'anti-bacterial' is indeed toxic to bacteria. That includes publicly-fluoridated water, and indeed is the purpose of fluoride.

I know all of you, to different degrees, and I know that all of you fundamentally look out for your community. Think of the state's liabilities in the coming decades, with a declining workforce, and more and more of our children being disadvantaged. Reducing the pain and cost of expensive oral surgeries and treatments with fluoridation is a public service that is backed in science and will save us money. Understand that in my advocacy there is no ill will towards those who disagree. But I have yet to see an opposed argument that is based on the most relevant broad survey of the statistical data, as opposed to anecdotes and irrelevant facts.

If public policy is used by those who dismiss science to achieve detrimental, harm results to the population, we must speak up. We must take our lead from science when making public policy.

Please support SB 2997.

Best,
Dylan P. Armstrong

References (accessed 12 February 2020):

["Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries"](#). The Centers for Disease Control and Prevention.

["Water Fluoridation Data & Statistics"](#). The Centers for Disease Control and Prevention.

["Ambient Water Quality Criteria for Fluoride"](#). Government of British Columbia.

LATE

SB-2997

Submitted on: 2/12/2020 9:03:47 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
sarah smith	Individual	Oppose	No

Comments:

I am opposed to the addition of fluoride to the public water system because it is unnessesary and it is unproven that it has any kind of health benefit.

If a person wants to use fluoride for dental health, they can easily get it in their toothpaste.

The government should not be involved with making health-related decisions for the populous. My research has shown that exposure to fluoride has risks. I will choose my own dosage of this neurotoxin.

When there is a skull and crossbones on the container of product (Sodium Fluoride) then it should not be poured into the public water resevoirs.

LATE

SB-2997

Submitted on: 2/12/2020 10:13:31 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Rayne	Individual	Oppose	No

Comments:

LATE

SB-2997

Submitted on: 2/12/2020 10:47:54 AM

Testimony for JDC on 2/12/2020 9:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo	Individual	Oppose	No

Comments:

Hello,

My name is Nanea Lo. I am a lifelong resident here in Hawai'i on O'ahu. I am writing to say that I strongly oppose this bill. Our waters in Hawai'i are presetine and do not need any chemicals such as fluoride inside of it. Please help to protect our precious resources including water.

Please oppose this bill.

me ke aloha 'Ä• ina,

Nanea Lo

WEDNESDAY, FEB 12, 2020 @ 900AM, RM 016

LATE

DEAR JUDICIARY CHAIR & COMMITTEE MEMBERS,

I, Adrian Chang, testify in opposition to SB2997 for two reasons. First, I testify as an individual with end stage renal disease (ESRD) with less than 15% kidney function. I speak for the other 4500 or more Hawaii people with this disease, and thousands of others who have cancer, arthritis, heart problems, multiple chemical sensitivities, and other auto-immune diseases. Second, as a retired Navy nuclear engineer who has been researching this subject since 1999, fluoridation is **definitely not safe** when basic science and engineering principles are applied. Alternative solutions will also be discussed.

FIRST REASON: According to the CDC's Morbidity and Mortality Weekly Report dtd Nov 3, 2017, Hawaii has the highest rate of ESRD (363.6 per 100,000) compared to all states (See attached). This translates to at least **4500 people with really bad kidneys**. According to the Hawaii Kidney Foundation, 1 in 3 people have some degree of chronic kidney disease (less than 60% function).

According to the US Dept of Health 1993 Toxicological Profile for Fluorides , the subset of the population that may be unusually susceptible to the toxic effects of fluoride include **“the elderly, people with deficiencies of calcium, magnesium, and/or Vitamin C, and people with cardiovascular and kidney problems.”** There was no mention of the fetus with potential congenital birth defects, low birth weight babies, and many other people with cancer, arthritis, osteoporosis, gastrointestinal problems, diabetes, obesity, multiple chemical sensitivities, anxieties, and near-death, which probably run in the thousands. To focus only on teeth while turning a “blind eye” as to how they may well be interconnected with other health issues is poor science. See mortality data for Grand Rapids, Michigan, the first fluoridated city in 1945, 5 years after fluoridation commenced.

SECOND REASON: Fluoridation is NOT SAFE. The most compelling explanations are discussed below:

1. USE OF LAB GRADE VS INDUSTRIAL-GRADE FOR TESTING.

A. National Toxicology Program NTP Report 393 (1990) of the U.S. Dept of Health & Human Services, Public Health System, NIH, titled TOXICOLOGY AND CARCINOGENESIS STUDIES OF SODIUM FLUORIDE IN F344N RATS AND B6C3F, MICE (DRINKING WATER STUDIES) is the main study used to justify carcinogenic safety of all fluoridation chemicals. It tested only sodium fluoride and not the other two chemicals used. However, the conclusion of safety based on this study is GROSSLY FLAWED. First, only reagent grade sodium fluoride (at least 99% pure) was used. The other two types of fluoridation chemicals currently in use were not tested. Since all fluoridation chemicals were handled as “water treatment chemicals,” and not “medical treatment drugs,” FDA approval for testing, safety and effectiveness was avoided. Second, American Chemical Society or US Pharmaceutical chemical specifications for reagent grade NaF allow only up to 0.003% MAXIMUM HEAVY METALS expressed as Pb (lead). This is equivalent to 30 parts per million (PPM). The actual chemicals used for fluoridation must comply with American Water Works Association Standards, which AWWA state “do not contain the same quality standards as “specifications.” The Standard (1994) for sodium fluoride allow up to 0.04% MAXIMUM HEAVY METALS This is equivalent to 400 PPM.

B. Hence, safety testing was **NOT BASED ON WORST CASE CONDITIONS PLUS A SAFETY FACTOR**, which is standard engineering design and safety practice. Actual NaF chemicals used in fluoridation could have at least 13.3 times more heavy metals such as arsenic and lead and still be considered “safe for use.” Ironically, even with the reagent grade NaF, some male rats developed malignant tumors which were concluded to be equivocal, meaning not sure of the cause. In another study, Ramseyer et.al. (1957), albino rats, which are more fluoride tolerant, (Ramseyer et al.) developed kidney problems, periodontal disease, and loss of teeth as they aged.

2. **EPA'S MAXIMUM CONTAMINANT LEVEL GOAL CAN NOT BE MET.** The MCLG for arsenic and lead is zero. It is well known that **any amount of lead exposure is harmful, especially to children.** The industrial-grade fluoride will always have these contaminants contrary to EPA's goal and makes no sense to add it to the water. In regard to Arsenic, Weng (2000) notes "If the standard were set at 3ug/L, about 10% of the MCL would come from the treatment chemicals, hardly a minimal amount. It is also interesting to note that **about 90% of the arsenic that would be contributed from treatment chemicals is attributable to fluoride addition.**"

3. **FLUORINE + CHLORINE ACCELERATES CORROSION OF PIPING MATERIALS , THUS CAUSING MORE LEACHING OF LEAD.**

A 1970 Kennedy Corrosion Study conducted for the State of Washington demonstrated significant amounts of corrosion in black iron and copper piping, using hard and soft water. In 2006, a similar laboratory study verified high levels of lead when chlorine and fluorine was combined in copper and brass piping components. (R. Maas, etal. 2007, Neurotoxicology). Because many electrical systems are grounded using water pipes, stray electrical currents would also accelerate corrosion. Recently, it cost the DOD about \$75 Million to replace just a few miles of 65 year old water lines for military bases. I actually experienced heavy metals in the Navy's Pearl Harbor drinking water in the 1980's when I changed my workshift to start at 6AM. The water sat in the pipes over the weekend and the pipes were located outdoors in the hot sun, which could also enhance corrosion. Unlike chlorine, fluoride, with no smell or taste, is **not fail safe.** Unless 24/7 monitoring is included in the cost, It could be weeks before an overfeed problem is identified. Slugs, however, will be almost impossible to detect unless you have monitoring at every tap.

4. **THE CHRONIC HEALTH EFFECTS IDENTIFIED IN MATERIAL SAFETY DATA SHEETS (MSDS) FOR FLUORIDATION CHEMICALS ARE OFTEN IGNORED.** Per OSHA law, the manufacturer and supplier of any hazardous chemicals sold, must provide MSDS sheets for the users that list all the health effects, handling precautions, and shipping labeling information. Failure to do so could result in costly liability like in

the case of asbestos. Therefore, manufactures would be the most objective and truthful. Some of these effects such as internal bleeding (strokes), corrosive effect on mucous membranes, blurred vision, enzyme system effects are so subtle that unless you had a background in biochemistry, you would not be able to connect the dots to figure out the cause. Some of the scary precautions such as “Contact with strong acids will produce hydrogen fluoride” was recently demonstrated in a lab by R. Sauerheber (2013), that fluorine in contact with hydrochloric acid with pH 3 (stomach acid equivalent) will produce 50% HF. As the pH goes down to 1.3, up to 90% HF is formed. HF is an uncharged molecule that is easily assimilated in the gastric lining and is highly corrosive. Think acid reflux, ulcers, stomach cancer, colon cancers, etc.

5. **FLUORIDE IS A NEUROTOXIN.** A study by Grandjean & Landrigan (2014) classified fluoride as a neurotoxin based on a review of published neurotoxic studies. Grandjean of Harvard School of Public Health is a leading toxicologist for children. A more recent government considered fluoride to be an “assumed neurotoxin.” The fact is based on Lethal Dose (LD) 50 testing, fluoride is more toxic than lead but less toxic than arsenic plus it leaches lead from the piping. No common sense applied.

6. **THE 2006 NATIONAL RESEARCH COUNCIL REVIEW OF THE MCL OF 4PPM CONCLUDED IT WAS NOT SAFE.** The NRC (10 of 12 members), of the National Academy of Sciences, concluded that “dental fluorosis” which for many years was considered to be “cosmetic,” was considered an “adverse health effect.” Currently, dental fluorosis is about 65% (NHANES 2011-2012). The CDC than lowered the optimum fluoridation level from 1 ppm to 0.7 ppm, a 30% reduction. Is the State prepared to accept liability to repair fluorosis mandated by a State law? See FJ McClure fluorosis chart. Compare with pineal gland.

7. **THE NIDR HAS A REPORT, NOT READILY AVAILABLE TO THE PUBLIC, DOCUMENTING INDIVIDUALS WHO HAVE DIED OR BECAME ILL AFTER OVEREXPOSURE.**

The report is titled “Summary of Fluoridation/Fluoride Incidents” dated September 1, 1998, and prepared by the National Fluoridation Engineer. When I sent an email

fluoridation commenced in 1945 and gradually built up to over 65% nationwide by 1990? The Hawaii report also graphically compared Low Birth Weight and Very Low Birth Weight babies with the U.S. from 1980-1997. Hawaii was erratic but generally lower than the U.S. for the Low Birth Weight category. Surprisingly, Hawaii was significantly lower than the U.S. for the Very Low Birth Weight category.

Very few studies were published concerning congenital birth defects. Two studies Ericksson (1976) and Lowry (2003) specifically related to water fluoridation found no association. The Ericksson study failed to highlight that two specific birth defects, cardiac and circulatory problems and hypospadias were significantly higher in the fluoridated counties. The Lowry study was from UK where drinking tea, which has high fluoride levels, is very popular. Two other studies, Sekhobo (2001) and Kassowitz (1963), just provided data comparisons with no specific mention of fluoridation. However, when fluoridation census data is overlapped into the study, selected differences in defects from low fluoridation versus high fluoridation, such as ventricular septal defects and hypo/espipadas become very distinct.

Hawaii conducted its own birth defect study (R&S Report, Issue No. 58 dtd June 1988). The summary concluded that babies born in Tripler Army Hospital had double the birth defects of Hawaii babies, attributed to differences in standard of discovery and record keeping. I could not come to the same conclusion because Tripler identified a total of only 68 defects, while Hawaii doctors identified a total of 165 defects, as if each group had a different check list. Tripler also had significantly higher defects per 1000 births for specific defects such as Mongolian Spots, Hydrocele, Hip Clicks, Hemangioma, Heart Murmurs, Undescended Testis, Telangiectasia, Polycythemia, Polydactyly, Ear Deformities, and Umbilical Hernia. Hip clicks, which is bone related and strong possibility of association with fluoride and future hip problems, was 19.6 versus 1.02 for Hawaii. The study also acknowledges "there appears to be a symmetrical distribution of birth abnormality prevalence rates around the central birth weight tendency. "

For fluoride effects on IQs, go to fluoridealert.org and search for the Mother-Offspring Fluoride studies. They are Till et.al. (2019), Green et.al.(2019), Bashash et.al.(2017), Thomas (2017), Chang et.al.(2017), Valdez Jimenez et.al. (2017) and Li et.al. (2004). The editor of the JAMA Pediatric journal for the Green study even suggested that “I would advise them (pregnant women) to drink bottled water....” This is consistent with the rules of toxicology that **the smaller the size, the greater the effect.** At 22 days after conception, the heart starts to beat and the fetus is only about 2 to 3 millimeters.

ALTERNATIVE SOLUTIONS: FIX THE PROBLEM NOT THE WATER

1. A strong pre-birth and post-birth baby care education to include good diet for healthy fetus, prevention of baby-bottle-teeth decay, and proper infant dental hygiene until the child is old enough to see a dentist. This program can be administered by OB-GYNs and pediatricians with assist from the State dental office. The main target should be the many immigrants and first time parents, who have very little knowledge about prevention of baby bottle teeth.
2. Alternative controlled fluoride sources are available from toothpaste, vitamin supplements, sealants and rinses. These alternatives provide for freedom of choice with informed consent and can be stopped for any adverse reaction.

NOTE: I suspect most childhood dental caries are immigrant children who come here already with bad teeth, or parents who have no clue about BBTD, or from first time parents who just do not know or do not care. No amount of fluoride will help this group of children. Th State Dental Office has been doing a decent job in the past years. Hawaii was rated as among the four states with the highest oral care grade of “B-,” in spite of getting an “F” for no fluoridation. With almost 70% fluoridation, it is interesting to note that the rest of the states could only muster C or C- grades.

I thank you for listening and hope that you will do due diligence to research the subject thoroughly, and conclude as I have, that fluoridation is not safe and can not be justified, when pharmaceutical grade alternatives are available. If you looked at several studies and only looked at teeth, than you applied NO LOOK, NO

SEE science. You overlooked the thousands of other studies, especially those published in foreign journals and in a foreign language that researchers do not want to spend the time and cost to translate. Perhaps this explains why Japan, the healthiest country in the world, China with socialized dentistry, and 97% of Europe are not fluoridated. I think we all have a responsibility to apply LOOK, THEN SEE science.

I too want to help our keiki but adding an industrial-grade neurotoxin to the drinking water is not a sound solution. My presentation has one major weakness – I care too much and I do not have any conflict of interest. It is a bad trade off between some PUKA TEETH (which can be fixed) and PUKA BRAINS (which can not be fixed).

NOTE: Currently, the EPA has been challenged with a major lawsuit in the US District Court, Northern District of California. The suit is based on over 300 published studies as to how fluoride affects IQs and are deemed to be neurotoxins. Go to www.fluoridealert.org for details. See the most recent 7 Mother-Child Fluoride studies which have also been added as evidence for the trial (Case No. 17-cv-02162-EMC, Docket 67), scheduled for April. If you want compelling evidence, I have a copy of the studies submitted with the initial petition to the EPA. If you have any questions, please contact me at Ph 395-6198 or text 227-9763.

Mahalo for your patience,

Adrian Chang

LATE

DATE: February 12, 2020

TO: Judiciary Chair Senator Karl Rhoads, VChair Senator Jarret Keohokalole and Members Senators Mike Gabbard, Donna Mercado Kim, and Kurt Fevella

RE: Testimony in OPPOSITION to SB2997 – Relating to Health

Thank you for allowing me to testify in opposition to SB2997.

I would first like to mention that the 200 petition signatures of people from Molokai that were submitted were collected by Judy Caparida a Molokai resident who I met 33 years ago at a fluoridation hearing like this.

Throughout the years, the issues surrounding the fluoridation controversies have not changed much, even though towns and cities worldwide have continued to abandon the fluoridation of public water supplies. Scientific studies continue to reveal more harmful side effects to a person's health, fluoride has never been approved by the FDA, and yet community water fluoridation is still being touted as "one of the great public health achievements of the twentieth century."

One of my main objections to this bill before you is that fluoridation takes away a citizen's freedom of choice in health matters. Just as the government cannot force a person to seek medical care, neither should it force medical care on anyone on a one size fits all basis.

As Dr. Phyllis Mullenix, the world reknown doctor and researcher stated that medication "should be given in the right dosage, to the right person at the right time." Fluoridation of Hawaii's water supplies does not fit this criteria.

Please vote no on SB2997. Thank you

Sharon Nagasako

From: [Mert CHANG](#)
To: [JDCTestimony](#)
Subject: Testimony in Opposition to SB 2997
Date: Monday, February 10, 2020 7:07:04 PM

Sent from [Mail](#) for Windows 10

Genny Chang
658 Hausten Street
Honolulu, HI 96826
Phone (808) 387-3139

TESTIMONY IN OPPOSITION TO SB 2997
(Concerning matters involving fluoridation of Hawaii's public
water supply)

Hearing on Wednesday, February 12, 2020 at
9:00 a.m.

Conference Room 016

Good morning Chairman Rhoads, Vice Chair Keohokalole and Members
of the Judiciary Committee:

I strongly oppose SB 2997, concerning matters dealing with
fluoridation of Hawaii's public

water supply. Most people think that fluoride may help prevent tooth
decay, but do not know that

fluoride is also a chemical used in rat poison and insecticides. Studies
have shown that fluoride is very

dangerous to people with diabetes, kidney, liver and thyroid problems.

I suffer from hypothyroidism

and would be adversely affected by fluoride in my drinking water and bath water. If Honolulu's water

were fluoridated, does that mean that I will be forced to buy water to drink and to bathe with?

Moreover, since babies are not supposed to be exposed to fluoride, do my grandchildren also

need to purchase unfluoridated water for their future children's use?

I therefore strongly urge this honorable committee to oppose SB2997. The State of Hawaii

should not even consider putting a dangerous neurotoxin in our public water supply without

thoroughly researching fluoride's actual effects on the human body and why 97% of the countries

in Europe have banned fluoridation of their public water systems. Furthermore, since only .5% of

the total water consumed daily is used for drinking, the remaining 99.5% will be allowed to pollute

our beautiful and precious Hawaii and to accumulate here until all eternity.

Thank you for giving me the opportunity to testify on this important matter.

Sincerely yours,

Genny Chang